



Global Value Chain Reshoring: Overview and Impact on Trade

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Drivers of Supply Chain Reshoring

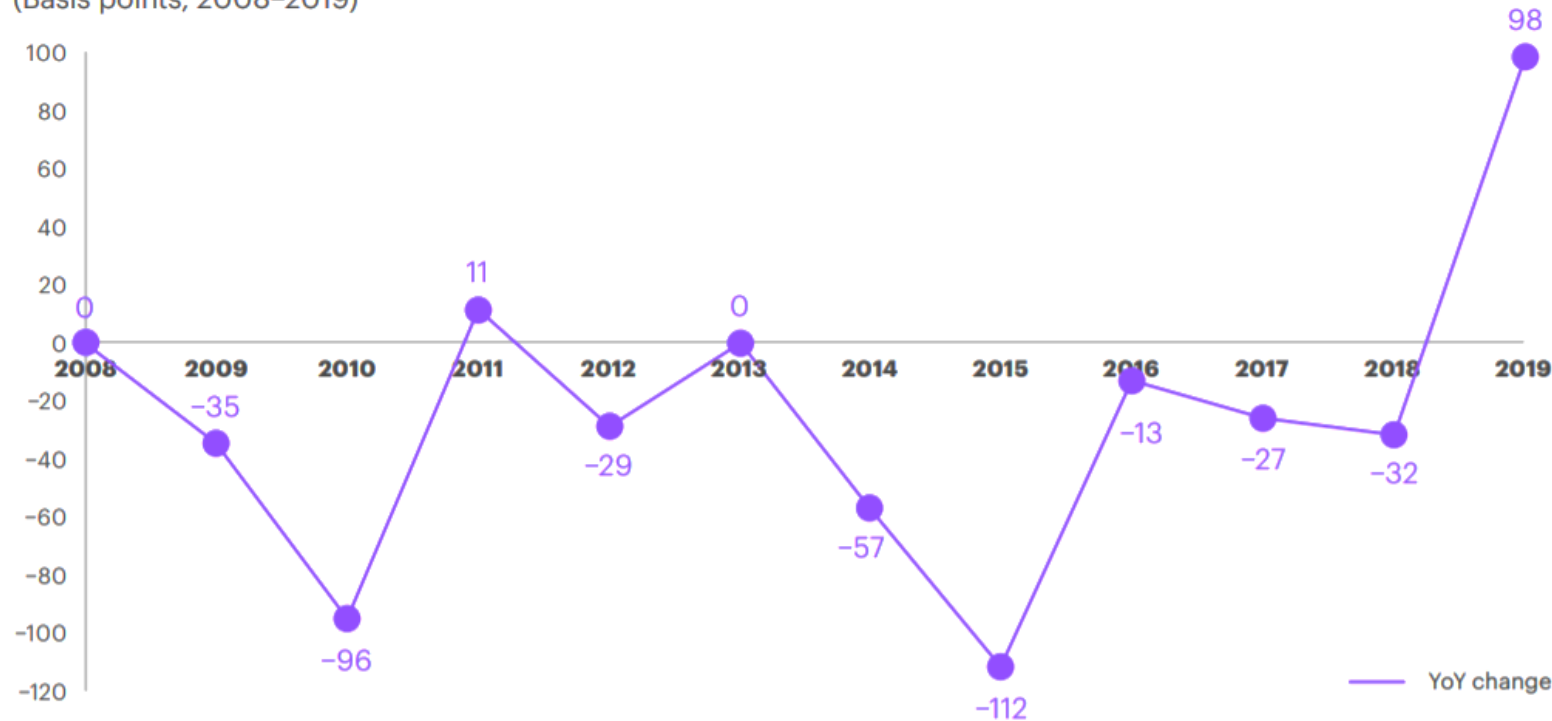
- Trade conflict between the United States (US) and the People's Republic of China (PRC) have encouraged policy makers, especially in the US, to consider reshoring policies.
- Recent events such as the lockdowns due to the COVID-19 pandemic may cause companies to consider reshoring their supply chains as well, although we have yet to see the data in 2020.

Motivations of Reshoring

- Even before the pandemic, policy makers and businesses alike had revisited the rationale behind the off-shoring strategy, driven mainly by cost and operational efficiency.
- (Middle-income countries) Technological progress has enabled many middle-income economies to move up the technological ladder, and consequently to produce key intermediate goods themselves instead of relying on foreign imports.
- (Advanced countries) The development of robotics and artificial intelligence also motivates advanced economies to bring their production facilities closer to customers, tailoring their products to consumer preferences.
- Concerns about the quality of products and services outsourced had also been on businesses' minds. In this sense, COVID-19 and the trade war have accentuated motivation for reshoring rather than triggering it.
- After all, the reshoring trend will likely persist, although its exact form and size is difficult to predict from the reflections on vulnerabilities of global supply chains, just-in-time inventory management systems, and vast spillover effects of the crunch in certain segments of supply chains (e.g., recent shortages in microchips and semiconductors).

Progress of Supply Chain Reshoring

Year-over-year change in the US manufacturing import ratio (MIR)
(Basis points, 2008–2019)



Source: Kearney

- In 2019, the Kearney reshoring index for the US shows an increase of 98 basis points.
- Decline in US manufacturing imports from the PRC due to the trade war, which dropped by 17% from 2018 to 2019 is pointed out as the potential source.

