



BANNERMAN
RESOURCES

DYNAMICS OF URANIUM MARKETS

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27 April 2017



Nuclear industry (ie U demand) growing sharply through China expansion

Further strong non-OECD growth fuelled by Russia and India

Key source of clean, base load power sees solid growth profile in OECD

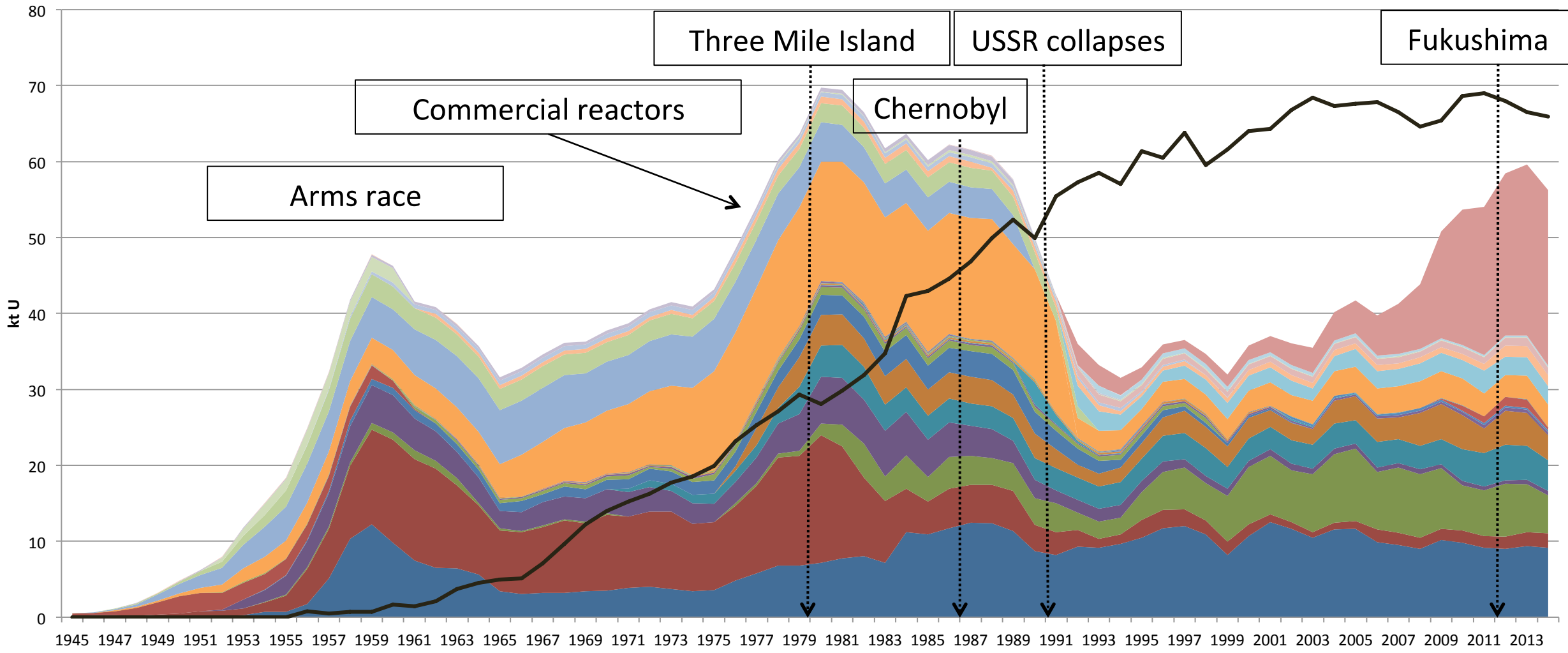
Looming supply shortfall with potential short term catalysts

Very few U development projects of scale ready to respond

Dynamics point to abrupt and sustained price correction... but when?

