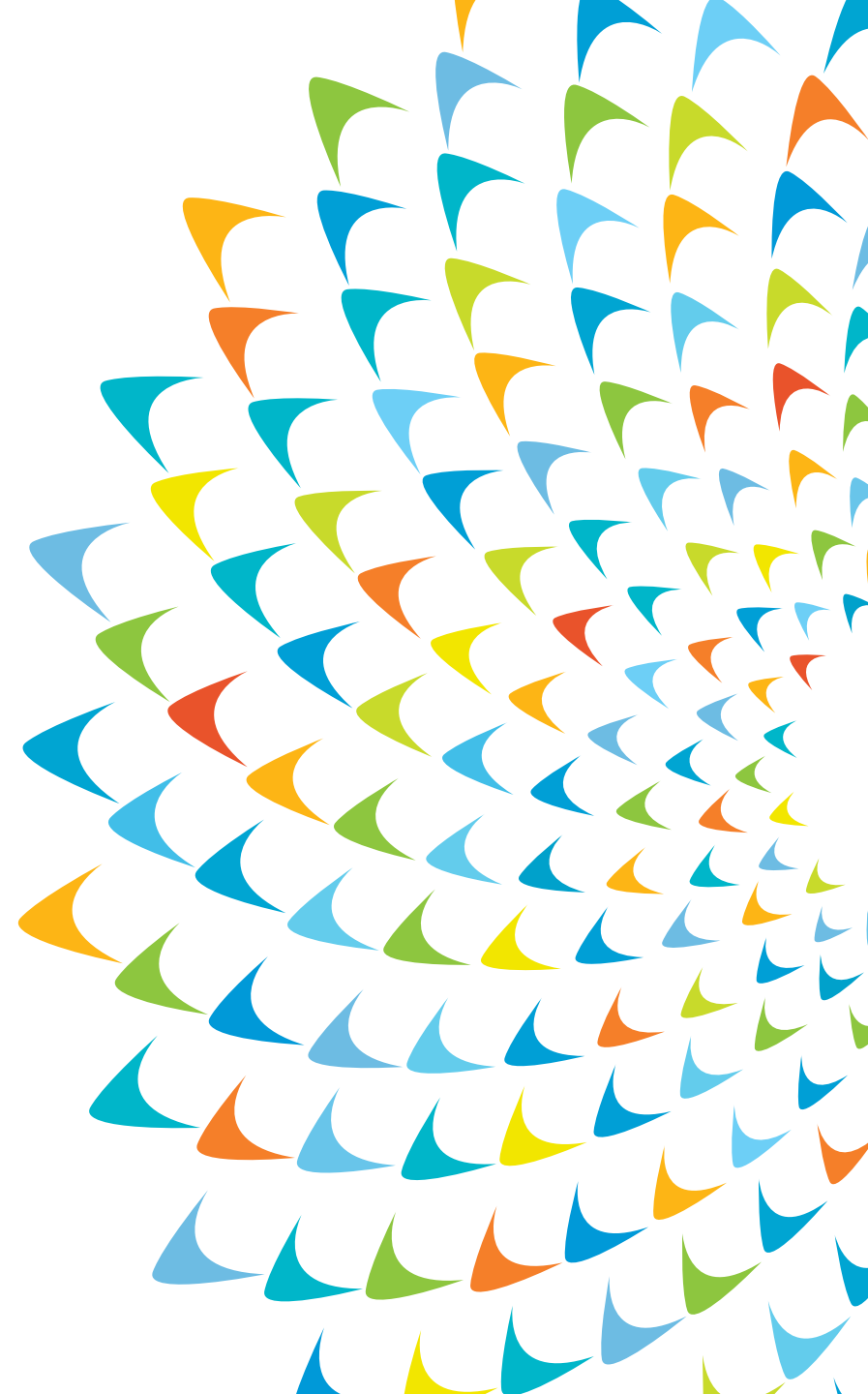


Decarbonizing Value Chains in the CAREC Region

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Asian Development Bank



CAREC region is the least integrated compared to other subregional initiatives

- **The Asia-Pacific Regional Cooperation and Integration Index (ARCII):**

- ARCII uses data 8 dimensions to assess intraregional integration across Asia-Pacific
- Scale of 0 (least integrated) and 1 (most integrated)

- **CAREC Regional Integration Index (CRII):**

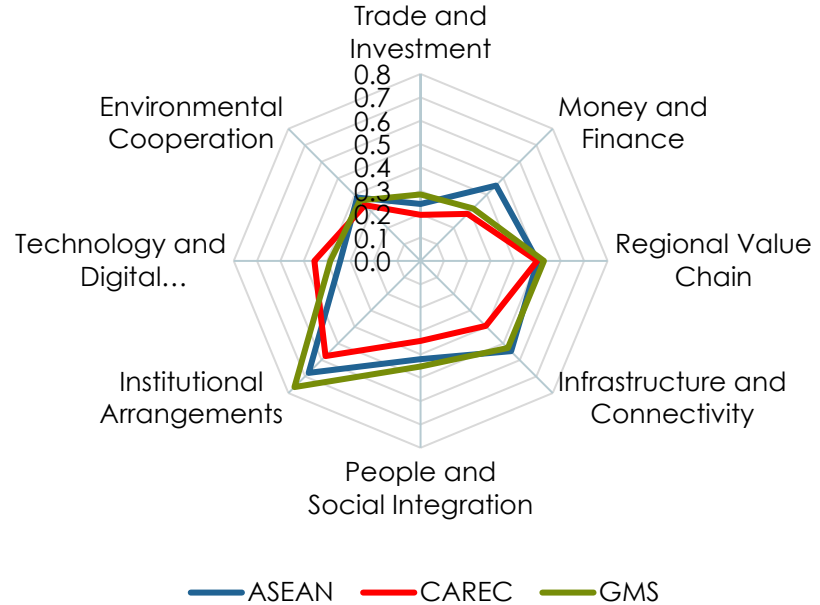
- 6 socio-economic dimensions (with 26 constituent indicators) for each of the CAREC member countries and the region.
- CAREC region is the least integrated in Asia in Regional Value Chain dimension

- **UN ESCAP Digital and Sustainable Trade Facilitation Score 2023:**

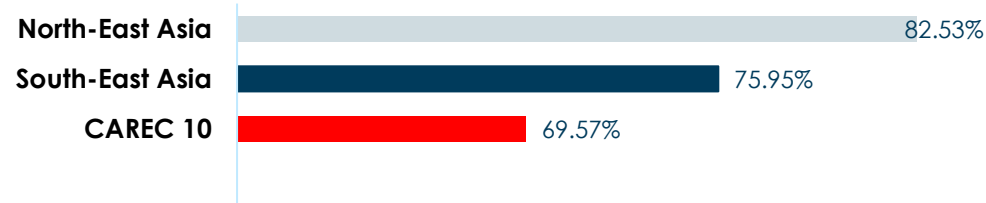
- Comparative analysis of 60 trade facilitation, cutting-edge paperless and cross-border trade facilitation measures implemented across over 140 countries and five regions worldwide.
- 0% (zero implementation) -100% (perfect implementation) scale

To enhance resilience to supply chain disruptions and food security, CAREC members more than ever need to work in unison to reinvigorate regional cooperation.

ARCII: Integration within subregional initiatives, 2021



UN ESCAP Trade Facilitation and Paperless Trade Scores 2023



Note: CAREC 10 (average for CAREC without PRC)

ARCII = Asia-Pacific Regional Cooperation and Integration Index, ASEAN = Association of Southeast Asian Nations, CAREC = Central Asia Regional Economic Cooperation, GMS = Greater Mekong Subregion,



Source: ADB, Asian Economic Integration Report 2023. The UN Global Survey on Digital and Sustainable Trade Facilitation. UN ESCAP, 2023.

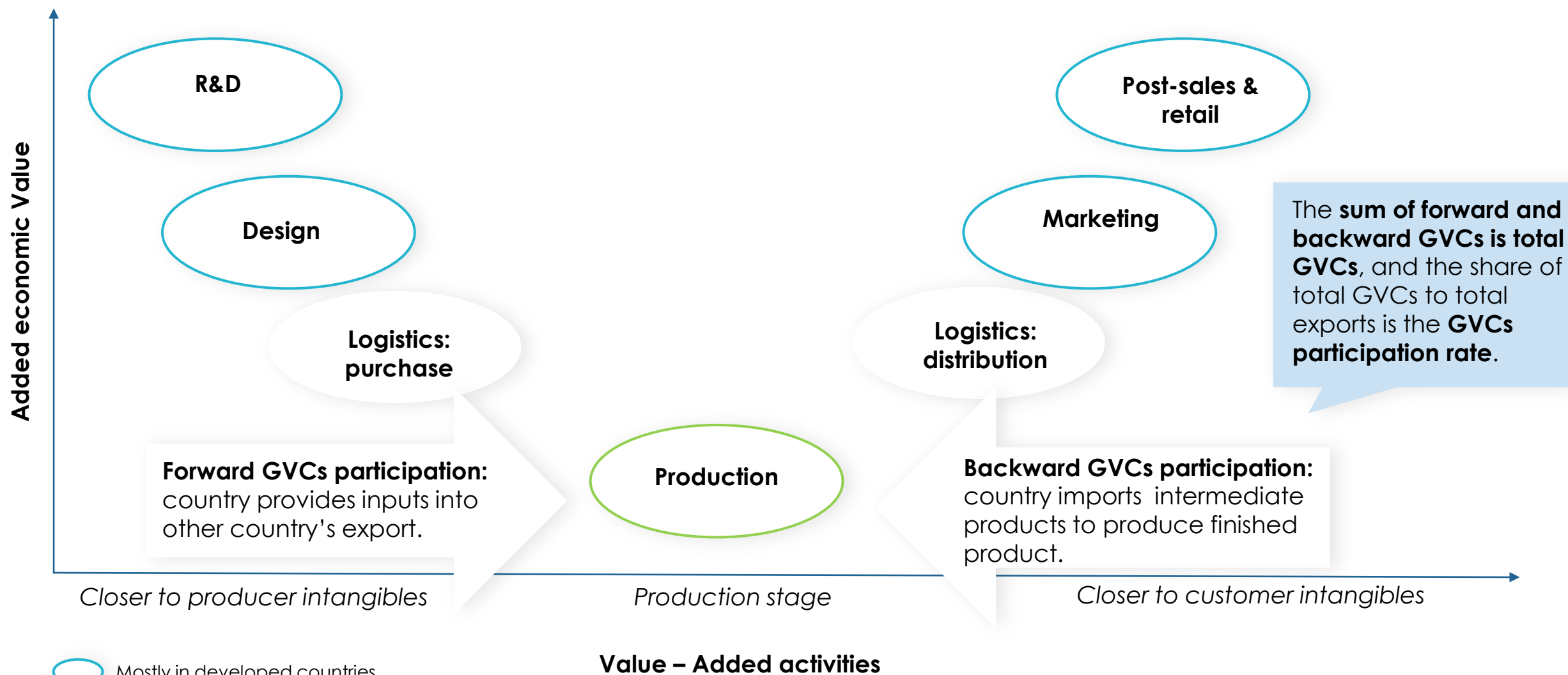
Note: UN ESCAP Trade Facilitation Score measured six components, namely customs, infrastructure, international shipments, logistics quality and competence, tracking and tracing, and timeliness





**CAREC's GVCs
participation:
challenges and
opportunities**

What are Global Value Chains (GVCs) and why are they important?



