



TRADE & DEVELOPMENT COMMISSION

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Commodity dependence: a vulnerable state

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Outline

- Commodity dependence
- Associated vulnerabilities
- Measures to address vulnerabilities
- Conclusion



Commodity export & import dependence

- Export dependence
- Dependence on food imports

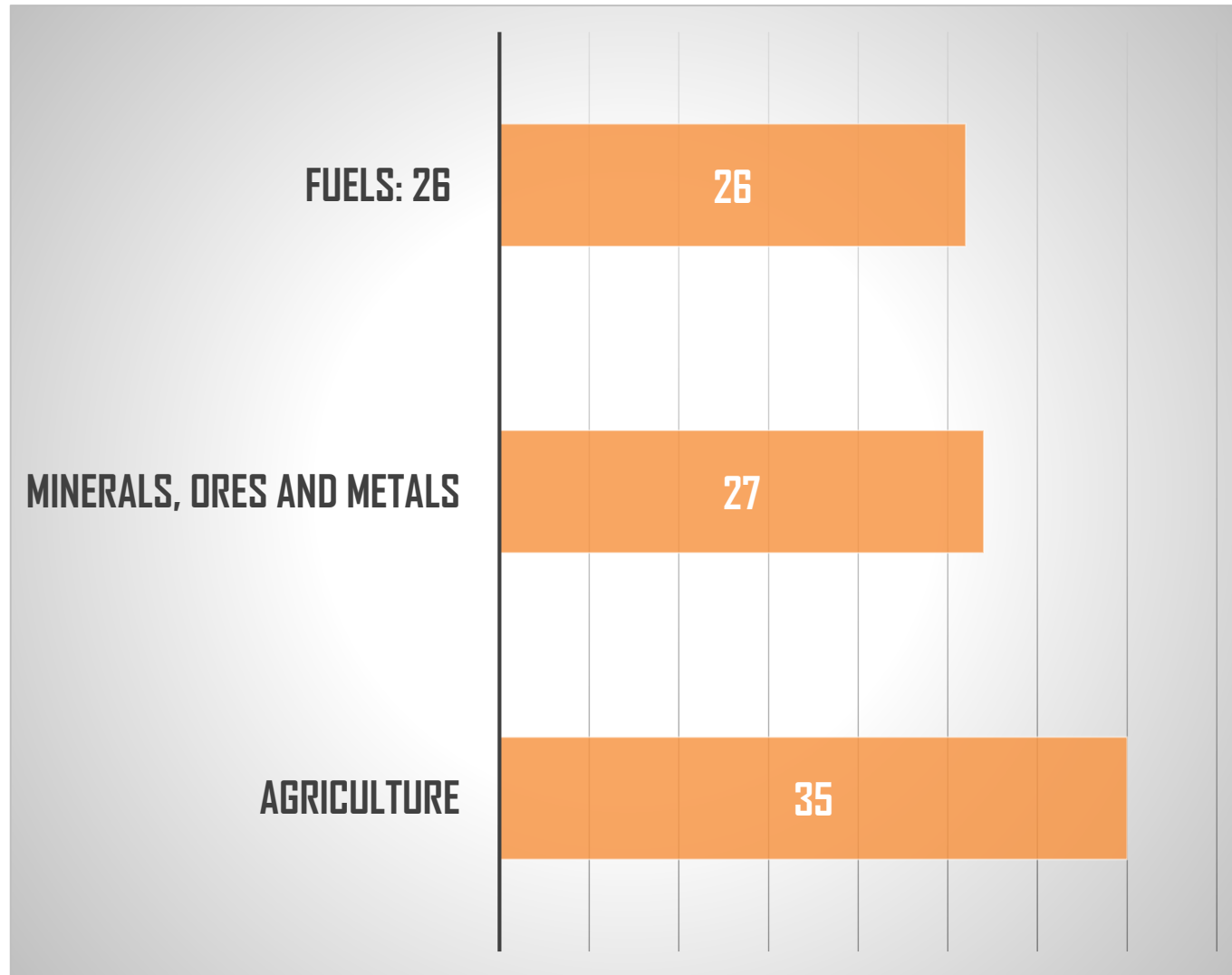


Commodity export dependence

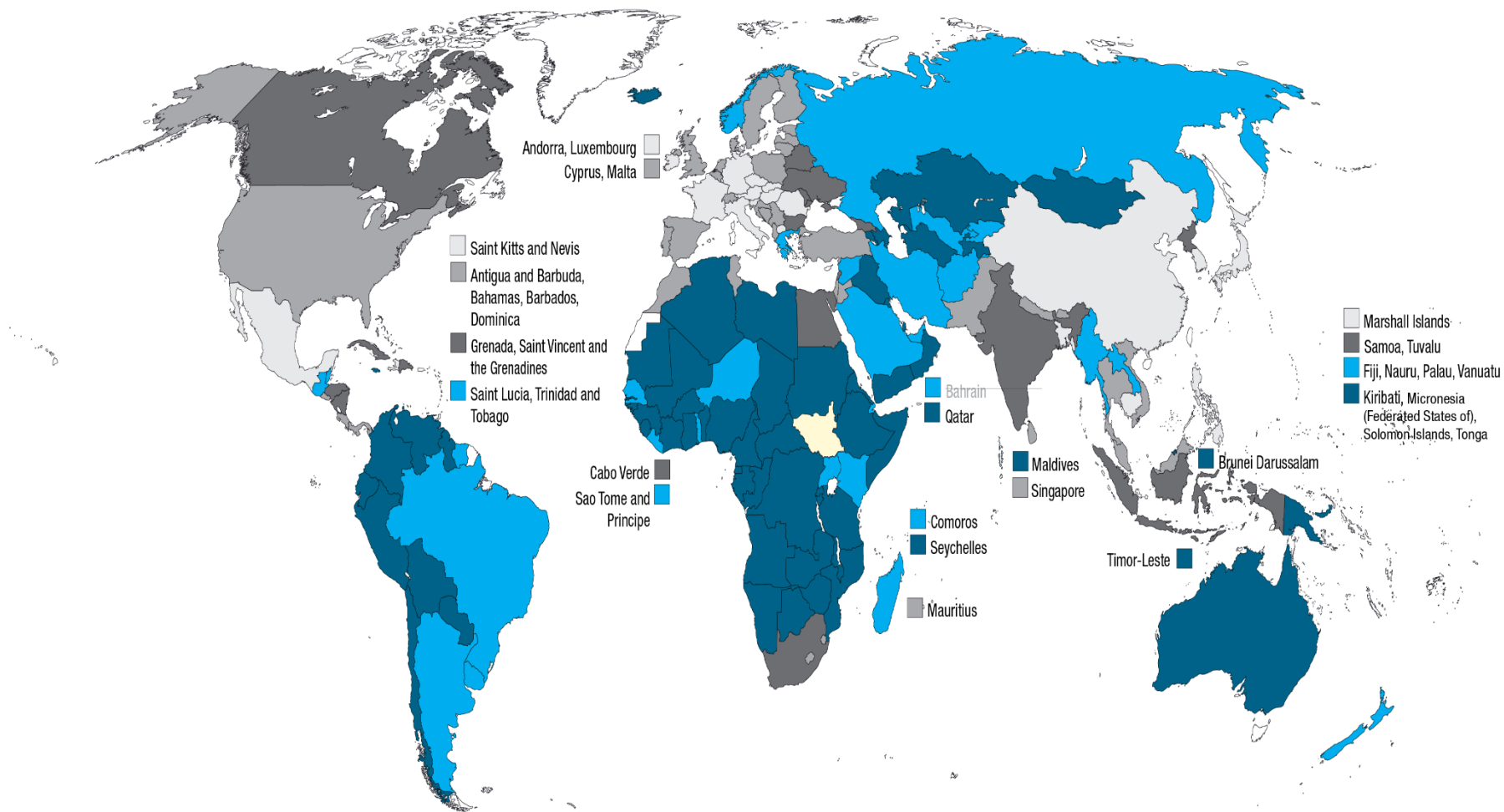
- Commodities \geq 60% of merchandise exports
- Three major groups:
 - Agriculture
 - Minerals, Ores and Metals
 - Fossil fuel energy
- Country depends on a commodity group when:
 - it is commodity dependent (60% merchandise exports) and
 - sector generates at least 1/3 of commodity exports



88 CDDCs (period 2013-2017)



World Commodity Export Dependence, 2013–2017 average (per cent)