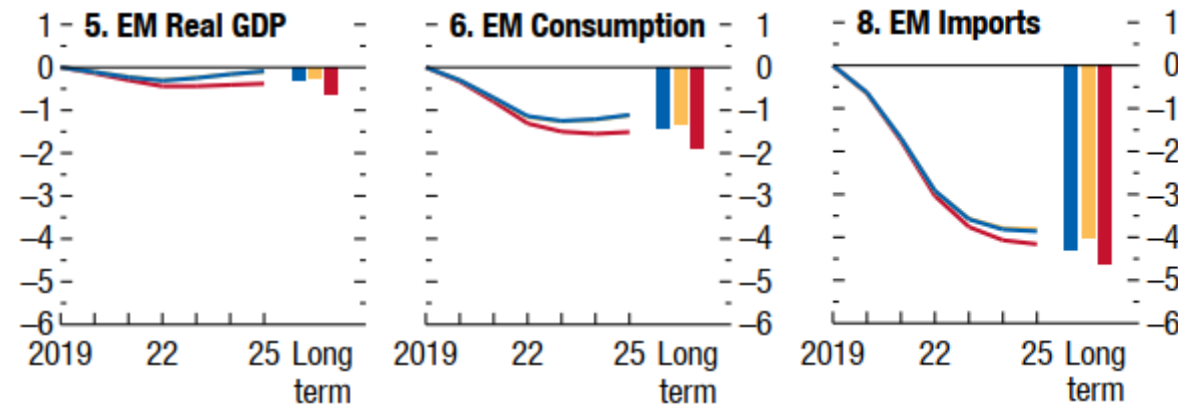
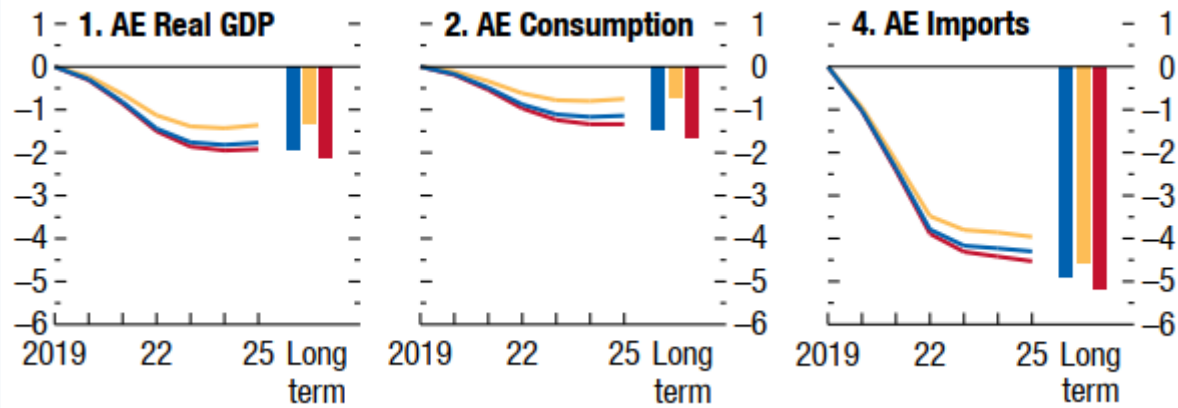
Survey based estimation

- According to Thomas survey report in August 2020, 69% of companies across North America manufacturing and industrial sectors are likely to bring manufacturing production and sourcing back to their region.
- Another survey report by Raconteur in September 2020 found that 66.2% of firms globally are considering reshoring to some degree.



Source: raconteur.net

Simulation-based estimation (IMF WEO 2019)



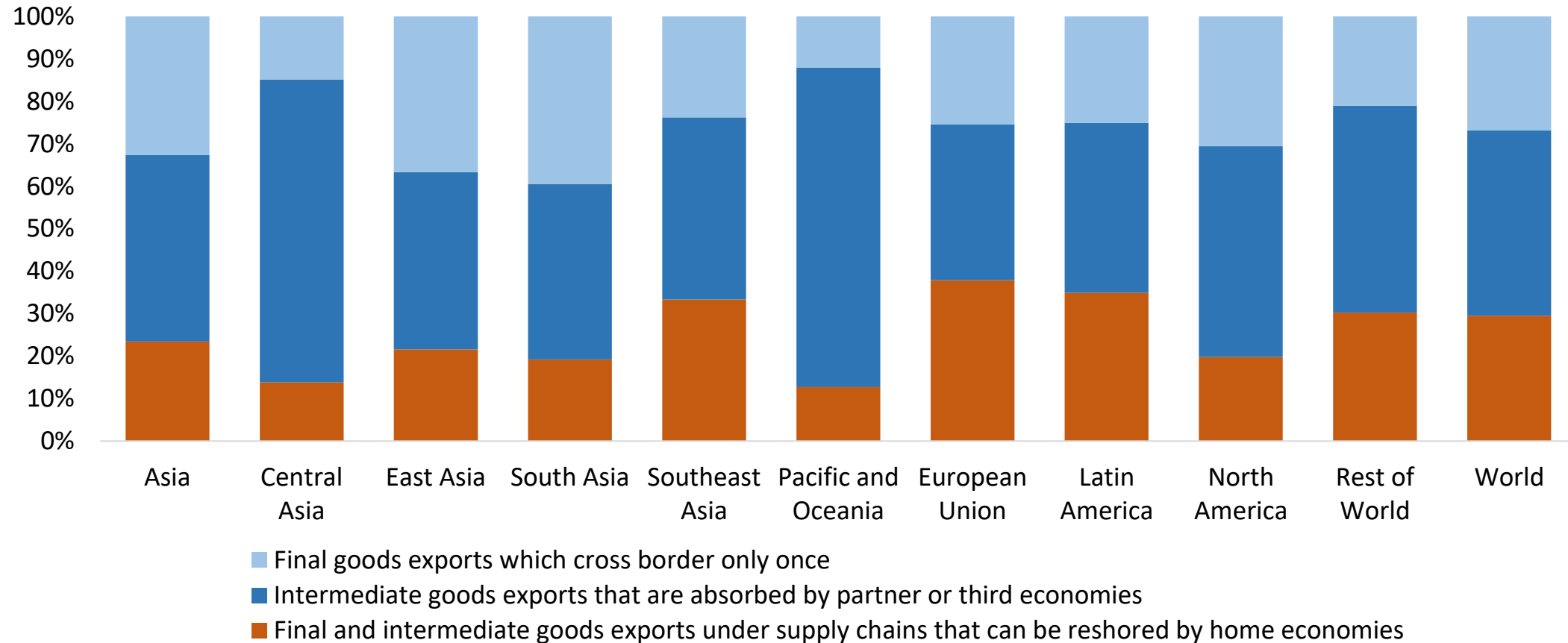
— Reshoring
 — Reshoring plus lower margins
 — Reshoring plus weaker technological diffusion

Source: IMF staff estimates.

Note: AE = advanced economy; EM = emerging market.

- Used Global Integrated Monetary and Fiscal Model to estimate the impact of reshoring on output, consumption, trade, and investment.
- If the US, the euro area, and Japan reshore enough production that their nominal imports decline by 10%, advanced economies could experience a 1%–2% decline in output, and emerging economies about 0.5%.

