TÜRKİYE CUMHURİYETİ
TİCARET BAKANLIĞI

Transformations in the Global Economy and Trade

An Analysis of Türkiye’s Export Competitiveness

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OSTİM Technical University · Ankara, 10 November 2026

Key Global Dynamics

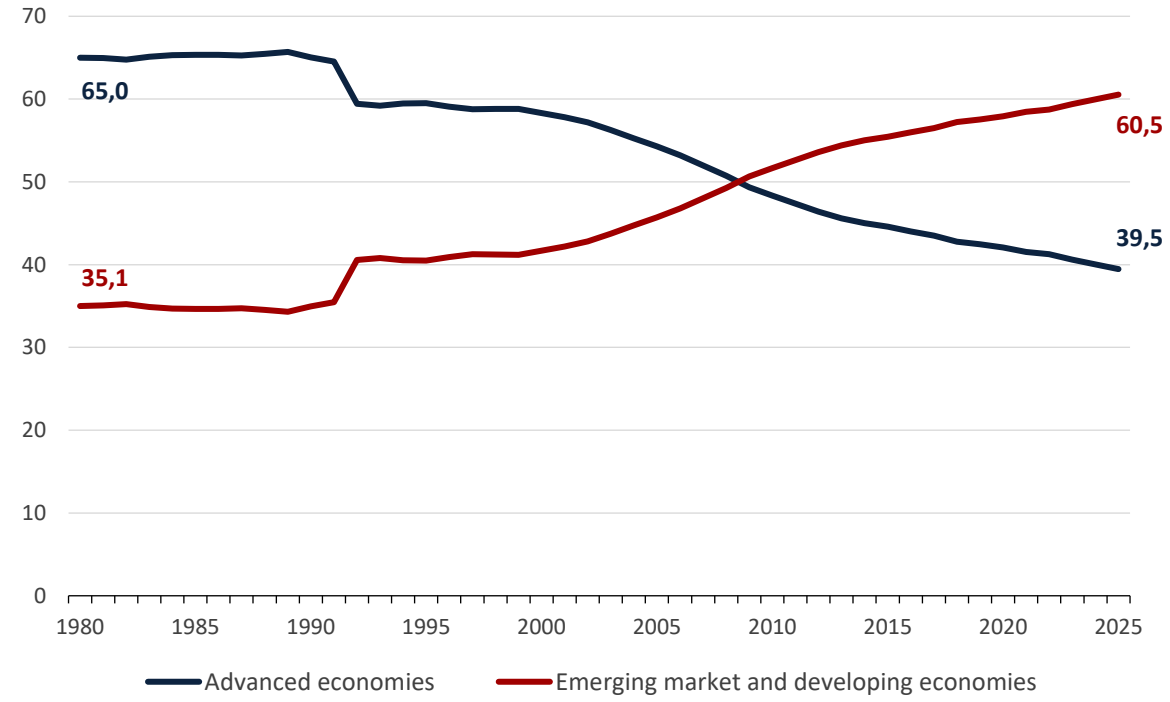
The global economy and trade are undergoing a structural transformation

- **The Centre of the Global Economy and Trade Shifting East (Multi Polar World)**
- **Rising Uncertainty and Protectionism**
- **Slowing Global Growth and Trade, and a Weakening Link Between Them**
- **Geopolitical Tensions and the Restructuring of Trade Routes**
- **Green Transition and Environmental Resource Constraints**
- **Accelerating AI-Driven Competition**
- **The Race in Science, Technology and Innovation**
- **Demographic Change and Labour Pressures**
- **The Need for Agile Policies in Rapidly Changing Conditions**

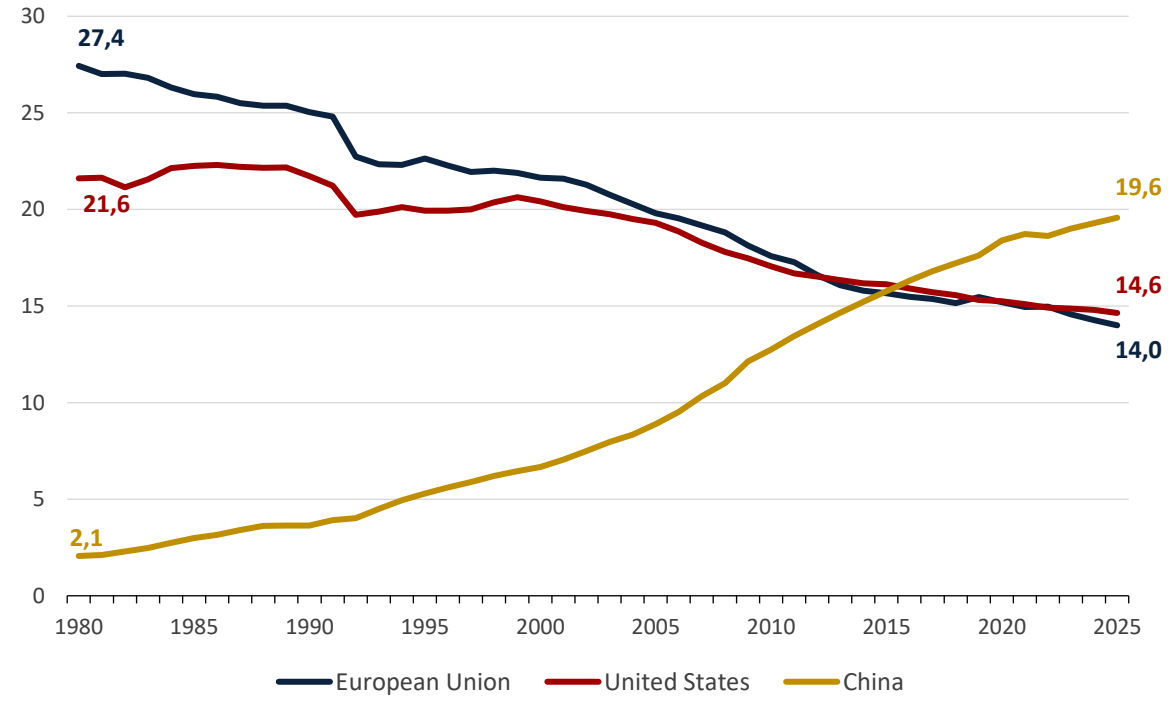
The Global Economy's Centre of Gravity Is Shifting

Emerging market and developing economies now produce about 60% of world output at purchasing power parity

