

United Nations Trade and Development (UNCTAD)

**GLOBAL COMMODITIES FORUM**  
**9-10 December 2024, Geneva**

**The energy transition and its macroeconomic effects**

Alberto Amerigo, Senior Macroeconomic Analyst (Bank for International Settlements)

The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.



# The energy transition and its macroeconomic effects

Alberto Amerigo, Senior Macroeconomic Analyst (Bank for International Settlements)

*Adaptation to the energy transition in fossil fuel-dependent developing countries*

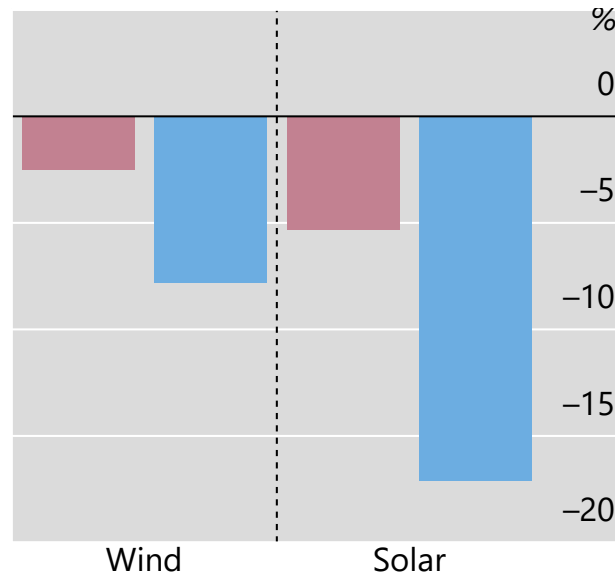
Global Commodities Forum, 9 December 2024

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# Overview

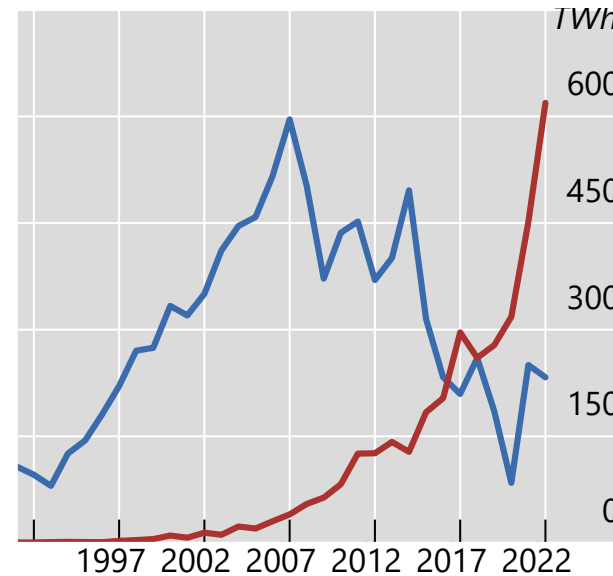
1. The energy transition is accelerating
2. Fossil fuel exporters
3. Macroeconomic implications for fossil fuel exporters
4. The effect of the 2014 fall in oil prices in OPEC+

# 1. The energy transition is accelerating

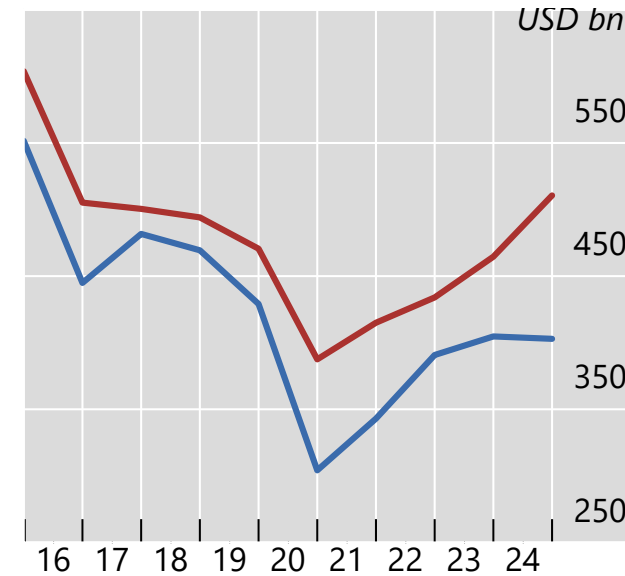


Annualised cost reduction:

