

Challenges of Supply Chain Constraints

Jong Woo Kang

Principal Economist

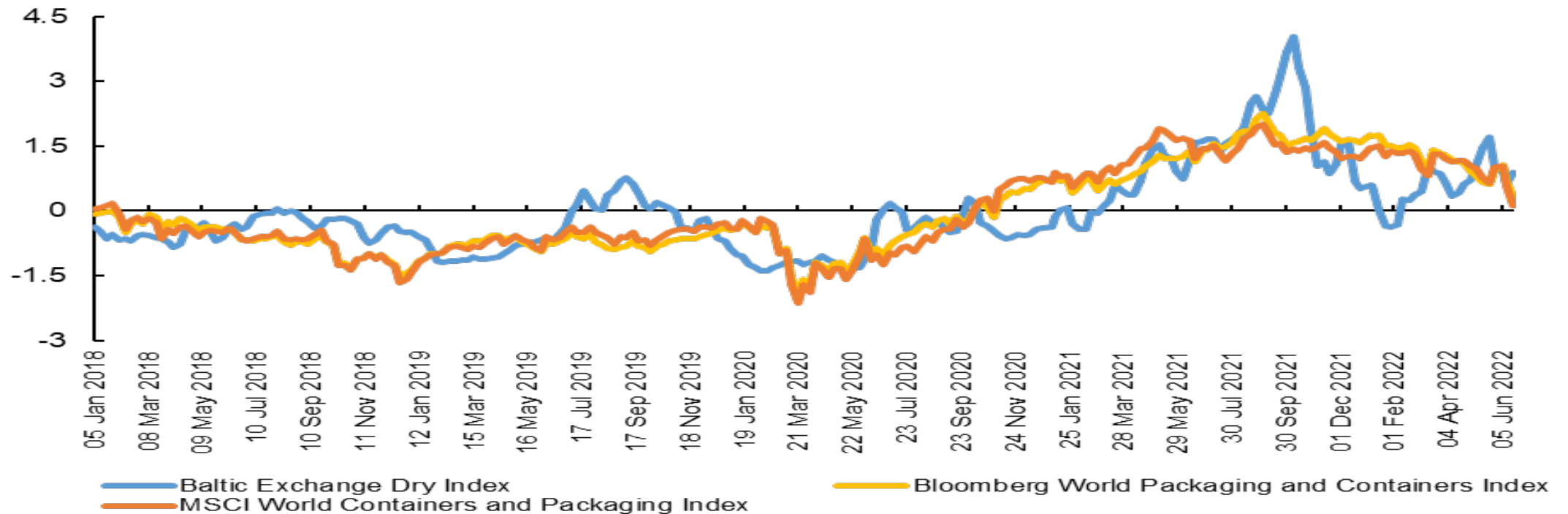
Regional Cooperation and Integration Division

Economic Research and Regional Cooperation Department

Asian Development Bank



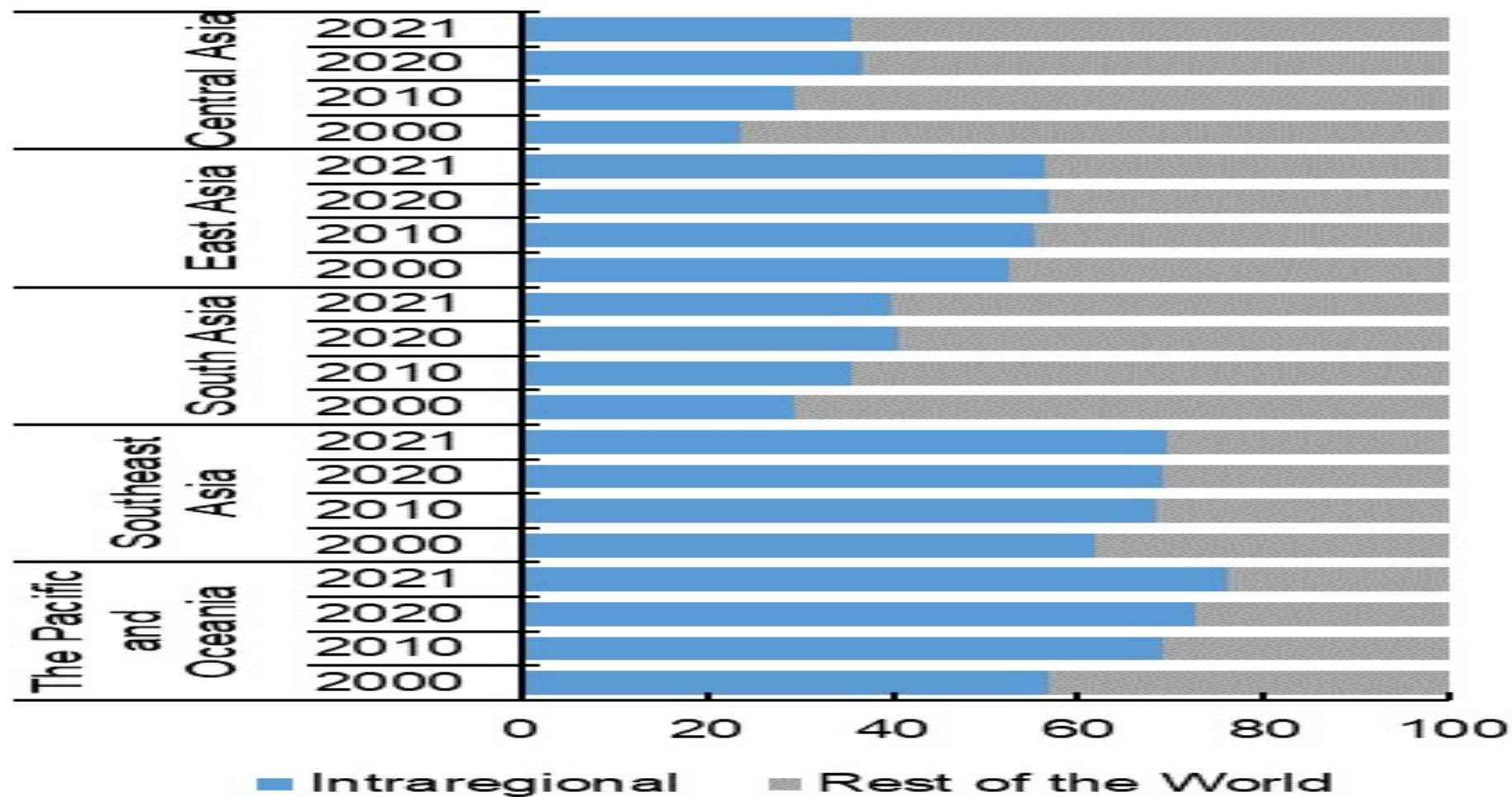
Global Trade—Weekly Indicators (Z-scores)



