

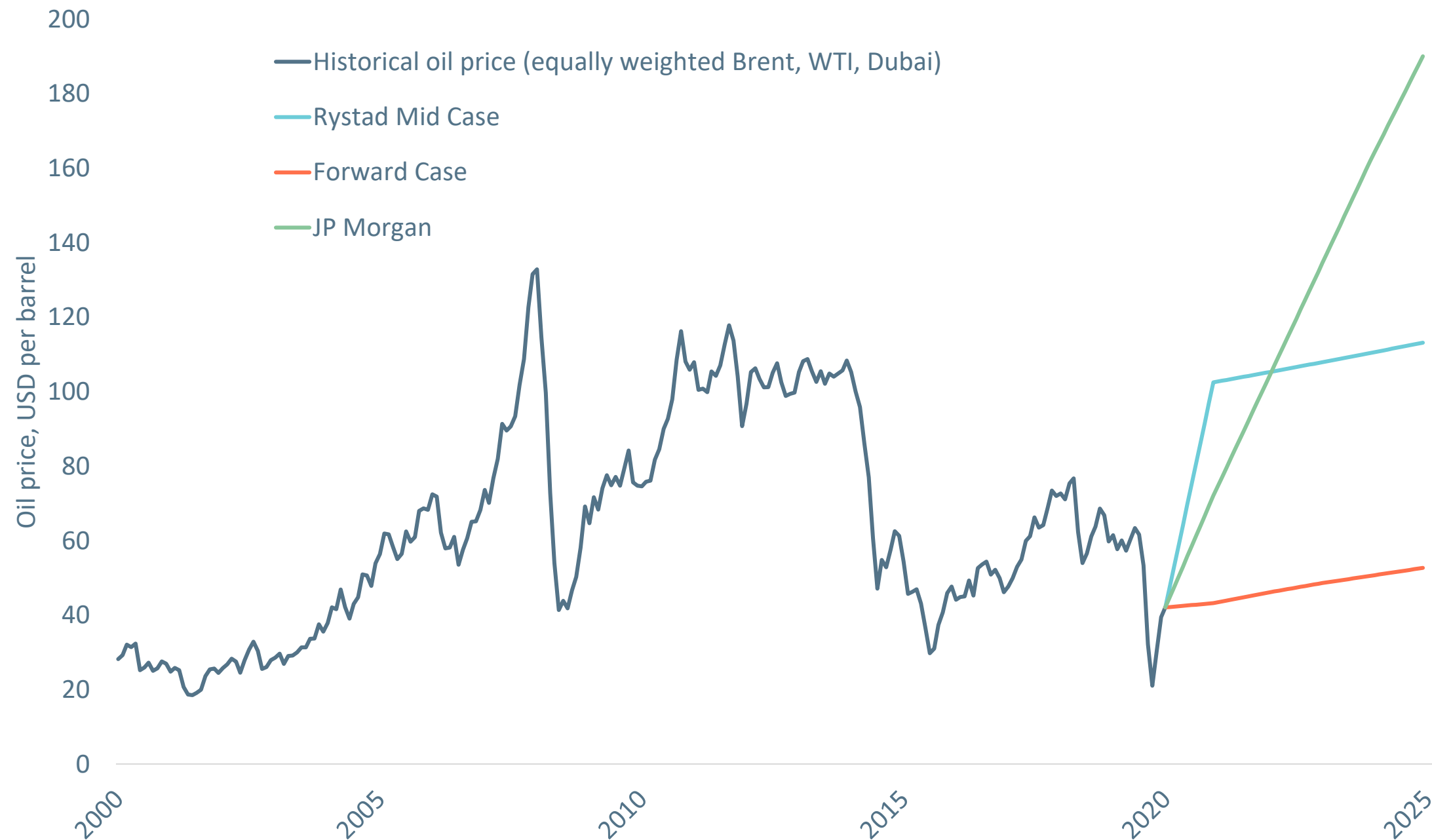
Extractive sector risks in a COVID-19 world

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Annual WGEI Steering Committee Meeting

17 September 2020

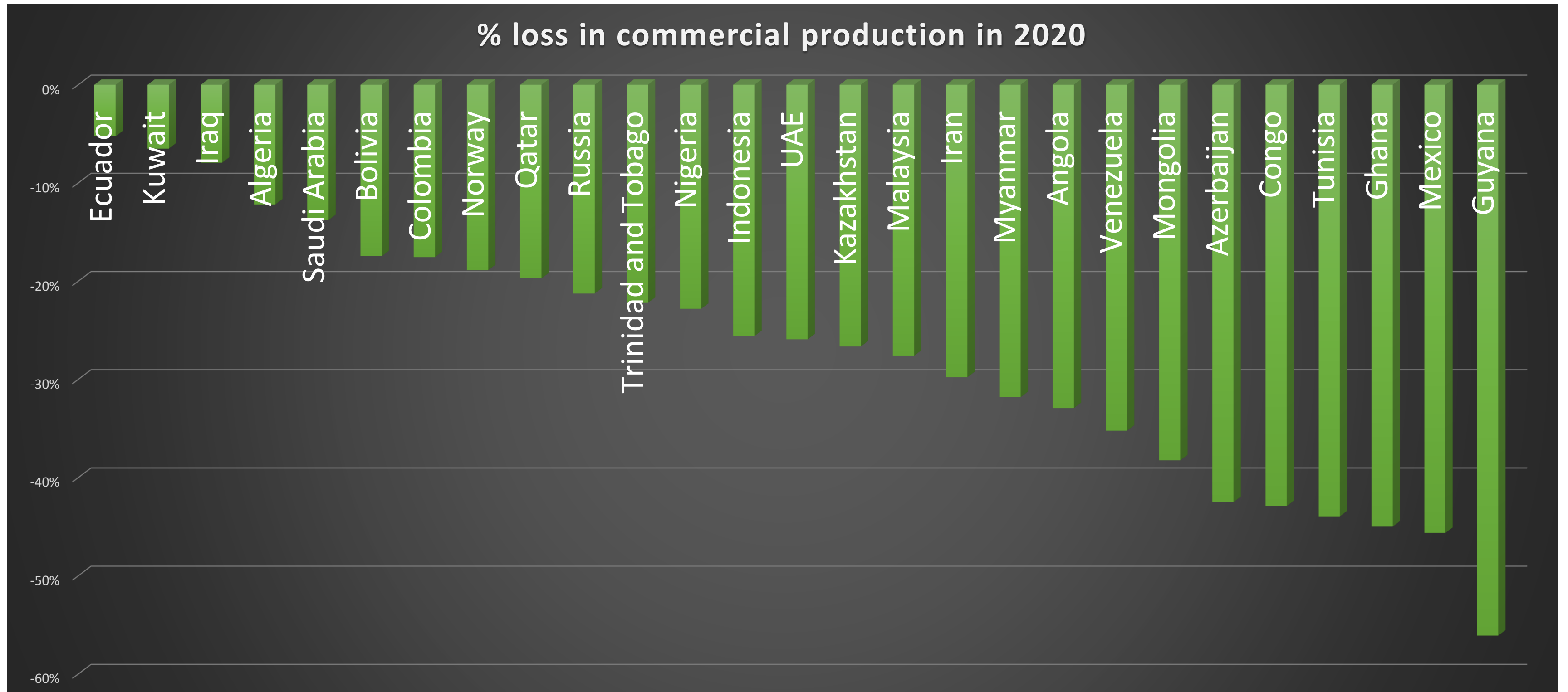
Context: Oil prices crashed by 73% in a month, but rebounding; consensus USD 50 / barrel through 2025



