

# Positioning of Türkiye in Global Value Chains (GVCs)

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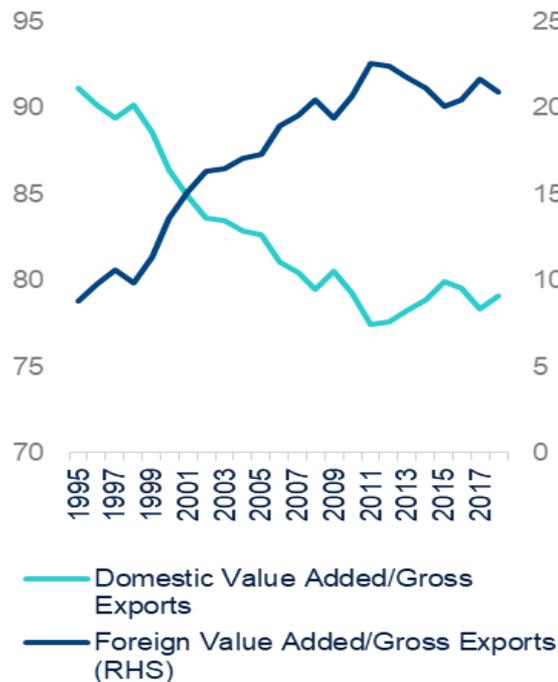
## Key messages\*

- Increasing backward and forward participation bring opportunities for repositioning.
- Türkiye's export competitiveness across sectors is highly diverse.
- Achieving higher economic complexity could bring higher income per capita.
- Türkiye is currently specialized in products with relatively lower complexity.
- Our proposals for export diversification strategy point out to the products that could improve technological know-how in differentiated gradual steps.

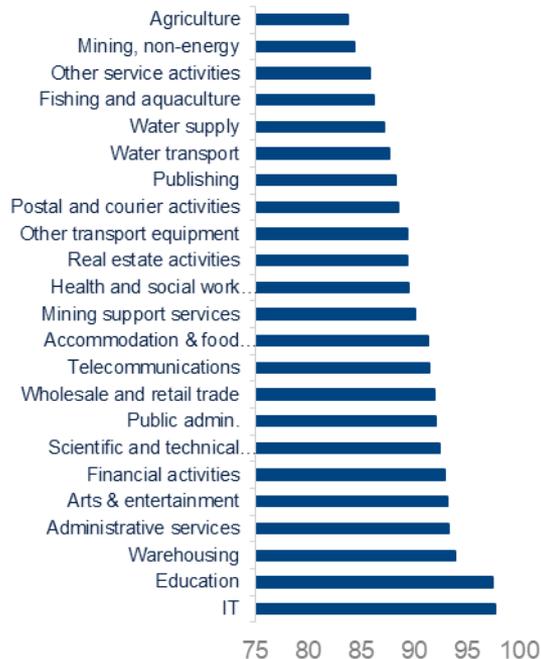
\*The working paper is available at the following [link](#).

# Increasing integration in GVCs bring higher foreign value added

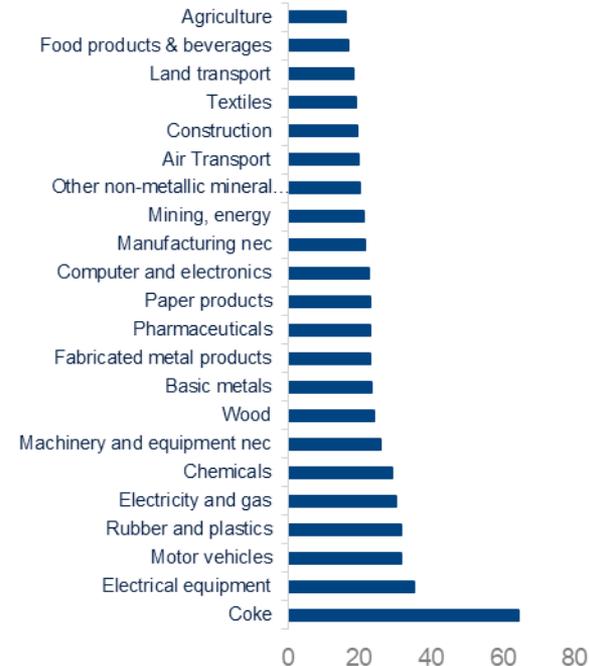
## VALUE ADDED IN GROSS EXPORTS OF TÜRKİYE, %



