



Government at a Glance 2021



Government at a Glance 2021

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Please cite this publication as:

OECD (2021), *Government at a Glance 2021*, OECD Publishing, Paris, <https://doi.org/10.1787/1c258f55-en>.

ISBN 978-92-64-90969-4 (print)

ISBN 978-92-64-92141-2 (pdf)

Government at a Glance

ISSN 2221-4380 (print)

ISSN 2221-4399 (online)

Photo credits: Cover Illustration © Jeffrey Fisher.

Corrigenda to publications may be found on line at: www.oecd.org/about/publishing/corrigenda.htm.

© OECD 2021

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.

Foreword

This seventh edition of Government at a Glance arrives more than a year into a global health emergency that has turned into an economic and social crisis. Governments have been central to the response to and management of the COVID-19 pandemic. They have implemented measures -- often unprecedented and impressive in scale and speed -- to support people and businesses and mitigate the impact of the crisis. This publication provides internationally comparable evidence on the public sector's performance prior to the COVID-19 outbreak, as well as a special focus on changes made to government processes to respond to the pandemic. It finds great variation in countries' preparedness for the crisis, as well as in their capacity to adjust public governance processes to address change. This report begins the work of drawing lessons for governments to build resilience and improve the management of future crises.

Government at a Glance, published every two years, is a flagship of OECD work on public governance. It presents the most up-to-date internationally comparable data on how public administrations function and perform in OECD countries, accession countries, and other major economies. These data can be used to benchmark governments' performance, track national and international developments over time, and monitor governments' progress in public sector reform.

The 2021 edition includes indicators on public finances and public employment, the latter with a special focus on the representation of different gender and age groups in public administrations and the political sphere. Data on government processes include budgeting practices, strategic human resources management, regulatory policy, public procurement, digital government, and responsibilities of centres of government including on public communication. New process indicators for this edition cover public sector integrity, infrastructure governance, and open government. Indicators of government results include trust in public institutions, political efficacy, inequality reduction, and measures of access to, responsiveness, quality of, and citizen satisfaction with education, health and justice sectors.

Government at a Glance 2021 is the work of the OECD Directorate for Public Governance, under the overall leadership of Elsa Pilichowski, Director. The publication was prepared by the OECD Governance Indicators and Performance Evaluation Division, under the direction of Monica Brezzi, Head of the Division and coordinated by Santiago González. Government at a Glance 2021 was drafted by Barbara Baredes, Conor Das-Doyle, Santiago González, Alessandro Lupi and Mariana Prats. Guillaume Guinard provided research assistance. Major contributions were received from Moritz Ader, Miriam Allam, Daniel Gerson, Pietro Gagliardi, Pinar Guven, Meeta Tarani, François Villeneuve (Chapter 3: Public Employment); Carlotta Alfonsi, Karine Badr, Emilie Cazenave, Sara Fyson, Johannes Klein, Craig Matasick, Paulina Lopez Ramos, Marion Tolboom (Chapter 4: Institutions); Andrew Blazey, Scott Cameron, Flavia Gianini, Anne Keller, Axel Mathot, Sherie Nicol, Andrew Park (Chapter 5: Budgeting practices and procedures); Daniel Gerson, François Villeneuve (Chapter 6: Human resources management); Christiane Arndt-Basclé, Paul Davidson, Alexis Durand, Franz Karg, Marie-Gabrielle de Liedekerke, Renny Reyes, Estera Szakadatova, Anna Pietikainen, Vincent Van Langen (Chapter 7: Regulatory government); Erika Bozzay, Matthieu Cahen, Costanza Caputi, KENZA Kachani, Paulo Magina, Masayuki Omote, Gabriela Villa Aguayo (Chapter 8: Public Procurement);

Alessandro Bellantoni, Emma Cantera, David Goessmann, Carla Musi, Benedict Stefani, Marie Whelan (Chapter 9: Open government); Felipe González-Zapata, Mariane Piccinin Barbieri, Barbara Ubaldi (Chapter 10: Digital government); Mona Ahmed, Mathieu Cahen, Tenzin Dekyi, Jack Radisch, Ana María Ruiz, Lorena Cruz Serrano, Adrien Valentin (Chapter 11: Governance of infrastructure); Jesper Johnson, Pauline Bertrand (Chapter 12: Public sector integrity); Gamze Igrioglu and Benjamin Welby (Chapter 14: Serving citizens). Chapter 1 received contributions from many of the above on the specific subject matters noted, and also from Richard Alcorn, Charles Baubion, Julio Bacio-Terracino, Janos Bertok, Frederic Boehm, Gillian Dorner, Paul Gallagher, Donal Mulligan, Jacob Arturo Rivera Perez, Ivan Stola, Tatyana Teplova, Joao Vasconcelos and Gregor Virant. *Government at a Glance* was prepared for publication by Meral Gedik, Sally Hinchcliffe, and Dacil Kurweg. It benefitted from editorial assistance from Andrea Uhrhammer. Valuable comments to Chapter 14 were received from Gaetan Lafortune and Chris James of the OECD Directorate for Employment, Labour and Social Affairs; Corinne Heckman, Daniel Sanchez Serra, Etienne Albiser, Eric Charbonnier and Miyako Ikeda of the OECD Directorate of Education and Skills; Carlotta Balestra, Michael Förster and Maxime Ladaïque from the OECD Centre for Well-Being, Inclusion, Sustainability and Equal Opportunity.

The members of the OECD Public Governance Committee and the *Government at a Glance* Steering Group (list in Annex H) provided substantial comments to the drafts of the publication. Many of the indicators included in *Government at a Glance* reflect the measurement of OECD principles and recommendations developed with the Public Governance Committee (PGC), the Committee of Regulatory Policy (RPC) and the Committee of Senior Budget Officials (SBO). These indicators are collected through OECD surveys to government officials developed in co-operation with the PGC, the RPC, the SBO, the Public Employment and Management Working Party, the Working Party of Senior Public Integrity Officers, the Working Party of Senior Digital Government Officials (E-Leaders), the Senior Infrastructure and Public Private Partnerships (PPP) Officials network, the High Level Risk Forum, the Working Party on Open Government, and the Working Party of Leading Practitioners on Public Procurement.

This report was approved by the Public Governance Committee via written procedure on 4 June 2021 and prepared for publication by the OECD Secretariat.

Editorial: Fit for the Future: Learning from the COVID-19 crisis to reinforce democratic governance

The COVID-19 pandemic, the biggest shock to many OECD countries since World War II, has tested the ability of governments to respond to a crisis at speed and scale. For the most part, governments have done a remarkable job in unprecedented circumstances to protect lives and provide financial support to businesses and citizens. From lockdowns to a slow loosening of restrictions as vaccinations gather pace, one of the biggest lessons of the crisis is that governments will need to respond to future crises at speed and scale while safeguarding trust and transparency – and, indeed, the very underpinnings of democracy.

The pandemic has underscored how critical trust and transparency are to maintaining public health amid drastic restrictions in freedom of movement. Trust and transparency are crucial for people to understand and comply with extraordinary measures in extraordinary times. They are also key to a society's capacity to absorb and bounce back from shocks.

Emerging evidence, reported in the Focus chapter, suggests many governments have operated with lower standards of consultation, transparency, oversight, or control in their processes during COVID-19. Governments have introduced thousands of emergency regulations, often on a fast track. Some alleviation of standards is inevitable in an emergency but must be limited in scope and time to avoid damaging citizen perceptions of the competence, openness, transparency, and fairness of government. *Government at a Glance 2021* reveals not only how governments responded to the enormous challenge of the COVID-19 crisis, but also provides recommendations for strengthening the resilience of governments for the challenges of the future, including climate change. 83% of recovery funds announced so far do not consider environmental dimensions or have environmentally negative effects. Green governance, or the 'how to' reach environmental goals, needs to be stepped up significantly.

Governments must learn to spend better. OECD countries are providing large amounts of support to citizens and businesses during this crisis, roughly 16.4% of GDP in additional spending or foregone revenues, and up to 10.5% of GDP via other measures. Eventually, governments are likely to face spending constraints. They will need to review public spending to increase efficiency, ensure that spending priorities match people's needs, and improve the quality of public services. Governments must also ensure that they understand the different effects of policy on different groups in society, and work visibly to ensure that no-one is "left behind".

Three areas, in particular, are crucial for boosting trust and transparency and safeguarding democracy. First, it is vital to tackle misinformation. Even with a boost in trust in government sparked by the pandemic in 2020, only 51% of people in OECD countries trusted their government, and a number of people and groups are dissociating themselves from traditional democratic processes. This has been fuelled by mis- and dis-information.

In 2019, only 11 of 27 Centres of Government in OECD countries had policies or frameworks to guide their responses to mis- and dis-information.

Second, it is crucial to enhance representation and participation in a fair and transparent manner. Governments must seek to promote inclusion and diversity, including in the public workforce, and support the representation of young people in public life and policy consultation. Governments must improve fairness and inclusion in how they consult citizens and make policies, and level the playing field in lobbying. Less than half of countries have transparency requirements covering most of the actors that regularly engage in lobbying.

Third, strengthening governance must be prioritised to tackle global challenges while harnessing the potential of new technologies. In 2018, only half of OECD countries had a specific government institution tasked with identifying novel, unforeseen or complex crises. Most countries for which information is available did not have a single exhaustive data inventory for the central government, and around a fifth relied on *ad hoc* agreements for data sharing between public agencies. Governments were often quick to correct course, by rapidly developing new systems and responses. However, a lack of planning and foresight remains a concern. To be fit for the future, and secure the foundations of democracy, governments must be ready to act at speed and scale while safeguarding trust and transparency.



Elsa Pilichowski

Table of contents

Reader's guide	11
Executive Summary: Key facts and data	17
Chapter 1. Focus - Fit for the future: Strengthening government resilience	21
Introduction	22
How governments absorbed the COVID-19 crisis	25
Fit for the future: Strengthening government resilience	43
Chapter 2. Public finance and economics	67
General government fiscal balance	68
General government net saving	70
General government structural balance	72
General government gross debt	74
Financial net worth of general government	76
Fiscal balance and debt by level of government	78
General government revenues	80
Structure of general government revenues	82
General government expenditures	84
General government expenditures by function (COFOG)	86
Breakdown of government spending by functions of social protection and health (COFOG)	88
Structure of government expenditures by economic transaction	90
Revenue and expenditure structure by level of government	92
Government investment spending	94
Production costs and outsourcing of general government	96
Chapter 3. Public employment	99
Employment in general government	100
General government employment across levels of government	102
Age profile of central government workforce	104
Gender equality in public sector employment	106
Gender equality in politics	108
Youth representation in politics	110
Gender equality in the judiciary	112
Chapter 4. Institutions	115
Role of centres of government in the response to COVID-19	116
Role of centres of government in planning for the recovery from the COVID-19 pandemic	118

Crisis communications: Role of centres of government and ministries of health	120
Role of centres of government and ministries of health in countering misinformation and disinformation	122
Chapter 5. Budgeting	125
Green budgeting	126
Green budgeting to support a green recovery	128
Spending reviews	130
Independent fiscal institutions: Promoting transparency and accountability early in the COVID-19 crisis	132
Chapter 6. Human resources management	135
Attracting and recruiting public servants	136
Management of senior level public servants	138
Diversity and inclusion in the public service	140
People management responses to the COVID-19 pandemic in the public service	142
Measuring employee engagement	144
Chapter 7. Regulatory governance	147
Stakeholder engagement	148
Regulatory impact assessment	150
Ex post evaluation	152
The independence of economic regulators	154
Accountability arrangements of economic regulators	156
Assessing regulators' performance	158
Chapter 8. Public procurement	161
Size of public procurement	162
Strategic public procurement for delivering social value	164
E-procurement and integration with public financial management	166
Managing emergency procurement and risks	168
Professionalisation of public procurement	170
Chapter 9. Open government	173
Efforts to promote open government literacy in the public administration	174
Citizen and stakeholder participation portals	176
Implementation of access to information laws	178
Chapter 10. Digital government	181
Digital government: Progress towards digital competence and maturity	182
Digital by design: Strengthening co-ordination and skills to foster digital transformation	184
Data as a strategic asset for the public sector	186
Chapter 11. Governance of infrastructure	189
Long-term strategic vision for sustainable infrastructure	190
Assessment of value for money and affordability	192

Life cycle perspective in infrastructure procurement	194
Governance of critical infrastructure resilience	196
Chapter 12. Public sector integrity	199
Integrity and anti-corruption strategies.	200
Transparency in lobbying activities	202
Chapter 13. Core government results.	205
Trust in public institutions	206
Internal and external political efficacy	208
Income redistribution	210
Rule of law	212
Cost effectiveness	214
Chapter 14. Serving citizens	217
Serving citizens scorecards	218
Satisfaction with services.	224
Access to health care	226
Access to education	228
Access to justice	230
Responsiveness of health systems to patient needs	232
Responsiveness of education systems to special needs	234
Timeliness of civil justice services	236
Quality of health care	238
Student performance and equity in education.	240
Effectiveness and fairness of the justice system	242
Serving young people	244
Designing and delivering user-driven public services in the digital age.	246
Structure and indicators	249
Annex A. Reporting systems and sources of countries for government in the National Accounts statistics	255
Annex B. Methodology for revenue aggregates	257
Annex C. Classification of the Functions of Government (COFOG)	258
Annex D. Classification and definition of occupations	260
Annex E. Methodology for composite indexes on Strategic Human Resources Management	262
Annex F. Methodology for the OECD Digital Government Index	267
Annex G. Additional figures accessible online	270
Annex H. Members of the Government at a Glance Steering Group	273
Glossary	274

Follow OECD Publications on:



http://twitter.com/OECD_Pubs



<http://www.facebook.com/OECDPublications>



<http://www.linkedin.com/groups/OECD-Publications-4645871>



<http://www.youtube.com/oeccdlibrary>



<http://www.oecd.org/oeccdirect/>

This book has...

StatLinks 

A service that delivers Excel® files from the printed page!

Look for the **StatLinks**  at the bottom of the tables or graphs in this book. To download the matching Excel® spreadsheet, just type the link into your Internet browser, starting with the <http://dx.doi.org> prefix, or click on the link from the e-book edition.

Reader's guide

In order to accurately interpret the data included in *Government at a Glance 2021*, readers need to be familiar with the following methodological considerations that cut across a number of indicators.

Starting with Chapter 2, individual indicators are presented in a standard format on two pages. The first page contains text that explains the relevance of the topic and highlights some of the major differences observed across OECD countries. This is followed by a “Methodology and definitions” section, which describes the data sources and provides important information necessary to interpret the data. Closing the first page is a “Further reading” section, which lists useful background literature providing context to the data displayed. The second page showcases the data. Figures show current levels and, where possible, trends over time. A glossary of the main definitions of the publication can be found in the final chapter of the book.

Definition of government

Data on public finances are based on the definition of the “general government” sector found in the *System of National Accounts (SNA)*. Accordingly, general government comprises ministries/departments, agencies, offices and some non-profit institutions at the central, state and local level, as well as social security funds. Data on revenues and expenditures are presented both for central and sub-central (state and local) levels of government and (where applicable) for social security funds. Data on employment also refer to general government, although data on employment by gender refer to the public sector, which covers both general government and publicly owned resident enterprises and companies. Finally, data on public management practices and processes refer to practices and processes at the central level of government only.

Calendar year/fiscal year in National Accounts data

Unless specified, data from the OECD National Accounts are based on calendar years.

Data for Australia and New Zealand refer to fiscal years: 1 July of the year indicated to 30 June for Australia and 1 April of the year indicated to 31 March for New Zealand. For Japan, data regarding sub-sectors of general government and expenditures by classification of the functions of government (COFOG) refer to fiscal year.

The data on public finances and economics, based on the *System of National Accounts (SNA)*, were extracted from the *OECD National Accounts Statistics (database)* and the *Eurostat Government Finance Statistics (database)* on 11 May 2021. The data on public employment were extracted from the *OECD National Accounts Statistics (database)* and the *ILOSTAT (database)* on 12 April 2021.

Country coverage

Government at a Glance 2021 includes data for all 37 OECD countries based on available information. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Some additional non-member countries, such as Costa Rica, and the Russian Federation¹ (accession countries to the OECD) as well as other OECD key partners (i.e. Brazil, People's Republic of China, India, Indonesia and South Africa) and Romania also supplied data for some indicators. Data for these non-member countries are presented separately at the end of tables and figures.

Country abbreviations

OECD countries			
Australia	AUS	Norway	NOR
Austria	AUT	Poland	POL
Belgium	BEL	Portugal	PRT
Canada	CAN	Slovak Republic	SVK
Chile	CHL	Slovenia	SVN
Colombia	COL	Spain	ESP
Czech Republic	CZE	Sweden	SWE
Denmark	DNK	Switzerland	CHE
Estonia	EST	Turkey	TUR
Finland	FIN	United Kingdom	GBR
France	FRA	United States	USA
Germany	DEU		
Greece	GRC		
Hungary	HUN	OECD accession countries*	
Iceland	ISL	Costa Rica	CRI
Ireland	IRL	Russian Federation (hereafter "Russia")	RUS
Israel	ISR		
Italy	ITA	OECD key partners	
Japan	JPN	Brazil	BRA
Korea	KOR	People's Republic of China (hereafter "China")	CHN
Latvia	LVA	India	IND
Lithuania	LTU	Indonesia	IDN
Luxembourg	LUX	South Africa	ZAF
Mexico	MEX		
Netherlands	NLD	Other non OECD countries	
New Zealand	NZL	Romania	ROU

* Note: With regard to the Russian Federation, see Note 1 above.

OECD averages and totals

Costa Rica was not an OECD member at the time of preparation of this publication. Accordingly, Costa Rica does not appear in the list of OECD members and is not included in the zone aggregates.

Averages

In figures, the OECD average is presented as the unweighted, arithmetic mean or weighted average of the OECD countries for which data are available. It does not include data for non-member countries. In the notes, OECD countries for which data are not available are listed.

If a figure depicts information for one or more years, the OECD average includes all OECD countries with available data. For instance, an OECD average for 2007 published in this edition includes all current OECD countries with available information for that year, even if they were not members of the OECD at that time.

In the case of *National Accounts* data, averages refer to the weighted average, unless otherwise indicated. The OECD average is calculated through 2019 as not all OECD countries have data available for 2020. However, together with the OECD average, this edition includes also the OECD-EU average. The OECD-EU group comprises countries which are members of both the OECD and the European Union in 2020 (namely Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, Spain and Sweden; the United Kingdom is not part of this composition as it is no longer an EU member country). For these OECD and OECD-EU averages, the method of aggregation for the calculation of the indicators expressed as ratios (e.g. government expenditures in terms of GDP) use the denominator as weight (in this case the GDP, market prices, which is expressed in PPP).

Totals

OECD totals are most commonly found in tables and represent the sum of data in the corresponding column for the OECD countries for which data are available. Totals do not include data for non-member countries. In the notes, OECD countries for which data are not available are listed.

Online supplements

For several indicators, additional tables and figures presenting country-specific data or annexes with complementary information on the indicator methodology can be found online. When available, these are noted in the “Methodology and definitions” section of the indicator. *Government at a Glance 2021* also offers access to StatLinks, a service that allows readers to download the featured data’s corresponding Excel files. StatLinks is found at the bottom right-hand corner of the tables or figures and can be typed into a web browser or, in an electronic version of the publication, clicked on directly.

In addition, the following supplementary materials are available online at: <https://www.oecd.org/gov/govataglance.htm>:

- country fact sheets that present key data by country compared with the OECD average
- the *Government at a Glance* statistical database, which includes regularly updated data for a selection of quantitative indicators via *OECD.Stat* and the publication of qualitative data for the surveys collected by the Public Governance Directorate of the OECD via a dedicated web platform
- country contextual notes that present contextual information describing some key features of the political and administrative structures for each member country.

Per capita indicators

Some indicators (e.g. expenditures, revenues and government debt) are shown on a per capita (i.e. per person) basis. The underlying population estimates are based on the System of National Accounts notion of residency. They include persons who are resident in a country for one year or more, regardless of their citizenship, and also include foreign diplomatic personnel and defence personnel together with their families, students studying and patients seeking treatment abroad, even if they stay abroad for more than one year. The one-year rule means that usual residents who live abroad for less than one year are included in the population, while foreign visitors (for example, tourists) who are in the country for less than one year are excluded. An important point to note in this context is that individuals may feature as employees of one country (contributing to the gross domestic product [GDP] of that country via production), but residents of another (with their wages and salaries reflected in the gross national income of their resident country).

Purchasing power parities

Purchasing power parities (PPPs) are the rates of currency conversion that equalise the purchasing power of different countries by eliminating differences in price levels between countries. When converted by means of PPPs, expenditures across countries are in effect expressed at the same set of prices, meaning that an equivalent bundle of goods and services will have the same cost in both countries, enabling comparisons across countries that reflect only the differences in the volume of goods and services purchased.

PPPs for current and historical series are produced and updated by the OECD with a specific procedure. PPPs for a given year T are published in five steps:

1. at T+2 months: first PPP estimates, for GDP only
2. at T+6 months: second PPP estimates, based on detailed extrapolations, for GDP, households' actual individual consumption (AIC) and individual household consumption (IHC)
3. at T+12 months: third PPP estimates, incorporating all price and expenditure data for year T
4. at T+24 months: fourth PPP estimates, incorporating updated expenditure estimates
5. at T+36 months: final PPP estimates for year T.

Historical PPP data until 2012 may be revised in December each year in order to incorporate revisions in National Accounts' deflators. In December 2016, historical PPP data until 2012 were exceptionally revised for all European countries.

Additional information is also available at www.oecd.org/sdd/prices-ppp/.

Composite indicators

This publication includes descriptive composite indexes in narrowly defined areas related to digital government, human resources management and key features (i.e. independence and accountability) of sectoral regulators. These composite indexes are a practical way of summarising discrete, qualitative information. The composites presented in this publication were created in accordance with the steps identified in the *Handbook on Constructing Composite Indicators* (Nardo, et al., 2008)².

Details about the methodology used to construct the digital government and human resource management composite indicators are available in Annexes E and F. While the

composite indicators were developed in co-operation with OECD countries and are based on theory and/or best practices, the variables included in the indexes and their relative weights are based on expert judgments and, as a result, may change over time. Details about the composites on sectoral regulators can be found in Casullo, Durand and Cavassini (2019).³

Signs and acronyms

Sign/acronym	Meaning
..	Missing values
x	Not applicable (unless otherwise stated)
ADR	Alternative dispute resolution
ATI	Access to information
CBA	Cost Benefit Analysis
CEPEJ	Council of Europe European Commission for the Efficiency of Justice
CIO	Chief information officer
COFOG	Classification of the Functions of Government
CoG	Centre of government
CPA	Central public administration
GDP	Gross domestic product
GFS	Government Financial Statistics
GFSM	Government Finance Statistics Manual
HR	Human resources
HRM	Human resources management
ICT	Information and communication technology
IFI	Independent fiscal institutions
ILO	International Labour Organization
IMF	International Monetary Fund
IODC	International Open Data Charter
ISO	International Organization for Standardization
IT	Information technology
OCSC	Office of the Civil Service Commission
OGD	Open government data
PBOs	Parliamentary budget offices
PISA	Programme for International Student Assessment
p.p.	Percentage points
PPPs	Purchasing power parities / private-public partnerships
PR	Proportional representation
PRP	Performance-related pay
R&D	Research and development
RBC	Responsible business conduct
SDGs	Sustainable Development Goals
SDRs	Special drawing rights
SHRM	Strategic human resources management
SMEs	Small and medium-sized enterprises
SNA	System of National Accounts
VAT	Value-added tax
WEO	World Economic Outlook
WJP	World Justice Project

Notes

1. With regard to the Russian Federation, on 12 March 2014 the OECD Council “postponed activities related to the OECD accession process for the Russian Federation for the time being”. For more information, see <http://www.oecd.org/newsroom/statement-by-the-oecd-regarding-the-status-of-the-accession-process-with-russia-and-co-operation-with-ukraine.htm>
2. Nardo M, Saisana M, Saltelli A, Tarantola S, Hoffmann A, and Giovannini E. (2008) *Handbook on Constructing Composite Indicators: Methodology and User Guide*. OECD publishing, Paris.
3. Casullo, L., A. Durand and F. Cavassini (2019), «The 2018 Indicators on the Governance of Sector Regulators - Part of the Product Market Regulation (PMR) Survey», *OECD Economics Department Working Papers*, No. 1564, OECD Publishing, Paris, <https://doi.org/10.1787/a0a28908-en>.

Executive Summary: Key facts and data

The COVID-19 pandemic has highlighted the role of public governance but has also acutely tested it. Governments had to act swiftly and adapt processes and resources to keep societies and economies afloat. While countries have generally responded to the crisis at scale and speed, not all have adjusted their public governance processes to the same degree. In some cases, transparency and public trust may have been affected. Governments must use the lessons of the crisis to become fit to meet tomorrow's public governance challenges.

Public finances are under pressure from COVID-19 and government responses

- General government expenditures averaged 40.8% of GDP across OECD members in 2019. In 2020, expenditures rose as a share of GDP in all 26 countries for which data are available, due to COVID-19 responses and falling GDP.
- Support to households and businesses in OECD countries via additional spending and foregone revenue is around 16.4% of GDP, and support via equity injections, loans, asset purchases or debt assumptions, and contingent liabilities of up to 10.5% of GDP.
- General government revenues averaged 37.7% of GDP across the OECD in 2019. Among 26 countries for which data are available, 24 saw real per capita revenues fall in 2020, as economies shrank. In 13 countries, revenues per capita fell by more than 5%.
- Deficits have risen as a result of COVID-19 responses. The fiscal deficit in OECD countries averaged 3.2% of GDP in 2019. All 26 countries for which data are available for 2020 had higher budget deficits than in 2019; 18 had deficits of more than 5% of GDP.
- Debt has also risen: among 22 EU and OECD member countries, general government gross debt rose from 97% of GDP in 2019 to 115% in 2020.

Most governments were unprepared for the scale of the crisis but quick to correct course

- In early 2020, more than 60% of civil servants worked remotely in most OECD countries for which information is available. About half of OECD countries for which information is available created or transformed the definition of “essential positions” that cannot work remotely.
- In response to the pandemic, 20 of 26 (77%) of centres of government (CoGs) in OECD countries reported supporting increased cross-ministerial co-ordination activities. While 20 of 26 governments (77%) consulted stakeholders on their strategies to respond to the COVID-19 crisis, only 9 of 26 (35%) actively involved stakeholders in designing these strategies.
- 33 of 35 (94%) independent fiscal institutions in OECD countries published rapid analysis of the economic and budgetary impact of the COVID-19 pandemic.

- Before the crisis, around one-third of OECD members allowed some form of exception to regulatory impact assessments in emergency responses. During the crisis, governments and regulators had to fast-track many new regulations, cutting back impact assessments and stakeholder consultation.
- Before the crisis 19 of 32 OECD countries (59%) did not have business intelligence among their e-procurement functions (i.e. information on public entities' procurement needs, contracted suppliers or available products). Governments had to innovate rapidly to address information deficits and manage supply constraints.

The short-term boost in trust in government sparked by the pandemic may not last

- In 2020, 51% of people in OECD countries trusted their government, up 6.3 percentage points (p.p) from 2007 and 6 p.p. from 2019. This could mean that people rallied behind their institutions early in the crisis. In 18 of the 22 OECD countries with available information, average trust levels decreased between April/May and June/July 2020, indicating that this effect may fade quickly.
- Trust varies across institutions: on average, 72% of the population trust the police, 49% trust the civil service, 37% trust the government and about one-third trust national parliaments.
- In 2018, in OECD countries for which data is available, less than half of the population (40%) believed the political system in their countries allowed people like them to have a say in what the government does.

Fine-tuning consultation and engagement practices could improve transparency and trust in public institutions

- In 2020, 27 of 32 (85%) of OECD countries had government-wide participation portals, where all central/federal ministries publish consultation and engagement opportunities. 38% of OECD countries had several portals, and 47% had a single portal.
- The use of virtual consultations in regulatory policy-making has increased since 2017; from 35% to 62% of OECD countries for early-stage consultations, and from 41% to 57% of countries for late-stage consultations.
- In 92% of OECD countries, policy makers consult early on draft regulations with selected groups; open consultations are more common only at a late stage.
- In 2020, 20 of 24 (87%) of OECD countries had a strategy to mitigate public integrity risks, particularly corruption. However, only 8 of 20 (40%) of integrity strategies underwent inter-governmental and public consultation. Less than half of countries have transparency requirements covering most of the actors that regularly engage in lobbying.

Public employment and politics are becoming more diverse, but could be improved

- In 2019, women held only 37% of public sector senior management positions on average in OECD countries.
- Participation of women in politics has increased but is still far from parity. On average across OECD countries, 32% of the seats in the lower/single house of parliaments were held by women in 2021, compared to 26% a decade ago. Likewise, the share of women ministers increased from 28% in 2017 to 34% in 2021.

- Countries are setting diversity targets within their administrations. In 2020, targets were used by 24 of 33 OECD countries (73%), to employ people with disabilities (vs. 37% in 2016). Only 14 of 33 of OECD countries (42%) have targets for gender balance (vs. 29% in 2016).
- People aged 20-39 represent 34% of voting-age populations across OECD countries, but the percentage of young members of parliaments was 22% in 2020. The under-representation of young people in public life may deepen the generational divide.

Public governance processes could help promote environmental and social goals

- All OECD countries have a framework to support environmental objectives in public procurement. Some have similar frameworks to support human rights (70%), gender equality (41%) or minority issues (48%).
- In 2020, only 14 of 35 surveyed OECD countries (40%) reported green budgeting efforts. Among them, most used *ex ante* or *ex post* environmental impact assessments (12 of 14, 86%) and environmental cost-benefit analysis (10 of 14, 71%).
- 22 of 30 OECD countries (73%) have aligned long-term infrastructure plans with sustainability objectives, and 17 of 30 (57%) have adapted existing infrastructure to improve environmental performance.

Chapter 1

Focus - Fit for the future: Strengthening government resilience

Introduction

OECD governments have responded at unprecedented scale and speed to the COVID-19 crisis. The pandemic, and the economic and social effects of the measures to contain it, are the largest shock most OECD countries have experienced since the Second World War. They have been required to implement policy and operational responses of unprecedented scale, speed and scope to contain the pandemic. Health care systems have had to be extensively scaled up to treat the ill. Efforts to slow transmission rates have required restrictions on civic freedoms and economic activities on a scale rarely seen in democratic states in peacetime. The restrictions on economic activity have generated major disruption to incomes and employment, requiring governments to provide massive fiscal support for citizens and businesses.

The response to the COVID-19 shock has been an exceptional test of government capabilities. Governments have been front and centre in keeping economies and societies afloat. They have had to make difficult policy decisions quickly, and develop new analysis and co-ordination mechanisms to enable this. They have implemented major surges in health, social protection and other areas, providing a test for budgeting, public employment, procurement, regulation, digital and infrastructure systems. They have devised new models of public communication to implement evolving public health measures. They have also had to instantly redesign large areas of their operations to work remotely. This has all had to be delivered while meeting expectations that the maximum levels of transparency, accountability, oversight and integrity possible should be maintained.

Economies and societies will continue to face substantial risks of major shocks even once COVID-19 recedes. Governments will need to be resilient enough to absorb these shocks and develop policies that strengthen societies' ability to face them. They will also need to rebuild their buffers. While many uncertainties remain about the future course of the pandemic, vaccines are expected to reduce the public health impacts of COVID-19 during 2021 and beyond (Cohen, 2021_[1]). The OECD forecasts global gross domestic product (GDP) growth of 5.8% in 2021, with world output expected to exceed pre-pandemic levels before end-2021 (OECD, 2021_[2]). Governments and societies will have the opportunity to begin recovering, restoring freedoms and rebuilding prosperity. However, the route out of the crisis may not be straightforward. The potential impacts of COVID-19 variants are not fully known. Even once COVID-19 itself is contained, its effects will have ramifications into the future including through additional public and private debt, lost education and schooling, lost businesses and jobs, and the unequal impact COVID-19 has had across society. Trust in government may be at risk of further damage from real or perceived mismanagement, reduced transparency in decision making and possible new corruption scandals.

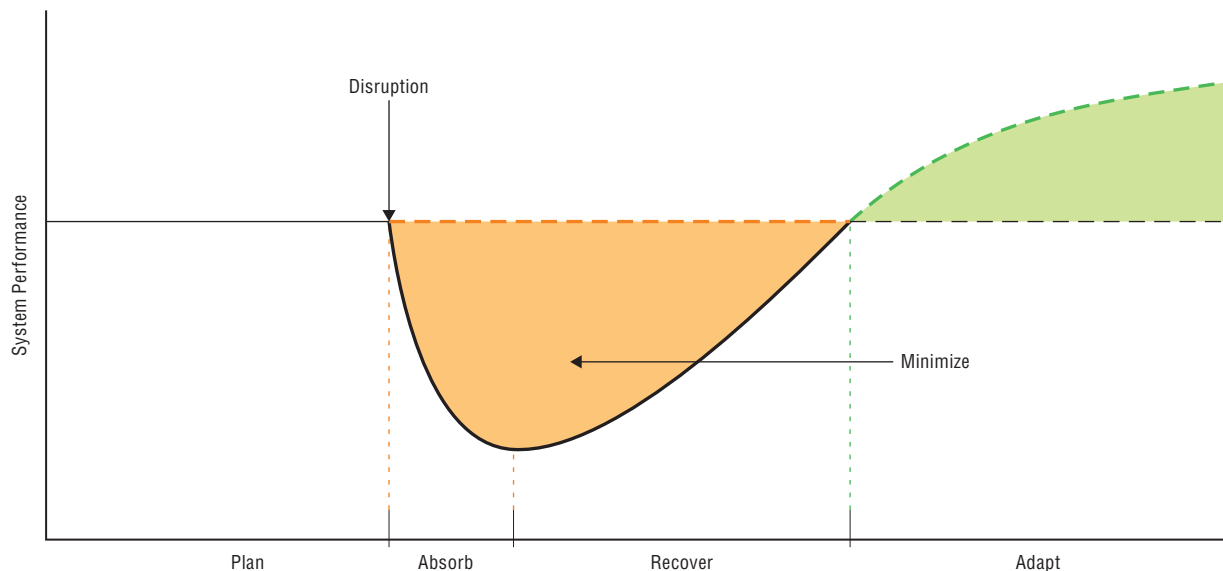
Moreover, societies will continue to face a range of other shocks even once COVID-19 is contained. In particular, the climate and biodiversity emergency presents urgent and potentially severe risks. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate (IPCC, 2018_[3]). Climate-related risks to health, livelihoods, food security, water supplies, human security and economic growth are projected to increase if global warming reaches 1.5°C, and worsen with higher levels. Climate action

failure, extreme weather, biodiversity loss, natural disasters, human-made environmental disasters and water crises are all potential sources of shocks. Other risks such as debt and unemployment crises, cyber-security and IT failures, and terrorist attacks also remain. The after effects of COVID-19 may weaken government resilience to future shocks.

Outcomes will depend on how well governments drive recovery and safeguard against future shocks and stresses. Given the range of potential shocks, many paths into the future are possible from this juncture. Some paths would see a return to prosperity within vibrant democratic frameworks. Others could lead to stagnating growth, entrenched inequality and even risks to the sustainability of the democratic model of governance.

It is critical that governments proactively strengthen their resilience to future risks. They must also aim to have governance systems in place to devise and implement policies that strengthen societies' resilience in the COVID-19 and post-COVID environment. They must safeguard citizens, build and maintain public trust, and support the healthy functioning of democratic systems, which are key to societies' capacity to absorb shocks. The OECD's definition of resilience is "the capacity of systems to absorb a disturbance, recover from disruptions and adapt to changing conditions while retaining essentially the same function as prior to the disruptive shock" (OECD, 2019^[4]), (OECD, 2014^[5]). Figure 1.1 gives a graphical depiction of this concept of resilience, as a four-stage process, extending both before and after a disruption. The first stage is planning in advance of any disruption, in which strategies are sought to preserve a system's core function in the face of shocks, and threats to the system are sought. The second stage, during the disruption, is absorption, in which activities intended to minimise the scale and length of its impact are carried out. The third is recovery, which includes efforts to regain lost system function as quickly, cheaply and efficiently as possible. The fourth is adaptation, which involves learning from the absorption and recovery stages, and working to change how the system functions, in order to better deal with future threats (Linkov, Trump and Hynes, 2019^[6]).