- IEA 2015 projections
- Actual rate, 2010–20



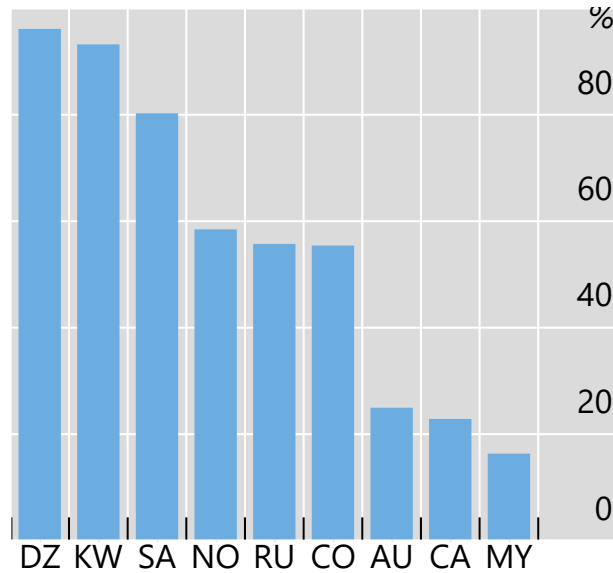
Electricity demand: — Fossil fuels  
— Renewables



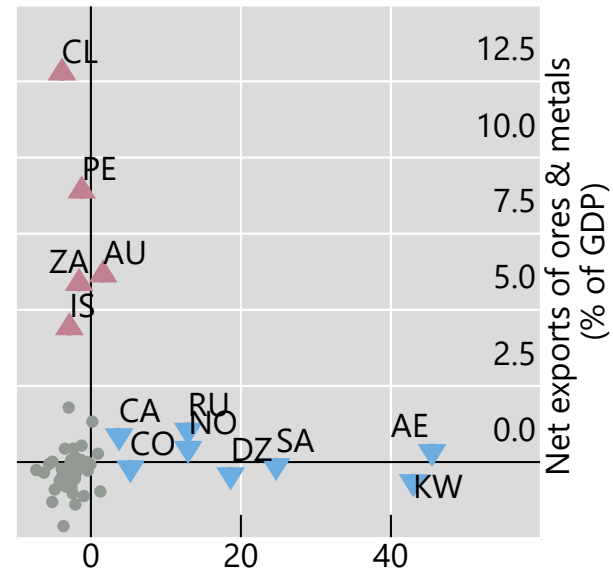
Investments in coal, gas and oil:  
— Advanced economies  
— Emerging economies

- Costs of renewable energy are plummeting while adoption accelerates
- Renewable energy now more economical than fossil energy
- Fossil fuel investment is declining, although still significant in EMEs

## 2. Fossil fuel exporters

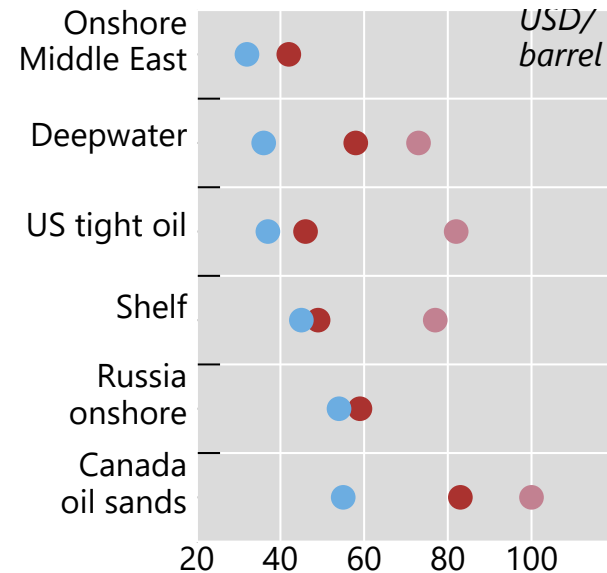


Fuels exports to total exports:  
Average 2014–19



Net exports of fuels (% of GDP)

