



German-Japanese Energy Transition Council

**Energy/Climate policy
in the post COVID-19 era**

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Supported by Naomi Gericke and Fiona Bunge

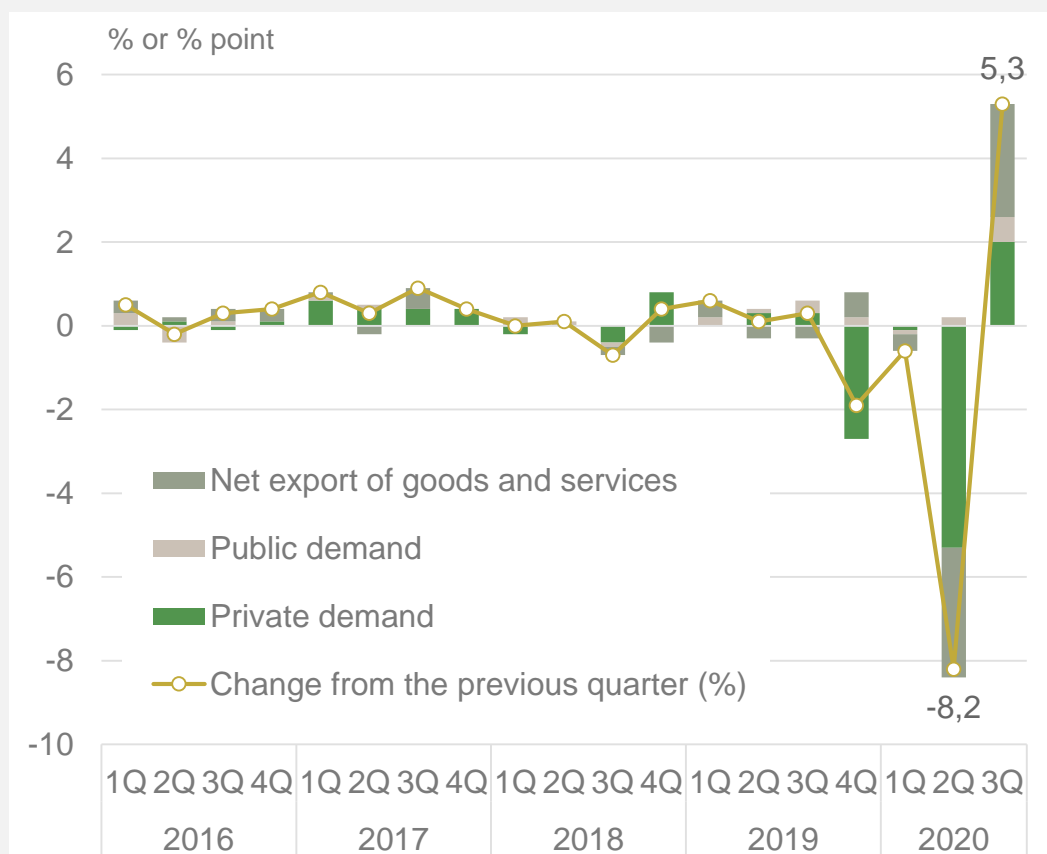
February 2021

Japan

Selected impacts of the pandemic on the economy

- Economy has slowed down due to restriction of people's movement and corresponding behavior change, of operation of shops, and of supply of goods.