BUT: Kazakhstan dominates supply with ~40% of market and vast resources

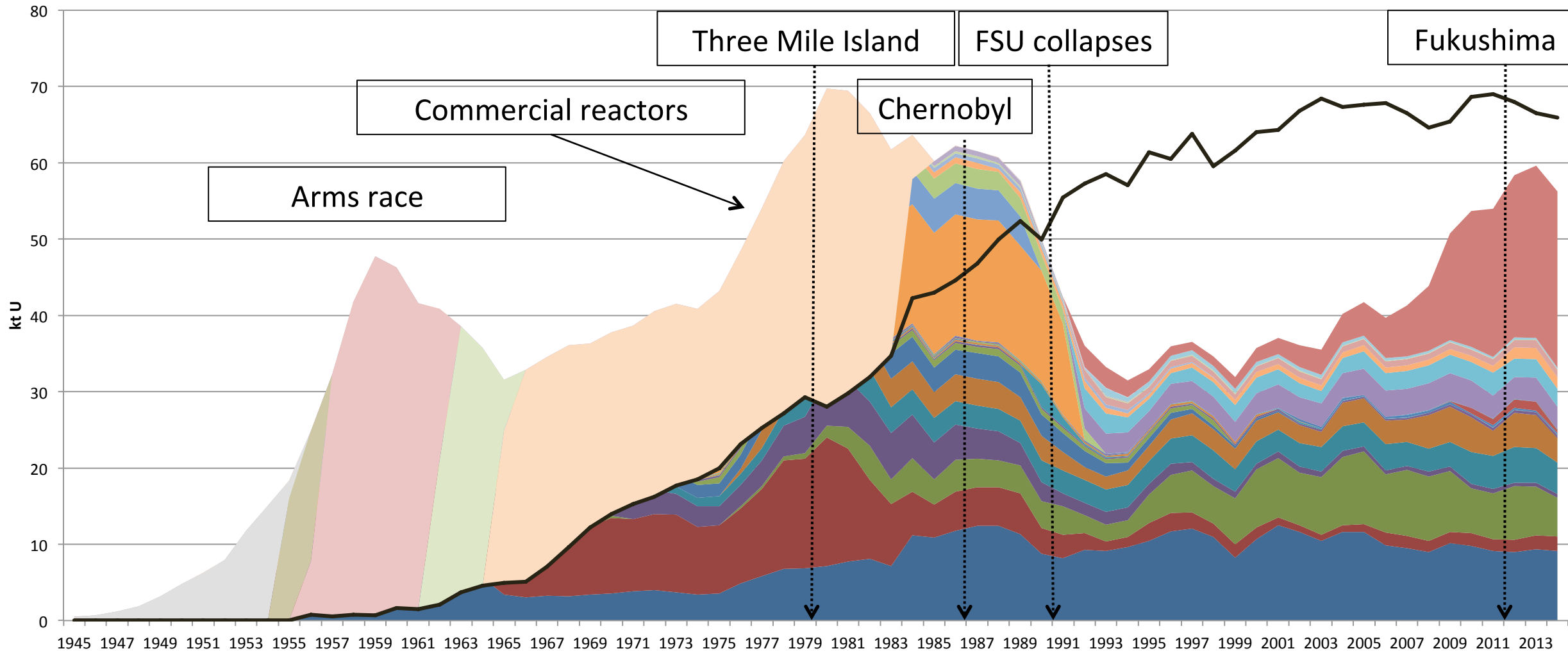
Uranium history



- | | | | | | | | | | |
|---------|---------|----------|-----------|--------------|----------|----------------|------------|--------------|---------|
| Finland | Canada | USA | Australia | South Africa | Niger | Namibia | France | DRC | Gabon |
| India | Germany | Spain | Brazil | Malawi | Portugal | Argentina | Pakistan | Madagascar | Belgium |
| Sweden | Japan | Mexico | USSR | GDR | Russia | Czechoslovakia | Uzbekistan | China | Hungary |
| Ukraine | Romania | Bulgaria | Czech R | Poland | Mongolia | Yugoslavia | Kazakhstan | Requirements | |