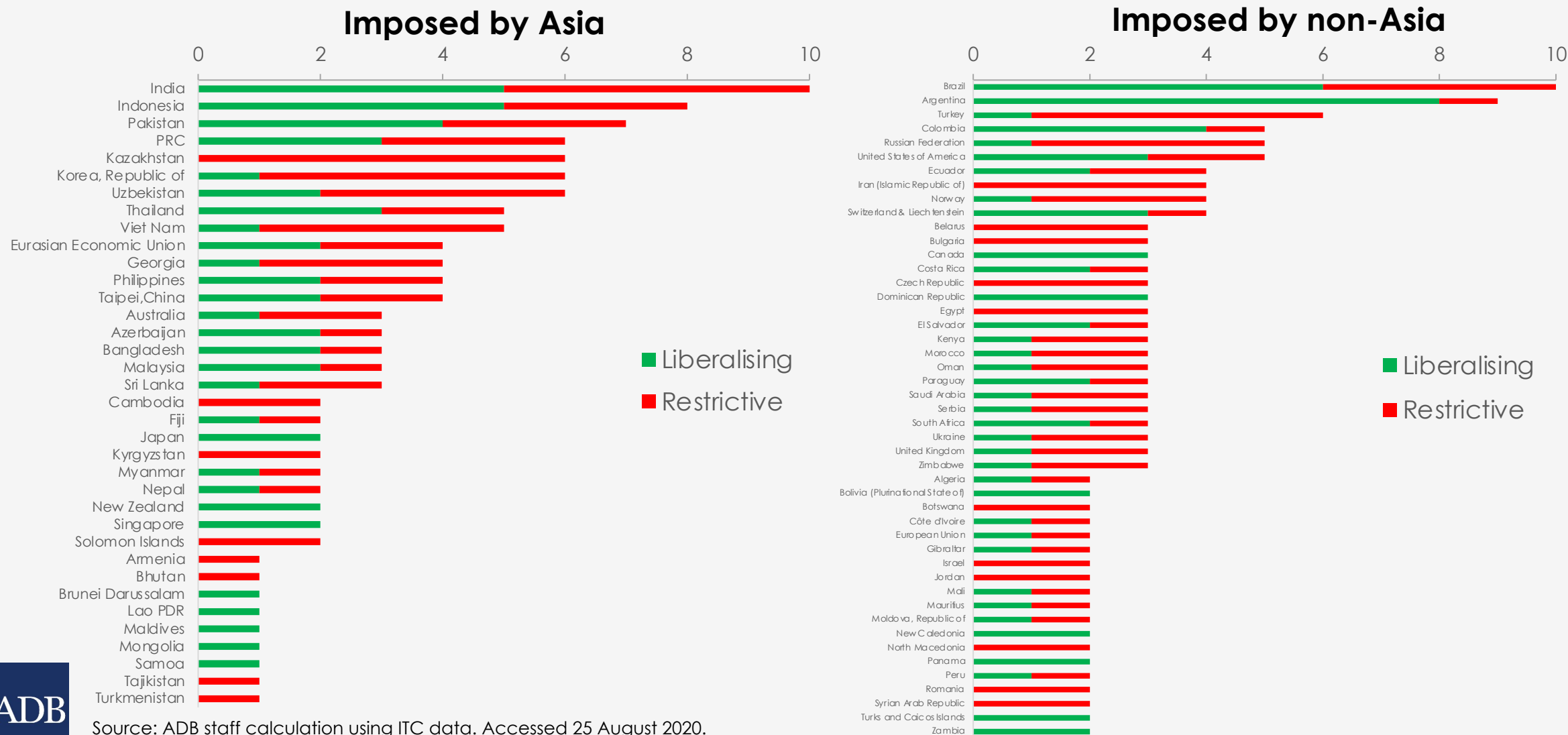
Note: The indexes have been normalized using z-scores. Calculated mean and standard deviation of the indexes were for the period 5 January 2018–5 June 2022.

Sources: ADB calculations using data from Bloomberg; CEIC Data Company; Freightos. Freightos

Intraregional trade shares by subregions (merchandise, %)