Quarterly GDP (seasonally adjusted) change in Japan



Source: Cabinet office, Quarterly GDP report

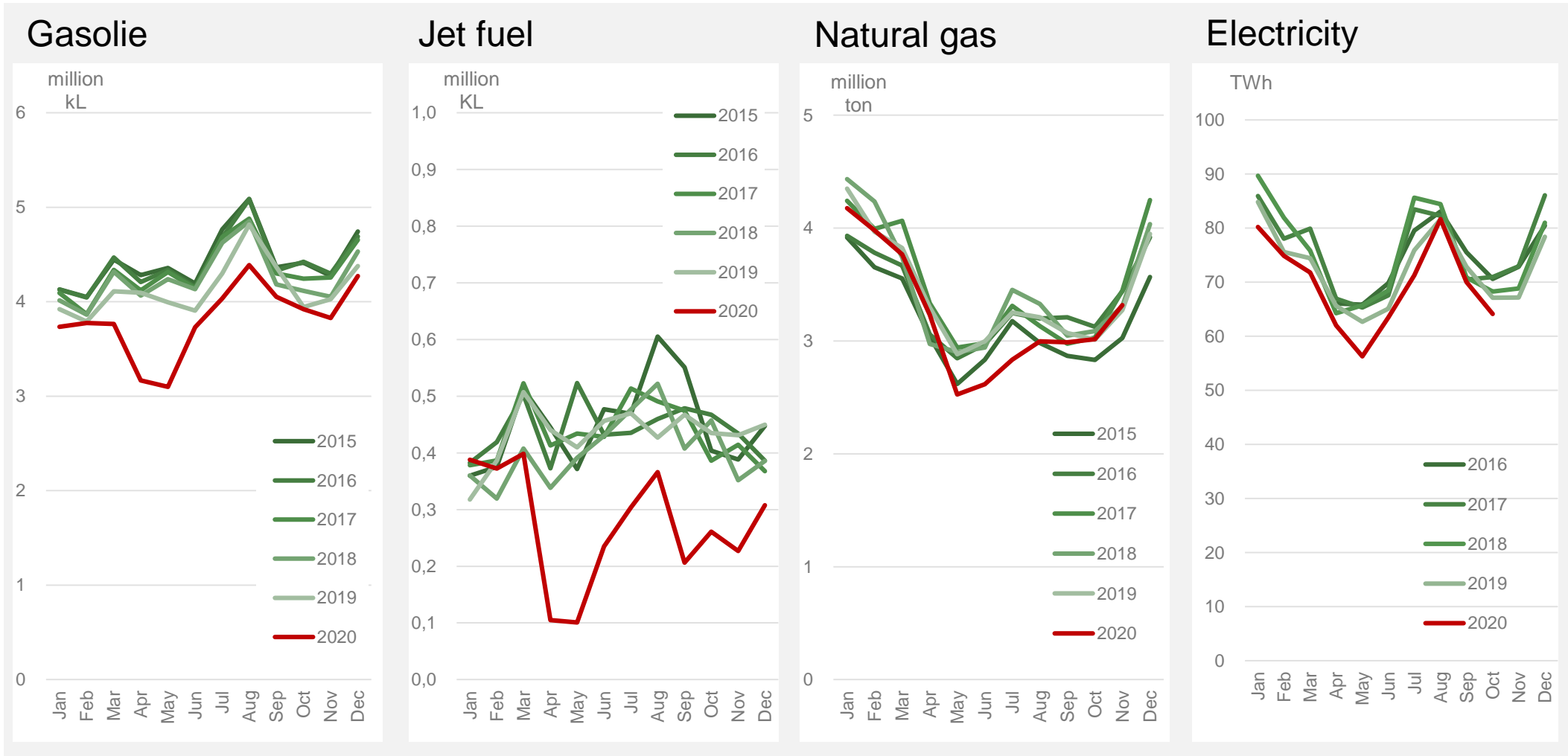
Observed behavior change in Japan

Avoid	<ul style="list-style-type: none"> • Visit a large shopping mall, a restaurant/café/bar, a sport gym • Traveling • Public transportation
Prefer	<ul style="list-style-type: none"> • On-line shopping • Digital entertainment (Video streaming, gaming, book, magazine) • Work at home

Source: EY, October 2020, and others

Oil has been the most hit energy

- Total primary energy demand and theirby CO2 emission has slashed about 10% in 2020 (preliminary estimate by the author).



Source: IEEJ, Data Bank

Economic stimulus packages



- The 3rd stimulus package includes energy transition support in response to 2050 carbon neutral ambition.

	Total size		of which, Fiscal expenses	
	Amount	Share to GDP	Amount	Share to GDP
The 1 st package (Apr. 2020)	JPY 117.1 trillion (EUR 976 million)	21%	JPY 48.4 trillion (EUR 403 million)	9%
The 2 nd package (Jun. 2020)	JPY 117.1 trillion (EUR 976 million)	21%	JPY 72.7 trillion (EUR 606 million)	13%
The 3 rd package (Dec. 2020)	JPY 73.6 trillion (EUR 613 million)	13%	JPY 40 trillion (EUR 333 million)	7%

The 3rd package include provision for the climate action.