## TOP 22 SECTORS IN DOMESTIC VALUE ADDED (2018, % SHARE)

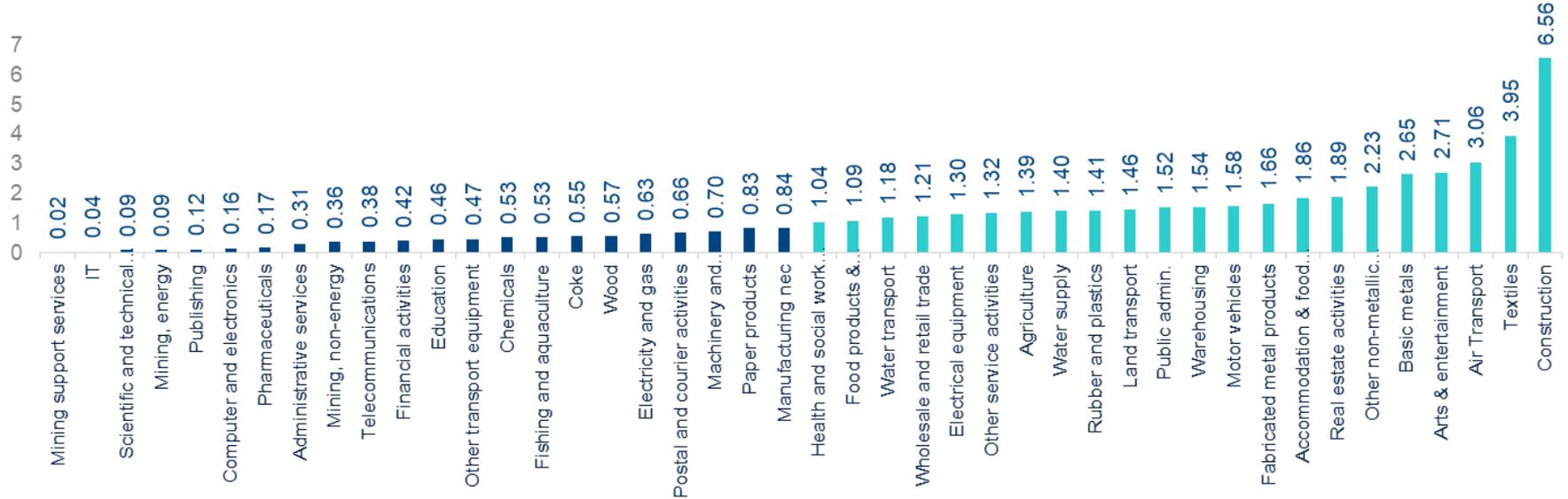


## TOP 22 SECTORS IN FOREIGN VALUE ADDED (2018, % SHARE)



# Diverse competitiveness in exports

## ADJUSTED REVEALED COMPARATIVE ADVANTAGE SCORES (2018)

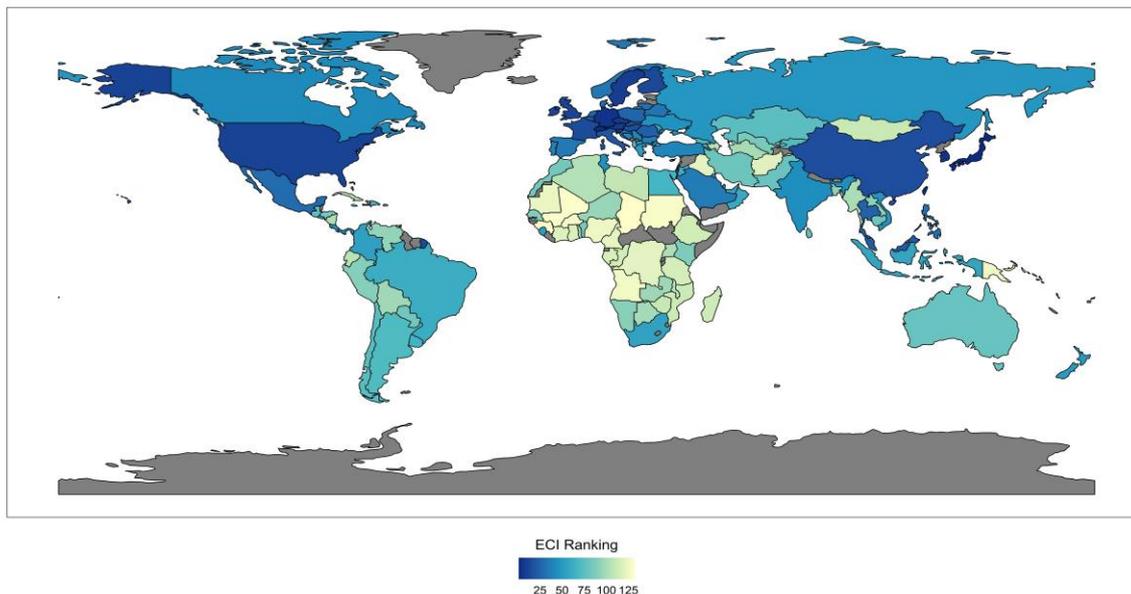


Source: OECD TIVA, Garanti BBVA Research000

- Comparing the share of exports of a country in a particular product with the share of global exports, revealed comparative advantage (RCA) quantifies the overall competitiveness of a country in the export of a sector/product.
- Our analysis adjusts the RCA by subtracting foreign value added from gross exports to show the competitiveness of a country's domestic value added in exports.