Share of world GDP at PPP (%): advanced vs. emerging economies



Share of world GDP at PPP (%): EU, US and China



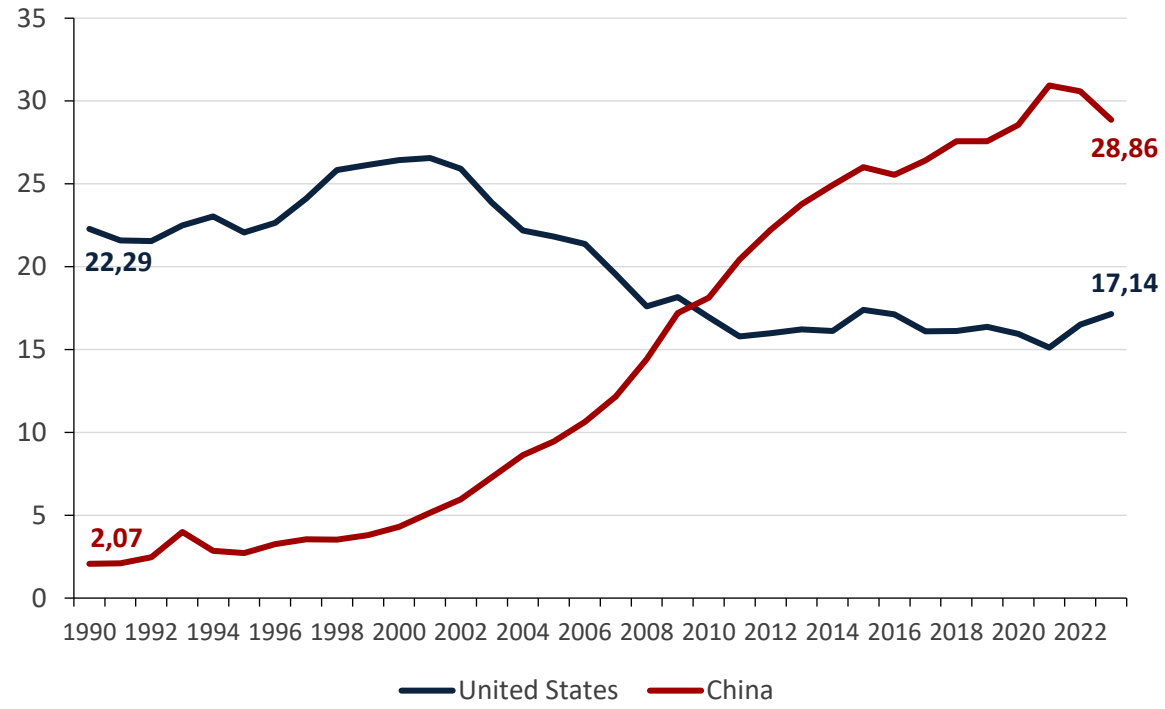
1980 → 2025: emerging economies' share rose from 35% to 60%; China's from 2% to 20%, overtaking both the EU (14%) and the US (15%) in the mid-2010s.

Source: IMF, World Economic Outlook database

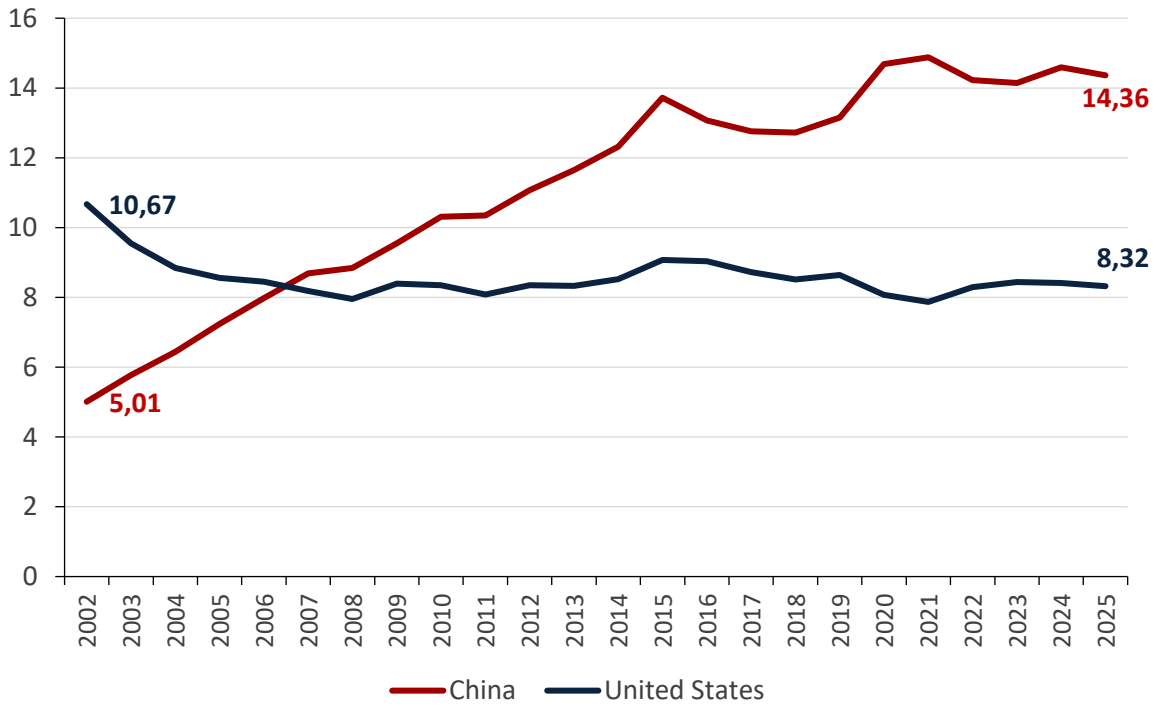
The Global Economy Is Shifting East

China’s rise has reshaped global manufacturing and exports

Share in world manufacturing value added (%)



Share in world exports (%)



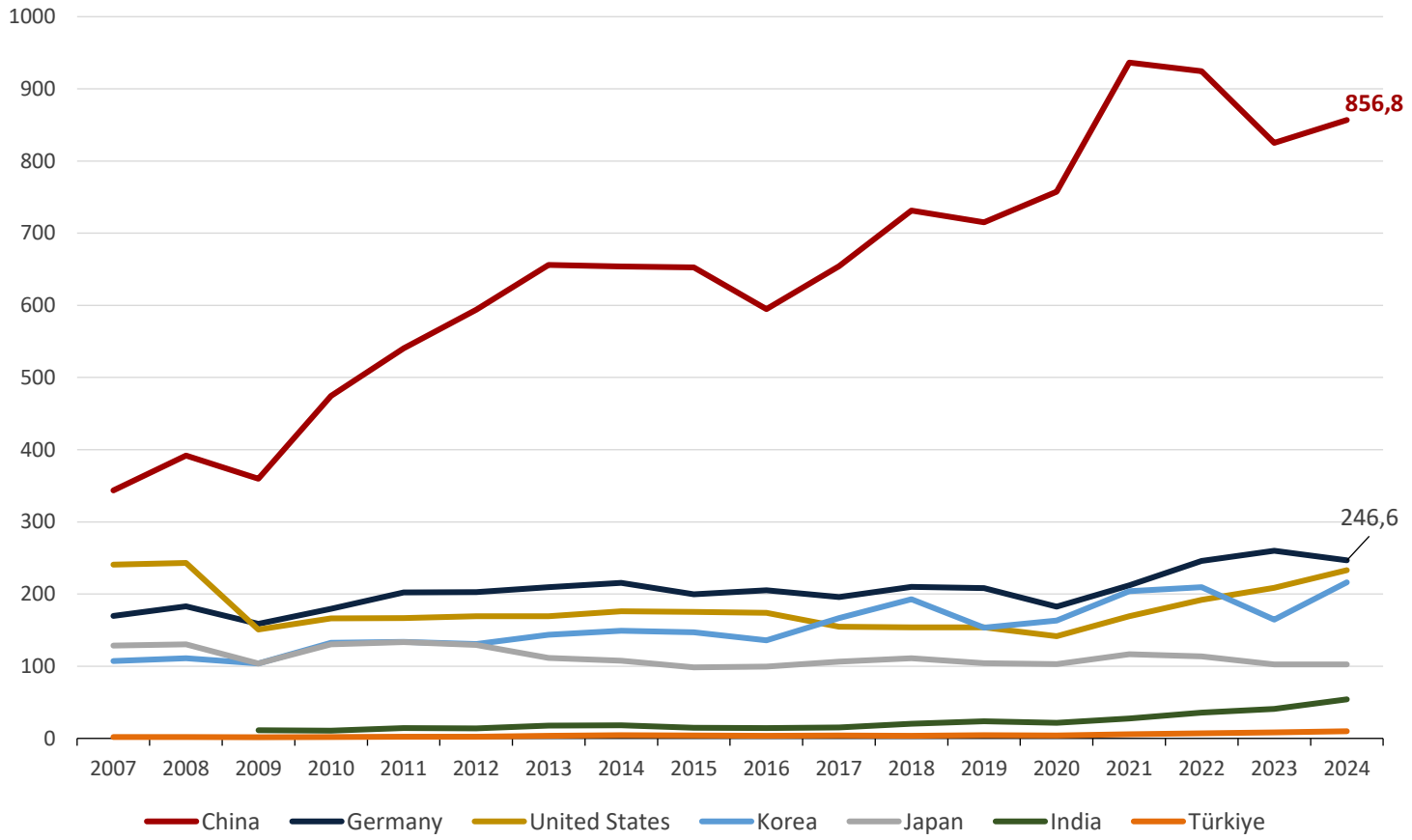
China overtook the US in manufacturing in 2010. Its share of world exports rose from 5.0% in 2002 to 14.4% in 2025, while the US share fell to 8.3%.