Figure 1.1. **Stages of resilience**



Source: Linkov, Trump and Hynes (2019^[6]), *Resilience-based Strategies and Policies to Address Systemic Risks*, [www.oecd.org/naec/averting-systemic-collapse/SG-NAEC\(2019\)5_Resilience_strategies.pdf](http://www.oecd.org/naec/averting-systemic-collapse/SG-NAEC(2019)5_Resilience_strategies.pdf).

This chapter applies the concept of resilience to government. Ideally, governments work by acquiring inputs (employees and funds, and also assets and infrastructure, and data and information¹), and then combining and transforming these inputs through a set of processes (policy making, budgeting, regulation, procurement, human resource management, open and digital government, etc.) to produce public goods and services for citizens (health, education, security, efficient markets, etc). A resilient government is one which can face a wide range of disturbances that affect the availability of its inputs or the functioning of its processes, but can continue to deliver similar services and outcomes for citizens immediately after the disturbance, and then recover and adapt such that it minimises the impacts of future disturbances.² Resilience is likely to be a matter of degree, rather than a binary quality. Moreover, it may vary in the face of differing types of shocks, or for different areas of government.

This concept of government resilience matches the types of questions citizens naturally ask about their government. To understand it, consider a government which faces some shock, such as an earthquake or a recession. To assess their government's resilience, citizens might ask: does it have the people, funding, assets and knowledge to limit the suffering of citizens in the immediate aftermath? Does it have the processes in place to react quickly? If some functions and capabilities are degraded, can it find new ways to deliver? Does the government support recovery after the immediate crisis? Can the government adapt, by learning lessons and reacting better to future shocks and disasters?

Unfortunately, not all future threats can be fully foreseen and planned for. The world contains a range of complex, interconnected and interdependent systems (financial, environmental, governmental, etc.). Disturbances and changes in one system can quickly affect others through a variety of connections, both known and unexpected, in unforeseen ways. In some cases, such as COVID-19, small initial changes can have rapid, outsized effects. In the worst case, this combination of interconnectivity and unpredictability can lead to rapid, cascading, multiple failures (Hynes et al., 2020^[7]). To manage in this complex, interconnected and risky world, governments must ensure they are as resilient as possible, and can safeguard citizen wellbeing and public trust in the face of future crises. Ultimately, resilience is thus key to supporting resilient societies and healthy democratic systems.

This chapter examines how governments have coped with the exceptional real-life stress test of COVID-19, and identifies key lessons on how they can improve their resilience. The overarching recommendation is that they must safeguard their ability to respond to crises at speed and scale, but do so without risking trust and transparency. Section 1.2 examines government resilience in OECD countries, using emerging evidence and information on how governments have absorbed the impact of COVID-19. OECD governments have drawn on reserves of funds, people, skills and infrastructure to scale up delivery in key sectors such as health and social protection. They have also innovated rapidly and adapted processes in policy making, procurement, regulation and communication to meet the needs of the crisis. However, they were imperfectly prepared. In some cases, innovation has resulted from a lack of advance planning or a need to fix suboptimal systems. Moreover, evidence suggests standards of transparency, consultation, oversight and/or control have been partially suspended to better support speed in many aspects of the COVID-19 response.

Building on this evidence, Section 1.3 presents a two-pillar agenda for strengthening government resilience as countries recover from the COVID-19 crisis and adapt for the future. The first pillar consists of internal reforms to government systems, to improve

governments' ability to mitigate future threats, and respond at scale and speed when needed. Key reform areas are optimising the use of recovery packages, building buffers into government operations, supporting anticipatory innovation and problem solving skills, and ensuring integrity and oversight. The second pillar consists of outward-looking reforms to support trust and transparency in government and better support the healthy functioning of democratic systems. Key reform areas are improving representation and interest aggregation, ensuring fairness and inclusion in policy making, and tackling mis- and disinformation. The chapter focuses on central government, that is, ministries and organisations with a national role and responsibilities. It does not cover parliaments and elected bodies, local government or the judiciary.

How governments absorbed the COVID-19 crisis

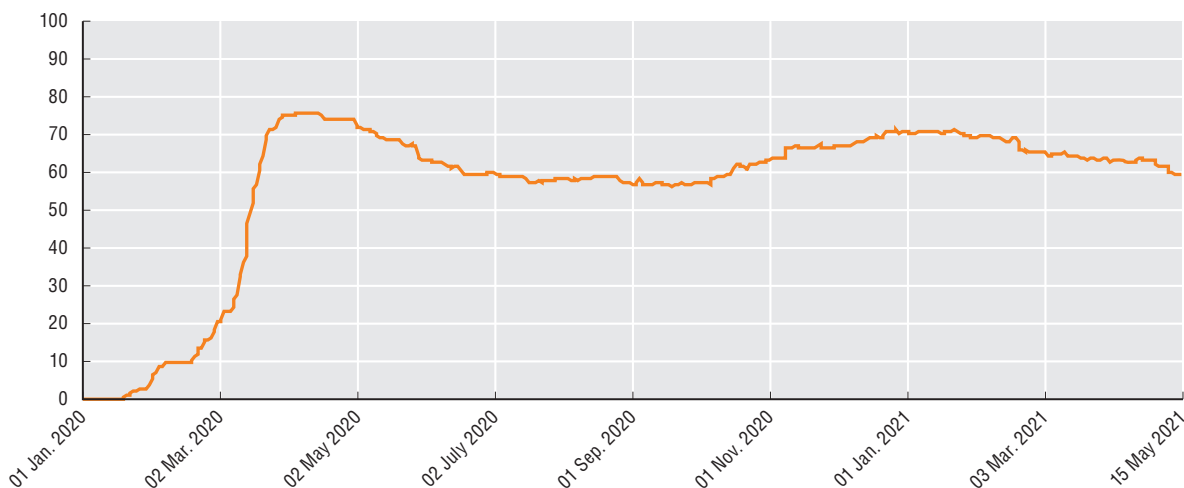
The COVID-19 crisis has been an extreme stress test of government resilience. This provides an opportunity for unusually direct insights into the resilience of different aspects of government. Although it is unclear which stage of the “plan-absorb-recover-adapt” cycle the pandemic has reached, it is likely that the worst impact of the “absorb” period is passing in many countries as vaccination progresses. This section therefore looks backward to examine emerging evidence on the “mitigate” and “absorb” aspects of government resilience to shocks, i.e. the extent to which governments, in the face of COVID-19 disruption, have demonstrated the ability to manage their inputs and alter their processes to minimise the scale and length of the shock.

OECD governments took unprecedented action in 2020 to help their citizens and economies to absorb the cascading impacts of the COVID-19 crisis. At the onset of the crisis, early modelling suggested that without measures to slow its transmission, the growth of the virus would quickly outstrip governments' ability to provide health care (Ferguson et al., 2020^[8]; Rice et al., 2020^[9]). To contain the spread of the virus, governments rapidly implemented “lockdowns” between February and April 2020 (Figure 1.2). These involved unprecedented peacetime restrictions on civil liberties, alongside previously unthinkable disruptions to economic life, including bans on public events and gatherings, closures of schools and workplaces, and broad stay-at-home orders. During March and April 2020, almost all OECD countries set up income support schemes for workers' whose places of employment were closed, as well as large-scale packages to support firms. Additional public health measures were put in place slightly more slowly. By June 2020, most OECD countries had contact tracing systems (Figure 1.3). There was some loosening of lockdown restrictions during the second and third quarters of 2020, but in many OECD countries, measures were scaled up again in the latter part of the year in response to rising infections. As of mid-May 2021, lockdown measures were somewhat less intense than during the initial months of the crisis, and slowly loosening. OECD governments were continuing to provide widespread economic support.

Delivering these responses has been highly challenging for governments. They have had to make choices fast, and then immediately deliver large, complex and novel policies and programmes, while maintaining as far as possible controls, transparency and accountability mechanisms. Moreover, these responses have had to be delivered in the face of major disruptions to normal government inputs and processes. Most visibly, this includes the closure of government offices and the need to redesign most aspects of government to work remotely.

Figure 1.2. **Average stringency of lockdown measures across OECD countries**

1 January 2020 – 15 May 2021, on a scale of 0-100



Note: The graph presents the population-weighted average of the COVID-19 Government Response Stringency Index for OECD countries based on data from the Oxford COVID-19 Government Response Tracker (<https://covidtracker.bsg.ox.ac.uk/>). This collates publicly available information on government responses (school closures, workplace closures, cancellations of public events, restrictions on gatherings, public transport closures, restrictions on movement), recorded on an ordinal scale. The COVID-19 Government Response Stringency Index is a simple additive score of relevant indicators measured on an ordinal scale, rescaled to range from 0 to 100. This measure is for comparative purposes only, and should not be interpreted as a rating of the appropriateness or effectiveness of a country's response.

Source: OECD calculations from Hale et al. (2020^[10]), Oxford COVID-19 Government Response Tracker, www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker#data; Population data from World Bank (2020^[11]), World Development Indicators: Population, total, <https://data.worldbank.org/indicator/SP.POP.TOTL>.

StatLink  <https://doi.org/10.1787/888934256387>

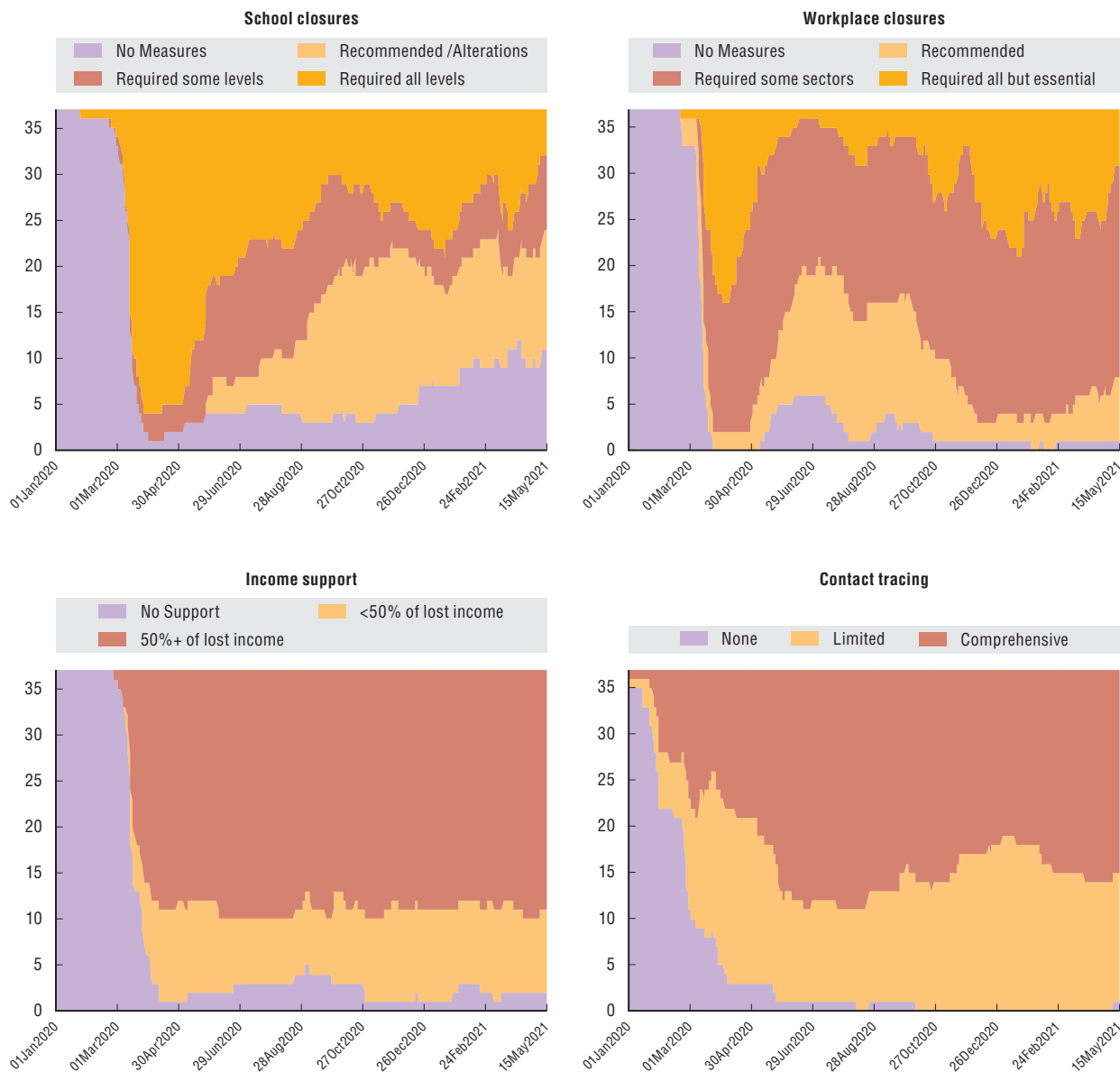
This section examines how well different government systems have absorbed the impacts of COVID-19. By examining emerging evidence, data and observation on how COVID-19 responses were delivered, it draws initial conclusions about areas of resilience or vulnerability. COVID-19 has affected various OECD countries differently, and each government has adopted its own approach. The analysis and findings that follow will not be true for every government, and the areas of resilience or vulnerability experienced will differ in each country. Nonetheless, trends and common experiences are readily apparent when governments' responses during COVID-19 are compared. Two trends in particular emerge repeatedly across the evidence on how governments have absorbed the shock of COVID-19.

First, governments have emphasised speed and scale in their COVID-19 response, but often in ways that pose risks for transparency and trust to an unnecessary extent. This is largely due to imperfect preparedness. Governments have drawn down on their buffers and spare capacity to provide the raw inputs for their COVID-19 response (e.g. infrastructure, workforces, public funds). Government processes have then turned these inputs into the outputs citizens needed, often at speed and at scale. In each of the processes examined below, the evidence presented indicates that governments have innovated and altered their processes rapidly to deliver COVID-19 responses. However, in several cases, the evidence also indicates that governments have lowered standards of consultation, transparency, oversight and/or control to improve the scale and speed of their response. This is apparent to differing degrees in policy making, regulation, public finances and procurement. Some alleviation of standards is inevitable during emergency responses, but it is not always clear that these have been limited in time and scope and planned in advance, nor that governments have clear plans for a return to normal, and/or are applying *ex post* controls such as evaluations.

This increases the risks of suboptimal government delivery, either because of poor design or because of capture by special interests or corruption. This may create risks for public trust in government.

Figure 1.3. Prevalence of key COVID-19 policy responses among OECD countries

Number of OECD countries with each policy response in place, 1 January 2020 – 15 May 2021



Note: OECD generated presentation of data from the Oxford COVID-19 Government Response Tracker (<https://covidtracker.bsg.ox.ac.uk/>). The variables used from this dataset are C1 School Closing, C2 Workplace Closing, E1 Income Support and H3 Contact Tracing. Each of these are simple categorical variables. Each graph is for one of these variables, showing a count of the number of OECD countries within each category of policy response over time.

Source: OECD calculations from Hale et al. (2020^[10]), Oxford COVID-19 Government Response Tracker, <https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker#data>.

StatLink  <https://doi.org/10.1787/888934256406>

Fundamentally, the scale of innovation and change required to respond to COVID-19 partly reflects imperfect preparedness. Crises cannot be perfectly predicted, and the ability to innovate and manage them as they occur is essential to government resilience. Some

aspects of the response discussed below highlight the flexibility, agility and capability of public agencies in the face of a crisis which could not be perfectly foreseen. However, some of the innovations used to tackle COVID-19 could have been undertaken in advance. As described below, several of the issues which have hampered the COVID-19 response, such as the need for better integration of digital systems or improved procurement information, were apparent in many countries before the crisis. In many cases, the wider value of some of the innovations forced on governments during COVID-19 is shown by their plans to retain them in the longer term. Moreover, the evidence below also suggests that many governments had not planned how to manage consultation, transparency, oversight and/or control processes in an emergency. This has forced rapid and sometimes ad hoc changes, creating risks for integrity, transparency and trust. Observational evidence suggests that where innovation and preparation was more advanced prior to COVID-19, such as in public communication and remote working infrastructure, the shock has been less disruptive.

Second, digital technology has been critical to supporting resilience across a wide range of government inputs and processes. Digital technology means that flows of information between government staff, and between government and citizens, do not need to take place in a specific physical location. In the context of COVID-19, this minimises the need for government operations to take place in-person, helping to suppress virus transmission. The following section repeatedly notes governments replacing physical infrastructure with digital technology in their processes. More broadly, digital technology improves resilience by increasing the speed and breadth of information flows, increasing inputs of information in government processes. There are several examples below of governments using digital technology to improve the information used in a wide range of processes and aspects of their response. Emerging evidence suggests governments with better digital systems pre-crisis have often performed better in absorbing the impact of COVID-19.

Crisis preparedness

Crisis management is a core government competence. Nearly all OECD countries have experienced one or more major crises within the past 20 years for which they were not adequately prepared (OECD, 2018_[12]). Several entailed previously unidentified risks (e.g. the 2010 North Atlantic volcanic ash cloud), or risks of unexpected magnitude or complexity (e.g. the 2011 Great East Japan Earthquake). Similar to the COVID-19 crisis, these events led to decisions to suspend critical infrastructure networks, in ways that disrupted economic activity and affected entire populations. The OECD has issued formal recommendations on how governments should adapt the institutional organisation of crisis management (OECD, 2014_[13]).

At the outset of the pandemic, few OECD countries had structured capacity to gather scientific advice about how governments should adapt to novel and complex crises. Some of the systems created since have raised transparency concerns. In 2018, only half of OECD countries had a specific government department or institution whose purpose was to identify novel, unforeseen or complex crises (OECD, 2018_[12]). Most countries where data are available lacked formal institutional mechanisms at the national level that were clearly identified as having a role in co-ordinating scientific advice during crises. Very few countries had permanently established scientific advisory mechanisms, that is, standing bodies responsible for the provision and co-ordination of scientific advice in the management of novel and unexpected crises. One such body is the UK Scientific Advisory Group for Emergencies

(SAGE), which is responsible for ensuring that timely and co-ordinated scientific advice is made available to decision makers. Who participates in SAGE meetings depends on the nature of the emergency and the issues under consideration, and members are drawn from government, academia and the private sector (UK Government, 2021_[14]). A further issue is that, for pandemics in particular, the scientific data and information needed as evidence to support rapid decision making was frequently distributed across different public agencies and academic institutions. There were different sources of competing advice, and the protocols and frameworks that existed were not necessarily easily applied across all these sources (OECD, 2018_[15]).

Ensuring the transparency and integrity of special advisory bodies, such as scientific committees, is important for their effectiveness and public trust (OECD, 2014_[16]). In the aftermath of the 2009 “swine flu” pandemic, scientific and public debates prompted accusations of commercial bias and that governments and public institutions were misled into stockpiling a drug with limited efficacy. An analysis of how the Danish group of experts developed the plan to tackle the pandemic showed that they were lobbied by the industry both directly and more subtly (Vilhelmsson and Mulinari, 2017_[17]). Recent investigations have shown that following reports of shortages in the United Kingdom, Spain, the Netherlands and Poland, the EU purchased and stockpiled a significant quantity of antivirals, despite limited evidence of their effectiveness (Hordijk and Patnaik, 2020_[18]).

Many countries put in place ad hoc institutional arrangements to gather scientific advice as the COVID-19 crisis developed. A key challenge has been ensuring proper governance of evidence, such that policy makers and the public can trust that government is receiving clear, neutral and credible scientific advice. From the available information, a minority of countries have set up formal processes (such as peer reviews) to ensure the quality, authority and legitimacy of scientific advice. Many countries have controlled the nature and quantity of information released to the public, with legitimate questions being asked on the governance of the scientific advice leading to decisions, and the transparency of this decision-making system. Members of scientific task forces have seldom been obliged to disclose potential conflicts of interest (OECD, 2021_[19]). It is likely that issues with the governance of scientific advice stem at least partly from gaps in crisis preparedness.

Governments which locked in lessons from similar crises, and drew on partnerships, have often been more resilient to COVID-19. The OECD Recommendation on the Governance of Critical Risks (OECD, 2014_[13]) recommends that countries develop the institutional capacity to learn from past crises, enact reforms to address the operational gaps they revealed and test to ensure these capabilities will function when needed. Korea’s response to COVID-19 demonstrate the value of this institutional capacity. After the 2015 MERS coronavirus outbreak in Korea, the government made 48 reforms to boost public health emergency preparedness. These included guidelines for screening facilities, comprehensive testing and contact tracing, and supporting people in quarantine to make compliance easier (Kim et al., 2021_[20]). These systems have helped to quickly contain the spread of COVID-19, and allowed economic and social activities to resume earlier than in many other OECD countries.

Governments which have been able to draw on volunteers have found them an important additional human resources in crisis response. In large-scale and complex crises, government employees cannot necessarily manage alone. Developing trusted partnerships with the private sector, civil society and volunteer organisations with operational capacities

to contribute to crisis management is key (OECD, 2015_[21]). During the COVID-19 pandemic, many OECD countries organised volunteer initiatives to provide rapid surge capacity support. These were often in community resilience functions, including staffing vaccine distribution sites and delivering food and medicine to people in isolation. For example, Israel leveraged a cadre of over 10 000 volunteers to support the collection of test samples and call centre operations (Kim, 2020_[22]). Volunteers also provided important logistical support in Israel's vaccine rollout, which has been by far the fastest in the world in terms of the share of population receiving a first dose.

Information, co-ordination and policy making

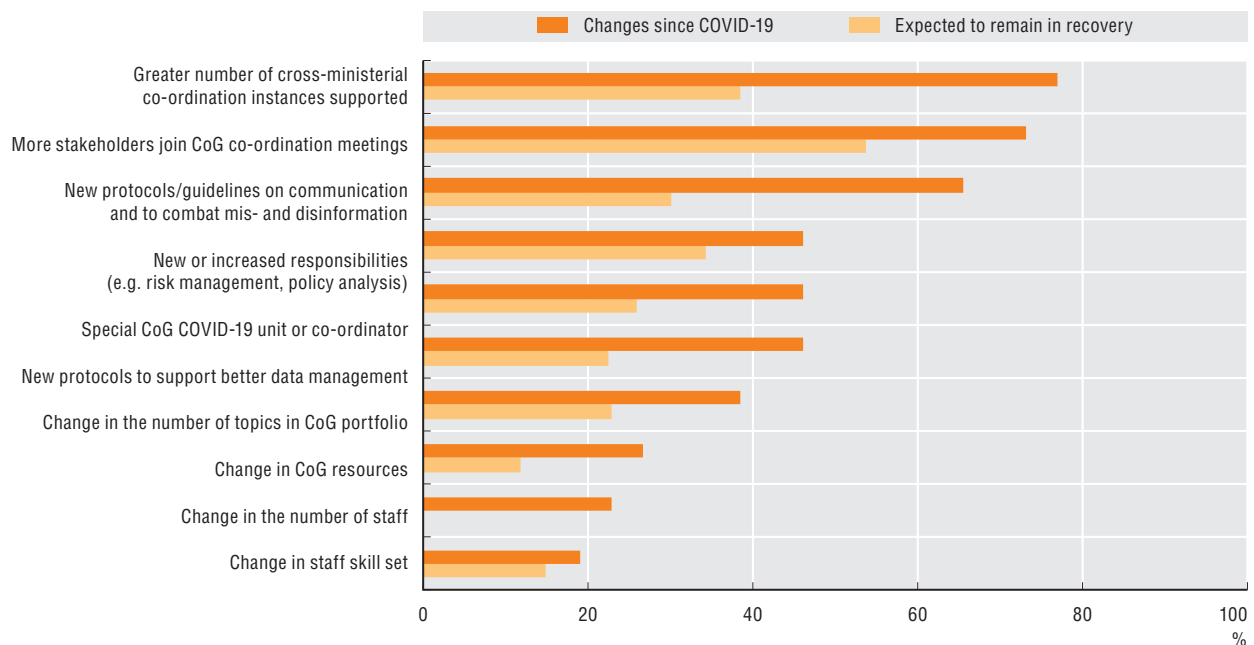
Central government institutions had to rapidly redesign processes for decision making and cross-government policy co-ordination during 2020, as pre-existing structures were not always fit for addressing the multidimensional impacts of the COVID-19 crisis. The OECD defines the centre of government (CoG) as the body or group of bodies that provide direct support and advice to heads of government and the council of ministers, or cabinet. CoGs have played an important role throughout the crisis in strategic planning, cross-government co-ordination and stakeholder engagement in policy making. COVID-19 has created an unprecedented need for timely data and information, and new policy co-ordination challenges for governments. It has required CoGs to access and analyse vast quantities of complex data and information in order to inform decision making and prioritise action – see Chapter 4 and also OECD (2020_[23]). The cascading nature of the crisis has required policy to continuously evolve in response to new information about its health, economic and social impact.

At the outset, CoGs faced a range of challenges to the effective co-ordination of policy responses across government. The most common included the lack of appropriate laws and regulations to allow the government enough flexibility to respond to the crisis, and the lack of appropriate structures to co-ordinate responses. Many governments also faced gaps and/or overlaps between the roles of different institutions rolling out emergency responses, competing priorities between institutions, and a lack of protocols and structures to obtain and review expert and scientific evidence (OECD, 2021_[19]).

To improve their decision-making processes and co-ordination, most OECD countries adapted the capacities and/or responsibilities of their CoGs (Figure 1.4). Among the 26 OECD countries for which data are available, 77% of CoGs supported more cross-ministerial co-ordination activities and 73% involved more stakeholders in co-ordination meetings. Just under half (46%) gained increased responsibilities or set up a new COVID-19 unit or co-ordinator. However, in most cases these increased responsibilities did not come with additional resources. Only 27% of CoGs had a change in the financial resources available to them, and only 23% a change in staffing levels. This created significant pressure to deliver an expanded set of priorities with the same resources.

Governments evolved and innovated in their cross-government co-ordination mechanisms during the crisis. Box 1.1 gives a number of examples. Countries have commonly developed complementary approaches to traditional emergency management procedures, led or supported by the centre of government. Almost half of OECD governments deployed new institutional arrangements to manage the pandemic, either in the form of a dedicated unit or an appointed co-ordinator. There is also some evidence of government departments that had previously worked in silos coming together to take more effective and rapid decisions (OECD, 2020_[23]).

Figure 1.4. Changes in centres of government during COVID-19 and planning of the recovery



Note: Presentation created for Government at a Glance 2021 using data from OECD (2021_[19]) with responses from 26 OECD countries: Austria, Belgium, Canada, Chile, Colombia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Korea, Latvia, Lithuania, Luxembourg, Mexico, Norway, Poland, Portugal, Sweden and Turkey.

StatLink  <https://doi.org/10.1787/888934256425>

Box 1.1. Innovative government co-ordination mechanisms during COVID-19

Australia: The National Cabinet was established as the primary way for state and territory leaders to interact with the federal government. The greater frequency of meetings and shared sense of purpose made the forum more agile and co-operative and more effective at delivering co-ordinated action. The National Cabinet has now pivoted from the management of the pandemic to planning the recovery.

Colombia: Early in the pandemic, Colombia's delivery unit was tasked with managing government operations. It focused on creating routines and work plans for Colombia's COVID-19 co-ordinator, and monitoring and implementing medium-term goals. The centre of government will retain new responsibilities for risk management and policy analysis during the recovery phase.

France: Existing crisis management cells were merged to adapt to the end of the lockdown. The Prime Minister's office announced a new *Centre Interministériel de Crise*. The Ministry of the Interior and the Ministry of Health were fully integrated into this organisation and the various territorial networks systematically included.

Latvia: A new COVID-19 Crisis Recovery Strategic Group was established. Led by the Prime Minister, the group is composed of the Association of Local and Regional Governments, the Academy of Sciences, the Employers' Confederation, the Chamber of Commerce and Industry, and the Trade Union Confederation, among others. It also involves the Parliament.

Source: OECD (2020_[23]), "Building resilience to the Covid-19 pandemic: The role of centres of government", <https://doi.org/10.1787/883d2961-en>; OECD (2021_[19]), *Building a Resilient Response: The Role of Centre of Government in the Management of the COVID-19 Crisis and Future Recovery Efforts*.

While objective data on the effectiveness of these changes are not yet available, many governments expect to retain the changes they have made to the functioning of their CoG during the planning of the recovery period (Figure 1.4). Co-ordination is likely to remain an issue due to the complexity of delivering recovery plans. Among OECD countries for which data are available, most governments expect to continue having more stakeholders participating in meetings called by the CoG. Many countries also expect to continue with increased cross-ministerial and inter-governmental co-ordination, and new or increased responsibilities for the CoG. From a resilience and complex risks management perspective, governments should reflect on the scale of innovation which was required, and how they could improve resilience by developing more responsive policy-making structures with more co-ordination and fewer institutional barriers. Chapter 4 presents more details on CoGs.

Active engagement of external stakeholders in policy making has often been limited during COVID-19, potentially reducing the quality of policy design and citizen trust. Although 73% of CoGs increased the number of stakeholders joining co-ordination meetings, there are no data on the extent to which groups other than scientific experts were involved. Most (77%) consulted stakeholders on the design of COVID-19 response strategies, but only 35% actively involved stakeholders in their design (OECD, 2021_[19]). Among government initiatives to publish data on COVID-19 and responses, 77% are primarily for situational awareness. There is limited evidence that open government data initiatives drove concrete action beyond public communication efforts during the COVID-19 pandemic (OECD, 2021_[24]). The potentially limited scope of external consultation may be due to governments prioritising speed over transparency and oversight. COVID-19 has been a fast-moving crisis, and speedy decision making is a legitimate and important goal for governments. Nonetheless, imbalances in democratic engagement can damage long-term resilience by affecting both policy quality and public trust.

The OECD COVID-19 Innovative Response Tracker (OECD, 2020_[25]) has identified multiple examples where public consultation has been able to effectively and rapidly bring in expertise and design solutions, even in a crisis. Often these have been enabled by digital technology. A number of countries ran “hackathons” in the early stage of the crisis, and some demonstrated quick results. In Latvia, this resulted in methods to quickly produce face shields at scale to supply Latvian hospitals (OECD, 2020_[26]). In Estonia, this contributed to building a digital solution for monitoring personal protective equipment (PPE) stocks and demand (OECD, 2020_[27]). In Colombia, the City of Bogota worked with scientists, transport and public health experts to design transport solutions during the early stages of the crisis (OECD, forthcoming_[28]).

In some cases, deficiencies in governments’ ability to manage and share data hampered their responses to COVID-19. The crisis has underlined that data and information are critical inputs to effective government. The effectiveness with which governments use information technology (IT) in analysis, decision making and delivery varies. In 2020, a cross-country OECD study of digital government practices concluded that “progress towards a comprehensive and dedicated approach that addresses data as a strategic asset seems to be lacking” (OECD, 2020_[29]). It found just over half of countries had a public sector organisation responsible for leading or co-ordinating the implementation of data policies. However, only one-third had established dedicated roles for this purpose (e.g. a national chief data officer), and as reported in Chapter 9, most countries did not have a single exhaustive data inventory for the central government. Around a fifth of countries continued to rely on ad hoc agreements for data sharing between public agencies.

There is no comprehensive evidence on the effect of shortcomings in data sharing on the ability of governments to absorb the COVID-19 shock. However, 46% of CoGs developed new protocols to support better data sharing regarding COVID-19. Some examples show issues with data generation, access and sharing within governments has hampered delivery for citizens. For example, more rapid and co-ordinated delivery of health services and vaccination bookings have been possible in countries with basic data registers and other public sector data sources (e.g. pension systems, health records). In countries lacking such systems, population register numbers are instead being used as identifiers for citizens to book vaccinations (OECD, forthcoming_[28]). This underlines the need to develop coherent data governance frameworks for secure and streamlined data access.

Public finances and budgeting

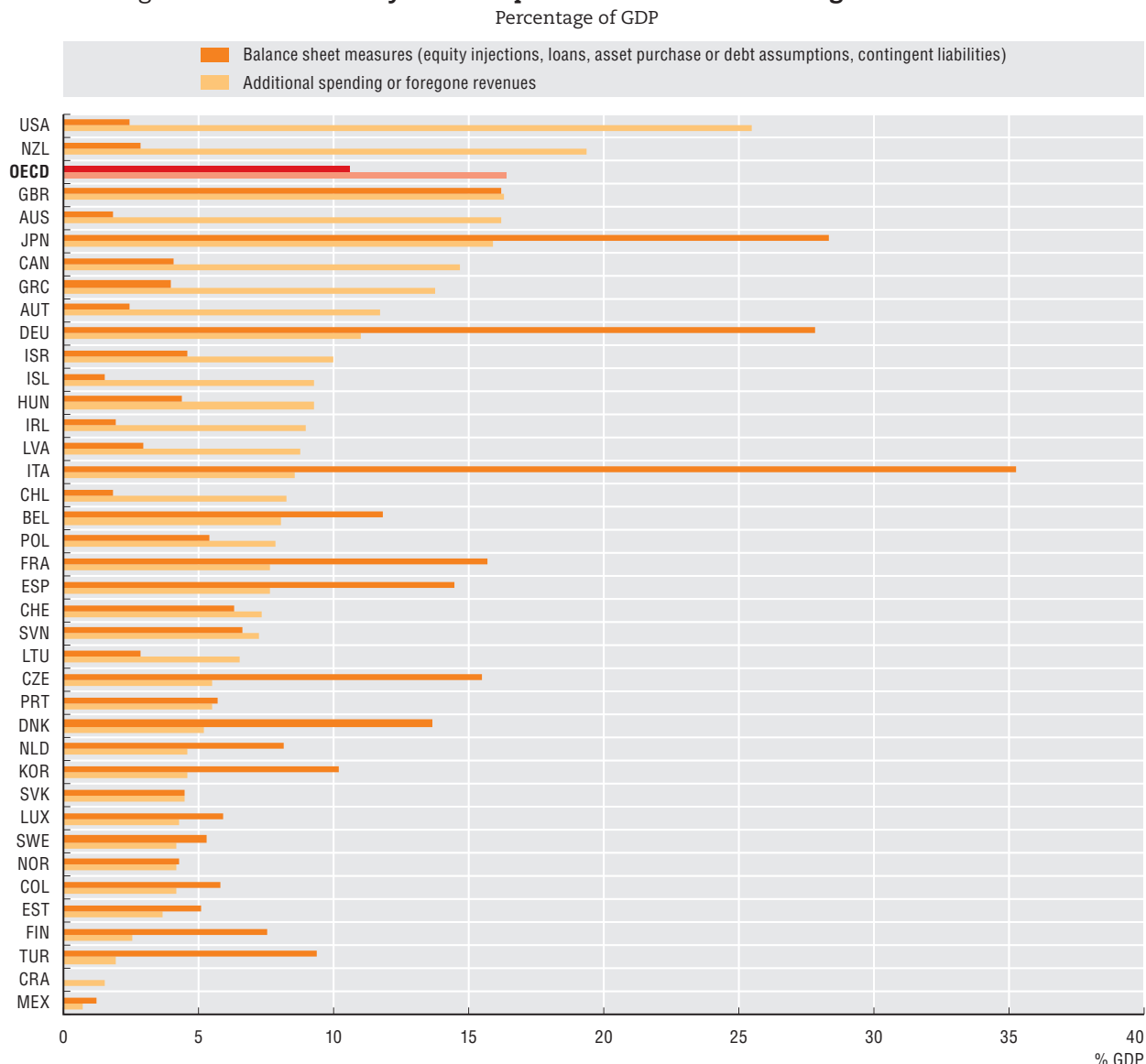
OECD governments drew on their fiscal buffers, mobilising massive amounts of public funds to help manage the health and economic impacts of the crisis. The ability to do this has been a key element of resilience. All OECD governments provided discretionary budgetary responses, to support to households and/or firms adversely affected by restrictions on economic activity and to increase provision of health services (Figure 1.5). The initial set of emergency fiscal packages announced in 2020 included a mix of public expenditure and tax measures, combined with balance sheet items including government loans, guarantees and equity injections (Box 1.2). The composition and scale of support varied substantially, possibly reflecting differences in the scale of the shock, the sectors worst affected and what governments could afford. In countries including Germany, Italy and Japan, fiscal support was primarily provided in the form of liquidity support for businesses. Channels included equity injections, loans, asset purchases, debt assumptions and guarantees. Fiscal support implemented or planned among OECD countries comes to around 16.4% of GDP via additional spending or foregone revenues and 10.5% of GDP via balance sheet measures (also referred to as “liquidity support measures”, these include equity injections, loans, asset purchase or debt assumptions, and contingent liabilities).