- ▲ Net exports of ores & metals > 2%
- ▼ Net exports of fuels > 2%
- Others

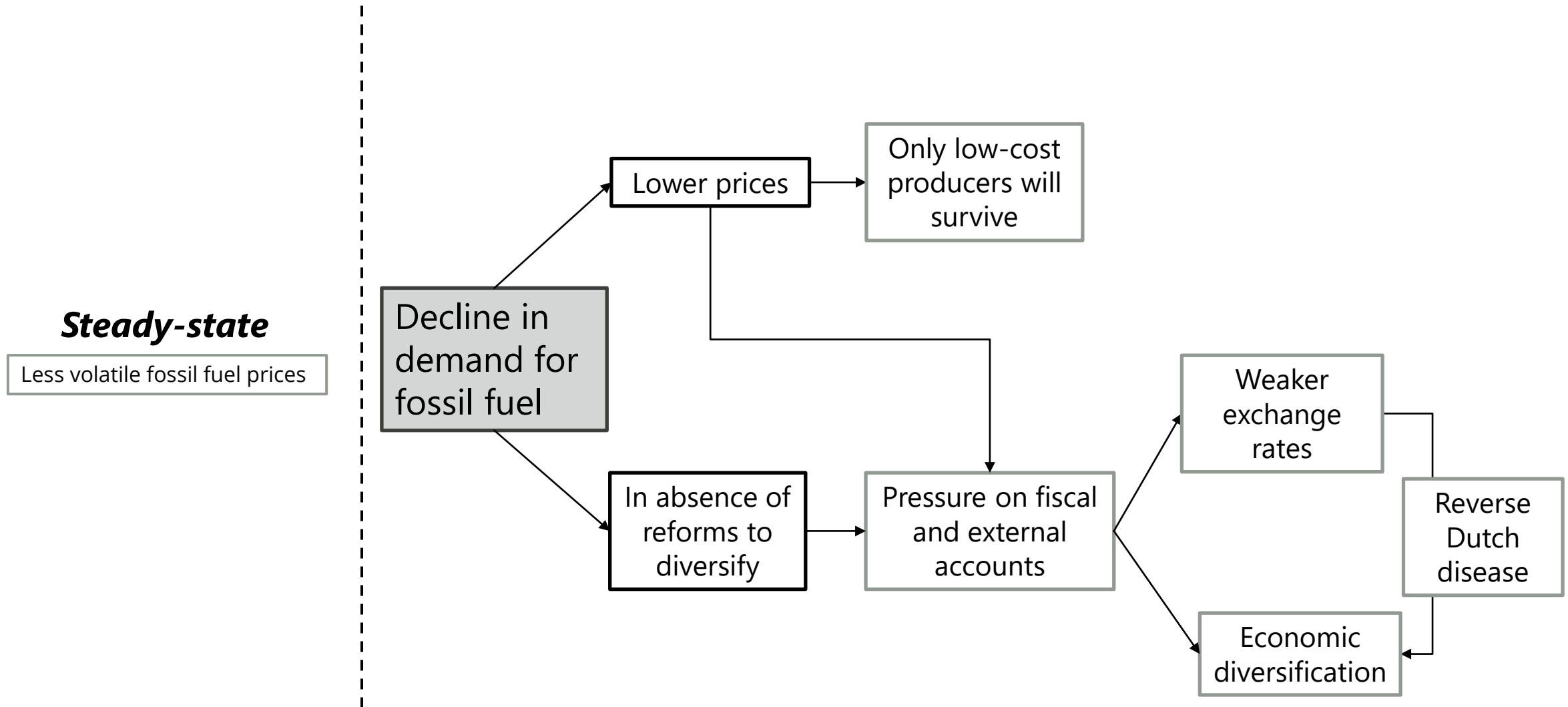


Break-even oil price:

