

Energy efficiency: “a good weapon”

ABI - Rome – 17 June 2022

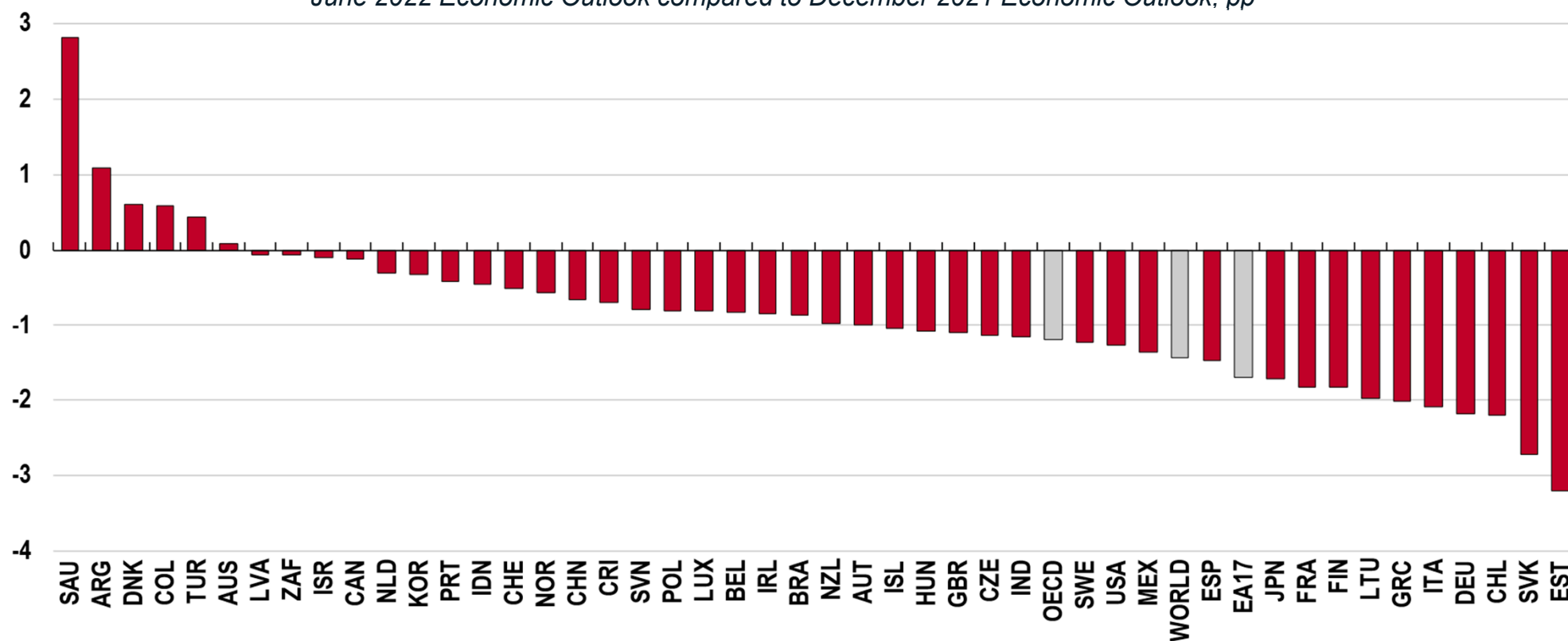
Tavolo tecnico per favorire la riqualificazione degli immobili

Simone Romano
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The war will slow the recovery

Revisions to GDP growth in 2022

June 2022 Economic Outlook compared to December 2021 Economic Outlook, pp



Note: India projections are based on fiscal years, starting in April.
Source: Economic Outlook 111 database; OECD calculations.



Real GDP growth projections

G20 economies, % change, year-on-year

▲ upward revision, by 0.3pp or more

▬ no change or smaller than 0.3pp

▼ downward revision, by 0.3pp or more

	2021	2022	2023		2021	2022	2023
World	5.8	▼ 3.0	▼ 2.8	G20	6.2	▼ 2.9	▼ 2.8
Australia	4.8	▬ 4.2	▼ 2.5	Argentina	10.3	▲ 3.6	▼ 1.9
Canada	4.5	▬ 3.8	▬ 2.6	Brazil	5.0	▼ 0.6	▼ 1.2
Euro area	5.3	▼ 2.6	▼ 1.6	China	8.1	▼ 4.4	▬ 4.9
Germany	2.9	▼ 1.9	▼ 1.7	India	8.7	▼ 6.9	▲ 6.2
France	6.8	▼ 2.4	▼ 1.4	Indonesia	3.7	▼ 4.7	▼ 4.7
Italy	6.6	▼ 2.5	▼ 1.2	Mexico	4.8	▼ 1.9	▼ 2.1
Spain	5.1	▼ 4.1	▼ 2.2	Russia	4.7	▼ -10.0	▼ -4.1
Japan	1.7	▼ 1.7	▲ 1.8	Saudi Arabia	3.1	▲ 7.8	▲ 9.0
Korea	4.0	▼ 2.7	▬ 2.5	South Africa	4.9	▬ 1.8	▼ 1.3
United Kingdom	7.4	▼ 3.6	▼ 0.0	Turkey	11.0	▲ 3.7	▼ 3.0
United States	5.7	▼ 2.5	▼ 1.2				

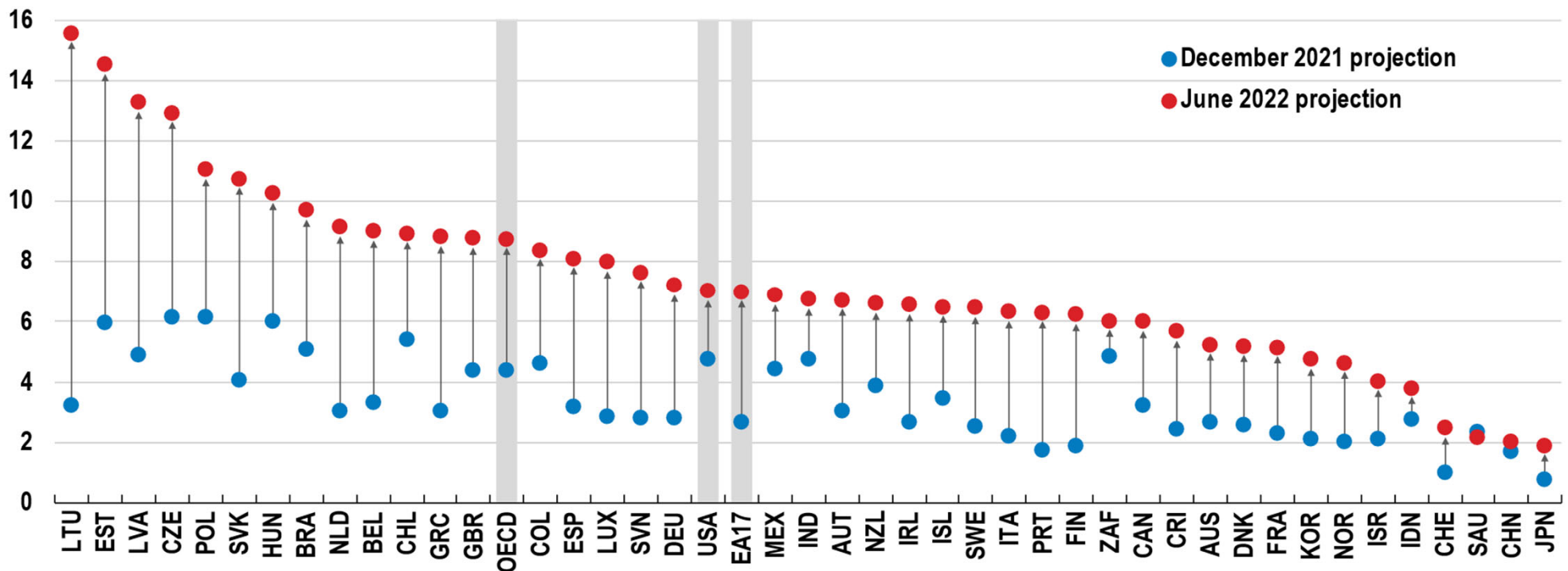
Note: India projections are based on fiscal years, starting in April. The European Union is a full member of the G20, but the G20 aggregate only includes countries that are also members in their own right. Spain is a permanent invitee to the G20. World and G20 aggregates use moving nominal GDP weights at purchasing power parities. Symbols indicate the magnitude of the revision compared to the Economic Outlook 110. Red arrows indicate a downward revision of at least 0.3pp. Green arrows indicate an upward revision of at least 0.3pp.
Source: OECD Economic Outlook 111 database; OECD Economic Outlook 110 database; OECD calculations.