Global Value Chain Decomposition of 2019 Gross Exports

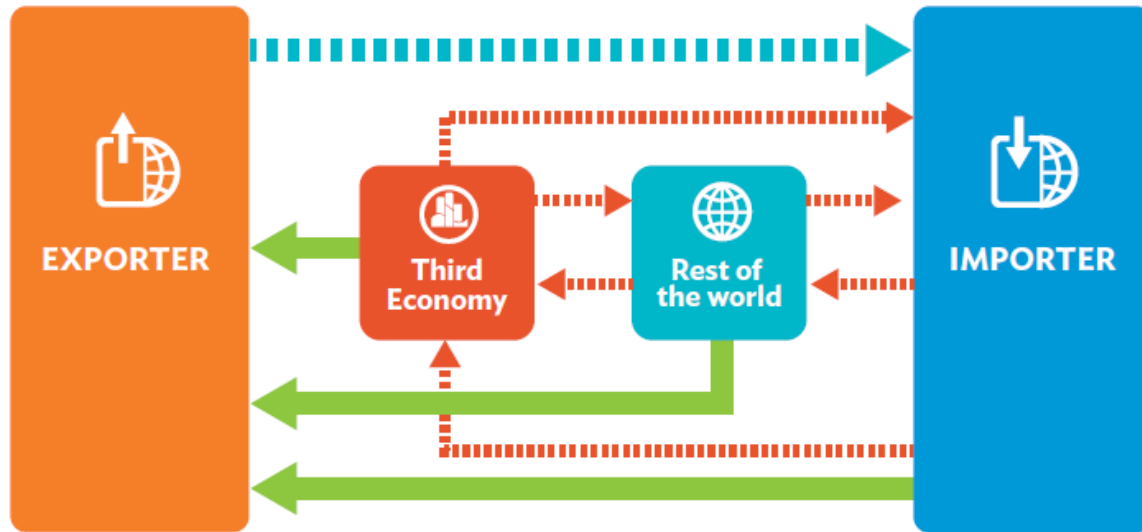


Notes: Exports under supply chains that can be reshored by the home economy include goods with foreign value-added and returned domestic value added. This also includes goods considered as double counted, in which its production involves a back-and-forth movement between the exporter and its direct partner. North America refers to Canada and the United States; Latin America refers to Brazil and Mexico; Pacific and Oceania refers to Fiji and Australia. Please see Appendix 3 for full list.

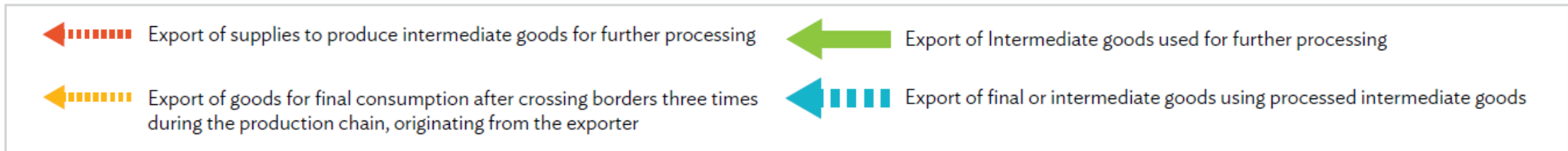
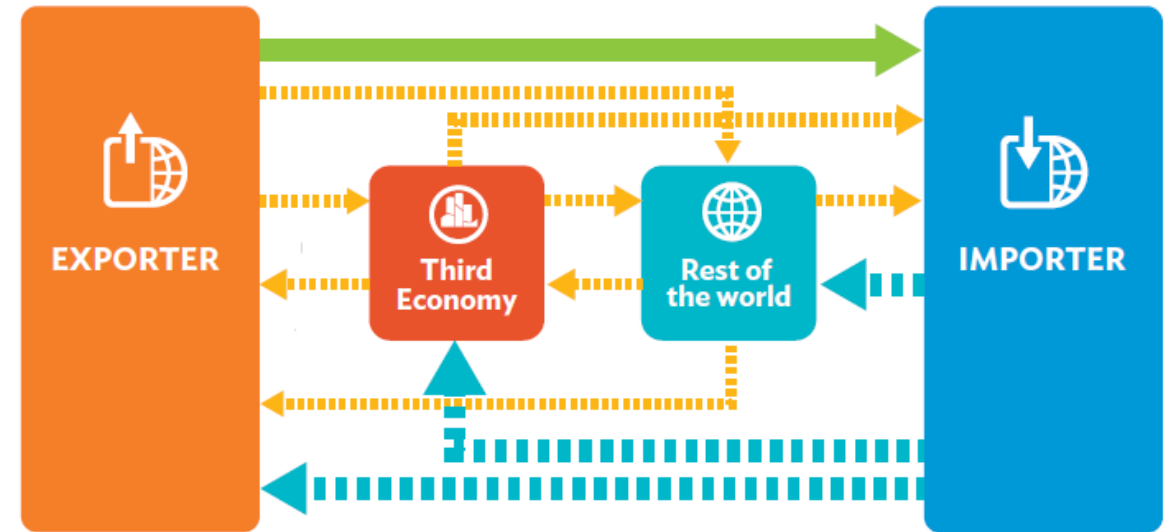
Sources: Asian Development Bank (ADB) calculations using data from ADB. Multi-Regional Input-Output Tables; and methodology by Wang, Wei, and Zhu (2013).

