

# Russia and Global Green Transition: Risks and Opportunities:

## Overview of the report



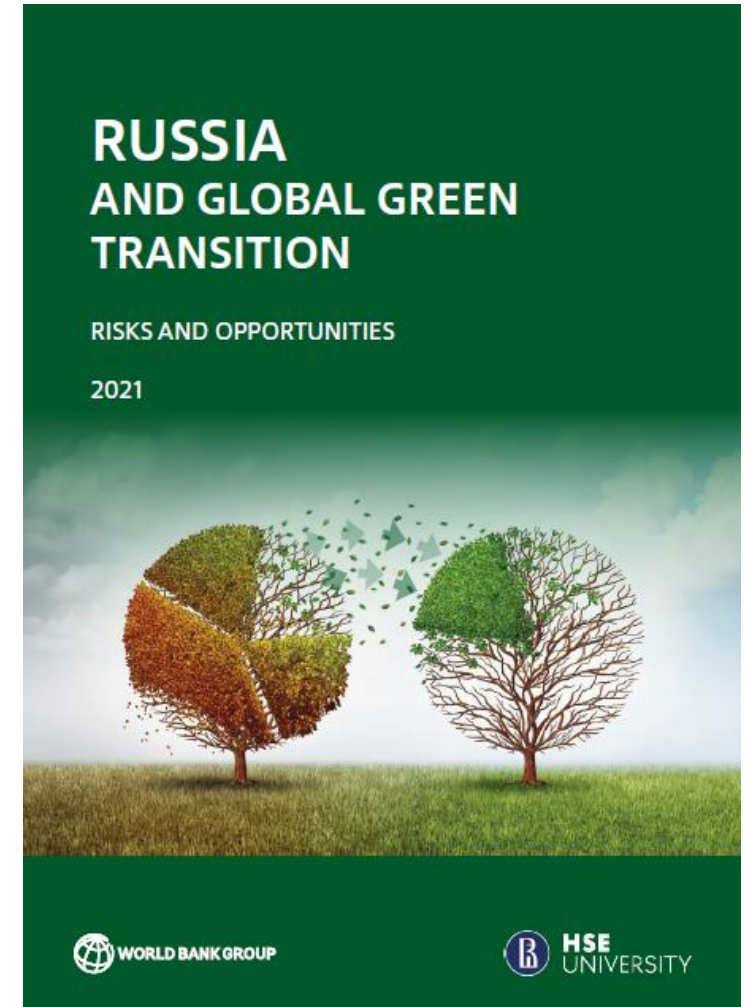
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# Objectives of the report

- to assess the impacts of the global green transition, including decarbonization in other countries and the introduction of the EU carbon border adjustment, on Russia's economy
- to look at how Russia can mitigate these impacts and build a more resilient growth model
- to examine the opportunities that the global green transition could bring to Russia and sample specific sectors it could benefit



# Structure of the report

## 1. Russian economy and the challenges of fossil-fuel dependence

- Trends of economic growth
- Dependence on fossil fuels
- Opportunities for green post-COVID recovery

## 2. Risks of the global green transition for the Russia's economy

- Deep dive into EU CBAM (up to 2035)
- Deep dive into long-term decarbonization (up to 2050)