- Mostly in developed countries
- Mostly in developing countries



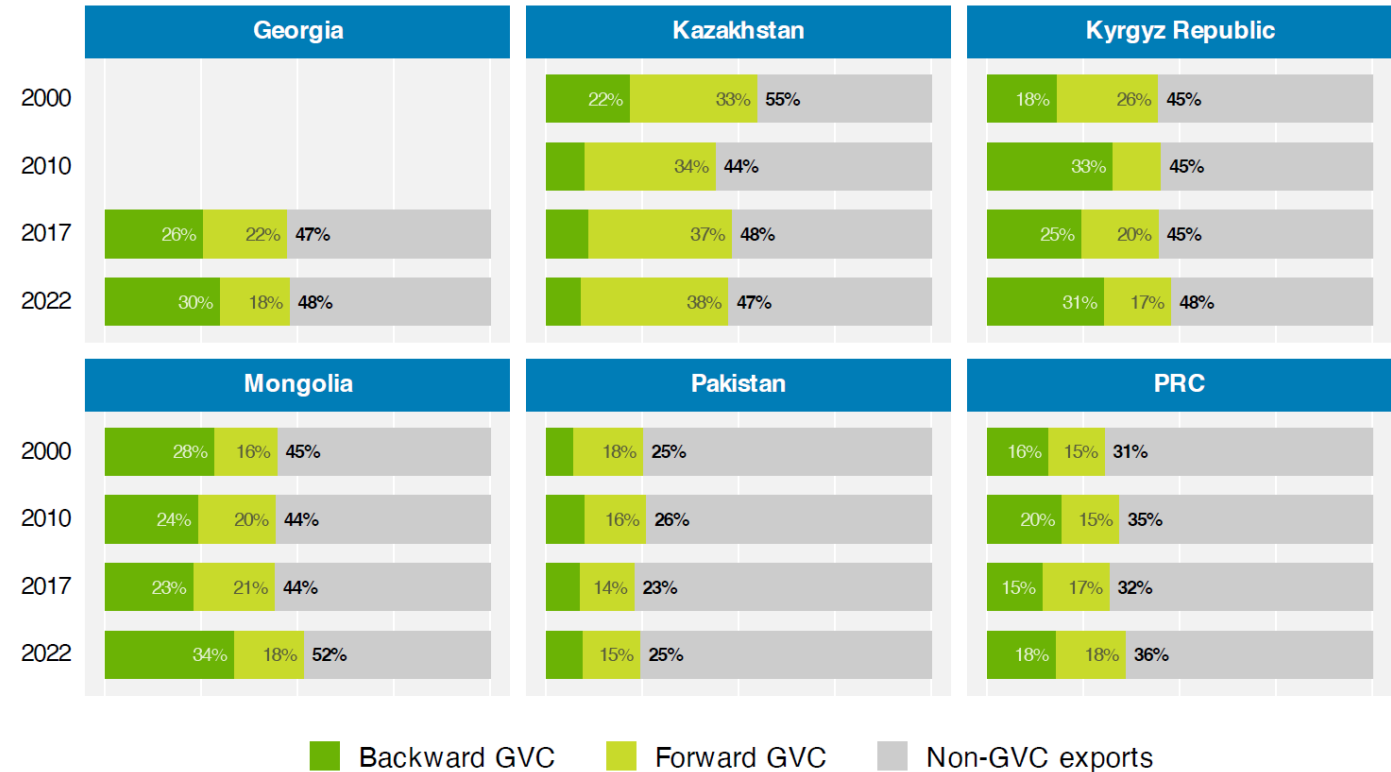
Source: ADB 2021. Global Value Chain Development Report 2021. Fernandez-Stark, Gereffi (2011). "Where are the high-value added activities in GVCs?"



How well CAREC countries are integrated in the GVCs?

- The highest GVC participation rate found in **Mongolia**: over 50% of its gross exports were involved in GVCs.
- **Georgia and the Kyrgyz Republic have the second highest GVC linkages.**
- **Kazakhstan's GVC participation differs from above three countries** in more of its forward GVC linkage.
- In contrast, Pakistan had less than 25% of its exports involved in GVCs. Having specialized in textiles, **Pakistan mainly exports finished products that contain little imported inputs.**
- The PRC has the most balanced GVCs participation.

Global value chain participation rate*, 2000, 2010, 2017, 2022



* Note: (i) The sum of forward and backward GVCs is total GVCs, and the share of total GVCs to total exports is the GVC participation rate. (ii) Forward GVCs involve reexporting by the partner economy. Backward GVCs involve foreign inputs by the exporting economy. Non-GVC exports are all exports where value added cross only one border.



CAREC = Central Asia Regional Economic Cooperation; GVC = global value chain
 Notes: Gross exports are decomposed in forward GVC, backward GVC, and non-GVC components using the methodology in Asian Development Bank (2021).
 Sources: Asian Development Bank. 2021. Key Indicators for Asia and the Pacific 2021. Manila, Philippines: Asian Development Bank; Asian Development Bank. Multiregional Input-Output Database (July 2023).
<https://kidb.adb.org/mrio> (accessed 1 September 2023); Asian Development Bank estimates.



CAREC members trade substantially less within CAREC compared with outside partners

Structure of value-added trade, average 2017–2022, %

(a) By exports

| Exporter | Importer | | | | | | | | |
|--------------------|----------|------------|-----------------|----------|----------|-------|--------------------|---------------|---------------|
| | Georgia | Kazakhstan | Kyrgyz Republic | Mongolia | Pakistan | PRC | Russian Federation | United States | Rest of world |
| Georgia | | 2.02 | 0.16 | 0.05 | 0.10 | 7.05 | 11.07 | 9.88 | 69.67 |
| Kazakhstan | 0.10 | | 0.72 | 0.08 | 0.13 | 16.60 | 10.27 | 6.81 | 65.28 |
| Kyrgyz Republic | 0.36 | 9.67 | | 0.07 | 0.13 | 7.29 | 14.91 | 5.09 | 62.47 |
| Mongolia | 0.01 | 0.25 | 0.02 | | 0.19 | 66.71 | 2.29 | 5.46 | 25.05 |
| Pakistan | 0.03 | 0.27 | 0.03 | 0.02 | | 6.76 | 1.53 | 23.31 | 68.06 |
| PRC | 0.03 | 0.27 | 0.07 | 0.09 | 0.57 | | 2.32 | 21.14 | 75.52 |
| Russian Federation | 0.25 | 1.88 | 0.28 | 0.23 | 0.19 | 15.09 | | 9.71 | 72.37 |
| United States | 0.03 | 0.12 | 0.02 | 0.02 | 0.22 | 12.08 | 1.03 | | 86.48 |
| Rest of world | 0.04 | 0.15 | 0.01 | 0.02 | 0.24 | 12.46 | 1.49 | 16.17 | 69.42 |

Rows represent the export destinations of each economy. Sum of each row is 100%

(b) By imports

| Importer | Exporter | | | | | | | | |
|--------------------|----------|------------|-----------------|----------|----------|-------|--------------------|---------------|---------------|
| | Georgia | Kazakhstan | Kyrgyz Republic | Mongolia | Pakistan | PRC | Russian Federation | United States | Rest of world |
| Georgia | | 0.29 | 0.16 | 0.04 | 0.01 | 0.02 | 0.21 | 0.02 | 0.03 |
| Kazakhstan | 0.72 | | 7.34 | 0.69 | 0.14 | 0.45 | 1.97 | 0.14 | 0.27 |
| Kyrgyz Republic | 0.09 | 0.51 | | 0.02 | 0.01 | 0.01 | 0.11 | 0.00 | 0.01 |
| Mongolia | 0.01 | 0.04 | 0.03 | | 0.02 | 0.20 | 0.05 | 0.01 | 0.01 |
| Pakistan | 0.09 | 0.17 | 0.14 | 0.06 | | 0.08 | 0.13 | 0.21 | 0.12 |
| PRC | 7.84 | 17.27 | 30.77 | 31.19 | 26.25 | | 19.59 | 18.55 | 13.64 |
| Russian Federation | 13.70 | 21.54 | 22.92 | 15.32 | 1.62 | 3.29 | | 1.55 | 2.38 |
| United States | 6.63 | 6.67 | 5.83 | 7.72 | 8.71 | 12.27 | 7.39 | | 13.25 |
| Rest of world | 70.92 | 53.51 | 32.82 | 44.96 | 63.25 | 83.68 | 70.55 | 79.52 | 70.29 |

Columns represent the import sources of each economy. Sum of each column is 100%

- Intra-regional exports are very small. Export shares outside of CAREC are absorbed by the Russian Federation receiving over 10% of the exports of Georgia, Kazakhstan, and the Kyrgyz Republic and the United States receiving over 20% of the exports of Pakistan.
- While the PRC is a major export and import partner for the other CAREC economies, its share in their trade is far lower than what its size would suggest, resulting in very low Regional Concentration Index for the whole CAREC region.



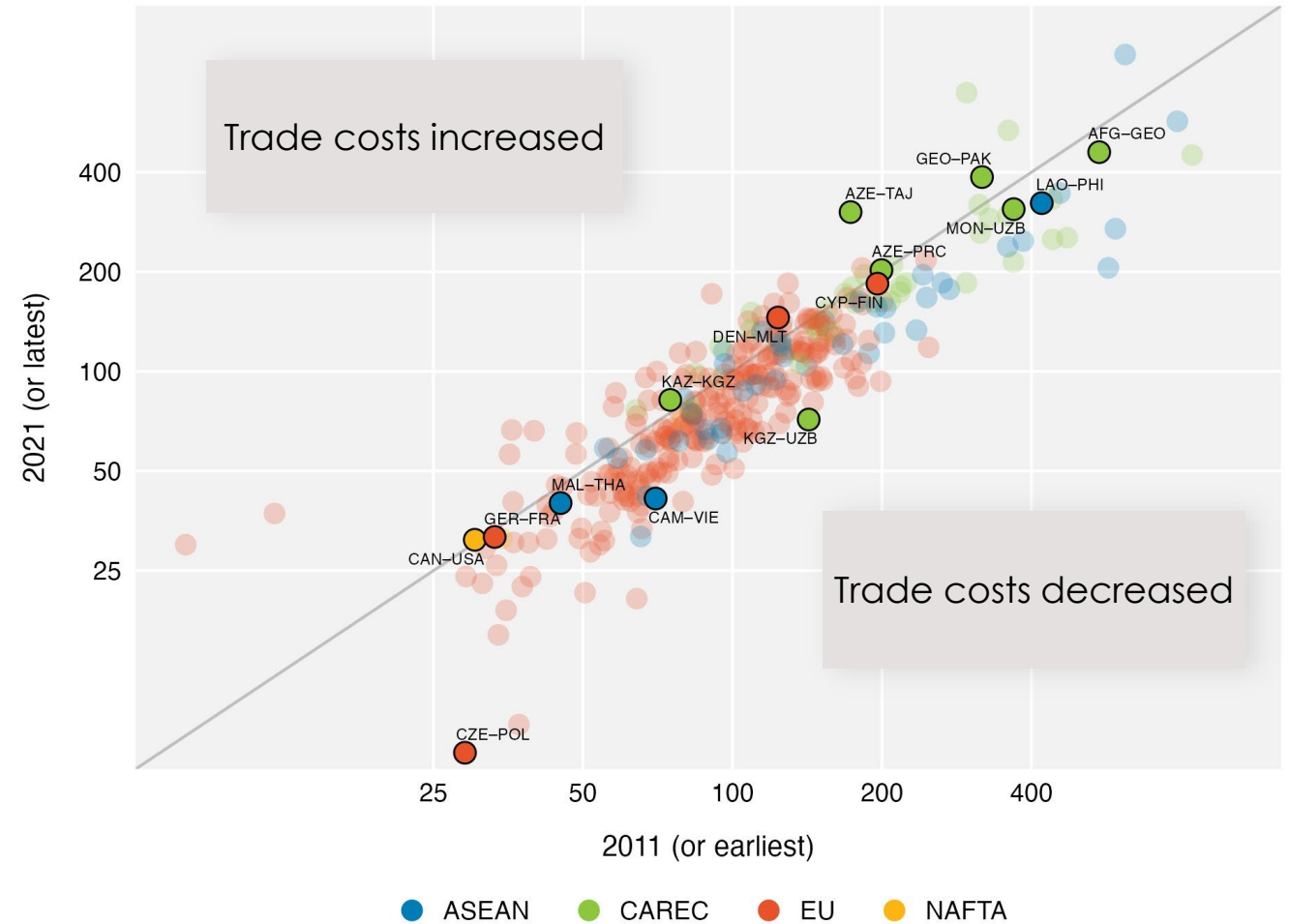
CAREC = Central Asia Regional Economic Cooperation; PRC = People's Republic of China
 Notes: Underlying values are value added flows in US\$ as calculated in ADB (2021).
 Sources: Asian Development Bank, Multiregional Input-Output Database (July 2023). <https://kiddb.adb.org/mrio> (accessed 1 September 2023); Asian Development Bank estimates.