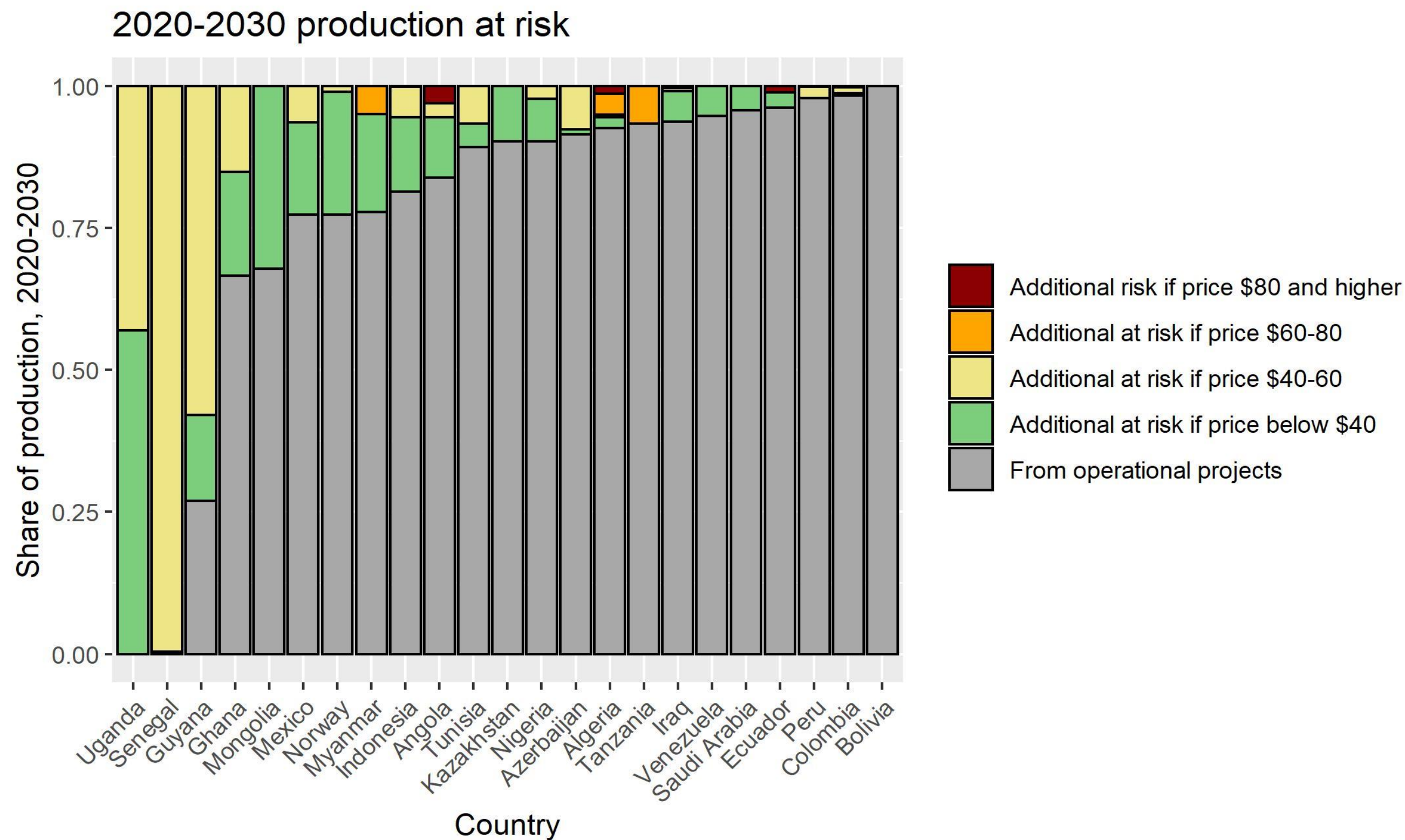
Source: Rystad UCube, JP Morgan

Notes: Forecasts are annual averages, so some will show more of a dip than others. We have only a point forecast of \$190 in 2025 for JP Morgan, so we calculated a straight line from the current price to \$190.

Suspended projects, lower production and “shut-ins”



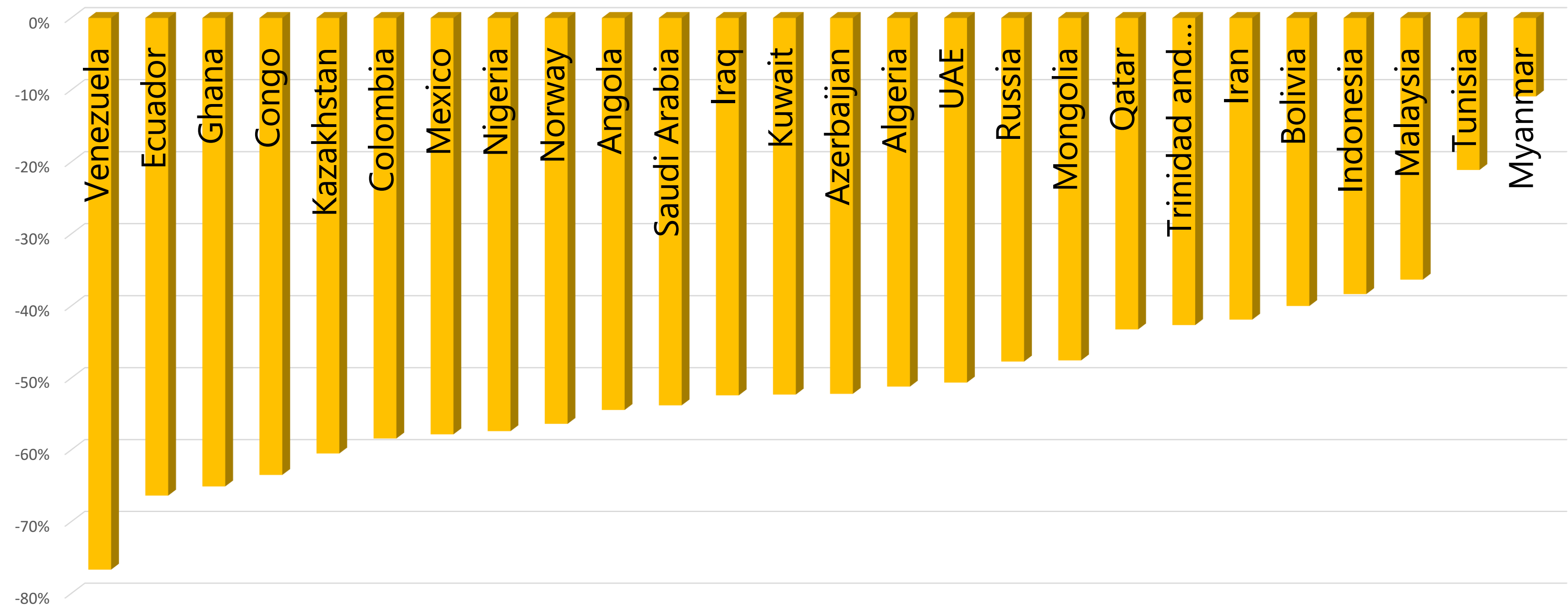
Exploration and development budget cuts and delayed licensing rounds



Source: Rystad UCube, NRGi calculations
Notes: Global mean production at risk is 14%, median is 10%.