- JPY 2 trillion R & D fund.
- Supports decarbonization of automobiles, improve heat insulation of building, and expand use of distributed energy.
- Contributing the decarbonization of the world.

Assume EUR 1 = JPY 120. Assume nominal GDP in 2019 = JPY 549.5303 trillion.

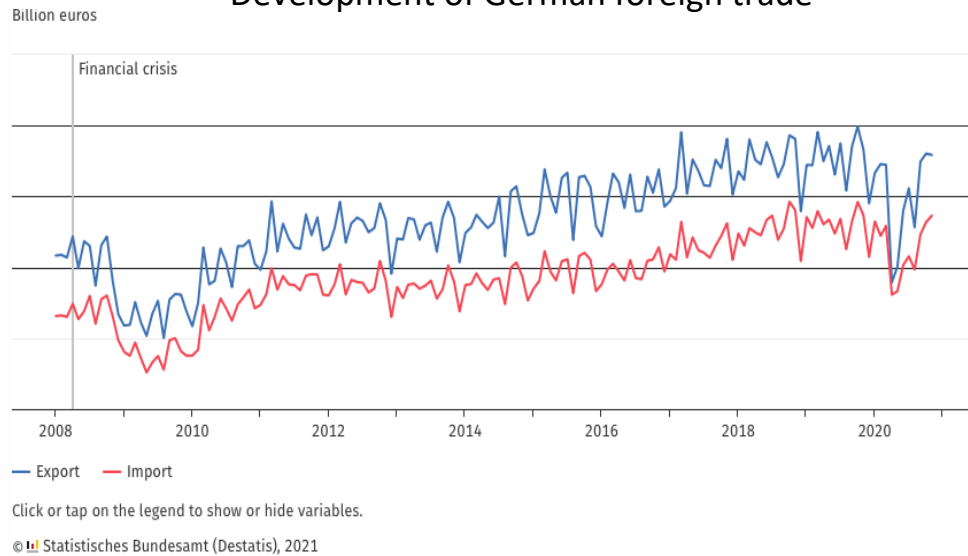
Source: Cabinet Office

Germany

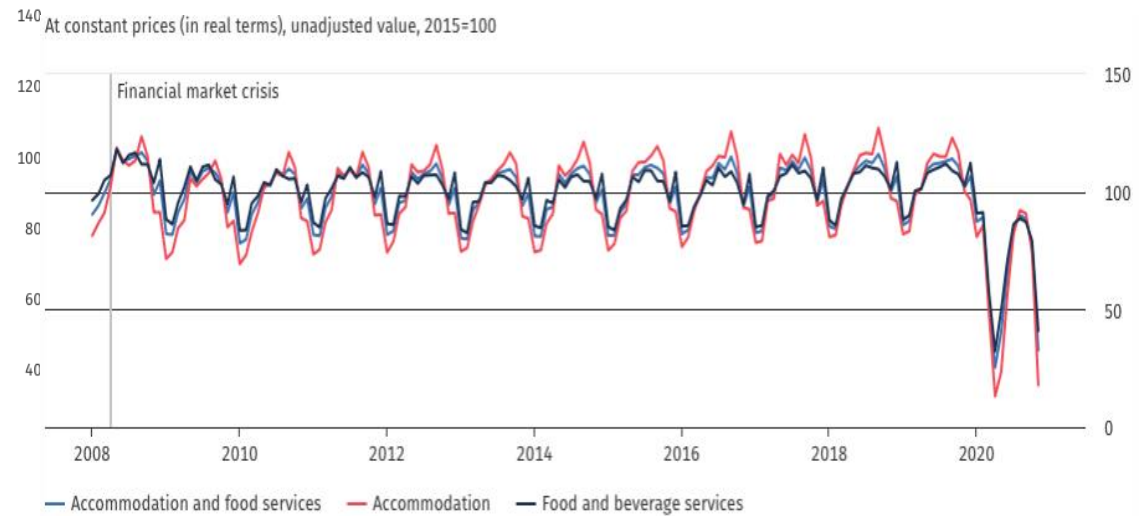