These budgetary measures required co-ordinated responses across levels of government. Regional and municipal governments deliver public services in many OECD countries, and were affected by both increased demand for services and lower revenues from COVID-19 restrictions. In Australia, the national government negotiated agreements to reimburse state and territory governments for the additional cost of health care services due to COVID-19. In Spain, the government enabled municipalities to use funds from the 2019 budget surplus for social services and provided financial transfers to autonomous communities for health, social and emergency services (OECD, 2020_[30])

While no performance information is yet available for most fiscal responses, low take-up rates of balance sheet measures may suggest that their design was not optimal. According to preliminary estimates by the OECD, although the size of these announced balance sheet measures was large, actual spending was more modest, due to low take up, particularly in some European countries. For example, as of December 2020, take up of loans under government guarantee schemes was less than 10% of the scheme size in Australia, Canada, and Germany (Figure 1.6). The significant gaps between the stated size of these schemes and their actual take up are partly due to varying financing needs across countries and a greater use of other policy measures, but also conditions associated with the scheme and operational bottlenecks (Falagiarda, Prapiestis and Rancoita, 2020_[33]). In order to avoid similar

discrepancies between announced recovery plans and their implementation, governments will need to strike the right balance right between planning, design and delivery modalities, and establishing appropriate monitoring and evaluation to adjust course when needed.

Figure 1.5. **Discretionary fiscal responses to COVID-19 among OECD countries**



Note: OECD generated presentation of data from the IMF Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic. This database summarises key fiscal measures governments in selected economies have announced or taken in response to the COVID-19 pandemic as of 17 March 2021. It includes COVID-19 related measures since January 2020 and covers measures for implementation in 2020, 2021, and beyond. The database categorises different types of fiscal support (for example, above-the-line and below-the-line measures, and contingent liabilities) that have different implications for public finances in the near term and beyond. The database is not meant for classifying the measures for fiscal reporting, nor for comparison across economies as responses vary depending on country-specific circumstances, including the impact of the pandemic and other shocks. It focuses on government discretionary measures that supplement existing automatic stabilizers. These existing stabilizers differ across countries in their breadth and scope. Estimates included here are preliminary as governments are taking additional measures or finalising the details of individual measures. IMF estimates of accelerated spending / deferred revenue are not presented. Measures labeled "Balance sheet" are those which are labeled "Liquidity support" in the original IMF dataset.

Source: IMF (2021^[32]), *Database of Country Fiscal Measures in Response to the COVID-19 Pandemic*, www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19. Data extracted on 9 June 2021.

StatLink <https://doi.org/10.1787/888934256444>

Box 1.2. COVID-19 fiscal policy response measures

Public expenditures measures: A large proportion of these measures were directed towards social protection, including funding increases for public health services, support for vulnerable people and wage subsidies for employees and the self-employed. Social protection measures were principally provided through welfare and tax systems where governments had existing policies, infrastructure and the means to distribute funding. France and Germany relaxed the criteria for access to unemployment benefits. In Canada and New Zealand, funding for wage subsidies was disbursed within one week of the measure being announced. Support for vulnerable people included meal allowances for children affected by the suspension of schooling in Spain and increased availability of food stamps in the United States. Measures were time bound so governments could decide whether to extend or adjust depending on take-up rates and the impact of COVID-19.

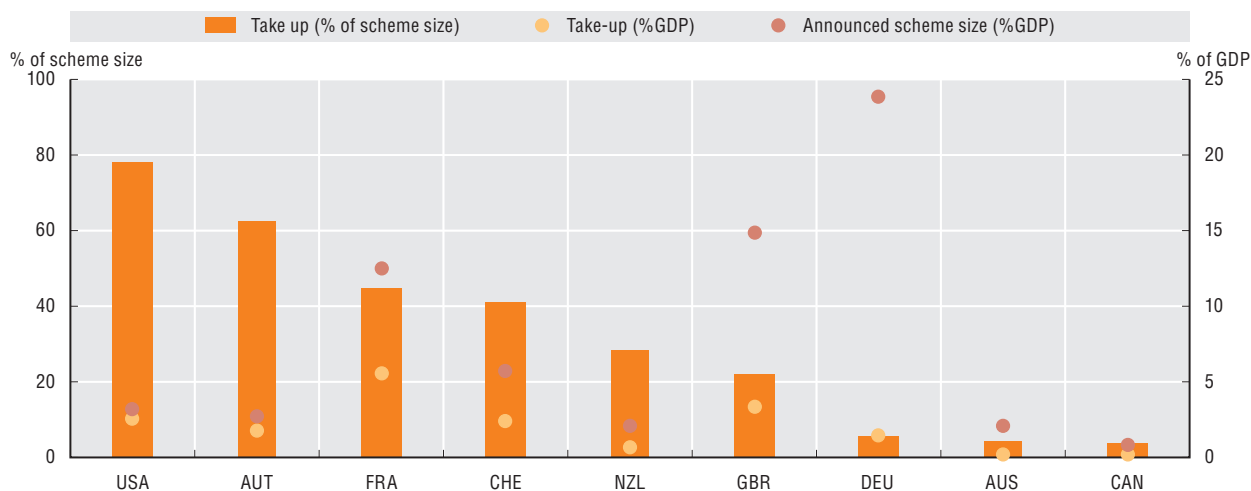
Tax expenditure measures: These measures were in the form of deferrals of payments and reductions to tax rates. Deferring due dates provided liquidity to businesses by enabling them to temporarily retain the tax payable. For example, Canada deferred the date for filing income tax returns by six months to 31 August 2020. The United Kingdom deferred the self-assessment payment date for self-employed people. Other countries reduced the rate of taxation. Iceland repealed its bed-night tax on hotel accommodation.

Balance sheet measures: In many OECD countries, balance sheet measures were at least as large in value as public expenditure measures. Government loans and guarantees were directed to the financial sector to keep lines of credit open to businesses and the self-employed. In Finland, the government issued guarantees for business loans with up to a three-year maturity. In Israel, the government provided guarantees for loans to small and medium-sized enterprises of up to 85% of the loan for a five-year period. Some OECD countries provided equity injections to businesses, such as those in the aviation sector where business activity suffered a sharp fall in revenue from COVID-19 restrictions.

Source: OECD (2020^[31]), *Initial Budget and Public Management Responses to the Coronavirus (COVID-19) Pandemic in OECD Countries*, www.oecd.org/gov/budgeting/initial-budget-and-public-management-responses-to-covid19-in-oecd-countries.pdf.

Independent fiscal institutions, such as fiscal councils, played an important role supporting transparency and accountability in budgeting. In some cases, this included functions that would more typically be performed by parliaments. In many OECD countries, parliaments were temporarily suspended at the onset of the pandemic, just as governments were rapidly mobilising their responses to combat the spread of COVID-19. During this period, independent fiscal institutions performed many roles, including monitoring the activation of escape clauses relating to fiscal rules, costing emergency legislation, providing rapid analysis of the potential impact of budgetary responses to the pandemic, and promoting transparency and accountability for the emergency procedures that were available to governments and legislatures during the pandemic (OECD, 2020^[35]). In Germany, the Independent Advisory Board to the Stability Council provided a statement on compliance with the structural budget deficit limit. In the United States, the Congressional Budget Office prepared estimates of the cost of legislative bills. In Austria and Canada, rapid analyses were published by the Fiscal Advisory Council and Parliamentary Budget Officer respectively. In Ireland, the Parliamentary Budget Office published briefs on emergency legislation to support transparency while a caretaker government was in place. Budgeting issues are explored further in Chapter 5.

Figure 1.6. Take up of loans under government guarantee schemes



Note: The take up of loans under the main government guarantee schemes in the emergency fiscal packages is presented as a share of the scheme's size (left hand scale) and as a share of GDP in 2019 (right hand scale). The information on take up refers to the latest publicly available data as of February 2021. Take up data for Australia date back to July 2020 and for Canada to September 2020. The loan guarantee schemes as part of the emergency fiscal package in Switzerland ended on 31 July 2020 and in the United States on 8 August 2020. The overall size of the main guarantee schemes is AUD 40 billion for Australia, EUR 10.7 billion for Austria, CAD 20 billion for Canada, EUR 300 billion for France, EUR 833 billion for Germany, NZD 6.5 billion for New Zealand, CHF 40 billion for Switzerland, GBP 330 billion for the United Kingdom and USD 670 billion for the USA. Canada's main loan programme, worth CAD 55 billion, containing certain features resembling a guarantee scheme, is not included in this figure.

Source: OECD (forthcoming^[34]), *Balance Sheet-Based Policies in COVID-19 Fiscal Packages*.

StatLink  <https://doi.org/10.1787/888934256463>

Public employment and human resource management

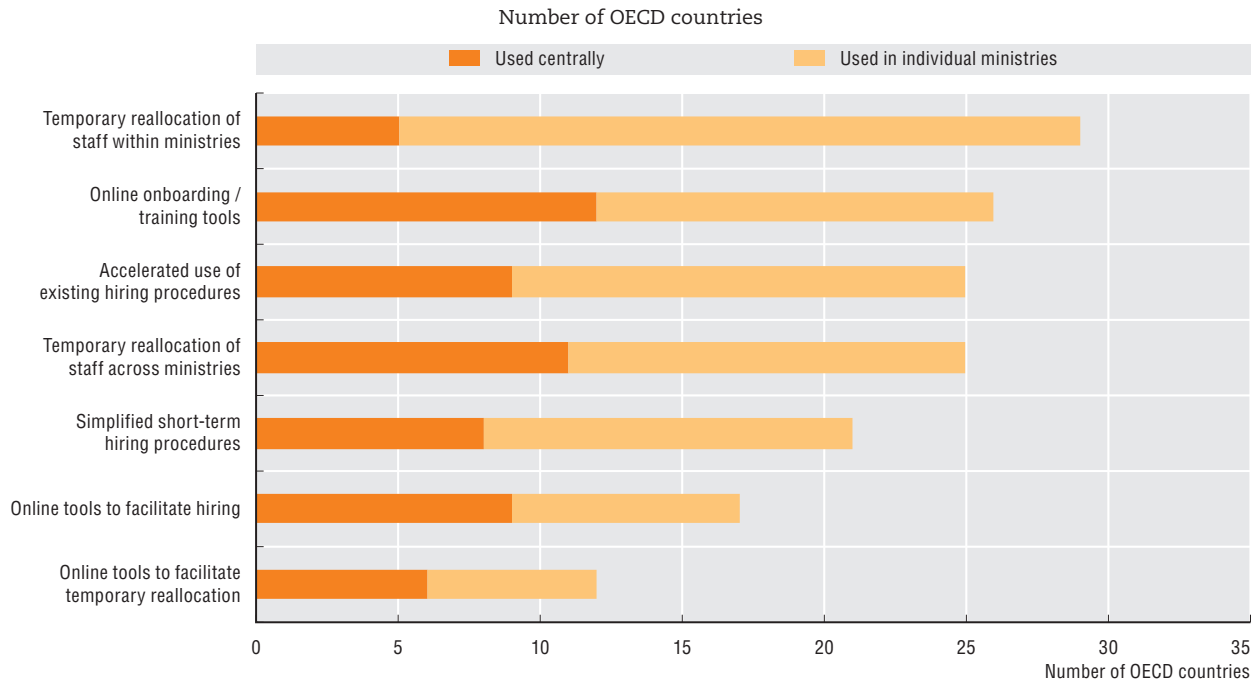
Governments substantially increased public employment, and drew on reserves of skills and motivation among existing staff to manage the crisis. Across the public sector as a whole (i.e. the civil service and wider public sector employment), public sector organisations had to meet significant spikes in demand for services. This was done both by re-assigning staff and hiring large numbers of new staff for areas of emerging priority, especially health care, social services and employment services. In some cases, like contact tracing, large numbers of new and/or temporary staff were needed.

Public services reacted flexibly and innovatively to source and induct staff. Figure 1.7 shows the approaches they developed and used. To reallocate existing staff, 29 out of 37 OECD countries used temporary reallocation of staff within their current ministry, and 25 reallocated staff across ministries and agencies, often using a central human resources (HR) authority to manage this. To hire new employees, 25 OECD countries responded to crisis needs by accelerating their hiring processes, 21 simplified their hiring processes, and 17 used new online tools to facilitate hiring. Once hired, 26 countries used online on-boarding and training tools to train staff quickly in a remote environment (Figure 1.7). Good practices for resilience also included a focus on the human aspects of HR management, including supporting the mental health of staff and maximising the flexibility of leave policies (OECD, 2020^[35]).

Governments were able to rapidly redesign much of the public sector to operate remotely, due to innovation and investment in digital technology infrastructure prior to COVID-19. From the outset, human resource management was pushed to the frontlines of the pandemic response, with governments needing to keep staff safe and healthy. One of the

most common and visible aspects of their response was a massive shift to remote working. The pandemic transformed the work and workplaces of public sector organisations, with many having to become largely virtual and remote, often overnight. At the height of the first wave of the pandemic, more than 60% of the central government workforce was working remotely in most OECD countries – a scale without precedent (Figure 1.8).

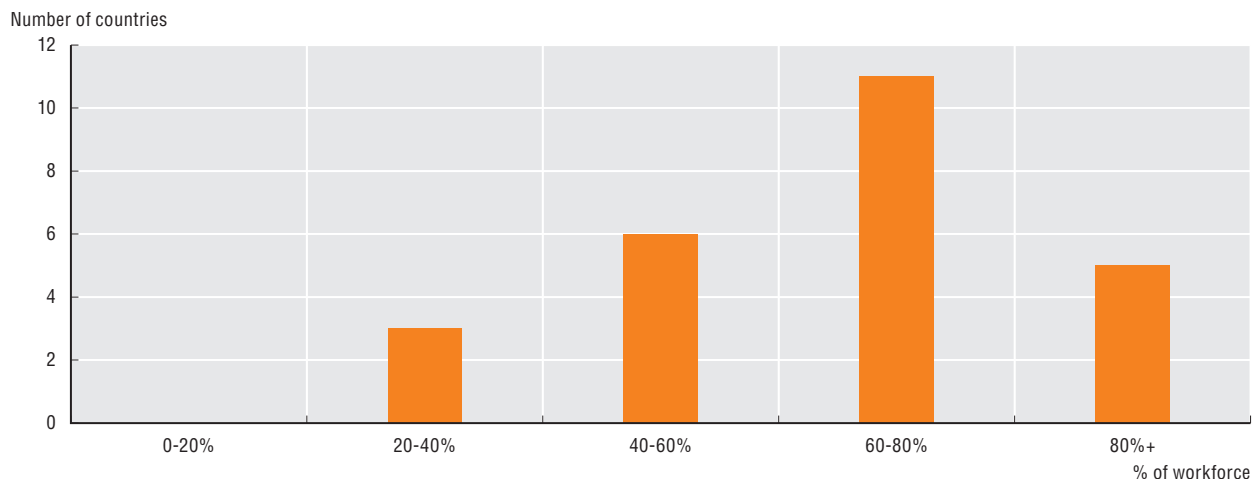
Figure 1.7. **Approaches to resourcing areas that required additional staff during the first wave of the COVID-19 crisis**



Source: Presentation created for Government at a Glance 2021 using data from OECD (2021_[37]), *Special Module on COVID-19: Response of the Survey on Public Service Leadership and Capability*.

StatLink <https://doi.org/10.1787/888934256482>

Figure 1.8. **Approximate share of the central/federal administration workforce working remotely during the COVID-19 first wave**



Source: Among 25 OECD countries for which data is available. Presentation created for Government at a Glance 2021 using data from OECD (2021_[37]), *Special Module on COVID-19: Response of the Survey on Public Service Leadership and Capability*.

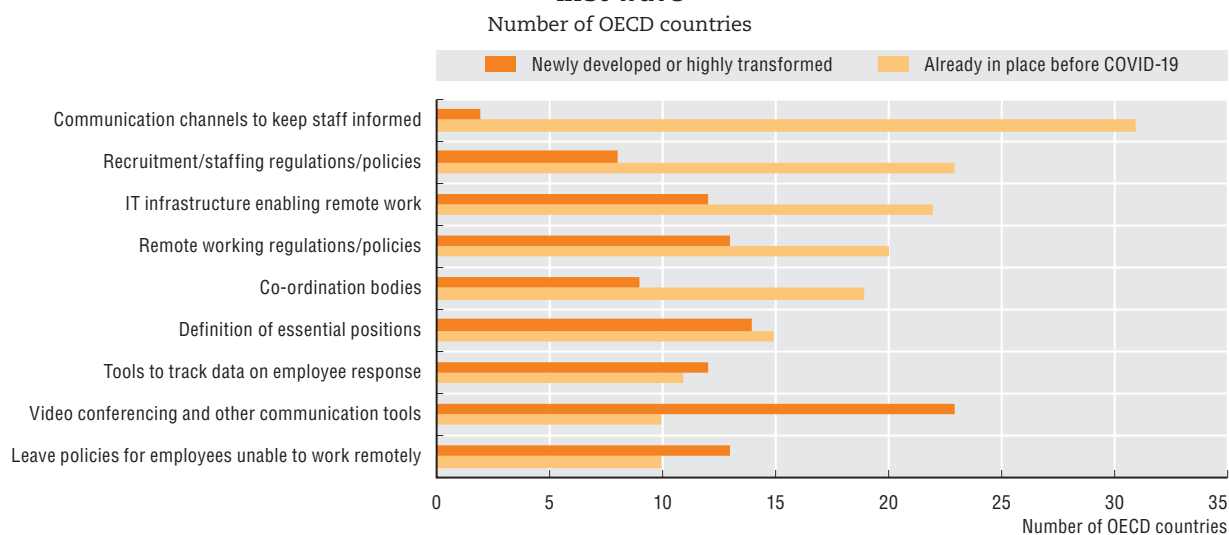
StatLink <https://doi.org/10.1787/888934256501>

The ability to move rapidly to large-scale remote working and service delivery was a key source of government resilience during the initial shock of COVID-19, and critical to continuity of government functions. It was possible partly because most OECD governments (22 of 34) already had the digital technology systems required for remote working in place prior to COVID-19 (Figure 1.9). While this was not specifically done for crisis preparedness, it gave governments a high level of redundancy in their operations, allowing any location to function as a “government office”.³ The experience with remote working demonstrates the importance of both maintaining buffers and ahead-of-time innovation to government resilience and shock absorption.

In areas other than digital infrastructure, governments still had to make significant changes to absorb the crisis and enable remote working: 23 OECD countries had to invest in new or highly transformed videoconferencing tools, 13 had to reconsider leave policies for staff who were unable to telework and 14 had to significantly revise their definition of essential workers (those who would still have access to offices, or be required to work). A striking example of the scale and speed of change is provided by the Bank of England. Between March and May 2020, its IT and HR systems were re-engineered to allow core banking functions to operate remotely, with “hundreds of billions of pounds worth of operations delivered from peoples’ bedrooms, attics and kitchens, whilst isolated on their own, or caring for children and other relatives” (Hauser, 2020_[38]).

Resilience could have been improved by implementing changes in public employment processes prior to COVID-19. While rigorous evaluations of the effectiveness of these changes are not yet available, governments are embedding aspects of flexibility into public employment systems to support longer-term resilience. A large majority of governments intend to retain the more flexible practices (See Figure 6.8 for more details). As with other aspects of government responses, they could have been even more resilient had they made these innovations in advance of COVID. Public employment and human resources issues are explored further in Chapter 3.

Figure 1.9. **Personnel management responses in place or newly developed during the COVID-19 first wave**



Source: Presentation created for Government at a Glance 2021 using data from OECD (2021_[37]), *Special Module on COVID-19: Response of the Survey on Public Service Leadership and Capability*.

StatLink  <https://doi.org/10.1787/888934256520>

Regulation

Governments and independent economic regulators rapidly introduced a wide array of regulatory changes and easements to support COVID-19 policy responses and ensure the continuity of key services. Governments and independent economic regulators rapidly designed and implemented thousands of emergency regulatory measures to support the detailed implementation of government policies. This included emergency regulations to contain the epidemic, ensure the availability of essential goods to test for and fight the virus, and support continuity of supply in critical regulated sectors such as energy, e-communications, transport and water. They also included containment measures (such as quarantine requirements, travel restrictions and closures of schools), health system measures, and employment and social initiatives. Economic regulators put in place measures to protect public health and essential workers, support vulnerable consumers, and ensure the financial security of market actors. Details of regulatory measures can be found at the OECD Tackling Coronavirus country policy tracker (OECD, 2020_[39]).

Governments and regulators also introduced a range of regulatory easements to reduce burdens on regulated entities and support service delivery. This was particularly important where legacy regulations threatened the delivery of essential services and goods. For example, Korea removed barriers that could limit the opening of innovative drive-through and walk-through testing facilities (OECD, 2020_[40]; OECD, 2020_[41]). Regulators extended or suspended deadlines, performance targets and incentive regimes and introduced regulatory exemptions. For example, Canada temporarily adjusted requirements for airlines to pay compensation (OECD, 2020_[42]). Some regulators allowed co-operation between companies that might have been considered anti-competitive in normal times. Many regulators suspended or minimised inspections, focusing only on those deemed essential and sometimes moving to virtual inspections. The United States announced that it would not enforce when masks were put on the market without prior approval, if certain conditions were met (OECD, 2020_[41]).

Governments and regulators fast-tracked many new regulations, and cut back on impact assessments and stakeholder consultation. Prior to the crisis, only around one-third of OECD countries had established some form of exception to the requirement to carry out regulatory impact assessments (RIAs) in emergency responses (OECD, 2018_[43]). Various flexible approaches were therefore employed towards RIA for emergency regulations. These ranged from exemptions (e.g. Australia, Belgium) to ensuring that policy documents at least discussed qualitative impacts (e.g. the United Kingdom). The usual procedures to scrutinise the quality of RIAs for emergency regulations were often not followed or were shortened, although some oversight bodies have required follow-up once evidence becomes available (OECD, 2020_[40]). Shortened legislative procedures were used to implement many regulations, making use of fast-tracking or emergency legislation (OECD, 2020_[42]).

Stakeholder engagement practices used shorter consultation periods and more focused consultation activities. In some cases, economic regulators put consultations on hold, recognising the limited ability of stakeholders to take part. Regulators took a risk-based approach in deciding which stakeholder engagement processes to postpone, prioritising the most time-critical processes (OECD, 2020_[42]). There have been examples of international co-ordination of responses and exchanges of practice through networks of regulators, including through the OECD Network of Economic Regulators. However, despite strong calls for governments to recognise the importance of international regulatory co-operation, their initial responses tended to be unilateral (OECD, 2020_[44]).

Transparency and oversight has often been supported by making regulations temporary or subject to *ex post* review. Fast-track procedures can create risks for democratic oversight and transparency, as well as reduced effectiveness. These risks have been offset in many cases by the use of temporary regulations, sunset clauses and review requirements to ensure that emergency regulatory measures do not avoid scrutiny indefinitely. Most administrations have reported that their emergency measures are intended to be temporary. Many regulatory easements have end dates (with the possibility of extensions) to avoid unnecessarily long disruptions to markets and competition. Some governments added sunset clauses to emergency legislation, so laws either automatically expire or a decision has to be made to extend them. A number of governments added mandatory post-implementation review (PIR) requirements to emergency regulations. These mechanisms were not widespread before the crisis: just under half of OECD countries had some form of sunset requirements in place, and only eight had post-implementation review requirements (OECD, 2018_[43]).

Governments and regulators will need to embed resilience as a key consideration for their regulatory frameworks, to ensure they can absorb future systemic shocks (OECD, 2019_[44]). Building flexibility into regulatory management tools in a structured way, in advance, will increase their “crisis preparedness” and help governments to manage trade-offs between speed and transparency better. Flexibility can be built into RIA processes by exempting or requiring less detailed RIAs for certain emergency regulations, whilst ensuring timely *ex post* review (OECD, 2020_[45]). Flexibility can be built into stakeholder consultation policies to enable more targeted but meaningful engagement in future crises (OECD, forthcoming_[46]). Regulatory oversight bodies should consider how to adapt their practices during future crises to ensure that they can scrutinise and support potentially high-impact regulations. Regulatory responses to COVID-19 will be explored in more detail in the 2021 OECD Regulatory Policy Outlook. Chapter 7 also covers regulatory issues.

Public communication

Many governments entered the crisis with established crisis public communication practices, which have supported their responses. Governments needed to provide accurate and timely information about the evolving health situation, lockdowns and social distancing measures to the public. In 2019, communicating during a crisis was the top cited challenge for public communication in most OECD CoGs (56%) and ministries of health (50%) for which data were available. Many had proactively prepared to address the co-ordination and human resources challenges it poses, with 26 of 27 OECD countries having central crisis communication co-ordination mechanisms. Eighteen out of 27 CoGs (67%) and 13 out of 17 ministries of health (76%) had defined crisis communication procedures. The same number of CoGs could provide surge support to such activities – see Chapter 4, and also OECD (2020_[47]).

When citizens’ expectations are at their height, the authorities need to find the right words to make sense of what is happening, especially when a crisis is so severe that it challenges trust in the government. Making meaning refers not only to providing information, but creating a narrative that responds to public expectations (OECD, 2018_[12]). This cannot fully be prepared for ahead of a crisis, and even some governments which had processes in place found it challenging. 12 of 26 CoGs (46%) identified the lack of a unified narrative and/or coherence in public communications across government as one of the most challenging issues in co-ordinating the response at the outset of the crisis (OECD, 2021_[19]).

Digital communication has been important in supporting governments to disseminate messages quickly and effectively. Prior to the crisis, 15 of 27 (56%) of OECD CoGs reported that crisis communication was the leading objective for their use of digital tools. As COVID-19 emerged, OECD governments rapidly launched open government data initiatives to disseminate information about the crisis. The OECD has identified 76 such initiatives globally, with data repositories and dashboards being the dominant products. Of these, 83% provided information on the initial pandemic response while 77% sought to improve situational awareness for decision makers and the public (OECD, 2021_[24]). Digital tools also proved helpful in communicating with diverse and harder-to-reach groups, including youth. Finland collaborated with civil society, media and social media influencers to share reliable information on COVID-19 measures, provided by public authorities. Over 1 800 influencers participated and 97% of respondents considered the information to be relevant (Ping Helsinki, 2020_[49]).

Traditional crisis communication has often been implemented in a top-down manner, with messages delivered from governments to citizens (OECD, 2016_[50]). During COVID-19, some countries have innovated by developing two-way crisis communication, to foster dialogue and help governments understand citizens' questions and concerns. For example, Slovenia established a call centre for citizens to engage with public health professionals. This allowed citizens to receive immediate responses to health and safety issues, and gave government a more thorough and immediate knowledge of citizens' concerns.

Assets, infrastructure and procurement

Global supply constraints in medical and other essential goods limited governments' ability to absorb the shock of COVID-19. Their responses were also hindered by information constraints in public procurement systems. Shortages of basic medical goods have been among the most dramatic and distressing aspects of the COVID-19 crisis. Governments were required to procure large quantities of goods and services rapidly and unexpectedly, including vaccines, personal protective equipment, ventilators, hand sanitisers, face masks and health services. Early data illustrate the scale of spending: for example, in the United Kingdom, contracts related to COVID-19 amounted to GBP 21 billion in 2020 (Tussell, 2021_[51]), roughly 1% of GDP. The rapid surge in demand, with many public and private buyers purchasing the same goods and services at the same time, led to global supply constraints.

Procurement systems did not necessarily face pressure from the total volume of spending. The surge in demand for essential goods and critical services during the COVID-19 crisis may have been offset by a slowdown in procurement in other areas of government. For example, Chile's procurement spend increased by 7% in 2020, but there was a 29% decline in signed public contracts, as contracts became larger but fewer (ChileCompra, 2021_[52]). In France, the first three quarters of 2020 saw a 25% decrease in the number of tenders published compared to the same period in 2019 (AdCF, 2020_[53]).

However, a key challenge for procurement systems during COVID-19 has been a scarcity of "business intelligence" i.e. information about the needs of public entities, contracted suppliers, and available products and markets. Before the crisis, 19 of 32 OECD countries with data available did not have business intelligence among their e-procurement functions (OECD, 2018_[54]). With many public buyers needing the same medical goods and services at the same time, any information gaps about demand or potential sources of supply hindered the efficiency of government responses.

Governments had to innovate their public procurement processes and IT rapidly to address information deficits and manage more efficiently within global supply constraints. Early in the pandemic, a lack of co-ordination increased the risk of duplication of purchases, and risked causing stockpiling in some locations while there were shortages in others. As a result, the use of co-ordinated approaches in public procurement evolved and intensified, including sharing information about prices and suppliers between countries and/or public buyers. For example, Chile identified and profiled key contracts and suppliers, and published a list of suppliers of critical products with information on their products and stocks. Examples from several countries (Canada, Ireland, Italy and the United Kingdom) demonstrate that close communication with suppliers, and national, regional or global partners helped all actors to be aware of potential solutions to supply shortages (OECD, 2020_[55]).

Collaborative procurement approaches, such as centralised purchasing or joint procurement, were implemented in almost two-thirds (63.5%) of OECD countries. Even countries with more decentralised public procurement systems supported joint purchasing and other forms of collaboration to tackle COVID-19, for example in Germany, where health procurement is generally conducted in a decentralised manner (OECD, 2020_[55]). These approaches can help to ensure immediate responses, sustain competition by avoiding emergency direct awards of contracts and avoid duplication of stock.

Some countries quickly developed e-procurement solutions. Lithuania created special IT tools to manage health sector institutions' needs for supplies and services, in order to obtain actual data on procurement needs (OECD, 2020_[55]). The pandemic has accelerated digital-by-default public procurement systems. For example, in Colombia, the use of the e-procurement platform SECOP II increased by 40% in 2020 (Portafolio, 2021_[56]). Several countries are expanding the use and functionalities of existing or new e-procurement platforms. In some cases, better collection and tracking of information on emergency contracts and suppliers would have helped them to co-ordinate procurement, strengthen their capacity to anticipate procurement needs and minimise the risks of mismanagement of public funds.

The COVID-19 crisis created substantial integrity challenges for public procurement (OECD, 2020_[57]). Previous emergencies have shown that when governments have to urgently procure large quantities of goods and services, the risk that they do not meet quality standards and/or are procured corruptly rises. Increased global competition for necessary supplies could also lead to buyers corrupting sellers in order to receive essential goods and services – the reverse of what normally happens. Governments also had to manage ongoing public contracts as well as their crisis procurement for COVID-19. Public procurement legislation often provides exceptional measures for paying ongoing contracts in emergencies but such derogations to established practices can open the door to corrupt practices, if they are not subject to transparent guidelines communicated to all contracting authorities. Public procurement issues are explored further in Chapter 8.

The management and operation of public assets and infrastructure proved resilient, but some infrastructure has had to be retrofitted and upgraded. Institutional frameworks and governance tools were essential to enable the provision of infrastructure services to be adjusted to respond to shocks to demand and supply. While some infrastructure services, such as transport, were disrupted in order to contain the spread of the disease, they were replaced by others, such as digital and communications infrastructure. Other infrastructure services and assets – including health, water and energy – became key enablers for emergency responses (OECD, 2020_[55]).

Resilience in the management and operation of infrastructure was key to maintaining the continuity of public services. Several OECD countries ramped up temporary or portable health care units and partnered with the private sector to meet the increased demand for health infrastructure. Some identified critical services and introduced strategies to overcome obstacles to ongoing infrastructure contracts. For example, Japan and Colombia adopted more efficient co-ordination mechanisms across all levels of government and between public and private stakeholders. This reinforced collaboration in the provision of infrastructure services and supported rapid dissemination of new information and emergency measures. The United Kingdom adopted guidelines to ensure continuity in the provision of services contracted under private finance initiatives (OECD, 2020_[55]).

Infrastructure services were disrupted by lockdown and other measures, and in some cases by the need to upgrade and retrofit infrastructure to meet new health and safety requirements (OECD, 2020_[55]). Navigating compensation to private sector providers for losses in revenue and cost overruns generated by lockdowns and restrictions also posed challenges. One potential underlying lesson may be the need for more comprehensive plans for managing, monitoring and mitigating risks throughout an asset's life cycle. Rigorous assessments of total infrastructure life cycle costs could help governments overcome challenges in adapting to rapidly changing contexts. Increased awareness of and planning for infrastructure resilience will also support overall government resilience to a wide range of external shocks by improving the quality of infrastructure and enabling the continued delivery of essential services. Infrastructure governance is explored further in Chapter 10.

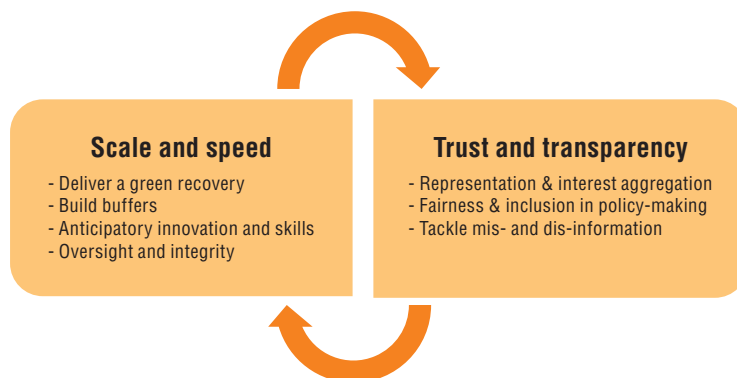
Digital government assets and infrastructure played a critical role in securing the continuity of services and remote operations. The speed with which countries facilitated the provision of existing and new digital services was related to their ability to use existing tools to transfer services to digital channels (OECD, forthcoming_[28]). For example, in 2019 only 48% of OECD countries made half or more of their digital services available through single digital identity systems (OECD, 2020_[29]). Where these are available, their use has increased rapidly. Chile's digital identity system saw a 50% increase in the number of active digital identities during February-August 2020, and a 400% increase in transactions using digital identities during February-July 2020. The UK national digital notification system took 4 years to reach 1 billion messages, then only 6 months – from May to November 2020 – to reach 2 billion. In Canada, the national government's Shared Services Canada pivoted quickly to enable an overnight shift to work remotely, securing access and accommodating 250 000 civil servants. The challenges countries have faced in securing remote operations and resilient service delivery is reinforcing the role of digital and data-driven government. In Korea, the Korean New Deal envisages a post-COVID-19 digital recovery pathway to secure proactive and contactless operations and services by 2025, based on intensified use of data-driven and smart technologies in the public sector (Government of Korea, 2020_[58]).

Fit for the future: Strengthening government resilience

To build resilience during the recovery and adaptation stages of the COVID-19 shock, governments must ensure they remain able to act at speed and scale, while better safeguarding against threats to trust and transparency. The actions and responses of governments during the crisis have revealed areas of both resilience and vulnerability in their ability to absorb shocks. As described above, governments have been able to draw effectively on their resources of public funds, assets, employees and skills. They will need

to rebuild these buffers in order to have capacity for future shocks. Governments have demonstrated their ability to innovate quickly under pressure, such as in policy making and public procurement. However, they have often performed best where innovation and preparation took place ahead of time, for example in digital technology and remote working. Governments have shown flexibility in applying standards for evidence, participation, transparency and oversight in order to react quickly to the crisis. However, this has come at the expense of creating long-term risks to effectiveness, fairness, integrity and public trust, especially given the unexpected duration of the pandemic. These risks appear to have been better contained in areas where emergency procedures have been set out in advance, such as in public communication and some areas of regulation.

Figure 1.10. **An agenda for strengthening government resilience**



Through the recovery and adaptation stages, the aim must be to lock in the lessons learned from COVID-19 and ensure greater resilience to future crises. Based on the discussion above, Figure 1.10 outlines a two-pillar agenda for building government resilience to future shocks. The first pillar is ensuring government's ability to address shocks at scale and speed. These require internal-facing reforms to government operations, to lock in the benefits of reforms made during COVID-19, address areas where problems arose and mitigate future crises. In the immediate term, governments should use the major injections of public funds involved in COVID-19 recovery packages to build future resilience. The focus should first be on a green, inclusive recovery that mitigates the most pressing environmental risks, and adopts an all-hazards approach to resilience. Governments should also rebuild and maintain their buffers and surge capacities of public funds, employee skills, information and essential goods ahead of future shocks. They should consider how to support more proactive, anticipatory innovation, both to help mitigate future crises and lower the need for innovation under pressure during future shocks. Finally, governments should address the integrity risks created by rapid decision making and spending during the crisis, and better safeguard public spending and decisions.