Backward and Forward Linkages of GVC

Backward Global Value Chain Linkages

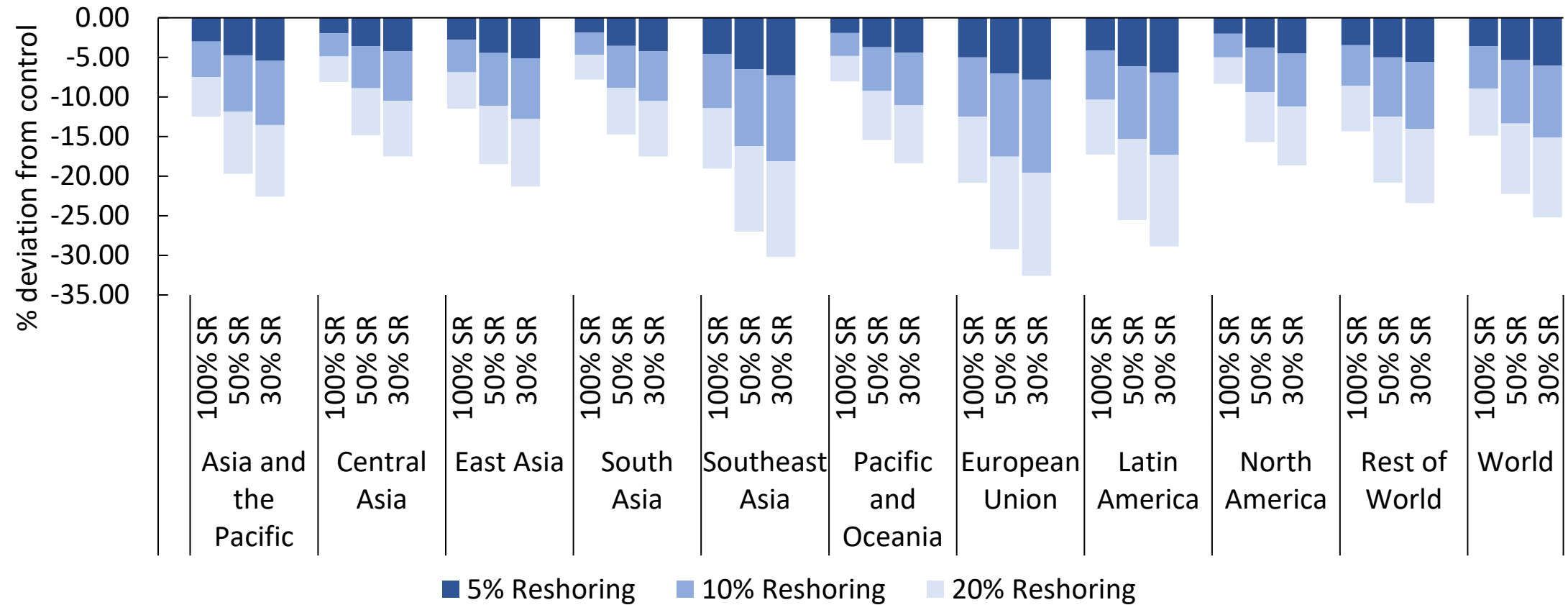


Forward Global Value Chain Linkages



Source: ADB 2021.

Impact of Reshoring on Imports (%)

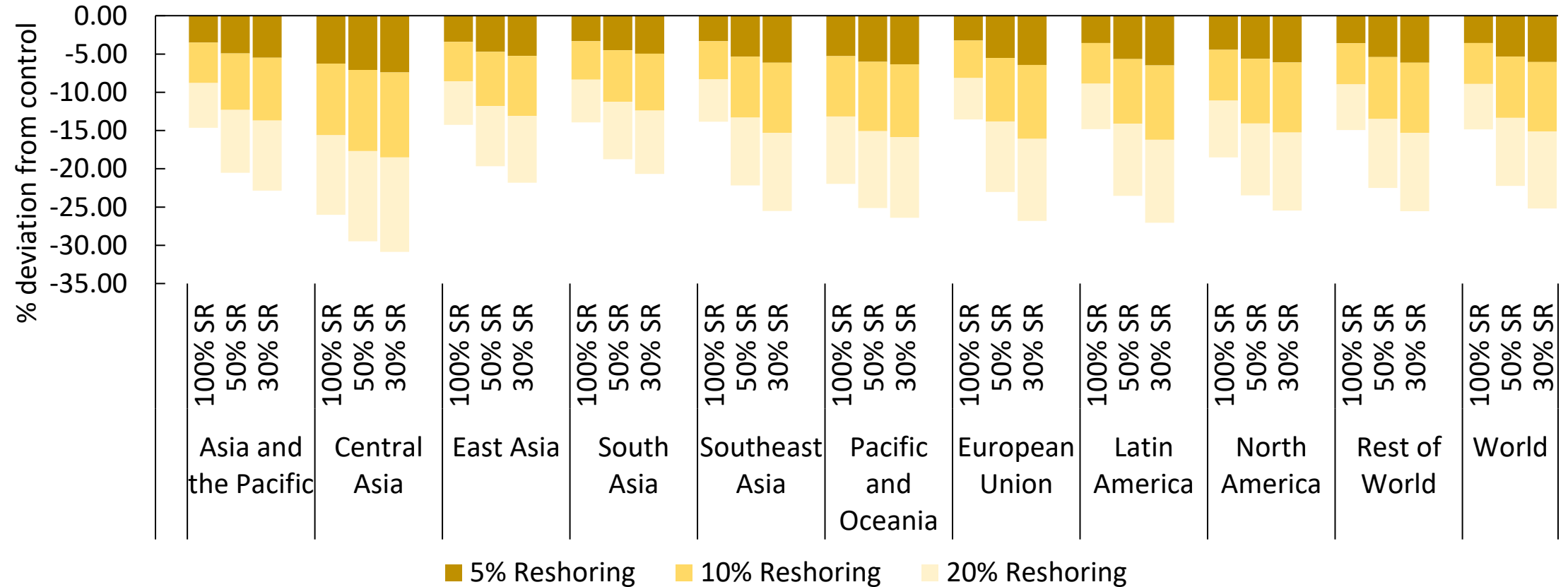


SR = substitution rate.

Notes: Reshoring rate refers to the share of imported intermediate goods and outsourced production that the main exporter will cut-off. Substitution rate refers to the capacity of local manufacturers to produce enough intermediate goods to compensate for the cut-off of imported intermediate goods and outsourced production. North America refers to Canada and the United States; Latin America refers to Brazil and Mexico; Pacific and Oceania refers to Fiji and Australia.

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Impact of Reshoring on Exports (%)