Lower expected hydrocarbon fiscal revenues

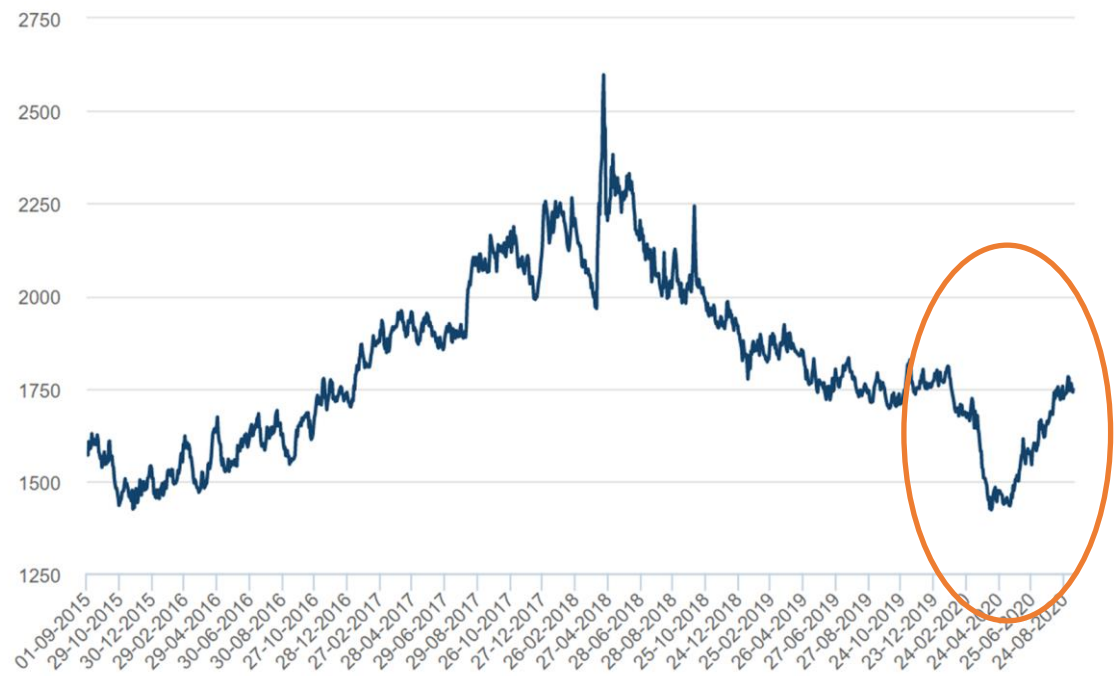
Projected decline in government hydrocarbon revenue (2019 to 2020)



Sources: Rystad and NRG

Context: Mineral prices have already rebounded since the crisis

LME ALUMINIUM HISTORICAL PRICE GRAPH



LME COPPER HISTORICAL PRICE GRAPH



LME NICKEL HISTORICAL PRICE GRAPH



LME GOLD CLOSING PRICES

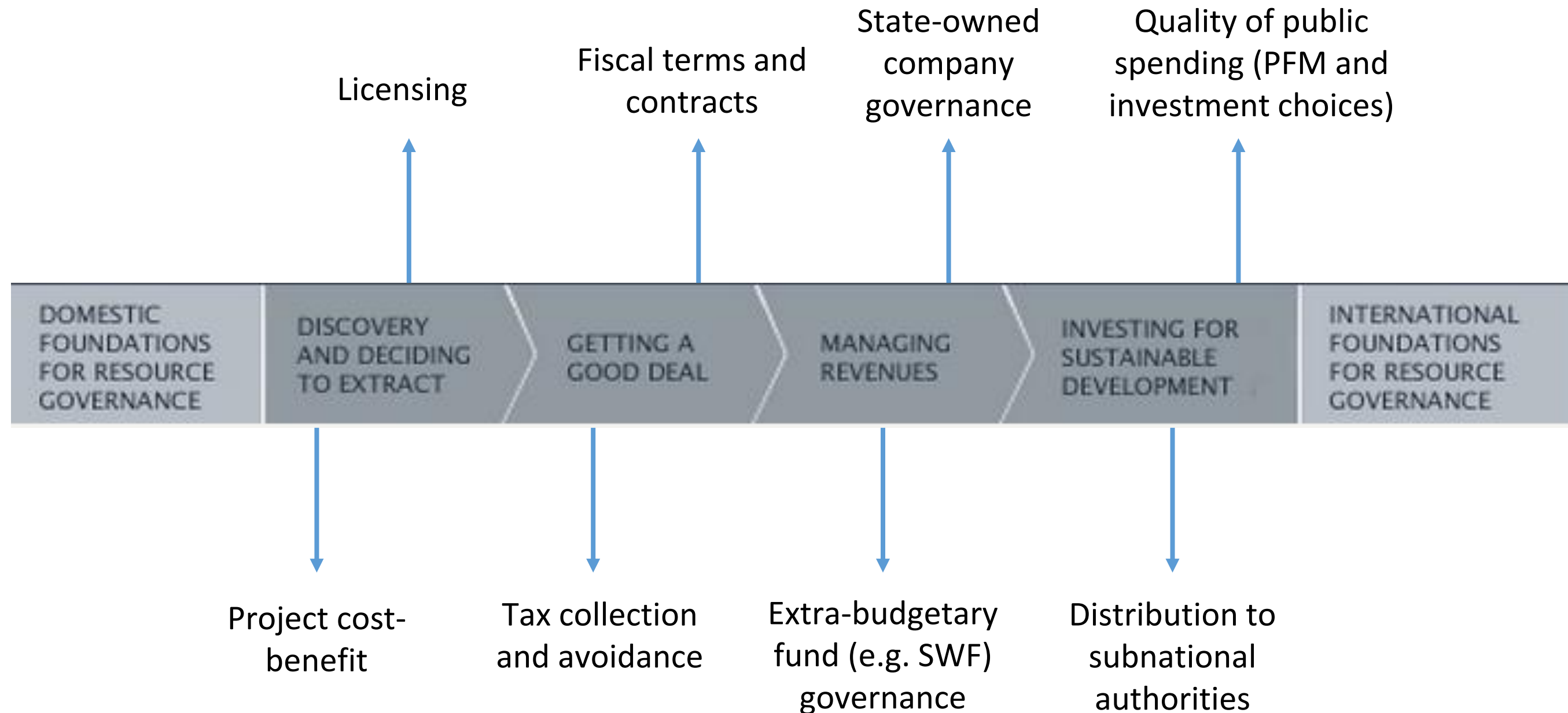


Mine Suspensions

- More than 268 mine suspensions so far
- Some of the largest mines include:
 - Antamina (Peru, copper-zinc)
 - Antofagasta (Chile, copper-gold)
 - Cigar Lake (Canada, uranium)
 - Cobra Panama (Panama, copper-gold)
 - Kumba (South Africa, iron ore)
 - Panasquito (Mexico, gold-silver)
 - Mogalakwena and Impala (South Africa, palladium-platinum)