Source: UNIDO database (left); WTO (right).

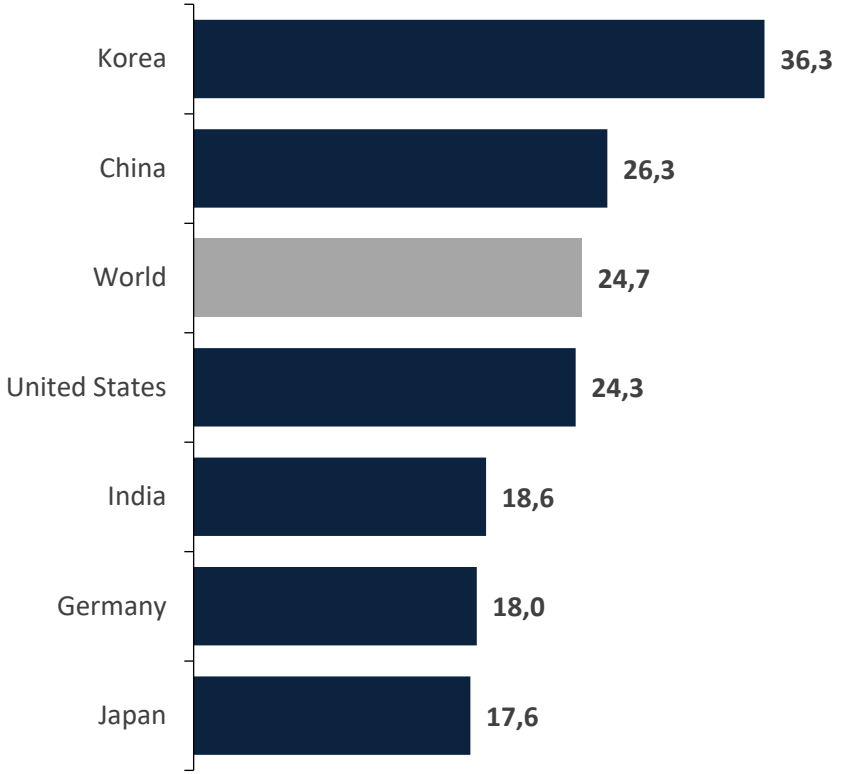
High-Technology Exports

China’s high-tech exports far exceed those of the US, Germany and other advanced economies

High-technology exports ($ bn)



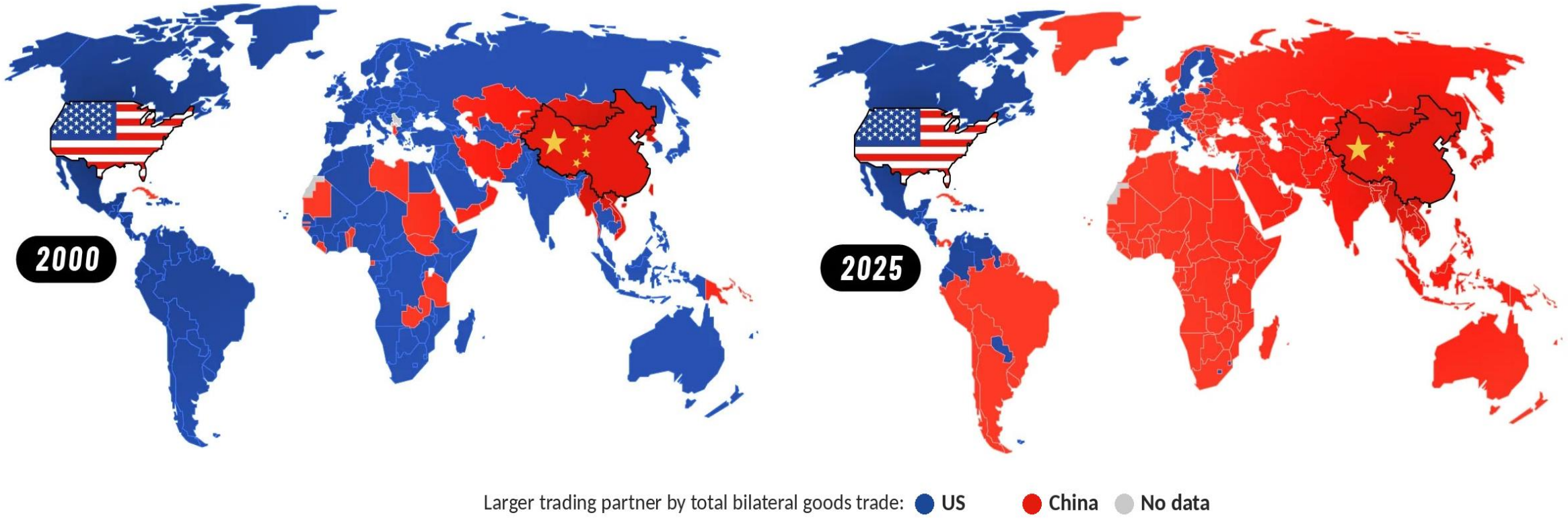
High-tech share of manufactured exports, 2024 (%)



Source: World Bank, World Development Indicators (October 2026). High-technology exports: products with high R&D intensity.