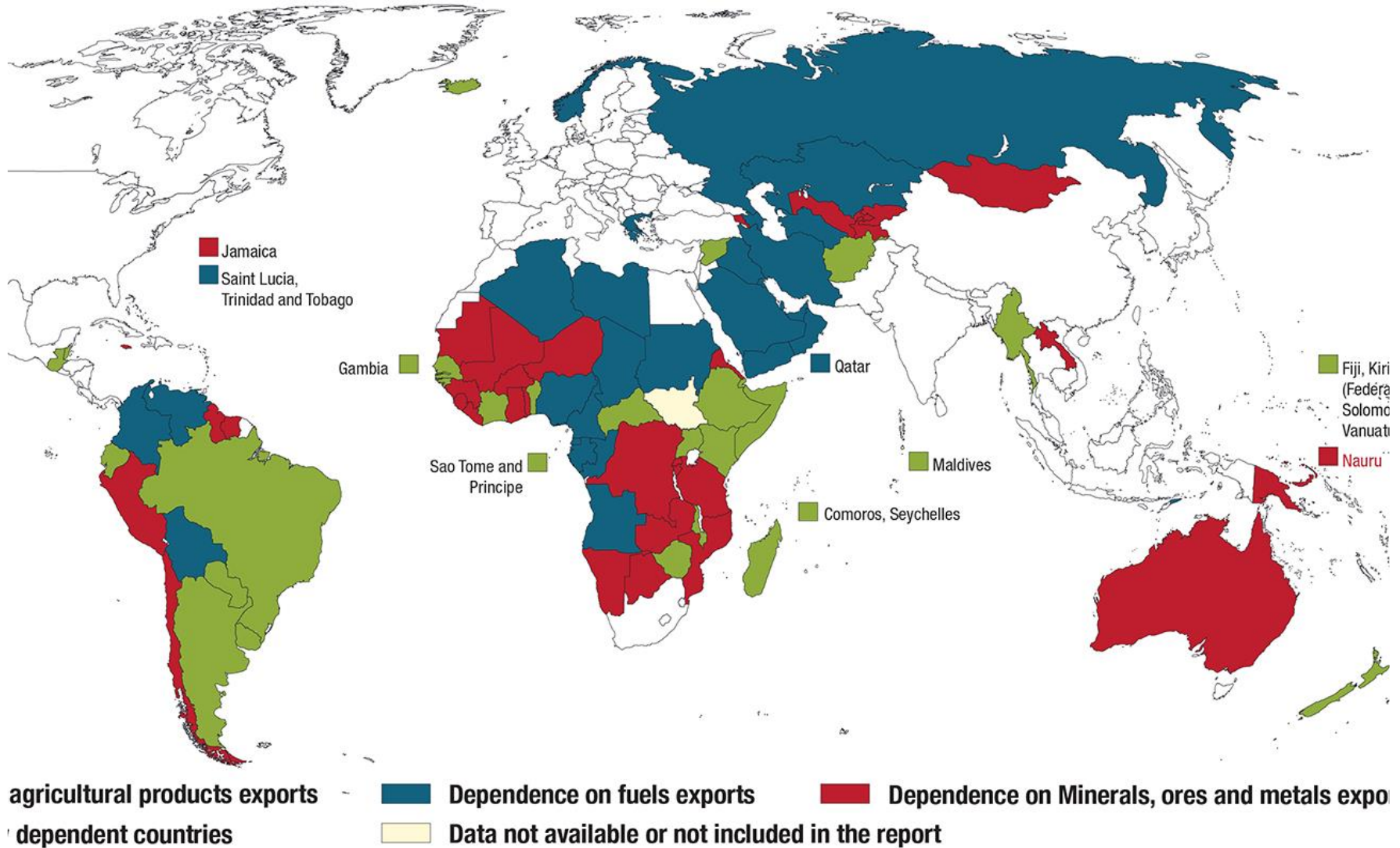


0–20 20–40 40–60 60–80 80–100 Data not available or not included in the report

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World Commodity Export Dependence by commodity groups, 2013–2017 average (per cent)



Share of fossil fuels in total merchandise exports in 2017 (%)



Commodity dependence is development problem

- 2/3 of developing countries are commodity dependent
- Most prevalent in economically vulnerable countries:
 - 85% of Least Developed Countries (LDCs)
 - 81% of Landlocked Developing Countries (LLDCs)
 - 57% of Small Island Developing States (SIDs)
 - 89% of countries in Sub-Saharan Africa
- Also, strong correlation with income per capita
 - 91% of low-income countries against...
 - Less than 1/3 of high-income countries



Strong dependence on food imports

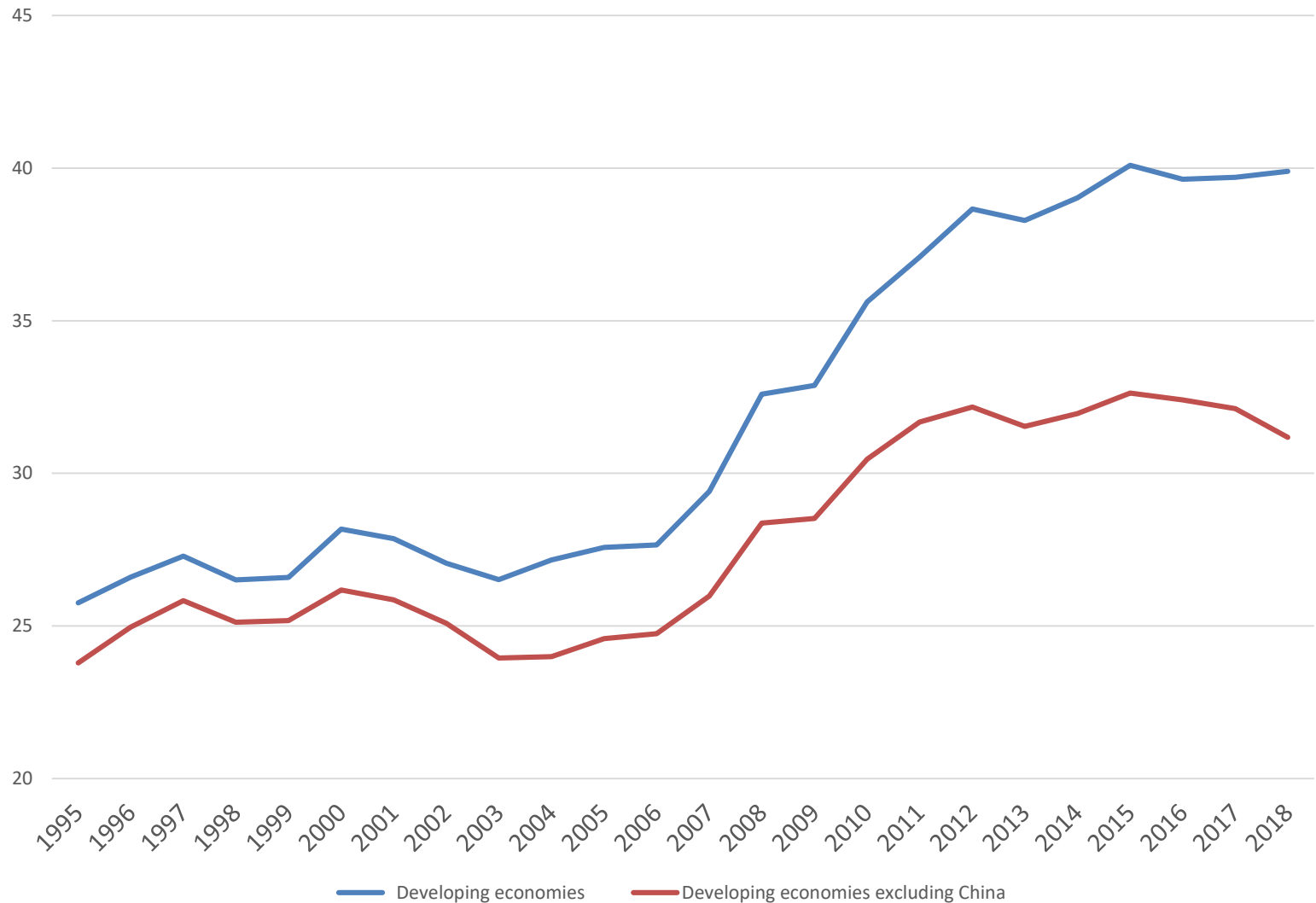


Dependence on food imports (2018 data)

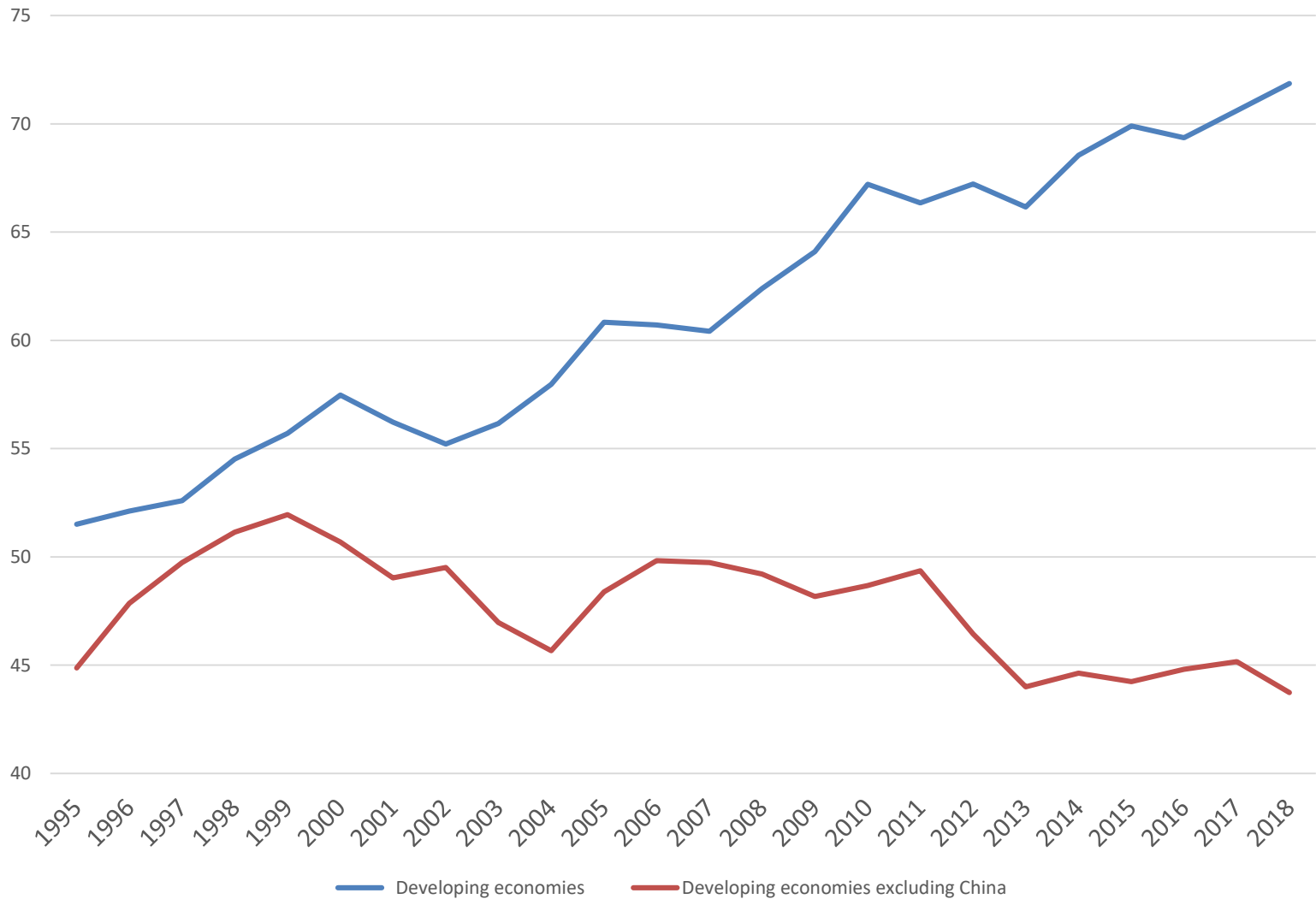
- Developing countries account for 40% imports or \$160 billion
- Excluding China
 - More than 30% of food imports
 - About \$100 billion
- For cereals and oilseeds, share more than 70%, and 45% when China is excluded
- Food imports atomized but exports concentrated exposing them to exporting countries' unpredictable policy changes