Inflation pressures have been increasing

Inflation in 2022

Year-over-year, %



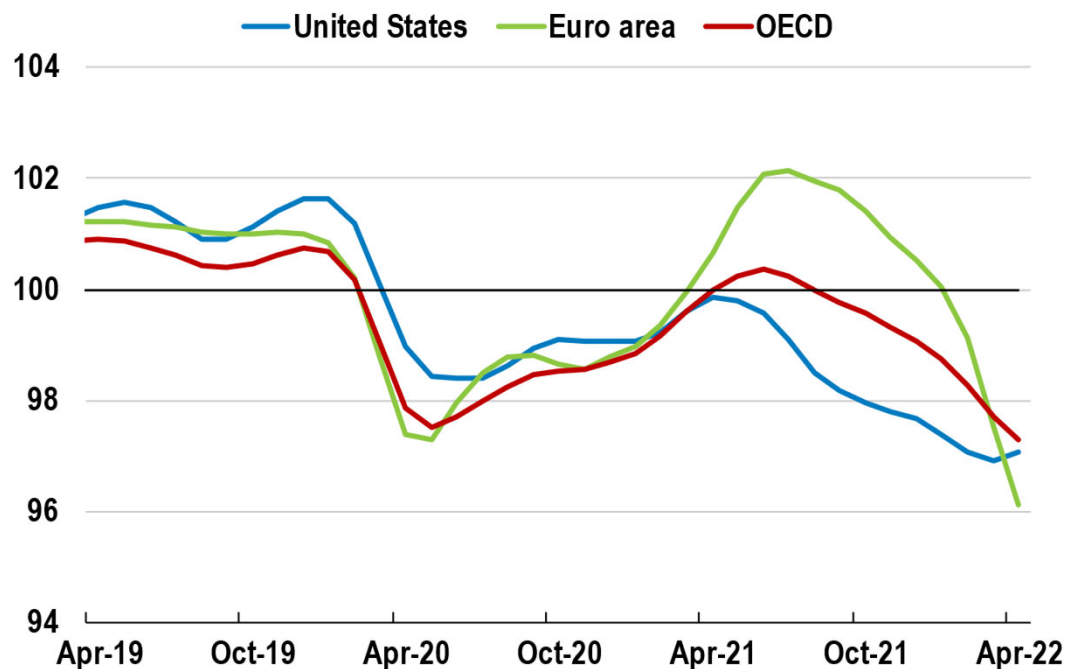
Note: Inflation for Turkey is projected to be 72.0%, compared to 23.9% projected in the December 2021 Economic Outlook. For Argentina, it is 60.1% and 44.4% respectively. India projections are based on fiscal years, starting in April.
Source: Economic Outlook 111 database; OECD calculations.



Cost of living pressures are weakening consumption

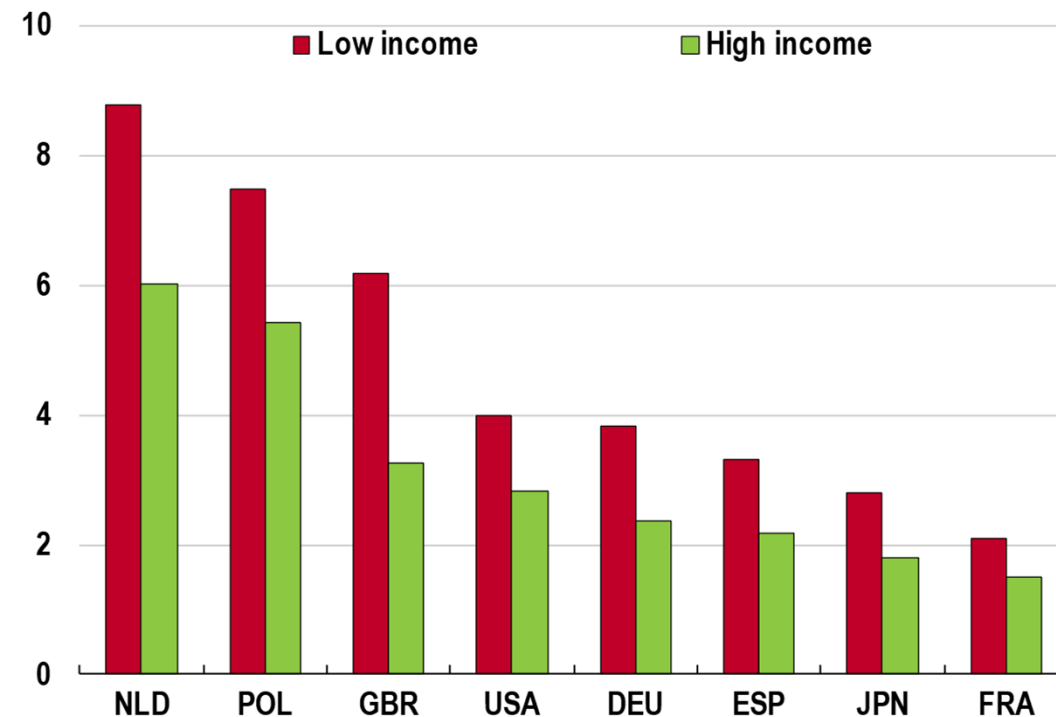
Consumer confidence has nosedived

Long-run average = 100



Price increases in food and energy disproportionately affect poorer households

Cost increase, % of household expenditure



Note: Indicator provides an indication of future developments of households' consumption and saving, based upon survey answers regarding their expected financial situation, sentiment about the general economic situation, unemployment and capability of savings. A measure above 100 signals an optimistic attitude.
Source: OECD Main Economic Indicators database; and OECD calculations.

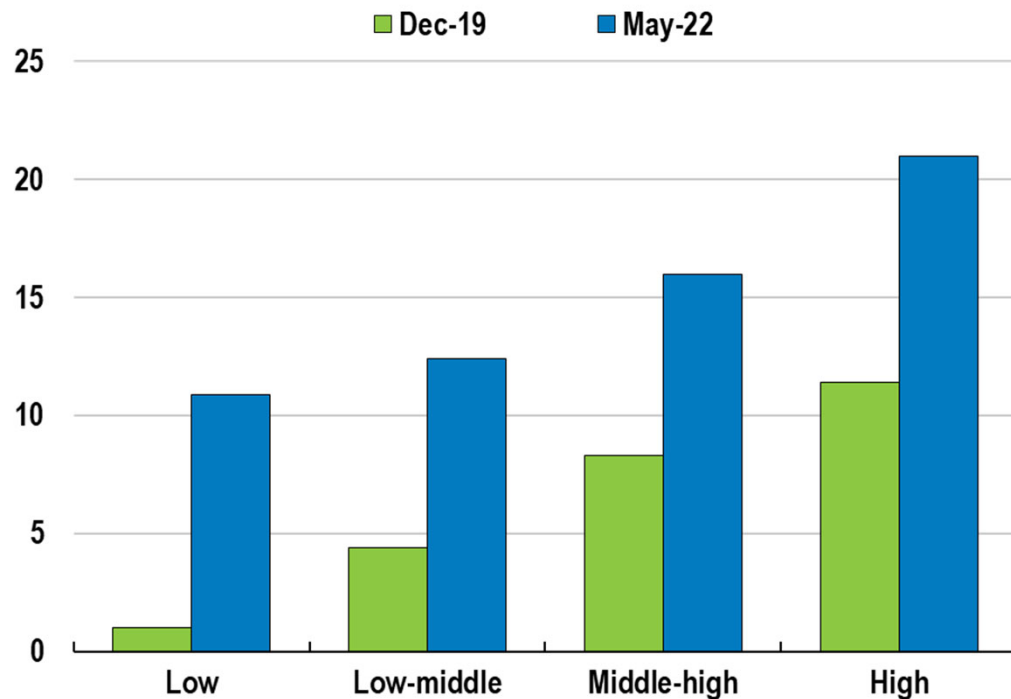
Note: Estimated impact of the year-on-year increases in energy and food prices in April 2022, using consumer basket weights in 2019 for the United States and Japan, and 2015 for other countries. Energy corresponds to natural gas, electricity and other fuels, and includes motor fuels only for the United States. Food corresponds to food products and non-alcoholic beverages.
Source: Bureau of Economic Analysis; Statistics Bureau of Japan; Eurostat; and OECD calculations.



Households and firms could become more cautious

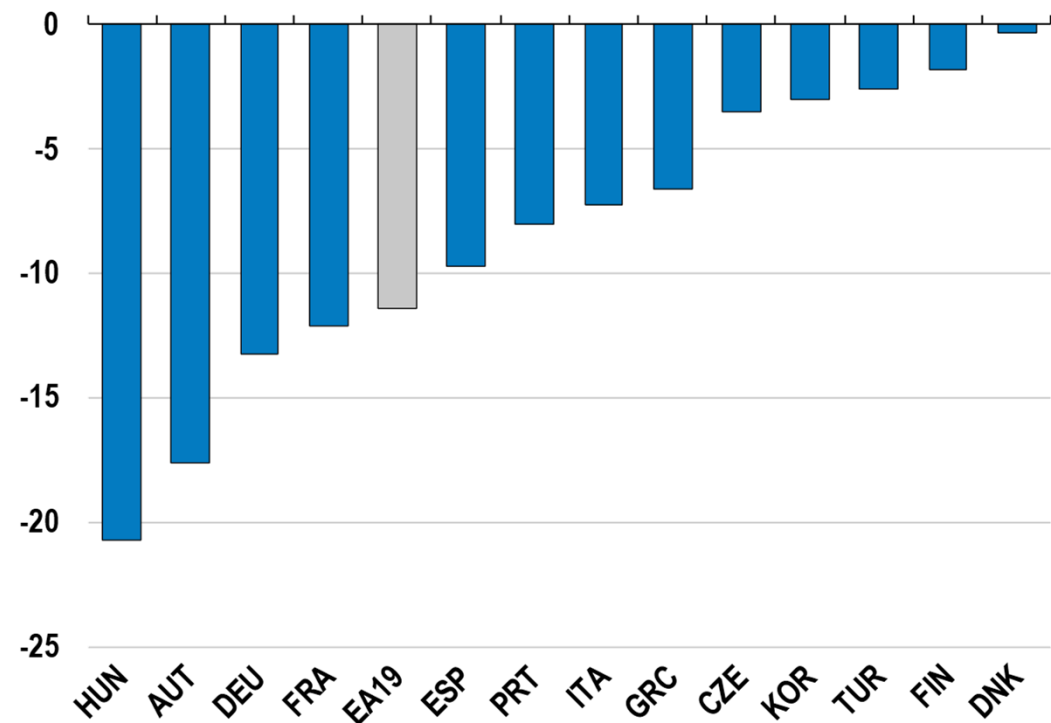
Households intend to save more

*Willingness to save by income group, EU.
Positive values indicate a majority in favour of saving, balance, s.a.*



Businesses are becoming less optimistic about future production

*Business expectations of future production.
Change between Jan 2022 and May 2022, pp*



Note: Figure shows the answers to a survey question assessing current savings intentions at two points in time. Answers obtained are aggregated in the form of a balance, constructed as the difference between the percentages of respondents giving positive and negative replies. A larger share of positive responses indicates a more positive attitude to saving.
Source: European Commission Business and Consumer Survey; and OECD calculations.