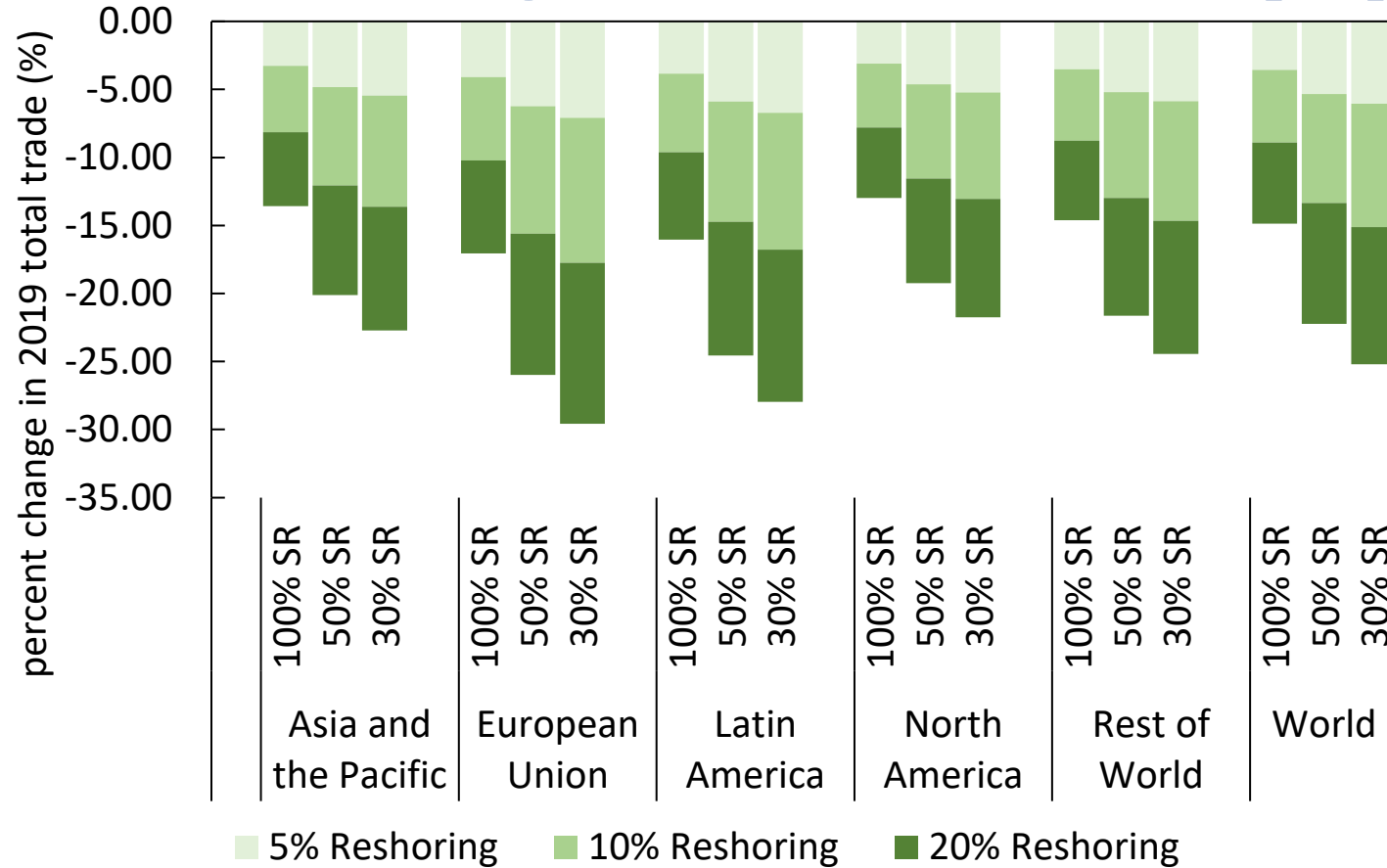


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Impact of Reshoring on Total Trade (%)