Trade costs are much higher in CAREC region compared to the other blocs...

- Significant part of bilateral trade costs among CAREC members stem from nontariff costs.
- ADB's CAREC Corridor Performance Measuring and Monitoring (CPMM) in 2022 reported that trade barriers among CAREC countries are coming from regulatory and institutional barriers, such as unharmonized transit arrangements, vehicle specifications, and sanitary and phytosanitary (SPS) standards.

Inter-bloc bilateral trade costs, selected blocs, 2011 versus 2021 (%)



ASEAN = Association of Southeast Asian Nations; CAREC = Central Asia Regional Economic Cooperation; EU = European Union; NAFTA = North American Free Trade Agreement
Notes: Axes are in log scale. Numbers represent percent change in costs relative to domestic trade. Where 2011 or 2021 figures are unavailable, the earliest and latest available figure, respectively, is used.
Source: ESCAP World Bank. International Trade Costs (May 2023). <https://www.unescap.org/resources/escap-world-bank-trade-cost-database> (accessed 1 September 2023).



...and highest share of trade cost is coming from nontariff costs.

Tariff and nontariff trade costs, 2021 or latest value (%)

Tariff costs

| | | | | | | | | | | | | | | | | | | | | |
|-----------------|-------------|------------|---------|------------|-----------------|----------|----------|-----|------------|--------------|--|--|--|--|--|--|--|--|--|--|
| | Afghanistan | | | | | | | | | | | | | | | | | | | |
| Azerbaijan | 9.9 | Azerbaijan | | | | | | | | | | | | | | | | | | |
| Georgia | | 0.0 | Georgia | | | | | | | | | | | | | | | | | |
| Kazakhstan | 7.3 | 0.0 | 0.0 | Kazakhstan | | | | | | | | | | | | | | | | |
| Kyrgyz Republic | 8.3 | 0.6 | 0.0 | 0.0 | Kyrgyz Republic | | | | | | | | | | | | | | | |
| Mongolia | | 6.7 | 2.9 | 7.8 | 6.4 | Mongolia | | | | | | | | | | | | | | |
| Pakistan | 8.4 | 11.3 | 5.4 | 9.3 | 11.4 | 9.2 | Pakistan | | | | | | | | | | | | | |
| PRC | 7.5 | 8.2 | 0.2 | 6.2 | 7.3 | 5.3 | 6.0 | PRC | | | | | | | | | | | | |
| Tajikistan | 6.5 | 0.0 | 0.8 | 0.0 | 0.0 | 7.7 | 8.7 | 7.3 | Tajikistan | | | | | | | | | | | |
| Turkmenistan | 11.4 | 8.9 | 6.7 | 1.9 | 1.2 | | 7.8 | 7.5 | 8.6 | Turkmenistan | | | | | | | | | | |
| Uzbekistan | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 11.2 | 7.2 | 0.4 | 3.5 | | | | | | | | | | |

Nontariff costs

| | | | | | | | | | | | | | | | | | | | | |
|-----------------|-------------|------------|---------|------------|-----------------|----------|----------|------|------------|--|--|--|--|--|--|--|--|--|--|--|
| | Afghanistan | | | | | | | | | | | | | | | | | | | |
| Azerbaijan | 218† | Azerbaijan | | | | | | | | | | | | | | | | | | |
| Georgia | | 77 | Georgia | | | | | | | | | | | | | | | | | |
| Kazakhstan | 147† | 151* | 134* | Kazakhstan | | | | | | | | | | | | | | | | |
| Kyrgyz Republic | 31† | 178 | 163 | 82* | Kyrgyz Republic | | | | | | | | | | | | | | | |
| Mongolia | | 631* | 516† | 187* | 241 | Mongolia | | | | | | | | | | | | | | |
| Pakistan | 80† | 287 | 362 | 290* | 255 | 432‡ | Pakistan | | | | | | | | | | | | | |
| PRC | 193† | 179 | 185 | 87* | 122 | 110 | 104 | PRC | | | | | | | | | | | | |
| Tajikistan | 162† | 303* | 171* | 119* | 131* | 736§ | 234* | 177* | Tajikistan | | | | | | | | | | | |
| Turkmenistan | | | | | | | | | | | | | | | | | | | | |
| Uzbekistan | | 154 | 162 | 77* | 72 | 297 | 156 | 117 | 105* | | | | | | | | | | | |

To facilitate trade and reduce trade costs among CAREC, nontariff barriers need to be significantly reduced.



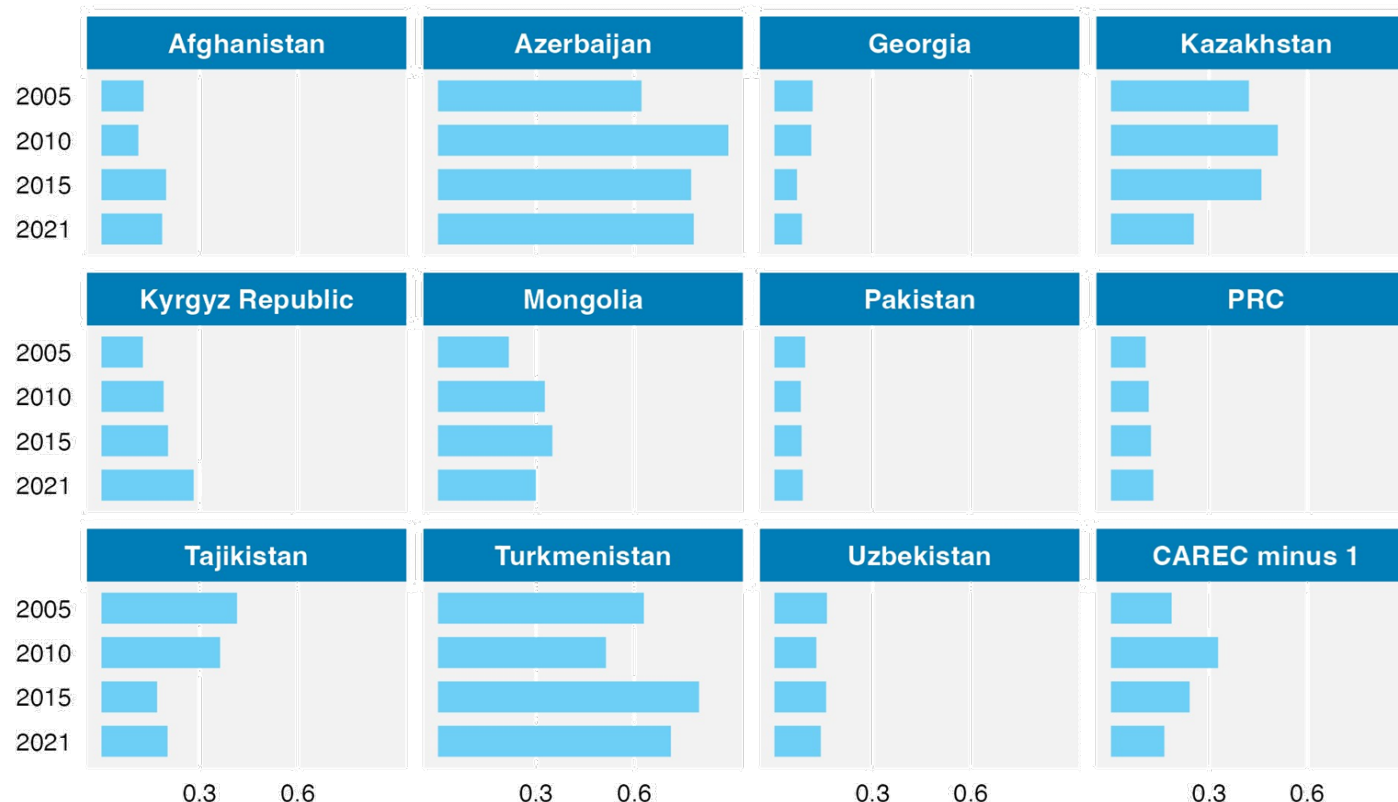
CAREC = Central Asia Regional Economic Cooperation; PRC = People's Republic of China; * = 2020; † = 2019; ‡ = 2017; § = 2013
 Notes: Numbers represent percent change in costs relative to domestic trade.
 Source: ESCAP World Bank. International Trade Costs (May 2023). <https://www.unescap.org/resources/escap-world-bank-trade-cost-database> (accessed 1 September 2023).



CAREC member countries have high export concentration and..

- **Most CAREC countries have the most concentrated exports in the world, with a large reliance on primary-sector-related exports.**
- Most CAREC countries are positioned relatively **upstream in GVCs**, some sectors show **higher than average forward participation.**
- As of 2021, **the most highly concentrated exports were in Azerbaijan and Turkmenistan**, and **more diversified exporters were in Pakistan, Georgia, after the PRC.**

Export products' concentration, 2005, 2010, 2015, 2021



Notes: Numbers are Herfindahl-Hirschman indexes, computed on products disaggregated at the 2-digit level of the Harmonized System, 2002 edition. A higher index implies more concentration. "CAREC minus 1" refers to CAREC excluding the People's Republic of China.

...low trade complementarity index

Trade complementarity index, CAREC member countries, 2022.

| | Importer | | | | | | | | | | |
|-----------------|-------------|------------|---------|------------|-----------------|----------|----------|------------|------|------------|------|
| | Afghanistan | Azerbaijan | Georgia | Kazakhstan | Kyrgyz Republic | Mongolia | Pakistan | Tajikistan | TKM | Uzbekistan | PRC |
| Exporter | | 14.9 | 20.9 | 9.8 | 11.4 | 25.8 | 35.1 | 18.1 | 6.5 | 11.8 | 28.7 |
| Afghanistan | | | | | | | | | | | |
| Azerbaijan | 12.8 | | 20.3 | 9.3 | 10.7 | 26.6 | 31.7 | 18.4 | 6.7 | 11.1 | 26.0 |
| Georgia | 36.1 | 45.5 | | 46.4 | 36.9 | 47.4 | 36.3 | 43.2 | 35.0 | 46.0 | 43.6 |
| Kazakhstan | 22.8 | 24.2 | 34.7 | | 16.6 | 34.5 | 43.6 | 32.2 | 15.6 | 26.2 | 44.7 |
| Kyrgyz Republic | 40.6 | 44.7 | 50.5 | 47.8 | | 42.4 | 45.5 | 53.5 | 30.7 | 39.8 | 49.0 |
| Mongolia | 11.3 | 11.7 | 21.5 | 9.1 | 9.1 | | 28.0 | 15.8 | 4.7 | 9.9 | 36.6 |
| Pakistan | 32.0 | 29.7 | 31.8 | 32.0 | 49.9 | 24.6 | | 36.0 | 23.4 | 27.7 | 26.5 |
| Tajikistan | 16.2 | 13.6 | 16.9 | 13.6 | 13.1 | 11.3 | 15.2 | | 8.3 | 14.3 | 25.0 |
| Turkmenistan | 9.4 | 11.8 | 18.2 | 6.3 | 7.7 | 24.8 | 31.7 | 16.6 | | 9.0 | 23.8 |
| Uzbekistan | 33.5 | 30.9 | 33.8 | 28.4 | 33.1 | 28.8 | 35.1 | 33.6 | 23.4 | | 34.3 |
| PRC | 31.6 | 58.1 | 48.3 | 67.0 | 47.8 | 45.6 | 46.4 | 52.4 | 75.2 | 59.2 | |