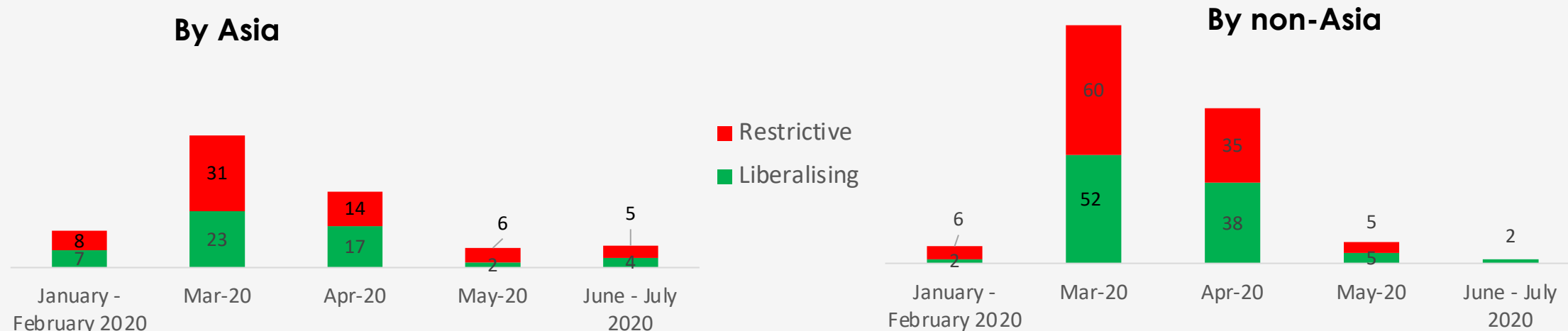
COVID-19 related trade measures, by effect on trade (cumulative January-July 2020)



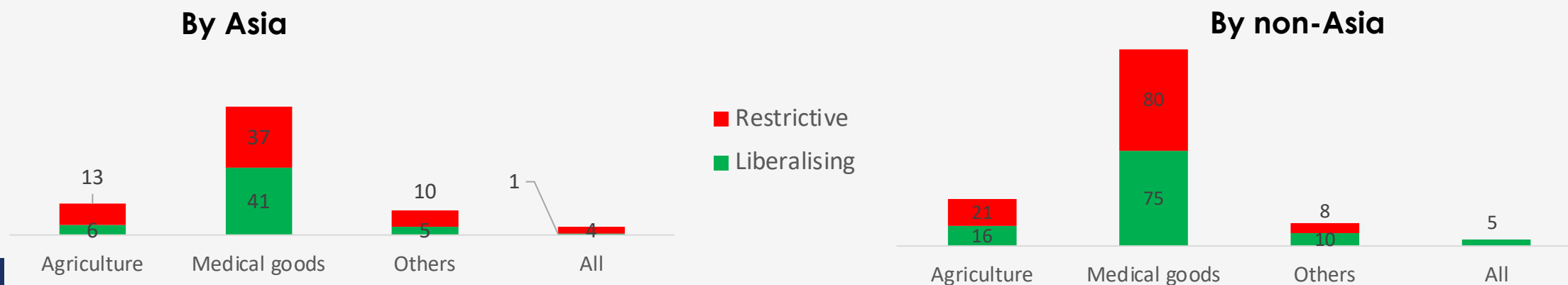
Source: ADB staff calculation using ITC data. Accessed 25 August 2020.

Timeline, products affected by COVID-19 related trade measures, by effect on trade