Natural resource decision chain

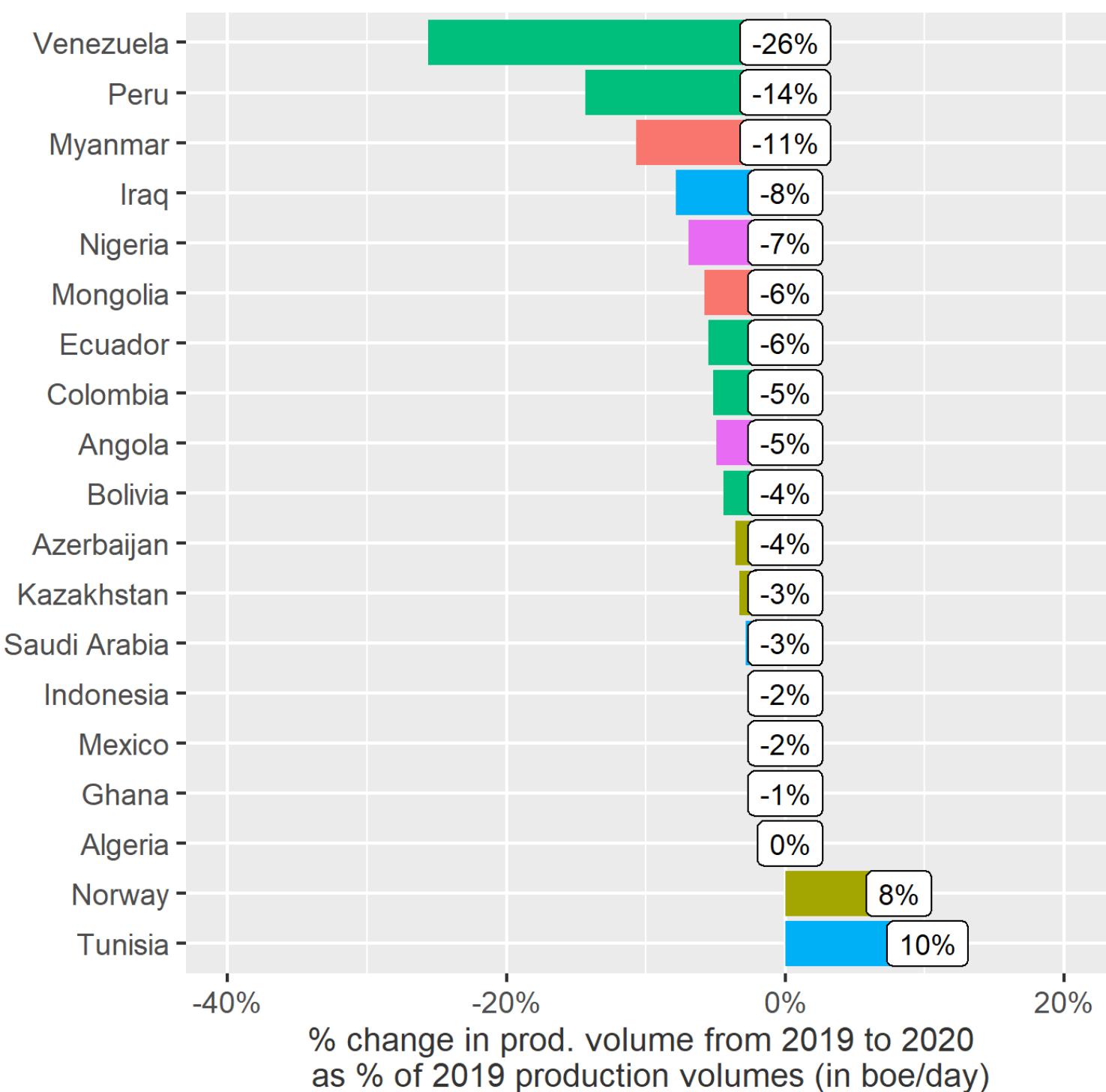


Three short- to medium-term risks

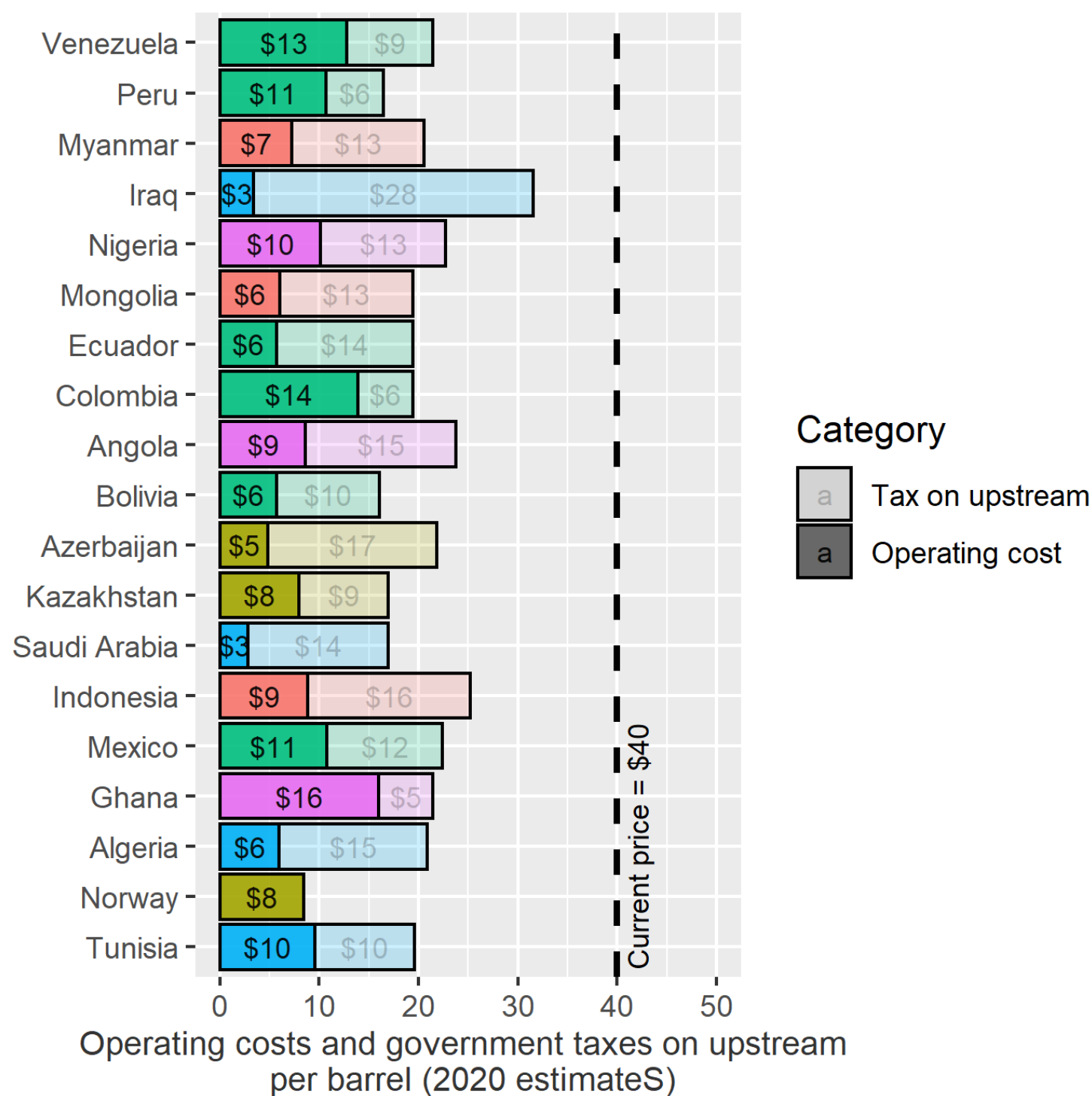
1. Tax breaks for oil or mining companies
2. Overinvestment by state-owned oil and mining companies
3. Macroeconomic crises (with impacts on political repression)