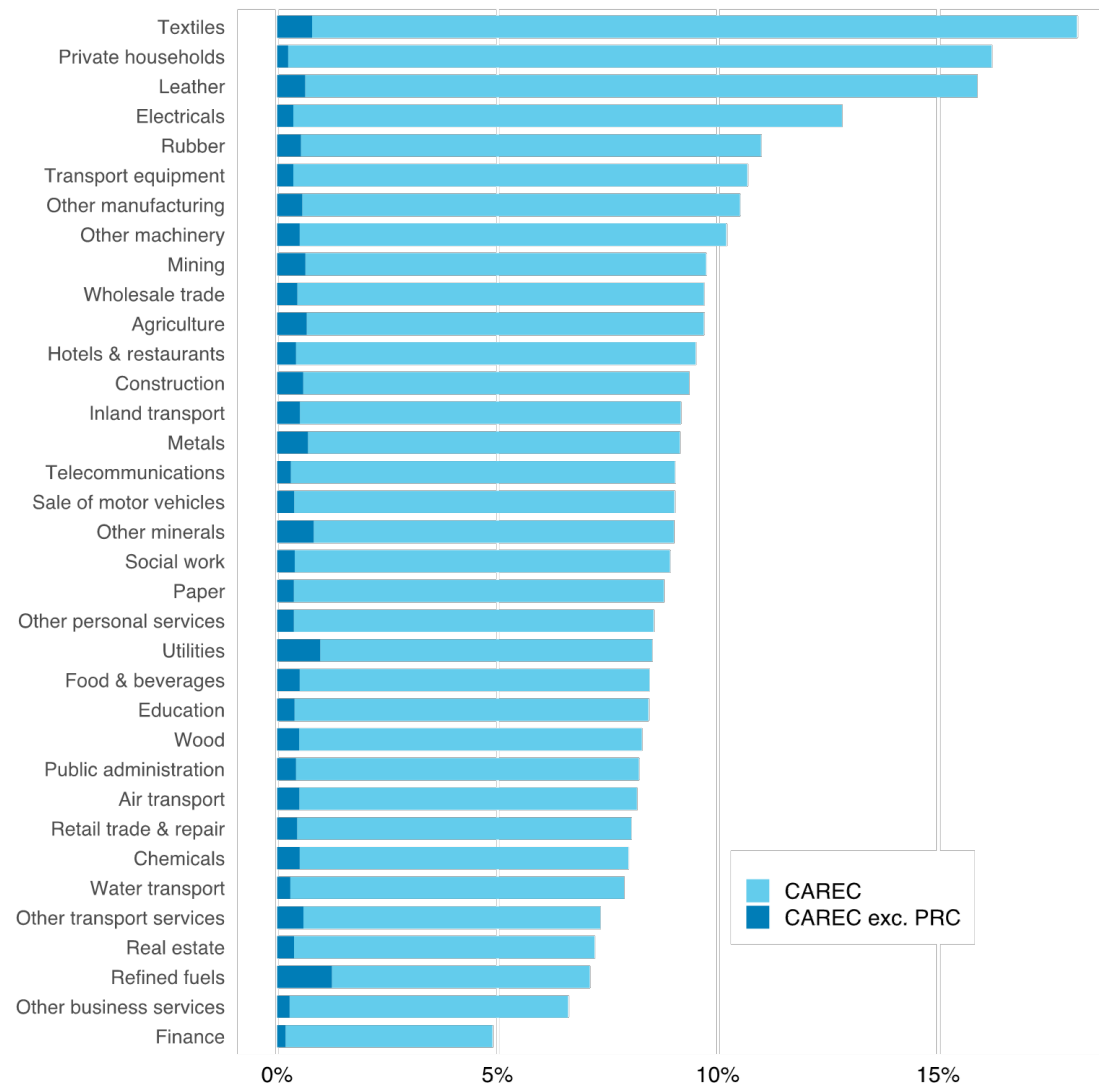
- The trade complementarity index (TCI) measures the extent to which the exports of one country and the imports of another complement one another.
- The median TCI in CAREC is 28.2, which is relatively small compared with ASEAN (42.3) and EU (67.4).
- Only a few countries have high TCI: the PRC's exports and Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan's imports; the Kyrgyz Republic's exports and Georgia, Tajikistan's imports.

How about services GVCs?

- Shift of employment, output, and trade shares from agriculture and manufacturing toward services industries is happening globally.
- **CAREC countries (excluding the PRC) are still weakly integrated in services GVCs.**
- The rise of services GVCs offers a new path for development.

To support integration into services GVCs, policy makers need to tackle obstacles to investments in human resources, since services GVCs depend more on human than physical capital.

Share in imported business service inputs, average 2017–2022



Note: Underlying totals are business services imported by each sector to produce its final goods.

Regional Value Chains in CAREC: the case of Kyrgyz garment industry

- **Kyrgyz garment industry is an example of a relatively successful regional value chain.**
- Most SMEs in the garment industry operate the Cut-Make-Trim (CMT) contracts. The design and branding activities are the most value-adding in the chain.

Advancing in the value chain requires attracting FDI and enabling environment for the private sector, investments in human resources and skills training, as well as access to finance, expansion of markets, and upgrading of the operational capacities of firms.



Garment Industry is 6% of total exports of the Kyrgyz Republic.

In 2019 the total export of the textile industry amounted to \$119 million (in 2020 it decreased to \$63 million).



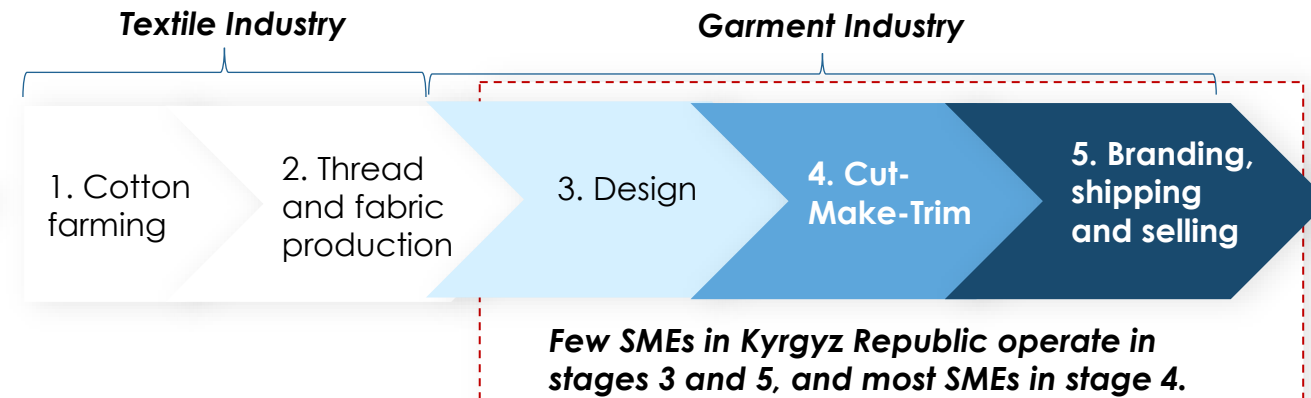
Export markets are limited to two countries.

Nearly 90% of Kyrgyz textile products are exported to Russia, and the rest to Kazakhstan.




The garment industry employs about 9% of the total labor force.

In 2019, an estimated 200,000 people worked in the garment manufacturing sector in the Kyrgyz Republic.



Note: Garment industry includes cloth design, Cut-Make-Trim, and shipping, distribution, which is more focused on producing finished products and higher labour intensive. While Textile (upstream) includes cotton farming, thread and fabric production, dyeing, which is focused on intermediate products and higher capital intensive.

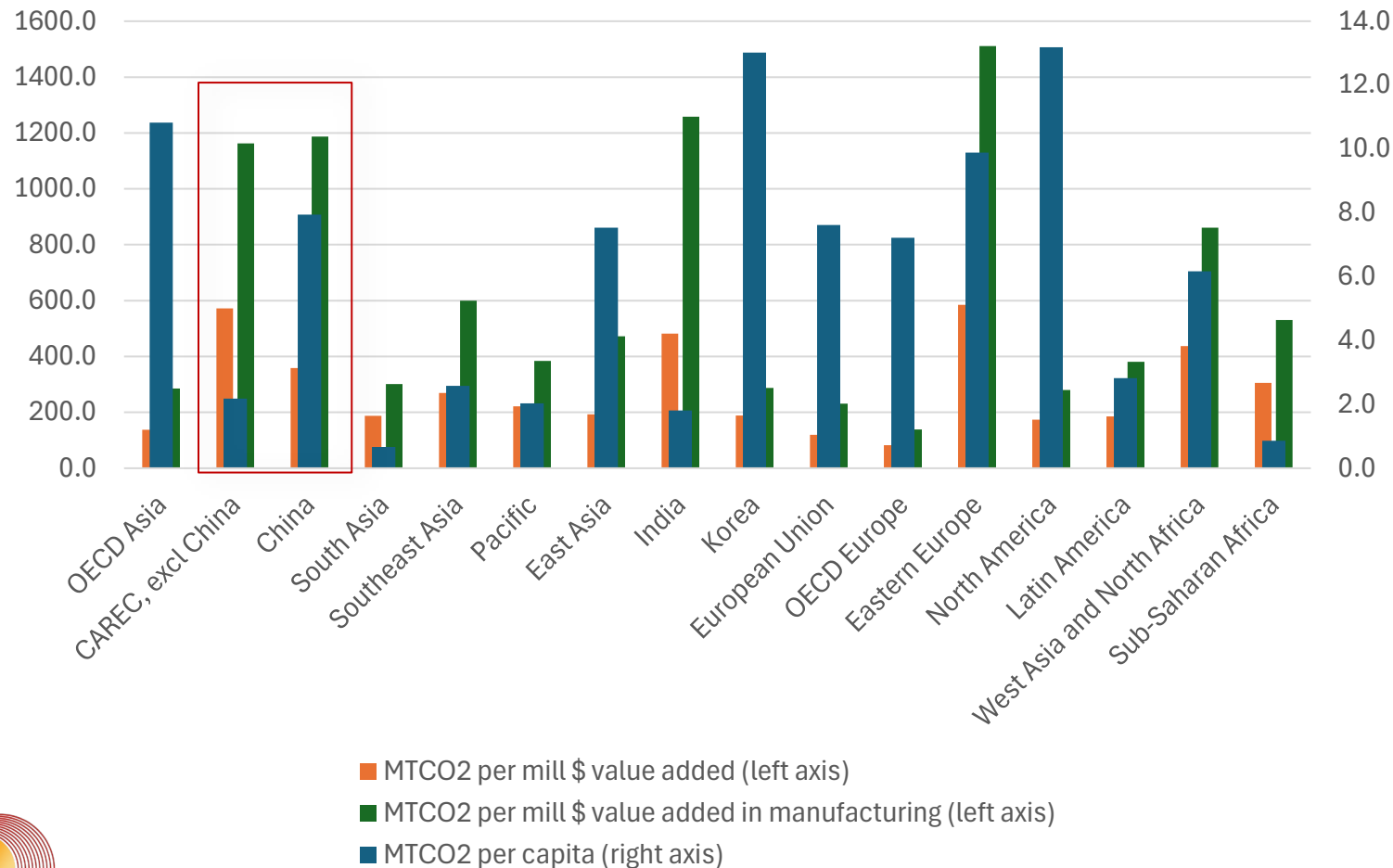
Source: CAREC Institute. RVC: Kyrgyzstan Garment Industry. November 2019.