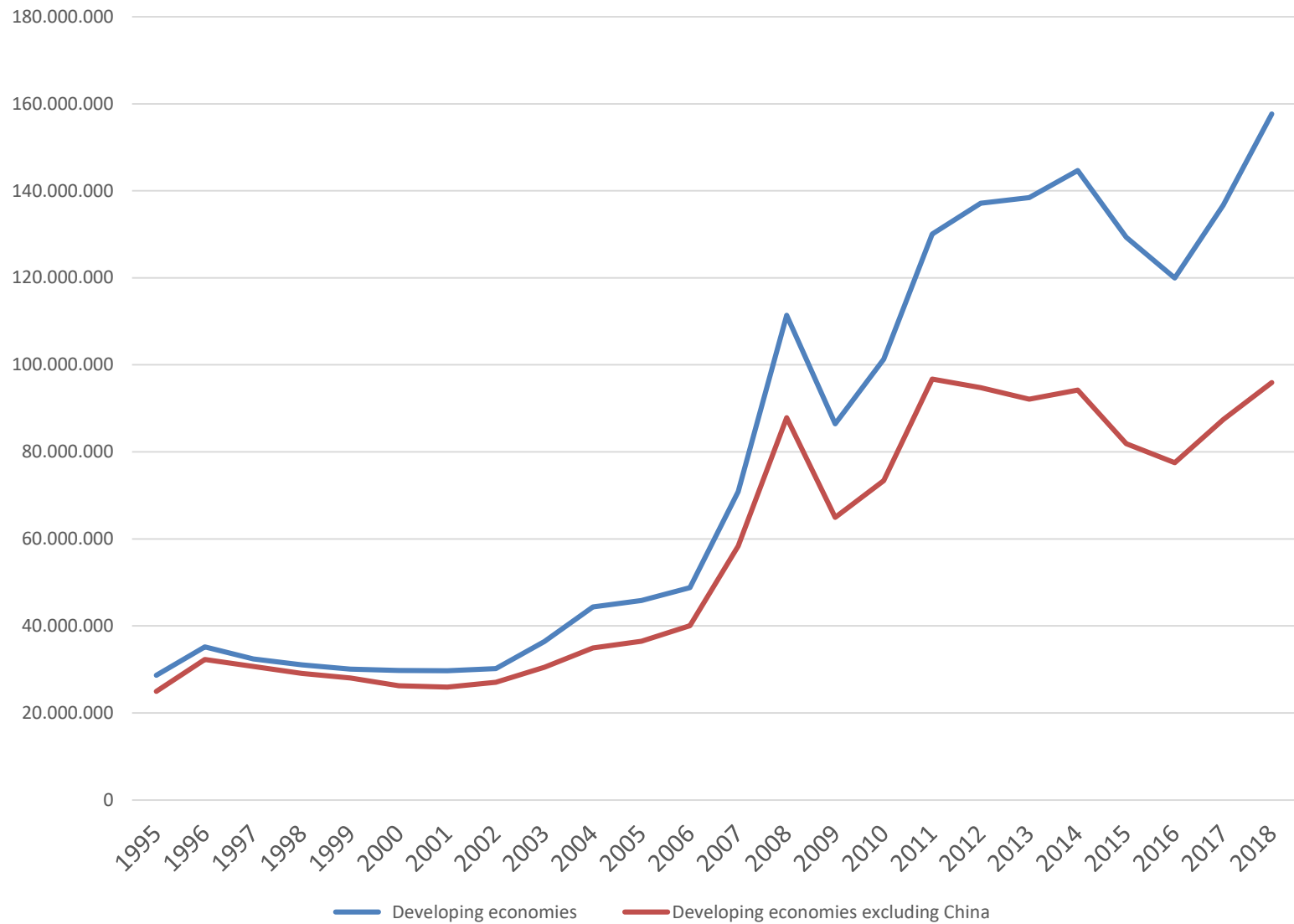
Share of developing countries in global food imports (%)



Developing countries' share: cereals & oilseeds imports (%)

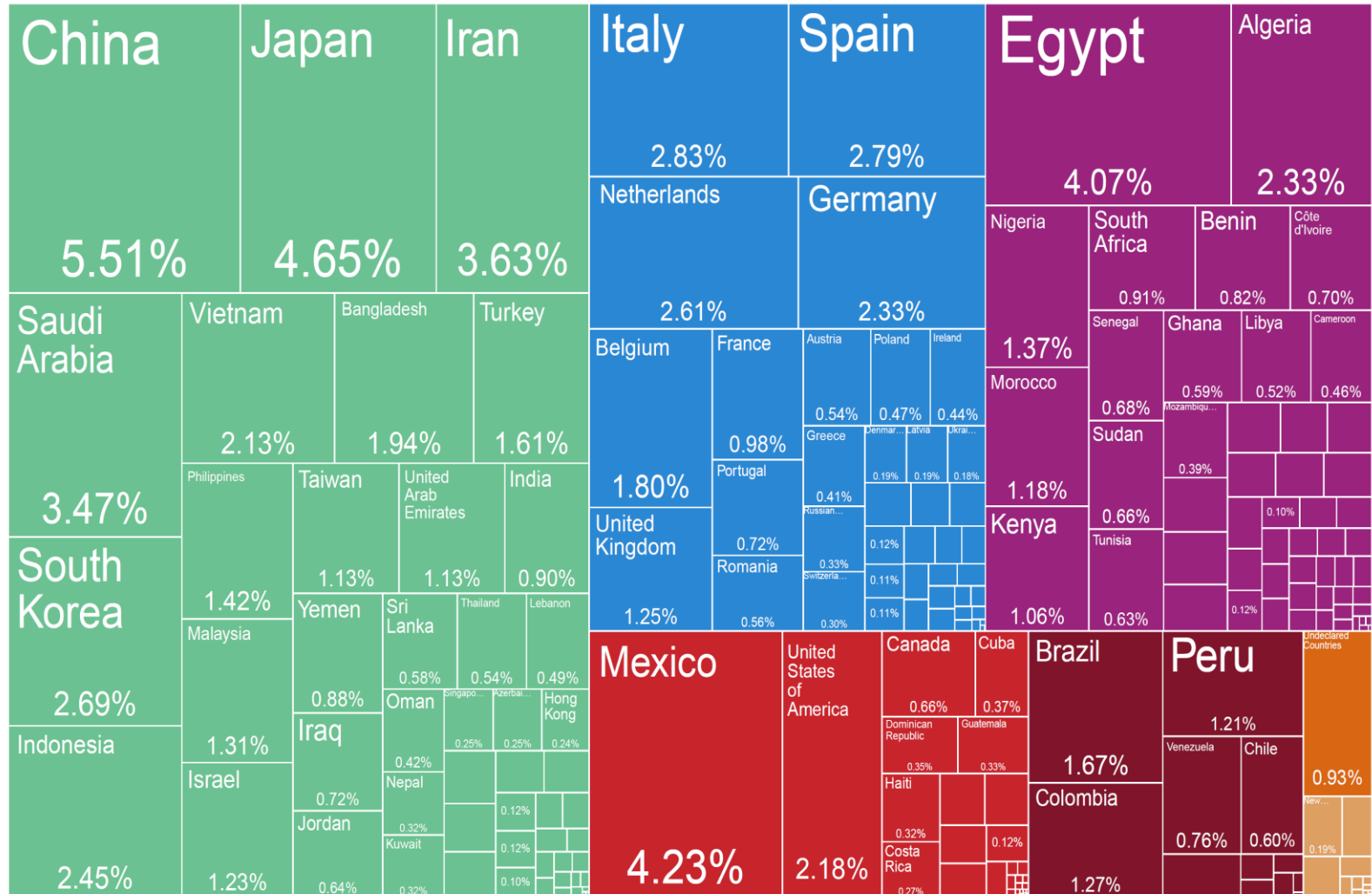


Import bill for cereals & oilseeds (in 1000 USD)