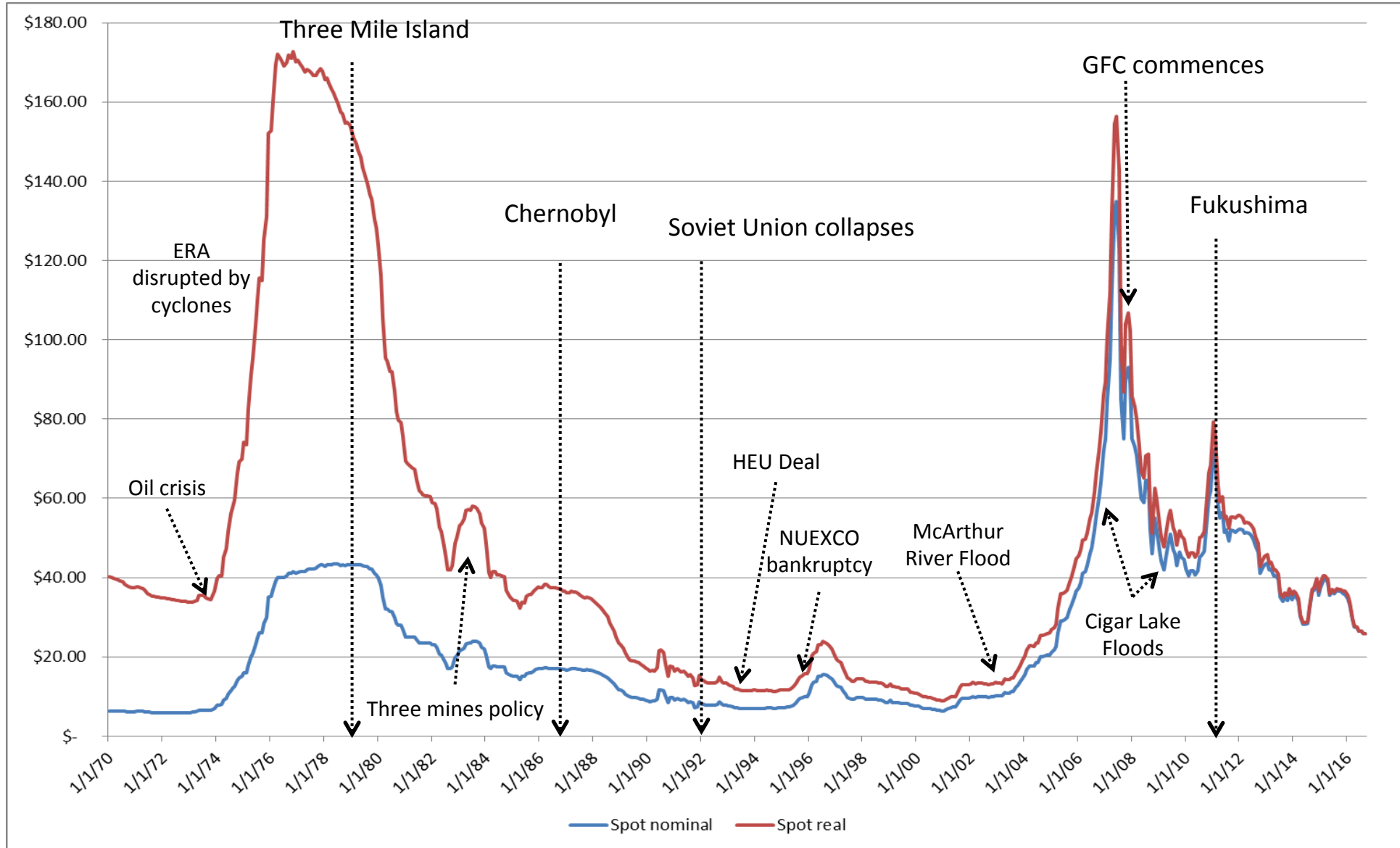
Source: NEA, WNA, Bannerman

Uranium history

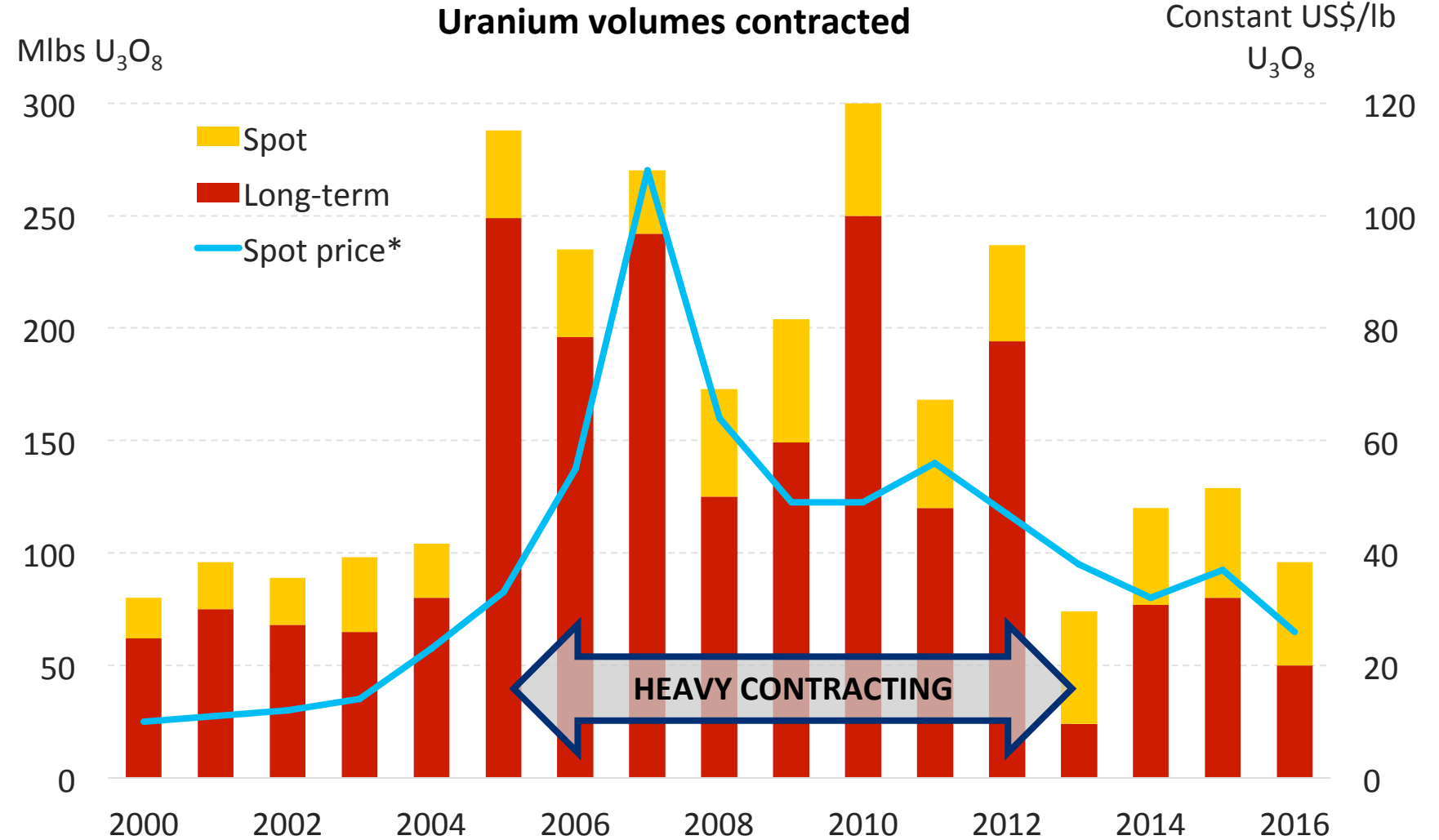
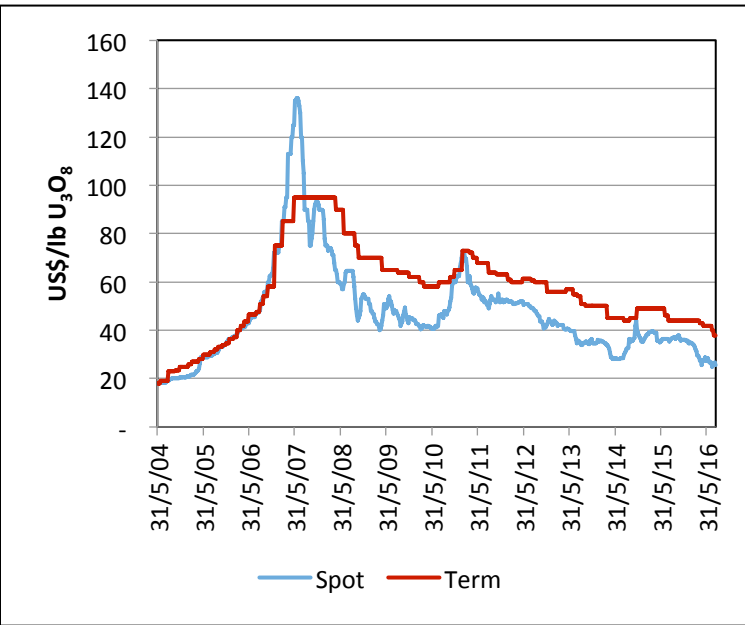


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|-----------------|----------------|--------------------|--------------|--------------|------------|----------|--------------------|