**Decarbonizing
CAREC's GVCs
and impact of
the EU's CBAM**

Why it is important to decarbonize supply chains in CAREC member countries?

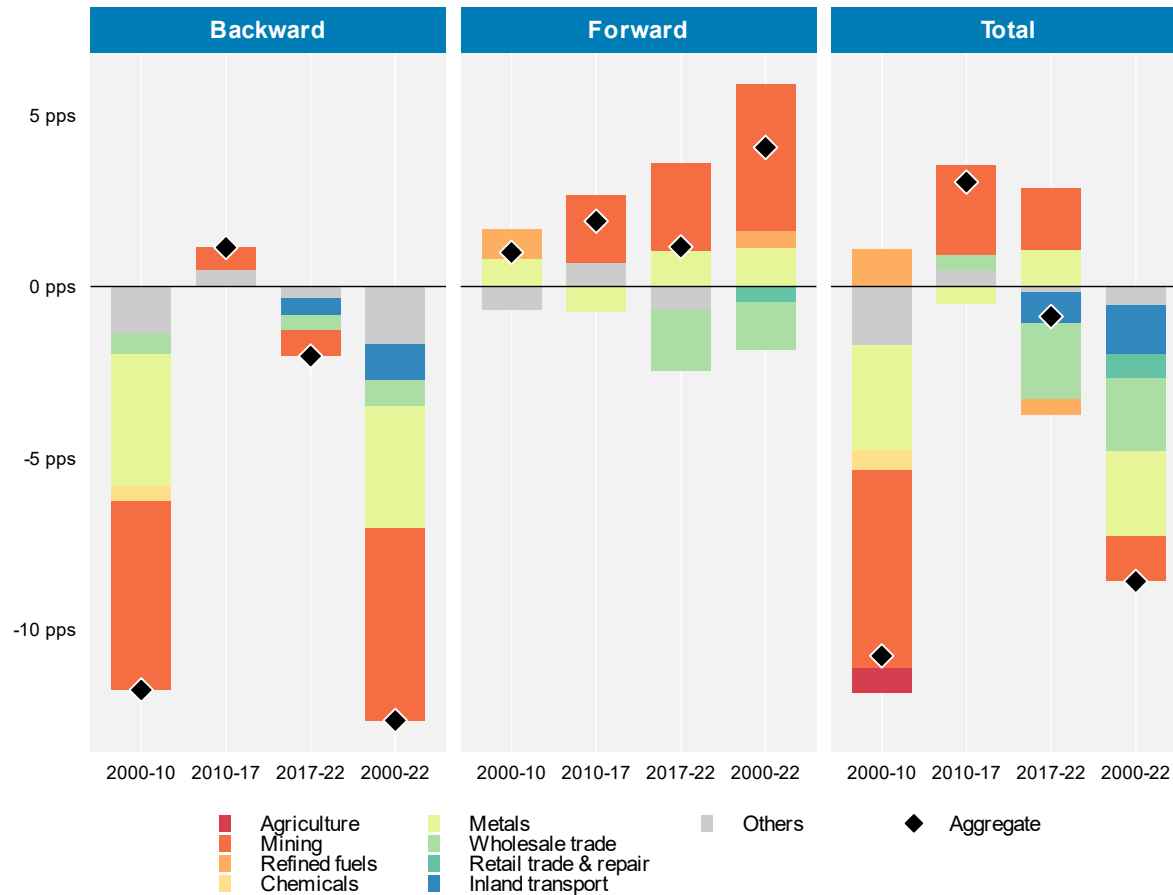
CO2 intensity across economies



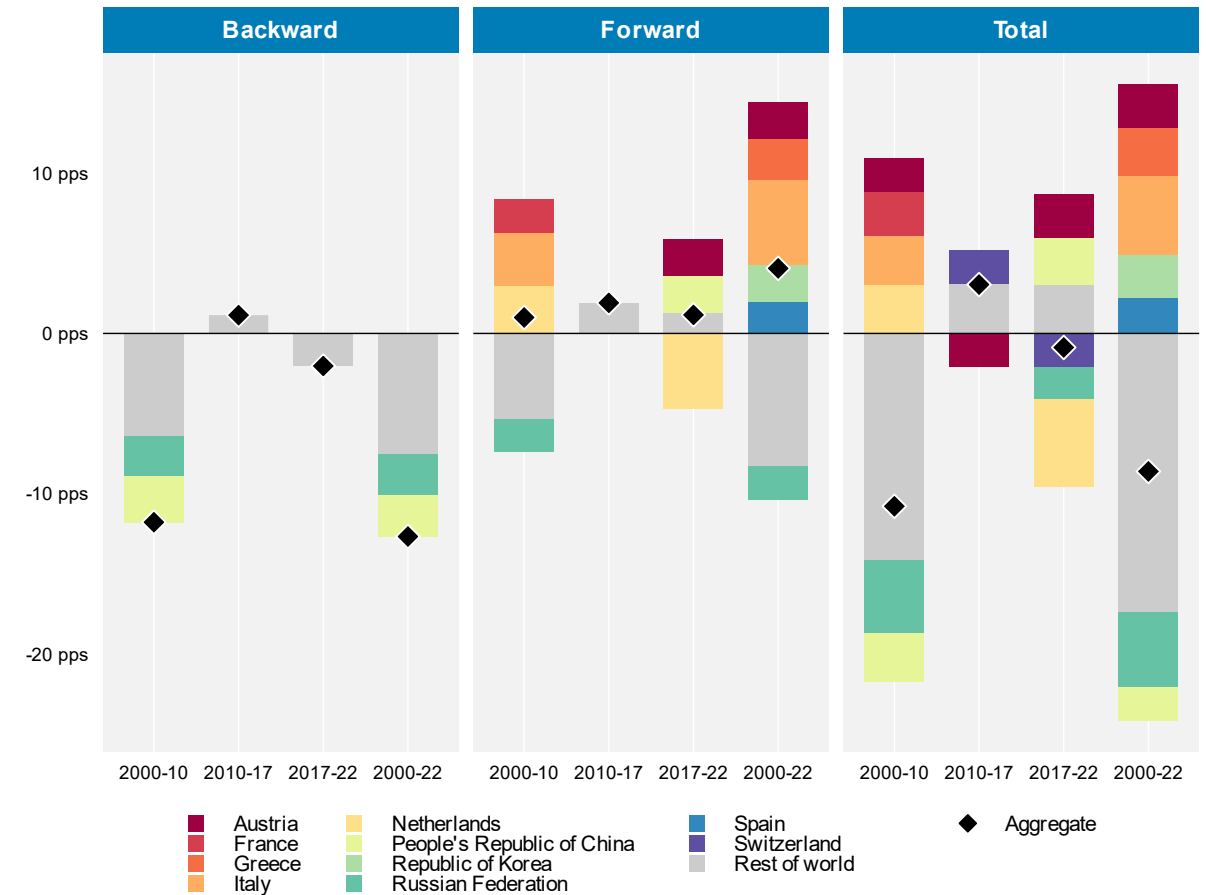
- Most CAREC countries specialize in emission-intensive sectors, and thus, **CAREC has one of the highest shares of CO2 emissions in the world in value-added manufacturing.**
- Globally, trade facilitated by GVCs dominates in more emission-intensive sectors.
- Among CAREC, the most significant changes in GVC participation rates over the last decades have come from Mongolia and Kazakhstan. On a sector basis, mining and metals were the key drivers of this change in these two countries.

Sector decomposition of GVCs participation: Mongolia

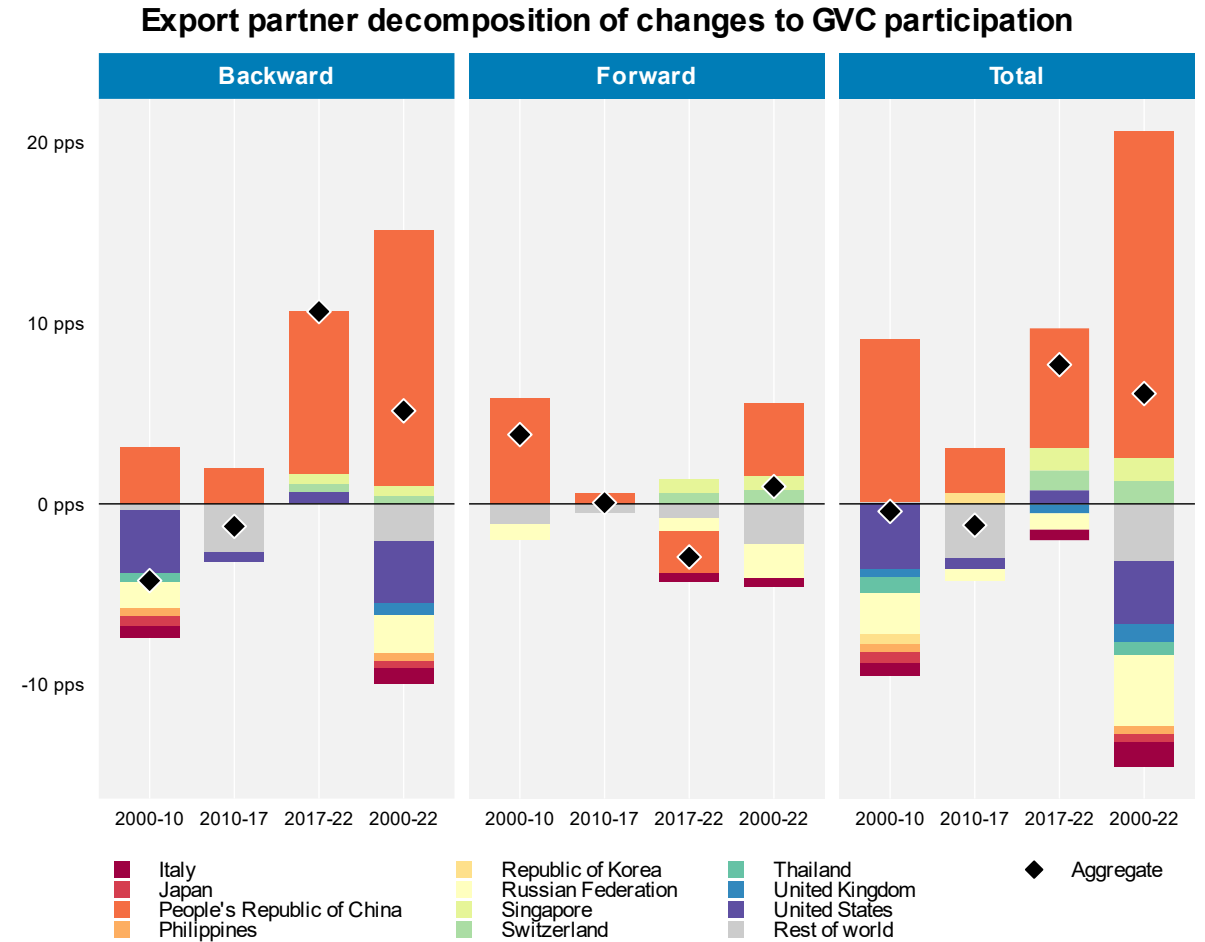
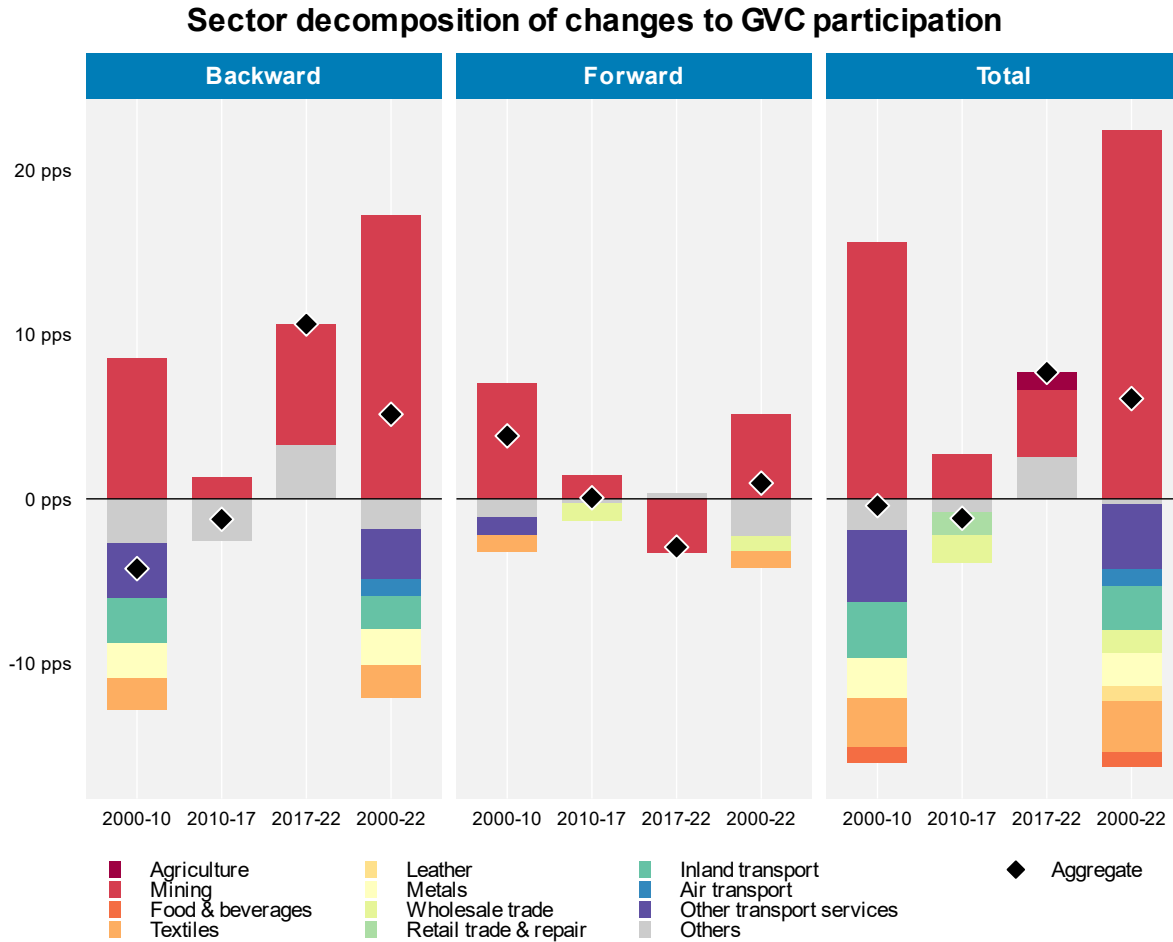
Sector decomposition of changes to GVC participation