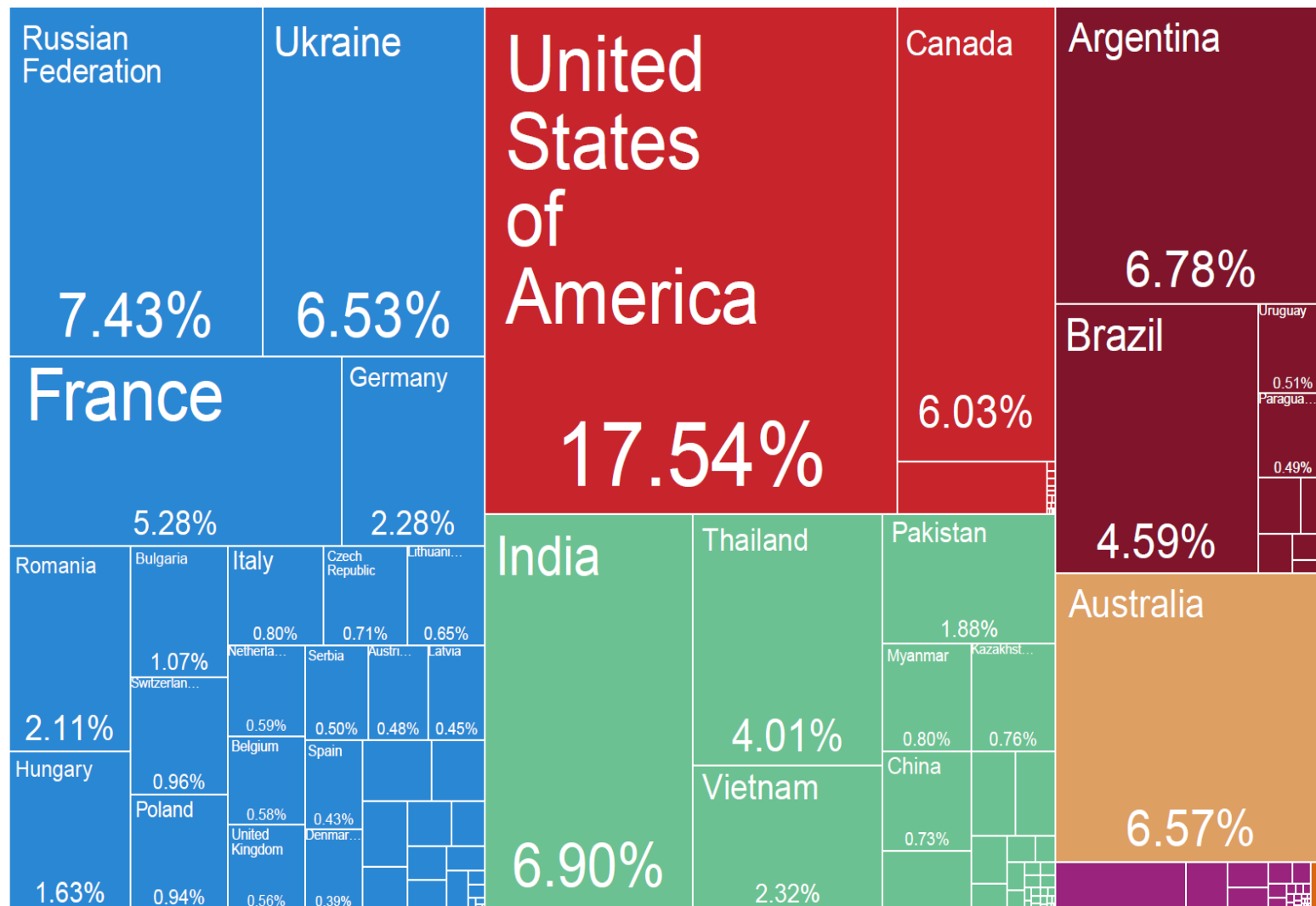
Who imports cereals? Imports in 2017 (10 HS2)

\$105B



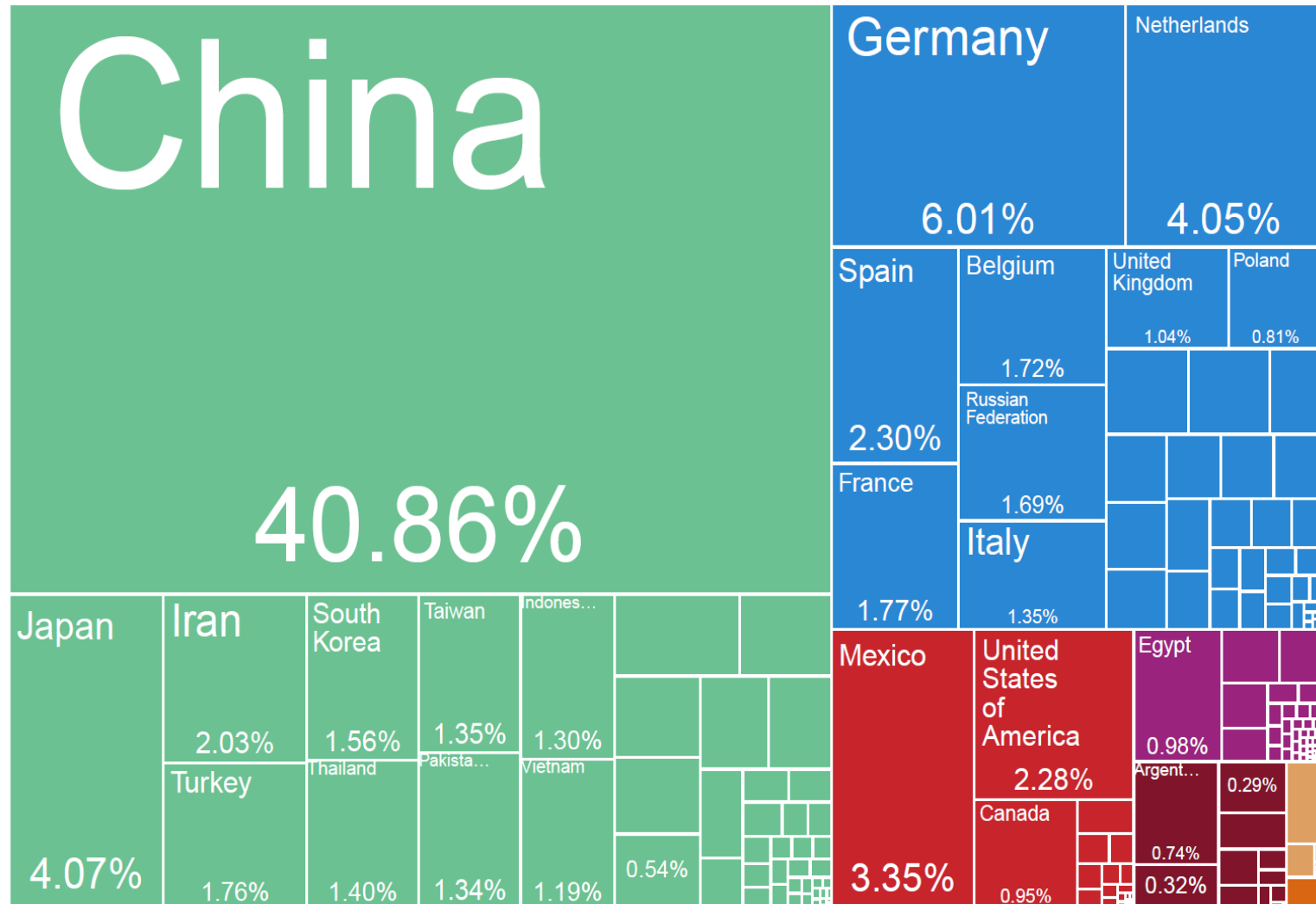
Who are the exporters? Cereal exports in 2017 (10 HS2)