Timeline of COVID-19 related trade measures

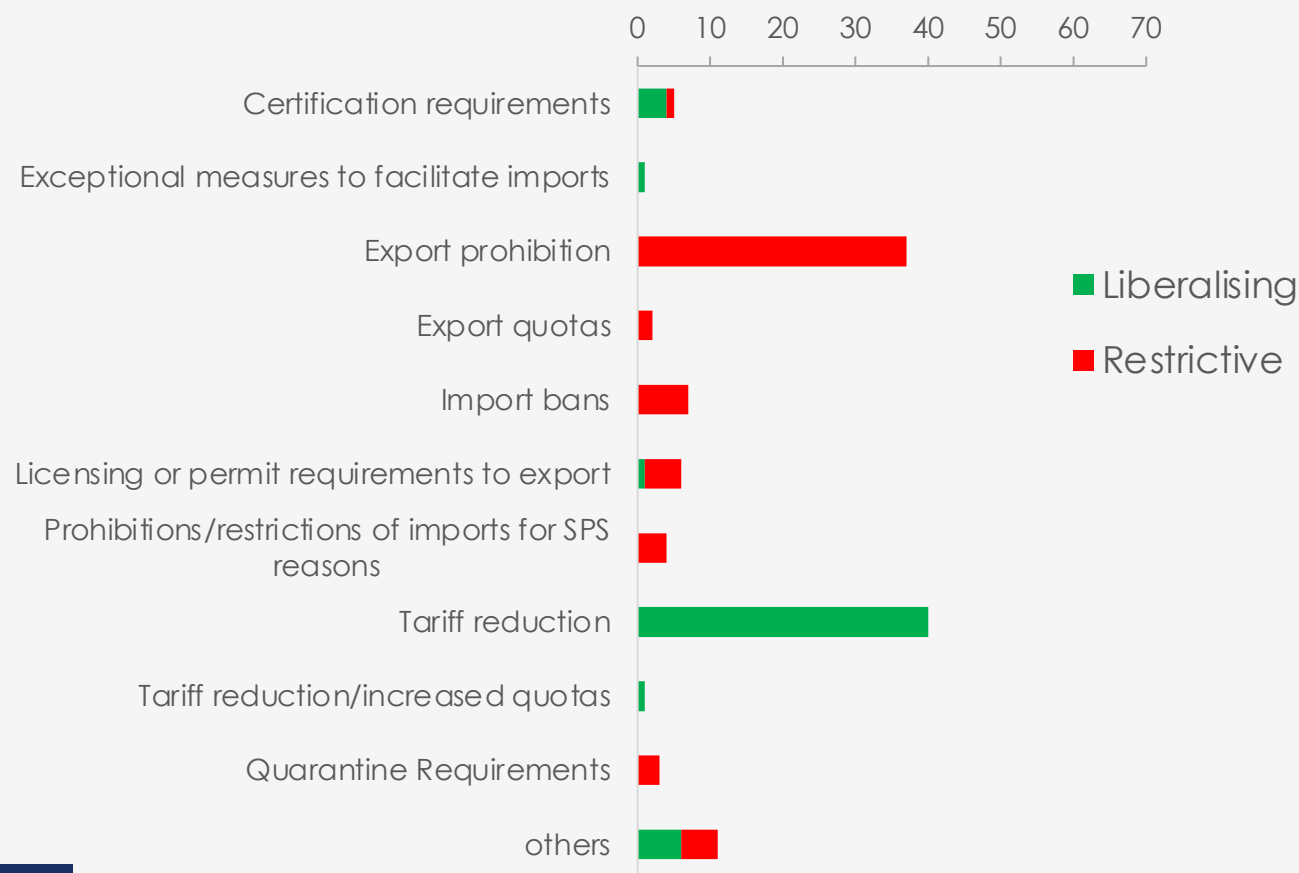


Products affected by COVID-19 related trade measures

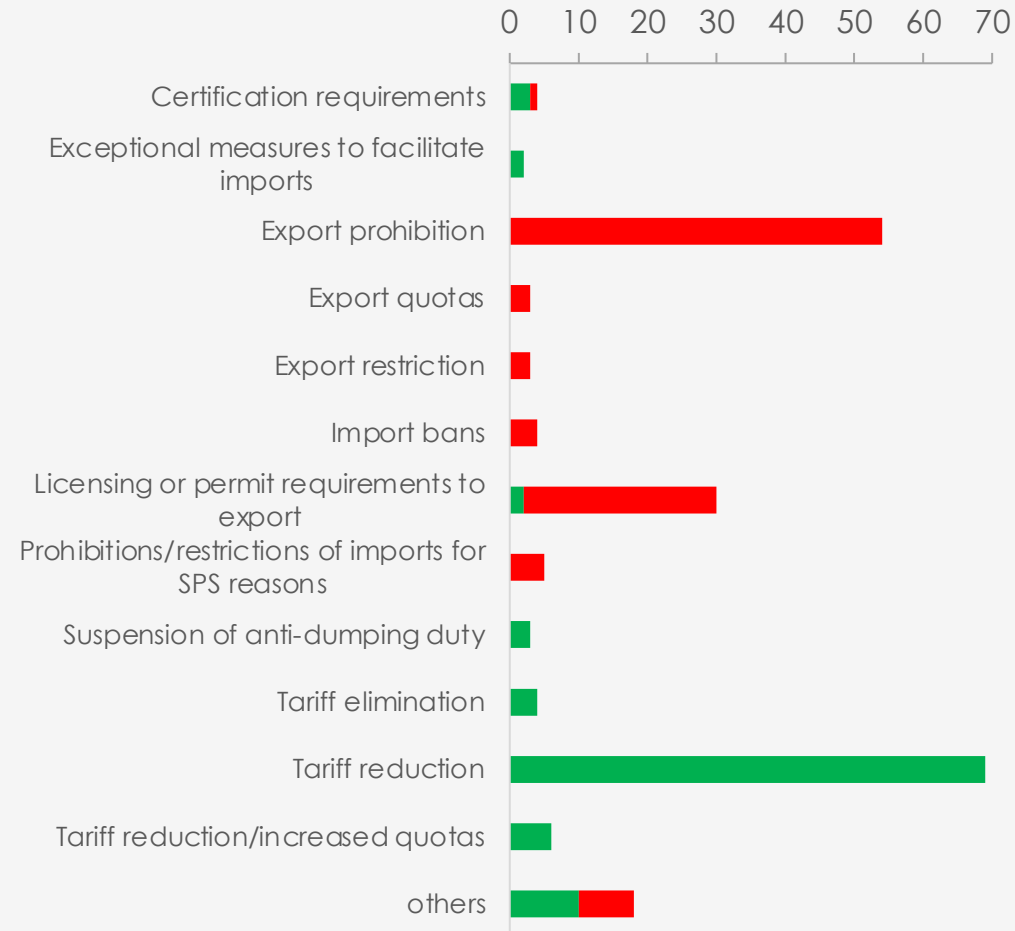


Type of COVID-19 related measures, by effect on trade (cumulative January-July 2020)