Export partner decomposition of changes to GVC participation



Sector decomposition of GVCs participation: Kazakhstan

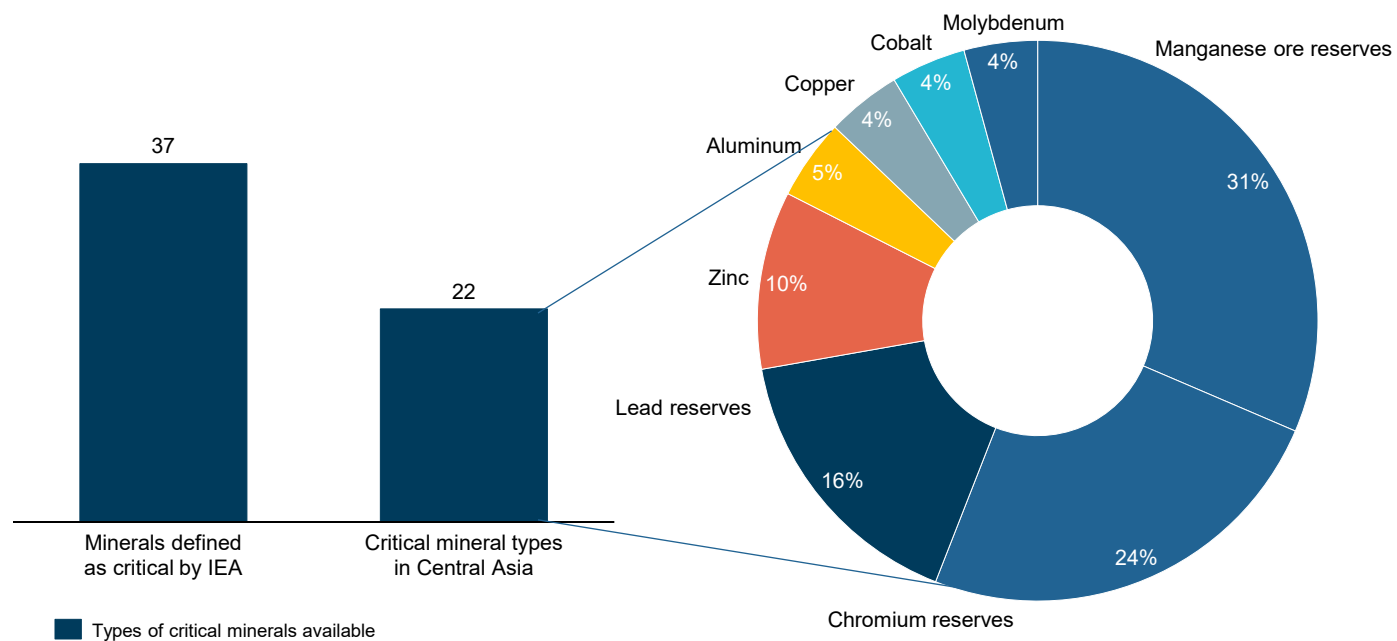


Source: MRIO Table, ADB



Almost all CAREC member countries have vast reserves of critical minerals

Diversity of available critical minerals and share of global reserves in Central Asia



- The availability of critical minerals in CAREC countries could contribute to diversification clean energy products globally.
- The PRC remains the strongest player in the global critical minerals supply chain.
- The rest of the CAREC member countries are also known for vast reserves of critical minerals. **However, minerals from these countries are exported with minimum value-added processing activities, putting these countries in more upstream chains of GVCs.**

Regional cooperation and harmonization of standards in strengthening regional value chains: case of ASEAN's Electric Vehicles (EV) sector



ASEAN as a global EV manufacturing hub

Facilitate trade through common standards



Alignment of regional EV standards to facilitate seamless cross-border trade and interoperability in EV components

Investing in human capital



By investing in training and certification, the region aims to cultivate a skilled workforce capable of driving the EV revolution.

- In May 2023, ASEAN leaders issued a declaration on developing a regional electric vehicle (EV) ecosystem and **establishing ASEAN as a global EV manufacturing hub**.
- By unifying standards and promoting compatibility, **ASEAN aims to streamline trade and create a cohesive EV market that transcends national boundaries**.
- These initiatives also aim to promote **knowledge exchange** and enhance workforce skills.

How the EU's CBAM will impact the competitiveness of CAREC member countries?

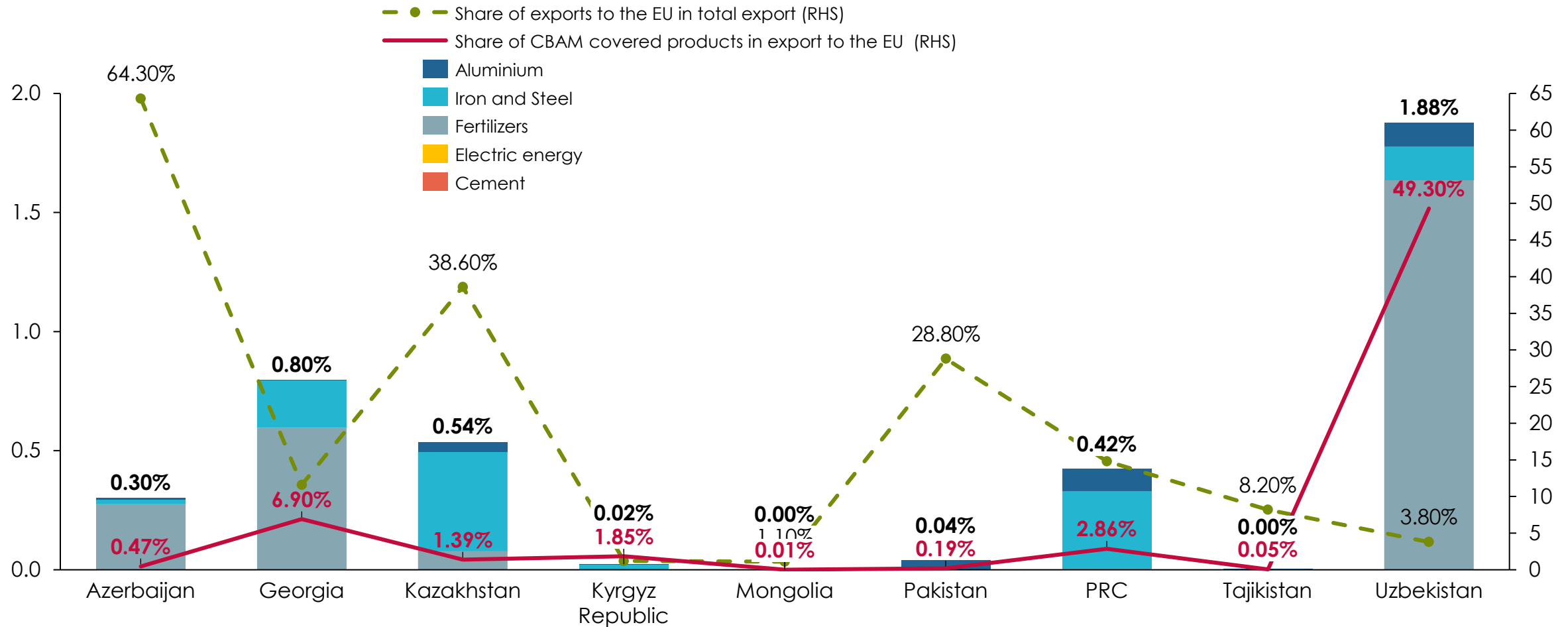
Modeling scenarios to estimate the impact of the EU's CBAM on CAREC economies

| | | |
|------------|--|---|
| Scenario 1 | The EU imposes tighter ETS carbon allocations, with a resulting €100/MT price. CBAM taxes are imposed for ETS sectors at the same price as ETS (€100/MT). | 100 €/MT CO ₂ |
| Scenario 2 | Not only the EU but all OECD economies impose tighter ETS carbon allocations, with a resulting €100/MT price. CBAM taxes are imposed for ETS sectors at the same price as ETS (€100/MT). | 100 €/MT CO ₂ |
| Scenario 3 | CAREC economies impose a domestic carbon tax at a €50/MT. All OECD countries apply CBAM to CAREC at a partial rate, reflecting lower carbon price. CBAM taxes are imposed for ETS sectors. | 50 €/MT CO ₂ OECD and 50 €/MT in CAREC |

Note: During the phase-in period, the CBAM regime will not apply to all ETS sectors. However, the CBAM system is expected to be expanded to all ETS sectors after the phase-in period. There are discussions on expanded sector coverage. We do not model further ETS expansion here.