Changing Trade Partnerships

China is now the larger trading partner for most of the world, and South–South supply links are deepening

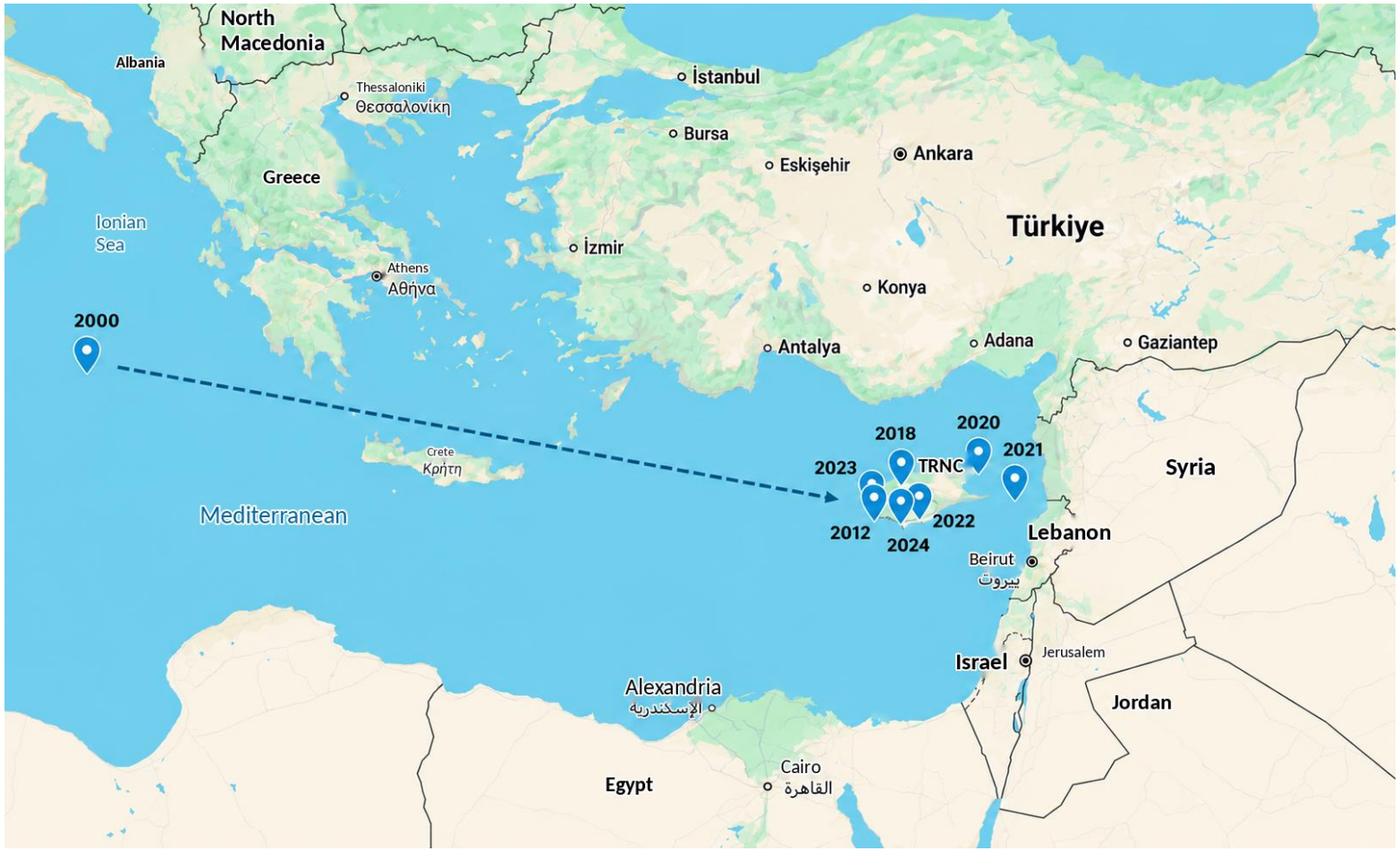


Larger trading partner, 2000 vs 2025: by 2025 China is the larger partner for almost all of Africa, Asia and South America, Oceania and Eastern Europe; the US retains this position mainly in North and Central America and Western Europe.

Source: Visual Capitalist based on IMF Direction of Trade Statistics (April 2026); WTO Secretariat calculations.

The Centre of Gravity of World Trade Is Moving Closer to Türkiye

Since 2012 the centre of gravity of world goods trade has been located in the Eastern Mediterranean, around Cyprus



2000

Centre of gravity in the Ionian Sea

2012 →

Eastern Mediterranean, in and around Cyprus

The shift reflects the rise of Asia – above all China – in world trade.

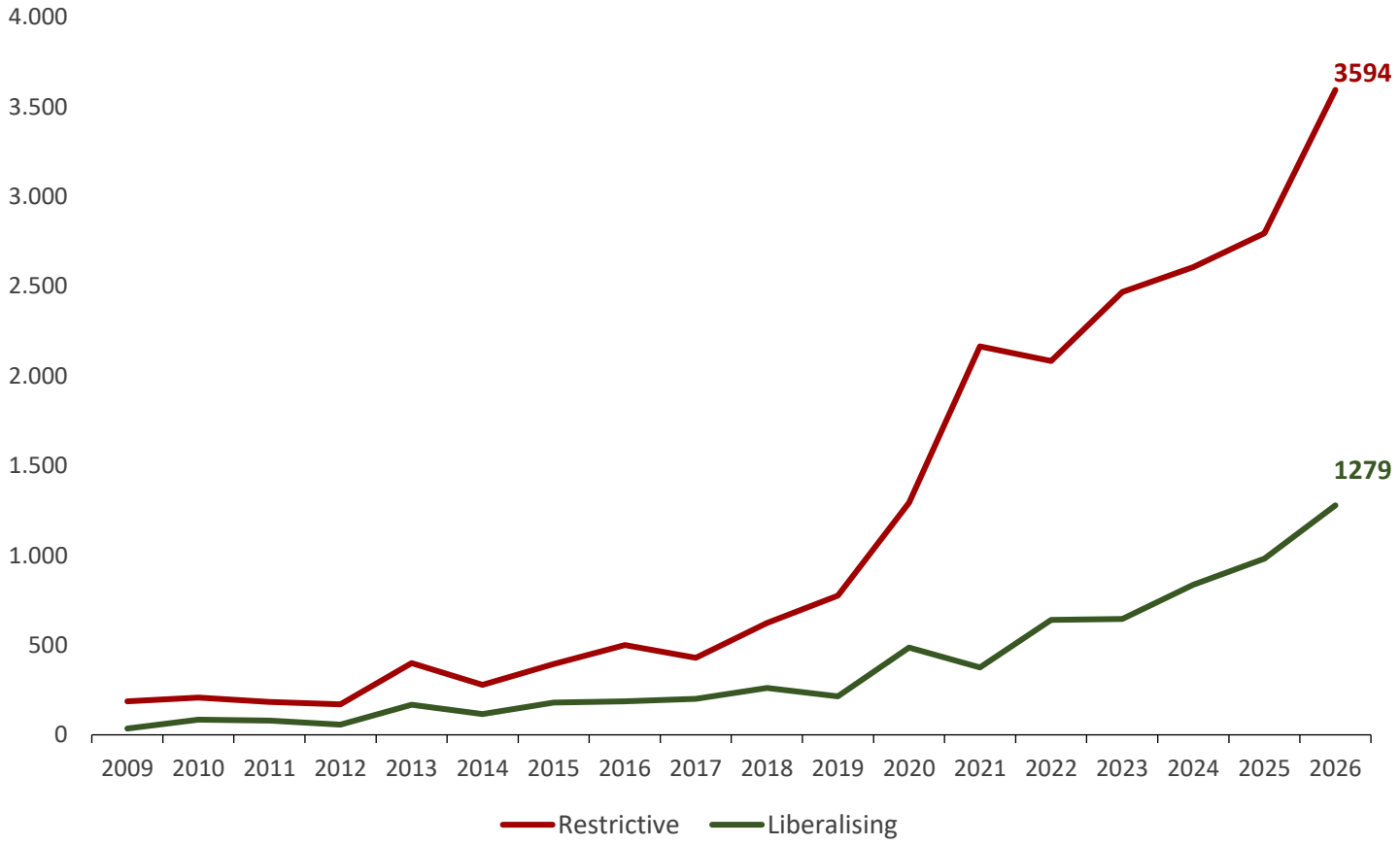
Türkiye is now geographically closer to the new centre of gravity of world trade.