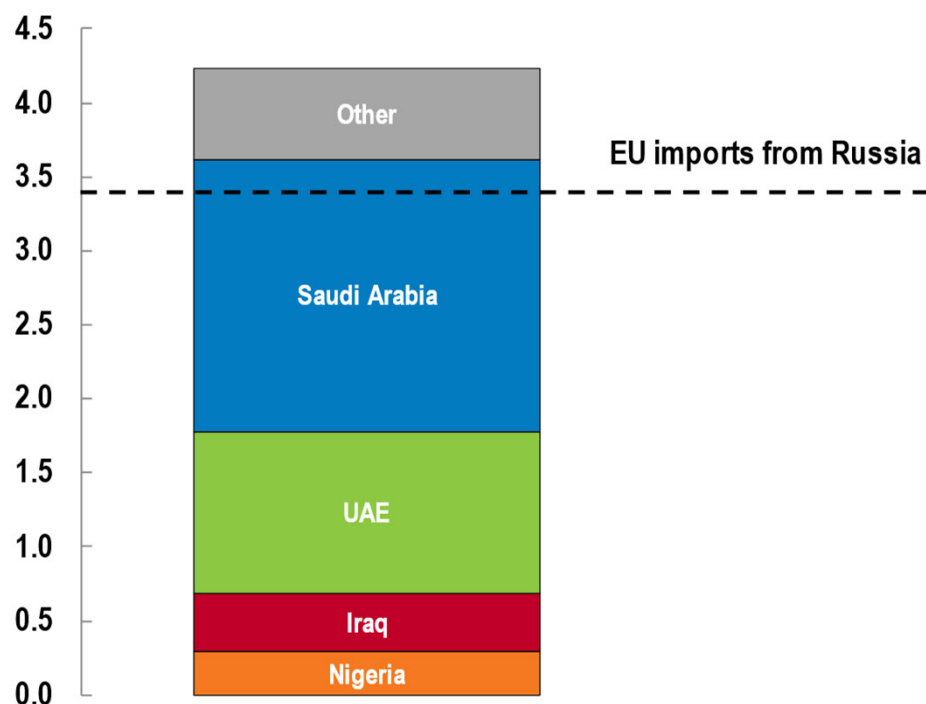
Note: Figure shows the change in the average of the balances (in percentage points) of the answers to the question "How do you expect your production to develop over the next 3 months? It will increase, remain unchanged or decrease".
Source: OECD Business Tendency and Consumer Opinion Surveys (MEI); and OECD calculations



Supply constraints complicate the switch away from Russian energy

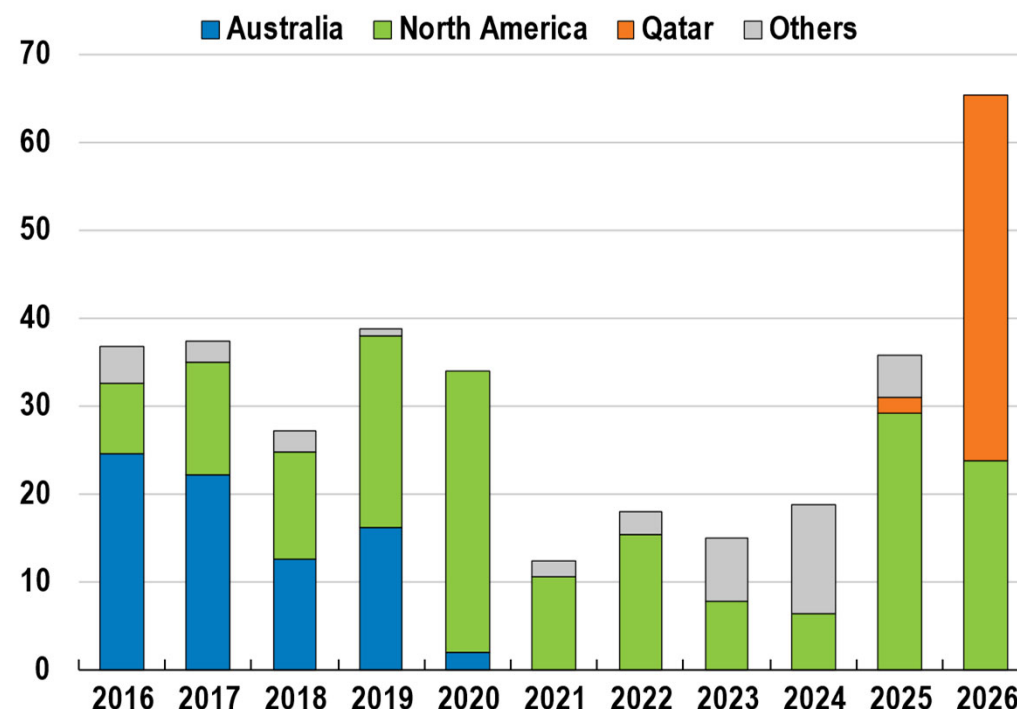
OPEC supply restrictions limit access to spare crude oil

Effective spare crude oil capacity, million barrels per day



LNG markets are likely to remain tight for a number of years

LNG liquefaction capacity additions, bcm per year



Note: EU imports from Russia calculated as average daily imports of crude oil and oil products in 2021. Figure shows the difference between maximum sustainable production capacity and crude oil (excluding condensates) actually supplied in March 2022. Other includes Congo, Equatorial Guinea, Gabon, Kuwait, Oman, Mexico, Libya, Venezuela, Kazakhstan and Azerbaijan. Excludes Russian and Iranian crude oil shut in by sanctions.
Source: Oil Market Report - May 2022, IEA; and OECD calculations

Note: Additions are calculated according to liquefaction capacities of announced project plans. Major projects under "Others" in 2023/24 include Congo (Fast LNG Congo), Indonesia (Tangguh LNG train 3) and Nigeria (NLNG train 7). Bcm means billion cubic metres.
Source: IEA analysis based on various companies' reports and public statements; and OECD calculations.

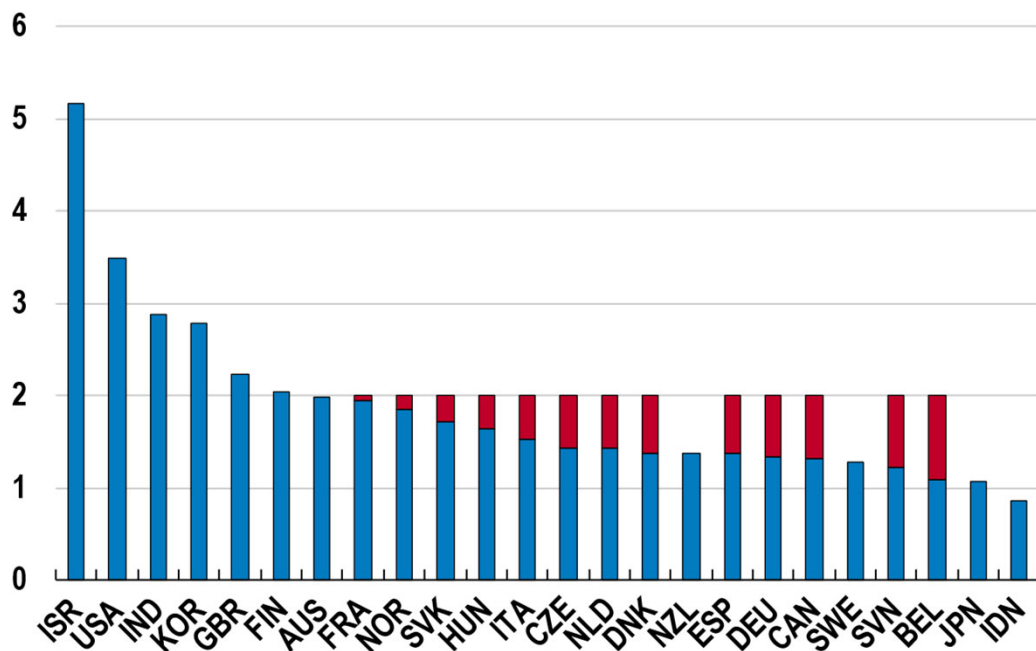


The war is generating new demands on public spending

Geopolitical tensions are putting upward pressure on defence spending

Defence spending, 2021, pp of GDP

■ Spending in 2020 ■ Distance from NATO target

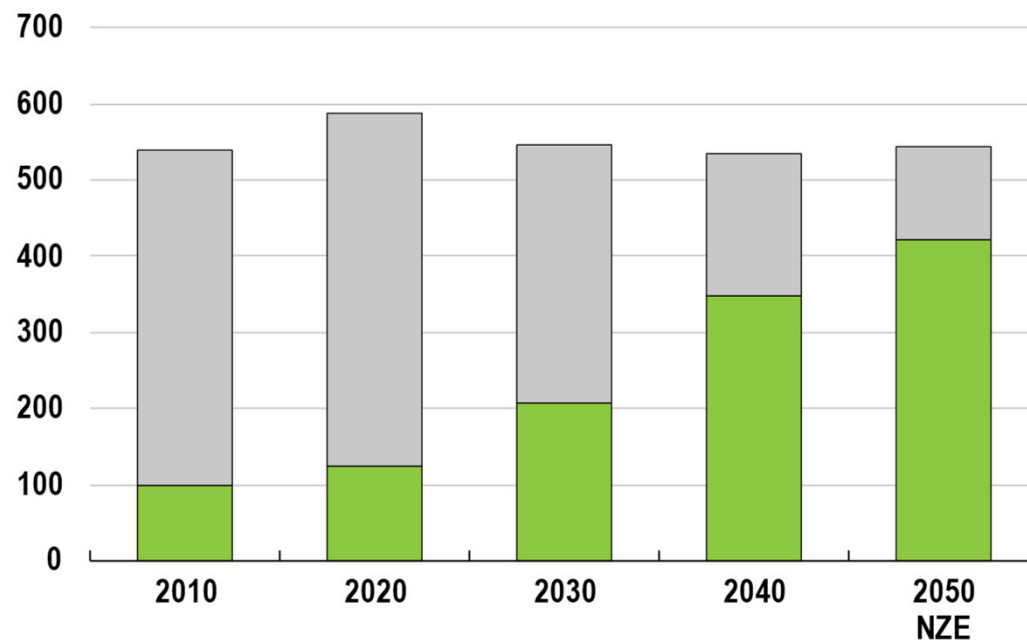


Source: SIPRI; NATO; OECD calculations.