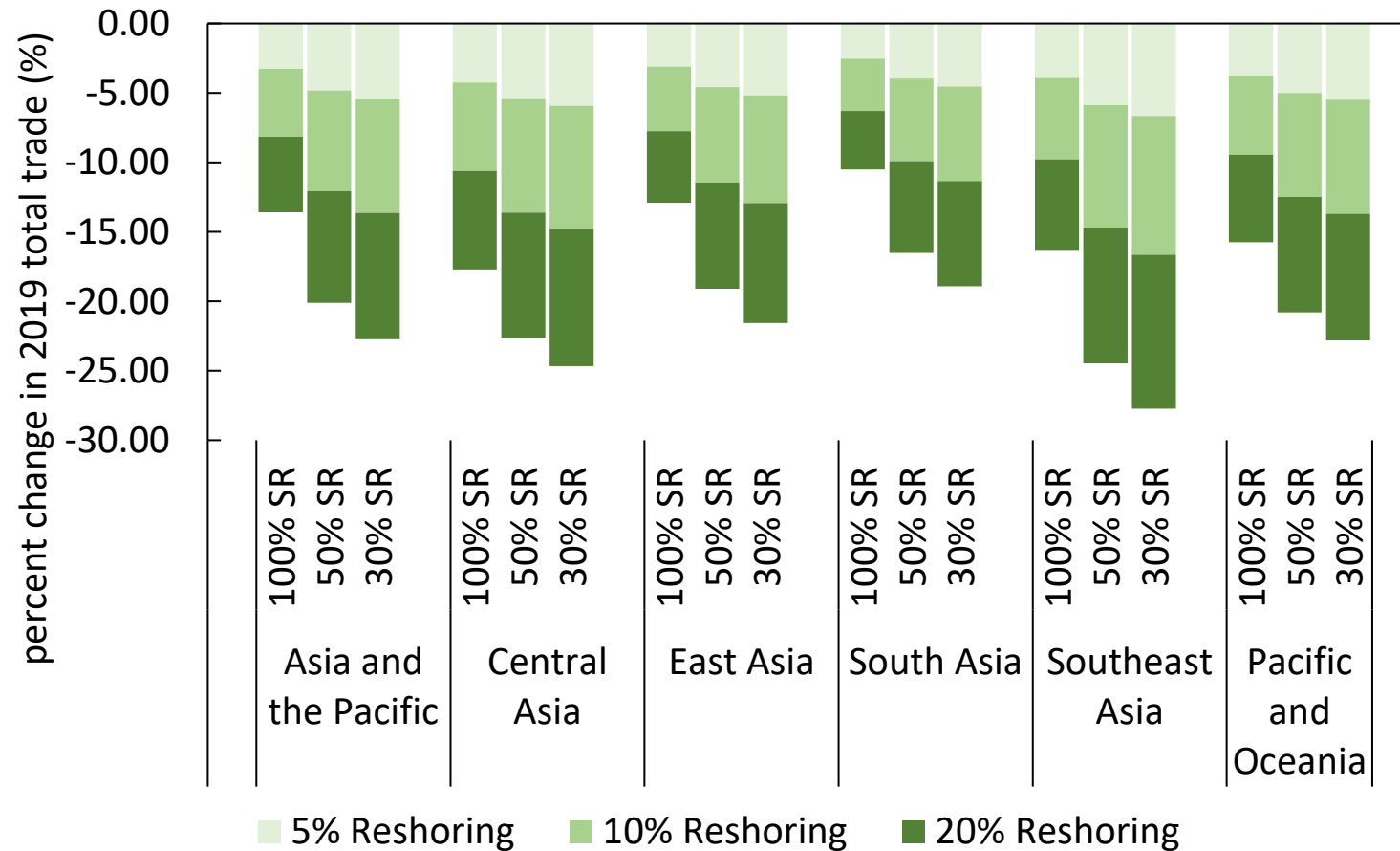


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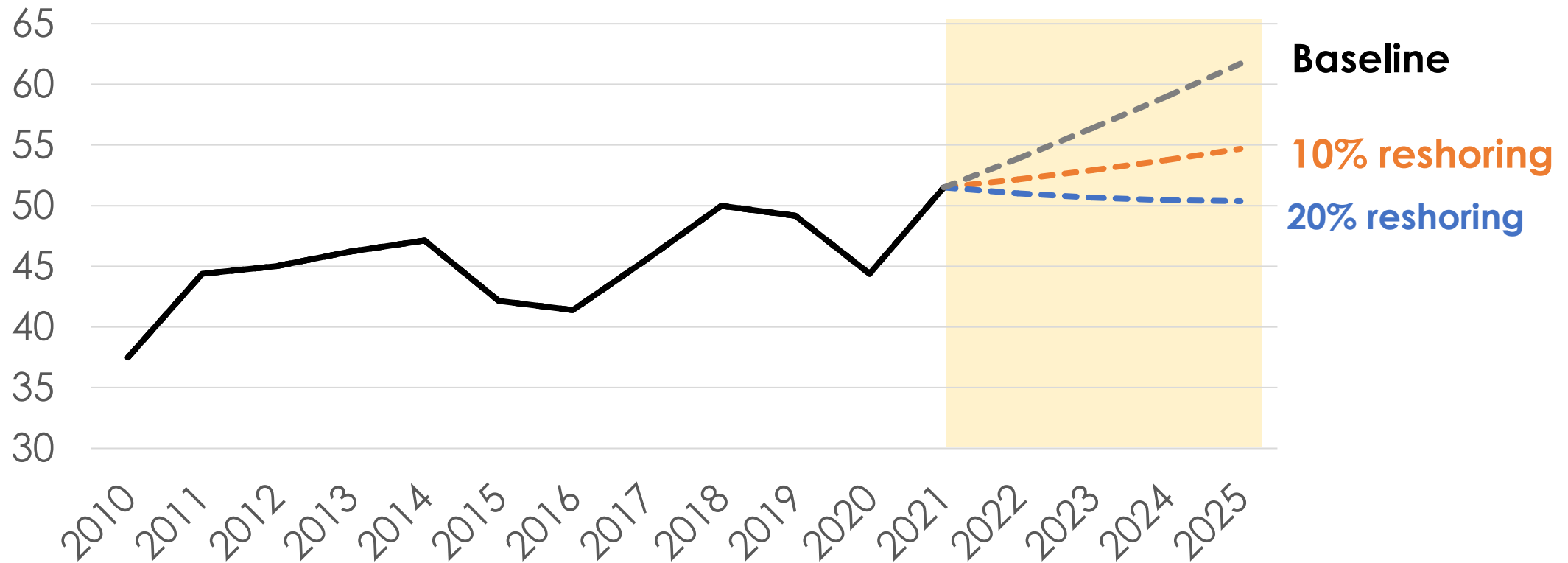
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Estimated impact of supply chain reshoring on trade