Operating projects do not need tax breaks

C/1: Drop in production volume 2020

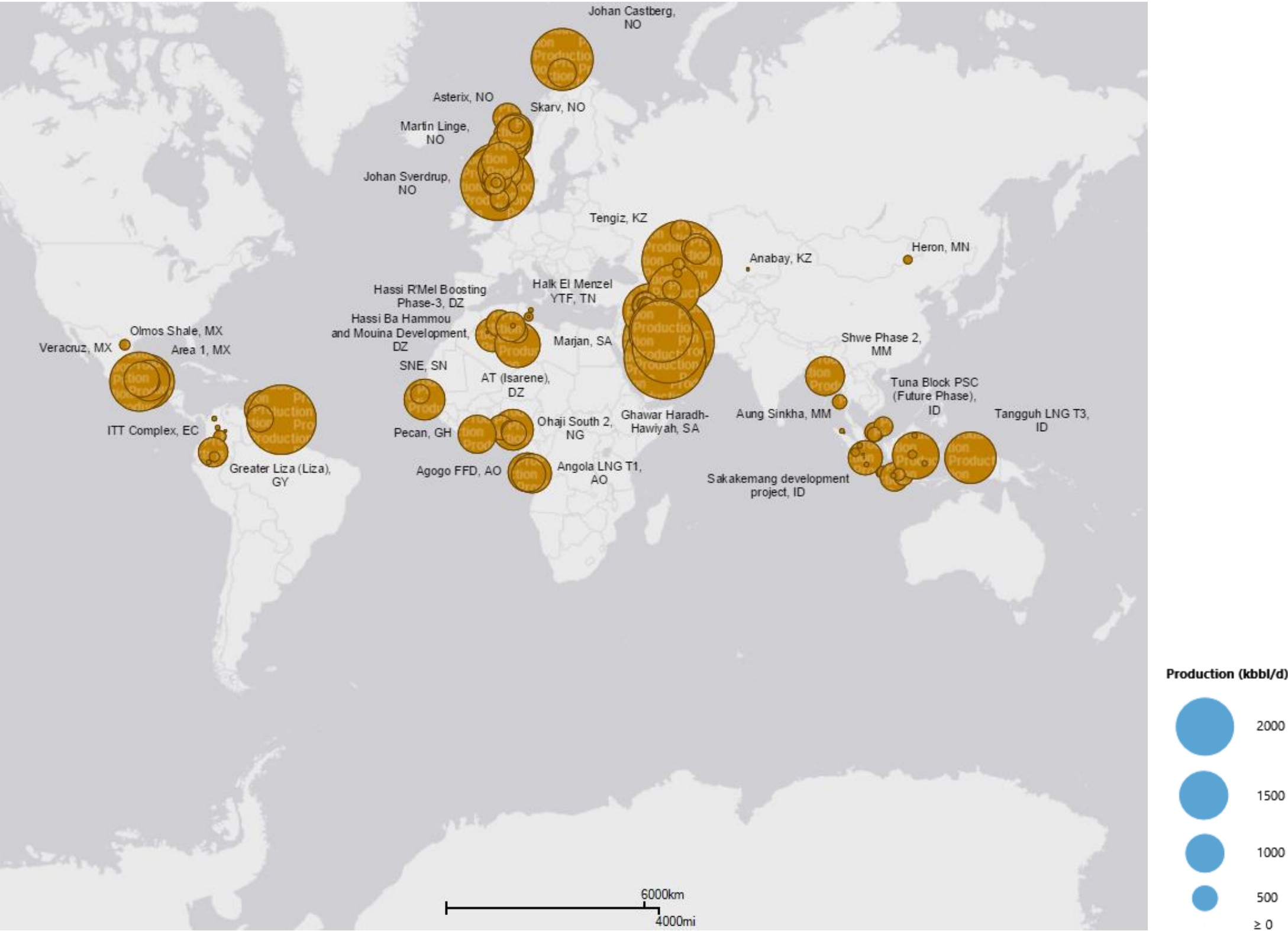


C/2: Operating costs per barrel 2020



Discovered, but undeveloped projects

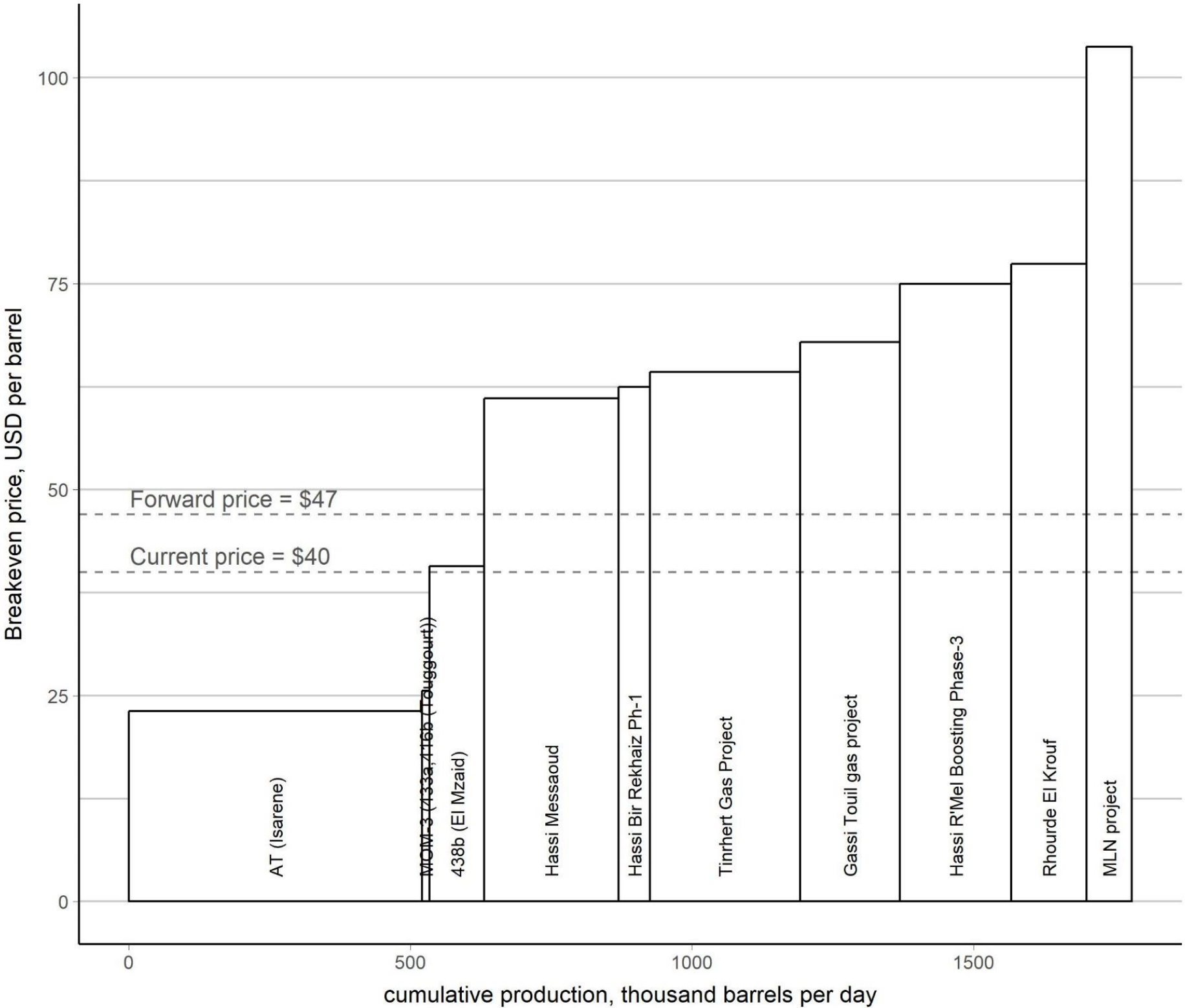
Globally



Source: Rystad Ucube

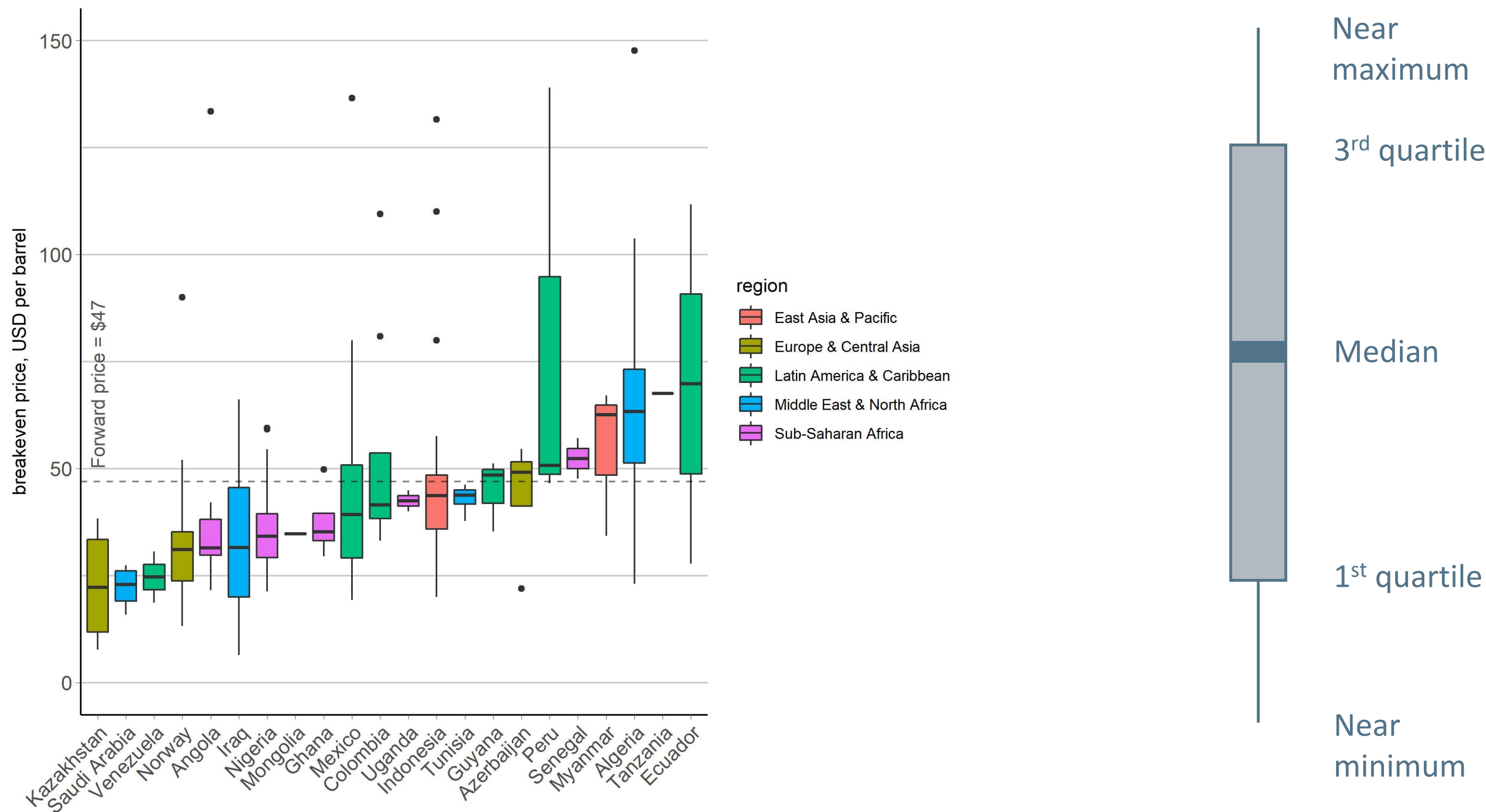
Discovered, but undeveloped projects – measure and model projects

Algeria



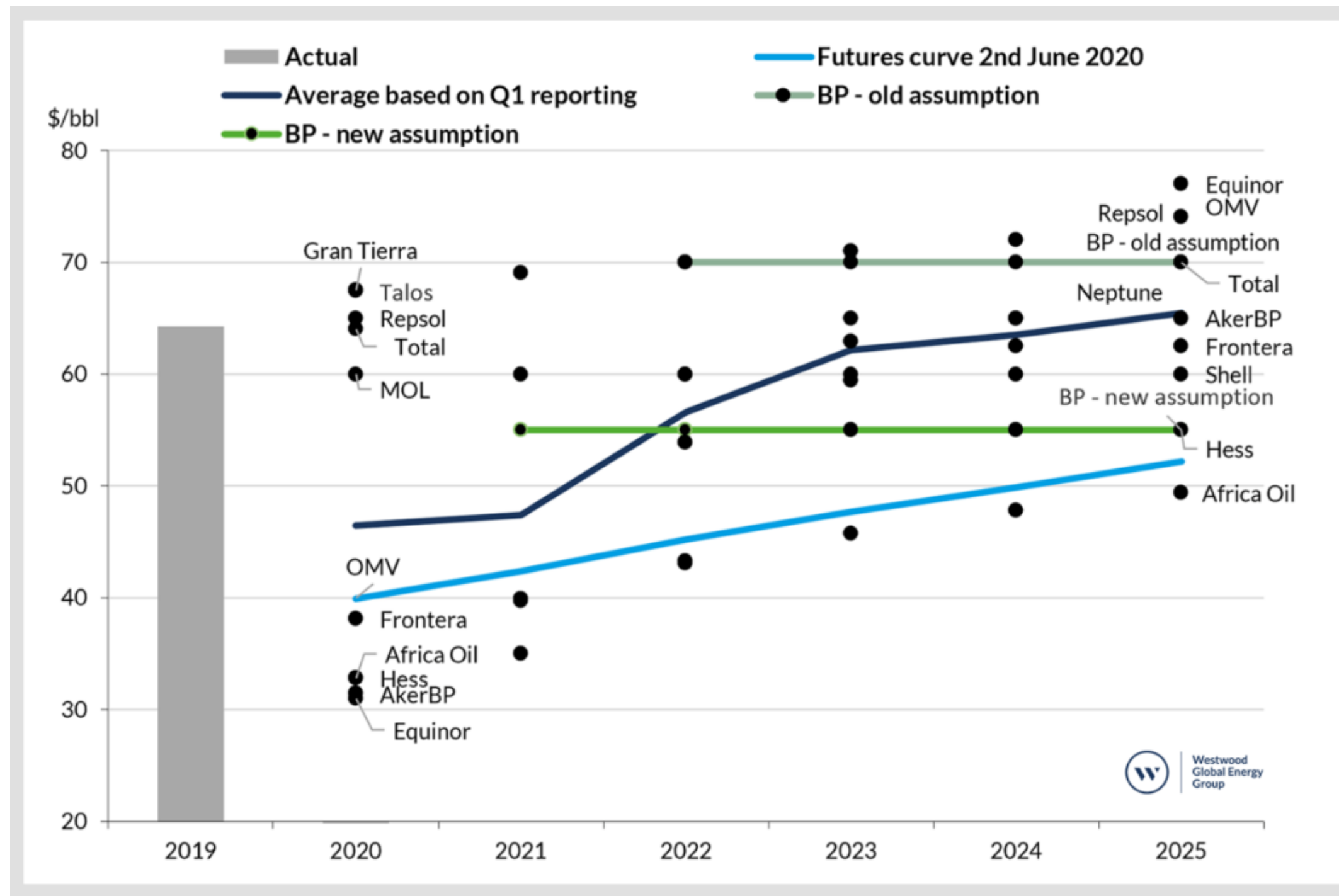
Source: Rystad Ucube, NRGi calculations
Notes: Projects with a breakeven price above 120, and projects with production below 10k barrels per day are removed.

Discovered, but undeveloped projects – some countries more exposed than others



Source: Rystad Ucube, NRGi calculations
Notes: Prospective projects only. This is quantiles for each country, unweighted by production. Tanzania's main projects have lower breakeven than shown here, but Rystad does not expect these project to start in next 5 years. 13

While oil companies assume the price will rise, some worry about the energy transition



Source: Keith Myers. "BP highlights diverging views on the future of oil and gas, Westwood Global says".