Imposed by Asia

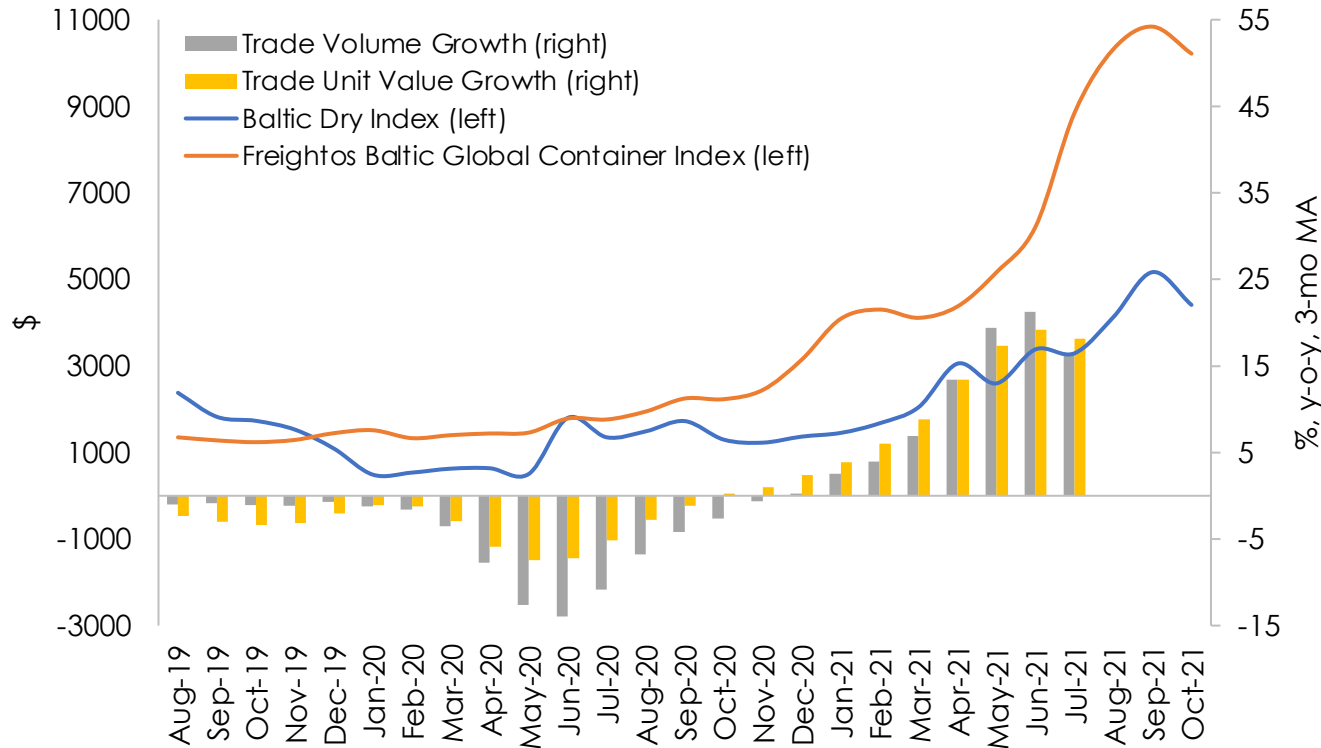


Imposed by non-Asia



Shipping costs rose during the pandemic

Shipping Indexes and Merchandise Trade Growth



y-o-y = year-on-year; mo = month; MA = moving average

Notes: The trade value and volume growth rate is equivalent to the 3-month moving average of the year-on-year change in the index value of world merchandise trade.

Sources: ADB calculations using data from CPB Netherlands Bureau for Economic Policy Analysis (CPB) World Trade Monitor via CEIC for trade volume and value index data, Baltic Exchange via CEIC for the Baltic Dry Index, Freightos via Statista for the Freightos Baltic Global Container Index.

• Drivers

- inputs for shipping transportation (bunker fuel, labor)
- integrated logistics
- alternative modes of transport
- quarantine requirement

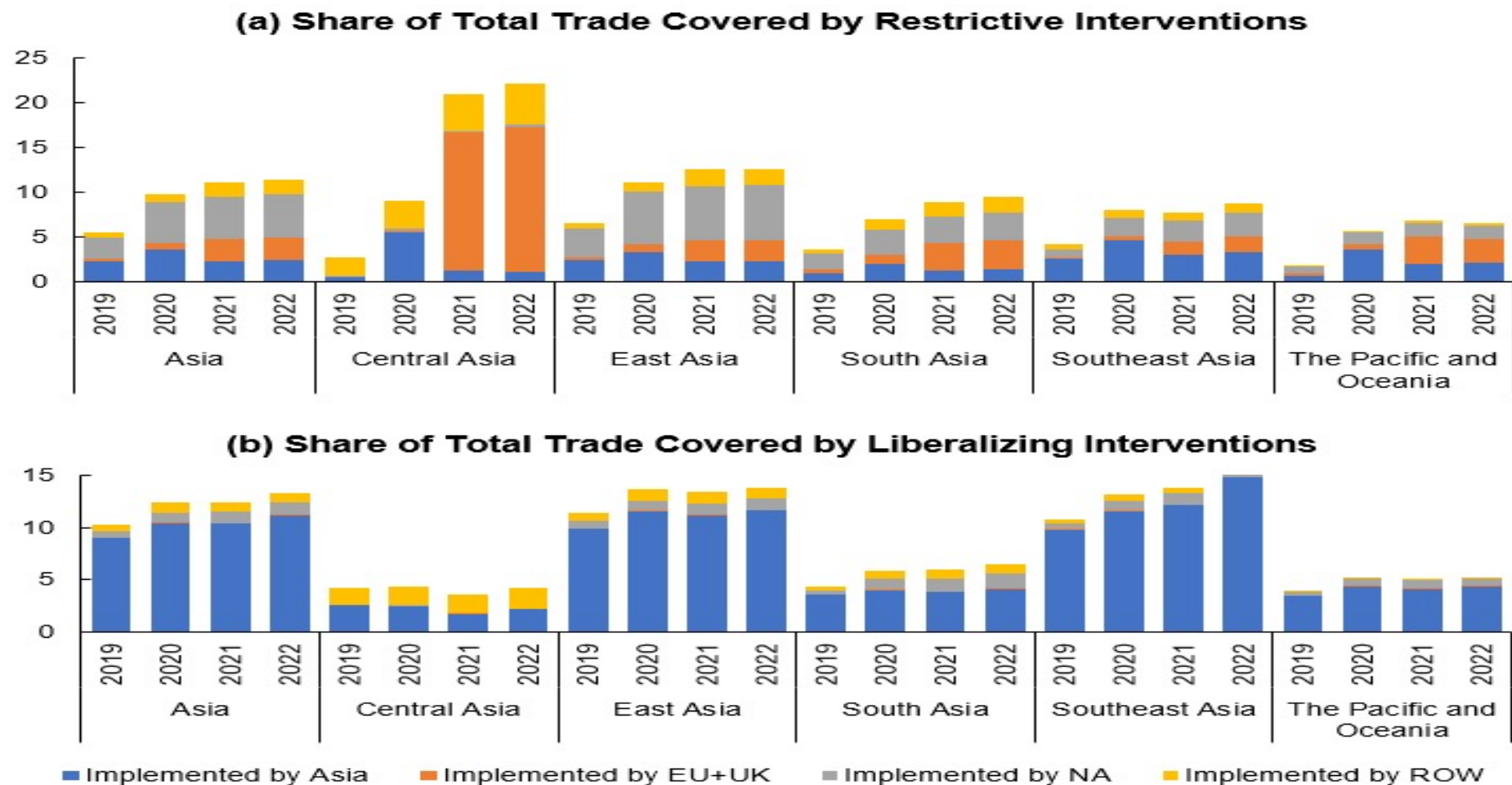
• Impact

- bottleneck of supply chain
- slowdown in trade flows
- failure to meet demand timely