Source: TARGEM calculations based on WTO and CEPII data.

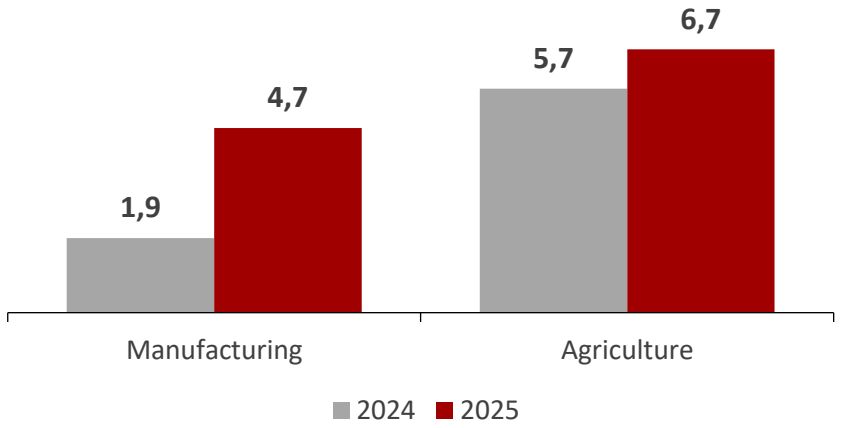
Rising Protectionism in Global Trade

Restrictive measures far outnumber liberalising ones, and tariffs are rising again

Number of trade policy measures affecting trade in goods and services



Trade-weighted average applied tariff, world (%)



- **Tariffs rose in all selected manufacturing sub-sectors in 2025**
- **Export restrictions on critical products** and national-security measures are spreading
- **Industrial policy and state intervention** are at the centre of the WTO agenda

Source: Global Trade Alert (left); UNCTAD, Global Trade Update, January 2026 (right).

Tariffs and Trade Policy Uncertainty

US tariffs reached levels last seen in the 1930s; trade policy uncertainty peaked in April 2025 and remains elevated

Average US tariff rate (%), 1829–2026



Trade Policy Uncertainty Index (monthly)



2.3% → 25.9%

Average US tariff: 2024 → 9 April 2025 peak (9.2% Jan–Mar, 24.6% after 2 April, 15.2% from 1 August)

10.9%

*Estimated effective rate, Sep 2026, after the Supreme Court ruling and Section 122/301 tariffs

1,151

Record uncertainty (April 2025), about 4 times the 2018–19 trade-war peak (266)

218

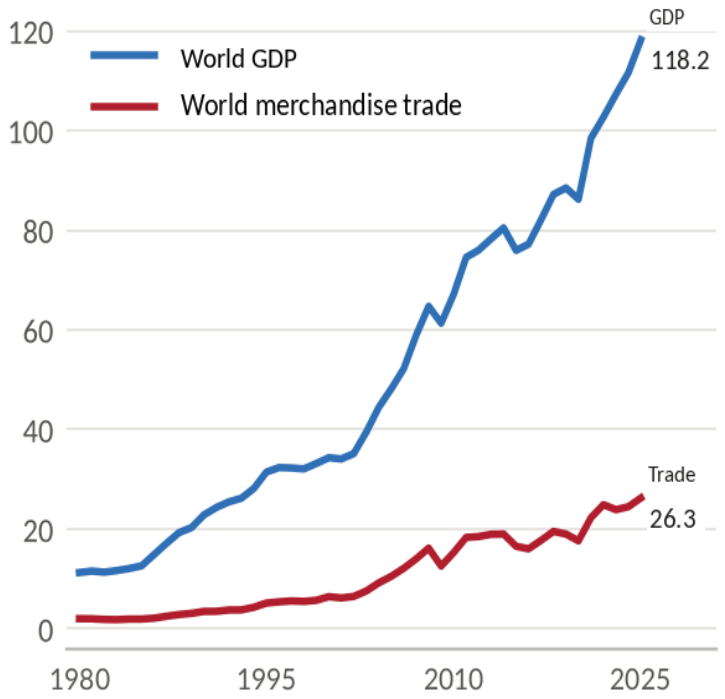
Latest reading (October 2026): well below the peak, but still near trade-war levels

Source: IMF; OECD (September 2026) for the 2026 effective rate; Caldara, Iacoviello et al., Trade Policy Uncertainty Index (data to October 2026).

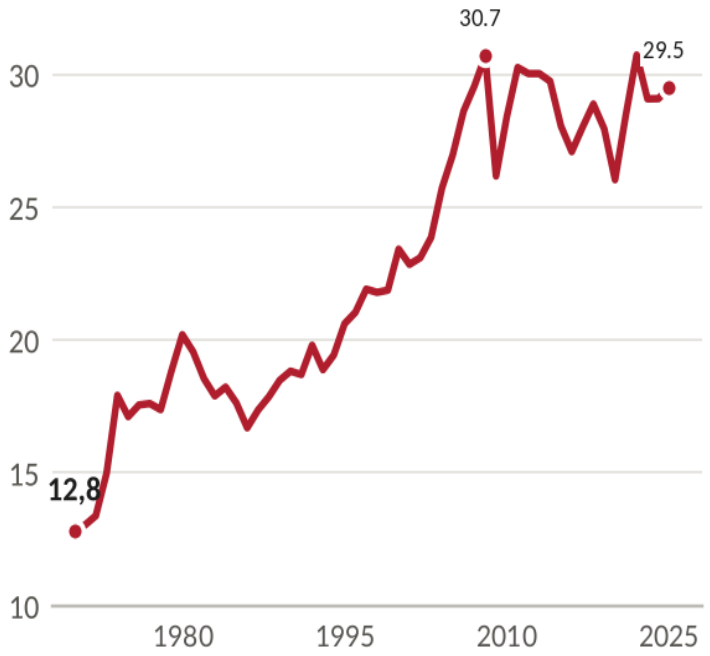
World Trade No Longer Grows Faster than Global Output

Since the global financial crisis, the world trade-to-GDP ratio has moved sideways in a 26–31% band

a) World GDP and world merchandise trade ($ tn)



b) World trade / world GDP (%)