# Türkiye ranks 40th among 132 countries in economic complexity

## ECONOMIC COMPLEXITY INDEX (ECI) RANK OF COUNTRIES

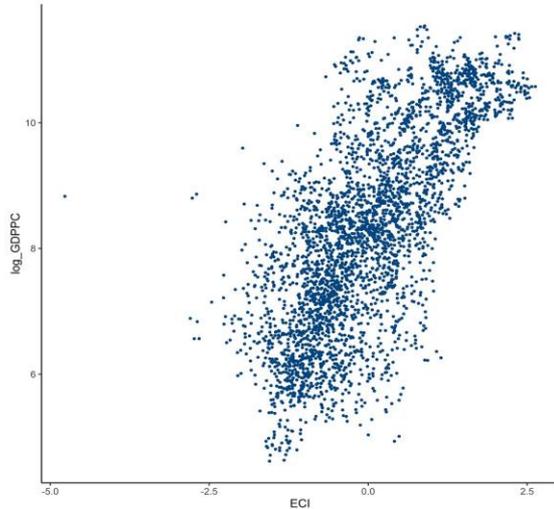


Source: The Growth Lab at Harvard University International Trade Data (2019), Garanti BBVA Research.

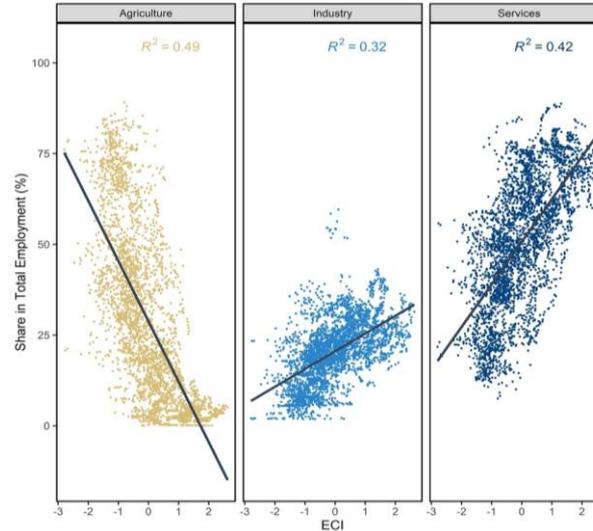
- Economic complexity ranks countries according to diversity and complexity of their exports.
- Countries with high diversity of productive know-how are able to produce more diverse sophisticated products.

# Higher economic complexity bring higher income

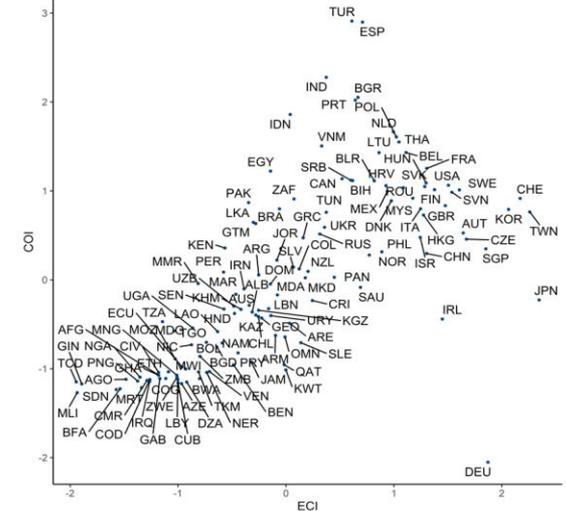
## ECI VS. GDP PER CAPITA (1995-2020)