• Way forward

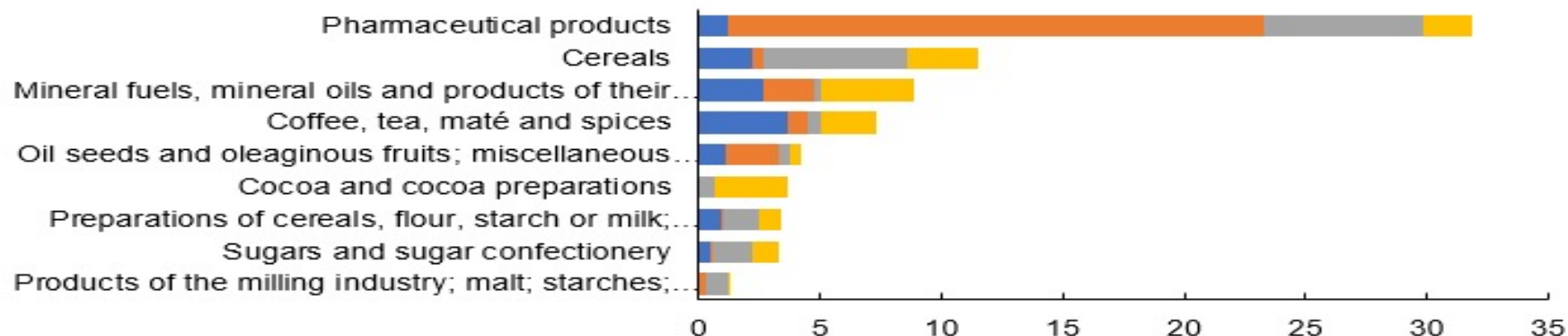
- digitalization and automation
- competition
- investment in logistics, warehouse, inland transport

Share of Total Trade Covered by Restrictive and Liberalizing Interventions, by Region—Asia (%)

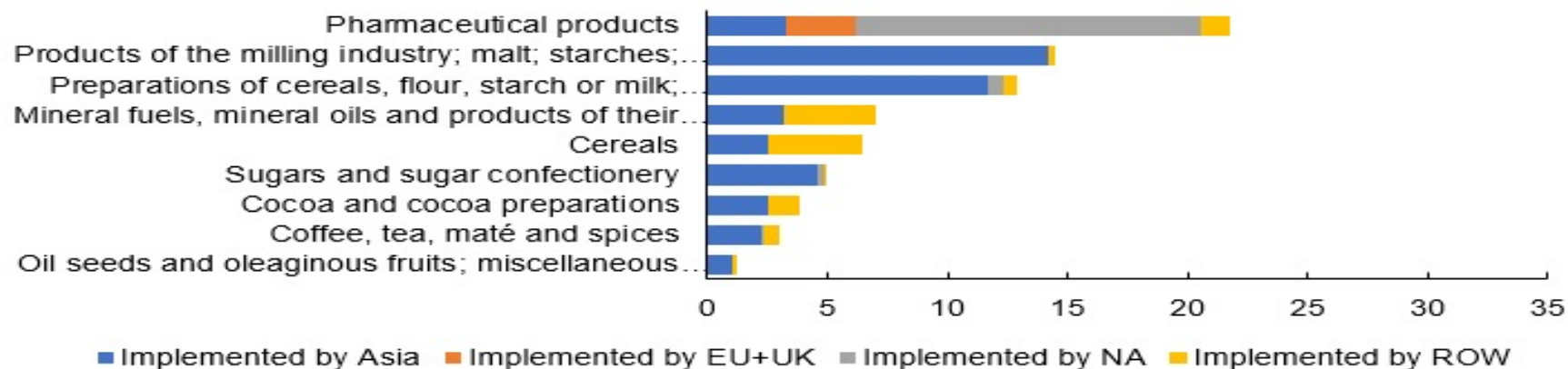


Share of Total Trade Covered by Restrictive and Liberalizing Interventions in 2022, by Select Commodity Group—Asia (%)