The second pillar is building trust and transparency in government operations. These are outward-facing reforms aimed at improving how governments interact with wider society, to better support the healthy functioning of democratic systems. Governments must undertake inclusive policy making, drawing in wider views and opinions on tackling trade-offs and risks during recovery. They should ensure that the tools and analyses used in policy-making processes explore the various dimensions of inequality in society, and provide actionable information to address it and avoid doing harm. Governments should also build public trust

by ensuring that the interests of all are taken into account in a visible and balanced way, in particular through the reform of lobbying systems. Finally, governments should better tackle mis- and disinformation, in order to be able to provide a shared platform of facts on which civic debate on future policy can be based.

The two pillars are interlinked and reinforce each other. Work to deliver a green recovery, build buffers and support anticipatory innovation and skills will support trust in government over the long term, by supporting better responses to future crises. Work on fairness and inclusion, representation, and tackling mis- and disinformation will support better responses when future crises arise by improving the quality of and public support for policy responses. Improving oversight and integrity is a cross-over issue, as reforms in this area can have direct effects on trust in government.

Scale and speed

Delivering a green recovery

Governments should improve resilience by delivering a green recovery. 83% of recovery spending so far will have an unclear or negative environmental impact. COVID-19 recovery plans are expected to be one of the largest single injections of public funds on record. The post-World War 2 Marshall Plan represented approximately 2% of the GDP of the United States and the recipient countries combined. In comparison, the United States is proposing a USD 2 trillion COVID-19 recovery package (Davenport, 2021_[59]), equal to around 9% of US GDP. The EU's long-term budget and recovery instrument together total EUR 1.8 trillion (European Commission, 2021_[60]), amounting to around 13% of EU GDP. Both what these funds are spent on, and how government systems are adapted to spend them, can deliver long-term gains in government resilience.

The 2020 OECD Ministerial Council Statement recognised the need for governments to focus on restarting hard-hit economies by boosting growth, income and employment while promoting cleaner, more inclusive and sustainable economies (OECD, 2020_[61]). Among OECD countries, the highest policy priorities for the recovery period are typically restoring growth to pre-pandemic levels, protecting the most vulnerable and building a green economy (Figure 1.11). Over the long term, these objectives should be mutually reinforcing. Designing recovery packages with decarbonisation objectives in mind will increase resilience to pressing environmental risks, and help ensure a more sustainable growth trajectory. This thinking is visible in many plans. For example, the EU's package provides major funding for fair climate and digital transitions, and future preparedness, recovery and resilience. The US plan aims to support job creation through investing in infrastructure and supporting jobs in wind and solar power, and electric cars.

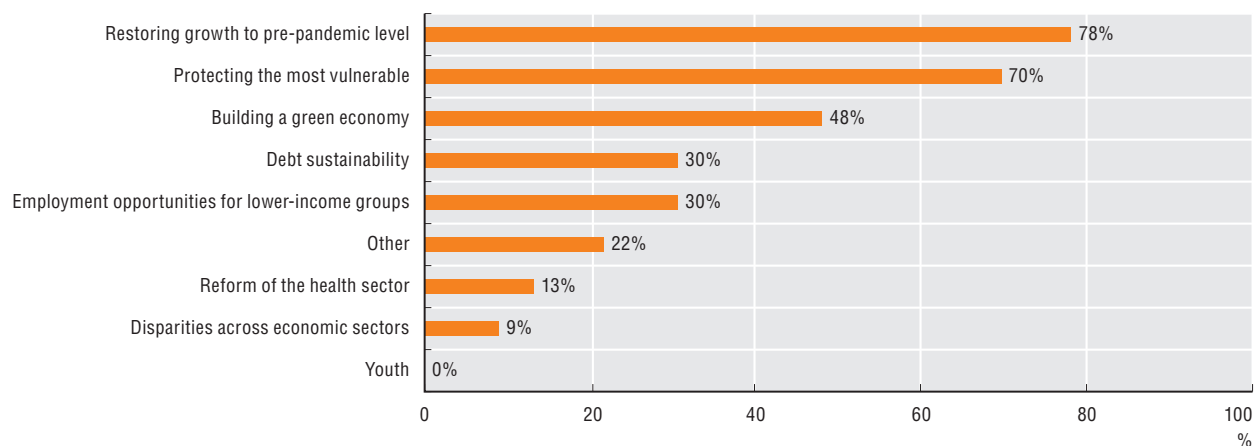
However, most of the planned spending will not drive a green recovery. OECD countries and key partner economies have so far allocated USD 336 billion to environmentally positive measures within their COVID-19 recovery packages, only 17% of the total sums allocated so far. The remaining 83% of funding either does not consider environmental dimensions or, worse, reverses progress on some of them (OECD, 2021_[62]). This mirrors the potentially ineffective allocation of earlier COVID-19 support packages noted in Figure 1.6.

Governments should adopt green budgeting practices to ensure their resilience to environmental risks. Ensuring spending is targeted effectively on priority areas will require improving their capacity to focus spending on priorities and to reallocate funding across budget areas. The design of recovery plans could benefit from the architecture put in place

to support spending reviews, with a stronger focus on expenditure performance, evidence and prioritisation, and a more collaborative approach across ministries. Over the past 10 years, the use of spending reviews has spread from 16 to 27 OECD countries (OECD, 2019^[63]). One example is the “Insight into Quality Program” in the Netherlands, with pilot “public value scans” (Government of the Netherlands, 2020^[64]). Governments can also mobilise green budget tagging and green budgeting to ensure a focus on long-term environmental goals is maintained. They can use green budgeting tools to assess how budget measures and stimulus packages affect green objectives, and prioritise investments that support a low-carbon recovery (OECD, 2020^[65]). Green budgeting practices are becoming mainstream in some OECD countries, such as France, which published its first Green Budget in 2020 (République Française, 2020^[66]).

Figure 1.11. **Government priorities in support of the COVID-19 recovery effort**

Percentage of governments for which each area is among their top three priorities



Note: Includes data from centres of governments in Belgium, Canada, Chile, Colombia, the Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Iceland, Israel, Italy, Korea, Latvia, Lithuania, Luxembourg, Mexico, Norway, Poland, Portugal, Sweden and Turkey.

Source: Presentation created for Government at a Glance 2021 using data from OECD (2021^[19]), *Building a Resilient Response: The Role of Centre of Government in the Management of the COVID-19 Crisis and Future Recovery Efforts*.

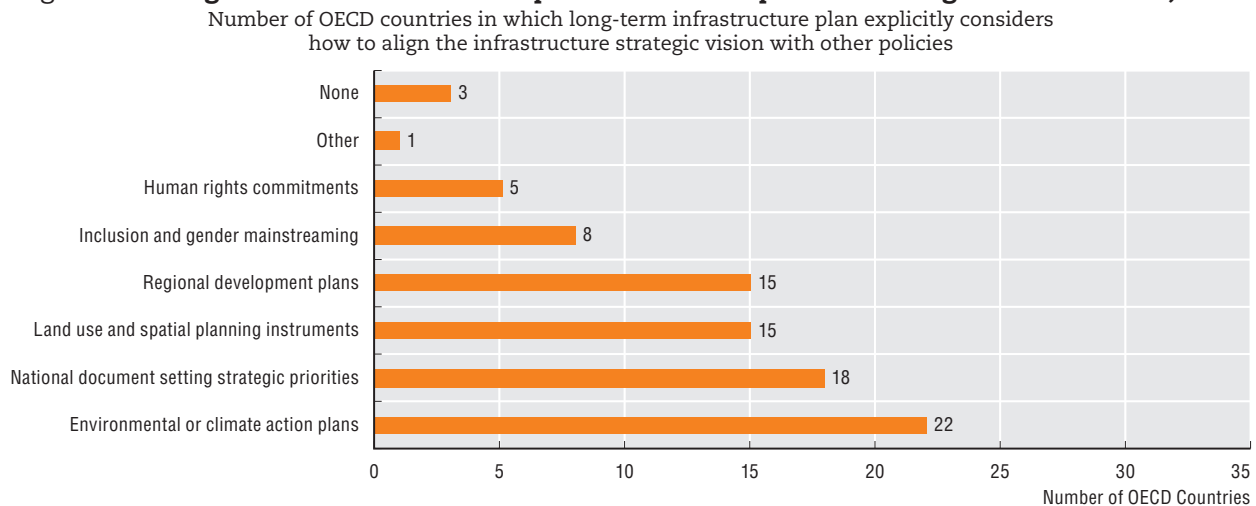
StatLink  <https://doi.org/10.1787/888934256539>

Governments should ensure infrastructure projects support future resilience and contribute effectively to climate change adaptation and mitigation. Among surveyed OECD countries which have already approved COVID-19 recovery packages, 71% identify infrastructure investment as an important component. In Chile, Costa Rica, Hungary, Ireland, New Zealand and Slovenia, 30% or more of the stimulus has been allocated to infrastructure investments (OECD, 2020^[67]). Strategic planning which aligns these investment plans with long-term growth and wellbeing policies can maximise returns on climate resilience, social inclusion, sustainable growth and gender equality. OECD countries are increasingly aligning their infrastructure strategic vision with broader objectives (Figure 1.12). For example, Canada and Ireland are updating their investment plans to fully align infrastructure investments with social and environmental policy goals. Canada is funding short-term projects to repair and upgrade existing infrastructure, as well as disaster mitigation and adaptation projects (Infrastructure Canada, 2020^[68]).

Appropriate maintenance and upgrades of existing infrastructure will also improve resilience. Inadequate maintenance can result in rapid deterioration of asset quality, require costly rehabilitation and interrupt essential services. Infrastructure systems that


can cope with highly uncertain future operating conditions require a dynamic approach to infrastructure planning, and decision-making approaches that can accommodate uncertainty, allow for flexibility, and enable adjustments to reflect changing conditions or new information (OECD, forthcoming_[69]).

Figure 1.12. **Alignment of infrastructure plans with other policies among OECD countries, 2020**



Note: Data for Australia, Denmark, France, Israel, Netherlands, Poland and Sweden are not available.

Source: OECD (2020_[67]), *Survey on the Governance of Infrastructure*.

StatLink  <https://doi.org/10.1787/888934256558>

There may be a tension between recovery and adaptation in infrastructure. The inclination to promote “shovel-ready” infrastructure investments in recovery packages must be balanced against the need for environmentally sustainable and climate-resilient infrastructure. Project prioritisation and selection must strike a balance between harnessing infrastructure to contribute to growth, while also reducing the vulnerability to future natural and human-made threats. Governments should use assessment methods that consider projects’ contribution to environmental, social and resilience policy goals. For example, the EU Recovery and Resilience Facility provides EUR 672.5 billion in loans and grants to member states for investment and reforms, underpinned by national plans that must set out the expected results and ways to assess the progress towards the environmental, social and policy goals (European Commission, 2021_[70]).

More broadly, governments must take account of the evolving technological and economic environment to enable a green recovery. The performance of long-lived, capital-intensive infrastructure is sensitive to shocks and changing economic and political circumstances. More robust future thinking and strategic foresight can help governments adapt their strategic planning to heightened uncertainty and promote sustainable investments. For example, the Dutch Futures Lab in the Netherlands is a cross-governmental initiative which assesses infrastructure projects under multiple scenarios, to identify circumstances or events that might affect the value-for-money of infrastructure investments. This creates a shared understanding of key uncertainties and a basis for more coherent response to major long-term challenges (Marsden et al., 2018_[71]).

Public procurement should bolster long-term government resilience and tackle environmental risks, both through what is purchased and how systems are operated. A significant portion of recovery packages will be disbursed through public procurement, which represented 30% of total government expenditure prior to COVID-19. As in the private sector,

public procurement has long pursued just-in-time strategies, focused on cost optimisation and relying on the efficiency of global value chains. From a resilience perspective, COVID-19 has shown that efforts to deliver public services as efficiently as possible may reduce their resilience. A shift towards “just-in-case” strategies may have benefits, by building buffers and reducing the cost of disruptions if supply chains fail. For example, the UK green paper on transforming public procurement calls for a national procurement policy to support supplier diversity, innovation and resilience (UK Cabinet Office, 2020^[72]).

Public procurement strategies can directly support recovery and environmental objectives. For example, Denmark is running a social housing renovation programme which creates jobs, while also addressing environmental objectives by ensuring that the retrofits address aspects such as insulation and energy efficiency. France has included a public housing renovation programme to enhance energy efficiency in its recovery plan. More agility in interactions with the market and procurement strategies supporting innovation could unleash businesses’ potential to deliver diversified solutions. For example, Ireland established a central database that businesses can use to provide details about the goods or services they can supply or donate. Canada and Luxembourg set up similar platforms to facilitate interactions between buyers and suppliers for key goods and services (e.g. test kits, ventilators, nursing services, IT support). The United Kingdom called on medical device companies and manufacturers to come up with innovative solutions for ventilators (OECD, 2020^[55]).

Building buffers and investing in preparedness

Stimulus packages and public investment are essential for the recovery, but when the time is appropriate, governments will eventually need to rebuild fiscal buffers to safeguard their ability to provide financial support in future crises. Strong and timely fiscal support from the start of the pandemic has played a vital role in supporting incomes and preserving jobs and businesses. A premature and abrupt withdrawal of support, as in the aftermath of the global financial crisis, should be avoided while economies are still fragile and growth remains hampered by containment measures. Continued income support for households and companies is warranted until vaccination allows a significant easing of restraints on high-contact activities. Stronger public investment in health, digital and energy infrastructure will also be needed to enhance resilience and improve the prospects for sustainable growth. Ensuring debt sustainability will be a priority only once the recovery is well advanced, but planning for management of the public finances that leaves space for public investment should start now (OECD, 2021^[2]).

Rebuilding fiscal buffers requires monitoring and managing fiscal risks and contingent liabilities. Budgetary responses to COVID-19 have changed the fiscal risk environment for governments, placing greater emphasis on the need for effective monitoring and reporting of fiscal risk. While governments have shown that they were prepared to use balance sheet measures to complement the budgetary response to COVID-19, effective fiscal risk management frameworks and practices are a crucial part of that response. Over time, there may be a risk that some of the government loans issued as part of the response might not be repaid or that governmental guarantees are called upon. The incentives for effective monitoring and reporting practices are greatest in countries where the appropriations for grantees were for the current fiscal year, such as France, Germany and the United Kingdom.

Governments must retain redundancy and spare capacity in their delivery options, by building digital infrastructure but also retaining the infrastructure to deliver key government functions by other modes. As already described, digital infrastructure has proven a key

source of resilience in many areas of government operation during COVID-19, and has at least partially replaced physical infrastructure. The crisis has catalysed an increase investment, and in some cases is driving upgrades to digital infrastructure. For example, in Greece, the COVID-19 crisis has resulted in a stronger generalised push towards digitalisation in public administration, including for government services not directly affected by COVID-19 (OECD, 2020^[73]). Governments are also facilitating the use of digital assets to provide wider public services. For example, the United Kingdom has committed to providing more than 1.3 million laptops and tablets to help disadvantaged pupils and students access remote education during the COVID-19 outbreak (UK Department for Education, 2020^[74]).

From a resilience perspective, the lesson is that governments should retain multiple effective modes of delivery for key processes. Government resilience requires redundancy and spare capacity in how government operates. The characteristics of the COVID-19 crisis, requiring governments to physically distance staff as much as possible, made digital channels the most effective mode of delivery. They would be a less effective solution in a crisis which requires government staff to work together in specific locations and/or which directly disables digital infrastructure (e.g. earthquakes, floods or cyberattacks). Governments should aim to further build out their digital competence and capabilities (OECD, 2020^[29]) but also retain their non-digital infrastructure (e.g. physical offices, landline communications) to provide redundancy and mitigate different kinds of crises. Governments should thus maintain multiple coherent service delivery channels, such as digital, in-person and telephone (“omni-channel” service delivery). As discussed further below, retaining traditional in-person channels of delivery also supports citizens who are less willing or able to use digital services, and can improve proximity and visibility of government for citizens.

Governments need to ensure better buffers of “essential goods”, and consider carefully how to secure adequate supply in crises. Stockpiling alone cannot guarantee resilience, as future crises are not fully predictable, and so neither are the goods needed to deal with them. Governments should consider three lines of action to secure the provision of essential goods, to be actioned together before crises hit and create shortages. The first is strategic oversight, grounded on foresight scenarios and risk assessment to identify types and quantities of essential goods needed in case of crises, plan and co-ordinate agile responses along the supply chain, and communicate with citizens and stakeholders. Second, they should support the availability of essential goods, by leveraging their buying power, supporting private sector innovation and capacities, and stockpiling and pooling resources across borders. Third, governments should ensure their populations have access to essential goods, including through reinforcing the resilience of critical infrastructure required for production, trade, transport and distribution, and by co-ordinating last mile distribution. Regulatory policies are also essential, as agile regulation is key to facilitating surge production, allowing newcomers to enter the market to produce essential goods, and fostering international regulatory co-operation.

Anticipatory innovation and skills

Governments can improve resilience by ensuring they have better systems in place to identify and support resilience-enhancing innovations before crises occur. As discussed above, the COVID-19 crisis has seen governments innovating in many aspects of their operation, including policy making, human resources management, procurement, and data analysis and dissemination. In a complex world, not all risks are predictable, and innovation is a legitimate and necessary part of how governments absorb crises. However,

as emphasised above, many of the areas in which innovation has been needed since the outbreak of COVID-19 were identified prior to the crisis. Many of these innovations are now being retained in the recovery period, suggesting they have benefits beyond enabling the emergency response to COVID-19, and could have been implemented earlier.

Governments can improve resilience by improving their strategic foresight skills: creating functional and operational views of the future that allow for better anticipation and advance planning. More fundamentally, they should seek to improve resilience by encouraging innovation outside of crisis periods, and in particular, the wider use of anticipatory innovation approaches. Anticipatory innovation involves policy makers outlining the parameters of the futures they want or futures to avoid, and then experimenting in a real-world environment to determine effective policy to move towards the preferable scenarios (Tönurist and Hanson, 2020^[75]). For example, The Netherlands organises regular, repeated dialogues in which policy makers and stakeholders examine specific future environmental scenarios and issues, identify their different ambitions, and explore how to realise them. The United Kingdom has experimented with a “digital sandbox” for innovative financial sector firms. This digital testing environment allows firms to test and develop mechanisms to counter issues such as preventing fraud and supporting vulnerable customers (UK Financial Conduct Authority, 2020^[76]). Applied effectively, including in concert with new technology, these approaches could enable more of the innovation needed to absorb crises to take place before they happen.

Governments can improve their resilience by cultivating skills and capabilities among public sector employees to solve complex problems and innovate. While no one skillset makes workers resilient, public services can focus on developing a workforce rich in the skills that contribute to resilience.⁴ Governments cannot fully predict the shocks and crises they will face in the future, so can maximise resilience by investing in their workforces “general purpose” skills and capabilities to solve complex problems i.e. understand the problem faced, think creatively to define potential solutions, test these and co-operate with others to put them in to practice.

Governments should lock in the increased co-ordination achieved during COVID-19, identifying practices and staff skills that have been effective in increasing flexibility, agility and effectiveness in decision making. Governments should also ensure public servants understand the machinery of government and complex service delivery systems, and proactively build the relationships needed to co-ordinate with key actors in other areas of government.

Many of the key known risks which governments will face in the coming decades are transnational in nature. Governments will need to be able to effectively engage with each other to design and implement shared solutions. Resilience will thus require governments to have effective international engagement, co-operation and dialogue skills. Skills in languages and cross-cultural communication will also be important.

Oversight and integrity

Governments must address any integrity risks created by lowered standards of oversight and consultation during COVID-19, and build future resilience by establishing emergency systems in advance to mitigate future crises. As described above, the COVID-19 crisis has obliged governments to take quick decisions and actions in many areas, including policy, regulation, budgeting and public procurement. The rapid, high-volume outlays of economic support, stimulus packages and social benefit programmes have created a stress test for integrity systems, particularly internal control, oversight, audit and risk management. This

has both amplified existing risks to integrity systems and created new ones. Past crises have shown that emergencies and subsequent responses create opportunities for integrity violations in areas including emergency procurement, allocation of economic recovery and social benefit programmes, and delivery of services (such as contracting and administration of vaccines). Fraud and corruption can seriously endanger the effectiveness of government responses. Scandals and perceptions of undue influence and unethical practices can undermine trust in government and endanger citizen support for reforms.

These risks need to be managed through short-term and longer-term measures to safeguard public integrity in the design and implementation of policy responses (OECD, 2020_[57]; OECD, 2020_[77]). During the initial pandemic response, in a number of countries, government bodies issued advice and guidance for individuals and businesses to help safeguard relief funds from fraudulent schemes, including Canada, the United States and France (Tasker, 2020_[78]; Kreidler, 2020_[79]; Le Figaro, 2020_[80]; ICAEW, 2020_[81]). In the United States, the Recovery Accountability and Transparency Board created an analytical platform that could identify recipient anomalies, and then tasked the inspector general for the particular programme to address issues. This helped to prevent both fraud and corruption, while also building the capacity of the inspector general functions within line ministries (Zagorin, 2020_[82]). A public platform, Recovery.gov, allowed journalists and citizens to track taxpayers' money and see how the government was spending it.

Looking to the longer term, building a mature integrity system that promotes a culture of integrity, along the lines of the *OECD Recommendation of the Council on Public Integrity* (OECD, 2017_[83]), is key to future resilience. Several aspects of safeguarding integrity and accountability are of relevance:

- **Preparedness and planning for managing risks and tolerances:** Planning and preparedness should pre-emptively take into account the need for oversight, control and risk management, as these objectives are often perceived to conflict with programme objectives. To minimise ad hoc decision making, particularly in times of crisis, planning can include defining the risk tolerances and acceptable trade-offs management is willing to make, such as easing specific controls to facilitate timely disbursement of funds (i.e. planned resilience).
- **Internal control:** The effectiveness of planning and preparedness measures depends in large part on the extent to which management responsibility over controls is articulated, adopted and effectuated. Resilient organisations have a form of governance that is characterised by distributed control. In the integrity context, as seen during the current crisis, this manifests in a need to enhance management control and ownership over the internal control environment.
- **Information management:** How information is managed and used is widely accepted to be a key determinant of organisational resilience. Many OECD member and non-member countries often fail to disseminate the results of risk assessments, particularly of emerging risks. Although governments in most countries conduct risk assessments, not all of them have developed the policies, practices and culture to use the results effectively. Communicating the results of risk assessments to the key stakeholders who can use that information to shape policies or make management decisions can help to improve the resilience of integrity systems.
- **Ensuring that decision making is evidence based:** The crisis has demonstrated the value of investing in IT infrastructure and data-driven approaches, for addressing both everyday challenges and acute shocks. Many of the countries which were best prepared to set up

transparency portals, track stimulus funds and harness data for oversight were those that had already invested in the necessary infrastructure, capacity and skills.

Trust and transparency

As future shocks occur, the most resilient governments will be those with effective and fair mechanisms to engage citizens in designing and co-implementing solutions. As emphasised above, standards for transparency, evidence and participation have been lowered in many areas of government during the COVID-19 crisis. They have also been changed, for example by using timely but unofficial evidence, or through consultation with rapidly established expert and scientific panels. As the shock of COVID-19 begins to recede, governments must adapt how they operate in order to build public trust and better support the functioning of healthy democratic systems. This section outlines key reforms to do this.

Public trust in government plays a critical role in government effectiveness and resilience. Measures of trust capture people's confidence that institutions will continue to deliver, safeguard the public interest, and protect current and future generations. Numerous studies have identified trust, both in institutions and in other people, as a key ingredient of social and economic progress (Algan and Cahuc, 2014_[84]). People's trust in government institutions helps the implementation of policies, by supporting prioritisation of action, generating initial support more rapidly, increasing compliance with new practices, reducing enforcement costs, etc. In the COVID-19 pandemic, societies with higher levels of institutional trust have achieved greater compliance with measures needed to stop the spread of the virus (Bargain and Aminjonov, 2020_[85]). In turn, this has allowed a greater focus on efforts to soften the socio-economic consequences of restrictive measures and to learn lessons that could inform policy responses to future shocks.

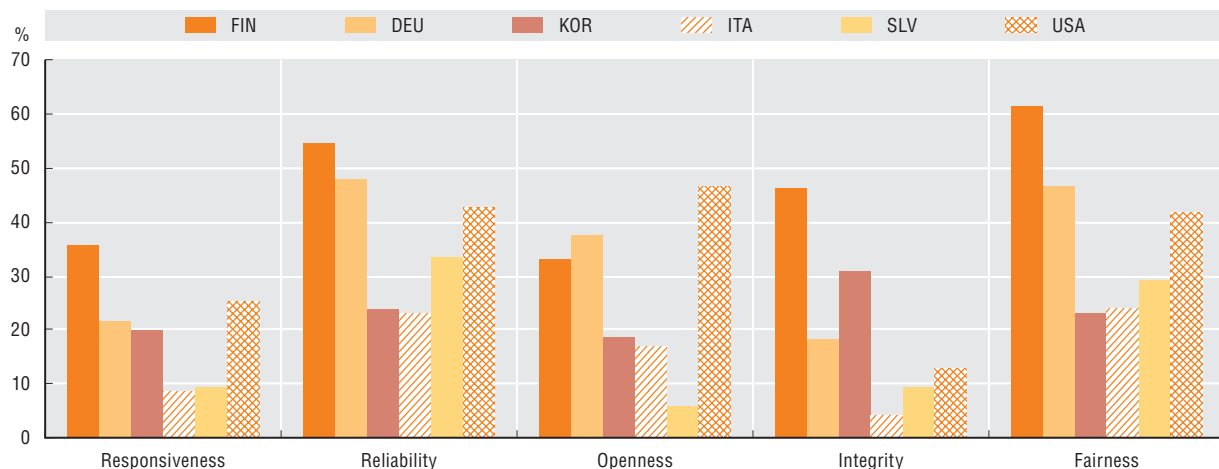
There is a growing consensus that lack of trust in government in recent years has been undermining the legitimacy of public institutions, nurturing political polarisation and favouring populist movements (Devine et al., 2020_[86]). Public trust in government suffered significant damage following the 2008-09 global financial crisis and only in some countries has it recovered to pre-crisis levels (OECD, 2019_[87]). A sense of inequity and unfairness both in economic and social terms, and in political and representativeness terms, pre-dates the COVID-19 crisis. In 2018, only 40% of people surveyed in 26 OECD countries felt that they could have any influence in what the government does (Chapter 12). The OECD reported a "clear sense of dissatisfaction and injustice" over social policy. Across 21 OECD countries, 60% of people felt that the government did not incorporate the views of people like them when designing or reforming public benefits (OECD, 2018_[88]).

2020 has created more challenges for public trust in government, and for civil liberties and democratic systems more generally. After an initial "rally round the flag" effect in the early stages of COVID-19, most countries have seen an erosion of trust in government and public institutions during 2020 – see Chapter 12, and also Eurofound (2020_[89]) and Ipsos (2021_[90]). Corruption and fraud scandals overshadowed government responses in many countries. Some commentators have suggested that the unprecedented curbs on civil liberties in 2020 (curfews, movement restrictions, limiting or banning gatherings) went beyond what is permissible under international law for limiting rights during public health emergencies (Narsee, 2021_[91]). A recent citizen survey ranked governments as both less ethical and less competent than businesses, the media and non-governmental organisations (Edelman, 2021_[92]). There have been widespread social protest movements in many countries, including OECD countries (Rachman, 2021_[93]; Trian, 2021_[94]).

Rebuilding and maintaining their citizens' trust will require governments to understand and act upon its main determinants. The OECD assesses five drivers that can improve trust in government: 1) responsiveness in delivering public services; 2) reliability in anticipating new needs and safeguarding people, 3) integrity; 4) openness; and 5) fairness (OECD, 2017^[95]). Wide variation in these drivers has been found across countries and across different government functions. For example, prior to the pandemic, only 23% of people in Italy were confident their government would be reliable in dealing with shocks such as natural disasters or the spread of contagious diseases, while the figure was 54% in Finland in 2020 (Figure 1.13).

Figure 1.13. **Drivers of trust in government in recent OECD surveys**

Percentage of people providing a positive answer, by dimension and country



Notes: The scale used for Finland is 1-10. The reliability question for Finland is on health shock. In the case of Finland, data are based on the special module on Trust in Public Institutions Survey, fielded by Statistics Finland in the framework of the Consumer Confidence Survey in August 2020. Data for Germany, Italy, Slovenia and the United States are from 2017 and were collected through the Trustlab project. Data for Korea are also from 2017 and were collected by the Korean Development Institute in co-operation with the OECD. Percentage of the population answering 7-10 for each of the drivers.

Source: OECD/KDI (2018^[96]), *Understanding the Drivers of Trust in Government Institutions in Korea*, <https://dx.doi.org/10.1787/9789264308992-en> for Korea; OECD (2021^[97]), *Understanding the Drivers of Trust in Government Institutions in Finland*; Murtin et al. (2018^[98]), "Trust and its determinants: Evidence from the Trustlab experiment", <https://dx.doi.org/10.1787/869ef2ec-en> for others.

StatLink <https://doi.org/10.1787/888934256577>

Increased responsiveness and reliability will help countries to build a resilient recovery and enhance people's trust. In Korea and Finland, OECD data show that government's responsiveness and reliability are the main drivers of trust (OECD/KDI, 2018^[96]) (OECD, 2021^[97]). Reliability of public services is also related to the actual or perceived long-term sustainability of policies, which in turn enhances people's trust and support for reforms. For example, recent evidence from Korea, Spain and Sweden shows that most people believe that mitigating climate change will make future people's lives better and that debt could be used for that purpose, but at the same time they are not willing to support future-oriented policies since they have little trust that governments will actually deliver on climate policies (Fairbrother et al., 2020^[99]).

Countries' experiences during the COVID-19 crisis offer evidence for the robustness of the OECD trust policy framework in identifying concrete policy actions to preserve trust during the pandemic, and also areas that governments should pay attention to in order to build resilience. Governments will need to increase support for policies and reforms for the recovery by informing and engaging the public, and anticipating and discussing the distributional impact of policies on different groups of people. Specifically, in recovery and

adaptation from COVID-19, governments should build resilience by adapting how they operate in three key areas: 1) ensuring openness and responsiveness in how interests are represented and aggregated in public policy; 2) ensuring inclusion and fair treatment in policy design; and 3) tackling mis- and disinformation.

Representation and interest aggregation

Parliaments play a key role in representing and aggregating societal interests, and will be important during the recovery. Parliaments already play a substantive role in authorising expenditures and revenue raising. In two-thirds of OECD countries, parliament either debates or approves medium-term budgetary frameworks, and in over half of countries, parliament debates long-term perspectives (OECD, 2019_[63]). However, as governments commit to large-scale recovery packages and reforms, engaging with parliament beyond their traditional fiscal role will be important. Engaging parliaments in the full budgetary cycle, and particularly in medium-term and long-term sustainability analysis will help to sustain the credibility of multi-year commitments as well as consensus on the major forward-looking policy options.

Parliaments imperfectly represent society. Globally in recent years, on average across OECD countries, just under one third of parliamentarians were women (OECD, 2019_[100]) and around one fifth were under the age of 40 (OECD, 2018_[101]). As such, improving representation will require broader approaches to engage citizens, understand diverse viewpoints and needs, and build public trust.

Governments should increase efforts to involve citizens in policy making, both to increase trust and help prioritise reforms during the recovery. The recovery offers a rare opportunity to improve policy in a wide range of areas. Inclusive policy making, which allows diverse interests, needs and preferences to shape future policies, should be a priority. Inclusive policy making includes mechanisms for citizen consultation and participation, opening up government data and using data ethically, using digital technologies and data to design and deliver public services that respond to citizens' needs and expectations, and developing initiatives to promote transparency and accountability. Additional measures could be developed to change how citizens experience public participation, the use of data and digital services, and public communication.

Promoting open government should help to improve quality of design, and also ensure that policies align with the public's needs, values and priorities. Decisions surrounding long-term government and social resilience involve values, complex trade-offs, and long-term decisions. Representative deliberative processes like citizens' assemblies can be helpful innovations and well suited to this challenge, when appropriately designed. The OECD Database of Deliberative Processes has identified almost 300 examples of representative deliberative practices (OECD, 2020_[102]). These have shown that citizens can shape long-term spending decisions, such as the Melbourne People's Panel, which identified the priorities for the city's 10-year, AUD 5 billion plan. The cities of Nantes in France, Milan in Italy and Bristol in the United Kingdom have each convened a group of randomly selected citizens to deliberate and develop informed recommendations for their COVID-19 recovery plans.

Governments will need to recognise the digital divide in willingness and/or ability to interact with government online. OECD countries have high levels of internet coverage: 97% of the population have access to a 4G network and 87% of households have broadband connections. However, pre-COVID, only 58% of adults had used digital technologies to interact with public authorities over the past 12 months. Only 70% of 55-74 year olds, and 72% of those in the lowest income quartile had accessed the Internet in the last three months

(OECD, 2019_[103]). Resilience will require governments to offer multiple effective channels for engaging with citizens and for service delivery, while also investing in digital literacy from early stages of education.

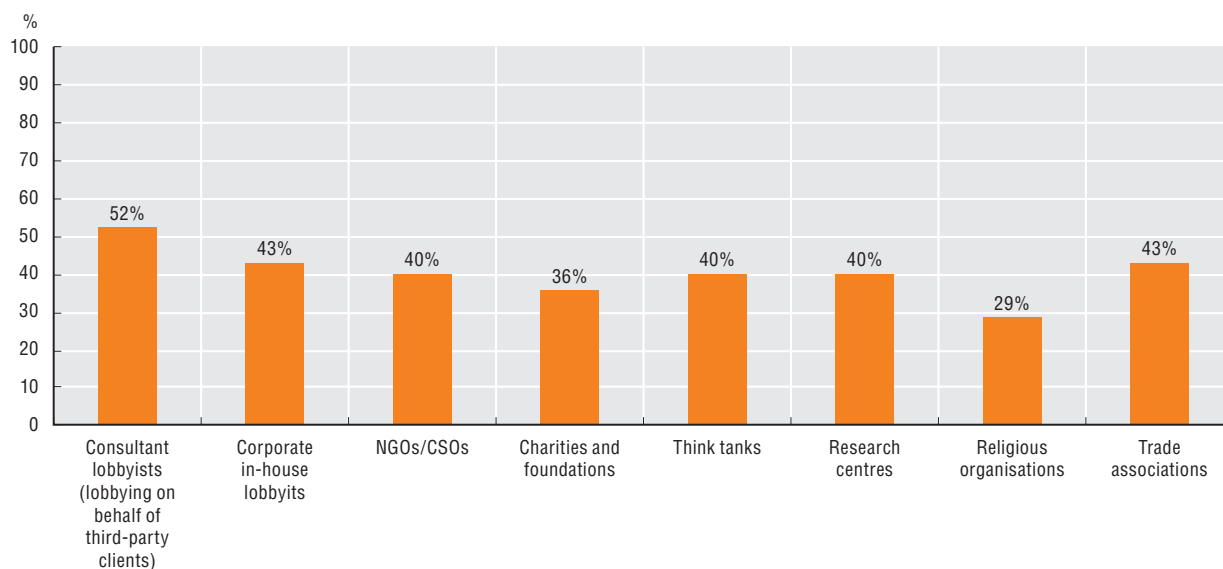
Governments should improve the transparency and governance of lobbying procedures.

Recoveries from previous shocks suggest that lobbying by interests with connections to policy makers can lead to biases in public policy. During previous economic stimulus efforts, firms which actively lobbied were more likely to receive support, and also to receive more and quicker support (Blau, Brough and Thomas, 2013_[104]). In some countries, political connections tend to influence the allocation of financial assistance and, following bailouts, politically connected companies underperform relative to non-connected firms (Faccio, Masulis and McConnell, 2006_[105]; Igan and Lambert, 2018_[106]). Biased support packages and policies have a negative impact on social and economic resilience after crises (Hasen, 2012_[107]).