| Finland | Canada | USA | Australia | South Africa | Niger | Namibia | France |
| DRC | Gabon | India | Germany | Spain | Brazil | Malawi | Portugal |
| Argentina | Pakistan | Madagascar | Belgium | Sweden | Japan | Mexico | USSR |
| GDR | Czechoslovakia | Russia | Uzbekistan | China | Hungary | Ukraine | Romania |
| Bulgaria | Czech R | Poland | Mongolia | Yugoslavia | Kazakhstan | Consumed | Reserved for Naval |
| Nuclear Weapons | HEU deal | Secondary consumed | Requirements | | | | |

Uranium history



Why are spot and term prices in the doldrums?



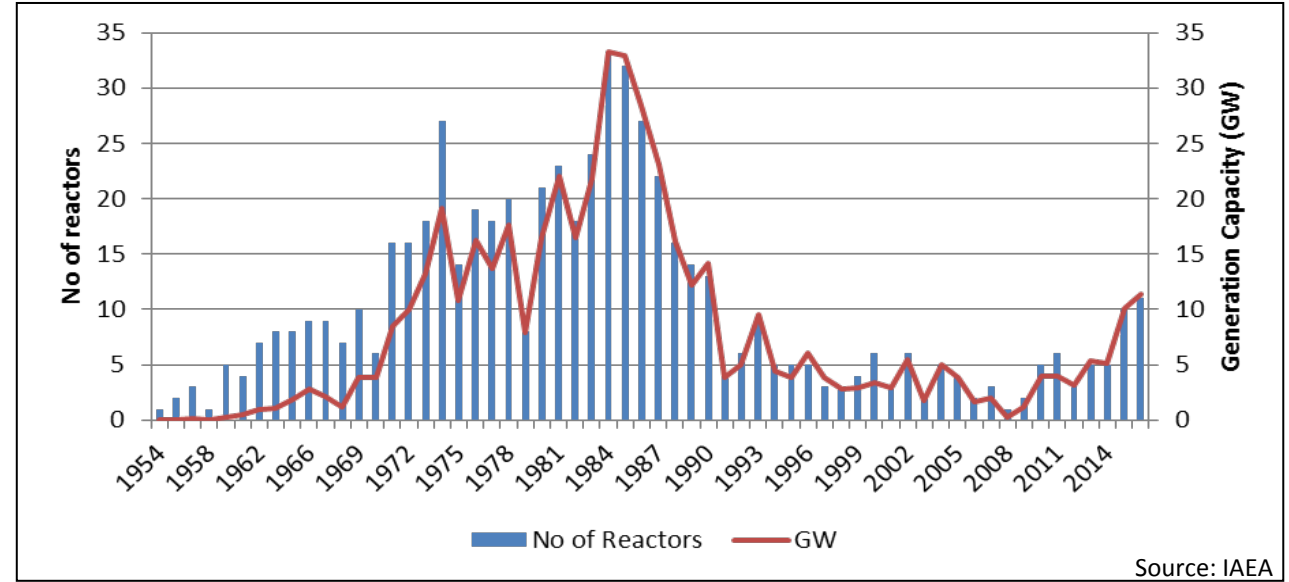
* Industry average price (UxC and TradeTech)
Source: UxC, Cameco