(a) Share of Total Trade Covered by Restrictive Interventions

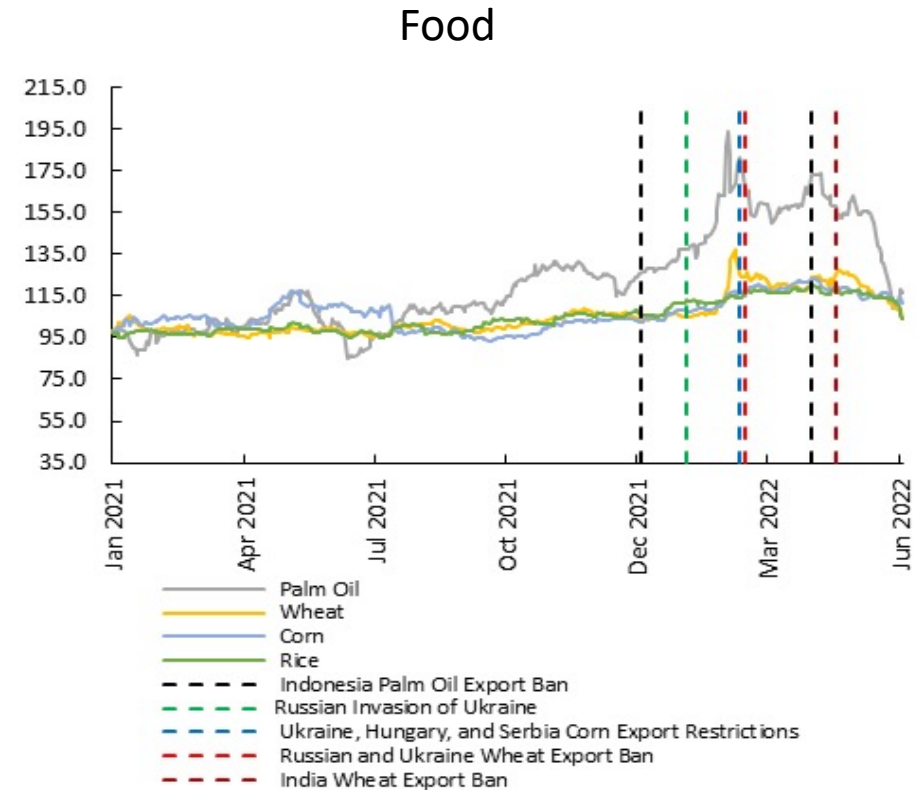
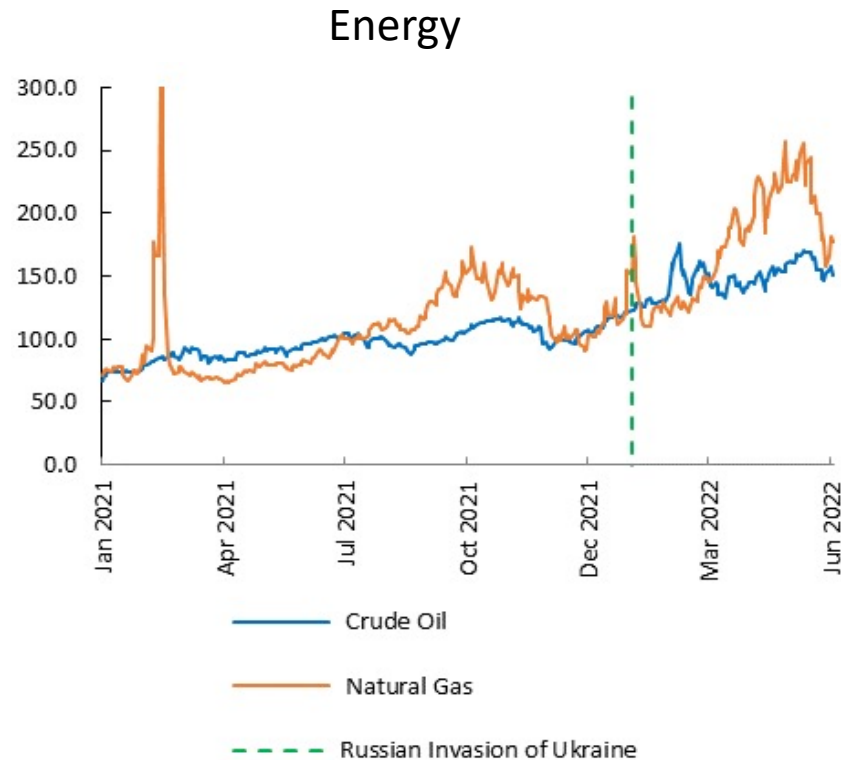


(b) Share of Total Trade Covered by Liberalizing Interventions



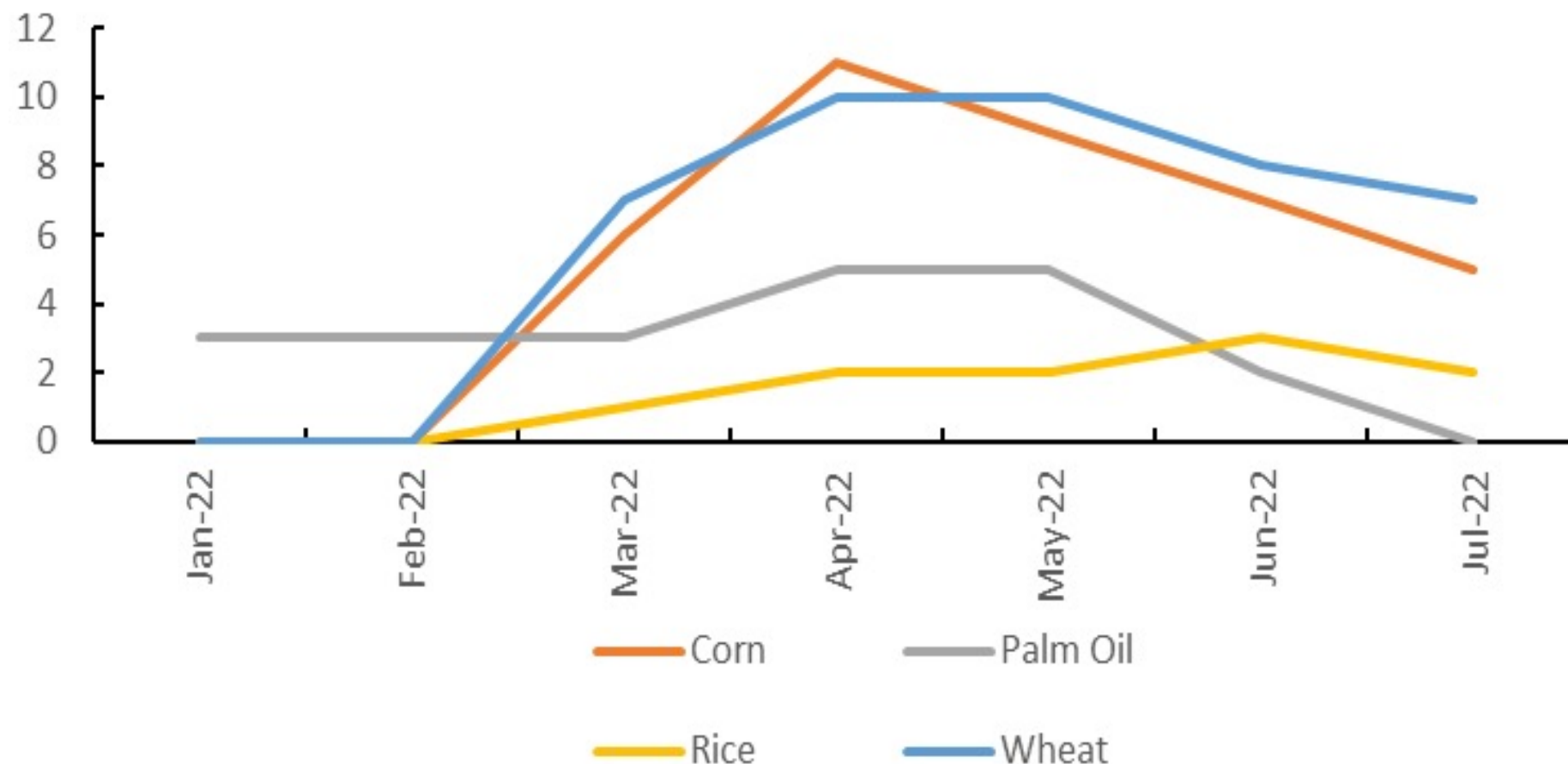
■ Implemented by Asia ■ Implemented by EU+UK ■ Implemented by NA ■ Implemented by ROW