$26.3 tn

World merchandise trade in 2025, up from $2 tn in 1980

30.7% → 29.5%

Trade/GDP ratio: 2008 peak vs 2025

≈ 1

Income elasticity of world trade in recent years – well below the 1990s

28.3%

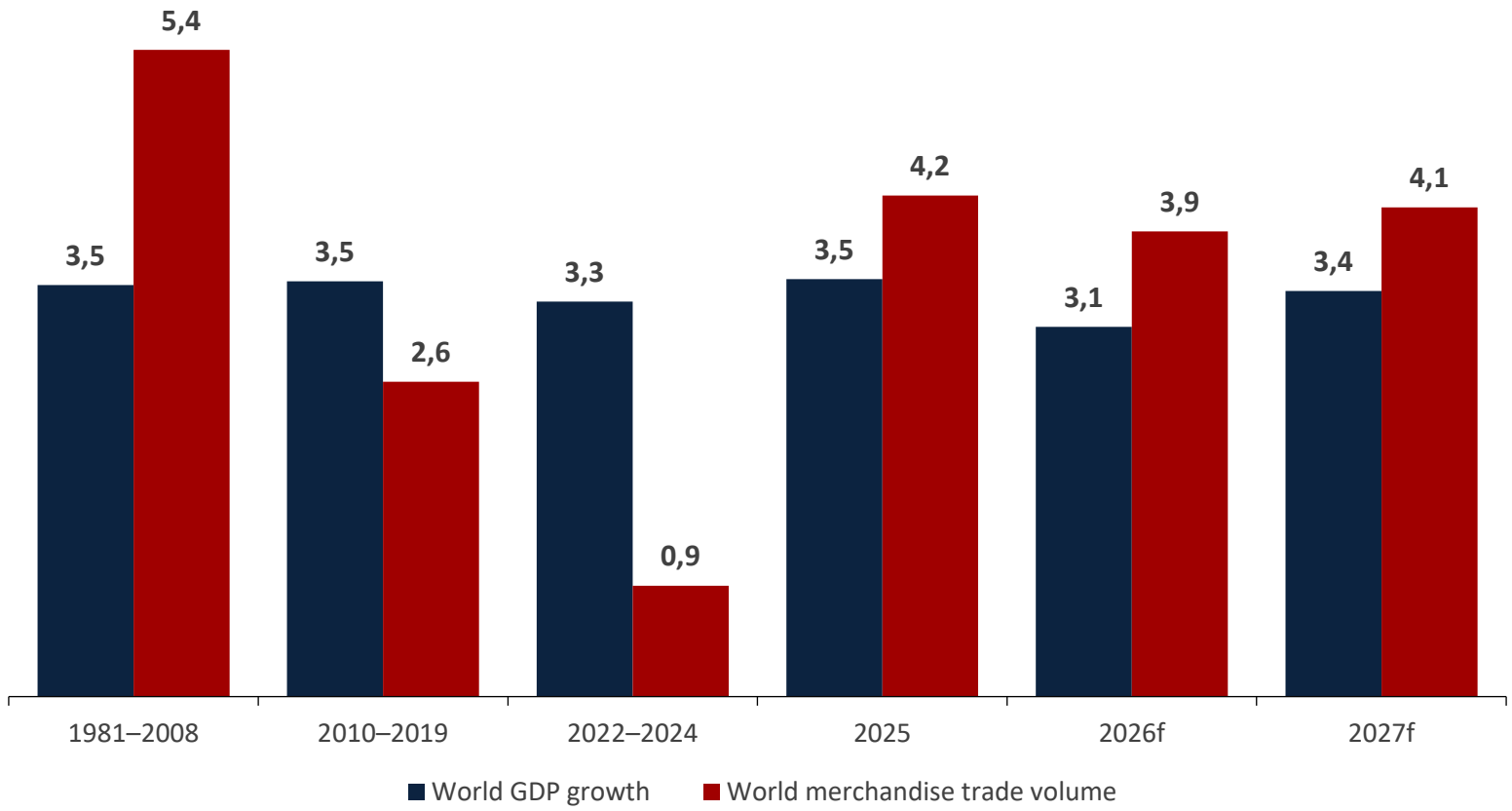
Global value chain participation in 2022 (19.5% in 1995)

Source: IMF, WTO, World Bank.

Trade Has Decoupled from Output Growth

World trade, once growing much faster than output, has slowed; AI-related goods have kept it resilient in 2025–26

World GDP growth and world merchandise trade volume (annual % change)



A weakening link

Before 2008 trade grew about 1.6 times as fast as output; in 2010–19 it grew more slowly, and in 2022–24 it barely grew.

Resilience in 2025–26

Front-loading ahead of US tariffs and strong demand for AI-related goods lifted trade volumes despite rising protectionism.

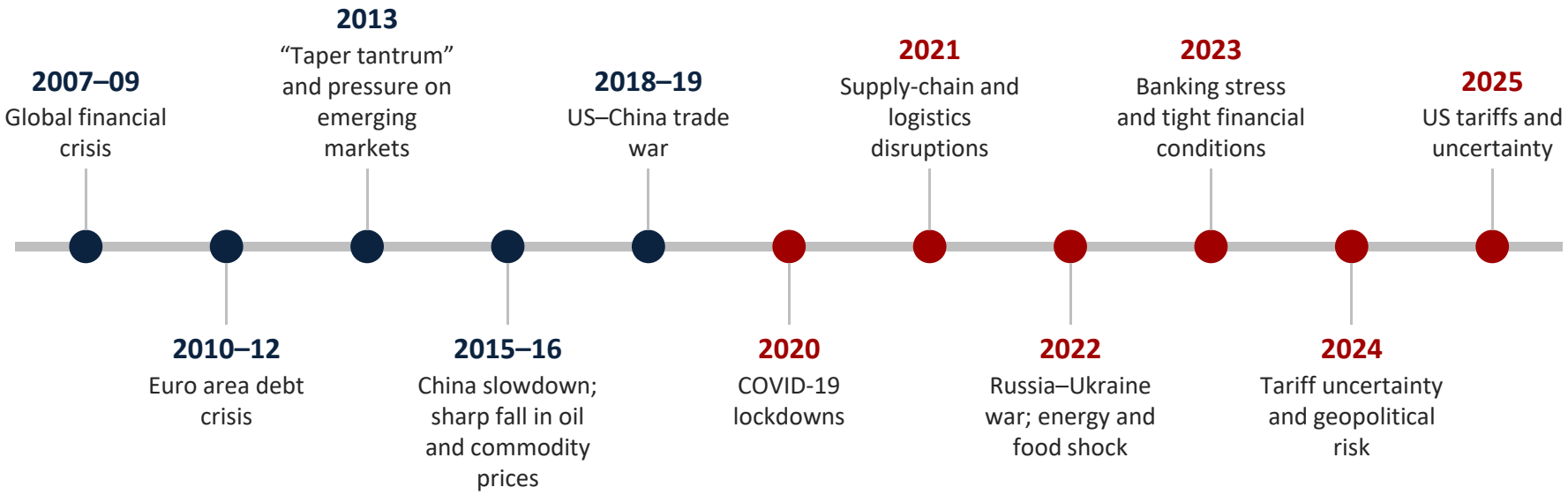
Risks remain

Higher tariffs, energy-price shocks and a possible reassessment of AI investment could weaken trade again.

Source: IMF WEO (October 2026) for GDP growth; WTO (October 2026) for 2025–27 trade volume; historical averages from IMF and WTO.