Lobbying by businesses most affected by a crisis is a legitimate way to grant access to emergency response decisions. However, the need for rapid responses during the COVID-19 crisis has highlighted pre-existing risks in the governance of lobbying. Information from lobbying registers and media reports indicate influence and lobbying activities related to COVID-19 increased considerably during the first months of the crisis (Office of the Commissioner of Lobbying of Canada, 2020_[108]). Early reports suggest that stimulus packages may have created advantages for businesses with existing relationships with lenders and the resources to navigate institutional and administrative complexities in some settings (Warmbrodt, 2020_[109]; Tankersley, Cochrane and Flitter, 2020_[110]). Some lobbying focused on advancing positions that some interest groups had been promoting before the crisis (Vogel, 2020_[111]). These risks are exacerbated by a lack of proactive publication of information about who aimed to influence key decisions and how. Less than half of countries have transparency requirements covering most of the actors that regularly engage in lobbying (Figure 1.14).

Figure 1.14. Actors covered by transparency requirements on their meetings and communications with public officials

Across adherents to OECD Recommendation on Principles for Transparency and Integrity in Lobbying, and respondents to the 2020 OECD Survey on Lobbying



Source: OECD (2021_[112]), *Lobbying in the 21st Century: Transparency, Integrity and Access*,

StatLink  <https://doi.org/10.1787/888934256596>

Building public trust will involve adapting government functions to allow more balanced and transparent aggregation of interests, to prevent recovery from being undermined by inefficient programmes or inequitable policies.

- While a proportionate level of flexibility should be permitted in crises, a minimum level of inclusiveness needs to be established and maintained. Expedited consultation can take place with stakeholders particularly affected, as well as more frequent and more informal consultations.
- Post-implementation reviews, already planned for many regulatory measures, can help to maintain trust.
- Governments should apply transparency measures to all actors aiming to influence decision-making processes. Online registries, such as the Canadian Registry of Lobbyists, are an important tool (Officer of the Commissioner of Lobbying of Canada, n.d.^[113]).
- Governments need to take a comprehensive approach to defining lobbying and lobbyists, to cover all forms of influence on policy making, including think tanks, research, grassroots organisations and advisory and expert groups.
- Countries should provide public officials with an integrity framework for lobbying and other influence practices.
- Improving standards and guidance will help lobbyists to engage in a way that does not raise concerns over the integrity and inclusiveness of policy making.

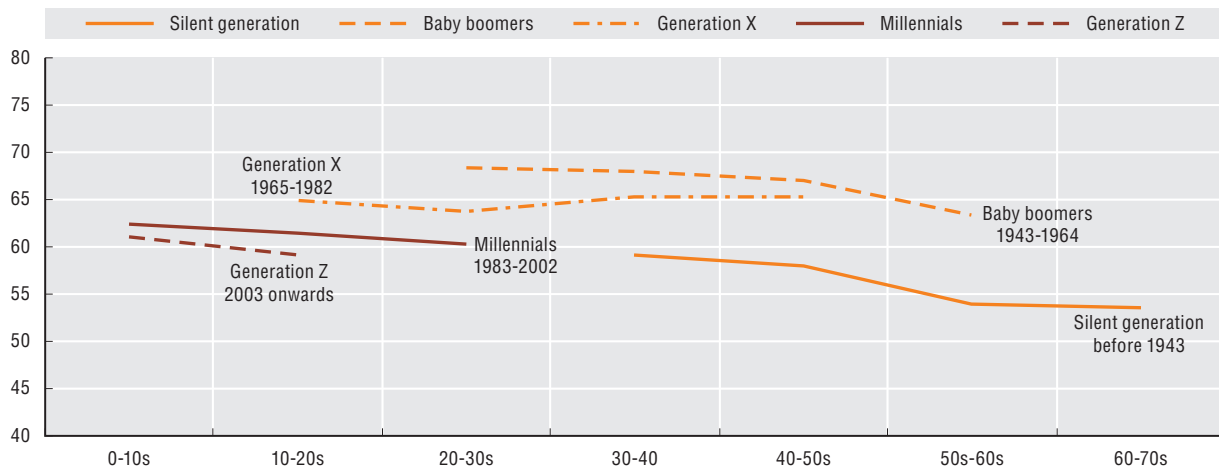
These issues are treated in more detail in the report on the implementation of the OECD Recommendation on Principles for Transparency and Integrity in Lobbying (OECD, 2021^[112]).

Inclusion and fair treatment in policy design

Governments should seek to improve inclusion and fairness in citizen outcomes. Policy design and implementation should actively tackle inequality. Dissatisfaction with government and the feeling that government decisions are not serving the public interest, is being matched by growing income inequality between citizens. Pre-pandemic, the average disposable income of the richest 10% of the population across OECD countries was around 9.5 times that of the poorest 10%. This had increased from 7 times 25 years ago. There is a growing risk of income inequality becoming entrenched. Children whose parents did not complete secondary school have only a 15% chance of making it to university, while among those with at least one parent who achieved tertiary-level education the figure is 60% (OECD, 2018^[114]).

Inequality has increasingly taken on an intergenerational dimension. As Figure 1.15 shows, since the “baby boomer” generation, each new generation has seen its chances of belonging to the middle-income class fall (OECD, 2019^[115]; OECD, 2020^[116]). COVID-19 is likely to have worsened this, through systematic, deep and disproportionate impacts on employment, education and wellbeing of young people (ILO, 2020^[117]). Gender has also persisted as an important category of inequality. Pre-COVID, the gender pay gap averaged 12.8% across OECD countries (OECD, 2019^[118]; OECD, 2017^[119]). COVID-19 is again likely to have worsened this, with women having shouldered much of the extra care burden at home while also facing high risks of job and income loss (OECD, 2020^[120]).

Figure 1.15. **Percentage of population in middle-income households by generation and stage in life cycle**



Note: Silent generation: born before 1943, Baby boomers: born 1943-64, Generation X: born 1965-82, Millennials: born 1983-2002, Generation Z: born since 2003. Middle-income households are those with incomes between 75% and 200% of the median. OECD average based on available data from Canada, Denmark, Finland, France, Ireland, Italy, Luxembourg, Mexico, the Netherlands, Norway, Spain, Sweden, the United Kingdom and the United States.

Source: OECD (2019_[115]), *Under Pressure: The Squeezed Middle Class*, <https://dx.doi.org/10.1787/689afed1-en>.

StatLink  <https://doi.org/10.1787/888934256615>

Governments seeking to build trust, resilience and healthy democratic systems need to ensure their policy-making processes more actively address the primary dimensions of inequality. Technical tools already exist to allow governments to better understand the differentiated impact of policies on different groups of citizens, such as fiscal incidence analysis (Lustig, 2018_[121]). Other tools, such as gender budgeting, can help to ensure policy actively addresses inequality (Stotsky, 2016_[122]). Governments should ensure that disaggregated information about how policies will affect different groups in society is systematically integrated into policy design and evaluation. For example, Canada has examined how government spending and policies to recover from the COVID-19 crisis will affect people across social groups, acknowledging intersecting identity factors such as gender and age.

Tackling mis- and disinformation

Efforts to build government resilience and support healthy democracies should seek to better institutionalise and future-proof responses to mis- and disinformation. Many OECD countries were inadequately prepared to deal with disinformation during the crisis. Among 27 OECD member countries, only 11 CoGs had official documents, policies or frameworks in place to guide their responses to mis- and disinformation at the outset of the crisis. Only 4 of 18 ministries of health had similar documents or benefited from government-wide ones (OECD, 2020_[47]). While this does not mean that governments had not been engaging with the topic, they may have been inadequately prepared to face the wave of health misinformation since the onset of the pandemic. In many countries, governments were initially hesitant to communicate decisively, including about the uncertainties surrounding the pandemic and this left room for misinformation to proliferate. Reports suggest that misleading rumours about how contagion occurred and the efficacy of social distancing led some people to continue activities that contravened guidance (Seitz, 2020_[123]), and led others to damage infrastructure (Satariano and Alba, 2020_[124]). More broadly, mis- and disinformation can undermine the operation of democratic systems by hindering the ability of the public to

engage in communication characterised by the use of facts and logic, moral respect, and democratic inclusion (McKay and Tenove, 2020_[125]).

Combatting the divisive role of mis- and disinformation requires government action on multiple fronts. Effective public communication can promote confidence in the effectiveness and safety of vaccines by providing accurate, trusted and timely information (OECD, 2021_[126]) and by working with “trusted voices” to amplify the reach of reliable content. For example, Canada is working closely with faith and community leaders to create and relay messages according to local needs, encouraging two-way dialogue with the public (Government of Canada, 2020_[127]).

Public communicators can play a key role in tracking and responding to false or misleading narratives. For example, the United Kingdom has established a Rapid Response Unit to identify and address COVID-19 related misinformation. The unit helps public communicators recognise, monitor and respond to potential harmful content strategically. Building resilience will also require governments to mobilise and engage with citizens and stakeholders through whole-of-society approaches. Prior to the crisis, 20 CoGs in OECD countries were already consulting with external partners to combat misinformation. For example, Italy has established a task force to formulate interventions against misinformation with media and civil society (OECD, 2020_[128]).

Efforts must also include broader policy measures to strengthen the media and information ecosystem (OECD, 2020_[128]). Governments need new mechanisms to enforce regulations to tackle the spread of mis- and disinformation on new and evolving communication platforms, including promoting transparency and competition. This will require a holistic, whole-of-government effort to manage trade-offs, and support freedom of speech and expression effectively. Policies to support a diverse and independent media sector through tax incentives and subsidies, such as in Austria, Canada, France and Sweden, may also be of value. Many have also supported public service broadcasters. Finally, working on the demand side of information will be crucial; for instance, media literacy initiatives can help children and adults to understand different media and messages, evaluate information, and be more cautious before amplifying potentially inaccurate or misleading content (Matasick, Alfonsi and Bellantoni, 2020_[129]).

Governments should consider strengthening their frameworks for managing citizens’ personal data, allowing citizens more transparency and control. The contact tracing systems used to help manage the COVID-19 pandemic have involved collecting and processing citizens’ personal data in unprecedented ways. This has underlined issues of privacy, safeguards and controls in how governments use citizens’ data. Building trust will involve securing individuals’ agency over their own data. Governments should ensure they have clear and open rules in place for data management and digital tools, to give more transparency and control to citizens over what data governments hold about them and how it is used. To complement their existing data protection and privacy regulations, governments have been increasingly working on values-based instruments such as data ethical frameworks (e.g. in the United Kingdom and the United States). It may be helpful to adopt more formal data ethics frameworks to support their practical implementation, such as the OECD’s Good Practice Principles on Data Ethics in the Public Sector (OECD, 2021_[130]).

Notes

1. The conceptual framework of Government at a Glance includes public employment and public finance, respectively, as the labour and capital inputs to government. This chapter additionally discusses the importance of assets and information as explicit inputs. The COVID-19 crisis is bringing to the fore that this more expansive definition of “capital” inputs may be needed to analyse government functioning in future. During COVID-19, governments have required data and information to make policy and decisions (e.g. infection rates, job losses) and a range of assets to deliver (e.g. hospitals, stockpiles, internet infrastructure).
2. Government at a Glance’s conceptual framework presents the operation of government in a form analogous to an economic production function. This suggests a more technical rendering of the concept of a resilient government i.e. a resilient government is one which can effectively substitute inputs for each other, and/or identify new production processes, such that it can continue to produce the same outputs for citizens when disruption occurs. Both renderings of the concept are applied in sections 1.2 and 1.3 of this chapter.
3. Note that this spare capacity was generated partly by substituting public inputs with private inputs i.e. many public servants provided their own office spaces, internet connections, etc, during 2020.
4. Recommendations based partly on the OECD *Government after Shock* event. The event involved over 5 500 citizens, practitioners, stakeholders and government leaders in over 65 local and thematic conversations, to think critically about the implications of the COVID-19 crisis, and explore how to steer government and society towards preferred futures. This was followed by a global forum with government leaders (OECD, 2020_[131]).

References

- AdCF (2020), *Chute de la commande publique*, <https://www.adcf.org/articles-chute-de-la-commande-publique--l-adcf-tire-le-signal-d-alarme-5581> (accessed on 19 March 2021). [53]
- Algan, Y. and P. Cahuc (2014), “Trust, growth, and well-being: New evidence and policy implications”, in *Handbook of Economic Growth*, <http://dx.doi.org/10.1016/B978-0-444-53538-2.00002-2>. [84]
- Bargain, O. and U. Aminjonov (2020), “Trust and compliance to public health policies in times of COVID-19”, *Journal of Public Economics*, Vol. 192, p. 104316, <http://dx.doi.org/10.1016/j.jpubeco.2020.104316>. [85]
- Blau, B., T. Brough and D. Thomas (2013), “Corporate lobbying, political connections, and the bailout of banks”, *Journal of Banking & Finance*, Vol. 37/8, pp. 3007-3017, <http://dx.doi.org/10.1016/j.jbankfin.2013.04.005>. [104]
- ChileCompra (2021), *Compras historicas del Estado*, ChileCompra website, <http://datosabiertos.chilecompra.cl/Home/CompraHistorica> (accessed on 19 March 2021). [52]
- Cohen, J. (2021), “How soon will COVID-19 vaccines return life to normal?”, *Science*, <http://dx.doi.org/10.1126/science.abh0618>. [1]
- Davenport, C. (2021), “Biden’s big bet: Tackling climate change will create jobs, not kill them”, *New York Times*, <https://www.nytimes.com/2021/03/31/climate/biden-climate-jobs.html> (accessed on 31 March 2021). [59]
- Devine, D. et al. (2020), “Exploring trust, mistrust and distrust”, *Working Paper Series*, TrustGov Project, University of Southampton. [86]
- Edelman (2021), *Edelman Trust Barometer 2021: Global Report*, Edelman, <https://www.edelman.com/sites/g/files/aatuss191/files/2021-01/2021-edelman-trust-barometer.pdf>. [92]
- Eurofound (2020), *Living, Working and COVID-19*, Eurofound, <http://eurofound.link/ef20059> (accessed on March May 2021). [89]
- European Commission (2021), *Recovery and Resilience Facility*, European Commission website, https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en#the-recovery-and-resilience-facility (accessed on 2021 Apr 27). [70]
- European Commission (2021), *Recovery Plan for Europe*, European Commission website, http://ec.europa.eu/info/strategy/recovery-plan-europe_en (accessed on 31 March 2021). [60]
- Faccio, M., R. Masulis and J. McConnell (2006), “Political connections and corporate bailouts”, *The Journal of Finance*, Vol. 61/6, pp. 2597-2635, <http://dx.doi.org/10.1111/j.1540-6261.2006.01000.x>. [105]

- Fairbrother, M. et al. (2020), *How Much Do People Value Future Generations? Climate Change, Trust, and Public Support for Future-Oriented Policies*, Swedish National Data Service, <https://doi.org/10.5878/abr0-ba73>. [99]
- Falagiarda, M., A. Prapiestis and E. Rancoita (2020), “Public loan guarantees and bank lending in the COVID-19 period”, *ECB Economic Bulletin* 6. [33]
- Ferguson, N. et al. (2020), “Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand”, Report, No. 9, Imperial College London, <https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/covid-19/report-9-impact-of-npis-on-covid-19/>. [8]
- Government of Canada (2020), *Impact & Innovation Unit: Annual Report 2019-2020*, Privy Council Office, <https://www.canada.ca/content/dam/ih-ci/documents/pdfs/2019-2020-eng.pdf>. [127]
- Government of Korea (2020), *Korean New Deal: National Strategy for a Great Transformation*, Government of Korea, <https://english.moef.go.kr/pc/selectTbPressCenterDtl.do?boardCd=N0001&seq=4948#:~:text=The%20Korean%20New%20Deal%2C%20announced,employment%20and%20social%20safety%20net.> [58]
- Government of the Netherlands (2020), *Stability Programme: The Netherlands*, Government of the Netherlands, https://ec.europa.eu/info/sites/info/files/2020-european-semester-stability-programme-netherlands_en.pdf. [64]
- Hale, T. et al. (2020), *Oxford COVID-19 Government Response Tracker*, Blavatnik School of Government, <https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker#data>. [10]
- Hasen, R. (2012), “Lobbying, rent-seeking, and the constitution”, *Stanford Law Review*, Vol. 64/1, <https://www.stanfordlawreview.org/print/article/lobbying-rent-seeking-and-the-constitution/>. [107]
- Hauser, A. (2020), *Seven moments in spring: Covid-19, financial markets and the Bank of England’s balance sheet operations*, Bank of England, <https://www.bankofengland.co.uk/-/media/boe/files/speech/2020/seven-moments-in-spring-covid-19-speech-by-andrew-hauser.pdf?la=en&hash=43D022917D76095F1E79CBDD5D42FCD96497EA5F>. [38]
- Hordijk, L. and P. Patnaik (2020), “Covid-19: EU countries spent over €220m stockpiling remdesivir despite lack of effectiveness, finds investigation”, *BMJ*, Vol. 371, <http://dx.doi.org/10.1136/bmj.m4749>. [18]
- Hynes, W. et al. (2020), “Bouncing forward: A resilience approach to dealing with COVID-19 and future systemic shocks”, *Environment Systems and Decisions*, Vol. 40/2, <http://dx.doi.org/10.1007/s10669-020-09776-x>. [7]
- ICAEW (2020), *Government Watchdog Sounds COVID-19 Fraud Risk Alarm*, Institute of Chartered Accountants of England and Wales website, <https://www.icaew.com/insights/viewpoints-on-the-news/2020/mar-2020/government-watchdog-sounds-covid-19-fraud-risk-alarm> (accessed on May November 2021). [81]
- Igan, D. and T. Lambert (2018), “Bank lobbying: Regulatory capture and beyond”, *SSRN Electronic Journal*, <http://dx.doi.org/10.2139/ssrn.3128829>. [106]
- ILO (2020), *Youth and COVID-19: Impacts on Jobs, Education, Rights and Mental Well-Being*, International Labour Organization, https://www.ilo.org/global/topics/youth-employment/publications/WCMS_753026/lang-en/index.htm. [117]
- IMF (2021), *Database of Country Fiscal Measures in Response to the COVID-19 Pandemic*, International Monetary Fund website, <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>. [32]
- Infrastructure Canada (2020), *Investing in COVID-19 Community Resilience*, <https://www.infrastructure.gc.ca/plan/covid-19-resilience-eng.html>. [68]
- IPCC (2018), *Global Warming of 1.5C: Summary for Policymakers*, Intergovernmental Panel on Climate Change, https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf. [3]
- Ipsos (2021), *COVID-19 one year on: Global public loses confidence in institutions*, Ipsos website, <https://www.ipsos.com/en/covid-19-one-year-global-public-loses-confidence-institutions> (accessed on 2021 April 5). [90]
- Kim, E. (2020), “Drawing on Israel’s experience organizing volunteers to operationalize drive-through coronavirus testing centers”, *Disaster Medicine and Public Health Preparedness*, Vol. 14/6, <http://dx.doi.org/10.1017/dmp.2020.104>. [22]
- Kim, J. et al. (2021), *Emerging COVID-19 success story: South Korea learned the lessons of MERS*, Our World in Data website, <https://ourworldindata.org/covid-exemplar-south-korea>. [20]

- Kreidler, J. (2020), "Avoiding SSA scams during COVID-19", *Federal Trade Commission*, Federal Trade Commission website, <https://www.consumer.ftc.gov/blog/2020/04/avoiding-ssa-scams-during-covid-19> (accessed on May November 2021). [79]
- Le Figaro (2020), "Chômage partiel: Le gouvernement va renforcer les contrôles contre les fraudes", *Le Figaro*, Le Figaro, <https://www.lefigaro.fr/social/fraudes-au-chomage-partiel-le-gouvernement-va-renforcer-les-controles-20200513> (accessed on May November 2021). [80]
- Linkov, I., B. Trump and W. Hynes (2019), *Resilience-based Strategies and Policies to Address Systemic Risks*, OECD, [https://www.oecd.org/naec/averting-systemic-collapse/SG-NAEC\(2019\)5_Resilience_strategies.pdf](https://www.oecd.org/naec/averting-systemic-collapse/SG-NAEC(2019)5_Resilience_strategies.pdf). [6]
- Lustig, N. (ed.) (2018), *Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty*, Brookings Institution Press. [121]
- Marsden, G. et al. (2018), *All Change? The Future of Travel Demand and the Implications for Policy and Planning*, Commission on Travel Demand, http://www.demand.ac.uk/wp-content/uploads/2018/04/FutureTravel_report_final.pdf. [71]
- Matasick, C., C. Alfonsi and A. Bellantoni (2020), "Governance responses to disinformation: How open government principles can inform policy options", *OECD Working Papers on Public Governance*, No. 39, OECD Publishing, Paris, <https://dx.doi.org/10.1787/d6237c85-en>. [129]
- McKay, S. and C. Tenove (2020), "Disinformation as a threat to deliberative democracy", *Political Research Quarterly*, <http://dx.doi.org/10.1177/1065912920938143>. [125]
- Murtin, F. et al. (2018), "Trust and its determinants: Evidence from the Trustlab experiment", *OECD Statistics Working Papers*, No. 2018/2, OECD Publishing, Paris, <https://dx.doi.org/10.1787/869ef2ec-en>. [98]
- Narsee, A. (2021), "Europeans' Right to Protest Under Threat", *Carnegie Europe*, Carnegie Europe website, <https://carnegieeurope.eu/2021/01/27/europeans-right-to-protest-under-threat-pub-83735> (accessed on 2021 April 23). [91]
- OECD (2021), *Building a Resilient Response: The Role of Centre of Government in the Management of the COVID-19 Crisis and Future Recovery Efforts*, OECD. [19]
- OECD (2021), *Enhancing Public Trust in COVID-19 Vaccination: The Role of Governments*, OECD, <https://www.oecd.org/coronavirus/policy-responses/enhancing-public-trust-in-covid-19-vaccination-the-role-of-governments-eae0ec5a/>. [126]
- OECD (2021), *Focus on Green Recovery*, OECD website, <https://www.oecd.org/coronavirus/en/themes/green-recovery> (accessed on 23 April 2021). [62]
- OECD (2021), *Good Practice Principles on Data Ethics in the Public Sector*, OECD, <https://www.oecd.org/gov/digital-government/good-practice-principles-for-data-ethics-in-the-public-sector.htm>. [130]
- OECD (2021), *Lobbying in the 21st Century: Transparency, Integrity and Access*, OECD, <https://doi.org/10.1787/c6d8eff8-en>. [112]
- OECD (2021), *OECD Economic Outlook, Volume 2021 (1)*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/631c1b44-fr>. [2]
- OECD (2021), *Open data in action: initiatives during the initial stage of the COVID-19 pandemic*, OECD, <https://www.oecd.org/gov/digital-government/use-of-open-government-data-to-address-covid19-outbreak.htm>. [24]
- OECD (2021), *Special Module on COVID-19: Response of the Survey on Public Service Leadership and Capability*, OECD. [37]
- OECD (2021), *Understanding the Drivers of Trust in Government Institutions in Finland*, OECD, <https://dx.doi.org/10.1787/52600c9e-en>. [97]
- OECD (2020), *2020 Ministerial Council Statement: A Strong, Resilient, Inclusive and Sustainable Recovery from COVID-19*, OECD, <https://www.oecd.org/newsroom/2020-ministerial-council-statement-a-strong-resilient-inclusive-and-sustainable-recovery-from-covid-19.htm>. [61]
- OECD (2020), "Building resilience to the Covid-19 pandemic: The role of centres of government", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/883d2961-en>. [23]
- OECD (2020), *COVID-19 and fiscal relations across levels of government*, OECD Publishing, Paris, <https://doi.org/10.1787/ab438b9f-en>. [30]
- OECD (2020), "Digital Government Index: 2019 results", *OECD Public Governance Policy Papers*, No. 03, OECD Publishing, Paris, <https://dx.doi.org/10.1787/4de9f5bb-en>. [29]

- OECD (2020), "Estonia adopts PPE tracking platform MASC", *COVID-19 Innovative Response Tracker*, Observatory of Public Sector Innovation website, <https://oecd-opsi.org/covid-response/estonia-adopts-ppe-tracking-platform-masc/> (accessed on 2021 April 5). [27]
- OECD (2020), *Governance for Youth, Trust and Intergenerational Justice: Fit for All Generations?*, OECD Public Governance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/c3e5cb8a-en>. [116]
- OECD (2020), *Government After Shock*, OECD, <https://gov-after-shock.oecd-opsi.org/>. [131]
- OECD (2020), "Green budgeting and tax policy tools to support a green recovery", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/bd02ea23-en>. [65]
- OECD (2020), *Independent fiscal institutions: Promoting fiscal transparency and accountability during the Coronavirus (COVID-19) pandemic*, OECD Publishing, Paris, <https://doi.org/10.1787/d853f8be-en>. [35]
- OECD (2020), *Initial Budget and Public Management Responses to the Coronavirus (COVID-19) Pandemic in OECD Countries*, OECD, <https://www.oecd.org/gov/budgeting/initial-budget-and-public-management-responses-to-covid19-in-oecd-countries.pdf>. [31]
- OECD (2020), *Innovative Citizen Participation and New Democratic Institutions: Catching the Deliberative Wave*, OECD Publishing, Paris, <https://doi.org/10.1787/339306da-en>. [102]
- OECD (2020), *No policy maker is an island: The international regulatory co-operation response to the COVID-19 crisis*, OECD Publishing, <https://doi.org/10.1787/3011ccd0-en>. [44]
- OECD (2020), *Observatory of Public Sector Innovation COVID-19 Innovative Response Tracker*, <https://www.oecd-opsi.org/covid-response/>. [25]
- OECD (2020), *OECD Best Practice Principles for Regulatory Policy: Regulatory Impact Assessment*, OECD Publishing, Paris, <https://doi.org/10.1787/7a9638cb-en>. [45]
- OECD (2020), "Public integrity for an effective COVID-19 response and recovery", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/a5c35d8c-en>. [57]
- OECD (2020), "Public procurement and infrastructure governance: Initial policy responses to the coronavirus (Covid-19) crisis", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/c0ab0a96-en>. [55]
- OECD (2020), *Public servants and the coronavirus (COVID-19) pandemic: Emerging responses and initial recommendations*, OECD Publishing, Paris, <https://doi.org/10.1787/253b1277-en>. [36]
- OECD (2020), *Regulatory quality and COVID-19: The use of regulatory management tools in a time of crisis*, OECD Publishing, Paris, <https://doi.org/10.1787/b876d5dc-en>. [40]
- OECD (2020), *Removing administrative barriers, improving regulatory delivery*, OECD Publishing, Paris, <https://doi.org/10.1787/6704c8a1-en>. [41]
- OECD (2020), "Safeguarding COVID-19 social benefit programmes from fraud and error", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/4e21c80e-en>. [77]
- OECD (2020), "Shield48", *COVID-19 Innovative Response Tracker*, Observatory of Public Sector Innovation website, <https://oecd-opsi.org/covid-response/shield48/> (accessed on 2021 April 5). [26]
- OECD (2020), "Stocktaking report on immediate public procurement and infrastructure responses to COVID-19", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/248d0646-en>. [73]
- OECD (2020), *Survey on the Governance of Infrastructure*, OECD. [67]
- OECD (2020), *Tackling Coronavirus (COVID-19): Country Policy Tracker*, OECD website, <https://www.oecd.org/coronavirus/country-policy-tracker/#Containmentmeasures>. [39]
- OECD (2020), "Transparency, communication and trust: The role of public communication in responding to the wave of disinformation about the new Coronavirus", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/bef7ad6e-en>. [128]
- OECD (2020), *Understanding Public Communication Survey*, OECD. [47]
- OECD (2020), "When the going gets tough, the tough get going: How economic regulators bolster the resilience of network industries in response to the COVID-19 crisis", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/cd8915b1-en>. [42]
- OECD (2020), "Women at the core of the fight against COVID-19 crisis", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://doi.org/10.1787/553a8269-en>. [120]

- OECD (2019), *Budgeting and Public Expenditures in OECD Countries: 2019*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264307957-en>. [63]
- OECD (2019), *Gender wage gap*, OECD Data website, <https://data.oecd.org/chart/6kPL> (accessed on 2021 April 5). [118]
- OECD (2019), *Going Digital Toolkit website*, OECD, <https://goingdigital.oecd.org/>. [103]
- OECD (2019), *Good Governance for Critical Infrastructure Resilience*, OECD Reviews of Risk Management Policies, OECD Publishing, Paris, <https://dx.doi.org/10.1787/02f0e5a0-en>. [4]
- OECD (2019), *Government at a Glance 2019*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/8ccf5c38-en>. [87]
- OECD (2019), *Reforming Public Procurement: Progress in Implementing the 2015 OECD Recommendation*, OECD, <https://doi.org/10.1787/1de41738-en>. [54]
- OECD (2019), *Under Pressure: The Squeezed Middle Class*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/689afed1-en>. [115]
- OECD (2019), *Women in politics*, OECD Data website, <https://data.oecd.org/inequality/women-in-politics.htm> (accessed on 23 April 2021). [100]
- OECD (2018), *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264301085-en>. [114]
- OECD (2018), *Assessing Global Progress in the Governance of Critical Risks*, OECD Reviews of Risk Management Policies, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264309272-en>. [12]
- OECD (2018), *OECD Regulatory Policy Outlook 2018*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264303072-en>. [43]
- OECD (2018), *Risks that Matter: Main Findings from the 2018 OECD Risks that Matter Survey*, OECD, <https://www.oecd.org/els/soc/Risks-That-Matter-2018-Main-Findings.pdf>. [88]
- OECD (2018), *Scientific Advice During Crises: Facilitating Transnational Co-operation and Exchange of Information*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264304413-en>. [15]
- OECD (2018), *Youth Stocktaking Report*, OECD, <https://www.oecd.org/gov/youth-stocktaking-report.pdf>. [101]
- OECD (2017), *OECD Guidelines on Measuring Trust*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264278219-en>. [95]
- OECD (2017), *OECD Recommendation on Public Integrity*, <https://www.oecd.org/gov/ethics/recommendation-public-integrity/>. [83]
- OECD (2017), *Report on the Implementation of the OECD Gender Recommendations: Some Progress on Gender Equality but Much Left to Do*, OECD, <https://www.oecd.org/mcm/documents/C-MIN-2017-7-EN.pdf>. [119]
- OECD (2016), *Trends in Risk Communication Policies and Practices*, OECD Reviews of Risk Management Policies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264260467-en>. [50]
- OECD (2015), *The Changing Face of Strategic Crisis Management*, OECD Reviews of Risk Management Policies, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264249127-en>. [21]
- OECD (2014), *Boosting Resilience Through Innovative Risk Governance*, OECD Reviews of Risk Management Policies, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264209114-en>. [5]
- OECD (2014), *Lobbyists, Governments and Public Trust, Volume 3: Implementing the OECD Principles for Transparency and Integrity in Lobbying*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264214224-en>. [16]
- OECD (2014), *Recommendation of the Council on the Governance of Critical Risks*, OECD, <https://www.oecd.org/gov/risk/Critical-Risks-Recommendation.pdf>. [13]
- OECD (forthcoming), *Balance sheet-based policies in COVID-19 fiscal packages: How to improve transparency and risk analysis?*, OECD. [34]
- OECD (forthcoming), *Best Practice Principles on Stakeholder Engagement in Regulatory Policy*, OECD. [46]
- OECD (forthcoming), *Building Resilience: New Strategies for Strengthening Infrastructure Resilience and Maintenance*, OECD. [69]
- OECD (forthcoming), *E-Leaders COVID-19 Policy Brief*, OECD. [28]
- OECD/KDI (2018), *Understanding the Drivers of Trust in Government Institutions in Korea*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264308992-en>. [96]

- Office of the Commissioner of Lobbying of Canada (2020), *Annual Report 2019-20*, Office of the Commissioner of Lobbying of Canada, <https://lobbycanada.gc.ca/en/reports-and-publications/annual-report-2019-20/>. [108]
- Officer of the Commissioner of Lobbying of Canada (n.d.), *Registry of Lobbyists*, Office of the Commissioner of Lobbying of Canada website, <https://lobbycanada.gc.ca/app/secure/ocl/lrs/do/guest>. [113]
- Ping Helsinki (2020), *Combating coronavirus together by sharing reliable information*, <https://pinghelsinki.fi/en/combating-coronavirus-together-by-sharing-reliable-information/>. [49]
- Portafolio (2021), *Transacciones por Secop II en 2020 llegaron a \$54 billones*, Portafolio website, <https://www.portafolio.co/economia/transacciones-por-secop-ii-en-2020-llegaron-a-54-billones-548220>. [56]
- Rachman, G. (2021), “2020: A year in protests”, *Financial Times*, <https://www.ft.com/content/6e95f7d8-508b-40db-9d0d-4fb561cbfa48> (accessed on 2021 April 23). [93]
- République Française (2020), *Le budget vert en France pour 2021 : une première mondiale*, Ministère de l'Économie, de Finance et de la Relance, <https://www.budget.gouv.fr/reperes/budget/articles/le-budget-vert-en-france-pour-2021-une-premiere-mondiale>. [66]
- Rice, K. et al. (2020), “Effect of school closures on mortality from coronavirus disease 2019: Old and new predictions”, *BMJ*, p. m3588, <http://dx.doi.org/10.1136/bmj.m3588>. [9]
- Satariano, A. and D. Alba (2020), “Burning cell towers, out of baseless fear they spread the virus”, *New York Times*, <https://www.nytimes.com/2020/04/10/technology/coronavirus-5g-uk.html>. [124]
- Seitz, A. (2020), *Virus misinformation flourishes in online protest groups*, AP website, <https://apnews.com/article/5862a9201c7b1bea62069a9c5e5fbb1c>. [123]
- Stotsky, J. (2016), “Gender budgeting: Fiscal context and current outcomes”, *IMF Working Papers*, No. 149, International Monetary Fund, <http://dx.doi.org/10.5089/9781475575460.001>. [122]
- Tankersley, J., E. Cochrane and E. Flitter (2020), “Small-business aid funds run dry as program fails to reach hardest hit”, *New York Times*, <https://www.nytimes.com/2020/04/15/us/politics/coronavirus-small-business-program.html> (accessed on 29 March 2021). [110]
- Tasker, J. (2020), “What you need to know about the new COVID-19 emergency wage subsidy”, *CBC*, *CBC website*, <https://www.cbc.ca/news/politics/canadian-emergency-wage-subsidy-explainer-1.5518180> (accessed on May November 2021). [78]
- Tönurist, P. and A. Hanson (2020), “Anticipatory innovation governance: Shaping the future through proactive policy making”, *OECD Working Papers on Public Governance*, No. 44, OECD Publishing, Paris, <https://dx.doi.org/10.1787/cce14d80-en>. [75]
- Triani, N. (2021), “2020: A year of protests and civil disobedience”, *France 24*, *France 24 website*, <https://www.france24.com/en/europe/20201228-2020-a-year-of-dissent-and-civil-disobedience> (accessed on 2021 April 23). [94]
- Tussell (2021), *Latest Updates on UK Government COVID-19 Contracts and Spending*, Tussell website, <https://www.tussell.com/insights/covid>. [51]
- UK Cabinet Office (2020), *Transforming Public Procurement*, UK Cabinet Office, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/943946/Transforming_public_procurement.pdf. [72]
- UK Department for Education (2020), *Get help with technology during coronavirus (COVID-19): Guidance on the devices and support available to provide remote education and access to children's social care*, Department for Education website, <https://www.gov.uk/guidance/get-help-with-technology-for-remote-education-during-coronavirus-covid-19>. [74]
- UK Financial Conduct Authority (2020), *Digital Sandbox Pilot: Supporting Innovation in Financial Services*, *Digital Sandbox Pilot website*, <https://www.digitalsandboxpilot.co.uk/> (accessed on 2021 April 7). [76]
- UK Government (2021), *Scientific Advisory Group for Emergencies*, *GOV.UK website*, <https://www.gov.uk/government/organisations/scientific-advisory-group-for-emergencies>. [14]
- Vilhelmsson, A. and S. Mulinari (2017), “Pharmaceutical lobbying and pandemic stockpiling of Tamiflu: a qualitative study of arguments and tactics”, *Journal of Public Health*, Vol. 40/3, pp. 646-651, <http://dx.doi.org/10.1093/pubmed/fdx101>. [17]
- Vogel, K. (2020), “The race for virus money is on: Lobbyists are standing by”, *New York Times*, <https://www.nytimes.com/2020/03/28/us/politics/coronavirus-money-lobbyists.html> (accessed on 29 March 2021). [111]

- Warmbrodt, Z. (2020), "Big restaurant chains get small business aid, sparking backlash", Politico.eu, Politico website, <https://www.politico.com/news/2020/04/15/restaurant-chains-coronavirus-aid-188533> (accessed on 29 March 2021). [109]
- World Bank (2020), *World Development Indicators: Population, total*, World Bank data website, <https://data.worldbank.org/indicator/SP.POP.TOTL>. [11]
- Zagorin, A. (2020), "He oversaw \$787 billion in stimulus spending. Here are his lessons on spending coronavirus recovery effectively.", POGO, POGO website, <https://www.pogo.org/analysis/2020/04/he-oversaw-787-billion-in-stimulus-spending-heres-his-lessons-on-spending-coronavirus-recovery-effectively/> (accessed on May November 2021). [82]





2. PUBLIC FINANCE AND ECONOMICS

General government fiscal balance

General government net saving

General government structural balance

General government gross debt

Financial net worth of general government

Fiscal balance and debt by level of government

General government revenues

Structure of general government revenues

General government expenditures

General government expenditures by function (COFOG)

Breakdown of government spending by functions of social protection and health (COFOG)

Structure of government expenditures by economic transaction

Revenue and expenditure structure by level of government

Government investment spending

Production costs and outsourcing of general government

General government fiscal balance

The fiscal balance is the difference between a government's revenues and its expenditures. It shows the extent to which expenditure in a given year is financed by the revenues collected in that year. When the government spends more than it collects as revenues, it has a fiscal deficit; when it spends less, it has a fiscal surplus. The primary balance is the fiscal balance excluding net interest payments on public debt. That is, the primary balance is the difference between the amount of revenue a government collects and the amount it spends on providing public goods and services. A country has a primary deficit if it is spending more on public goods and services than it collects in taxes. This means the government must borrow money to pay for the everyday public goods and services it provides for citizens, which may not be sustainable. The primary balance is thus a critical indicator of the short-term sustainability of a government's finances.