Average Prices of Food and Energy Commodities in Selected Major Commodity Markets (July 15, 2021 = 100)



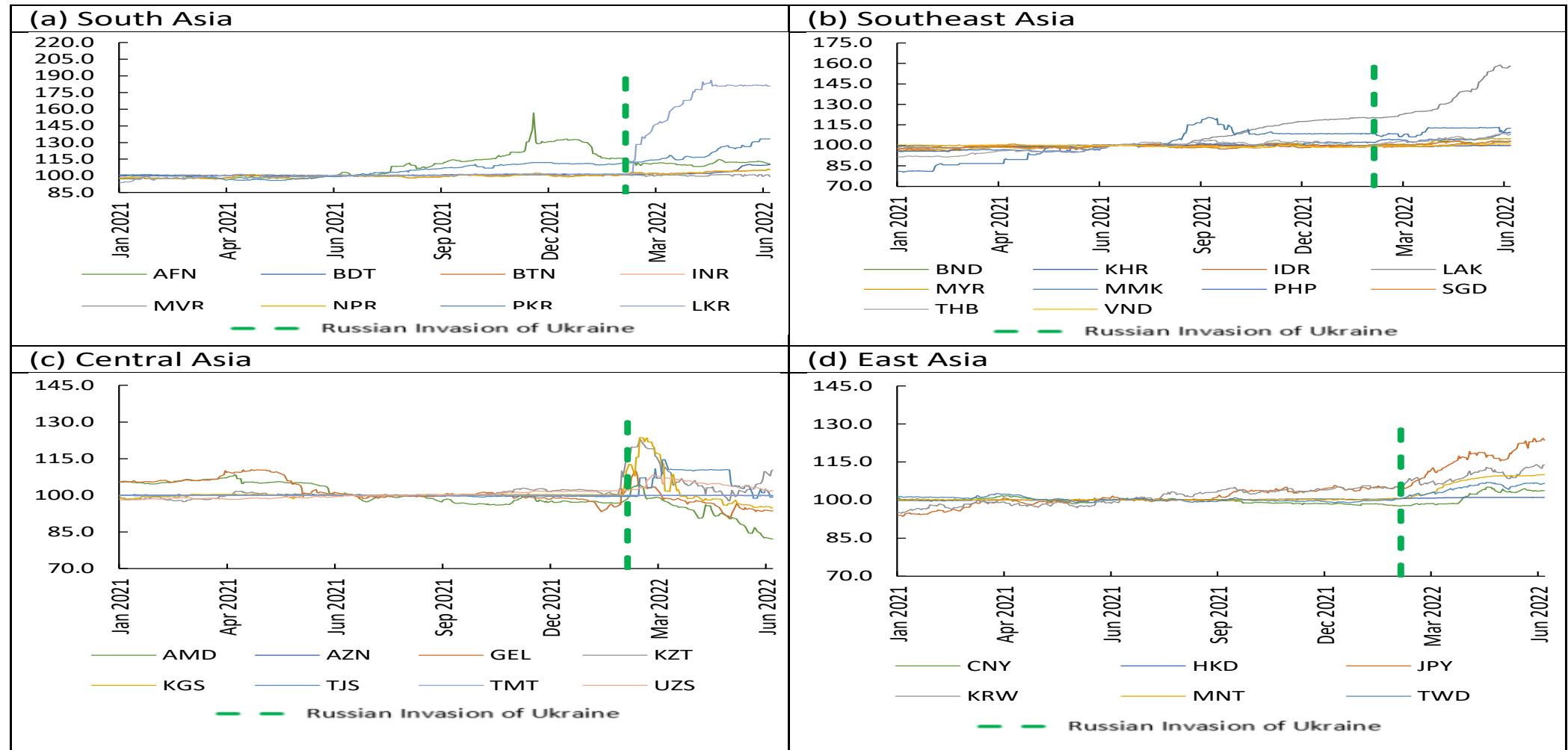
Source: ADB calculations using data from Bloomberg and CEIC (accessed July 2022); Food trade policy data from Laborde, D. and A. Mamun. Food Export & Fertilizer Restrictions Tracker.

Number of Effective Food Trade Restrictions



Source: ADB calculations using food trade policy data from Laborde, D. and A. Mamun. Food Export & Fertilizer Restrictions Tracker.

Impact of foreign exchange rate



Policy recommendations

- Prohibiting export restrictions through international and regional cooperation
- Streamlining of supply chains through trade facilitation and exploration of alternative transportation routes
- Promoting multilateral cooperation for public stockholding
- Providing targeted income subsidies to vulnerable groups

Thank you