\$105B



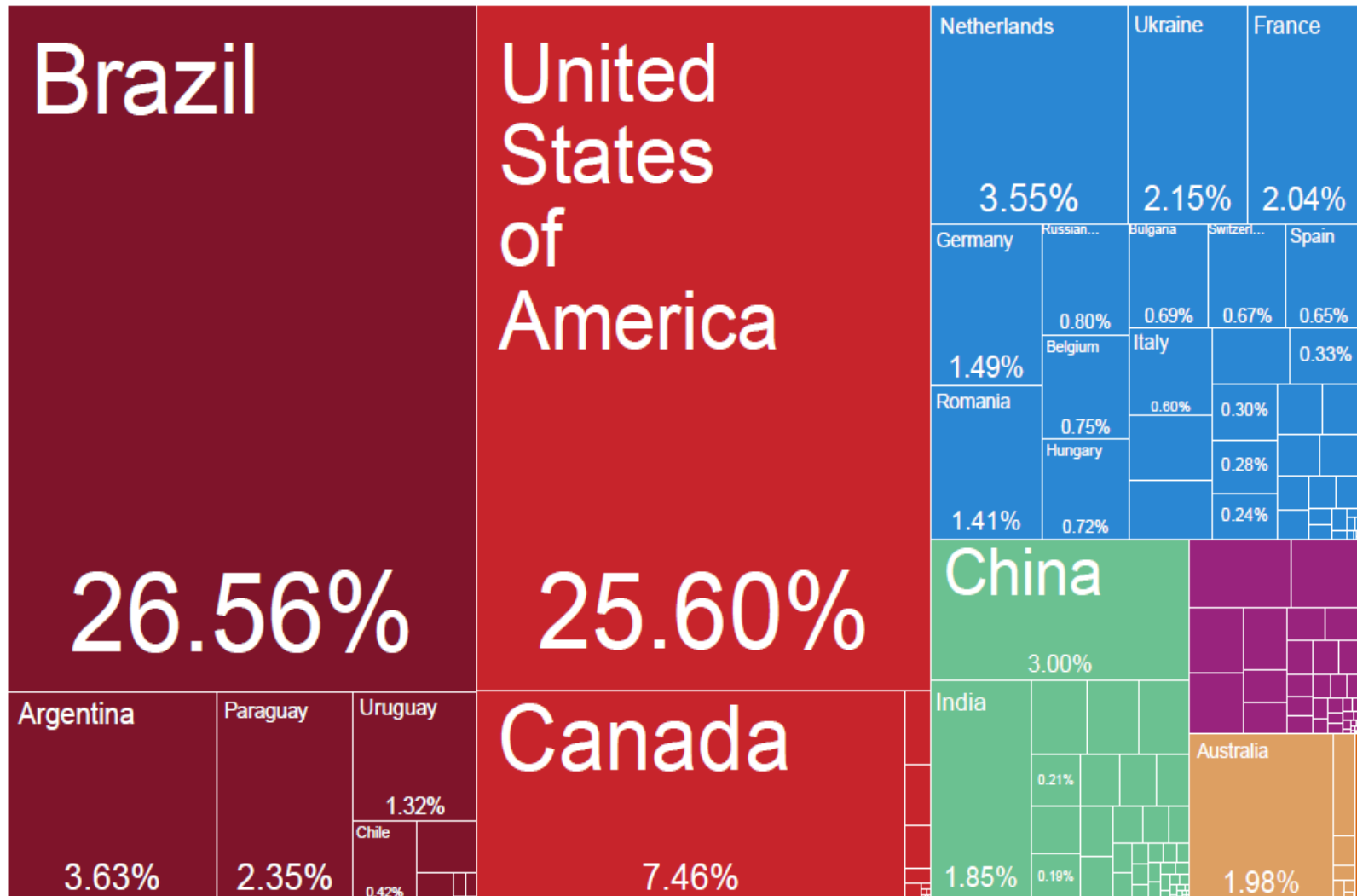
Oilseeds imports in 2017 (12 HS2)

\$97.4B



Oilseeds exports in 2017 (12 HS2)

\$97.4B



Major exporters of cereals: 2015-2016 (million tons)

	Wheat	Maize	Soybeans
European Union	33.4	2.07	0.14
Russian Federation	25.4	4.73	0.45
Canada	22.05	1.47	4.1
United States of America	21.6	45.9	54.15
Ukraine	17.4	17.41	2.37
Australia	15.8	0.04	0.00
Brazil	1.05	35.87	53.7
Argentina	8.59	18.55	11.00

Associated vulnerabilities

- Socio-economic vulnerabilities
- Vulnerability to climate change



Negative association between dependence and development

- Declining terms of trade and short-term price volatility
- Dutch Disease through real exchange rate appreciation
- Microeconomic effects on households and firms

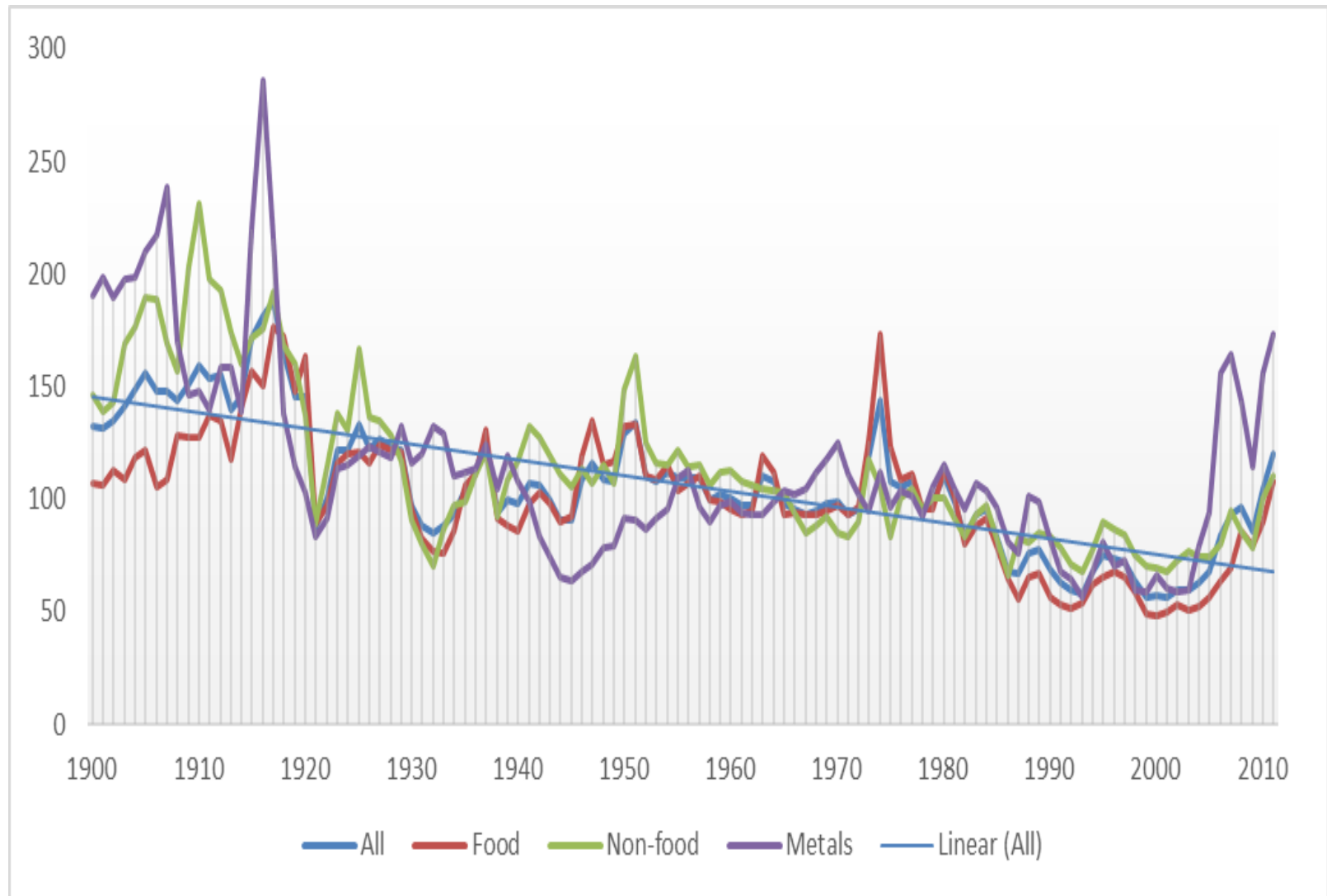


Vulnerability to declining terms of trade

- Negative trend of commodity prices: commodity prices drop by 1% per year over long-term horizon
- Prices go through boom and bust cycles, implying changes in incomes
- From a low of 47.6 before boom, prices trebled 10 years later & dropped 20.% after boom
- Steady increase of manufacturing prices, eroding purchasing power of CDDCs

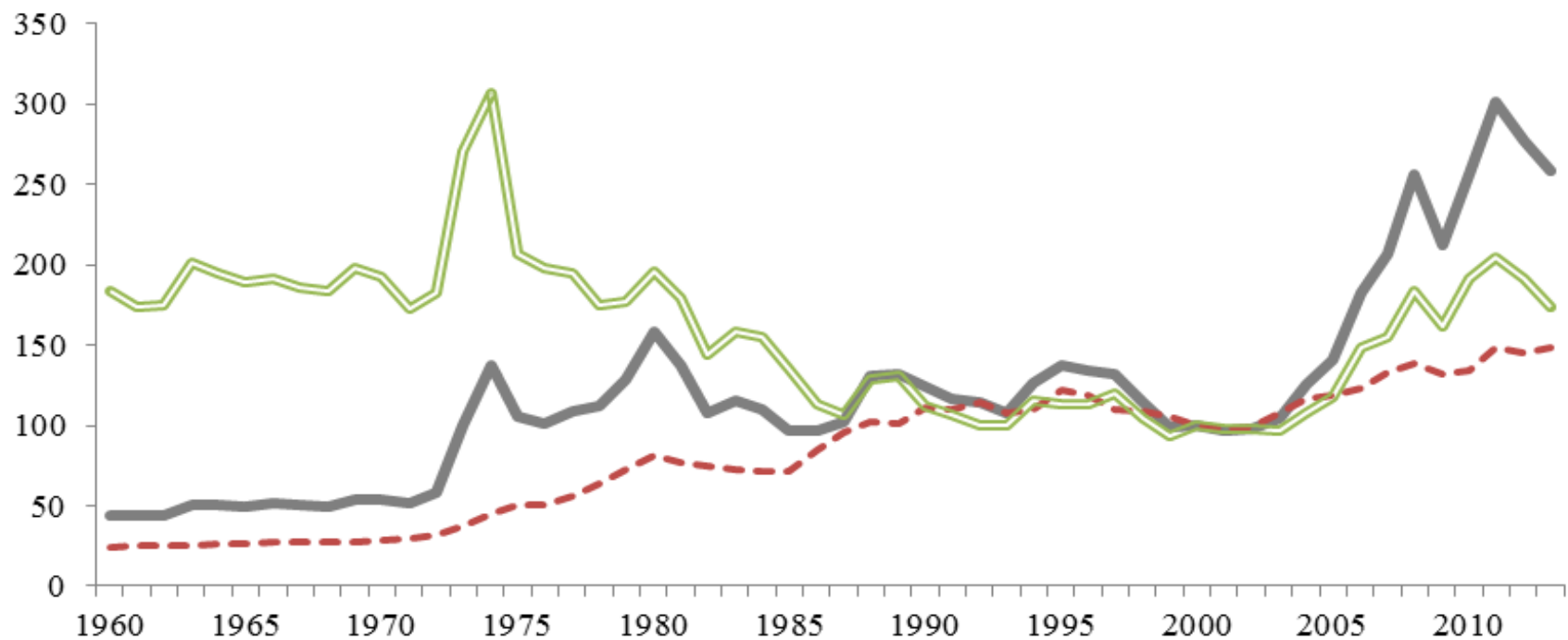


Negative terms of trade





CD and development: terms of trade



- Non-oil commodities
- - - Unit value index of manufactured goods exported by developed market-economy countries
- Real value, Non-oil commodities