Three takeaways for oil and gas sector policy

1. Low-cost producers will still produce; important to maximize revenues and minimize tax erosion and avoidance – SAls have important role
2. Low taxes are not necessary to encourage new production and may cause governments to lose out if prices rise in the future; progressive taxes (sliding-scale royalties or resource rent tax) are key
3. Energy transition is underway; better to invest in renewables than more oil and gas production

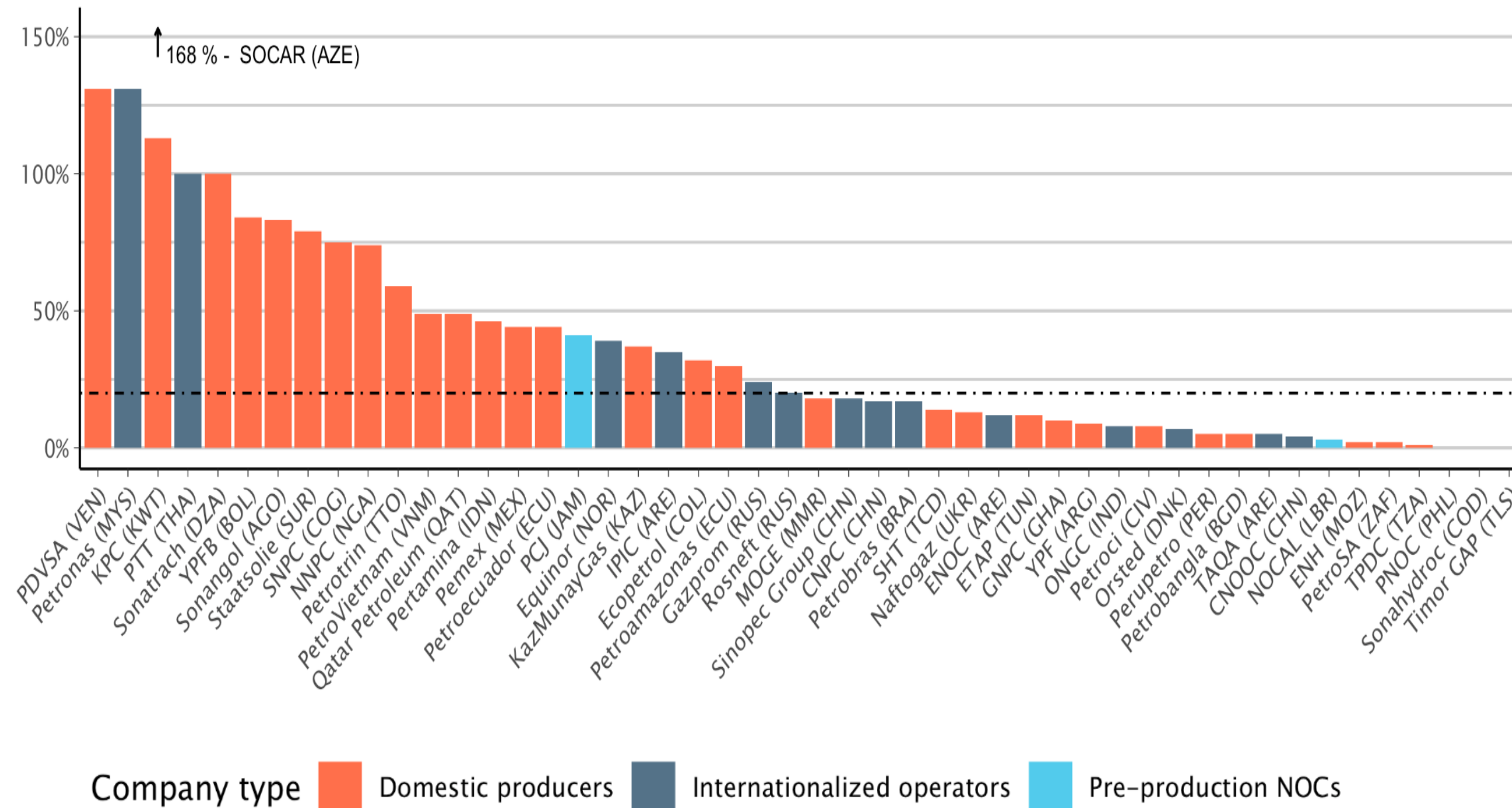
Risk 2: State-owned enterprise (SOE) overinvestment

- More than 146 globally (plus dozens in China), of which 1/3 in the mining sector
- SOEs driven by “drill-collect-borrow-spend” strategies; few contribute to sustainable growth
- Governments continue to invest in national oil companies despite energy transition and weak performance
- Every dollar invested in a state-owned enterprise is a dollar not invested in education, healthcare or productive infrastructure



NOCs are giants

NOC gross revenues as % of general government revenue, per IMF, 2013



25+

Countries where NOC collects revenue equivalent to more than 20% of total government revenue.

<25%

Amount of gross revenues most NOCs transferred to their countries' governments

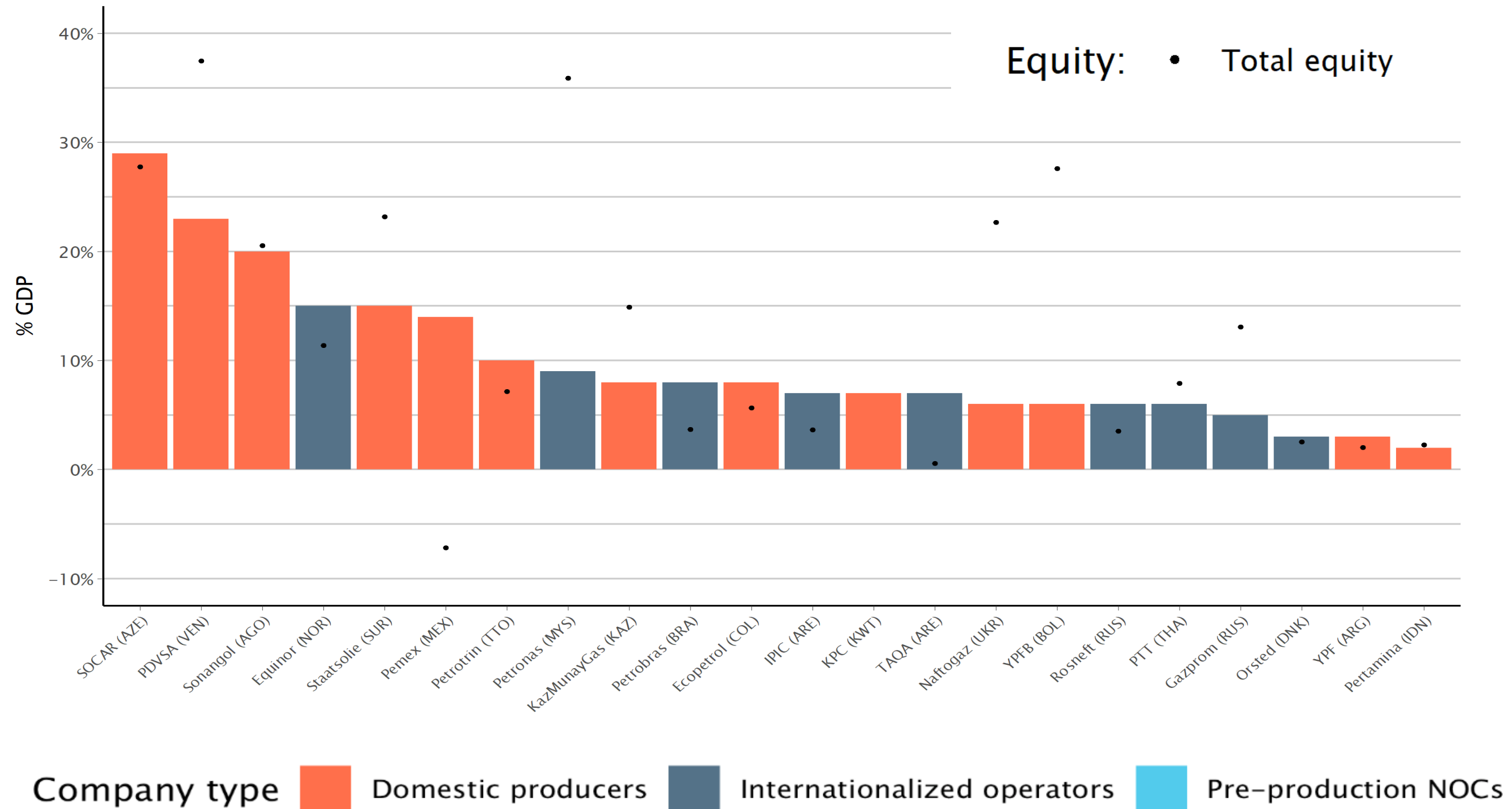
Case study: Pertamina (Indonesia)

- PwC audit: Pertamina lost about USD 6.1 billion between April 1996 and March 1998 due to “embezzlement, illegal commissions, price mark-ups on procurement contracts, gross inefficiency and incompetence.”
- E.g., 10-year lease for an oil tanker from PT Dwiputra, a joint venture between a Japanese company and one of former President Suharto’s sons; Pertamina charged 36-40 percent more than the market rate.
- More than 150 contracts cancelled or retendered.