The average general government fiscal balance in OECD countries reached -8.7% of GDP in 2009 due to the 2007-08 economic crisis. In its aftermath, fiscal deficits gradually fell, reaching an average of -3.2% of GDP in 2019. Of 26 OECD countries for which data are available for 2020, all had budget deficits, and all of them were larger than in 2019; 18 of them had deficits of more than -5% of GDP. This large increase in fiscal deficits was a necessary response to the COVID-19 crisis, and allowed governments to spend large amounts on health, income support and other measures to support citizens and businesses. Deficits also increased due to economies and tax revenues shrinking with the enforced closure of many economic activities. Among the 26 OECD countries with data available, the largest fiscal deficit in 2020 was in the United Kingdom (-12.3% of GDP) and the smallest was in Denmark (-1.1% of GDP). Denmark entered the crisis with the second highest fiscal surplus in the OECD, after Norway, and has been able to supply significant fiscal support while still maintaining a moderate deficit. Canada had the largest deterioration in its fiscal balance in 2020 (-11.2 percentage points of GDP), and Sweden the smallest (-3.7 p.p.) (Figure 2.1).

Primary deficits also grew sharply in 2020. In 2019, the average primary balance across OECD members was -1.2% of GDP, although 23 of 36 OECD countries had a primary surplus. All of the 26 OECD countries with data available for 2020 had primary deficits, and all had a worse primary balance than in 2019. For 16 of them, the primary deficit was more than -5% of GDP. This indicates that in 2020, governments were borrowing money to pay for some of the goods and services they were providing to citizens and businesses, including their COVID-19 responses. While the crisis is ongoing, governments should not cut back on necessary support but large primary deficits are unlikely to be sustainable over the longer term, as they will lead to increasing public debt. Governments will eventually need to make choices on spending and taxes in order to return to a primary surplus or neutral position. As with fiscal

deficits, the United Kingdom had the largest primary deficit in 2020 (-10.7% of GDP) and Denmark the smallest (-1.3%). The largest deterioration in primary balance in 2020 was in Canada (-11.2 p.p. of GDP) and the smallest in Sweden (-3.7 p.p.) (Figure 2.2).

Methodology and definitions

Fiscal balance data are derived from the OECD *National Accounts Statistics* (database), based on the *System of National Accounts* (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A for details on reporting systems and sources). Using SNA terminology, general government consists of central government, state government, local government and social security funds.

Fiscal balance, also referred to as net lending (+) or net borrowing (-) of general government, is calculated as total government revenues minus total government expenditures. Revenues encompass taxes, net social contributions, and grants and other revenues. Expenditures comprise intermediate consumption, compensation of employees, subsidies, property income (including interest spending), social benefits, other current expenditures (mainly current transfers) and capital expenditures (i.e. capital transfers and investments).

The primary balance is the fiscal balance excluding net interest payments on general government liabilities (i.e. interest payments minus interest receipts). Gross domestic product (GDP) is the standard measure of the value of goods and services produced by a country during a period.

Further reading

OECD (2021), *OECD Economic Outlook, Interim Report March 2021*, OECD Publishing, Paris, <https://doi.org/10.1787/34bfd999-en>.

IMF (2021), *Fiscal Monitor April 2021*, International Monetary Fund, Washington, DC, www.imf.org/en/Publications/FM/Issues/2021/03/29/fiscal-monitor-april-2021.

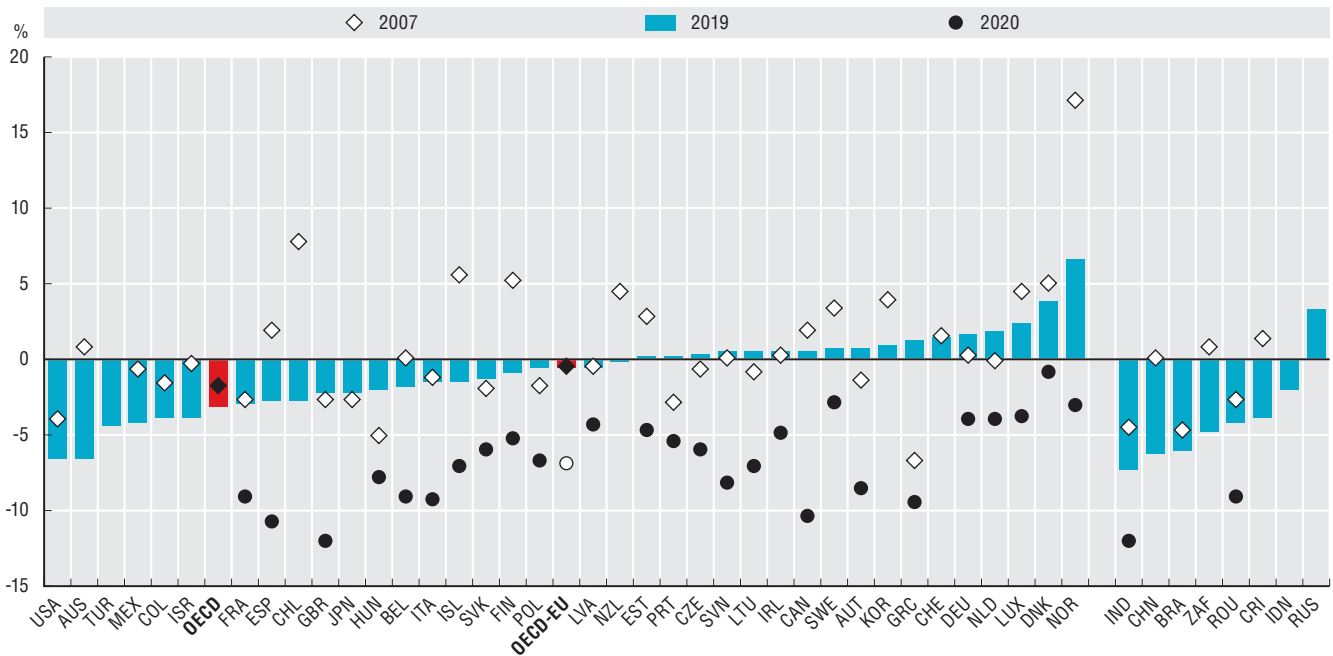
Figure notes

Data for Japan, Brazil and Russia are for 2018 rather than 2019.

2.1. Data for Chile and Turkey are not included in the OECD average because of missing time series or main non-financial government aggregates.

2.2. Data for Chile are not available. Data for Turkey are not included in the OECD average because of missing time series.

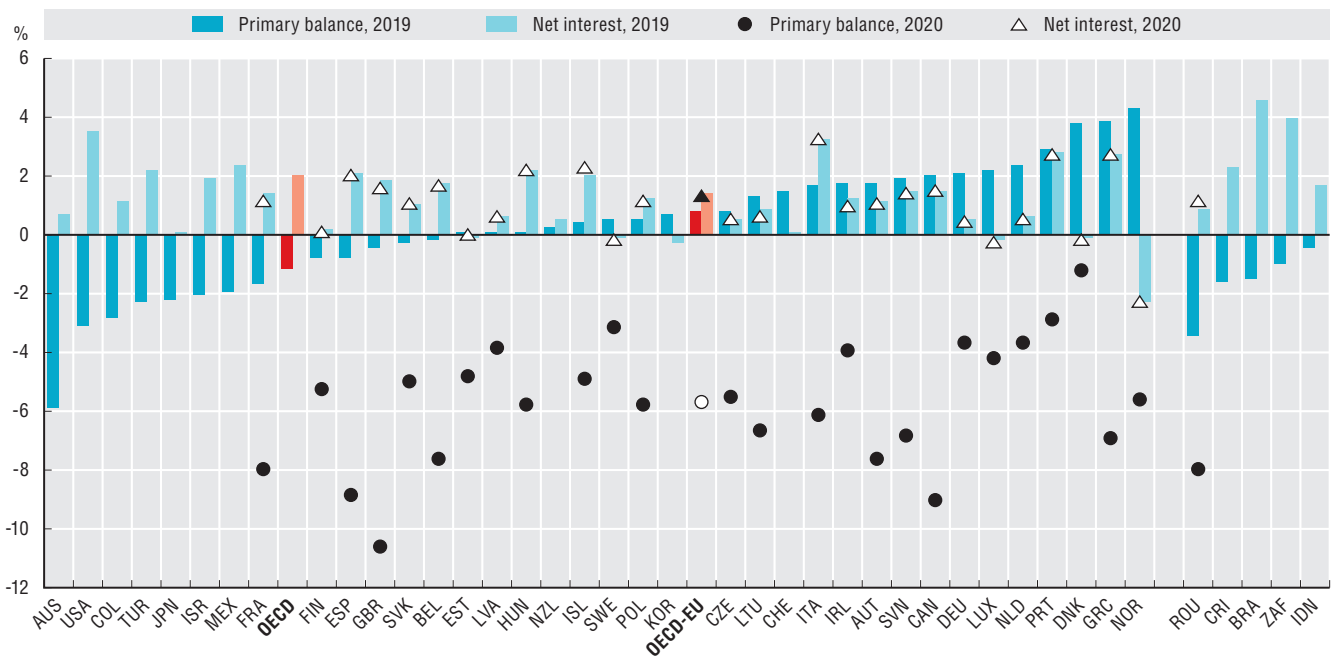
2.1. General government fiscal balance as a percentage of GDP, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database). Data for China and India are from the IMF Economic Outlook (April 2021).

StatLink <https://doi.org/10.1787/888934256634>

2.2. General government primary balance and net interest spending as a percentage of GDP, 2019 and 2020



Source: OECD National Accounts Statistics (database).

StatLink <https://doi.org/10.1787/888934256653>

General government net saving

Net saving is the difference between current revenues and current expenditures. It is the fiscal balance without taking into account capital expenditures, such as investment expenditure or capital transfers. Net saving is associated with the “golden rule” of public finance, which advocates that, over the course of an economic cycle, current expenditures should be fully paid for by current revenues. This rule implies that public debt should only be issued to pay for investments which promote growth. Operating in accordance with this rule helps governments maintain a sustainable fiscal stance.

In 2019, 21 of 36 OECD countries recorded positive general government net savings, although the OECD average was -2.3% of GDP. Net savings worsened substantially in 2020. Among the 26 OECD countries for which data are available, 24 had negative net savings in 2020, and all had lower net savings than in 2019. This sharp fall was due to high levels of current expenditure and falling tax revenues caused by the COVID-19 crisis. Among countries with data available, the United Kingdom (-10.4% of GDP) and Spain (-10.1% of GDP) had the lowest net savings rates in 2020. Only Denmark (1% of GDP) and Norway (0.1% of GDP) recorded positive net savings. These were the two countries with the highest net savings in 2019, and both were able to maintain positive net savings in 2020 while still providing sizeable fiscal policy responses to COVID-19 (Figure 2.3). Denmark entered the crisis on a strong economic footing. Norway maintains a fiscal rule under which revenues from offshore petroleum production (i.e. withdrawals from the Norwegian Wealth Fund) can only cover the non-oil budget deficit up to a ceiling. COVID-19 has been a major shock to public finances, and, as with fiscal balances, it is appropriate to maintain negative net savings in order to fund the crisis response. However, maintaining the golden rule over the course of the economic cycle implies future net savings will be needed to offset the resulting net dissaving.

The difference between government net savings and government net lending/borrowing (i.e. the fiscal balance) indicates the size of general government capital expenditures. These may be either government investment expenditures or outflows caused by capital transfers, e.g. to publicly owned enterprises or financial institutions. In 2019, average national savings in OECD countries were -2.3% of GDP, while the average budget deficit was -3.2% of GDP. This implies average government capital expenditures across the OECD were 0.9% of GDP. In 2020, 23 out of 26 countries for which data are available are estimated to have increased national investment (Figure 2.4). This is not necessarily a reaction to COVID-19. Some of the increase may reflect extra investment in infrastructure in critical areas, such as health or IT, or spending to stimulate the economy. However, it is likely that some of the apparent increase is due to public investment levels being held constant in 2020 while GDP fell (for instance if governments were partway through multi-year investment projects, such

as major infrastructure projects), or because investment simply fell more slowly than GDP.

Methodology and definitions

Data are derived from the OECD National Accounts Statistics (database), based on the System of National Accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A for details). Using SNA terminology, general government consists of central government, state government, local government and social security funds.

Government net saving represents current revenues minus current expenditures including depreciation. In the case of gross saving, the costs of depreciation have not been deducted from current expenditures. Gross saving plus net capital transfers (i.e. capital transfers received minus those paid) minus gross investments (i.e. gross capital formation and acquisitions less disposals of non-produced non-financial assets) equals the fiscal balance of net lending/borrowing. Net lending/borrowing reflects the fiscal position after accounting for capital expenditures: net lending, or a government surplus, means that government is providing financial resources to other sectors, whereas net borrowing, or a government deficit, means that government on balance requires financial resources from other sectors to finance part of its expenditures. Compared to net lending/borrowing, net saving has the advantage of avoiding possible one-off distortions coming from extraordinary and possibly very large capital transfers. It also avoids putting too much pressure on government investments in times of austerity programmes and increasing deficits.

Further reading

OECD (2019), *OECD Economic Surveys: Denmark 2019*, OECD Publishing, Paris, https://doi.org/10.1787/eco_surveys-dnk-2019-en.

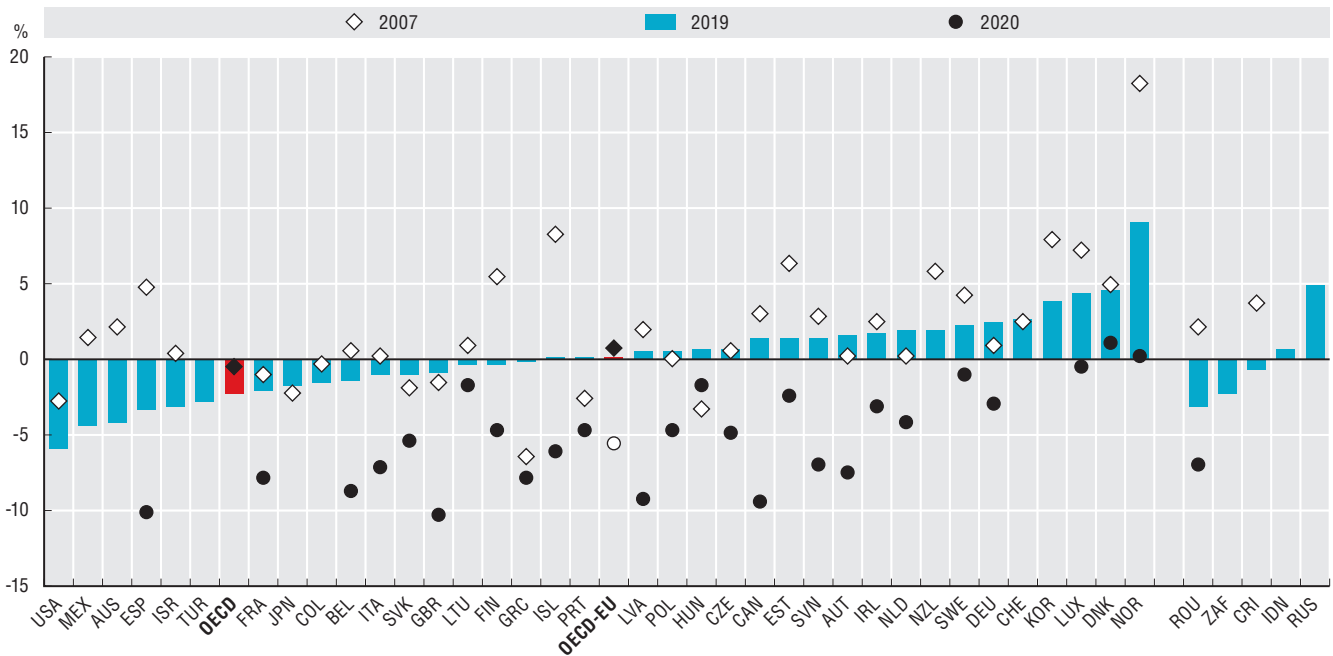
OECD (2019), *OECD Economic Surveys: Norway 2019*, OECD Publishing, Paris, <https://doi.org/10.1787/c217a266-en>.

Figure notes

Data for Chile are not available. Data for Turkey are not included in the OECD average because of missing time series. Data for Japan and Russia are for 2018 rather than 2019.

G.1. (Net capital transfers as a percentage of GDP, 2007, 2019 and 2020) is available online in Annex G.

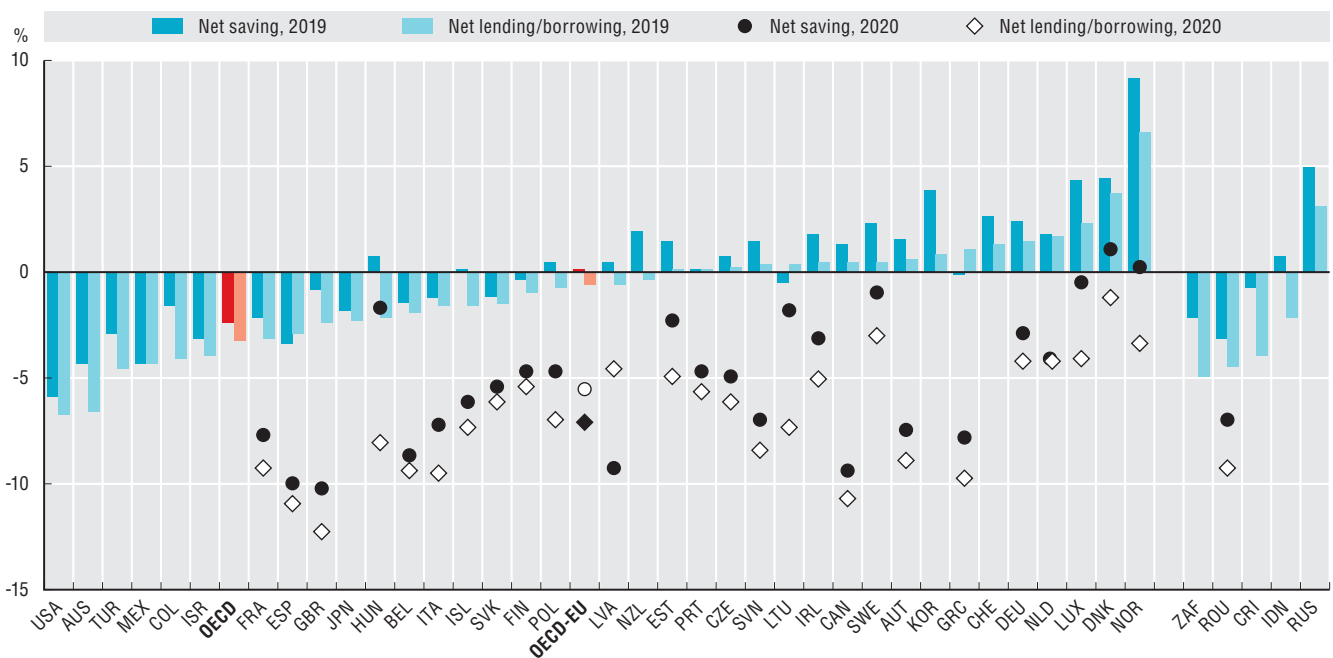
2.3. General government net saving as a percentage of GDP, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database).

StatLink <https://doi.org/10.1787/888934256672>

2.4. General government net saving and fiscal balance as a percentage of GDP, 2019 and 2020



Source: OECD National Accounts Statistics (database).

StatLink <https://doi.org/10.1787/888934256691>

General government structural balance

The structural balance is used to examine the long-term sustainability of public finances. Fiscal balances can be significantly affected by economic cycles and one-off events. Government revenues tend to decline during economic downturns, as incomes fall. At the same time, public spending tends to increase, as more people claim social assistance or unemployment benefits. Governments may also increase public expenditure to stimulate the economy. All of these effects have been visible during COVID-19. This means that general government fiscal balances do not provide a full picture of governments' underlying fiscal position. The general government structural balance is a measure of the fiscal balance which takes the economic cycle into account. The structural balance is the budget balance which a government would have with its current policies if the economy was operating at its full potential ("potential GDP"). A government with a structural (primary) deficit would still have a (primary) deficit even if the economy was operating at full potential. This indicates its current tax and spending policies are not sustainable in the long run.

In 2019, the average general government structural balance across OECD countries was -3.1% of potential GDP, the same value as in 2007, and 22 out of the 33 OECD countries with available data had a structural deficit. In 2020, structural balances worsened sharply, to an average of -7.1% of potential GDP. All 33 countries except Denmark and Portugal are estimated to have had a structural deficit in 2020. The largest structural deficit in 2020 was in the United States (-12.3% of potential GDP). It had already entered the COVID-19 crisis with the largest structural deficit among OECD countries, driven partly by underlying spending pressures, including on programmes such as Medicaid, Medicare and Social Security. The only countries to improve their structural balances in 2020 were Iceland (+0.3 p.p. of potential GDP) and Portugal (+0.5 p.p.). The greatest deterioration was in Australia (-8.5 p.p.) (Figure 2.5).

In 2019, the general government structural primary balance across OECD countries averaged -1.3% of potential GDP, slightly worse than its value of -1.0% in 2007. Of the 33 OECD countries with available information, 16 had a structural primary deficit. In 2020, structural balances worsened sharply, to an average of -5.5% of potential GDP, and 29 of the 33 countries had a structural primary deficit. The only exceptions were Portugal (+2.8% of potential GDP), Greece (+1.6%), Denmark (+1.0%) and the Czech Republic (0.4%). The largest structural primary deficit was in the United States (-9.5% of potential GDP). The only countries to improve their balances in 2020 were Portugal (+0.1 p.p. of potential GDP) and Iceland (+0.5 p.p.). The greatest deterioration was in Australia (-8.6 p.p.) (Figure 2.6). Widespread and increasing structural deficits in 2020 indicate that countries are likely

to need to raise taxes or lower spending in the future, in order to put their finances back into a sustainable position. For most countries, adjustment is projected to begin in 2022. The structural primary balance is forecast to worsen further in 30 of 33 OECD countries in 2021, rising to an average of -7.6% of GDP. In 2022, as the health and economic impacts of COVID recede, and growth returns, the structural primary balance is projected to improve in 31 of 33 OECD countries, to an average of -4.9% of GDP (Figure 2.7). The extent to which further adjustment in tax and expenditure policies will be needed beyond this point will depend on the size of the rebound in GDP growth. However, it is likely that many countries will eventually need to moderate spending and/or raise taxes post-COVID to ensure their public finances are sustainable. This may partly be achieved automatically and with relatively little impact on citizens as governments rescind income support measures and tax breaks which were explicitly part of COVID-19 relief, and are no longer needed.

Methodology and definitions

Data are derived from the OECD Economic Outlook, No.109 (database). The structural fiscal balance, or underlying balance, represents the fiscal balance as reported in the System of National Accounts (SNA) framework adjusted for two factors: the state of the economic cycle (as measured by the output gap) and one-off fiscal operations. Potential GDP is not directly observable and estimates are subject to substantial margins of error. One-off factors include both exceptional and irregular fiscal transactions as well as deviations from trend in net capital transfers. For more details, see Sources and Methods of the OECD Economic Outlook (www.oecd.org/eco/outlook/sources-and-methods.htm).

Further reading

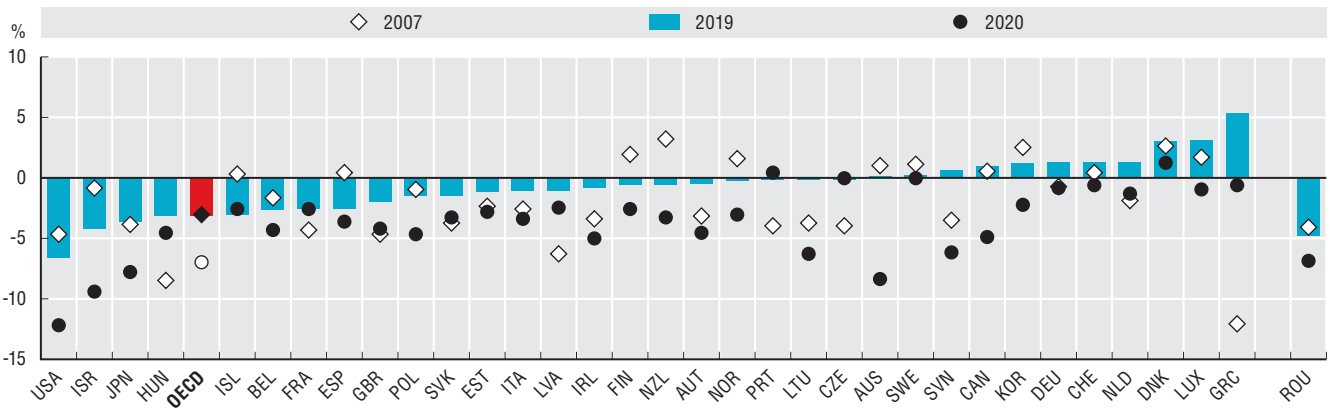
OECD (2020), *OECD Economic Surveys: United States 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/12323be9-en>.

Bloch, D. and J. Fournier (2018), "The deterioration of the public spending mix during the global financial crisis: Insights from new indicators", *OECD Economics Department Working Papers*, No. 1465, OECD Publishing, Paris, <https://doi.org/10.1787/2f6d2e8f-en>.

Figure notes

Data for Chile, Colombia, Mexico and Turkey are not available.

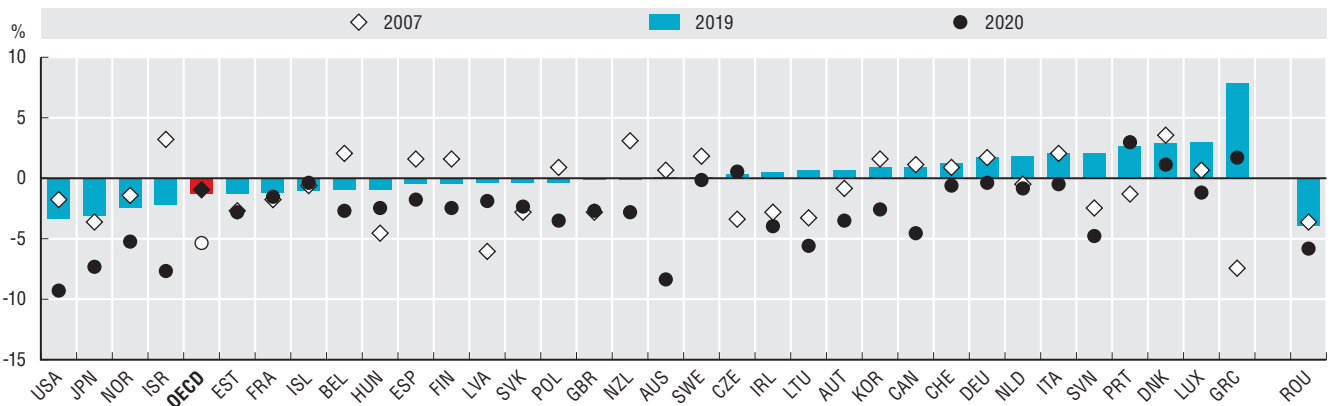
2.5. General government structural balance as a percentage of potential GDP, 2007, 2019 and 2020



Source: OECD Economic Outlook, No 109, May 2021.

StatLink <https://doi.org/10.1787/888934256710>

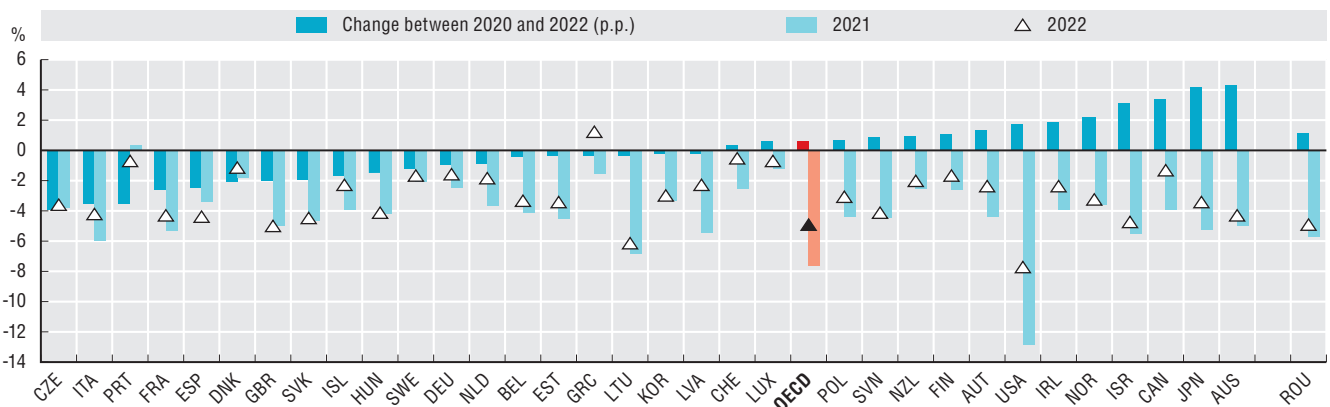
2.6. General government structural primary balance as a percentage of potential GDP, 2007, 2019 and 2020



Source: OECD Economic Outlook, No 109, May 2021.

StatLink <https://doi.org/10.1787/888934256729>

2.7. Projected general government structural primary balance as a percentage of potential GDP in 2021 and 2022, and projected change between 2020 and 2022



Source: OECD Economic Outlook, No 109, May 2021.

StatLink <https://doi.org/10.1787/888934256748>

General government gross debt

Public debt levels have significant implications for the stability of public finances and the economy as a whole. Government debt can be raised to finance current expenditures or invest in physical capital, but it comes at a cost in the form of interest payments and should be based on the objective appraisal of economic capacity gaps, infrastructural development needs and sectoral/social priorities as well as a prudent assessment of costs and benefits.

Public debt levels have risen substantially as a result of COVID-19. In 2019, general government gross debt averaged 109% of GDP across OECD countries. In 2020, this rose in all 26 countries with data available, as they operated large budget deficits to pay for their COVID-19 response measures. In 19 countries, debt rose by more than 10% of GDP, a very large rise for a single year. Among the 22 OECD and EU member countries (OECD-EU), general government gross debt rose from 97% of GDP in 2019 to 115% in 2020. The largest increase was in Greece (+36 p.p.), which also has the highest debt of these countries (236% of GDP) and the smallest was in Luxembourg (+3 p.p.) which has the second lowest public debt among these countries, at 33% of GDP (Figure 2.8).

General government gross debt also rose sharply in per capita terms. In 2019, general government gross debt per capita averaged USD 56 961 PPP across OECD countries. In 2020, it rose in all 26 countries with data available, and by more than USD 3 000 PPP per capita in nominal terms in 22 countries. This is notably faster than in recent years. For example, among OECD-EU countries, per capita debt rose by just under USD 2 000 PPP per capita a year during 2007-19 on average. In 2020, it rose by almost USD 5 400 PPP per capita, to just under USD 52 000 PPP per capita. (Figure 2.9; see Online Figure G.2 for changes in real terms debt per capita).

Most public debt owed by OECD countries (83.5%) is in the form of debt securities, that is, government bonds or similar instruments. In 32 of 36 OECD countries, more than 50% of public debt is in the form of debt securities. Only in Estonia, Greece and Norway is more than 50% in the form of loans. (Figure 2.10).

Methodology and definitions

Data are derived from the OECD National Accounts Statistics (database) and the Eurostat Government Finance Statistics (database), which are based on the System of National Accounts (SNA). The 2008 SNA framework has been implemented by all OECD countries (see Annex A).

Debt is defined as a specific subset of liabilities identified according to the types of financial instruments included or excluded. Generally, it is defined as all liabilities that require payment or

payments of interest or principal by the debtor to the creditor at a date or dates in the future. All debt instruments are liabilities but some liabilities, such as shares, equity and financial derivatives, are not debt. Debt is thus the sum of the following liability categories, whenever available/applicable in the financial balance sheet of the general government sector: currency and deposits, debt securities, loans, and other liabilities (i.e. insurance, pension and standardised guarantee schemes, other accounts payable and, in some cases, special drawing rights). According to the SNA, most debt instruments are valued at market prices, when appropriate (although some countries might not apply this valuation, particularly for debt securities).

Countries' treatment of government liabilities in respect of their employee pension plans varies, making international comparability difficult. Some OECD countries, such as Australia, Canada, Colombia, Iceland, Sweden and the United States, record employment-related pension liabilities, funded or unfunded, in government debt data. For those countries, the government debt ratio is adjusted by excluding these unfunded pension liabilities (see the StatLinks for more information). Government debt here is recorded on a gross basis, not adjusted by the value of government-held assets. The SNA debt definition used here differs from the definition applied under the Maastricht Treaty, which is used to assess EU fiscal positions (Online Figure G.3, in Annex G). For information on the calculation of government debt per capita, see General government revenues.

Further reading

OECD (2021), *Sovereign Borrowing Outlook 2021*, OECD Publishing, Paris, <https://doi.org/10.1787/4f246e82-en>.

OECD (2021), "Structural policies to deliver a stronger, more resilient, equitable and sustainable COVID-19 recovery", in *Economic Policy Reforms 2021: Going for Growth*. OECD Publishing, Paris, <https://doi.org/10.1787/92b58feb-en>.

Figure notes

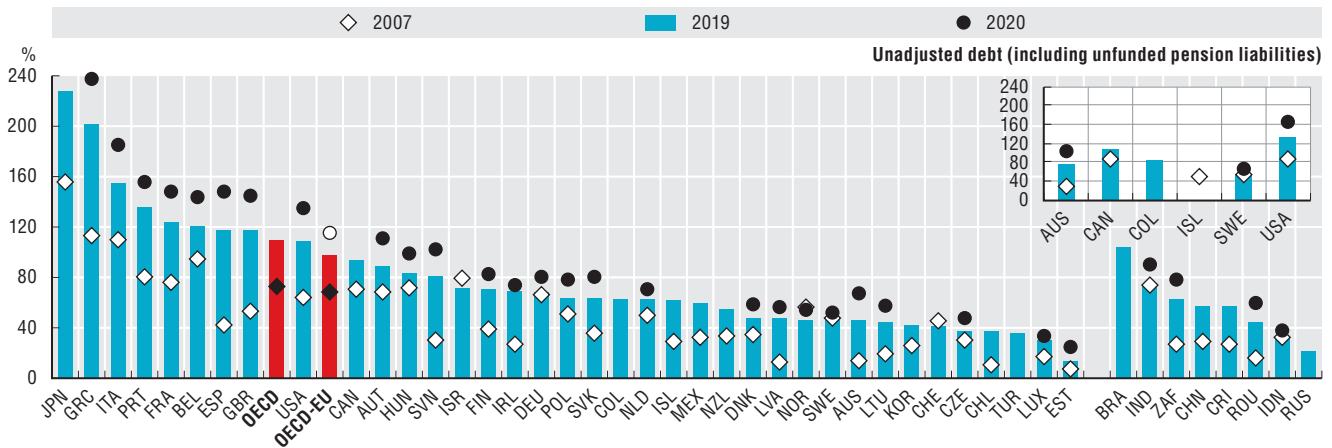
Data for Australia, Canada, Colombia, Iceland, Sweden and the United States are reported on an adjusted basis (i.e. excluding unfunded pension liabilities). Data for Colombia, Mexico and Turkey are not included in the OECD average. Data for Israel and Korea are for 2018 rather than 2019. Data for Brazil are for 2017 rather than 2019.