A Decade of Successive Global Shocks

Since COVID-19, the global economy has faced a major new shock almost every year



Post-2020: a new shock almost every year

2026

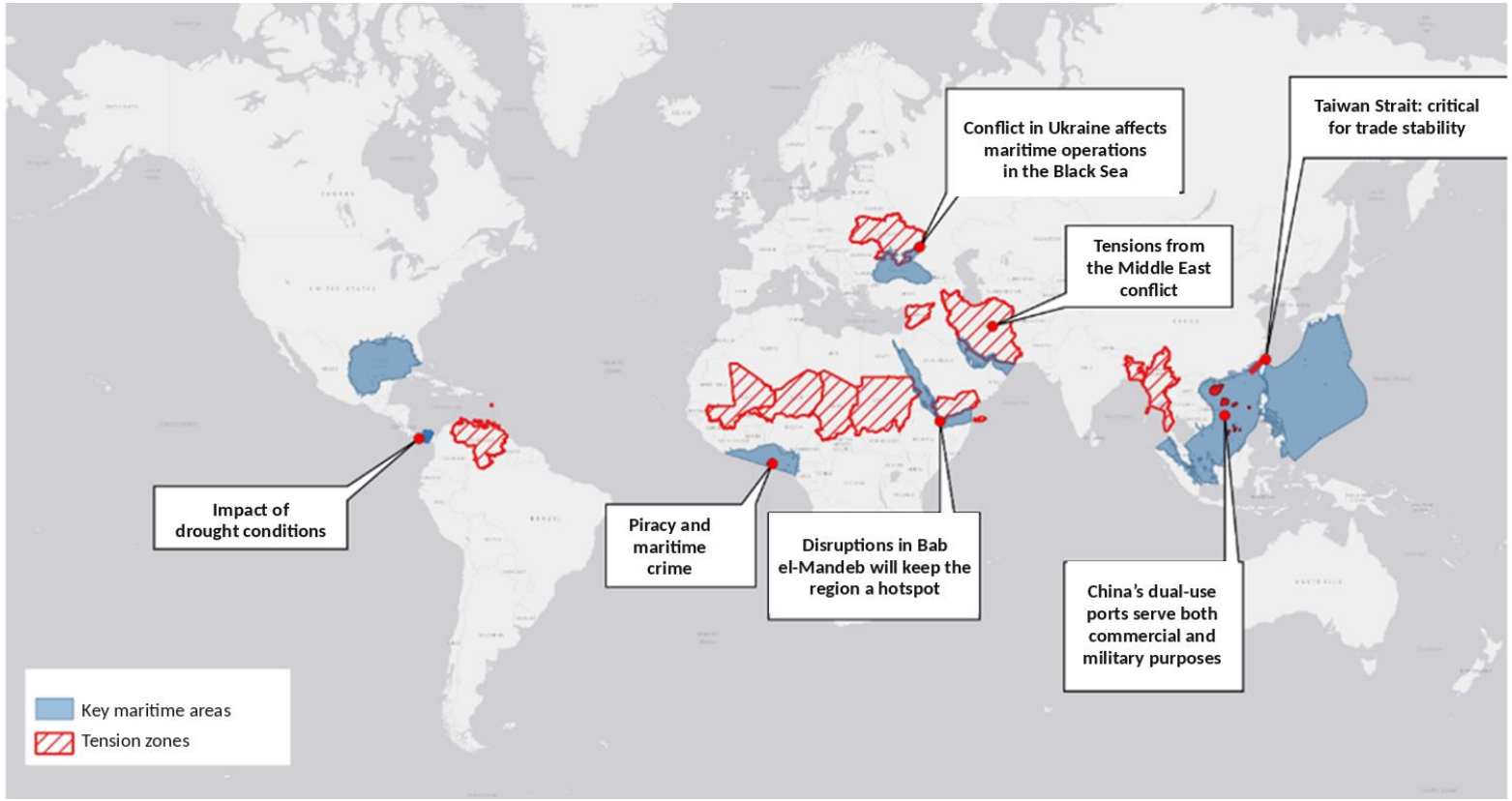
US/Israel–Iran war: an energy shock

Because it hits costs, inflation and growth at the same time, this energy shock looks more challenging and more persistent than earlier ones.

Note: The timeline is not to scale; it highlights the higher frequency of shocks after 2020.

Geopolitics and Trade Routes

Supply security, sea lanes and critical regions directly determine competitiveness



Key risk areas for global trade

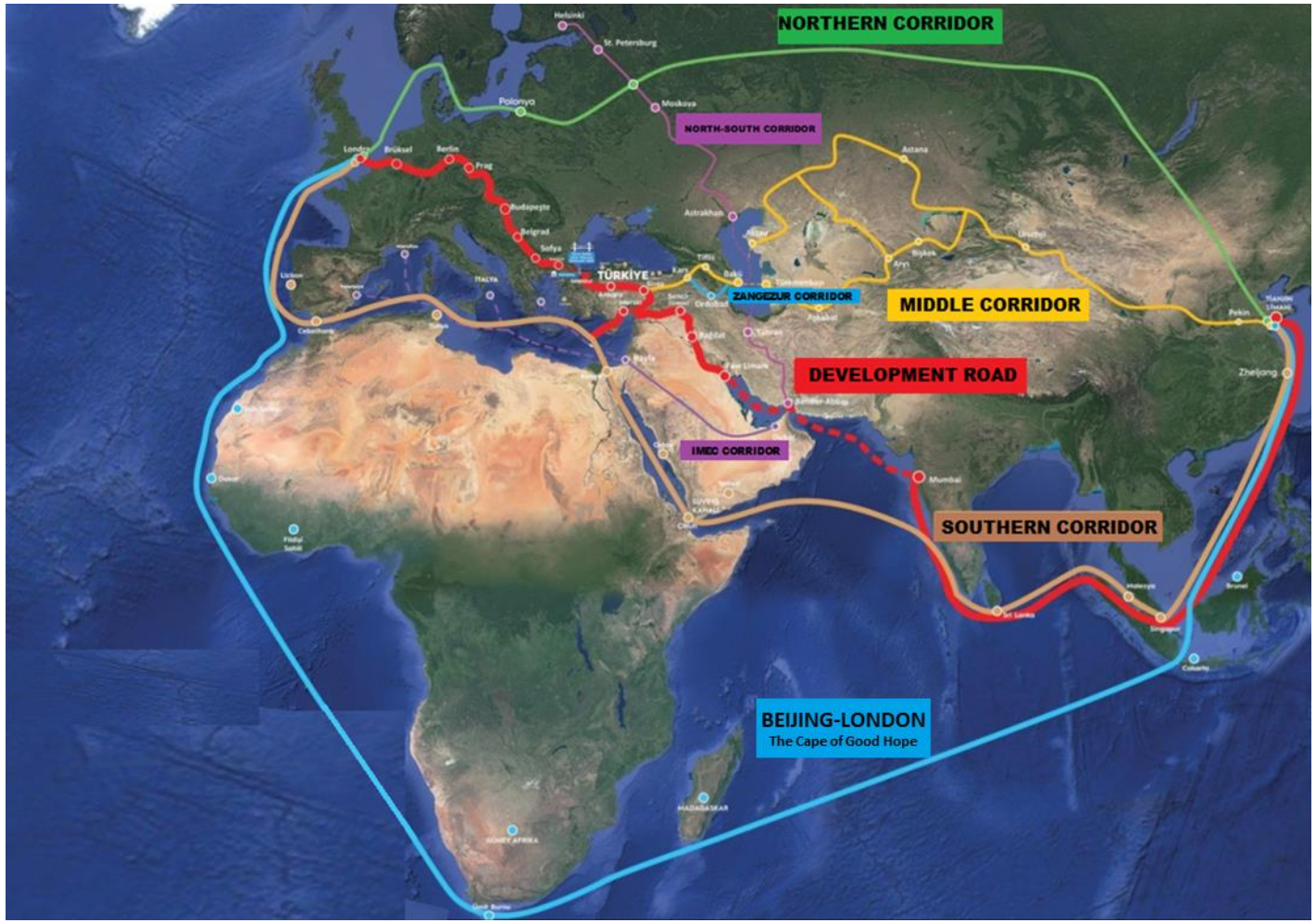
- Black Sea maritime operations (war in Ukraine)
- Middle East conflict and the Strait of Hormuz
- Disruptions in the Bab el-Mandeb Strait
- Taiwan Strait and trade stability
- Drought in the Panama Canal
- Piracy in the Gulf of Guinea
- Dual-use (commercial and military) ports
- US–Venezuela tensions