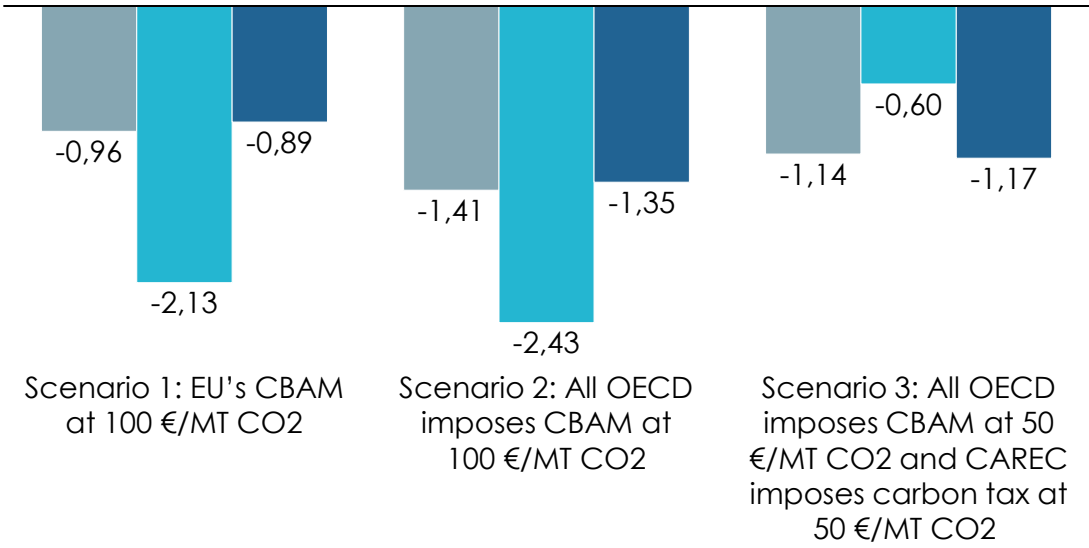
- Economic implications of the EU's Carbon Border Adjustment Mechanism (CBAM) on CAREC economies were estimated using computable general equilibrium (CGE) modeling under three scenarios.
- Carbon pricing policies are in place across almost 40 jurisdictions** and uncertainties regarding how their geographical and sectoral coverage will evolve over time may pose a risk for CAREC countries.
- In CGE, we have estimated the impact if CBAM will be imposed by all OECD countries at tighter ETS carbon allocations with a resulting price of 100€/MT and if CAREC economies impose a domestic carbon tax at 50€/MT.

The current share of CBAM-covered export products of CAREC member countries to the EU

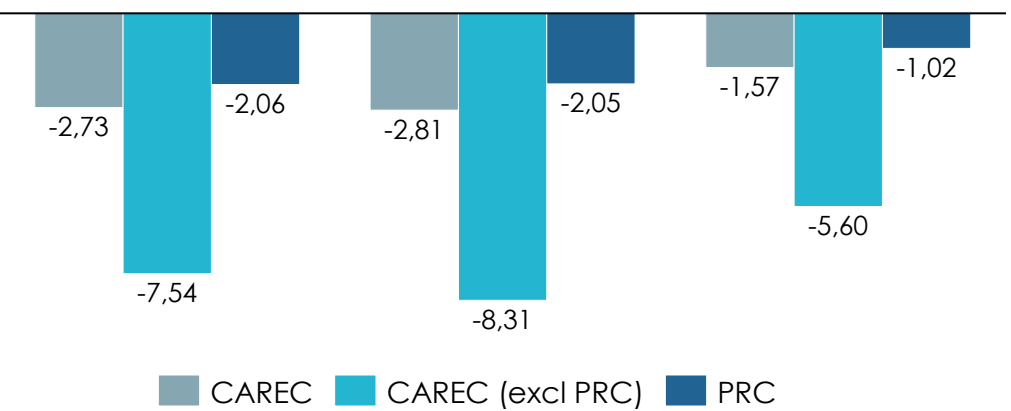


Will CBAM impact CAREC's exports?

Change in total export in CAREC, % change.



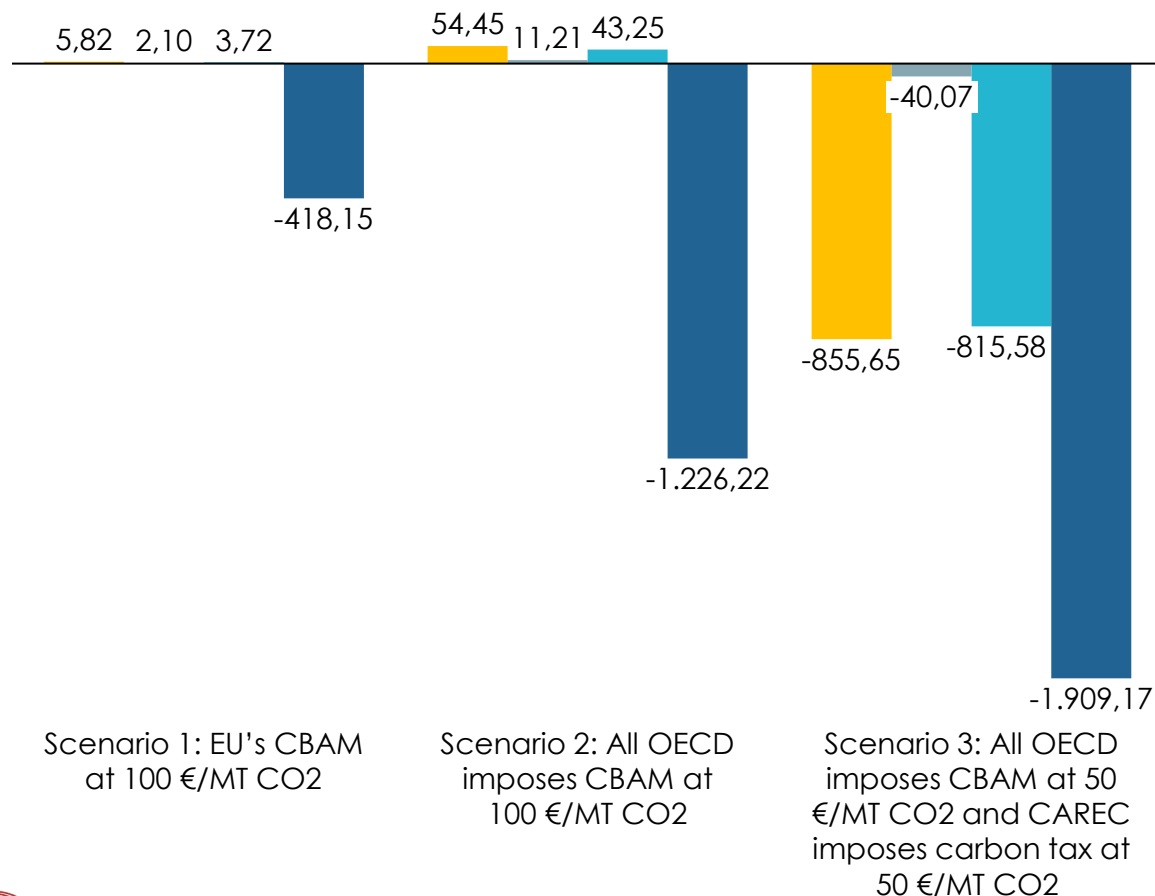
Change in exports to the European Union, % change, VALUES



- For CAREC countries with high (relative to OECD) CO2 intensities in extractive sectors, CBAM can create a challenge.
- A shift to a price of €100 per metric ton of CO2 under CBAM could lead to significant declines in exports and industrial production of CAREC countries in CBAM-covered sectors.
- **CAREC 10 countries** (excluding the PRC) are estimated to have the most substantial decline in total exports and in exports to the EU market.
- As many countries are moving away from emission-intensive energy sources to reduce their CBAM exposure, crude oil exports of the region could be indirectly impacted.

Will CBAM reduce CO2 emissions in CAREC countries?

Change in CO2 emissions, MTCO2



- Changes in CO2 emissions will be **more than 1900 mln MT CO2 reduction globally, if all OECD economies impose higher CBAM at 100 euro/MT and CAREC economies impose domestic carbon pricing at 50 euro/MT.**
- **The PRC is estimated to see a significant reduction of CO2 emissions** and contribute to global reduction under the scenario 3.
- Increasing the carbon price and **imposing CBAM in the EU and extending CBAM to other OECD countries without imposing carbon pricing in CAREC is estimated to increase emissions** in all CAREC economies as a result of possible carbon leakage and downstream production shifting to CAREC economies under scenarios 1 and 2.



What is the way forward?

What is the way forward?



Urgent cooperation on climate change and environmental risks

- Reinforcing mutual commitments to reduce climate change and environmental risk to GVCs and implementation of actions under the CAREC Climate Change Vision.



Systematic effort to reduce trade costs, focusing on nontariff costs

- Harmonize Transport and Vehicle Standards; Enhance Customs Efficiency and Transparency; Coordinate Border-Crossing Operations; and implement national single window



Digitalization of trade processes

- Digitalizing trade processes will increase transparency and traceability in supply chains while at the same time promoting greening trade and making supply chains more adaptable and resilient.



Alignment of all stakeholders on development of CAREC economic and transport corridors

- CAREC is supporting the development and upgrade of six CAREC transport corridors to international standards, and Economic Corridor Development, which will help link the region's key economic hubs to each other.



Regional standards on “Green Value Chains”

- CAREC can encourage sustainable practices across their supply chains by reducing trade barriers on environmental goods and services and expanding access to green trade financing, particularly for small and medium-sized enterprises.



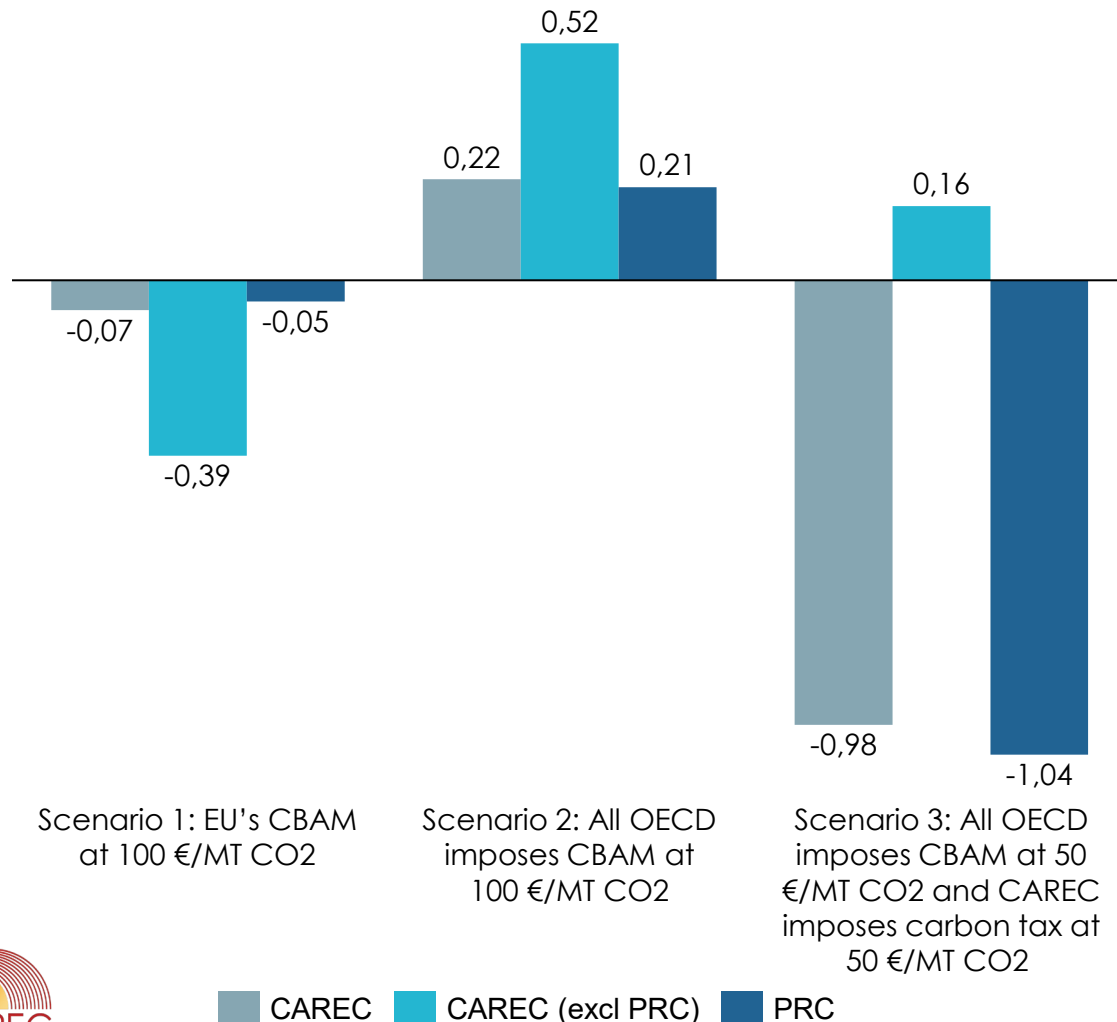
Strengthen cooperation to attract investments to develop value-added manufacturing

- Improving governance and investment regulations to attract investments for strategic technology and financial partnerships with countries and firms active in intermediate processing and downstream manufacturing.