The debts of some SOEs pose economic risks

Long-term liabilities and equity as % of GDP, 2015



Case study: PEMEX (Mexico)

- Accumulated pension obligations valued at USD 90 billion without setting aside adequate savings to meet those obligations.
- The sum owed to retired workers was almost four times the size of Exxon's pension liabilities, which has the world's second highest pension obligations among oil and gas companies.
- In 2016, the Ministry of Finance assumed USD 10.2 billion of these liabilities. This was followed by a USD 4.2 billion "liquidity boost" from the government to the company.
- In March 2019, the Ministry of Finance announced another USD 6-7 billion bailout.



Three takeaways for SOE policy

1. The COVID-19 crisis has highlighted SOE vulnerabilities; now is the time to act
2. SOE audits should be a priority in most resource-rich countries
3. SOE audits could focus on high costs (e.g., weak procurement; overindebtedness; quasi-fiscal expenditures; environmental and social impacts), low revenues (e.g., below market return on oil or minerals), inefficient revenue retention rules, or excessive liabilities.

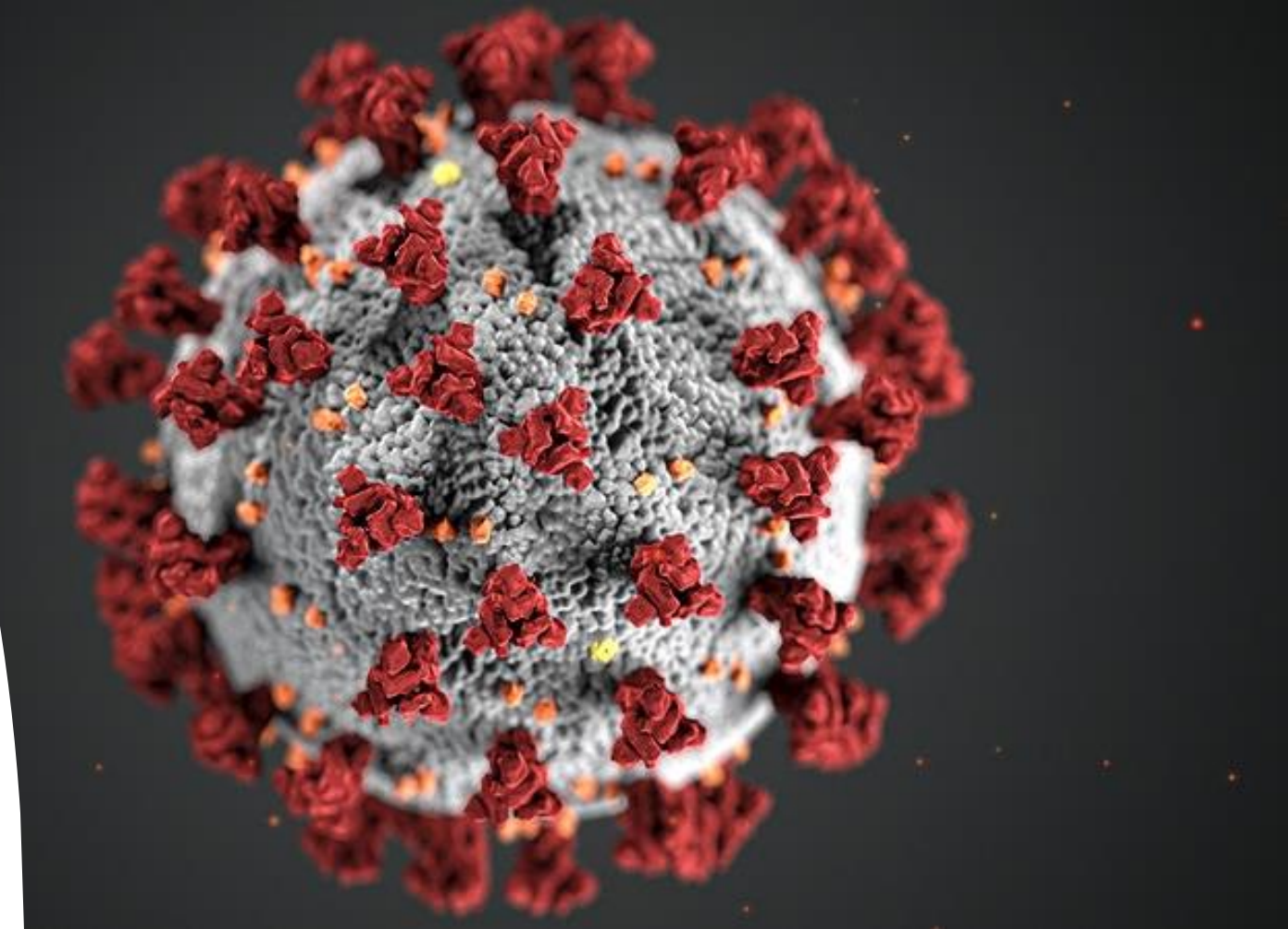
Risk 3: Macroeconomic impacts

- Australia, Bolivia, Botswana, Chile, Kazakhstan, Kuwait, Norway, Peru, UAE, Russia, Saudi Arabia, South Africa and Tanzania are among those with enough fiscal space to maintain public spending into 2021 despite a collapse in government revenue
- Malaysia and Trinidad & Tobago have fiscal space but face longer-term challenges due to high oil production costs
- Sovereign debt crises underway or likely in Algeria, Angola, Congo (DR), Congo (Rep.), Ecuador, Eritrea, Mozambique, Iran, Nigeria, Suriname, Venezuela and Zambia



Fiscal responses

- Brutal cuts in Algeria, Venezuela
- Fuel subsidy cuts in Nigeria, Libya, Tunisia and Venezuela (Dubai and Sudan to come)
- Fiscal stimulus
 - Policies adopted include: tax cuts and subsidies to businesses; orders for banks to extend loans to certain businesses; lines of credit; cash transfers; deferred utilities payments; increased benefits; and even free groceries to vulnerable groups.
- Financing
 - Drawing down on SWFs (e.g., Botswana, Chile, Norway, Peru, Russia, Saudi Arabia)
 - Borrowing (e.g., DRC, Guyana, Mongolia, Nigeria)
 - Central bank financing (debt monetization) (e.g., Bolivia, DRC, Ghana, Guyana, Iraq, Myanmar)
 - Tax increases (e.g., Algeria, Saudi Arabia, Tunisia)



Three takeaways for fiscal policy

1. “Spend now but keep the receipts” – SAIs could start auditing crisis-related spending and borrowing
2. SAIs could monitor debt challenges and restructuring to ensure that they are carried out fairly
3. SAIs could encourage economic diversification, expanding the tax base, reduce fuel subsidies and reforming PFM in a context of economic crises; fiscal responsibility over the last decade has served many countries well today

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