Moving away from fossil fuels will require significant green investment

Energy mix by source in the Net Zero Scenario, EJ

■ Low-emissions ■ Fossil fuels



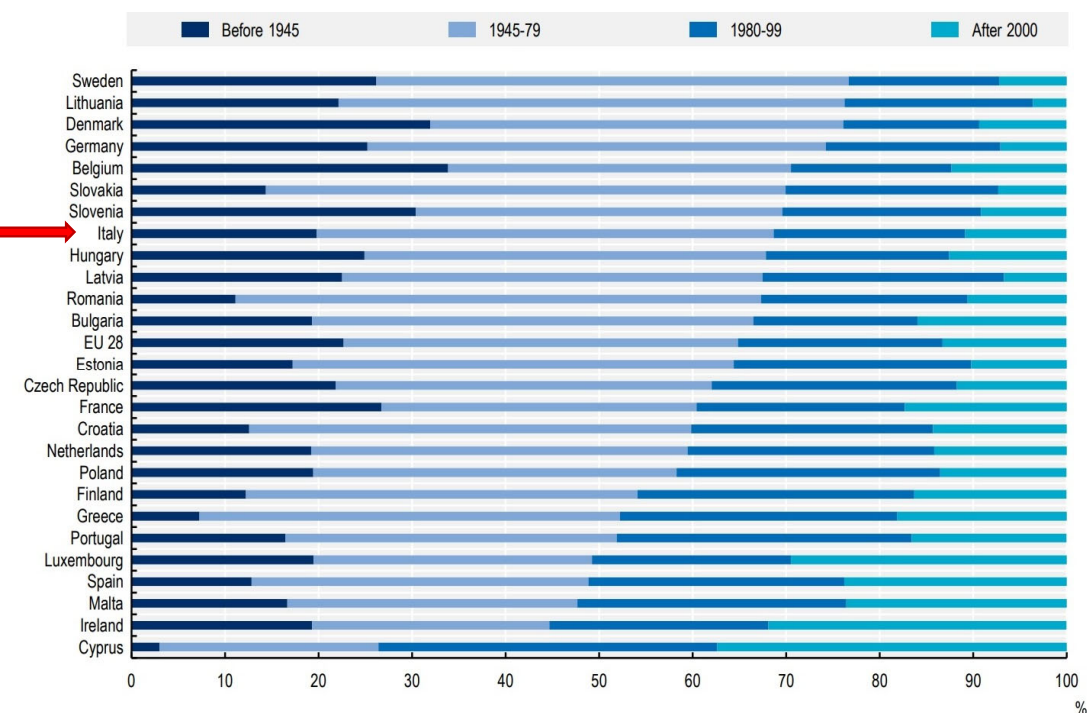
Note: NZE refers to the Net Zero Scenario. Figure identifies the projected total energy supply required in order to bring global energy-related CO₂ emissions to net zero by 2050 and limit global temperature rise to 1.5 °C. Fossil fuels includes oil, coal and natural gas as well as the use of fossil fuels with CCUS and in non-energy uses. Low-emissions includes traditional use of biomass, nuclear, hydro, wind, solar and modern biomass. EJ is exajoules.
Source: Net Zero by 2050, IEA (2021); and OECD calculations.



Going in the right direction

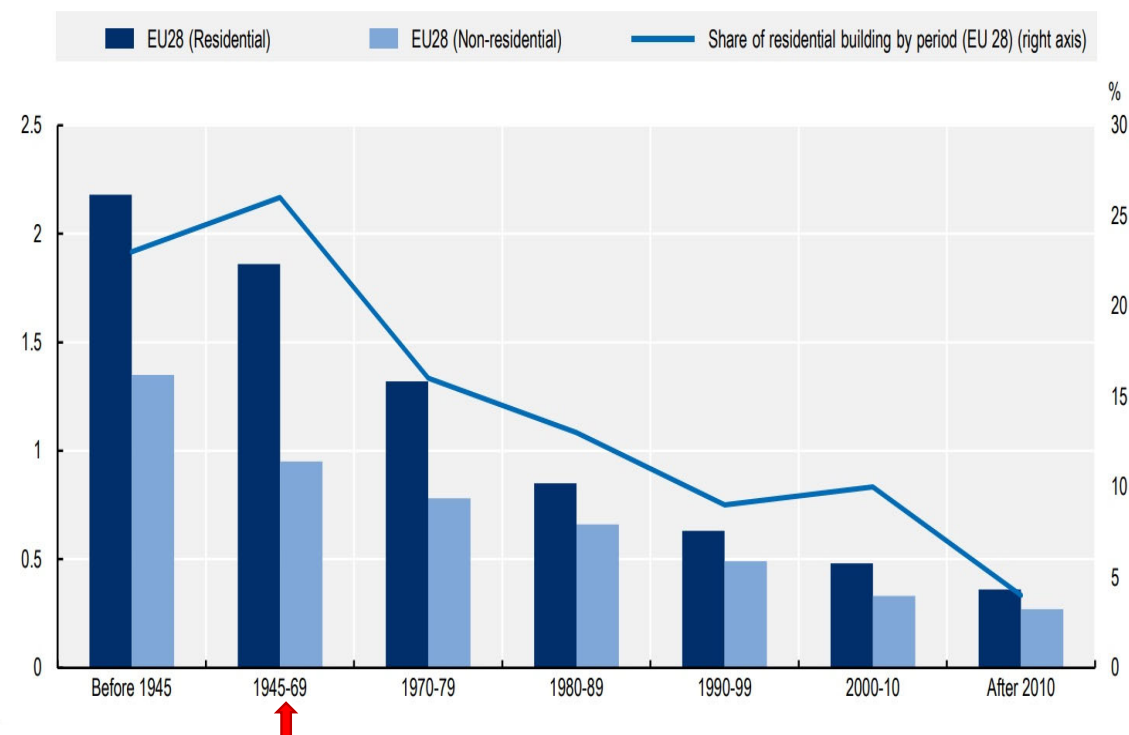
Breakdown of residential buildings by construction year

Italy almost 70% before 1980%



Thermal transmittance value of external wall by building age

(W/m²K), 2017



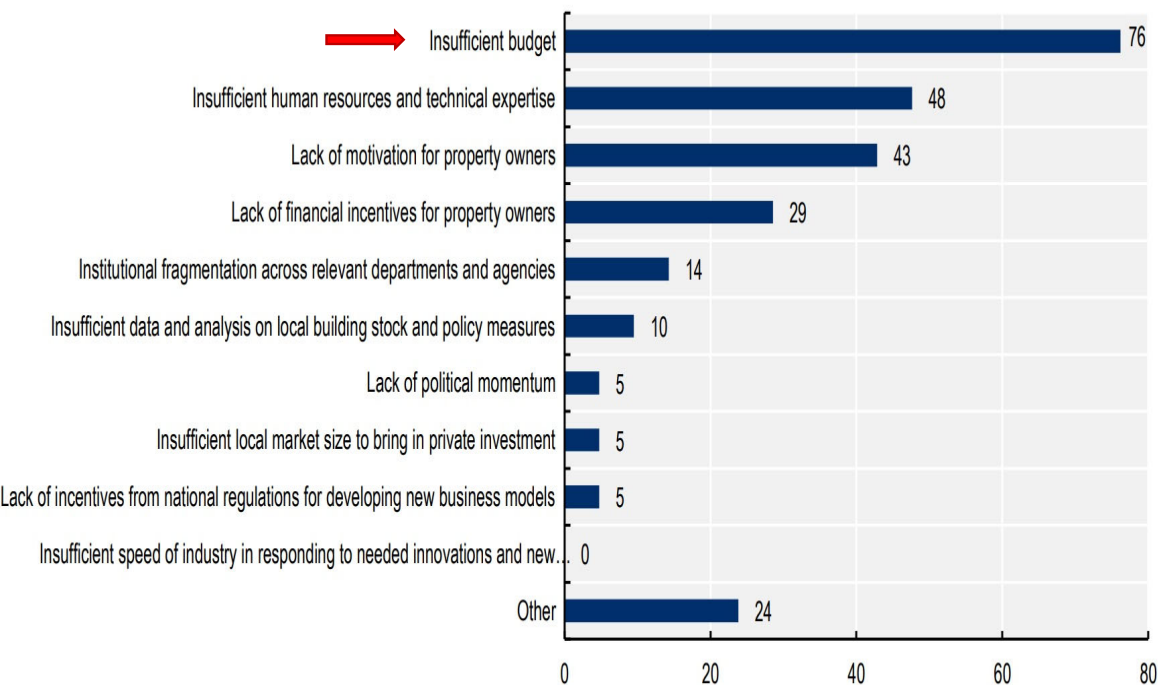
Source: EC, EU Buildings Database.