Changes in commodity prices

Five-year average commodity prices (index base 2015 = 100)					Price changes in %	
Group	1998-2002	2003-2007	2008-2012	2013-2017	Boom change	Bust change
All	47.6	94.0	156.5	124.8	228.8	-20.3
Energy	48.0	108.2	172.6	132.1	259.6	-23.5
Minerals	34.9	66.8	134.5	116.0	285.4	-13.8
Agriculture	61.9	75.9	125.3	109.4	102.4	-12.7
Manuf. Unit value	76.5	89.8	104.7	105.2	36.9	0.5



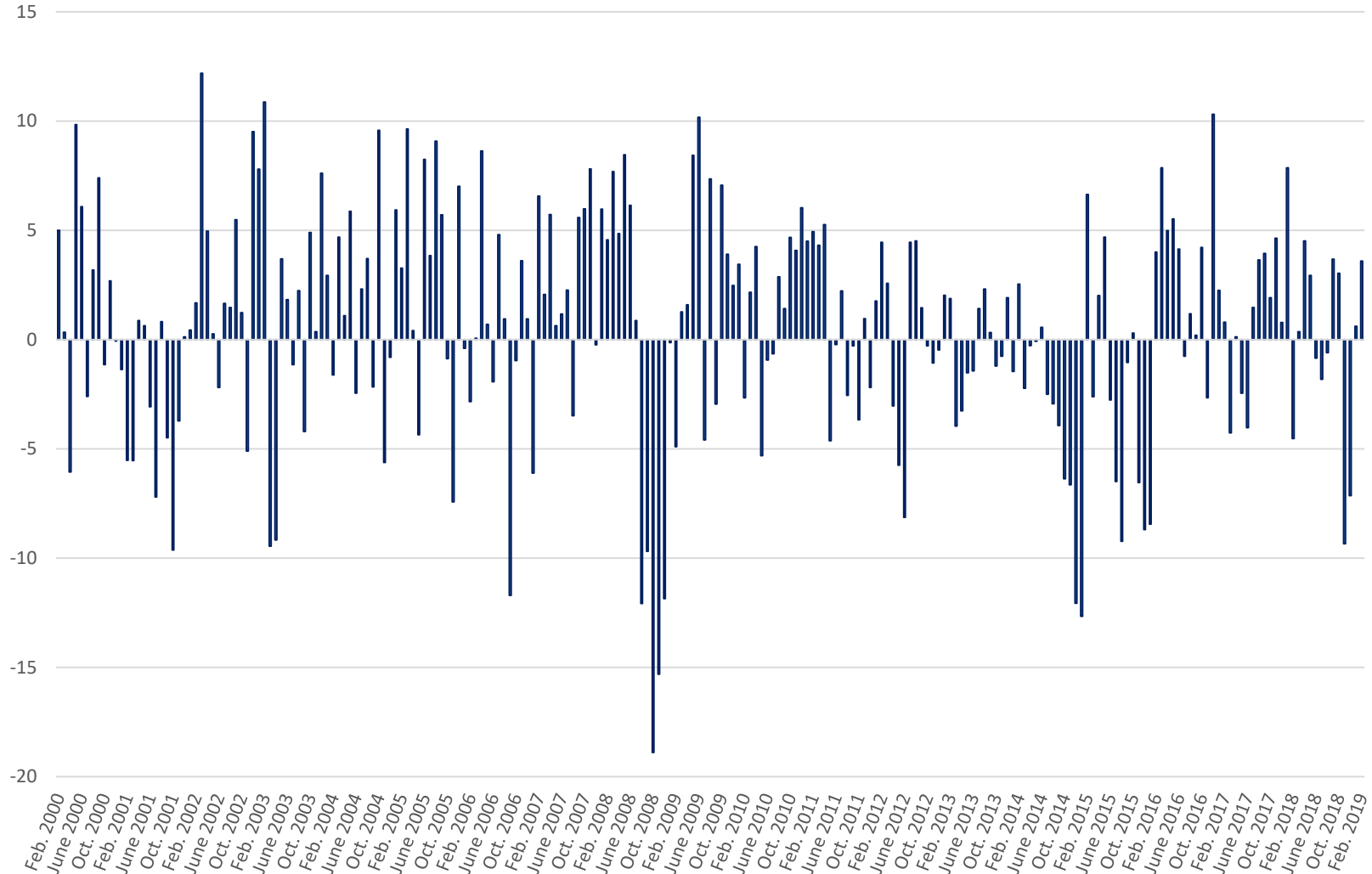
Vulnerability to short-term price volatility

- 59% of monthly changes from February 2000 to February 2019 were positive; 41% were negative
- 56% of the shocks with an absolute value above 5% were positive; 44% were negative
- The average size of negative shocks was -4.3%; the average size of positive shocks was 3.9%
- Large positive shocks followed by large negative shocks create high uncertainty



Commodity price volatility

Monthly percentage changes of UNCTAD Commodity Price Index (all groups)



Dutch Disease & real exchange rate appreciation

- Large capital inflows during periods of high prices lead to domestic currency appreciation ...
- Inefficient allocation of resources: high imports & low domestic production
- Loss of competitiveness of domestic production
- Collapse of entire sectors (e.g. manufacturing) & more economic and export concentration



Other macroeconomic vulnerabilities

- Periods of low prices much longer than those of high prices
- During low-price periods
 - budget deficits increase
 - debt stock increases
 - currencies are devalued
 - inflation increases
- These factors lead to slow growth & even recessions in some cases



Effects on firms and households

- Macro vulnerabilities create negative environment for firm investment & production
- Particularly, uncertainty w.r.t. export earnings discourages investment & long-term growth
- At household level, low prices reduce household income and capacity to meet socio-economic spending
- Eventually, low prices may push or maintain households in poverty



Vulnerability to climate change



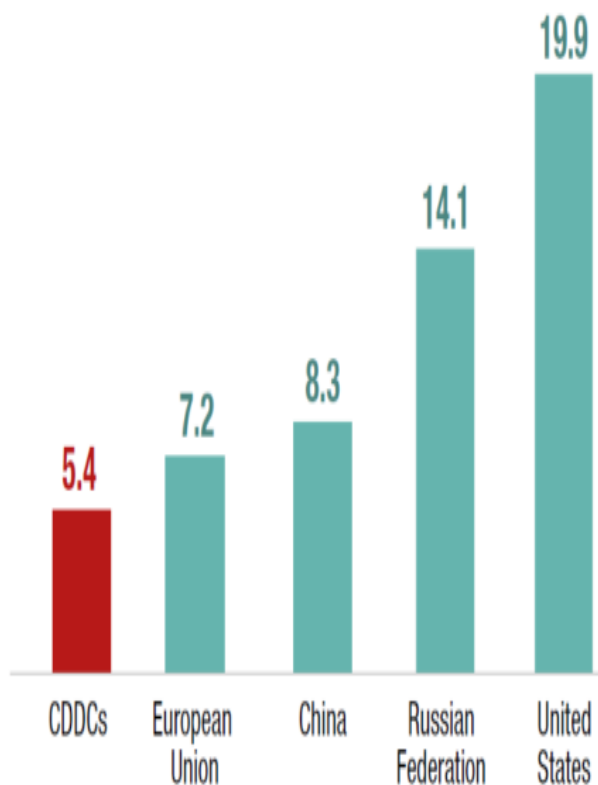
Commodity dependence and climate change

- Climate change adds another layer of vulnerability to CDDCs & compounds economic vulnerability
- Commodity dependence & climate vulnerability go hand in hand
- 37/40 (that is 92%) countries most vulnerable to climate change are CDDCs (see next figure)
- SIDS are particularly vulnerable, especially CDDCs among them
- These countries bear brunt of climate change despite their small contribution to creating the problem