Which means future supply requirements are compounding

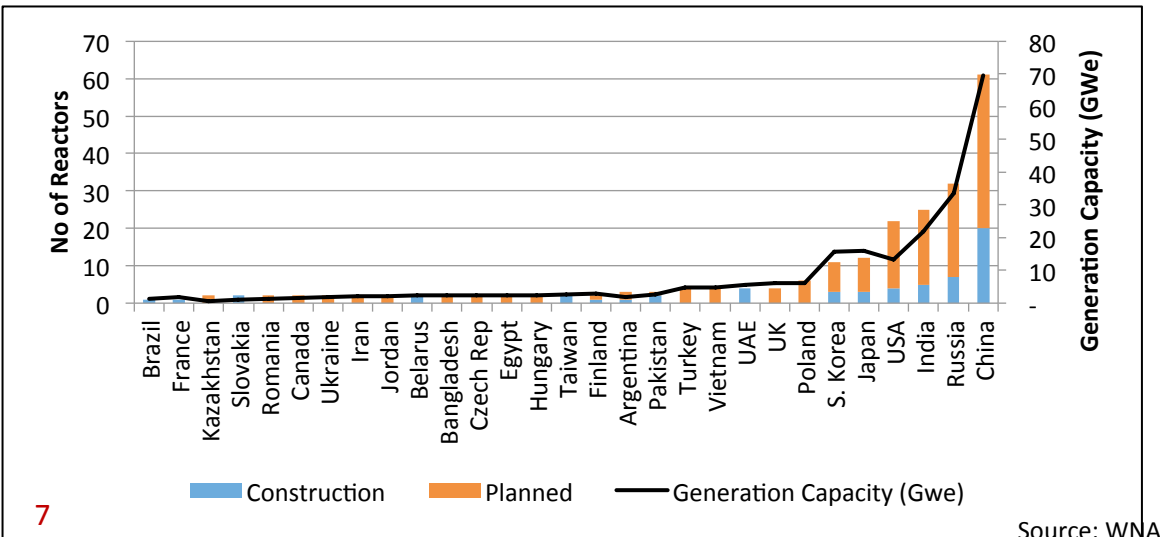
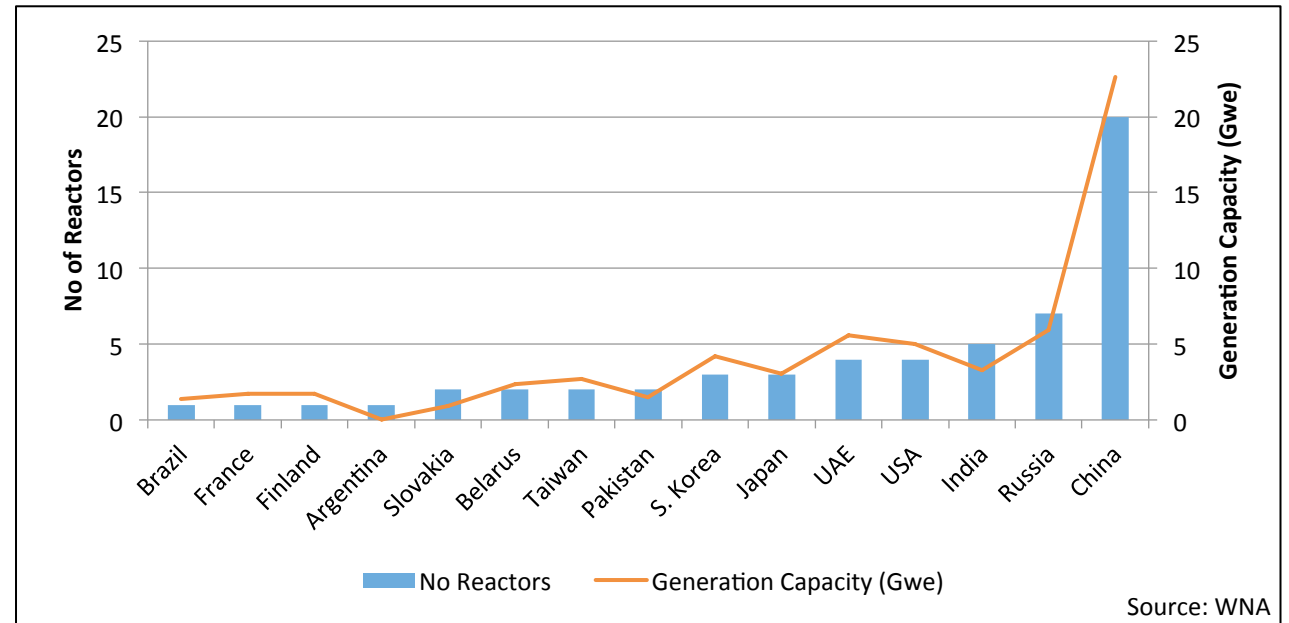
Uranium demand