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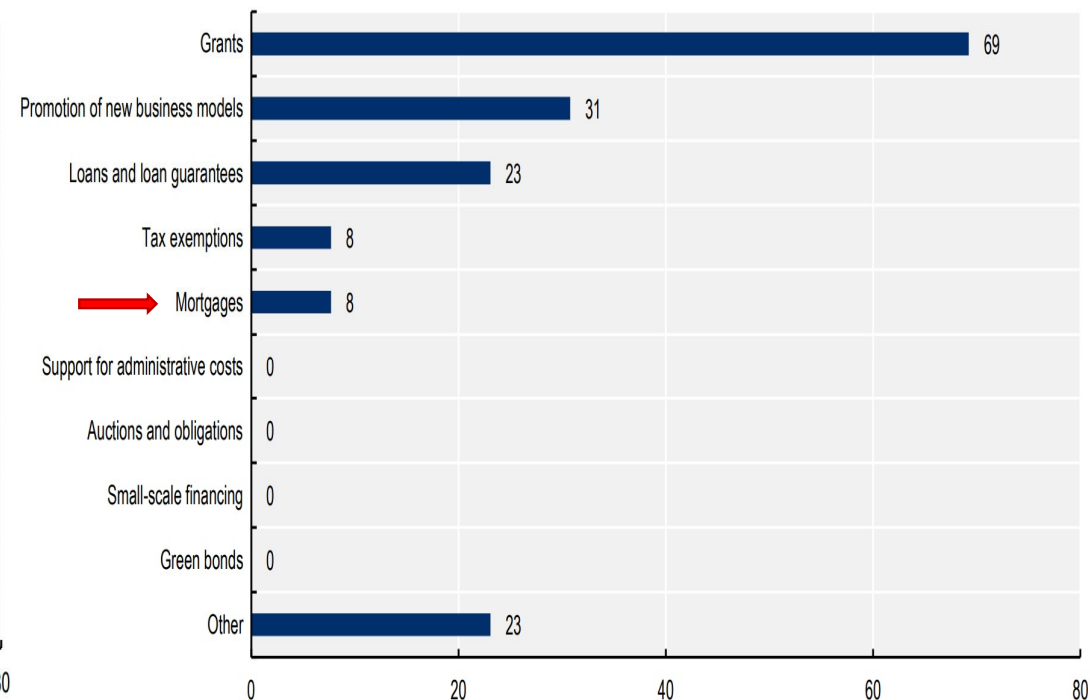


Acting where it is most needed

Obstacles faced by cities and regions in decarbonising buildings



Financing tools used in cities and regions



Source: OECD Survey on Decarbonising Buildings in Cities and Regions

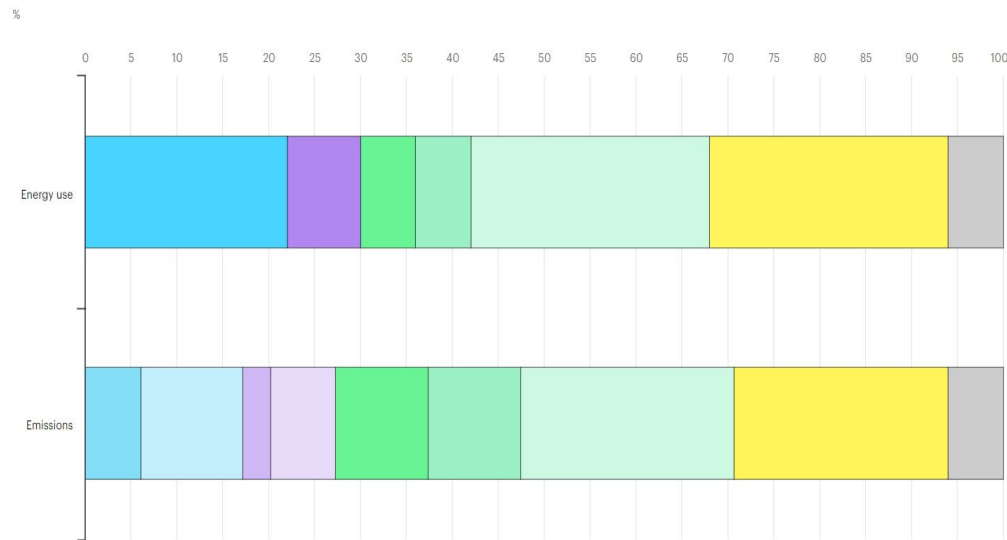
Source: OECD Survey on Decarbonising Buildings in Cities and Regions



Contributing to tackle the climate change challenge

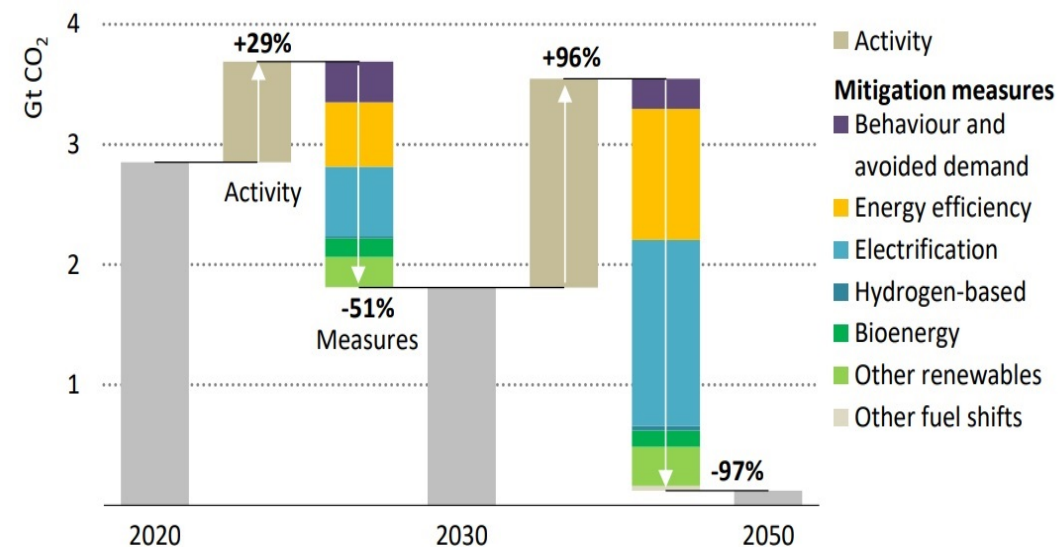
Global energy use and energy-related CO2 emissions by sector, 2020

Clear relative importance of the residential sector



IEA. All Rights Reserved

Global direct CO2 emissions reductions by mitigation measure in buildings in the NZE



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Electrification and energy efficiency account for nearly 70% of buildings-related emissions reductions through to 2050, followed by solar thermal, bioenergy and behaviour



OECD and IEA working on the topic



Thank you

Find out more about our work at:

 <https://www.oecd.org/economic-outlook/>

 <https://twitter.com/oecdeconomy>

 eco.contact@oecd.org

 <https://oecdecoscope.blog/>



More on the Economic Outlook



Real GDP growth projections

Non-G20 economies, % change, year-on-year

	2021		2022		2023		2021		2022		2023
Austria	4.6	▼	3.6	▼	1.4	Israel	7.9	▬	4.8	▼	3.4
Belgium	6.2	▼	2.4	▼	1.0	Latvia	4.7	▬	3.5	▼	1.6
Chile	11.9	▼	1.4	▼	0.1	Lithuania	5.0	▼	1.8	▼	1.6
Colombia	10.7	▲	6.1	▼	2.1	Luxembourg	6.9	▼	2.9	▼	2.1
Costa Rica	7.8	▼	3.2	▼	2.6	Netherlands	5.0	▼	2.9	▼	1.1
Czech Republic	3.3	▼	1.8	▼	2.0	New Zealand	5.0	▼	3.0	▼	2.0
Denmark	4.7	▲	3.0	▼	1.4	Norway	3.9	▼	4.0	▬	2.3
Estonia	8.2	▼	1.3	▼	1.8	Poland	5.9	▼	4.4	▼	1.8
Finland	3.5	▼	1.1	▼	0.6	Portugal	4.9	▼	5.4	▼	1.7
Greece	8.3	▼	2.8	▼	2.5	Slovak Republic	3.0	▼	2.3	▼	3.4
Hungary	7.1	▼	4.0	▼	2.5	Slovenia	8.1	▼	4.6	▼	2.5
Iceland	4.3	▼	4.2	▼	2.8	Sweden	4.9	▼	2.2	▼	1.0
Ireland	13.4	▼	4.8	▼	2.7	Switzerland	3.7	▼	2.5	▼	1.3

Symbols indicate the magnitude of the revision compared to the Economic Outlook 110. Red arrows indicate a downward revision of at least 0.3pp. Green arrows indicate an upward revision of at least 0.3pp.
Source: OECD Economic Outlook 111 database; OECD Economic Outlook 110 database; OECD calculations.



Inflation projections

G20 economies, % change, year-on-year

	2021	2022	2023		2021	2022	2023
OECD	3.7	8.8	6.1	G20	3.8	7.6	6.3
Australia	2.8	5.2	4.1	Argentina	48.8	60.1	50.6
Canada	3.4	6.0	3.9	Brazil	8.3	9.7	5.3
Euro area	2.6	7.0	4.6	China	0.8	2.0	3.0
Germany	3.2	7.2	4.7	India	5.6	6.7	6.5
France	2.1	5.2	4.5	Indonesia	1.6	3.8	3.8
Italy	1.9	6.3	3.8	Mexico	5.7	6.9	4.4
Spain	3.0	8.1	4.8	Russia	6.7	16.2	13.3
Japan	-0.2	1.9	1.9	Saudi Arabia	3.1	2.2	2.7
Korea	2.5	4.8	3.8	South Africa	4.6	6.0	5.8
United Kingdom	2.6	8.8	7.4	Turkey	19.6	72.0	38.9
United States	4.7	7.0	3.5				

Note: India projections are based on fiscal years, starting in April. The European Union is a full member of the G20, but the G20 aggregate only includes countries that are also members in their own right. Spain is a permanent invitee to the G20.
Source: OECD Economic Outlook 111 database.