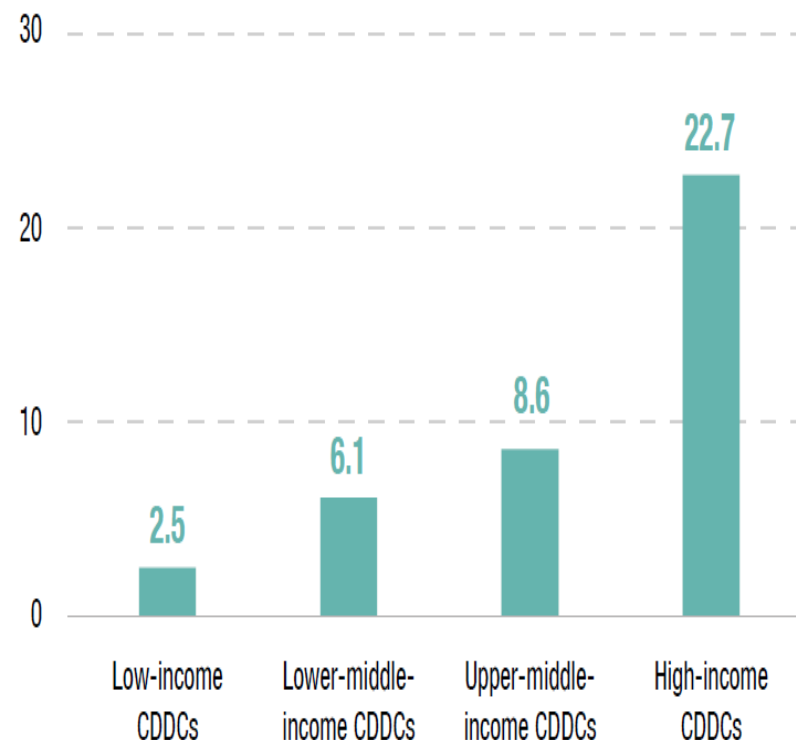


Who's polluting? GHG emissions per capita & per income (tCO₂e)

GHG emissions per capita (2014)



GHG emissions/capita & income (2014)



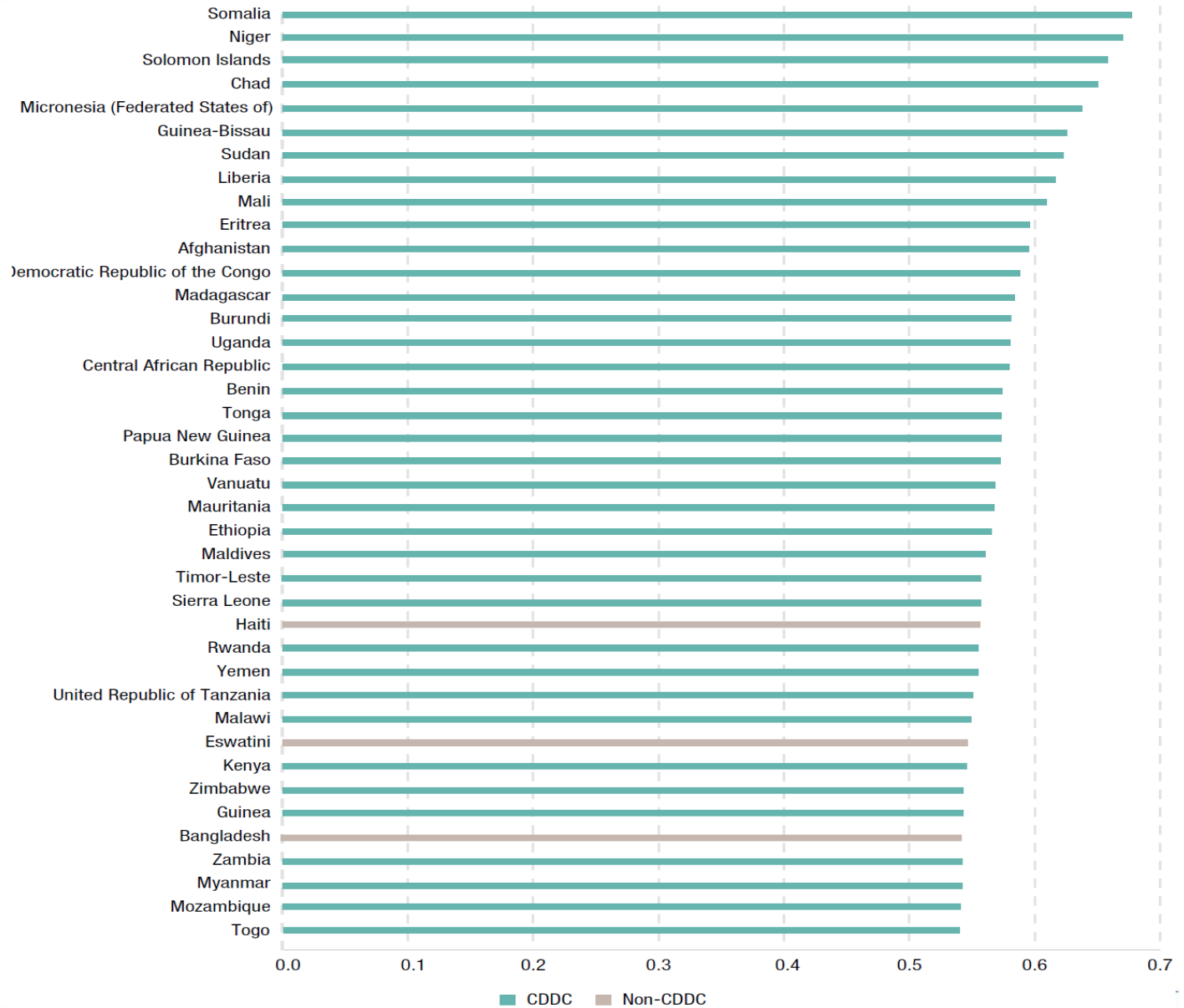
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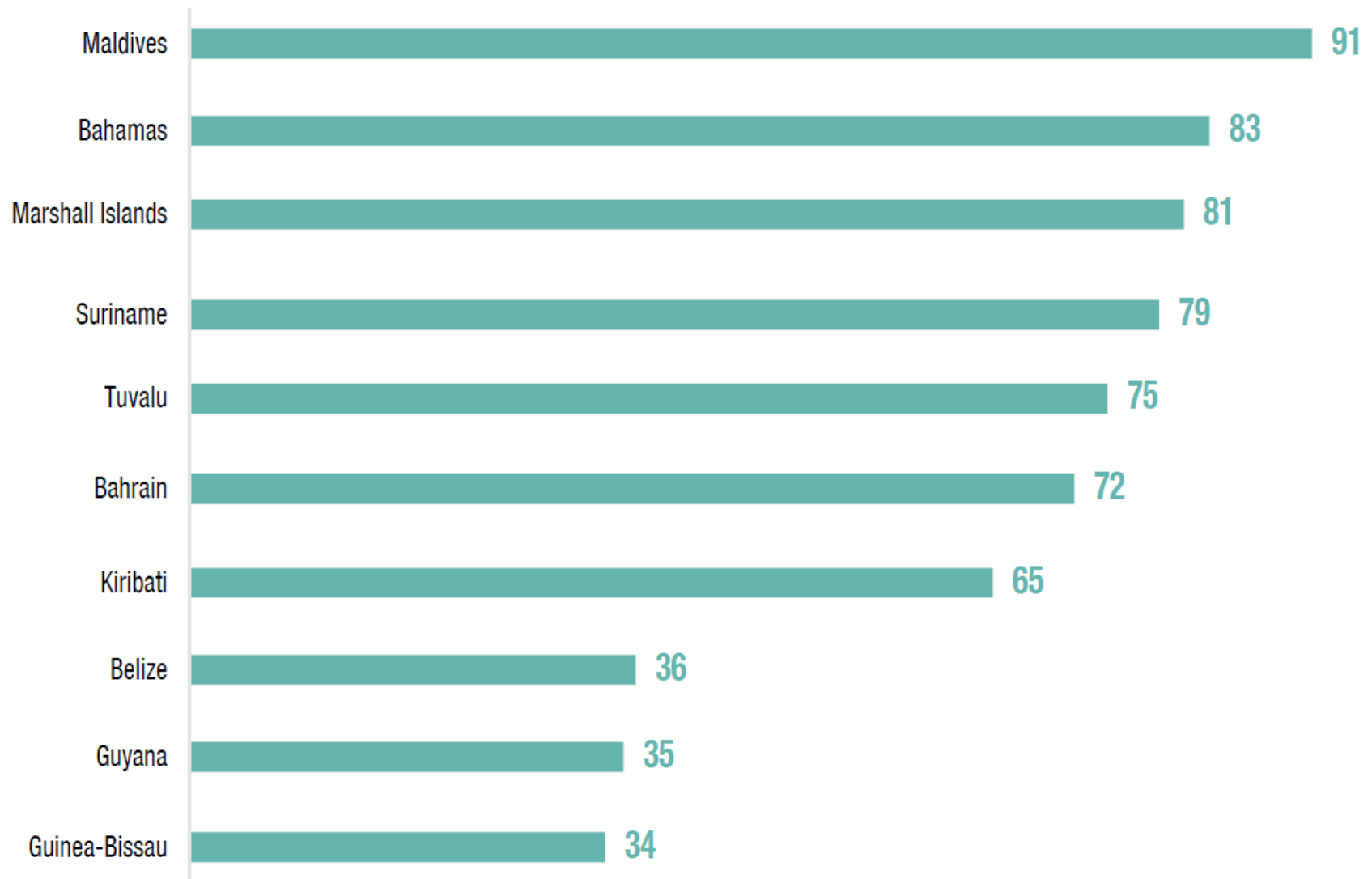
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Climate change vulnerability meets CDDC vulnerability



SIDS more vulnerable: % population living below 10 m above sea level



Climate change affects CD in many ways

- Agriculture: yields and water availability increasing food instability & poverty
- Crop, livestock & fisheries losses due to extreme weather events
- Energy & mining sector: effect on infrastructure & installations
- Possible stranding of natural resources (palm oil, fossil fuels, etc.)