Selected impacts of the pandemic on the economy

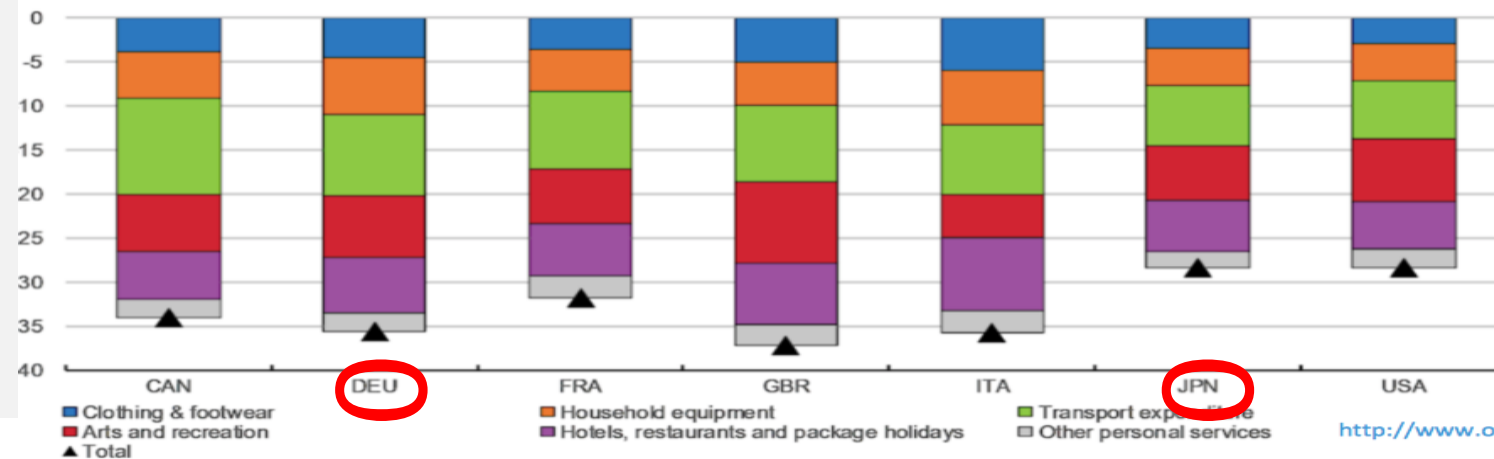
Development of German foreign trade



Turnover in accommodation and food service activities

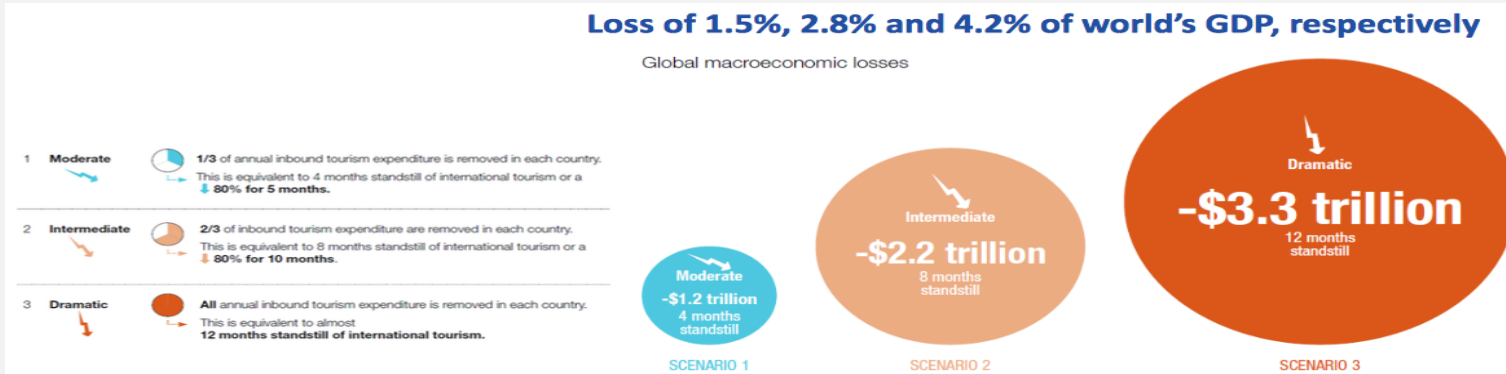
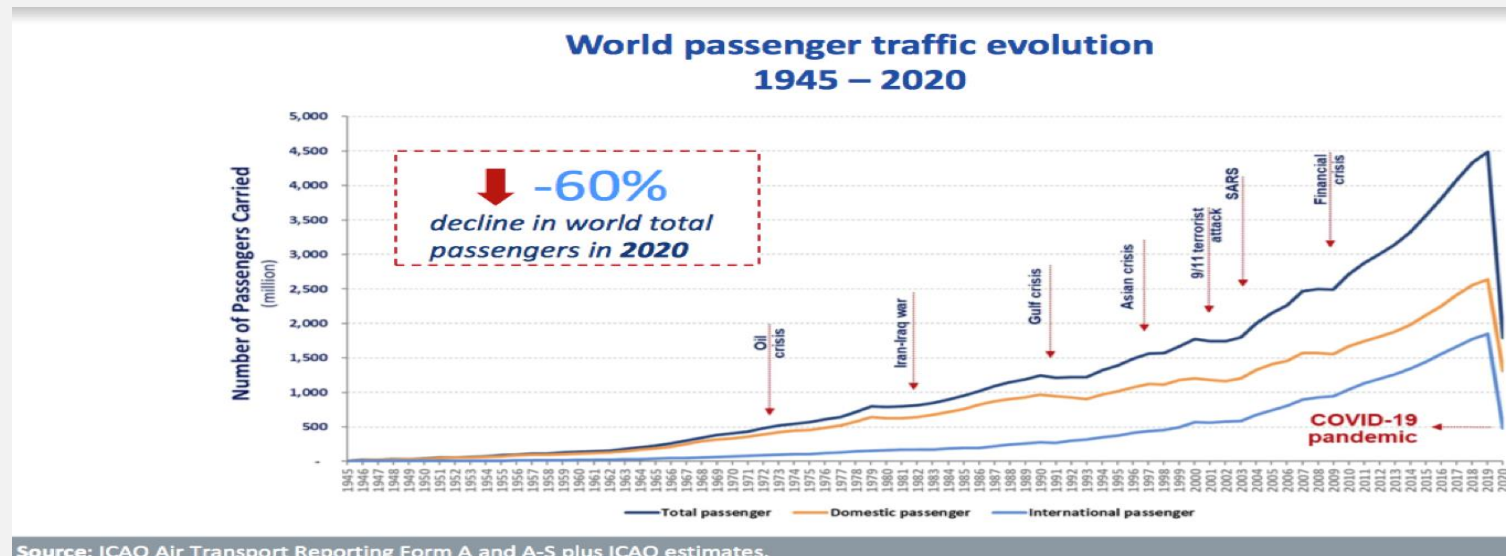


The potential initial impact of partial or complete shutdowns on private consumption in the G7 economies -per cent on total consumer's expenditure



Mobility, hotels, restaurants, arts are hit most by pandemic impacted consumption reduction

Dramatic decline of global flight passengers => Huge possible losses in international tourism



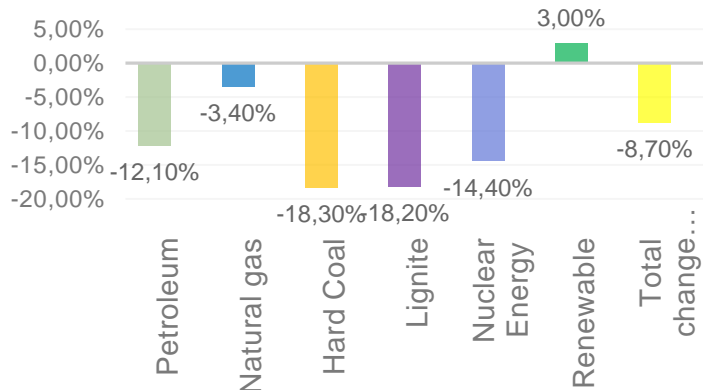
<https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2810>

CO₂ reduction goal 2020 exceeded (-42%) How to avoid a rebound to the „old normal“?