- Current installed capacity 392 GWe.
- Represents 11.5% of total electricity generation.
- Reactor build program rebounding post Fukushima
- 58 reactors currently under construction in 15 countries representing capacity of 62 Gwe
- A further 167 reactors planned

Historical Grid Connections

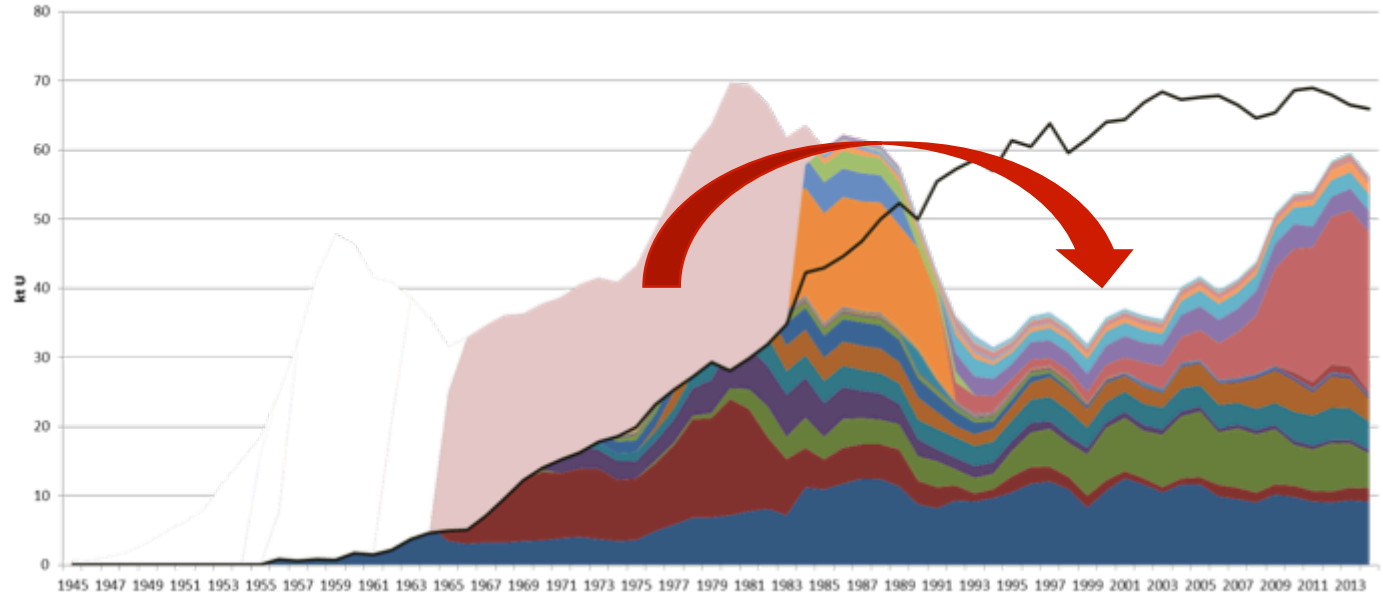


Currently under construction

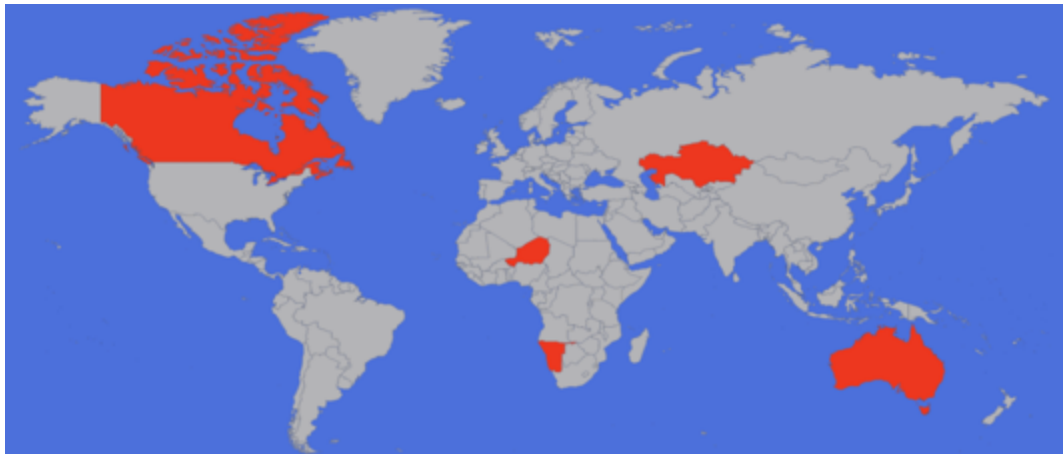


Uranium supply

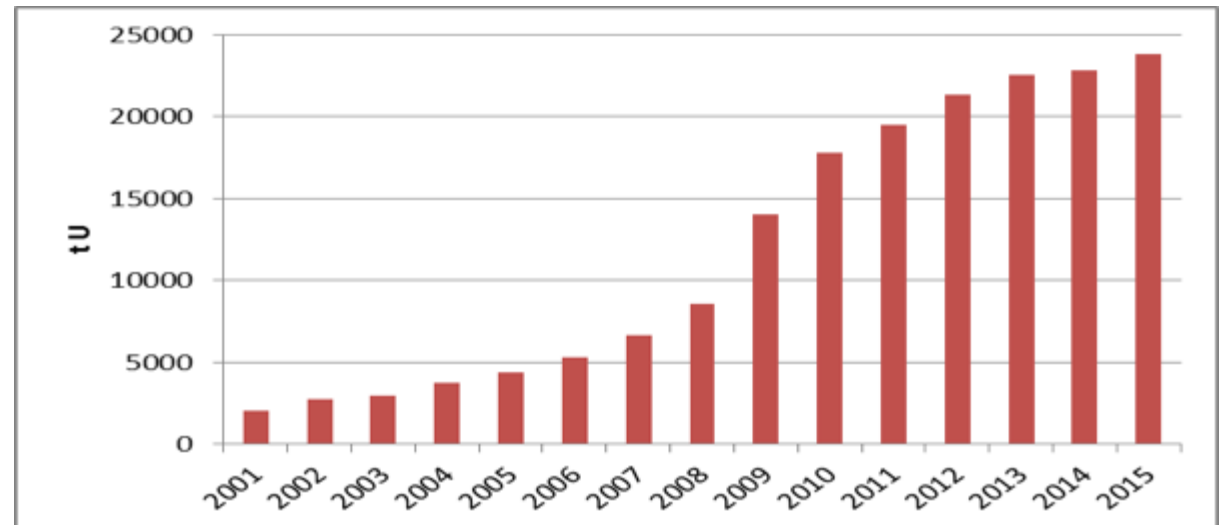
- Long running primary supply deficit
- More than two decades of reducing inventories from
 - Russian & USA HEU
 - Russian & USA LEU