Inflation projections

Non-G20 economies, % change, year-on-year

	2021	2022	2023		2021	2022	2023
Austria	2.8	6.7	4.7	Israel	1.5	4.0	3.3
Belgium	3.2	9.0	4.8	Latvia	3.2	13.3	8.6
Chile	4.5	9.0	5.2	Lithuania	4.6	15.6	7.9
Colombia	3.5	8.4	5.4	Luxembourg	3.5	8.0	3.3
Costa Rica	1.7	5.7	5.6	Netherlands	2.8	9.2	4.8
Czech Republic	3.8	13.0	5.6	New Zealand	3.9	6.6	4.6
Denmark	1.9	5.2	3.9	Norway	3.5	4.6	3.3
Estonia	4.5	14.5	10.9	Poland	5.1	11.1	6.5
Finland	2.1	6.2	4.6	Portugal	0.9	6.3	4.0
Greece	0.6	8.8	3.4	Slovak Republic	2.8	10.8	10.1
Hungary	5.1	10.3	7.0	Slovenia	2.0	7.6	6.0
Iceland	4.4	6.5	3.7	Sweden	2.2	6.5	5.4
Ireland	2.4	6.6	5.0	Switzerland	0.6	2.5	1.8

Source: OECD Economic Outlook 111 database.



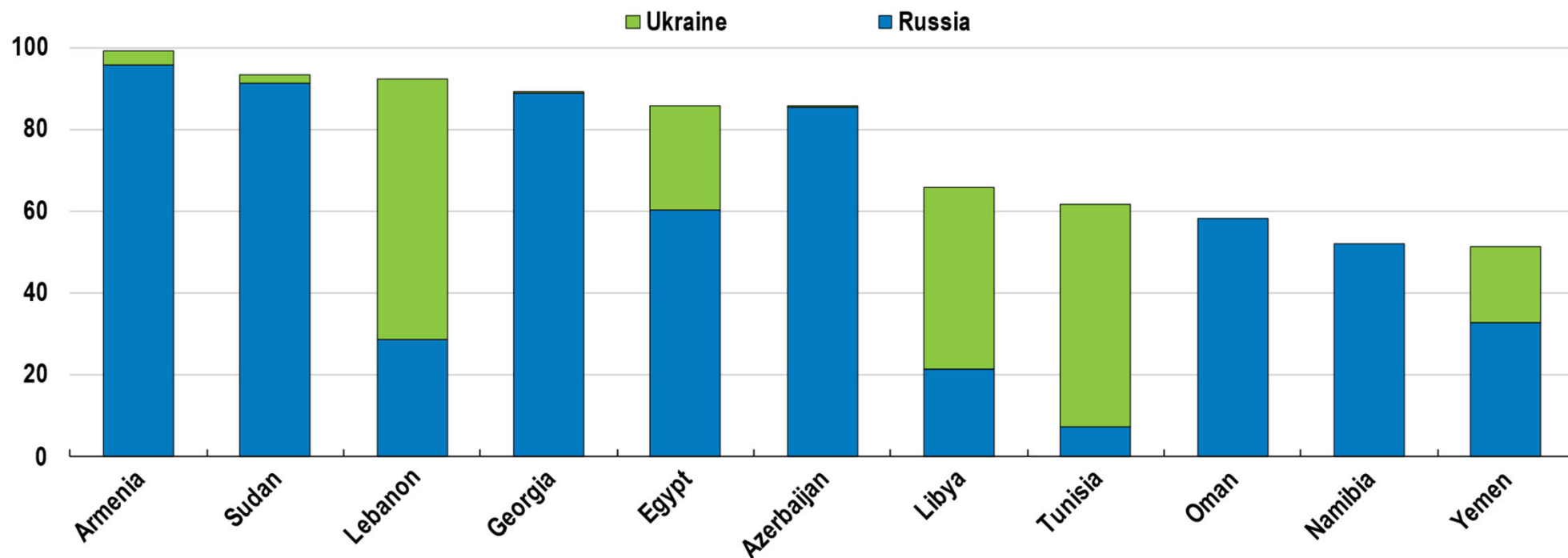
Further risks



Lower-income economies are in a dire situation

Many countries depend on Russia and Ukraine for wheat supplies

Share of imports from Russia and Ukraine in total wheat imports, average 2018-2020, %



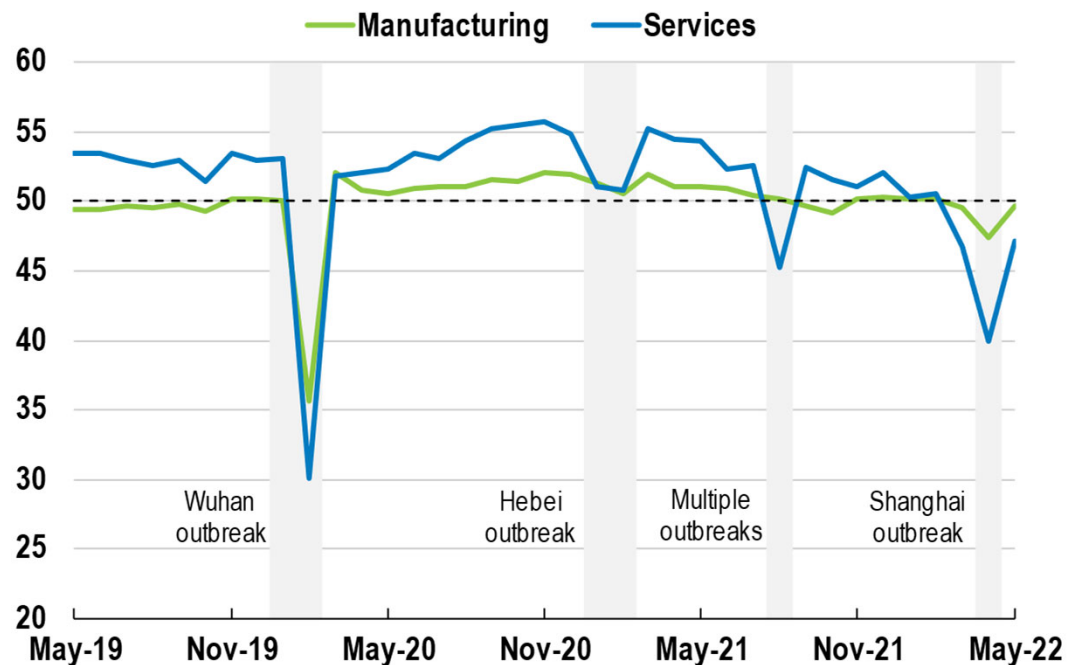
Note: Figure shows countries that fulfil three criteria: 1) share of wheat imports from Russia and Ukraine above 50%; 2) share of wheat imports in their domestic consumption above 40% 3) share of wheat in staple diet is above 35%.
Source: UN COMTRADE; FAO; and OECD calculations.



Supply-side bottlenecks could persist for longer

The zero-Covid policy in China has led to strong economic fluctuations

PMI. Values below 50 indicate decreasing activity



Note: Shaded areas denote periods of notable Covid-19 outbreaks and subsequent lockdowns. Outbreaks extended beyond the cities named in the chart. Source: CEIC database.

Renewed delays are starting to appear

Share of goods that are on waiting container ships



Note: The graph indicates the proportion of goods that are on waiting container ships. Calculations are made using real-time global vessel position data and include effective utilisation of container ships from draught information. Figure shows monthly data. Latest is May 2022. Source: Kiel Institute; and OECD calculations