Addressing economic vulnerabilities



Economic and export diversification

- 2 strategies: vertical and horizontal diversification
- Vertical diversification: producing new product by adding value to primary commodity
- Even though CDDCs have generally failed to diversify, there are examples of vertical diversification:
 - Adding value to crude oil or gas: petrochemicals (alcohol, fertilizers, plastics) or alumina processing: Egypt, Iran, Oman, Saudi Arabia, etc.
 - Increase in oil refining: Algeria, Iran, Qatar, UAE, etc.
 - Diversifying into energy intensive products such as aluminium: Bahrain, Oman, Qatar, Saudi Arabia, UAE



Economic and export diversification (2)

- Horizontal diversification: investing in production of new products unrelated to existing primary sector
- Examples:
 - Tajikistan, Armenia, Brazil, Liberia, etc. diversified into agriculture
 - Mineral dependent countries also diversified into agriculture: Cameroon, Chile, Ghana, Peru
 - Other countries diversified into manufacturing: Brazil, Colombia, Indonesia
- Costa Rica illustrates combination of vertical & horizontal diversification



Using financial instruments to limit vulnerability to price volatility

- **Futures** - standardized, exchange-traded contracts to buy or sell a commodity at a specified future date
- **Forward contracts** - non-standardized, generally OTC-traded agreement of a future sale of a commodity
- **Options** - Right but not an obligation to buy or sell a commodity at a pre-specified price
- **Swaps** - exchange of cash flows based on the price of a commodity



Financial instruments to hedge commodity price risk ...

- Those financial instruments not widely used in CDDCs but...
- A few examples for commodity exporters
 - Mexico oil hedge
 - Petrobras oil hedge
 - Codelco copper hedge
- Also some commodity importers:
 - Ghana, Jamaica, Morocco, Uruguay oil hedge
 - Malawi maize hedge



Example: Mexican oil hedge program

- Mexico used derivatives (options) to hedge price of oil exports since 2000; seen as world's largest sovereign derivatives trade
- Options exercised 3 times: 2009 (payout: \$5 billion), 2015 (\$6.4 billion) and 2016 (\$2.7 billion)
- For 2019, Mexico placed \$1.23 billion in put options to lock in an export price of \$55 per barrel
- Benefits: less volatility in oil revenue and lower sovereign risk (thus lower borrowing costs)



Ensuring fair revenues for producer households

- Producer households capture only an insignificant fraction of revenues generated in commodity value chains (less than 3% for coffee in Africa)
- Build on fair trade movement to push for higher income for HH producing commodities such as coffee, cotton, cocoa, etc.
- Start an international dialogue on transparency and fairness in commodity markets



Addressing environmental vulnerabilities



The major challenges

- Double burden: CDDCs must adapt to effects of climate change & to response measures of third Parties
- Most CDDCs lack the financial, technical and institutional capacities to adapt
- Issue of stranded assets resulting from third Party measures is expected to affect many CDDCs (next slide)

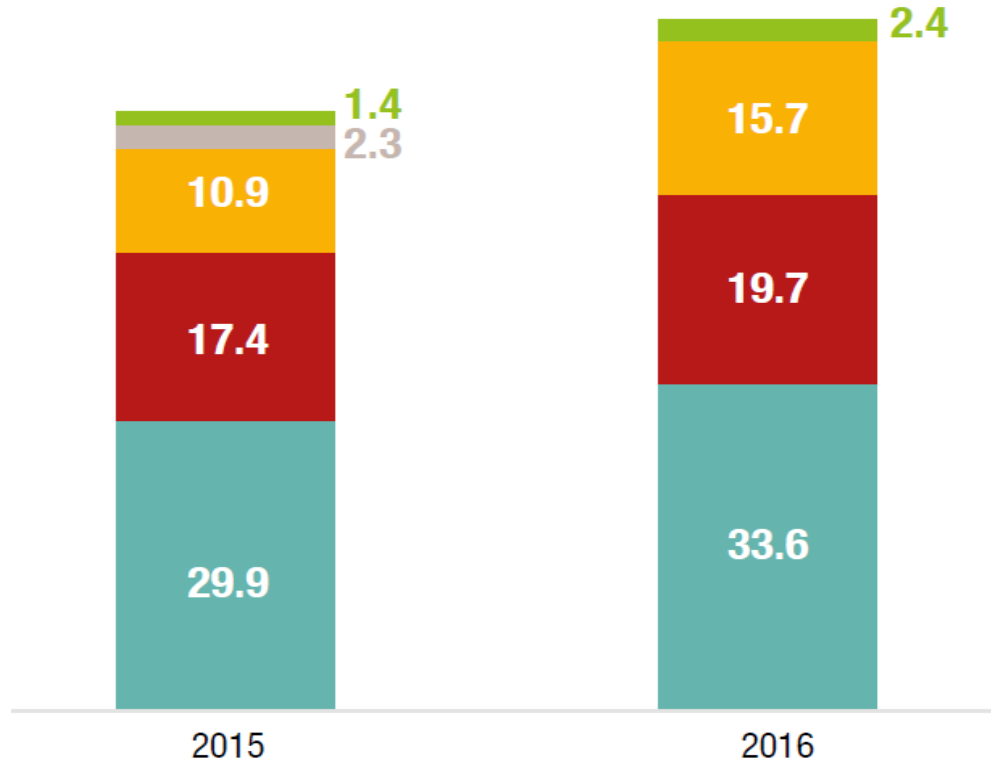


Put in place conducive environment for building stronger resilience

- Climate finance
- Capacity building
- Technology



Climate finance flows to developing countries (\$bn)

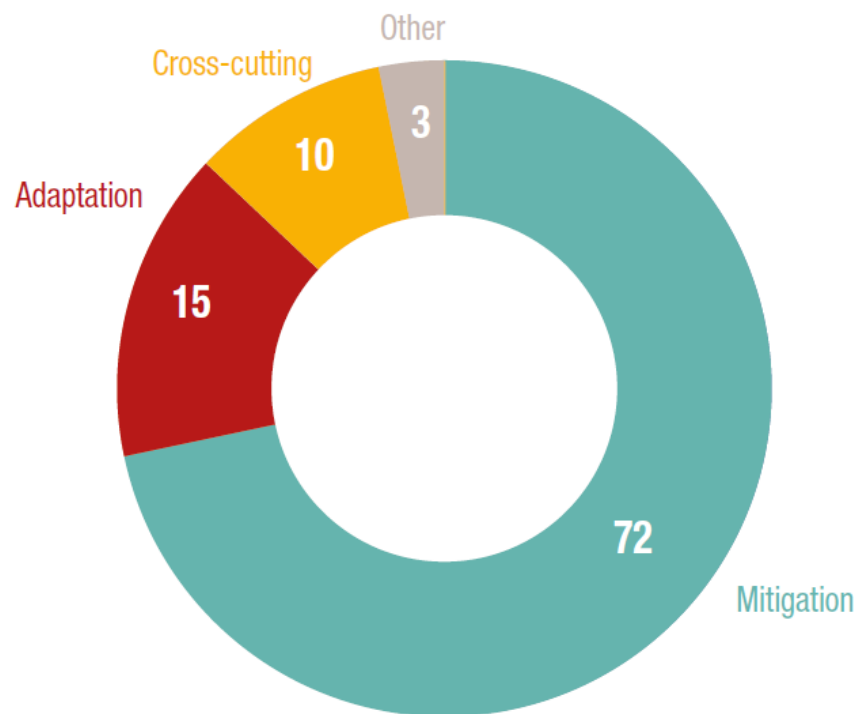


- Multilateral climate funds (including UNFCCC)
- Private climate finance mobilized by bilateral and regional institutions
- Private climate finance mobilized by multilateral development banks
- Multilateral development banks' climate finance
- Climate-specific finance through bilateral, regional and other channels



Scale up funding for adaptation

- Amounts raised are far below pledges & needs
 - Funding should be scaled up
- Current financing mostly through bilateral channels
 - More funds should be disbursed through multilateral channels
 - Simplify access procedure for CDDCs
- Allocation skewed towards mitigation
- Paris Agreement calls for balance between mitigation & adaptation
 - More resources needed for adaptation, the main challenge facing CDDCs



Important needs for capacity building

- CDDCs need capacity building in several areas (see figure)
 - Focus on capacity development of local actors as they know best local conditions
- Special focus on agriculture to increase climate resilience & improve food security
 - The sector is highly vulnerable to impacts of climate change
- Economic diversification as a response to climate challenge
 - Strengthen capacity to design & implement product and export diversification policies

Capacity-building for implementation of NDCs



Foster technology transfer to reduce vulnerability

- Technology transfer has been central to climate change negotiations, highlighting its importance
- Adaptation & mitigation require technology transfer to CDDCs to:
 - adopt climate-resilient production techniques
 - transition towards low-carbon energy
 - improve energy efficiency
- Adaptation requires development & deployment of new technologies adapted to CDDC needs (crops, efficient irrigation, water purification, etc.)
- Strengthen national capacities to use & maintain equipment, and adapt technologies to local conditions



Conclusion



Conclusion

- CDDCs face multifaceted vulnerabilities: economic, social and climate
- Pursuing economic diversification, including towards production of more food, would limit CDDCs exposure to these vulnerabilities
- Developed countries & other major players could assist through, e.g.:
 - transfer of adequate financial resources
 - capacity building in all relevant areas
 - technology transfer
- It is also important to make commodity markets more transparent and to foster fairness in how benefits of trade are shared among actors
- An international dialogue on this issue is needed



Thank you.