## SECTORAL EMPLOYMENT VS. ECI (1995-2020)



## ECI VS. COMPLEXITY OUTLOOK INDEX (2020)

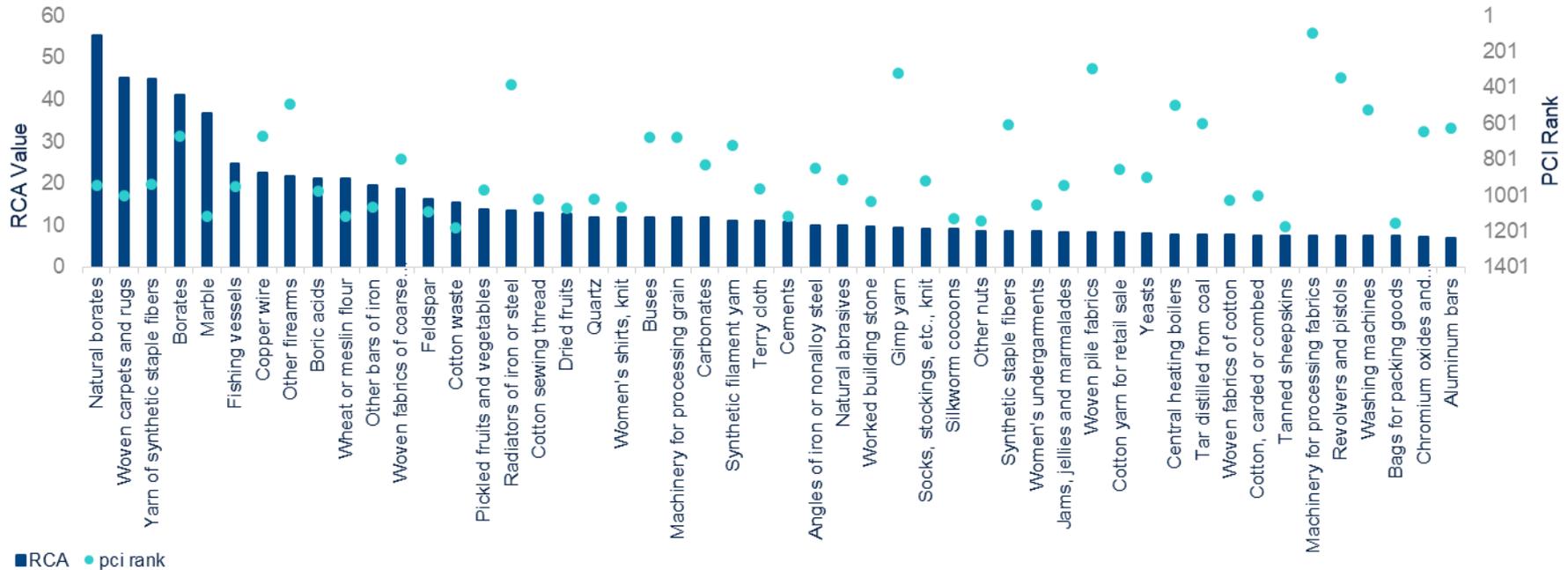


Source: The Growth Lab at Harvard University International Trade Data (2019), World Bank, Garanti BBVA Research.

- Complexity Outlook Index (COI) measures how many complex products are near a country's current productive capabilities.
- High COI means that the country is close to many complex products.

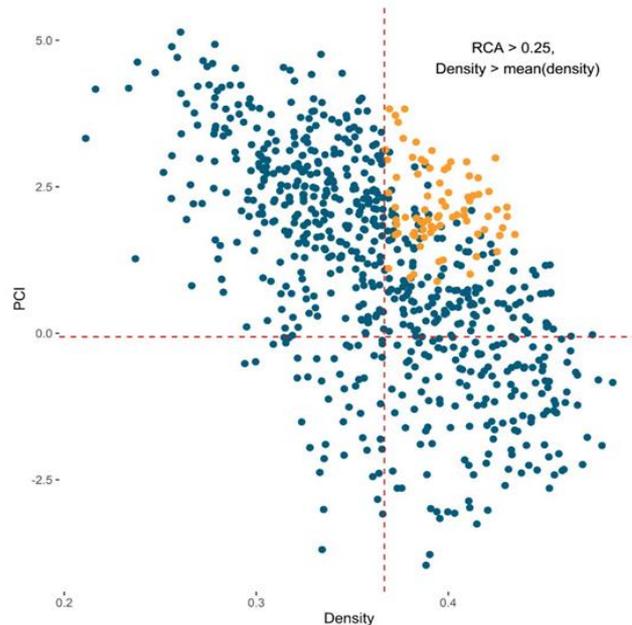
# Türkiye's competitiveness is concentrated on low complex products