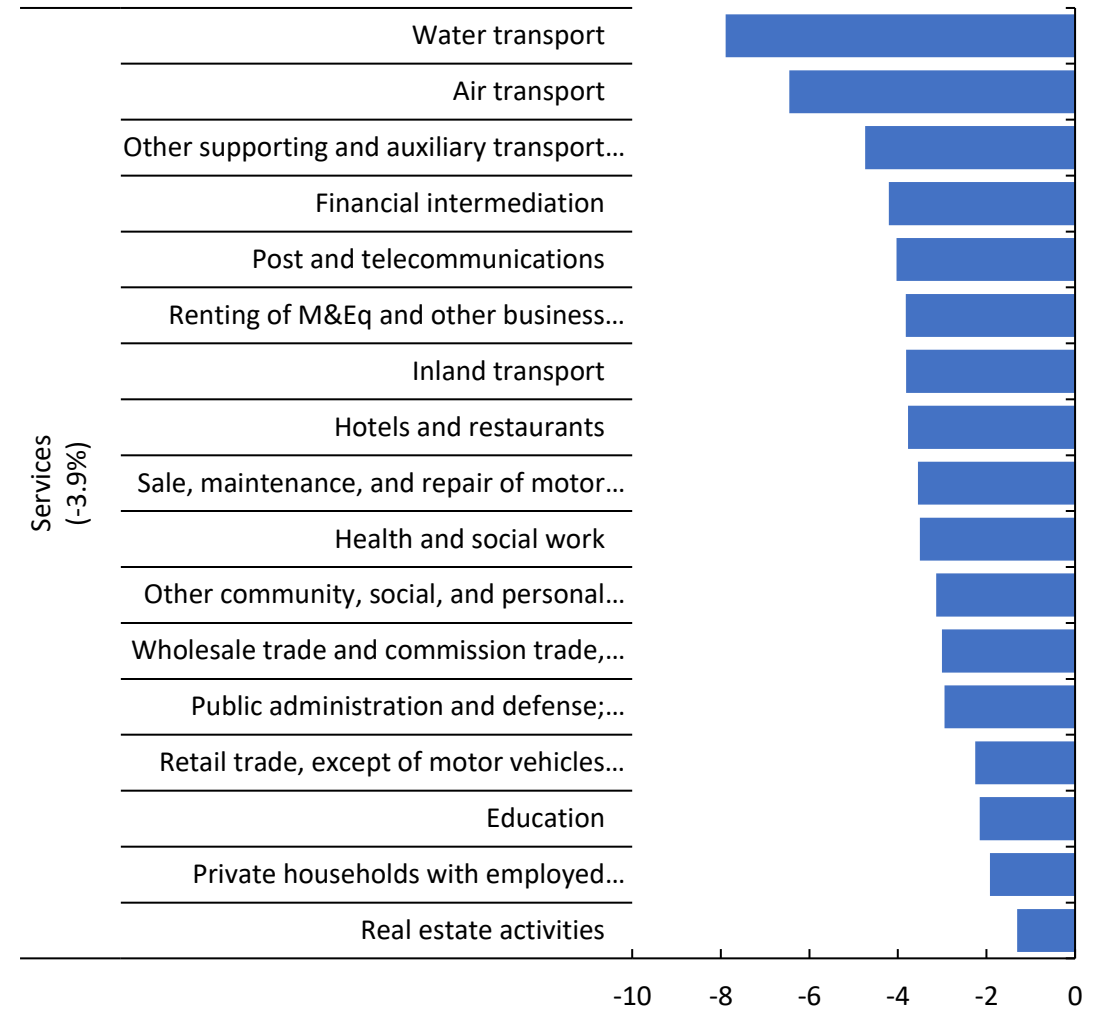
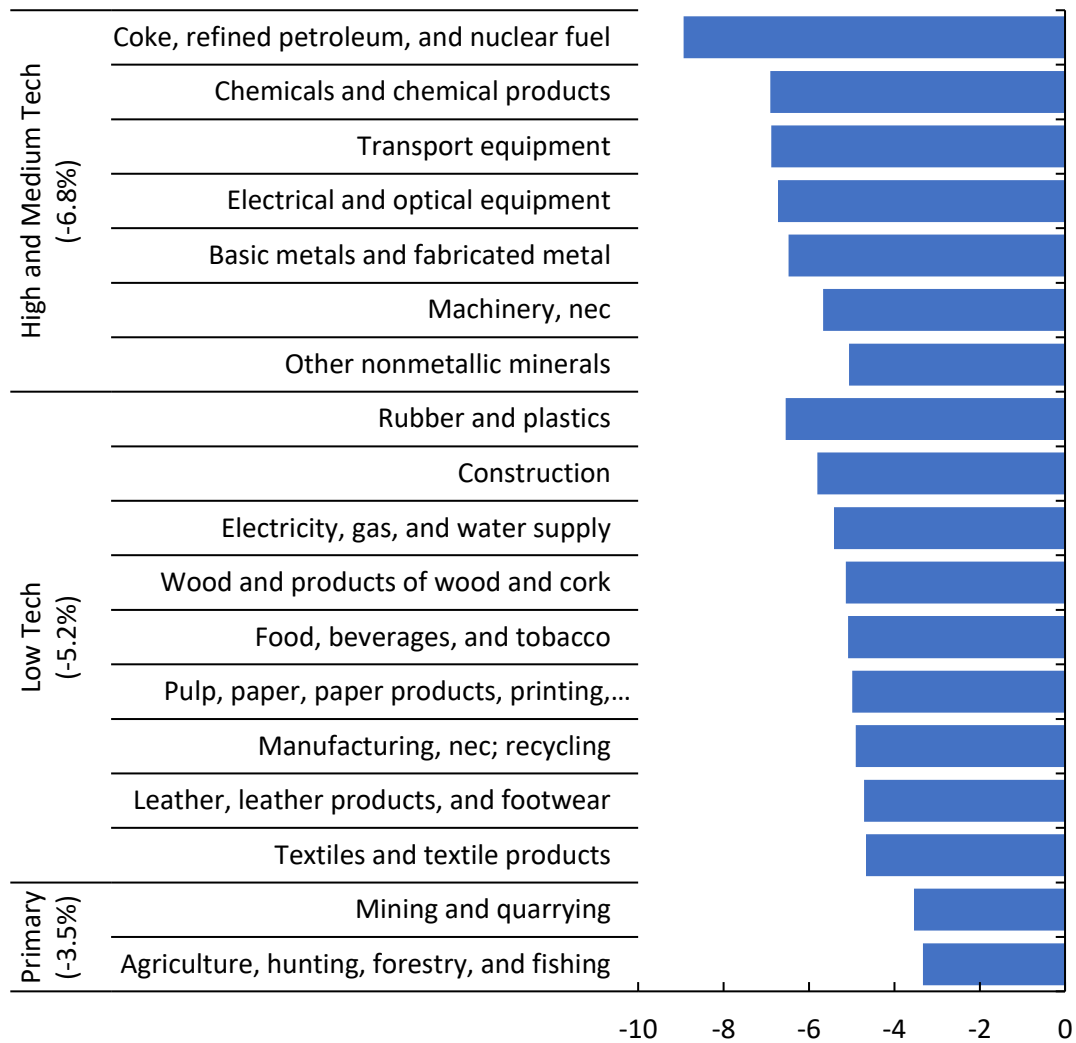
World trade in goods and services (\$ trillion)



Notes: Based on assumption of 50% substitution rate, which means that 50% of reshored capacity is replaced by domestic production. Reshoring rate (10% and 20%) refers to the share of imported intermediate goods for further processing for exports and outsourced production that the main exporter will cut-off. IMF World Economic Outlook April 2021 forecasts were used to estimate world trade in goods and services for 2021 and average trade growth in 2010-2021 for the baseline 2022-2025 period.

Sources: ADB calculations using data from ADB. Multi-Regional Input-Output Tables based on methodology by Wang, Wei, and Zhu (2014); International Monetary Fund. World Economic Outlook April 2019 and October 2020 Databases; and World Bank. World Development Indicators.

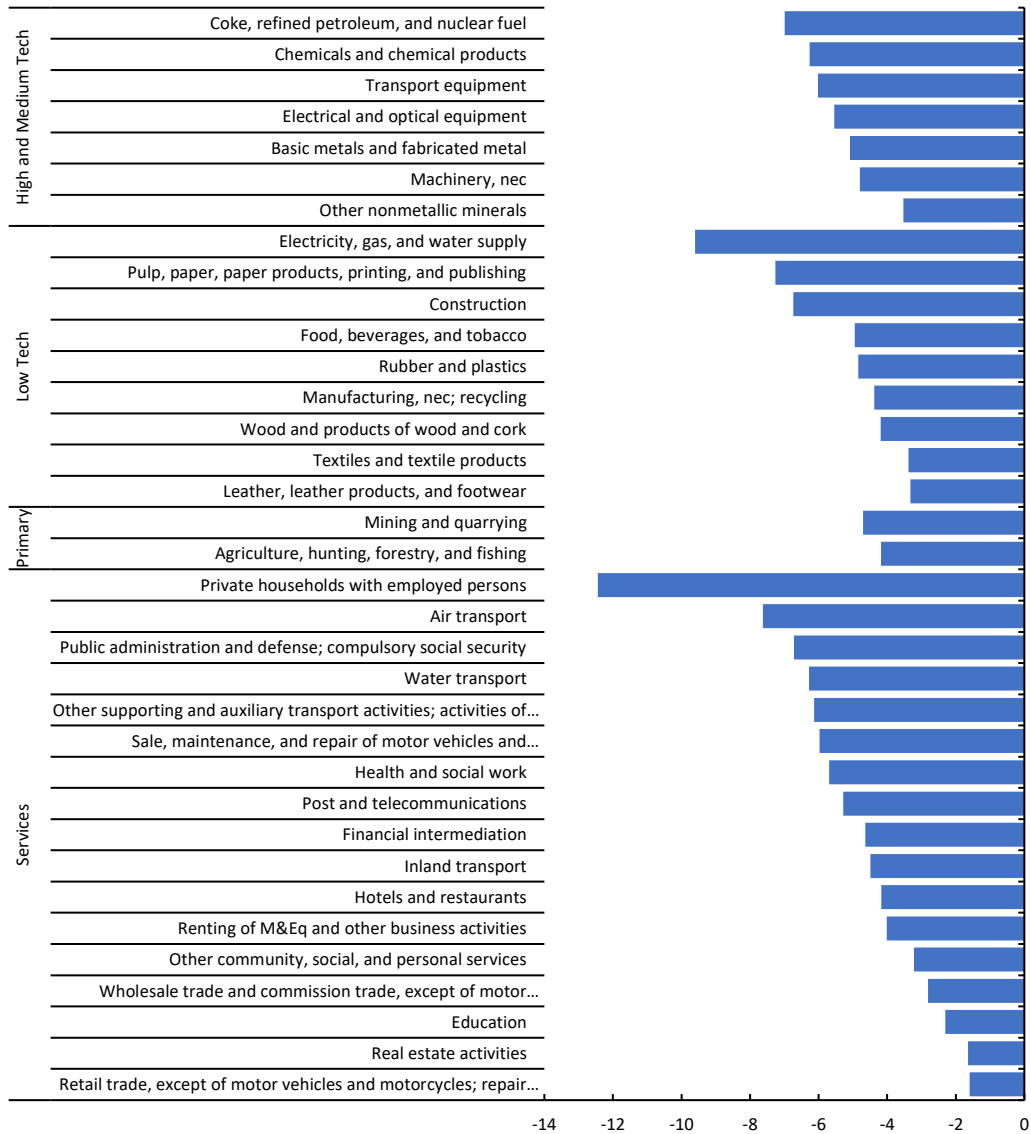
Decline in Total Trade per Industry (%)