Over 80% of mine supply from 5 countries

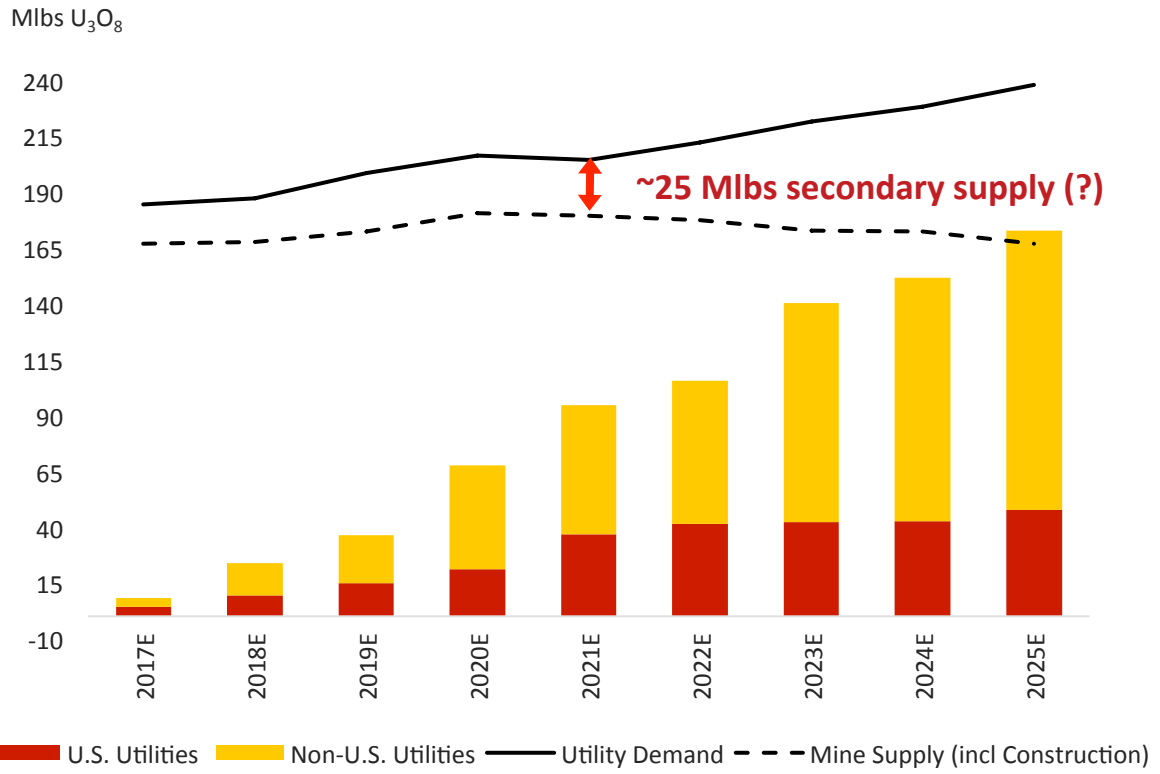


Kazakhstan increase - over tenfold

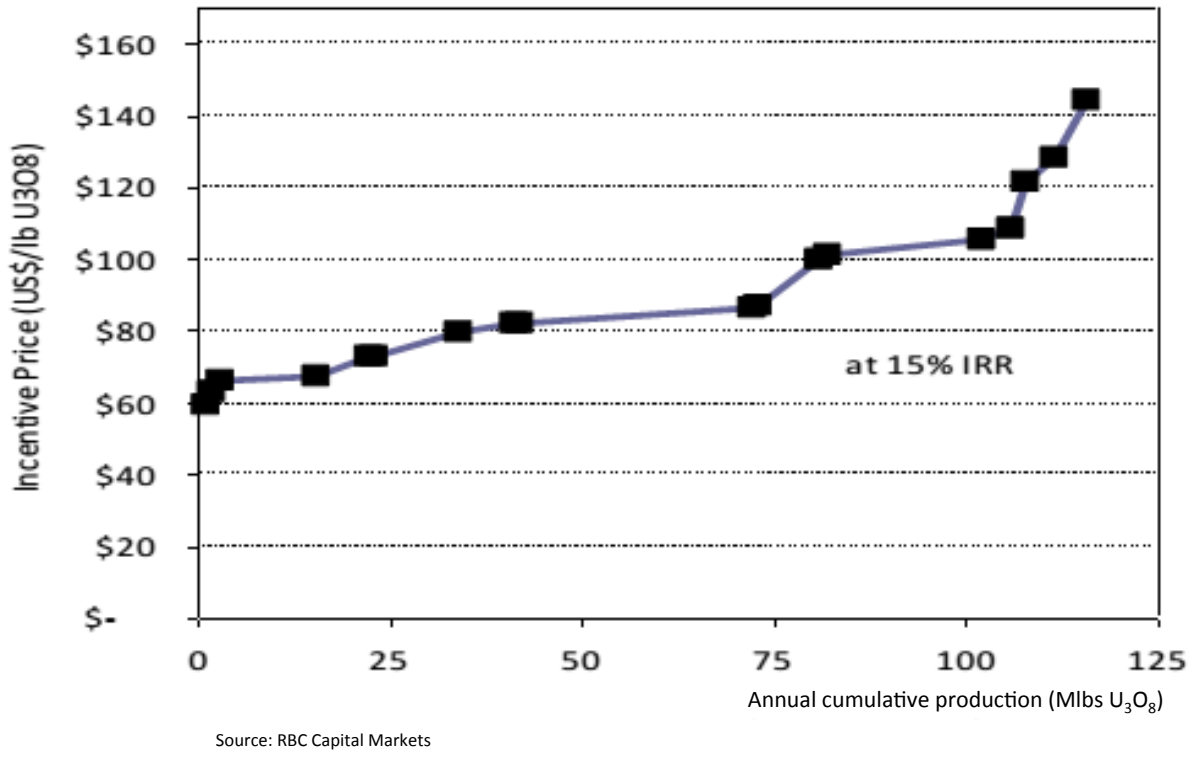


Large uncovered positions plus growing uranium demand

Future uncontracted fuel requirements globally



Global uranium projects incentive pricing curve



And mine supply unable to respond adequately at prices below ~US\$75/lb



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QUESTIONS?

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