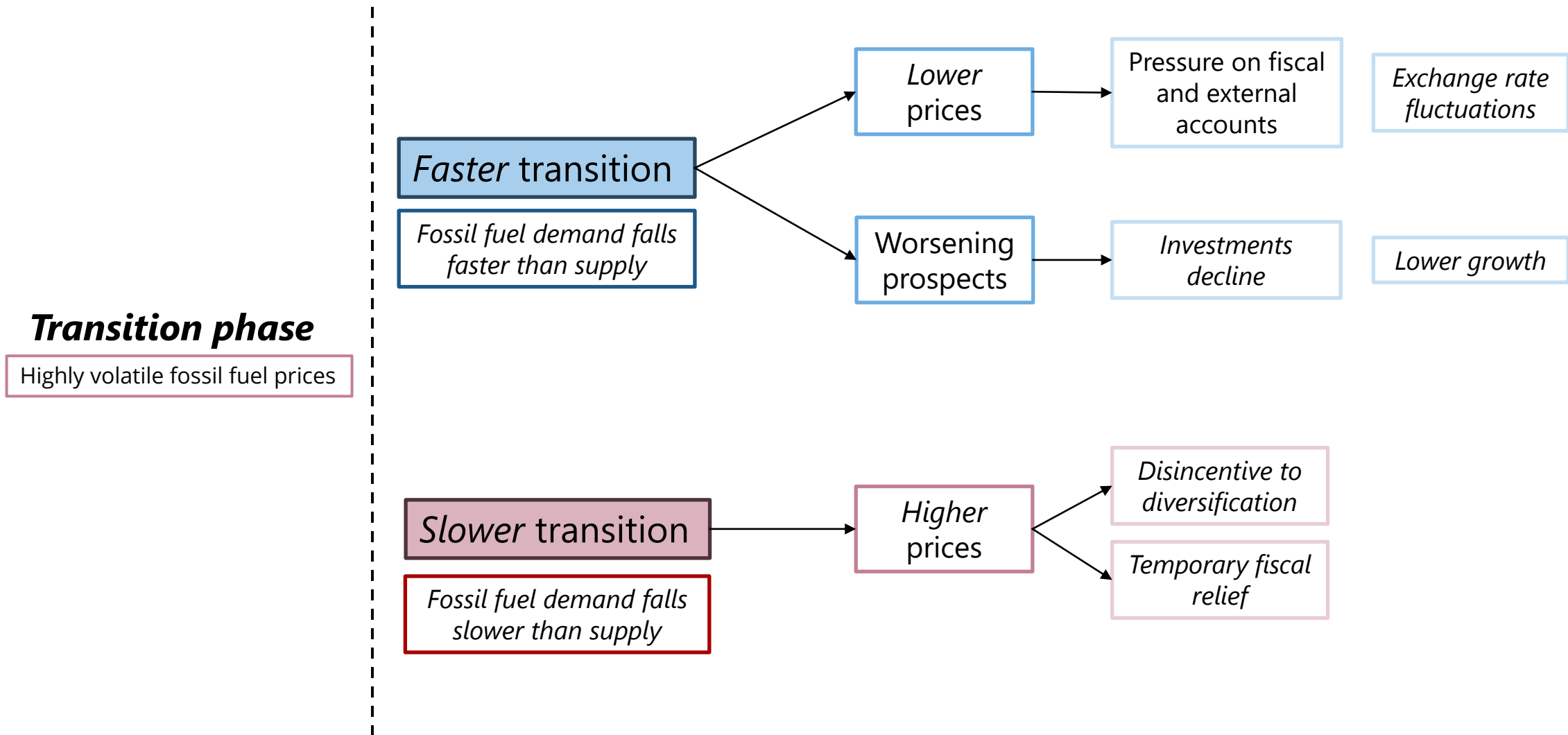
- 2021
- 2019
- 2014

- A small number of countries, mostly in the Middle East and North Africa, rely heavily on fuel exports
- These economies do not have significant metal production that is needed for the transition
- But they tend to be the lowest-cost producers of oil