## 3. Creating conditions for greener growth and investments

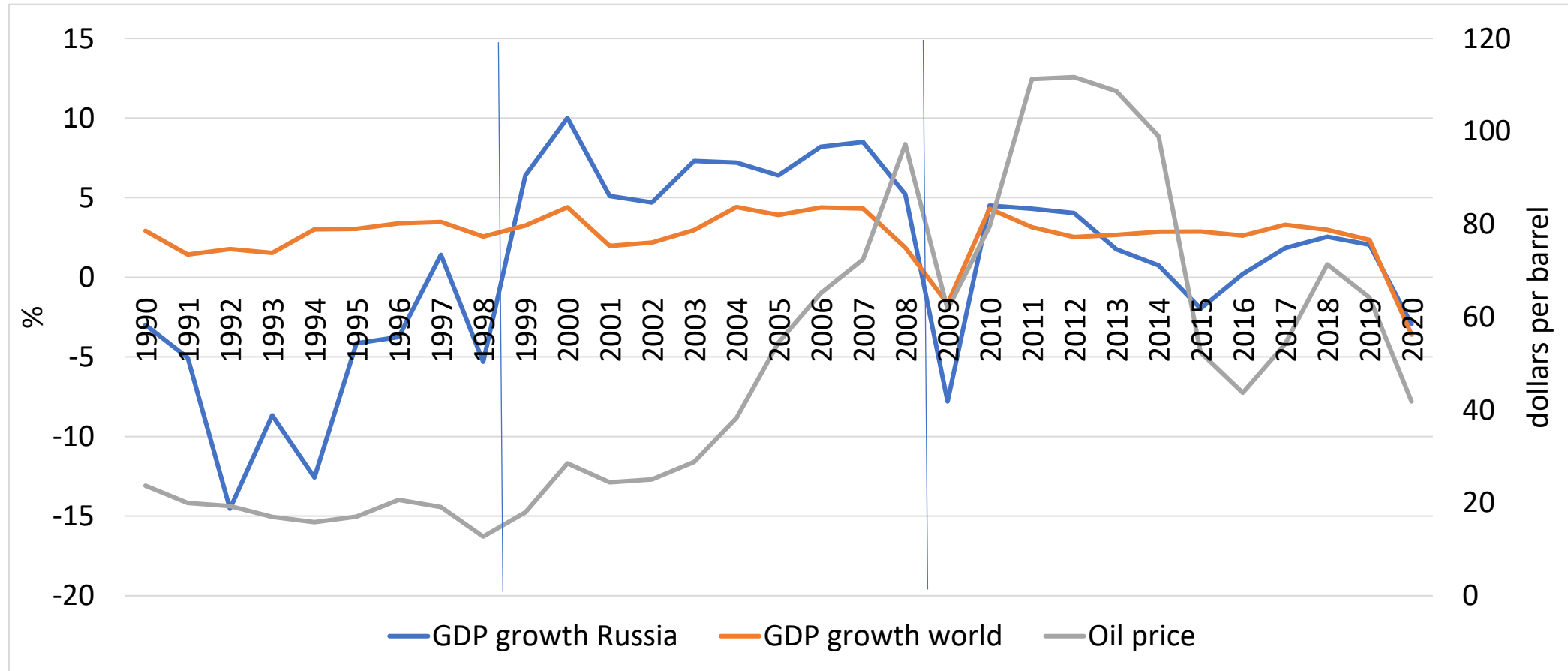
- Diversification
- Climate policies and carbon pricing
- Green finance

## 4. New opportunities – new sectors for green transition

- Renewables
- Other low-carbon energy technologies
- New minerals for low-carbon energy system
- Forests and Russia's green transition