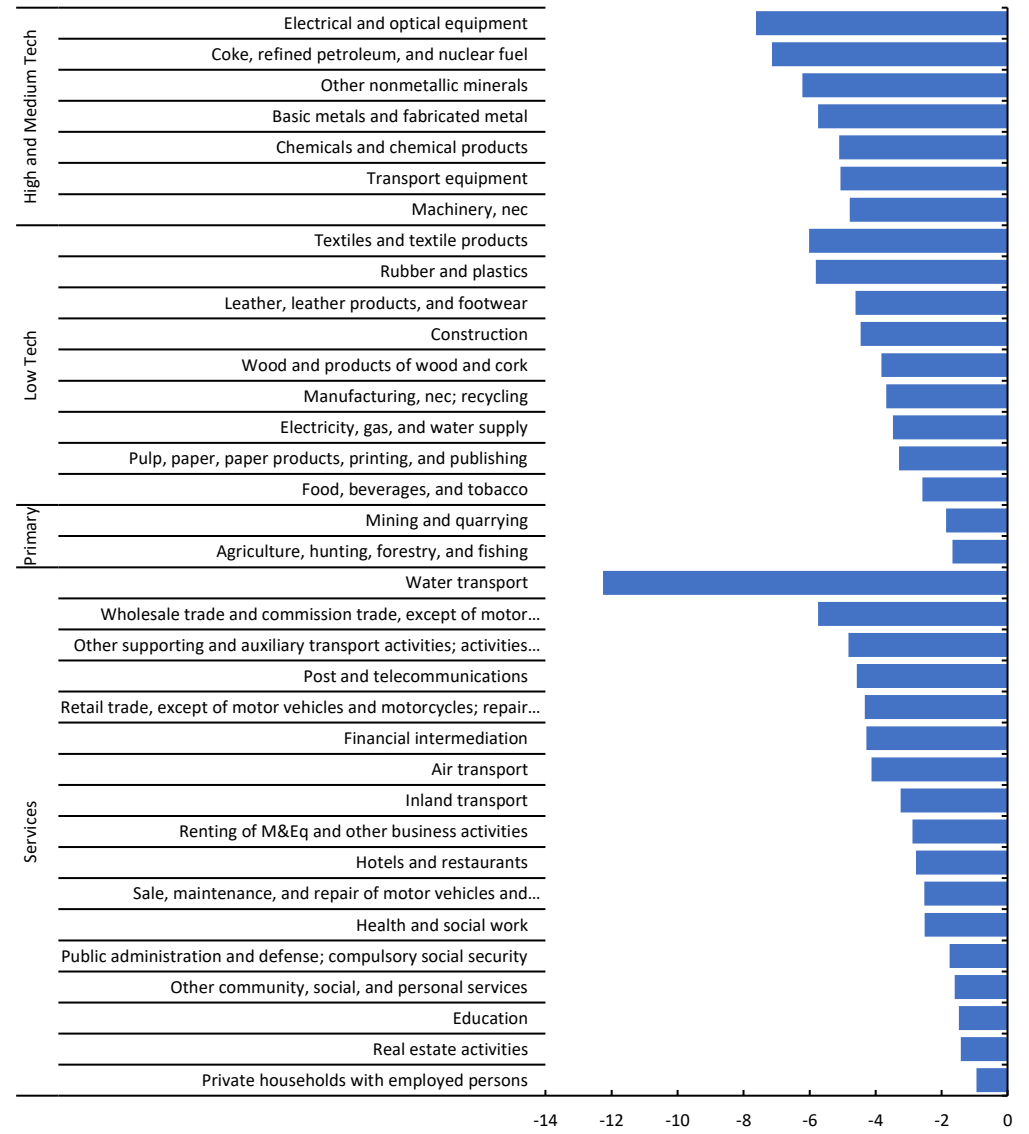
Sources: Asian Development Bank (ADB) calculations using data from ADB. Multi-Regional Input-Output Tables; and methodology by Wang, Wei, and Zhu (2013).

Decline in Asia's Exports and Imports per Industry (%)

Decline in Asia's Exports (%)



Decline in Imports (%)



Sources: Asian Development Bank (ADB) calculations using data from ADB. Multi-Regional Input-Output Tables; and methodology by Wang, Wei, and Zhu (2013).

Conclusion

- Recent events, including trade conflicts and COVID-19 lockdowns, have prompted policy makers and businesses to consider reshoring of supply chains to mitigate the adverse effects of these trade shocks.
- Using the ADB's MRIO Tables to simulate the direct and spillover effects of reshoring, estimates suggest that reshoring by 5%–10% can lead to a 5.3% to 13.3% decrease in global trade from its base value.
- Impact will be heterogeneous across sectors and regions depending upon the depth of supply chain linkages.

Thank you!

ERC D/ERCI team