## TOP 50 PRODUCTS WITH THE HIGHEST REVEALED COMPARATIVE ADVANTAGE (RCA) & PRODUCT COMPLEXITY INDEX (PCI)



# We propose differentiated steps to enrich exports sophistication

## EXPORT DIVERSIFICATION STRATEGY



- Countries might follow different paths, depending on the priorities they assign in different time horizons.
- In our analysis, we try to differentiate those paths:
  - i.* “easier to go” targeting products nearer to current capabilities to achieve short term results
  - ii.* “interim advantage” guaranteeing rapid revenue gains from high income countries
  - iii.* “long term gains” enhancing complexity with needed costly investment which can be achieved in a longer horizon
- We propose a differentiated path to take steps gradually, build a technology infrastructure with needed know-how and capital and in the meantime develop the future for next generations.

# Different paths for different goals

## EASIER TO GO

Code	Product Name
3004	Medicaments, packaged
3926	Other articles of plastic
8536	Electrical apparatus for < 1k volts
8419	Equipment for temperature change of materials
8421	Centrifuges
8501	Electric motors and generators
8537	Electrical boards
8512	Electrical lighting equipment used for motor vehicles
6810	Articles of cement, of concrete or of artificial stone
8607	Parts of railway locomotives

## INTERIM ADVANTAGE

Code	Product Name
3004	Medicaments, packaged
3926	Other articles of plastic
8536	Electrical apparatus for < 1k volts
8481	Appliances for thermostatically controlled valves
8421	Centrifuges
8414	Pumps, compressors, fans, etc.
8537	Electrical boards
8501	Electric motors and generators
8419	Equipment for temperature change of materials
9405	Lamps

## LONG TERM GAINS

Code	Product Name
8207	Interchangeable tools for hand tools
8466	Parts and accessories for metal working machines
8420	Calendering or other rolling machines, other than for metals or glass
7315	Chain of iron or steel
8414	Pumps, compressors, fans, etc.
8481	Appliances for thermostatically controlled valves
8208	Knives and blades for machines
8482	Ball or roller bearings
6804	Grindstones
8421	Centrifuges

Source: The Growth Lab at Harvard University International Trade Data (2019), Garanti BBVA Research.

The tables show the top 10 products. Detailed product lists are available in the working paper

- Machinery and electrical apparatus (84-85) and metals (72-83) sectors stand out in export diversification strategy.
- Advantageous position due to know-how in machinery and equipment could pave the way to higher technology.
- Policy advice complemented with a sound plan addressing not only economic but also social and political conditions.

# References

- De Backer, K. and S. Miroudot (2014), "Mapping Global Value Chains", European Central Bank Working Paper Series, No. 1677,
- Estmann, C., Sørensen B. Bjørn, Ndulu, B., Rand, J. 2022. "Merchandise Export Diversification Strategy for Tanzania: Promoting Inclusive Growth, Economic Complexity and Structural Change," *The World Economy*, Wiley Blackwell, vol. 45(8), pages 2649-2695, August.
- Hausmann, R., Hidalgo, C., 2014. "The Atlas of Economic Complexity: Mapping Paths to Prosperity," MIT Press Books, The MIT Press, edition 1, volume 1, number 0262525429.
- Hausmann, R., Cunningham, B., Matovu, J. M., Osire, R., & Wyett, K. (2014). How should Uganda grow? Tech. rep., Center for International Development, Harvard University.
- Kumakura, Masanaga, What's So Special about China's Exports? A Comment. *China & World Economy*, Vol. 15, No. 5, pp. 18-37, September-October 2007, Available at SSRN: <https://ssrn.com/abstract=1019100> or <http://dx.doi.org/10.1111/j.1749-124X.2007.00081.x>
- Minondo, Asier. "Exports' Quality-Adjusted Productivity and Economic Growth." *The Journal of International Trade & Economic Development*, vol. 19, no. 2, 11 June 2010, pp. 257-87.
- The Growth Lab at Harvard University, 2019, "International Trade Data (HS, 92)", <https://doi.org/10.7910/DVN/T4CHWJ>
- UNCTAD. Impact of the Covid-19 Pandemic on Trade and Development: Lessons Learned. 2022, [https://unctad.org/system/files/official-document/osg2022d1\\_en.pdf](https://unctad.org/system/files/official-document/osg2022d1_en.pdf)
- World Bank. 2022. Leveraging Global Value Chains for growth in Turkey : A Turkey Country Economic Memorandum. Washington, DC: World Bank <https://openknowledge.worldbank.org/handle/10986/37095>

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