# Dependence on fossil fuels-1

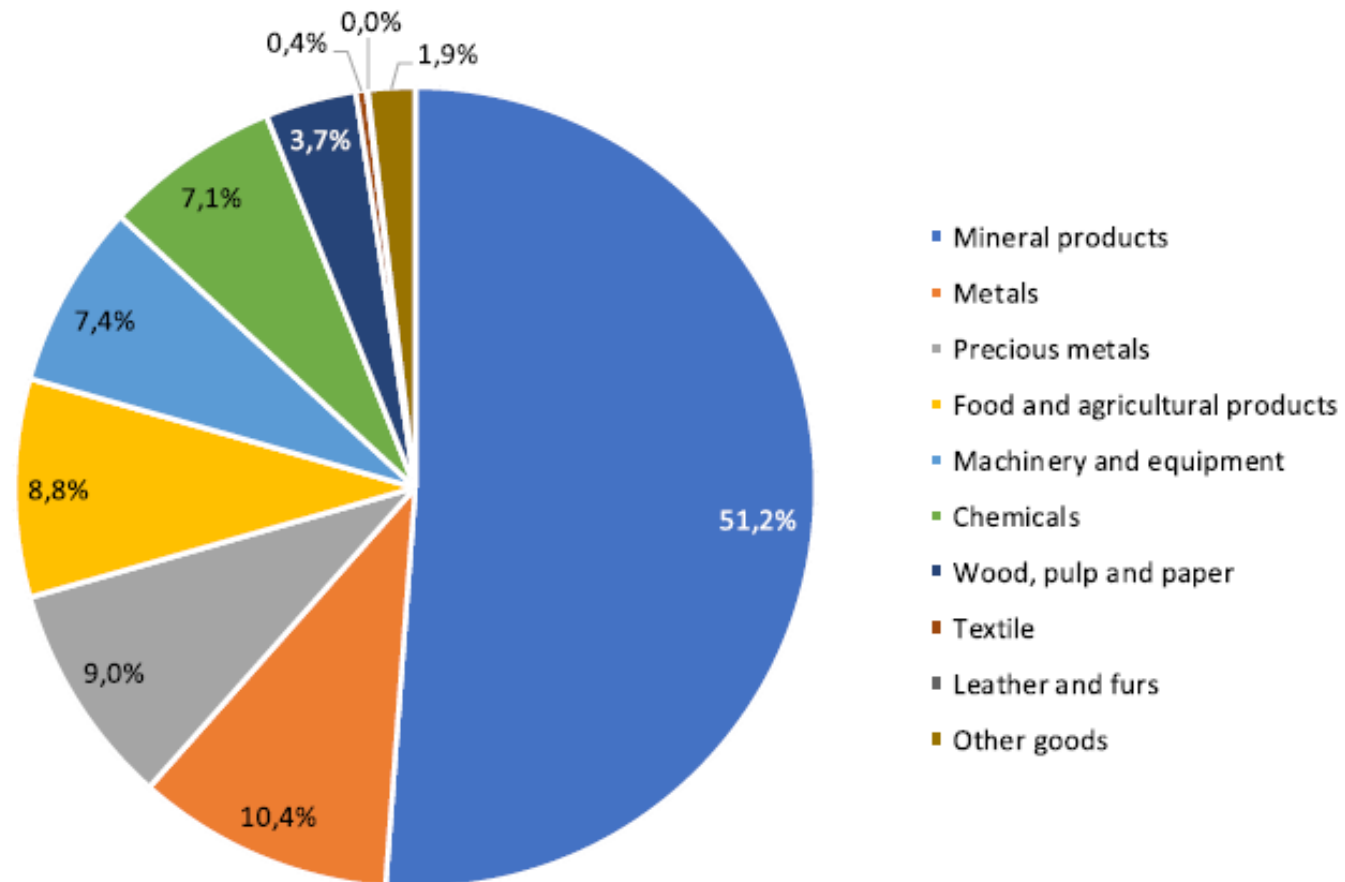
Oil prices (right axis) and the GDP growth rate in Russia and the world (left axis)



Source: World Bank, BP

# Dependence on fossil fuels-2

Structure of Russia's exports in 2020



Source: Based on Federal Custom Service of the Russian Federation data.

# Types of transition risks

1. Short-term risks: CBAM introduced by the European Union – risks for Russian exporters of energy-intensive goods
2. Medium-term risks: reduction of demand for Russian fossil fuels and correspondent decrease in welfare