APPENDIX

How CBAM will impact economic growth in CAREC countries?

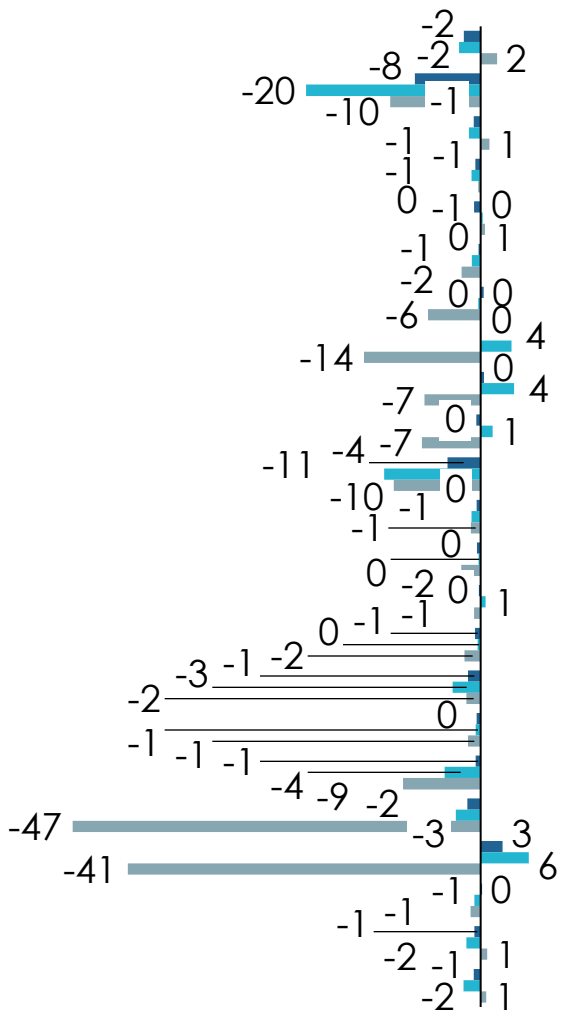
Change in GDP in CAREC economies under 3 scenarios, %.



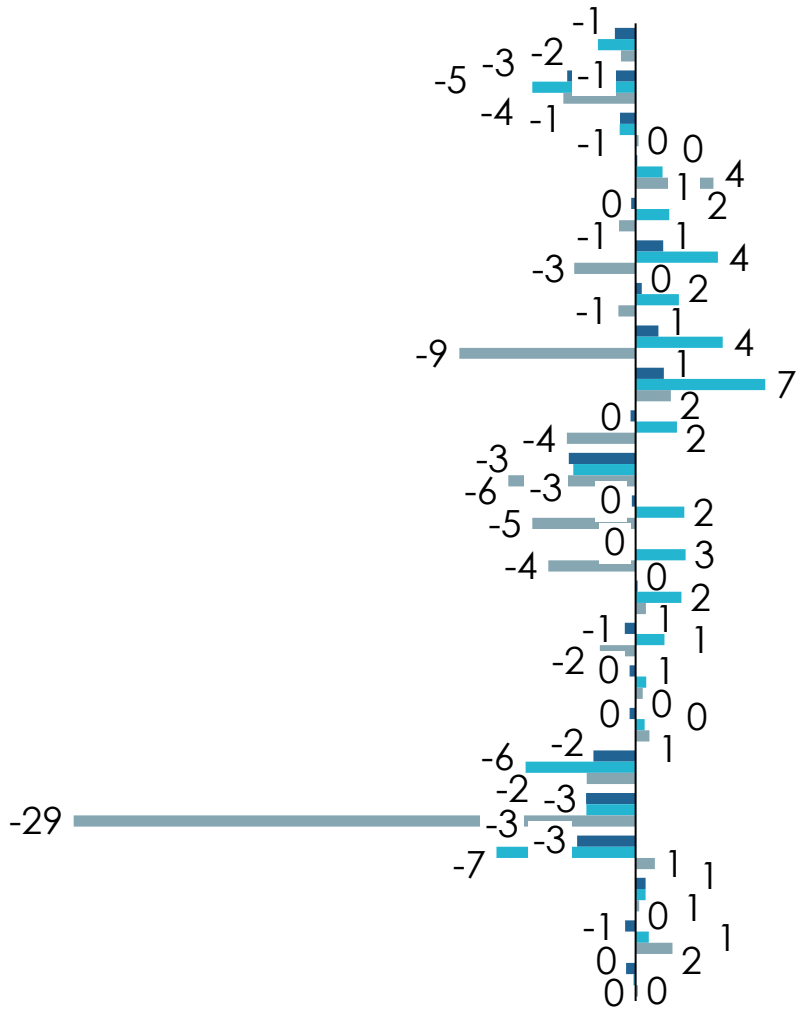
- The EU's CBAM under all three scenarios is predicted to have a mild impact on the economic growth of CAREC 10 (excluding PRC), with significant contraction in the PRC's GDP.
- At a price of 100 €/MT CO₂ imposed by the EU, **reductions in GDP in CAREC 10 are estimated to be less than 0.4%.**
- A carbon price of **100 €/MT CO₂ imposed by all OECD countries is estimated to lead to a more positive economic effect**, which is likely due to downstream carbon leakage from the OECD to CAREC countries (a shift of manufacturing in ETS covered sectors).
- **The introduction of domestic carbon pricing in CAREC countries, particularly in the PRC, is estimated to reduce the PRC's GDP by more than 1%**, likely reflecting high carbon-intensive production (relative to the OECD countries) in sectors covered.

Which export products might be affected under these scenarios?

Exports to the World, PRC, % change



Exports to the World, CAREC excluding PRC, % change



- Scenario 1: EU's CBAM at 100 €/MT CO2
- Scenario 2: All OECD imposes CBAM at 100 €/MT CO2
- Scenario 3: All OECD imposes CBAM at 50 €/MT CO2 and CAREC imposes carbon tax at 50 €/MT CO2



Definitions and disclaimers

- Our presentation focuses on the members of the Central Asia Regional Economic Cooperation (CAREC), a partnership established in 2001 that today comprises 11 countries: **Afghanistan,* Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, the PRC, Tajikistan, Turkmenistan, and Uzbekistan**. Because its size often makes the PRC an outlier, this study frequently zooms in on "**CAREC 10 or minus 1**", or **CAREC excluding the PRC**.
- **CAREC is not a formal "trade bloc" like ASEAN, EU, or NAFTA**. CAREC's current market is relatively small, and its structure differs fundamentally from these three blocs. CAREC acts as a coordinating body with no institutionalized forms of integration. ADB has conducted a study for which CAREC countries are exploring the potential of CAREC-wide economic partnership agreement.
- This study uses the ADB Multiregional Input–Output (MRIO) Tables where only **6 of the 11 CAREC members are separately identified in the MRIO**, with the missing economies being Afghanistan, Azerbaijan, Tajikistan, Turkmenistan, and Uzbekistan.
- This report operationalizes GVCs as trade involving value added that crosses **at least two borders**. It may be divided into a **forward and a backward component**. (i) Forward GVCs are exports to a partner that are then used in a processed export of another country, thus fulfilling the two-border-crossing rule. (ii) Backward GVCs are imported inputs embedded in one's exports; because they crossed at least one border when they were imported as inputs, they automatically cross their second border once the products they are embedded in are exported. **(iii) The sum of forward and backward GVCs is total GVCs, and the share of total GVCs to total exports is the GVC participation rate**. The exact framework used in this report is described in greater detail in ADB (2021).¹



* ADB has placed on hold its operations in AFG since August 2021

Source: ADB



Regional Action on Climate Change: A Vision for CAREC

- Approved during the 22nd Ministerial Conference, on 30 November 2023, Tbilisi, Georgia
- The first meeting of the Steering Committee will be in Astana on 29th of May 2024.



CAREC 2030: SUPPORTING REGIONAL ACTIONS TO ADDRESS CLIMATE CHANGE
A SCOPING STUDY
APRIL 2023

➤ **Need to build strong knowledge, transfer of technology and capacity in CAREC DMCs to address climate change impacts with focus on cooperation**



Next steps in operationalizing the CAREC Climate Change Vision and mobilizing innovative financing instruments.



1. Facilitating high-level policy dialogue

- **Developing regional approaches and aligning countries' existing plans** and strategies with international commitments under the Paris Agreement and the Sustainable Development Goals.
- **Integrating climate objectives into the CAREC Integrated Trade Agenda** and the mandate of the Regional Trade Group to identify common challenges and policy solutions to promote green trade and climate change mitigation and adaptation.



2. Promoting the exchange of knowledge, technologies, and best practices

- Ongoing initiatives such as the CAREC Advance Transit System and Information Common Exchange, and digitalization of customs procedures by utilizing cutting-edge technologies are expected to result in lowering carbon emissions. Global value chains can also contribute to lowering emissions by encouraging innovation and the exchange of green products and technologies.
- **Understanding the impacts** of these interventions, and sharing experiences and lessons learned will be key for potentially **scaling up existing initiatives** and successfully **designing and implementing new regional trade projects that support climate objectives**.



3. Supporting mobilization of financing resources

- **Increasing coordination and collaboration among development partners and the private sector** to pool financial resources, share and transfer risks, and combine knowledge and technical expertise in planning and implementing climate-informed development programs or projects.
- **CAREC Climate and Sustainability Projects Preparatory Fund (CSPPF)** to help address financing gaps and achieve climate change goals by supporting the preparation and readiness of regional projects for CAREC countries with strong climate and sustainability focus.

CAREC Climate and Sustainability Project Preparatory Fund

OBJECTIVES

More bankable regional projects
Accelerate achievement of
SDGs & Paris Climate Agreement



SECRETARIAT

ADB staff/consultants (ADB
TA to support admin and
capacity building)



CAPITAL

Multimillion USD to be
drawn in phases
Leverage investments 30x



CAREC Climate and Sustainability Project Preparatory Fund

Multi-Donor Trust Fund
Managed by ADB

INSTRUMENTS

Convertible TAs,
Grants



ACTIVITIES SUPPORTED

Broad range of
project preparatory and
development activities
until financial close



PARTNERSHIPS

Co-financing & knowledge
partners active in the region
Creating expertise pool
ready to support