Strong decline in energy use due to coronavirus
primary energy consumption in Germany in Q1-Q3 2020

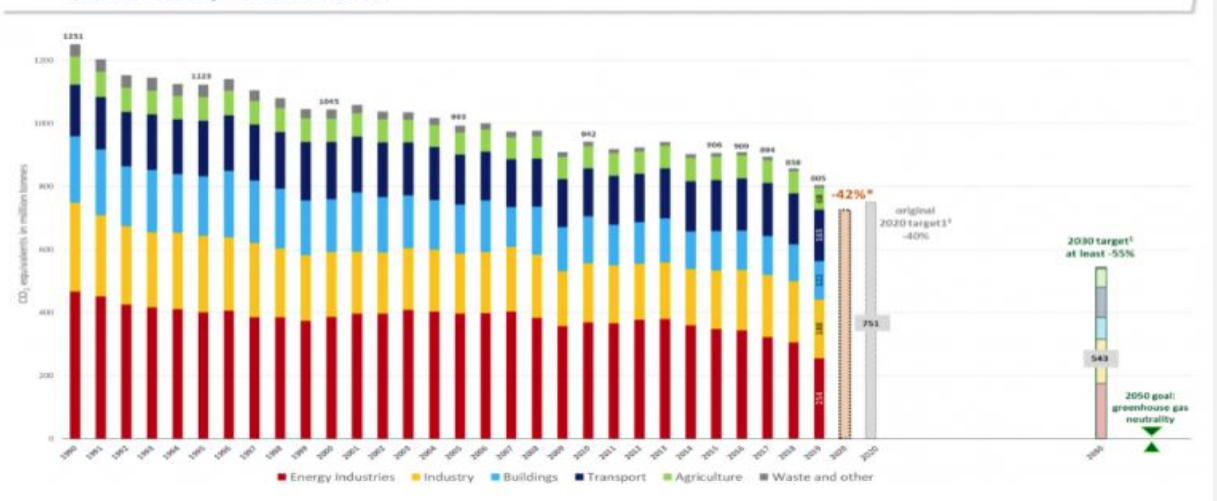
Greenhouse gas emission trends in Germany by sector 1990-2020

Primary energy consumption
in 2020 compared to 2019



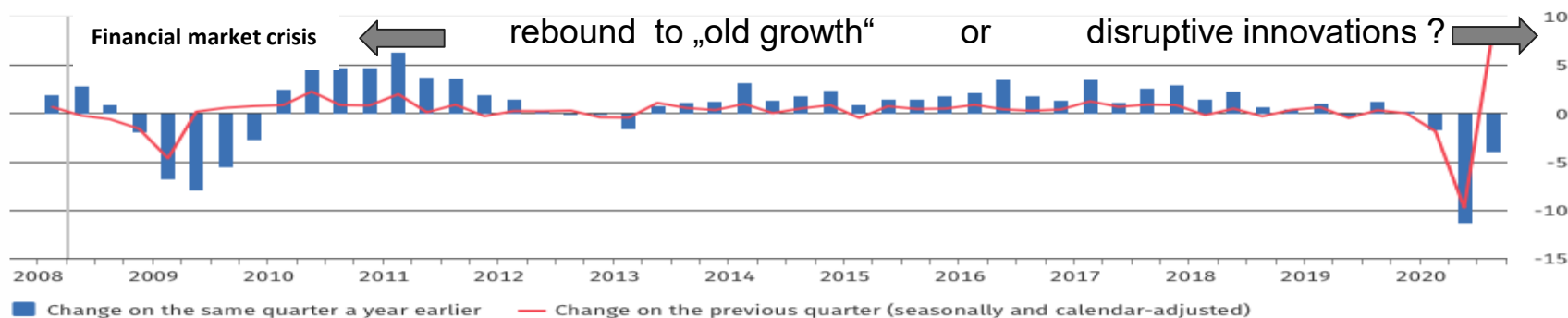
Source: AGE B 2021

(2020 estimate based on preliminary energy use data)
Data: UBA, AGE B 2020.