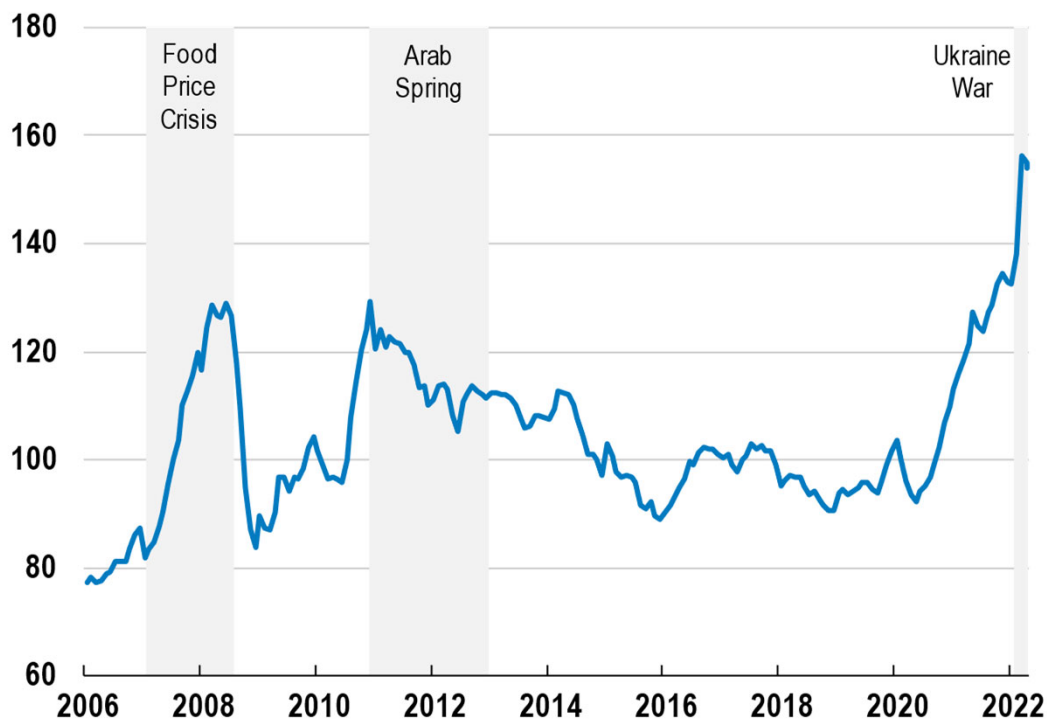
Policies



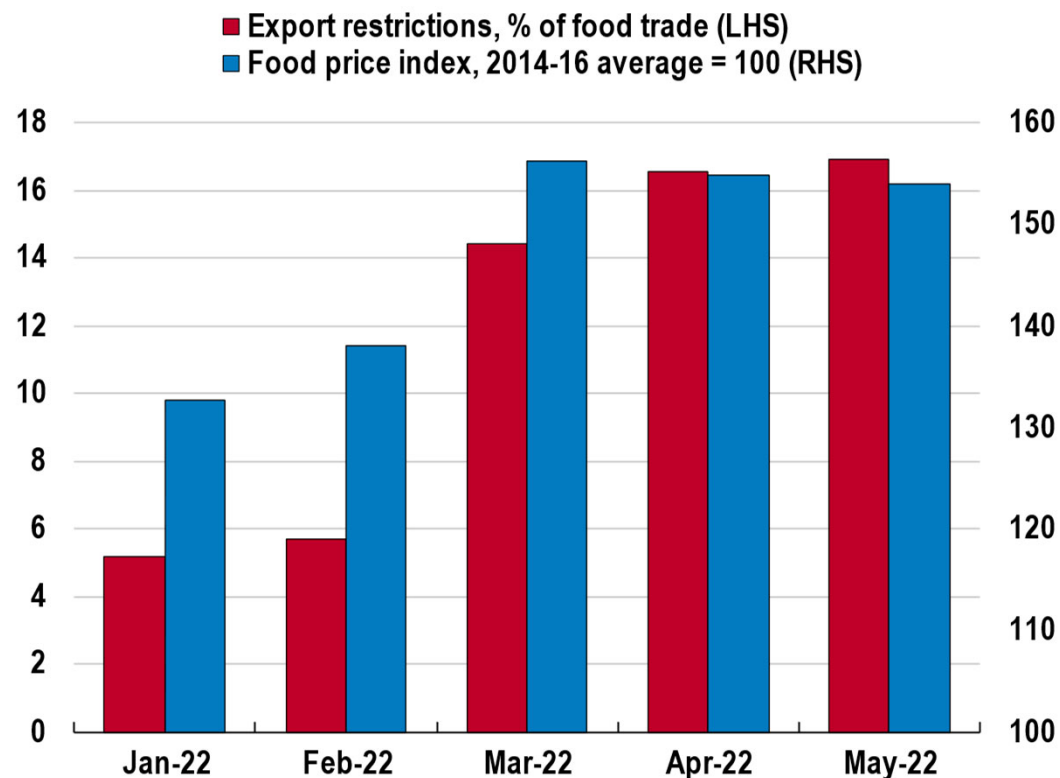
Cooperate to avoid a food crisis

Food prices have reached record highs

FAO Real Food Price Index, 100 = 2014-2016 average



Avoid export restrictions on food



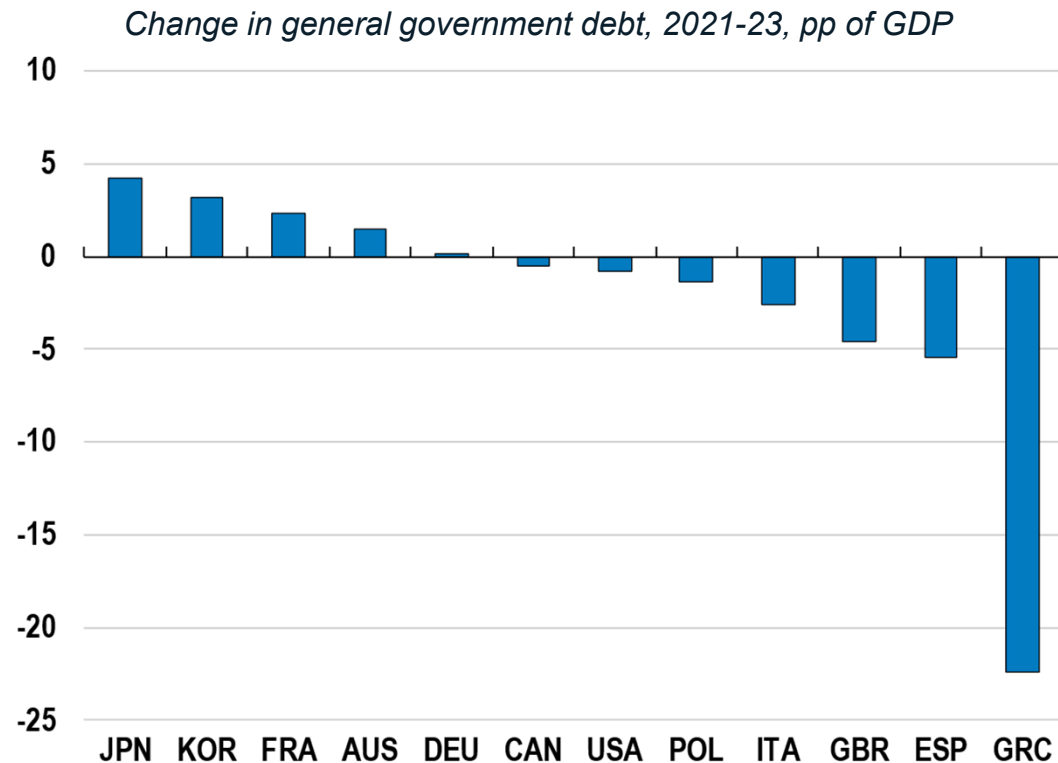
Note: The FAO Real Food Price Index (FFPI) is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices weighted by the average export shares of each of the groups over 2014-2016. Figure shows monthly data, latest is May 2022.
Source: FAO; and OECD calculations.

Note: Export restrictions refer to the global share of food exports affected by restrictions, measured in calories. Food price index refers to the FAO Real Food Price Index. Last update 2 June 2022.
Source: FAO; International Food Policy Research Institute; and OECD calculations.

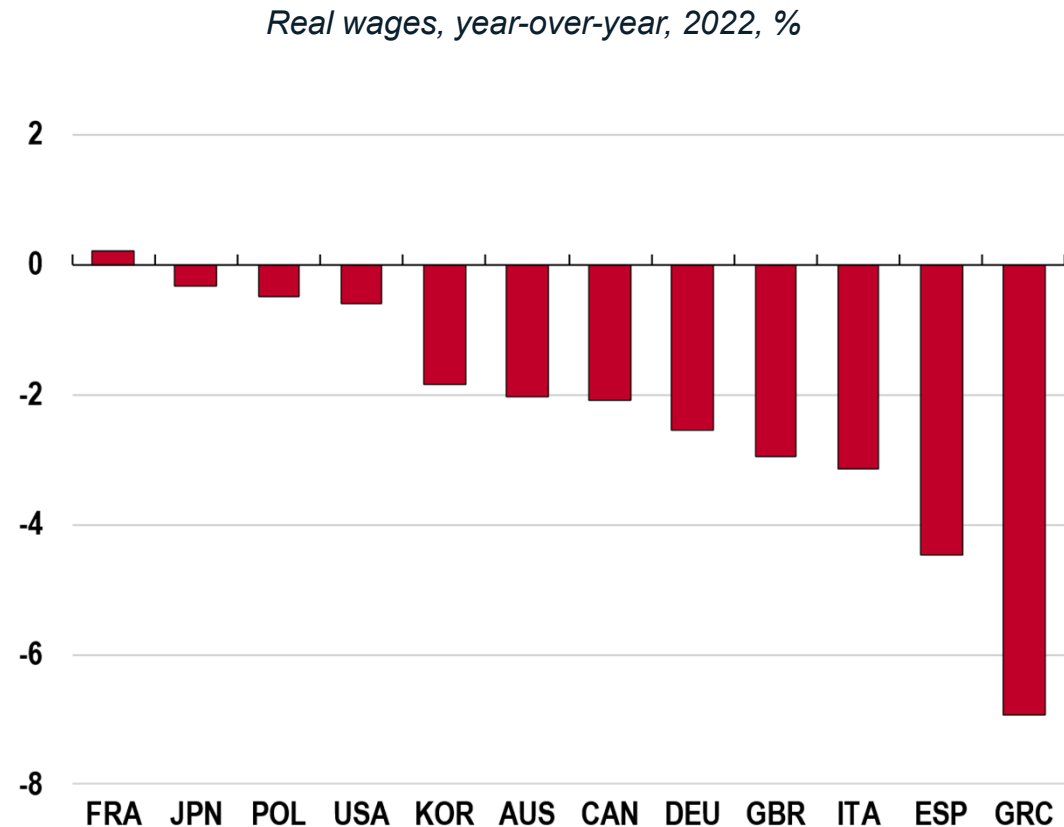


Share the burdens of inflation

Inflation will help drive down debt ratios in some countries



But it is also undermining wages



Note: General government debt refers to Maastricht debt for EU members and to the OECD definition of general government financial liabilities for all other countries.
Source: Economic Outlook 111 database; OECD calculations.