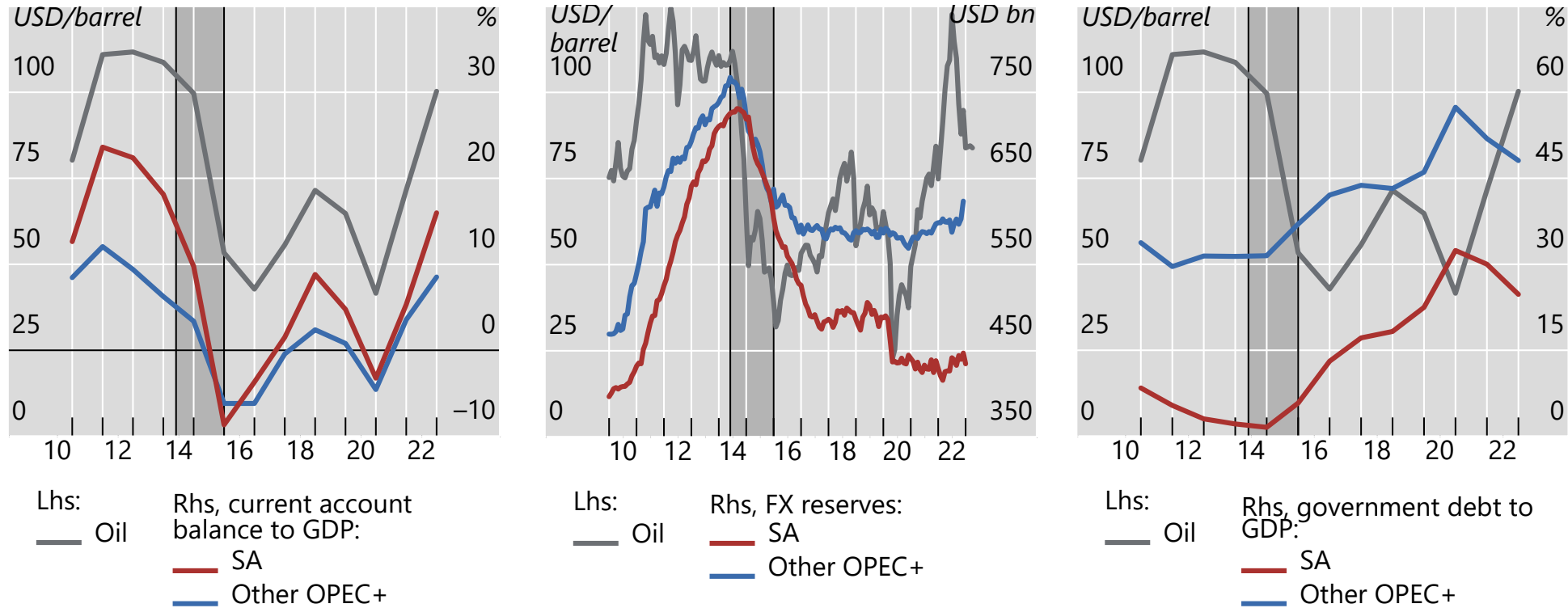
### 3. Macroeconomic implications for fossil fuel exporters



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## 4. The effect of the 2014 fall in oil prices in OPEC+



Grey shaded area indicates from June 2014 to December 2015.

- Large current account deficits
- Rapid declines in FX reserves
- Worsening debt levels



# Conclusions

- Prices for renewables are falling sharply:
  - ⇒ The energy transition could happen faster than we thought
  - ⇒ This will have massive economic implications for fossil fuel producers, consumers and the suppliers of critical minerals
  - ⇒ Only lowest cost producers may remain in business, but receive far lower revenues
- What can fossil fuel producers do?
  - ⇒ Find alternative sources of growth, such as:
    - ⇒ Renewable energy
    - ⇒ Service exports
- Challenges should not cloud long-term benefits:
  - ⇒ Less global warming
  - ⇒ Cheaper, locally produced energy
  - ⇒ More stable energy prices (at business cycle frequency)

Thank you for your attention!

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