Development of the gross domestic product

price-adjusted in %



Click or tap on the legend to show or hide variables.

© Statistisches Bundesamt (Destatis), 2021

The German 130bn€ Recovery Program (3rd June 2020)

-> among the largest worldwide

- **“Recover and crisis management package”**
 - Strengthening and boosting the German economy
 - Cushioning economic and social hardship
 - Strengthening states and municipalities
 - Supporting young people and families
- **“Future package”**
 - Future investments and investments in climate technologies e.g. hydrogen
 - Strengthening public health and improving protection against pandemics
- **“European and international responsibility”**

Fiscal response to COVID-19

Germany's fiscal package is among the largest in advanced economies.

(In percent of GDP)



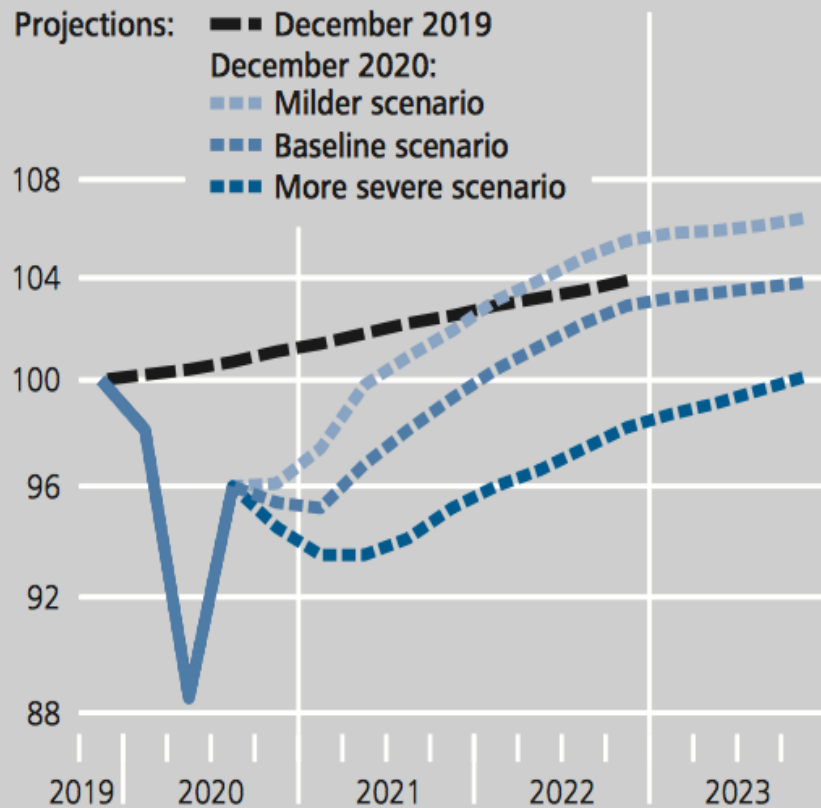
Source:IMF 2021;
<https://www.imf.org/en/News/Articles/2021/01/15/na011921-germanys-post-covid19-recovery-in-five-charts>