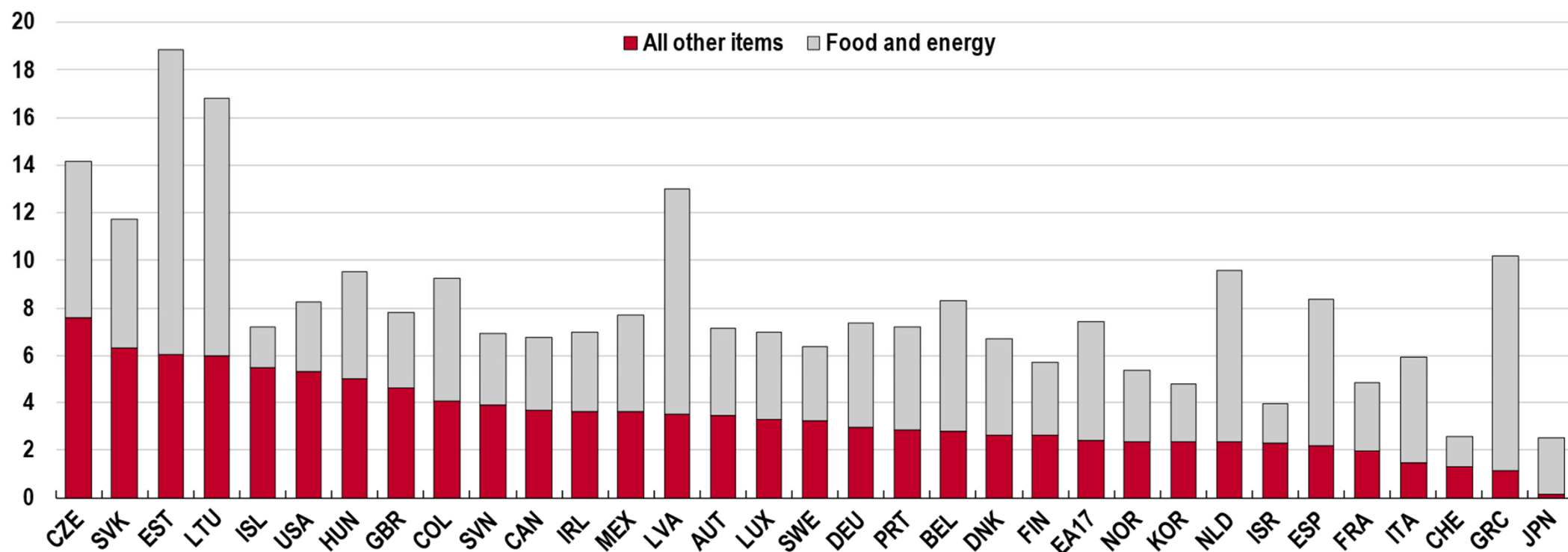
Note: Figure shows projections for 2022.
Source: Economic Outlook 111 database; and OECD calculations.



Reduce monetary policy accommodation in line with domestic circumstances

Inflation has spread beyond food and energy in some countries but not in others

Contribution to annual headline inflation, pp, April 2022



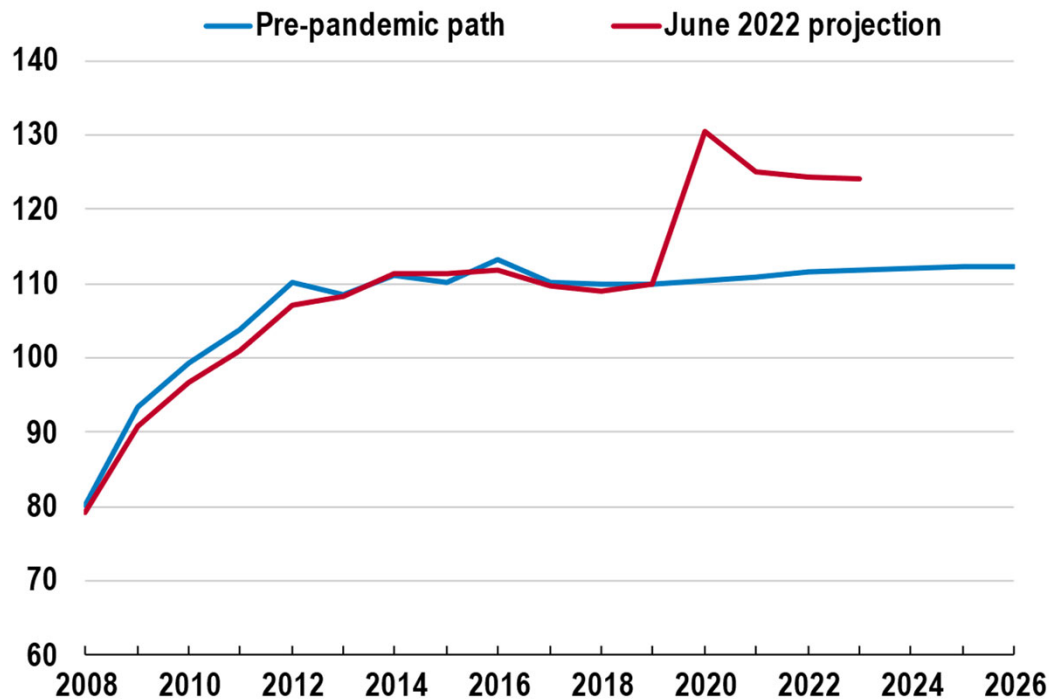
Note: Data unavailable for AUS, CHL, CRI, NZL, and POL. In TUR, food and energy contributed 35.5 pp to the annual headline inflation and all others items contributed 34.4 pp.
Source: OECD Consumer Price Indices database; OECD calculations.



Fiscal policy is recovering from the pandemic

Government debt levels are above the pre-pandemic path but have started to fall

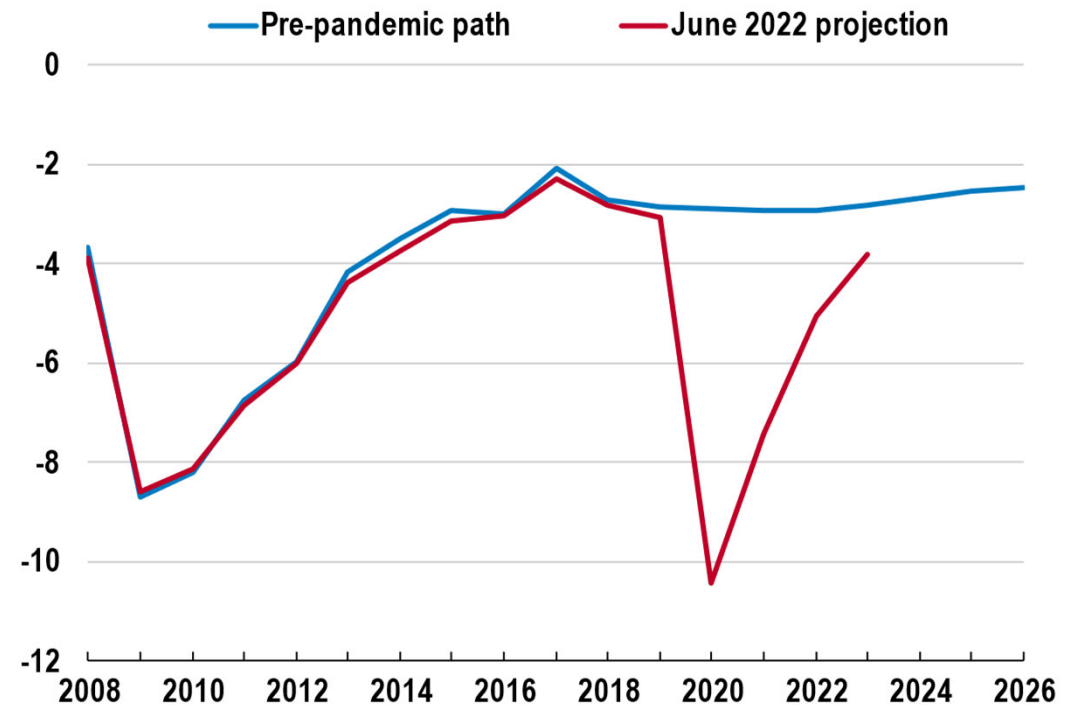
General government debt, OECD, % of GDP



Source: OECD Long-term Baseline database; OECD Economic Outlook 111 database.

Budget deficits are getting smaller

Government budget balance, OECD, % of GDP



Note: Government budget balance refers to general government net lending-to-GDP ratio.
Source: OECD Long-term Baseline database; OECD Economic Outlook 111 database.



There will be no green transition without global production chains

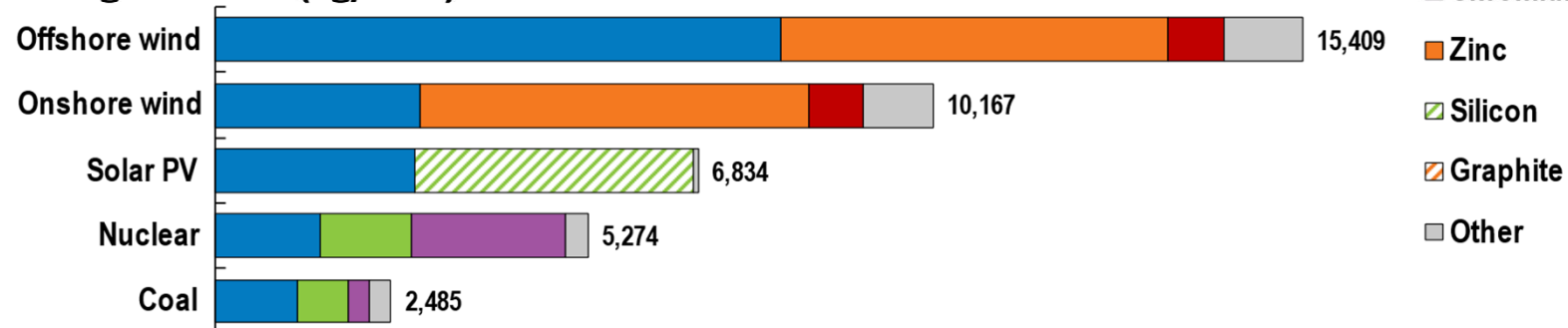
Low-emission energy technology is especially reliant on minerals only available via trade

Minerals critical to the energy transition

Transport (kg/vehicle)



Power generation (kg/MW)



Note: Figure shows the top 3 minerals and/or metals used for each category by weight. Other includes the minerals and/or metals that are used in production, but less significant in weight. Steel and aluminum not included. The value for coal is based on ultra-supercritical plants. Kg = kilogram; MW = megawatt.
Source: The Role of Critical Minerals in Clean Energy Transitions, IEA (2021); and OECD calculations.