2.8 and 2.9. Data for 2019 for Iceland and data for 2007 for Korea are based on OECD estimates.

2.10. Data for Iceland are not available.

G.2. (Annual growth rate of real government gross debt per capita, 2007-19 and 2019-20) is available online in Annex G.

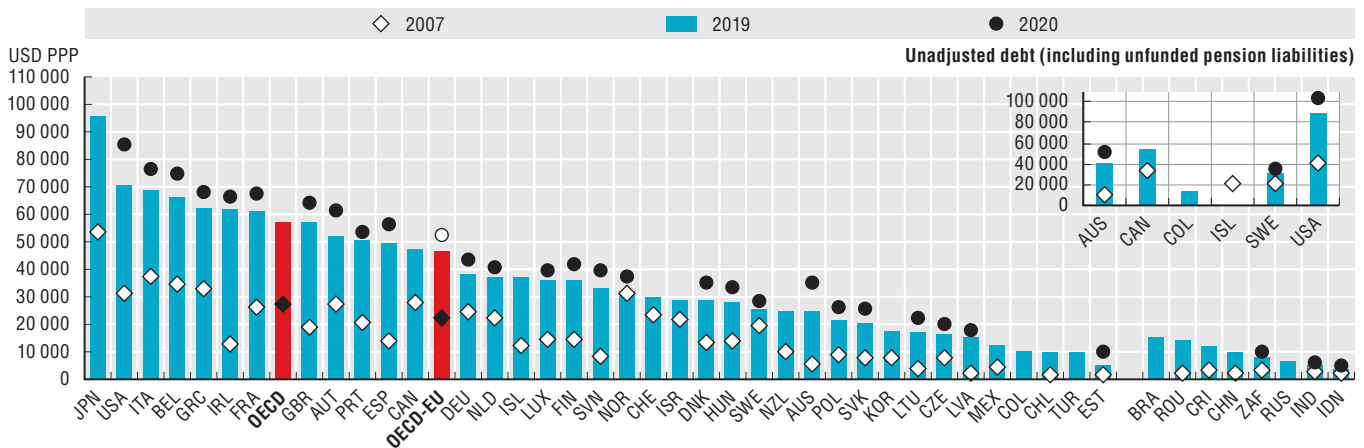
2.8. General government gross debt as a percentage of GDP, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database). Data for the OECD key partners (apart from Brazil) and for Costa Rica are from the IMF Economic Outlook (April 2021).

StatLink <https://doi.org/10.1787/888934256767>

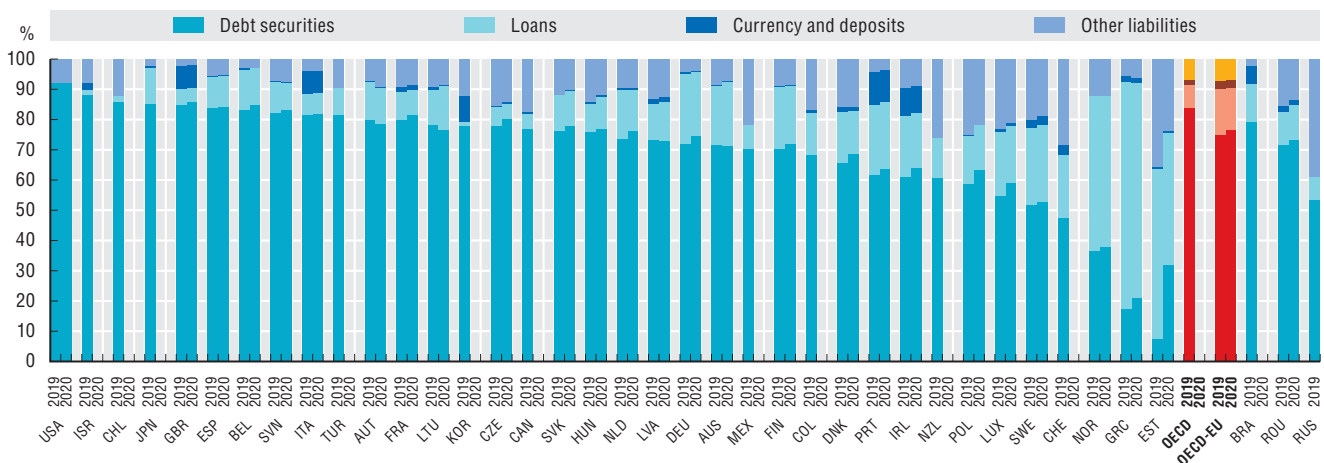
2.9. General government gross debt per capita, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database). Data for the OECD key partners (apart from Brazil) and for Costa Rica are from the IMF Economic Outlook (April 2021).

StatLink <https://doi.org/10.1787/888934256786>

2.10. Structure of government gross debt by financial instruments, 2019 and 2020



Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database).

StatLink <https://doi.org/10.1787/888934256805>

Financial net worth of general government

Financial net worth, or the difference between governments' financial assets and liabilities, shows a government's ability to meet its financial obligations. Assets reflect a source of additional funding and income available to governments; liabilities reflect debts accumulated over time. A consistent increase in the government's financial net worth over time indicates good financial health. Conversely, net worth may be depleted by public debt, indicating a worsening of the government's fiscal position that could affect confidence and increase risk.

In 2019, general government financial net worth across OECD countries averaged -65.8% of GDP, meaning that governments were holding significantly more liabilities than assets. Between 2007 and 2019 the average financial net worth of OECD countries deteriorated by 27.2 p.p., largely reflecting a substantial accumulation of debt, particularly in the years following the 2007-08 economic crisis. The negative financial net worth of three countries: Greece (-146.8%), Italy (-126.7%) and Japan (-125.8%) was larger than their GDP in 2019 (Figure 2.11).

Between 2019 and 2020, the financial net worth of the 22 countries which are EU and OECD members (OECD-EU) worsened by 11.6 p.p. on average as a result of the exceptional need for financial resources to mitigate the effects of the COVID-19 pandemic and the resulting accumulation of liabilities. Norway (369.4% of GDP), Finland (64.2%), Luxembourg (49%), Sweden, (37.4%) and Estonia (17.3%) are the only countries with data available which had a positive financial net worth in 2020.

An alternative way of understanding financial net worth is in per capita terms. On average, the financial net worth in OECD countries amounted to USD -34 297 PPP per capita in 2019, which is more than double the OECD average in 2007 (USD -14 475 PPP). In 2019, Norway had the highest positive per capita financial net worth (USD 226 240 PPP) and Italy the lowest (USD -56 247 PPP). Between 2019 and 2020 the average financial net worth in OECD-EU countries deteriorated by USD -3 761 PPP per capita (Figure 2.12).

Methodology and definitions

Data are derived from the *OECD National Accounts Statistics* (database) and the *Eurostat Government Finance Statistics* (database), which are based on the *System of National Accounts* (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A for details on reporting systems and sources).

The financial net worth of the general government sector is the total value of its financial assets minus the total value of its outstanding liabilities. The SNA defines the financial assets and the corresponding liabilities where applicable/available in the financial balance sheet of the institutional sector: monetary gold and special drawing rights (SDRs); currency and deposits; debt securities; loans; equity and investment fund shares; insurance, pension and standardised guarantee schemes; financial derivatives and employee stock options; and other accounts receivable/payable. According to the SNA, stocks of financial assets and liabilities are valued at market prices, when appropriate (although some countries might not apply this valuation, in particular for debt securities). Data are based on consolidated financial assets and liabilities except for Chile, Mexico, New Zealand, Brazil and Russia.

This indicator can be used as a proxy measure for net government debt as, similarly to the definition of gross debt, the net debt can be restricted to gross debt minus financial assets corresponding to debt instruments (concept as defined in the *Public Sector Debt Statistics: Guide for Compilers and Users*).

The institutional set-up of recording unfunded liabilities of government employees can have an impact on the financial net worth of general government in diverse countries, making international comparability difficult. This is the case for some OECD countries such as Australia, Canada, Colombia, Sweden and the United States. For that reason, as with government gross debt, an adjusted financial net worth is calculated for these countries. For information on the calculation of financial net worth per capita see *General government revenues*.

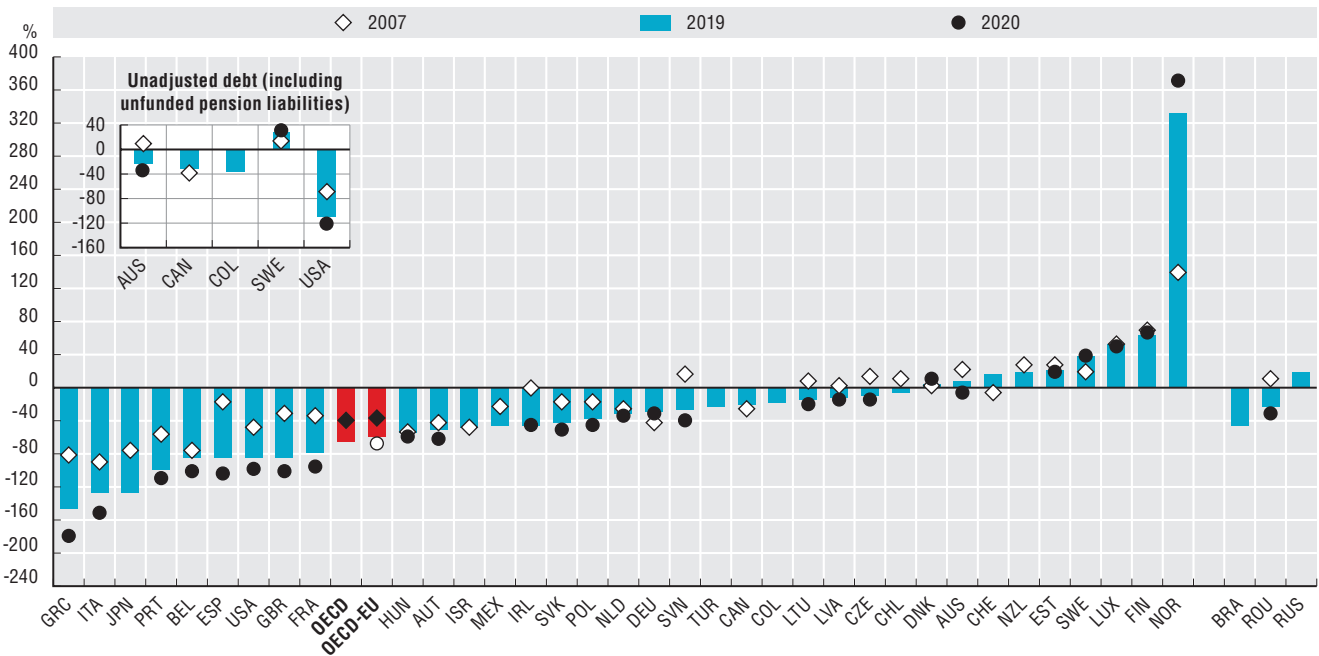
Further reading

OECD (2021), *OECD Economic Outlook, Interim Report March 2021*, OECD Publishing, Paris, <https://doi.org/10.1787/34bfd999-en>.

Figure notes

Data for Australia, Canada, Colombia, Sweden and the United States are reported on an adjusted basis (i.e. excluding unfunded pension liabilities). Data for Iceland and Korea are not available. Data for Colombia, Mexico and Turkey are not included in the OECD average. Data for Israel are for 2018 rather than 2019. Data for Brazil are for 2017 rather than 2019.

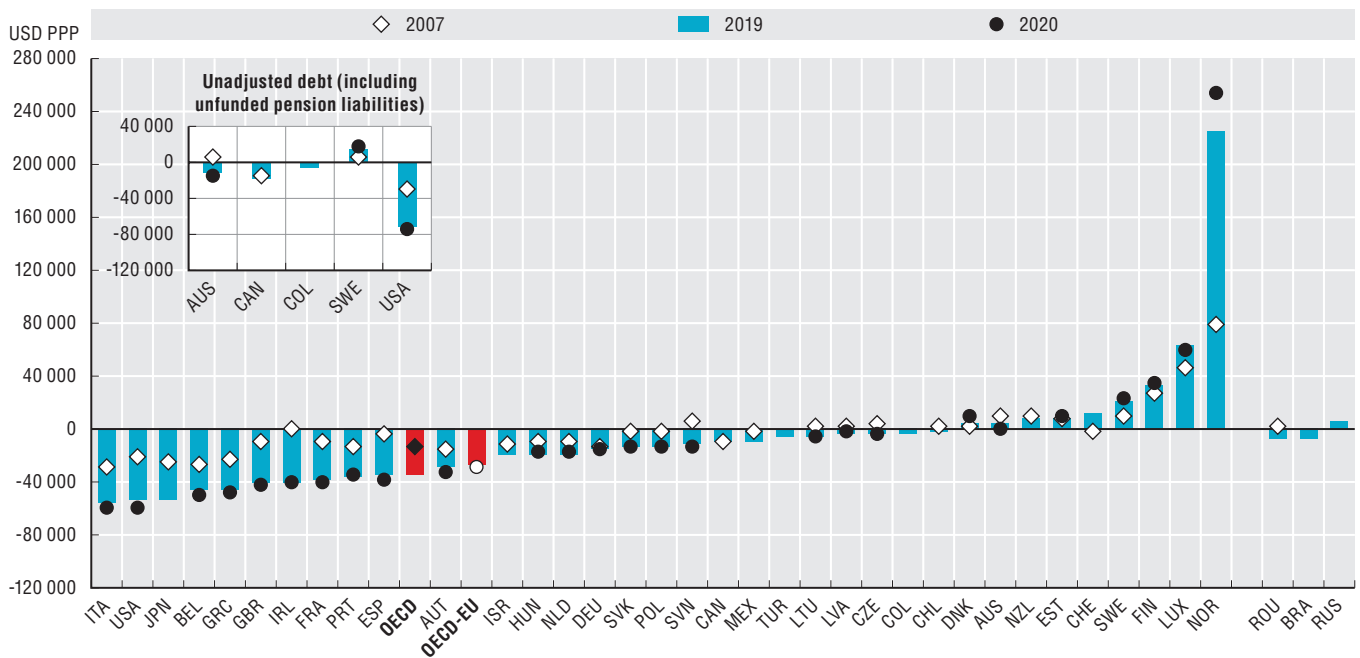
2.11. General government financial net worth as a percentage of GDP, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database).

StatLink <https://doi.org/10.1787/888934256824>

2.12. General government financial net worth per capita, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database).

StatLink <https://doi.org/10.1787/888934256843>

Fiscal balance and debt by level of government

Different administrative systems allow sub-central governments greater or lesser autonomy in raising and spending resources. Correspondingly, fiscal results in those different levels of government may vary substantially. Nevertheless, in order to avoid generating the wrong set of incentives, sub-central governments are often subject to tight fiscal rules, especially about incurring debt in order to finance deficits.

In 2019 the average budget balance among OECD countries was -2.9% of GDP for central government, -0.5% of GDP for state governments and -0.01% of GDP for local governments. Social security funds were in surplus on average, at +0.3% of GDP. As noted above, budget balances deteriorated significantly in 2020 as governments spent large amounts on COVID-19 response measures. National governments were responsible for the bulk of the general government deficit in 2020. In 18 of the 26 OECD countries for which data are available, central government was responsible for more than 90% of the deficit in 2020. Those countries where this was not the case include three federal countries where states were responsible for a substantive portion of the deficit (Belgium, Canada and Germany). They also include three countries where a portion of the deficit in 2020 was accrued via social security funds (Estonia, France and Spain) (Figure 2.13).

General government debt in OECD countries is held mainly by national governments (Figures 2.14 and 2.15). In 2019, on average across OECD countries, national governments held 82% of general government debt. The COVID-19 crisis has had no appreciable effect on the distribution of government gross debt across levels of government. Although national governments have been responsible for most of the deficits incurred in 2020, the proportion of government debt held by national government has not been significantly affected, as they already held the majority of government debt. For example, among the 22 countries which are EU and OECD members (OECD-EU), debt held by national governments increased from an average of 84% of GDP in 2019 to 99% in 2020 (Figure 2.14). However, the national governments' share of national debt remained the same, at around 82% of the total (Figure 2.15).

Methodology and definitions

Data are derived from the OECD National Accounts Statistics (database), based on the System of National Accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for

national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A for details). Using SNA terminology, general government consists of central government, state government, local government and social security funds. State government is only applicable to the nine OECD countries that are federal states: Australia, Austria, Belgium, Canada, Germany, Mexico, Spain (considered a quasi-federal country), Switzerland and the United States. Fiscal balance, also referred to as the net lending (+) or net borrowing (-) of general government, is calculated as total government revenues minus total government expenditures. For additional information on debt, see General government gross debt.

Further reading

OECD (2021), "Sovereign borrowing outlook for OECD countries", in *OECD Sovereign Borrowing Outlook 2021*, OECD Publishing, Paris, <https://doi.org/10.1787/4f246e82-en>.

Figure notes

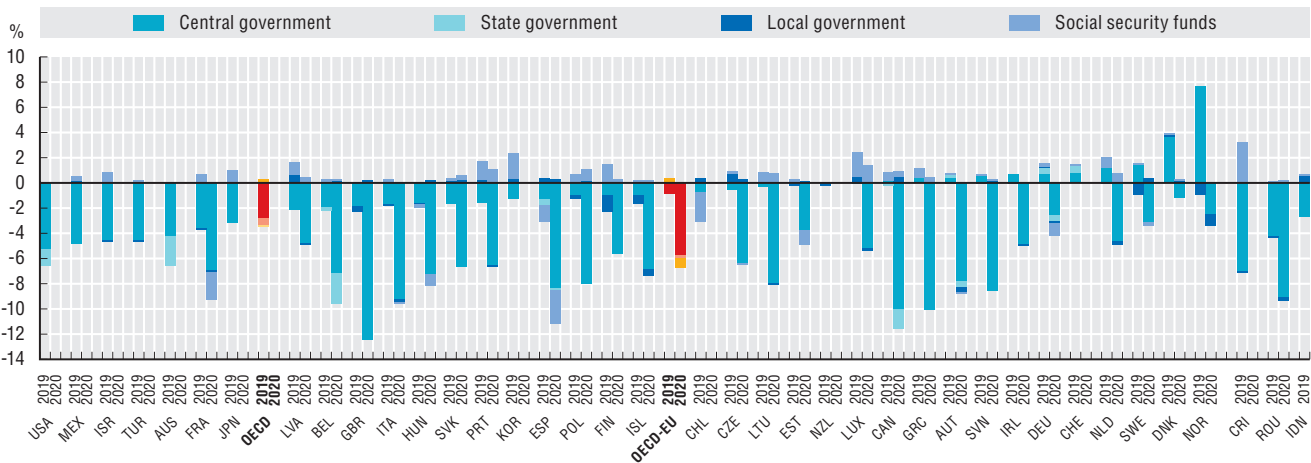
Local government is included in state government for Australia and the United States. Australia does not operate government social insurance schemes. Social security funds are included in central government in Ireland, Norway, the United Kingdom and the United States

2.13. Data for Colombia are not available. Data for Chile and Turkey are not included in the OECD average because of missing time series or main non-financial government aggregates. For Japan, data for sub-sectors of general government refer to fiscal years and are for 2018 rather than 2019.

2.14 and 2.15. Data for Chile, Iceland, Korea and Mexico are not available. Data for Colombia and Turkey are not included in the OECD average. Data for Australia, Canada, Colombia, Sweden and the United States are reported on an adjusted basis (i.e. excluding unfunded pension liabilities). Data for Switzerland and the United States are reported on a non-consolidated basis. For Japan, data for sub-sectors of general government refer to the fiscal year. Data for Israel are for 2018 rather than 2019.

2.15. Data are consolidated within the subsectors of general government. However, at the level of general government, flows between levels of government are included.

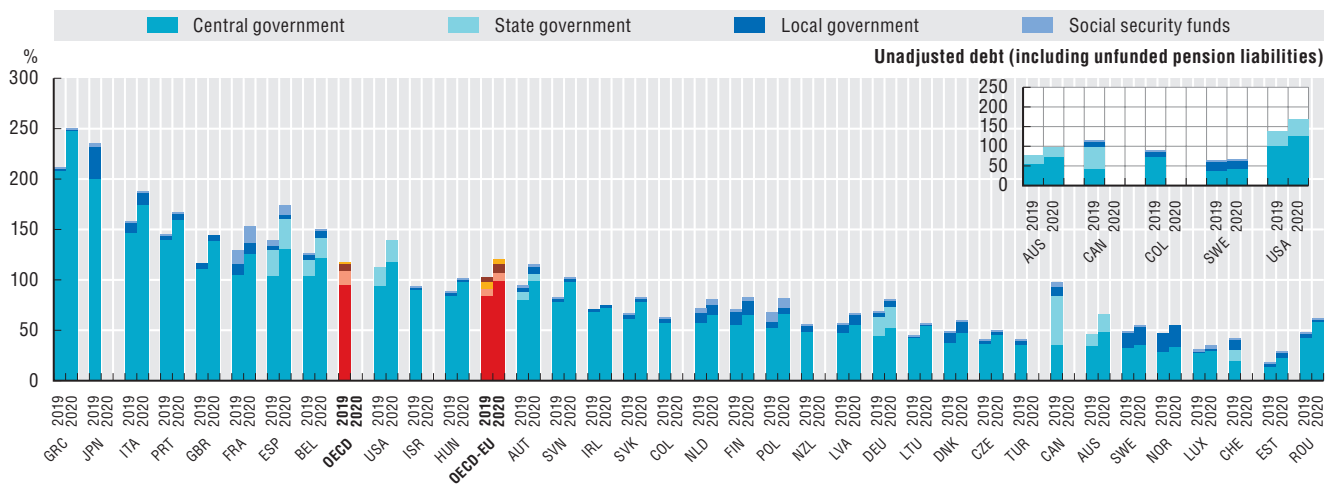
2.13. Government fiscal balances across levels of government as a percentage of GDP, 2019 and 2020



Source: OECD National Accounts Statistics (database).

StatLink <https://doi.org/10.1787/888934256862>

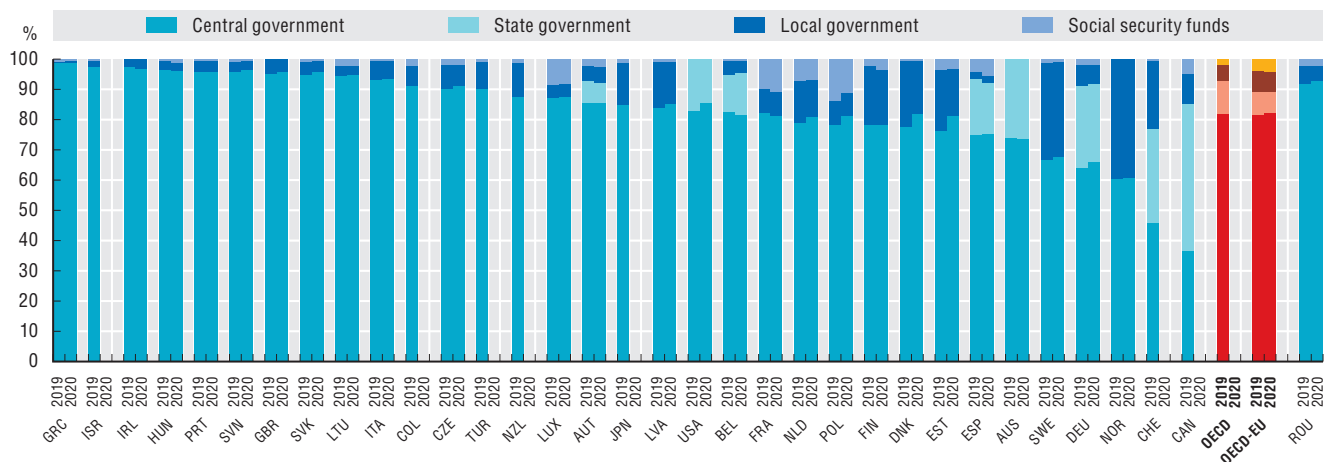
2.14. Government gross debt across levels of government as a percentage of GDP, 2019 and 2020



Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database).

StatLink <https://doi.org/10.1787/888934256881>

2.15. Distribution of government gross debt across levels of government, 2019 and 2020



Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database).

StatLink <https://doi.org/10.1787/888934256900>

General government revenues

Government revenues are government income. The main sources of revenue in OECD countries are typically taxes and social contributions, with some income from charges for services provided by the state. In some countries, revenues may include a significant portion from non-tax sources, such as income from state-owned enterprises or royalties on natural resources. Revenue policy is typically designed to serve multiple purposes. The most fundamental is to collect funds to pay for the provision of goods and services for the population, such as health care and defence. Policies will often also be designed not to worsen inequality, such as by levying higher income taxes on those with higher incomes. Policies can be used to encourage socially beneficial activities (such as tax breaks on research and development) and discourage harmful ones (such as taxes on carbon emissions or tobacco). In some cases, these different purposes may conflict with each other.

On average, general government revenues across the OECD were 37.7% of GDP in 2019. Most OECD countries (24 of 36) collected between 30% and 45% of GDP as government revenues. However, the range is wide, spanning 58.1% of GDP in Norway to 22.4% in Mexico. This variety reflects both policy choices and differences in the structure of the economy. For example, Mexico collects substantially lower social security contributions and taxes on personal income than most OECD countries, while a substantial portion of Norway's government revenue comes from non-tax sources, including oil revenue. General government revenues as a percentage of GDP changed very little in most countries during 2007-19. The largest changes were partly due to changes in GDP rather than changes in tax policy alone. The biggest rise was in Greece (+8.6 p.p. of GDP during 2007-19), due to a drop in real GDP in the same period. The biggest fall was in Ireland (-11.2 p.p. during 2007-19). A significant contributor to this was rises in GDP as large overseas firms located in Ireland (Figure 2.16).

General government revenues per capita vary widely across the OECD. This variation is partially driven by differences in income per capita among OECD members. The three OECD countries with the lowest government revenue per capita (Colombia, Mexico and Turkey) are also among the four countries with the lowest nominal income per capita. The two countries with the highest government revenue per capita (Luxembourg and Norway) are among the four OECD countries with the highest nominal income per capita. Between these extremes, variation is also driven by policy choices. For example, the United States ranks 5th in terms of nominal income per capita, but 16th in government revenue per capita. This partly reflects policy decisions to set relatively lower tax rates and/or narrower tax bases than in many OECD countries (Figure 2.17).

The annual growth rate of real government revenues per capita averaged 0.87% across OECD countries during 2007-19. Most countries (30 of 35) saw positive growth over this period but this was sharply reversed in 2020. Among

26 countries for which data are available, 24 had falling real revenues per capita in 2020. In 13, revenues per capita fell by more than 5% (Figure 2.18). This reflected two impacts of the COVID-19 crisis. First, some countries put in place tax relief policies to support citizens and businesses during the COVID-19 crisis. Second, income per capita fell during 2020, meaning less income against which tax was due.

Methodology and definitions

Revenues data are derived from the OECD *National Account Statistics* (database), which is based on the *System of National Accounts* (SNA). The SNA provides a set of internationally agreed concepts, classifications, definitions and rules for national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A for details on reporting systems and sources). In SNA terminology, general government is composed of central government, state government, local government and social security funds. Revenues include taxes, net social contributions and grants and other revenues. Gross domestic product (GDP) is the standard measure of the value of goods and services produced by a country during a period. Government revenues per capita were calculated by converting total revenues to USD using the OECD/Eurostat purchasing power parity (PPP) for GDP and dividing them by the population of the country. PPP is the number of units of country B's currency needed to purchase the same quantity of goods and services in country A.

Further reading

OECD (2021), *Tax Policy Reforms 2021: Special Edition on Tax Policy during the COVID-19 Pandemic*, OECD Publishing, Paris, <https://doi.org/10.1787/427d2616-en>.

Akgun, O., D. Bartolini and B. Cournède (2017), "The capacity of governments to raise taxes", *OECD Economics Department Working Papers*, No. 1407, OECD Publishing, Paris, <https://doi.org/10.1787/6bee2df9-en>.

OECD (2020), *OECD Economic Surveys: Ireland 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/dec600f3-en>.

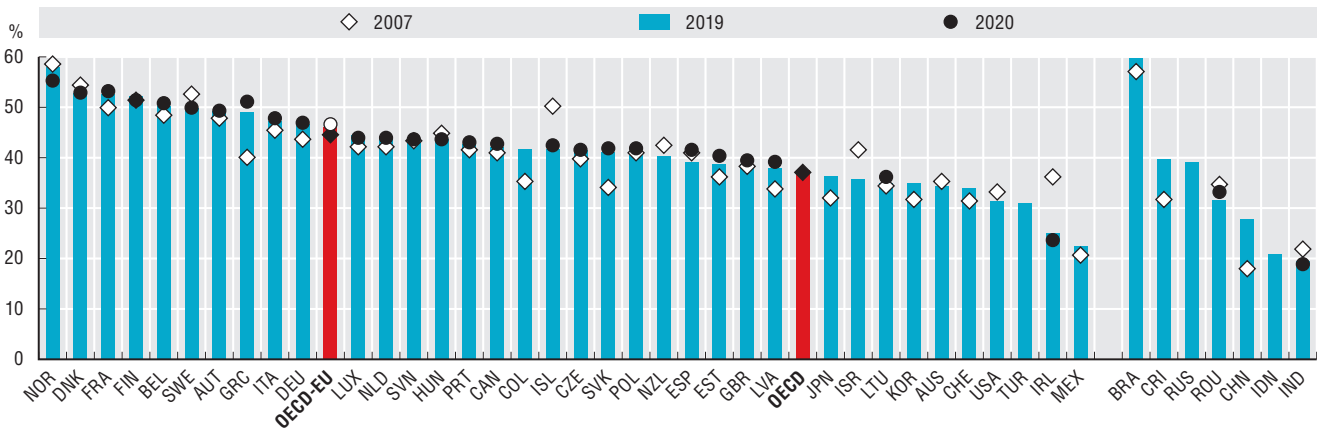
Figure notes

Data for Chile are not available. Data for Turkey are not included in the OECD average because of missing time series.

2.16 and 2.17. Data for Japan, Brazil and Russia are for 2018 rather than 2019.

2.18. Data for Japan and Brazil are for 2007-18 rather than 2007-19.

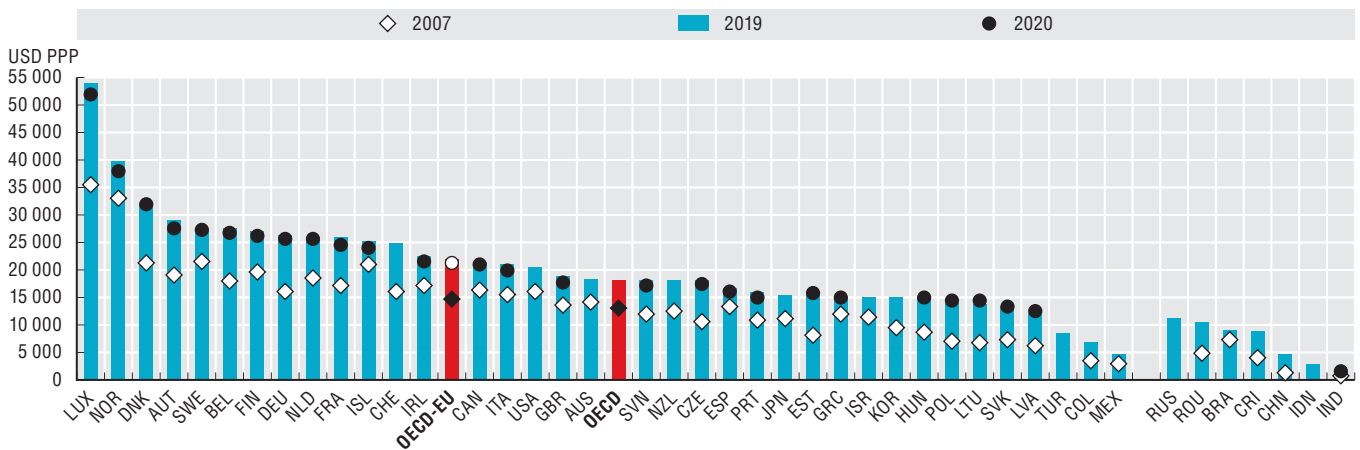
2.16. General government revenues as a percentage of GDP, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database). Data for China and India are from the IMF Economic Outlook (April 2021).

StatLink <https://doi.org/10.1787/888934256919>

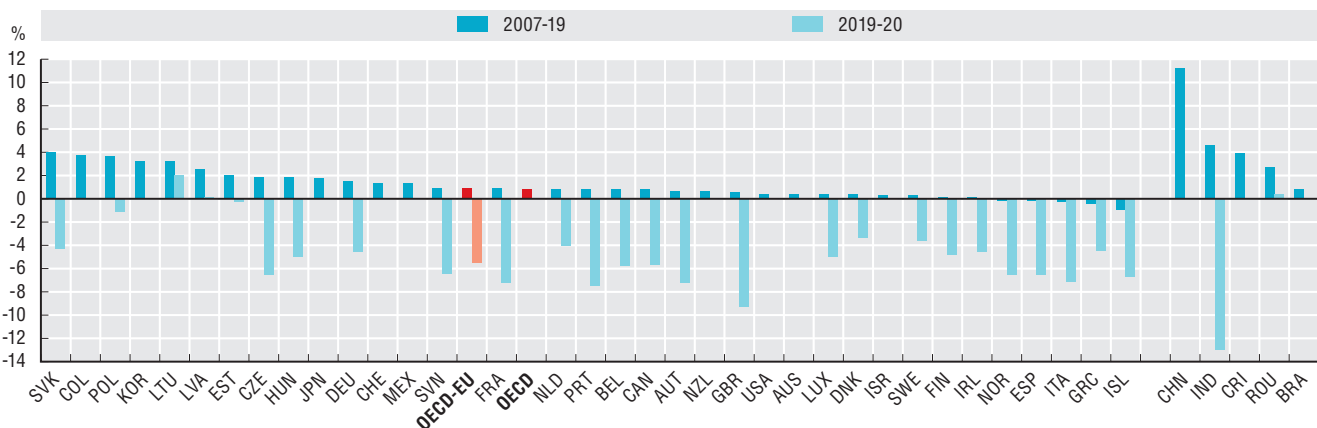
2.17. General government revenues per capita, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database). Data for China and India are from the IMF Economic Outlook (April 2021).

StatLink <https://doi.org/10.1787/888934256938>

2.18. Annual average growth rate of real government revenues per capita, 2007-19 and 2019-20



Source: OECD National Accounts Statistics (database). Data for India are from the IMF Economic Outlook (April 2021).

StatLink <https://doi.org/10.1787/888934256957>

Structure of general government revenues

The structure of government revenues shows the sources of revenues and helps identify the relative contribution of citizens and/or sectors of the economy towards paying for public expenditure.

According to the latest available data, in 2019, 59.5% of revenues in OECD countries were raised through taxes, followed by net social contributions (25.2%), sales (8.5%), and grants and other revenues (6.8%) (Figure 2.19). Between 2007 and 2019 the most important change in the composition of average revenues was the increase in the relative importance of net social contributions (+1 p.p.). This increase is the highest in Korea (5.8 p.p.) and Norway (3.5 p.p.). In Mexico, the relative importance of taxes rose by over 10 p.p. reflecting, among other things, policies increasing taxes on income, profits and personal gains, and tax administration measures to increase efficiency (Figure 2.20).