Representative GDP forecasts for Germany

=> Most experts expect a V-shaped recovery

Scenarios for real GDP

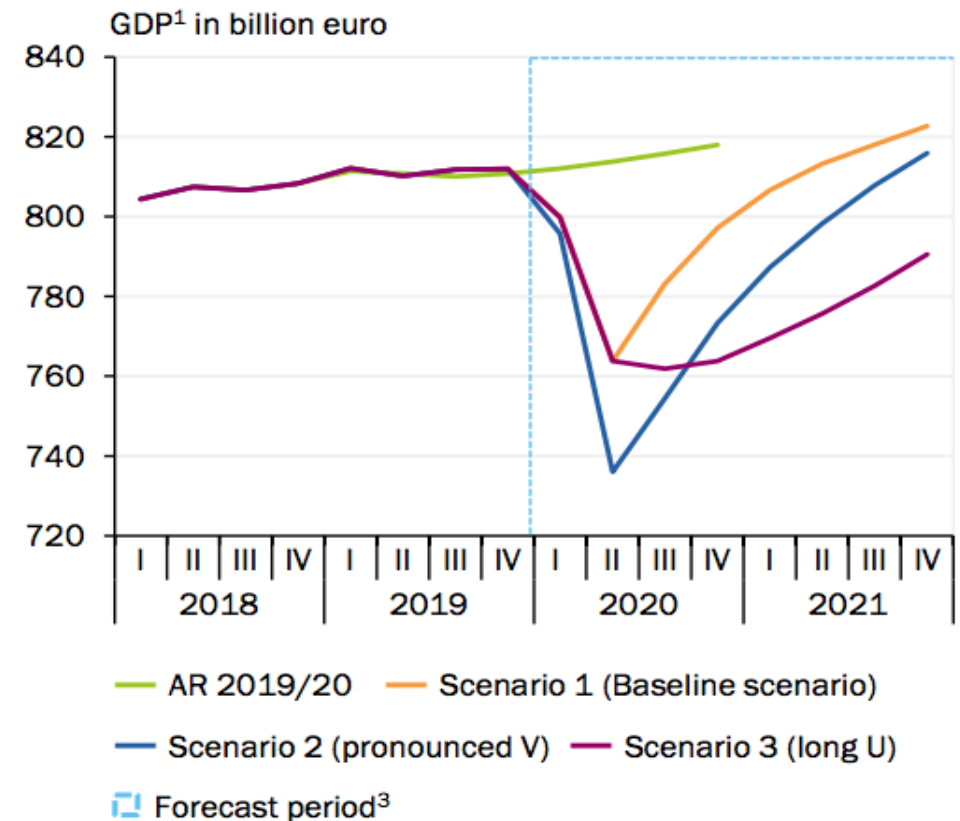
Q4 2019 = 100, log scale



Deutsche Bundesbank

Source: German Federal Bank, 2021

Different scenarios for the GDP forecast seasonally and calendar-adjusted



Source: German Council of Economic Experts, March 2020

The net balance of the recovery programm: Does it foster climate mitigation and sustainable development?

Potential Positive Effects

- *Green investments* might encourage sustainable structural change and accelerate climate protection ambitions?
- *Technological shifts* to digitalisation can drive the decarbonisation e.g. by video conferencing, commuting traffic, home office, online shopping, E-learning, etc.?
- Societal impacts can induce *social learning* e.g. concerning global supply chains, tourism, air travel, consumption patterns, leisure, culture etc?
- *Policy learning* might change the policy style to more proactive policy making and conducting (ecological) industrial policies by deficit spending?



Potential Negative Effects

- „*Austerity policy*“ to refinance public debt - reluctance to incentivize the energy transition and climate mitigation?
- Larger „*ecological rucksacks*“ of digitalization (electricity/resource consumption)?
- Why not more emphasize on „*Efficiency Frist*“?
- *More individual automobility* instead of public mobility (rail, public transport)?
- *No inclusive growth* - less awareness of equity, justice, solidarity?
- *Less diversity* – more uniform trade (Internet), culture, art; reduced personal exchange?



Possible topics for a joint Japanese-German study: „The impact of COVID-19 on the energy transition“



***Disruptive chances for
a Great Transformation
towards climate
neutral societies?***

or

***Rebound back to the
„Old Normal“ of
unsustainable growth
patterns?***

- Assessment of international developments concerning climate protection in relation to the Corona pandemic (e.g. US, EU, China, Japan etc.)
- Review of economic projections and related impacts of the Corona pandemic on energy consumption, energy mix and GHG - emissions (2019-2021)
- Identifying longterm effects on inclusive/green growth and/or rebound effects; life style and behaviour changes
- Analysis of energy consumption/GHG-emissions in specific most impacted sectors e.g. transportation, tourism, hotels/restaurant, arts, education
- Estimating the net balance of speeding up digitalization: less/more energy; less/ increased material consumption
- Possible impacts of debt relief programs on the level of ambition and support for future climate protection programs
- Societal and policy learning