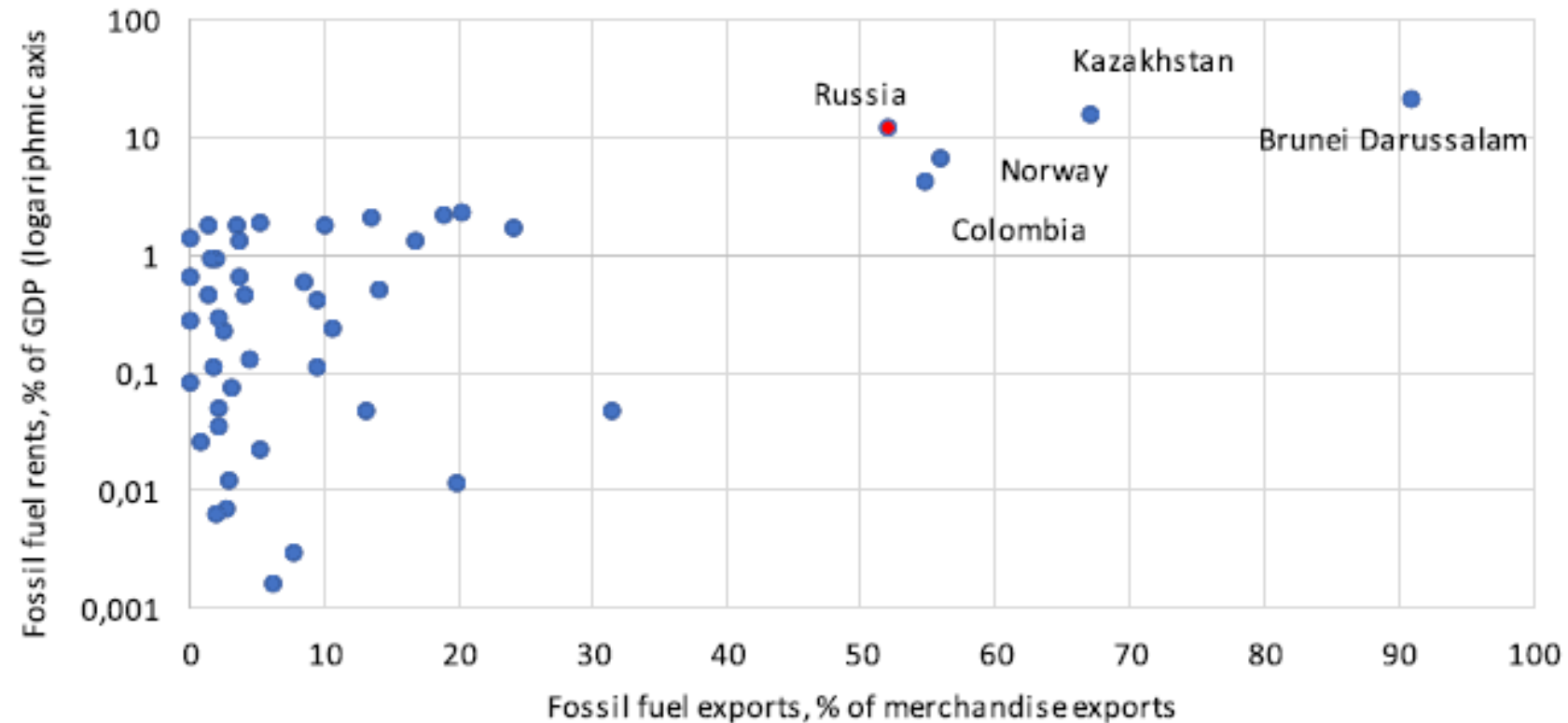
# Model

The study uses the Environmental Impact and Sustainability Applied General Equilibrium (**ENVISAGE**) Model calibrated to the Global Trade Analysis Project (GTAP) 10 Power Data Base

Activity	Foresight	Model/GTAP version	Russia SAM year	Fuel reserves	Capital structure	Endogenous Innovation	Regional aggregation	Sectoral aggregation
EU CBAM	Recursive dynamic	ENVISAGE GTAP10	2019	Standard exogenous	Vintage capital (old/new)	Productivity fixed across scenarios	16 regions: EU & EFTA, ECA countries, United States of America, China, India, Russia, MENA, ROW	24 sectors; carbon-intensive industries exposed to CBAM are disaggregated
Global CPAT/FFDCs	Recursive, dynamic	ENVISAGE GTAP10	GTAP10 (2008)	Endogenous fuel extraction	Vintage capital (old/new)	Productivity enhancing R&D investments	16 regions: aggregation is based on the role of fossil fuels in the economy	20 sectors; electricity produced from different renewables sources are disaggregated; manufacturing is more aggregated