Between 2019 and 2020, on average, the share of total revenues collected through taxes in the OECD-EU countries fell by 0.7 p.p. from 57.7% to 57.0% (Figure 2.19). This is equivalent to one-third of the size of the change that occurred between 2007 and 2013 in OECD countries. The fall resulted from the slowing down of economic activity and its effects on revenue collection due to the COVID-19 pandemic. There is also wide variation in the relative importance of taxes as a source of revenues. In Denmark (88.7%) and Sweden (80.1%) taxes represented over 80% of total revenue in 2020. At the other end of the spectrum, taxes formed the smallest share in the Slovak Republic (45.4%) and Slovenia (46.5%).

The composition of revenues also varies by levels of government. In most cases central government relies heavily on taxes: 73% on average across OECD countries in 2019 (Online Figure G.4) while almost half of local government revenues was from grants and other revenues (Online Figure G.6). In the case of federal and quasi-federal countries there is more variation. States in Germany, Canada, the United States and Switzerland raise more than 50% of their income from taxes, while it is less than 10% in Mexico and Austria (Online Figure G.5).

The Revenue Statistics dataset treats social contributions as taxes. On average in 2018, over one-third of all taxes collected were on income and profits, followed by social security contributions (25.7%). Between 2007 and 2018, the importance of social contributions increased relative to taxes on income and profit. On average, income and profit taxes fell by 1.4 p.p. while social contributions rose by 1.3 p.p. It is worth noting that the share of corporate income tax recorded a peak in 2007 and, while it has increased in recent years, it is far from regaining that level. The largest change during this period was in Lithuania, where income and profit taxes fell by 11.6 p.p. while social contributions rose by 11.9 p.p. (Figure 2.21).

Methodology and definitions

Data on revenues are computed from the OECD National Accounts Statistics (database), which are based on the System of National Accounts (SNA). The 2008 SNA framework has been implemented by all OECD countries (see Annex A). Revenues include taxes (e.g. on consumption, income, wealth, property and capital), net social contributions (i.e. contributions for pensions, health and social security after deduction of social insurance scheme service charges, where applicable), sales of goods and services (e.g. market output of government establishments, entrance fees), and grants and other sources (e.g. current and capital grants, property income, and subsidies). These aggregates were constructed using sub-account items (see Annex B). The data in Figure 2.21 come from OECD Revenue Statistics. The definitions of tax revenues differ between SNA and OECD Revenue Statistics, especially regarding compulsory social security contributions. In SNA, taxes are mandatory unrequited payments, in cash or in kind, made by institutional units to the government. Net social contributions are actual or imputed payments to social insurance schemes to make provision for social benefits to be paid. These may be compulsory or voluntary and funded or unfunded. OECD Revenue Statistics treat compulsory social security contributions as taxes, whereas the SNA considers them net social contributions because the receipt of social security benefits depends, in most countries, upon appropriate contributions having been made, even though the size of the benefit is not necessarily related to the amount of the contributions.

Further reading

OECD (2020), *Revenue Statistics 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/8625f8e5-en>.

Figure notes

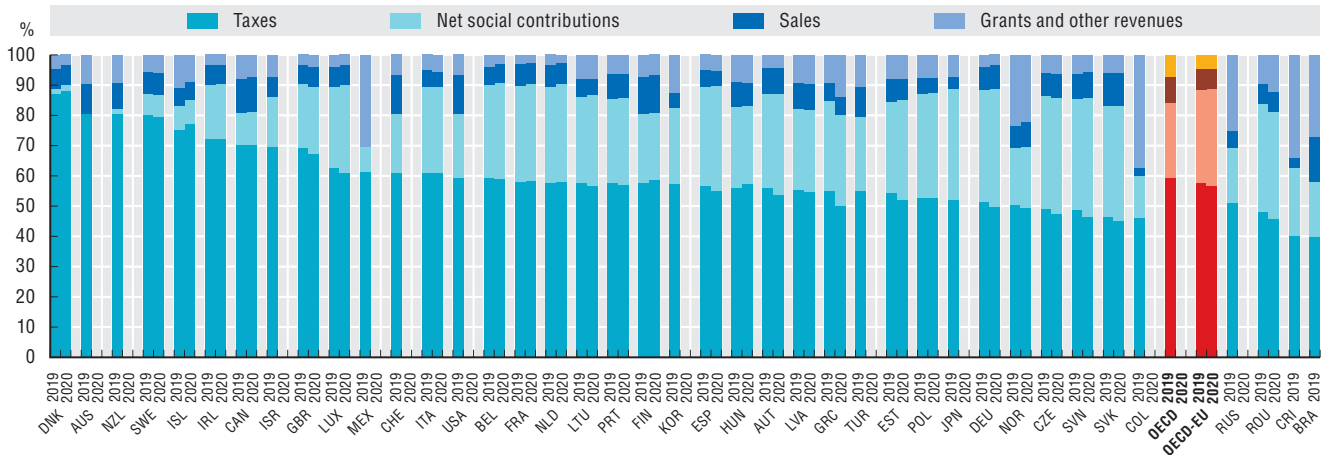
2.19 and 2.20. Data for Chile are not available. Data for Turkey are not included in the OECD average due to missing time series. Australia does not collect revenues via social contributions because it does not operate government social insurance schemes. Data for Japan, Brazil and Russia are for 2018 rather than 2019.

2.20. Data for Turkey are not available.

2.21. For the OECD-EU countries, total taxation includes custom duties collected on behalf of the EU. 2018 is the latest year for which data are available for all OECD countries. OECD average is unweighted.

G.4 to G.6. (Structure of revenues by levels of government) are available online in Annex G.

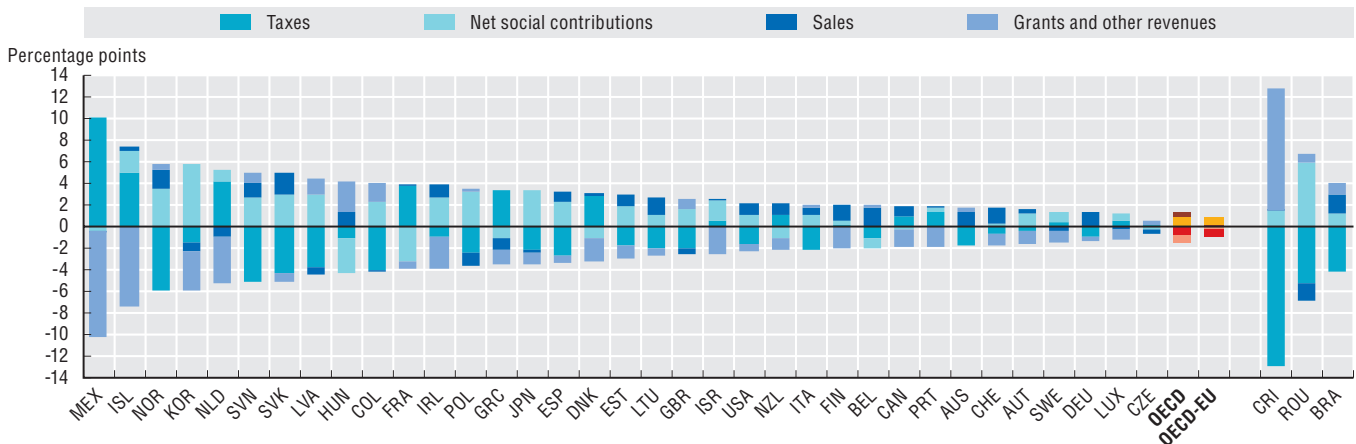
2.19. Structure of general government revenues, 2019 and 2020



Source: OECD National Accounts Statistics (database).

StatLink <https://doi.org/10.1787/888934256976>

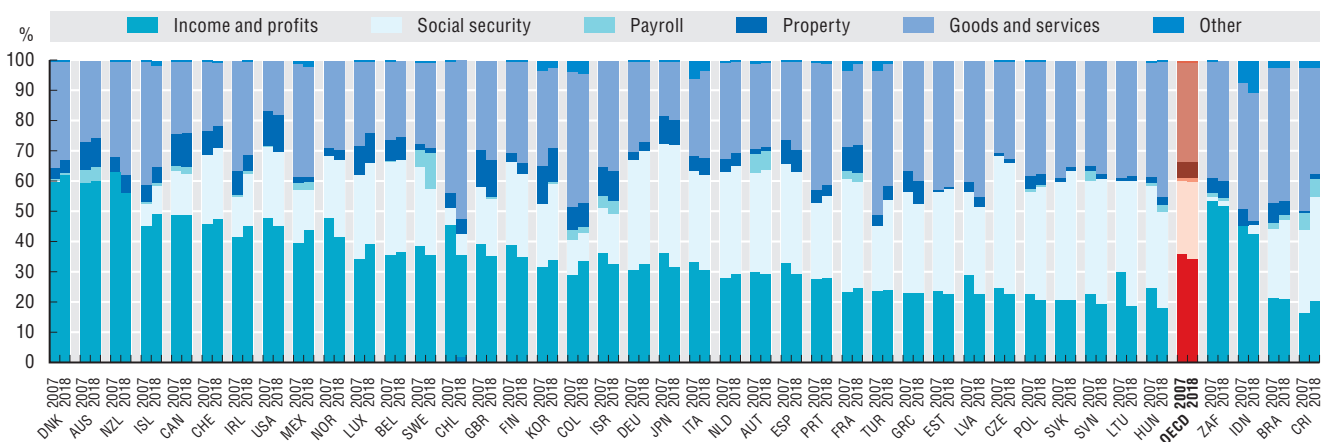
2.20. Change in the structure of general government revenues, 2007 to 2019



Source: OECD National Accounts Statistics (database).

StatLink <https://doi.org/10.1787/888934256995>

2.21. Breakdown of tax revenues as a percentage of total taxation, 2007 and 2018



Source: OECD Revenue Statistics 2020.

StatLink <https://doi.org/10.1787/888934257014>

General government expenditures

Governments are responsible for providing a range of goods and services to their populations. Some of these are their exclusive competence (e.g. the justice system). Others may be provided both by government and other entities (e.g. health care), and public provision may vary substantially across countries. Governments also work to redistribute income across society, e.g. through social benefits and subsidies. Government expenditures in OECD countries are primarily used to provide public services and transfer income across society. Government expenditures are usually less variable than their revenues, since they are less sensitive to economic upturns and downturns than taxes. One key reason is that some expenditure implements long-term policies which guarantee citizens certain entitlements, such as universal primary education.

General government expenditures in OECD countries averaged 40.8% of GDP in 2019. In 27 of 36 OECD countries, government expenditures were between 35% and 50% of GDP. European countries tend to have higher government expenditures than others, accounting for 9 of the 10 OECD members with the highest government expenditures. General government expenditures increased in 2020: in all 26 countries with data available, government expenditures rose as a share of GDP. In the 22 OECD-EU countries, they increased by an average of 7 p.p. of GDP between 2019 and 2020. This reflects both the extensive spending on health care and income support for citizens and businesses during 2020, and also the fall in GDP caused by the COVID-19 crisis (Figure 2.22).

General government expenditures per capita averaged USD 19 587 PPP in 2019; 28 out of 36 OECD countries spent between USD 12 000 and USD 28 000 PPP per capita. At the extremes, this variation is driven by differences in income. The three OECD countries with the lowest government expenditure per capita (Colombia, Mexico and Turkey) are also among the four OECD countries with the lowest nominal income per capita. The two with the highest government expenditure per capita (Luxembourg and Norway) are among the four OECD countries with the highest nominal income per capita. Variation is also driven by policy choices. For example, France ranked 16th among OECD members on income per capita in 2019, but 7th on government expenditure per capita. This reflects France's larger public sector and greater public provision of goods and services than in many other countries. General government expenditure per capita rose in all 26 OECD countries for which data are available in 2020 as governments responded to COVID-19. In 16 countries, the increase was more than USD 2 000 PPP per capita (Figure 2.23).

The annual growth rate of real government expenditures per capita from 2007 to 2019 averaged 1.2% across OECD countries, with 32 of 35 countries seeing positive growth on average over this period. Growth rates increased sharply in 2020. All 26 countries for which data are available report an increase in the growth rate of real government

expenditures in 2019-20. On average, in the 22 OECD-EU countries the growth rate was 7.65%, up from an average of 0.95% per year during 2007-19. The largest increases were in Lithuania (from 2.9% per year during 2007-19 to 24.5% in 2020) and Canada (from 1.0% to 19.5%). This directly reflects the impact of the COVID-19 crisis, as governments spent large sums on income support, health care and other areas to manage the effects of the crisis (Figure 2.24).

Methodology and definitions

General government expenditures data are from the OECD National Accounts Statistics (database), which are based on the System of National Accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A for details). In SNA terminology, general government consists of central, state and local governments and social security funds. Expenditures encompass intermediate consumption, compensation of employees, subsidies, property income (including interest spending), social benefits, other current expenditures (mainly current transfers) and capital expenditures (capital transfers and investments). Gross domestic product (GDP) is the standard measure of the value of the goods and services produced by a country during a period. Government expenditures per capita were calculated by converting total government expenditures to USD using the OECD/Eurostat purchasing power parities (PPP) for GDP and dividing by population of the country. PPP is the number of units of country B's currency needed to buy the same quantity of goods and services in country A.

Further reading

OECD (2019), *OECD Economic Surveys: France 2019*, OECD Publishing, Paris, <https://doi.org/10.1787/a0eee144-en>.

Causa, O., J. Browne and A. Vindics (2019), "Income redistribution across OECD countries: Main findings and policy implications", *OECD Economic Policy Papers*, No. 23, OECD Publishing, Paris, <https://doi.org/10.1787/3b63e61c-en>.

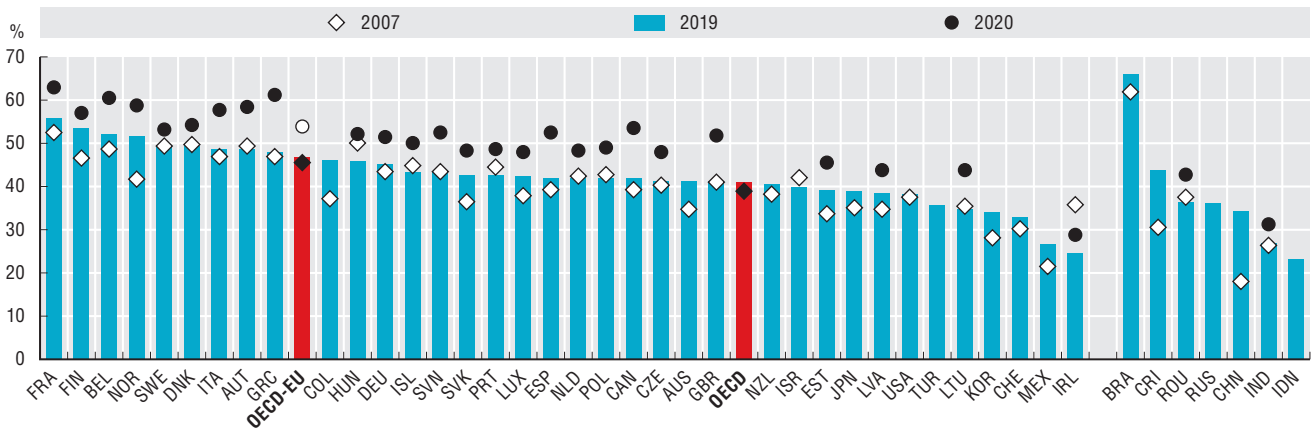
Figure notes

Data for Chile are not available. Data for Turkey are not included in the OECD average because of missing time series.

2.22 and 2.23. Data for Japan, Brazil and Russia are for 2018 rather than 2019.

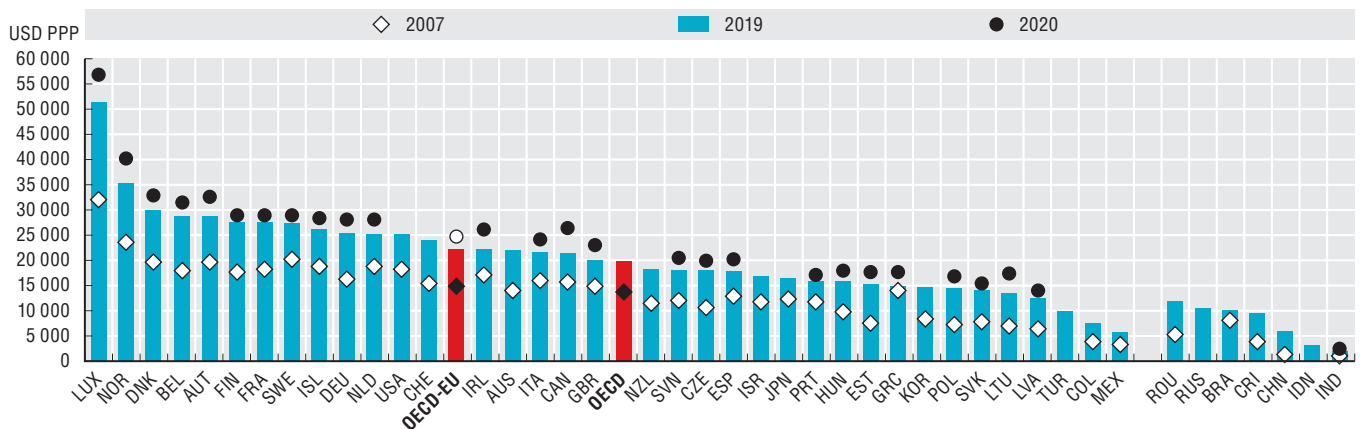
2.24. Data for Japan and Brazil are for 2007-18 rather than 2007-19.

2.22. General government expenditures as a percentage of GDP, 2007, 2019 and 2020



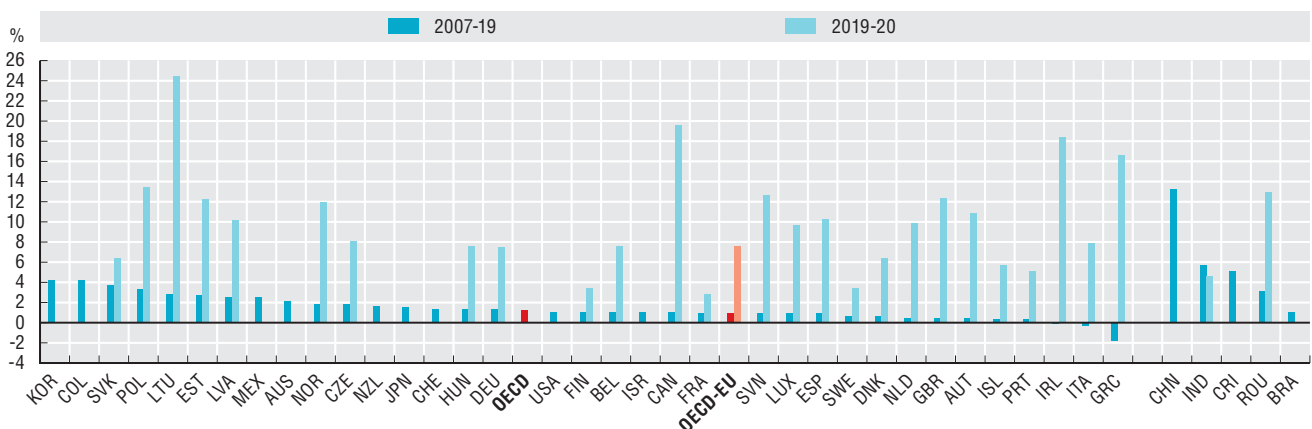
Source: OECD National Accounts Statistics (database). Data for China and India are from the IMF Economic Outlook (April 2021).
StatLink <https://doi.org/10.1787/888934257033>

2.23. General government expenditures per capita, 2007, 2019 and 2020



Source: OECD National Accounts Statistics (database). Data for China and India are from the IMF Economic Outlook (April 2021).
StatLink <https://doi.org/10.1787/888934257052>

2.24. Annual average growth rate of real government expenditures per capita, 2007-19 and 2019-20



Source: OECD National Accounts Statistics (database). Data for India are from the IMF Economic Outlook (April 2021).
StatLink <https://doi.org/10.1787/888934257071>

General government expenditures by function (COFOG)

Governments are responsible for a wide array of tasks, ranging from protecting borders to building hospitals and delivering passports. Governments' expenditures by function reveal how much they spend on key areas, such as education, health, defence, social protection and public order and safety. Examining the levels of spending in these different functions helps to provide information about national priorities and policy choices, as well as preferences for delivery modes (i.e. fully public or a combination of public and private).

On average, in 2019, the largest portion of government resources in OECD countries was spent on social protection (13.3% of GDP), which includes old age pensions, sickness and disability benefits, and unemployment benefits. Finland (24%), France (23.9%) and Denmark (21.4%) spent the largest share of their GDP on social protection. Chile (5.9%), Korea (6.9%) and the United States (7.6%) spent the smallest share (Table 2.25).

Hospital services, outpatient services, appliances and equipment, and medical products, including vaccines, all form part of health care spending. This is the second largest spending category on average in OECD countries, at 7.9% of GDP. The United States (9.3%), Norway (8.7%) and Denmark (8.2%) spent the most in this category. However, even among countries with high spending levels there are stark differences. For example, while health care in Norway and Denmark is entirely public, only just over one-third of the US population are covered by a public health insurance scheme. At the other end of the spectrum, Switzerland (2.1%), Latvia (4.2%) and Chile (4.4%) spent the least on health care. In Switzerland health care is provided mainly through compulsory private insurance schemes.

General public services (e.g. public debt transactions, the functioning of the central executive and legislative bodies, and transfers between levels of government) accounted for 5.4% of GDP across OECD countries in 2019. Italy (7.5%), Greece (7.9%) and Finland (7.9%) spent the most on this function. Public debt transactions represented the largest component of this function for Italy and Greece, while general services made up over half of it in Finland. On average, OECD countries spend 5.1% of GDP on education and 3.9% on economic affairs. This last category encompasses subsidies to enterprises and economic sectors. Environmental protection is the category with the lowest level of spending, at 0.5% of GDP on average for OECD countries.

Between 2007 and 2019 public expenditures on social protection increased by 1.4 p.p. of GDP on average. The increase has been steepest in Finland (5 p.p.) and Spain

(4.5 p.p.). Health spending in terms of GDP has also grown by 1.1 p.p. on average, with Norway (1.8 p.p.), Korea (1.6 p.p.) and the United States (1.6 p.p.) experiencing the largest increases. Over the same period, spending on general public services decreased on average by 0.5 p.p. with Greece (3.7 p.p.) and Israel (3.4 p.p.) registering the steepest reduction in this area (Table 2.26).

Methodology and definitions

Expenditures data are derived from the OECD National Accounts Statistics (database) and Eurostat Government Finance Statistics (database), which are based on the System of National Accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A). Data on expenditures are disaggregated according to the Classification of the Functions of Government (COFOG), which divides expenditures into ten functions (I level): general public services; defence; public order and safety; economic affairs; environmental protection; housing and community amenities; health; recreation, culture and religion; education; and social protection. See Annex C for more information about the types of expenditures included. Further data on the structure of government expenditures by COFOG I level functions (including levels of government) and detailed data by selected COFOG II level functions are available online in Annex G (Online Tables G.7 to G.15).

Further reading

OECD (2019), *Health at a Glance 2019: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/4dd50c09-en>.

OECD (2020), *Education at a Glance 2020: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/69096873-en>.

Figure notes

Data are not available for Canada, Mexico, New Zealand and Turkey. Data for Australia, Japan and Korea refer to 2018 rather than 2019.

2.25. Data for Chile and Colombia are not part of the OECD average due to missing time series. Data for Chile and Colombia refer to 2018 rather than 2019. Data for Costa Rica refer to 2017 rather than 2019.

2.26. Data are not available for Chile and Colombia.

2.25. General government expenditures by function as a percentage of GDP, 2019

	General public services	Defence	Public order and safety	Economic affairs	Environmental protection	Housing and community amenities	Health	Recreation, culture and religion	Education	Social protection
Australia	4.0	2.3	2.0	4.9	0.9	0.6	7.3	0.9	5.8	9.8
Austria	5.7	0.6	1.3	5.8	0.4	0.3	8.3	1.2	4.8	20.1
Belgium	6.9	0.8	1.7	6.7	1.3	0.3	7.6	1.3	6.2	19.4
Chile	3.0	1.1	2.0	2.3	0.2	0.9	4.4	0.3	5.5	5.9
Colombia	4.9	1.2	2.1	3.1	0.5	0.5	5.1	0.7	4.2	8.7
Czech Republic	4.4	0.9	1.9	6.1	0.8	0.7	7.6	1.4	4.9	12.6
Denmark	6.0	1.1	1.0	3.1	0.4	0.2	8.2	1.6	6.3	21.4
Estonia	3.5	2.1	1.8	3.9	0.7	0.4	5.3	2.0	6.0	13.2
Finland	7.9	1.2	1.2	4.2	0.2	0.3	7.1	1.5	5.6	24.0
France	5.5	1.7	1.6	6.0	1.0	1.1	8.0	1.4	5.3	23.9
Germany	5.7	1.1	1.6	3.3	0.6	0.4	7.4	1.0	4.3	19.7
Greece	7.9	2.0	2.1	4.0	1.4	0.2	5.3	0.8	4.0	19.8
Hungary	8.2	1.0	2.1	8.0	0.5	0.8	4.5	3.0	4.7	12.7
Iceland	7.2	0.1	1.5	4.9	0.6	0.5	7.8	3.0	7.0	10.9
Ireland	2.7	0.2	0.9	2.3	0.4	0.7	4.7	0.5	3.1	8.9
Israel	4.2	5.3	1.6	2.9	0.5	0.2	5.4	1.5	7.0	11.1
Italy	7.5	1.3	1.8	4.0	0.9	0.5	6.8	0.8	3.9	21.1
Japan	3.8	0.9	1.2	3.7	1.1	0.7	7.7	0.4	3.3	16.1
Korea	4.0	2.4	1.2	4.4	0.8	1.0	4.7	1.0	4.8	6.9
Latvia	3.8	1.9	2.2	5.3	0.6	1.0	4.2	1.5	5.8	12.1
Lithuania	3.5	1.6	1.4	3.0	0.4	0.5	6.2	1.2	4.6	12.3
Luxembourg	5.0	0.4	1.2	5.2	0.9	0.6	5.0	1.3	4.7	18.0
Netherlands	4.1	1.3	1.8	3.8	1.4	0.4	7.7	1.2	5.0	15.4
Norway	4.8	1.9	1.2	6.0	0.9	0.8	8.7	1.8	5.6	19.7
Poland	4.2	1.6	2.1	4.8	0.5	0.5	4.9	1.3	5.0	16.7
Portugal	6.7	0.8	1.7	3.6	0.6	0.5	6.6	0.9	4.4	16.9
Slovak Republic	5.4	1.1	2.3	5.1	0.8	0.5	7.7	1.2	4.2	14.4
Slovenia	5.2	1.0	1.6	4.5	0.6	0.4	6.7	1.4	5.5	16.5
Spain	5.5	0.8	1.8	4.0	0.9	0.4	6.1	1.1	4.0	17.4
Sweden	6.9	1.2	1.3	4.4	0.5	0.7	7.0	1.3	6.9	19.0
Switzerland	4.2	0.8	1.6	3.9	0.6	0.2	2.1	1.0	5.4	12.9
United Kingdom	4.3	2.0	1.8	3.5	0.6	0.8	7.7	0.6	4.9	14.8
United States	5.8	3.4	1.9	3.4	0.0	0.5	9.3	0.3	5.9	7.6
OECD	5.4	2.2	1.7	3.9	0.5	0.6	7.9	0.7	5.1	13.3
OECD-EU	5.8	1.2	1.7	4.4	0.8	0.6	7.0	1.2	4.7	19.3
Costa Rica	3.7	0.0	2.5	3.2	0.4	0.8	5.9	0.2	7.7	8.3
Romania	4.2	1.7	2.2	4.7	0.7	1.1	5.0	1.0	3.6	11.9

Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database).

StatLink  <https://doi.org/10.1787/888934257090>

2.26. Change in general government expenditures by function as a percentage of GDP, 2007 to 2019

	General public services	Defence	Public order and safety	Economic affairs	Environmental protection	Housing and community amenities	Health	Recreation, culture and religion	Education	Social protection
Australia	0.3	0.5	0.2	0.2	0.2	-0.1	0.9	0.0	0.5	0.2
Austria	-1.9	-0.2	0.0	-0.1	-0.1	-0.1	0.9	-0.3	0.1	0.7
Belgium	-1.8	-0.2	0.0	1.1	0.5	-0.1	0.8	0.0	0.6	2.6
Czech Republic	-0.2	-0.2	0.0	-0.3	-0.1	-0.3	0.9	0.0	0.6	0.5
Denmark	-0.7	-0.3	0.0	0.1	-0.1	-0.1	0.6	-0.1	0.3	0.0
Estonia	0.2	0.8	-0.3	-0.4	-0.2	-0.2	1.0	-0.1	0.3	4.1
Finland	1.3	-0.2	0.0	-0.2	-0.1	0.0	0.7	0.4	-0.1	5.0
France	-1.6	0.0	0.2	1.7	0.1	-0.1	0.6	0.0	0.0	2.2
Germany	-0.5	0.2	0.1	0.0	0.1	-0.4	1.0	0.0	0.4	0.8
Greece	-3.7	-0.8	0.6	-0.2	0.6	0.0	-0.7	0.2	0.4	4.1
Hungary	-1.4	-0.2	0.2	1.5	-0.1	-0.2	-0.4	1.5	-0.8	-4.5
Iceland	-2.8	0.0	0.1	-0.7	0.0	0.2	0.3	-0.2	-0.8	2.8
Ireland	-0.7	-0.1	-0.6	-1.3	-0.6	-1.0	-1.5	-0.1	-1.2	-4.2
Israel	-3.4	-1.7	0.1	0.4	0.0	-0.2	0.6	0.2	0.6	0.7
Italy	-1.7	0.1	0.0	0.0	0.1	-0.2	0.1	0.1	-0.5	3.7
Japan	-0.6	0.1	0.0	0.2	0.0	-0.1	1.5	0.1	-0.1	2.7
Korea	-0.4	0.2	0.1	-1.1	-0.1	-0.2	1.6	0.2	0.5	2.2
Latvia	-0.2	0.5	-0.2	-0.2	-0.3	-0.2	0.2	-0.2	0.2	4.2
Lithuania	-0.9	-0.1	-0.3	-1.3	-0.5	0.2	1.0	0.1	-0.4	1.5
Luxembourg	0.2	0.2	0.3	0.0	0.2	0.0	0.3	0.0	0.3	2.8
Netherlands	-1.4	0.0	0.0	-0.5	-0.1	-0.1	1.0	-0.1	-0.1	1.0
Norway	-1.1	0.3	0.4	2.2	0.4	0.3	1.8	0.5	0.7	4.2
Poland	-1.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.4	0.2	-0.7	1.1
Portugal	-0.4	-0.4	-0.1	-0.5	0.0	-0.2	-0.6	-0.2	-1.5	2.0
Slovak Republic	1.3	0.3	0.1	0.9	0.1	-0.1	1.5	0.4	0.6	1.4
Slovenia	-0.3	-0.4	-0.1	0.4	-0.2	-0.2	0.7	0.1	-0.4	0.2
Spain	0.5	-0.2	0.0	-1.4	-0.1	-0.5	0.4	-0.4	0.0	4.5
Sweden	-0.8	-0.3	0.0	0.5	0.0	0.2	0.6	0.1	0.7	-1.0
Switzerland	0.0	0.0	0.2	0.3	-0.1	0.1	0.5	0.0	0.6	1.0
United Kingdom	0.1	-0.2	-0.5	0.7	-0.3	-0.3	1.2	-0.3	-0.8	0.5
United States	-0.2	-0.6	-0.2	-0.3	0.0	-0.1	1.6	0.0	-0.4	0.9
OECD	-0.5	-0.2	-0.1	0.0	0.0	-0.2	1.1	0.0	-0.1	1.4
OECD-EU	-1.0	0.0	0.1	0.1	0.0	-0.2	0.5	0.0	0.0	1.8
Romania	-0.2	-0.1	-0.2	-3.7	0.3	-0.4	1.4	0.0	-0.2	1.8

Source: OECD National Accounts Statistics (database); Eurostat Government Finance Statistics (database).

StatLink  <https://doi.org/10.1787/888934257109>

Breakdown of government spending by functions of social protection and health (COFOG)

Social protection and health care are on average the most important spending categories in OECD countries. The availability of data for OECD-EU countries and some other OECD members allows these broad spending categories to be examined in greater detail. Social spending and health care are particularly important as many OECD-EU countries share common challenges. These are associated with the evolution of their demographic profiles (i.e. higher life expectancy and/or low fertility rates) alongside rapid technological change in the health sector and more expensive treatments.

On average, the most important spending category within social protection is old age pensions, which amounted to 10.5% of GDP in 2019, ranging from 13.8% in Greece to 3% in Ireland (Table 2.27). Between 2009 and 2019 spending on old age pensions increased by 2.4 p.p. as a share of total social protection spending, the largest increase within all social protection categories. Unemployment benefits (2.8 p.p.) decreased the most (Online Table G.18).

The second largest category within social spending is sickness and disability benefits, averaging 2.7% of GDP in 2019, but ranging from 6.9% of GDP in Norway to 0.01% in Colombia. In the case of Norway spending in this category fell by 2.2 p.p. of total social protection spending between 2009 and 2019 while it remained practically unchanged on average for the 22 OECD-EU countries. Spending on families and children is the third largest spending category, reaching 1.8% of GDP on average in OECD-EU countries and ranging from 4.2% of GDP in Denmark to 0.58% in Switzerland. Denmark has a generous system of family policies including extended parental leave, and children and youth allowances. Such systems seek to enable parents to reconcile work and family life, ensure that paid and unpaid work are shared more equally between men and women, and provide care solutions in the best interest of children. In Switzerland, child allowances exist on application. They are set at the cantonal level, paid by employers and funded through family compensation funds.

Hospital infrastructure, which includes fixed medical equipment and facilities, is the most important spending category of health care expenditure. It averaged 3.1% of GDP in OECD-EU countries in 2019, 2.7% in Australia, and 5.6% in the United Kingdom (Table 2.28). Between 2009 and 2019, spending on this category as a share of total health expenditures fell by 0.19 p.p. on average. This could be partially explained by a shorter average length of stay in hospitals. The second largest spending category within health care is outpatient services, amounting to 2.3% of GDP. This category includes services delivered at home or in consulting facilities, and it increased by 1.2 p.p. between 2009 and 2019. Finland (3.17%) and Sweden (3.16%) spent the most on outpatient services in 2019 while Switzerland (0.19%) and Estonia (0.58%) spent the least. The third largest

category of healthcare spending is medical products, appliances and equipment, at 1.1% of GDP on average in OECD-EU countries, 0.77% in Australia and 0.46% in the United Kingdom. In the case of OECD-EU countries this category decreased by 1.5 p.p. as a share of total health spending between 2009 and 2019 (Online Table G.19).

Methodology and definitions

Expenditures data are derived from the OECD National Accounts Statistics (database) and Eurostat Government Finance Statistics (database), which are based on the System of National Accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The 2008 SNA framework has been implemented by all OECD countries (see Annex A for details). Data on expenditures are disaggregated according to the classification of the Functions of Government (COFOG) into ten main functions (See Annex C for further information). Within these functions, health expenditures are further divided into six sub-functions: medical products, appliances and equipment; outpatient services; hospital services; public health services; R&D health; and health n.e.c. (not elsewhere classified). Social protection expenditures are further divided into nine sub-functions: sickness and disability; old age (i.e. pensions); survivors; family and children; unemployment; housing; social exclusion n.e.c.; R&D social protection; and social protection n.e.c.

Further reading

- OECD (2020), *OECD Pensions Outlook 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/67ede41b-en>.
- OECD (2019), *Society at a Glance 2019: OECD Social Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/soc_glance-2019-en.
- OECD (2019), *Health at a Glance 2019: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/4dd50c09-en>.

Figure notes

- 2.27 and 2.28. Data for several non-European OECD countries (apart from Australia, Colombia, Israel and Japan) are not available. Data for Australia, Colombia and Japan refer to 2018 rather than 2019. Data for Costa Rica refer to 2017 rather than 2019.
- G.16 to G.19. (Structure of government expenditures by function of social protection and health in 2019 and its change since 2009) are available online in Annex G.