# Low incentives for decarbonization

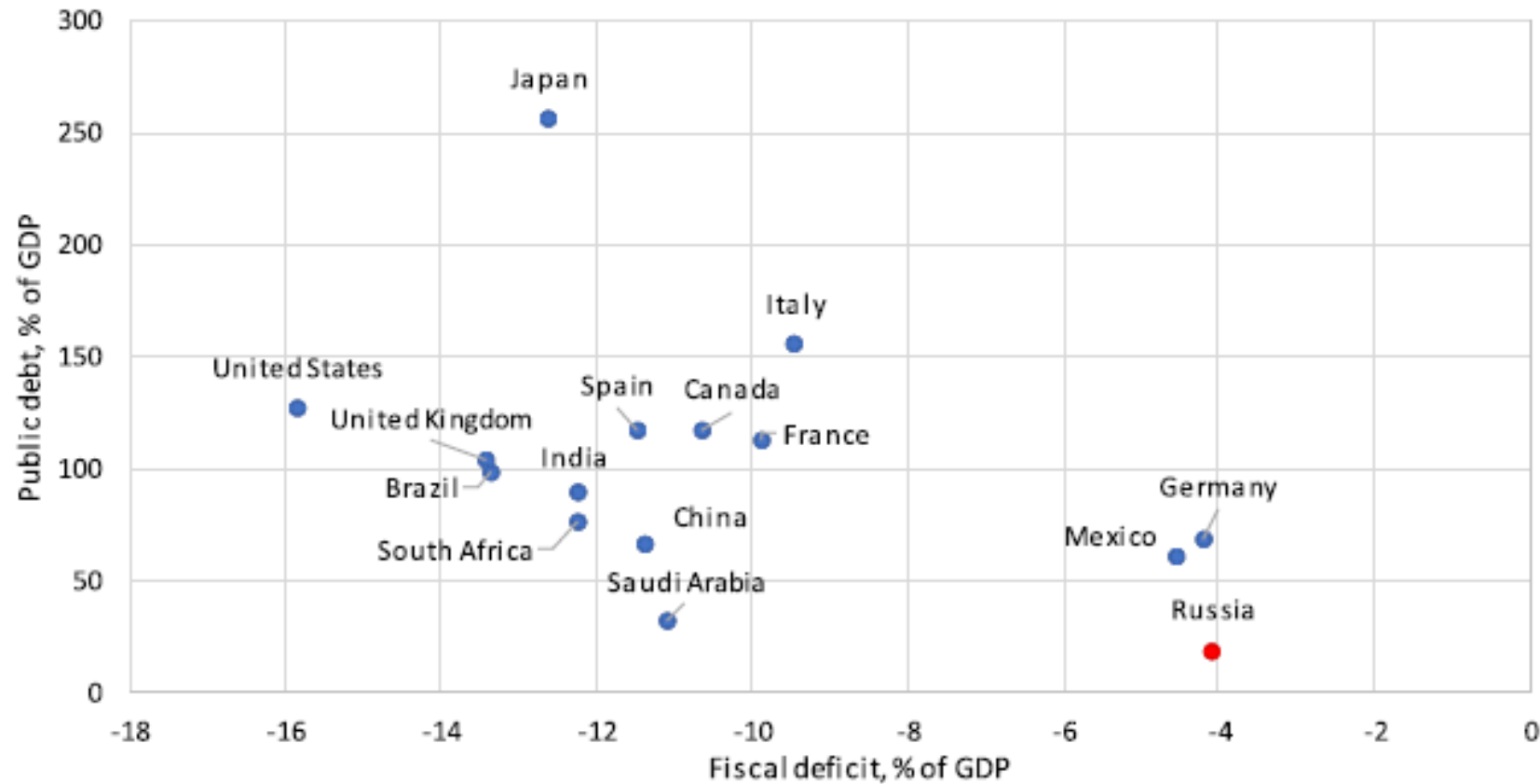
Fossil fuel rents (% of GDP) and fossil fuel exports (% of merchandise exports) in countries with carbon pricing programs implemented, scheduled for implementation, or under consideration



Source: Based on World Bank data.



# Enough policy space to start green transition



Source: Based on IMF data.

# Opportunities of green transition: summary

- The global green transition and the movement towards carbon-neutrality in the leading countries brings **significant challenges to the current Russian development model** relying on fossil fuel extraction and exports.
- **Diversification of the economy is indispensable** condition to ensure green and resilient economic growth in Russia. Climate policies may be an efficient means of diversification
- Policy response:
  - **Energy and climate policies:** Comprehensive, consistent and ambitious climate policies, integration climate targets to economic policymaking; Removal of fossil fuel subsidies; Promoting energy efficiency; Considering climate policy as a means of diversification
  - **Financial infrastructure of green transition** through the development of green finance
  - **New sectoral focus:** Renewable energy generation; Other low-carbon energy technologies (nuclear, hydro, CCS); Climate-smart forestry and agriculture; Sector of new minerals

Thanks for your attention!

My digital business card