Seizures of multinationals' assets in Russia show that geopolitical risk now feeds directly into investment decisions.

Source: VSICO.com.

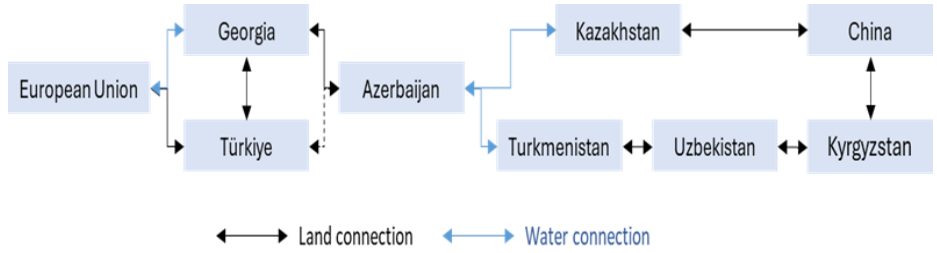
Trade Corridors

The reconfiguration of world trade and supply chains is reshaping global shipping routes



Source: Ministry of Trade

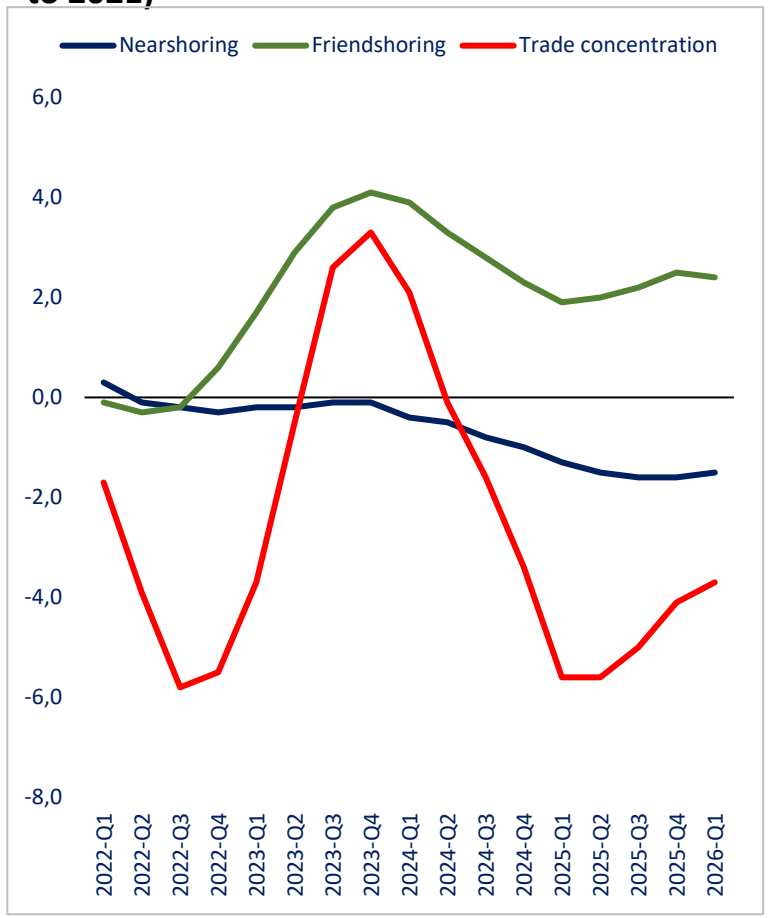
The shift of the center of gravity in global trade towards the East is increasing the search for east-west corridors.



Drivers of Global Trade in the Period Ahead

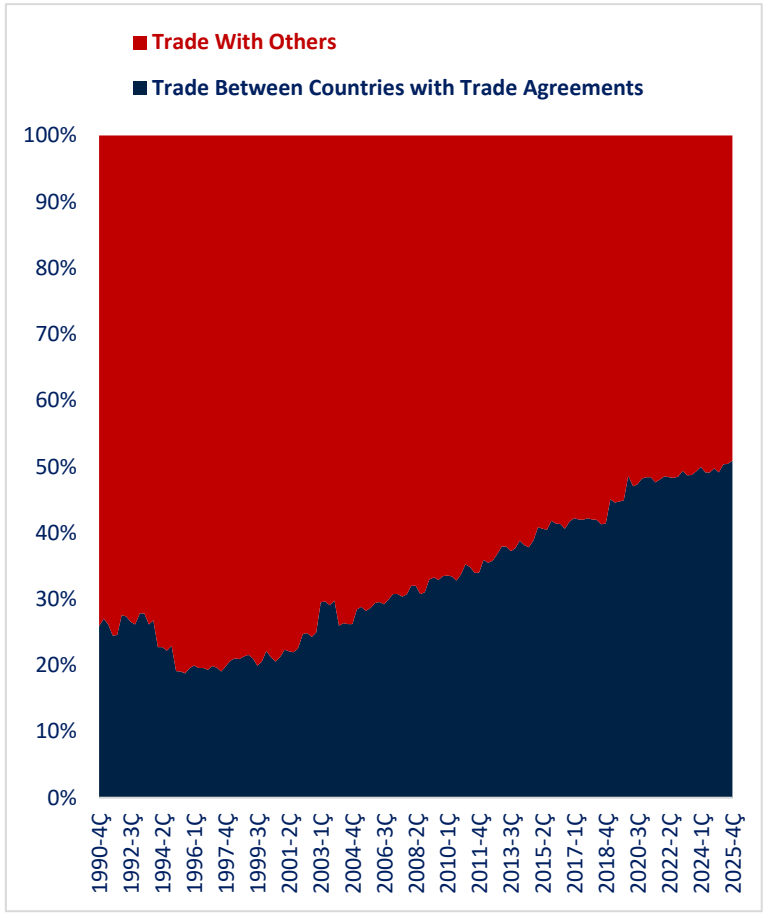
Trade flows are increasingly favouring countries with diversified exports and trade agreements

Trends in trade flows (annual change relative to 2021)



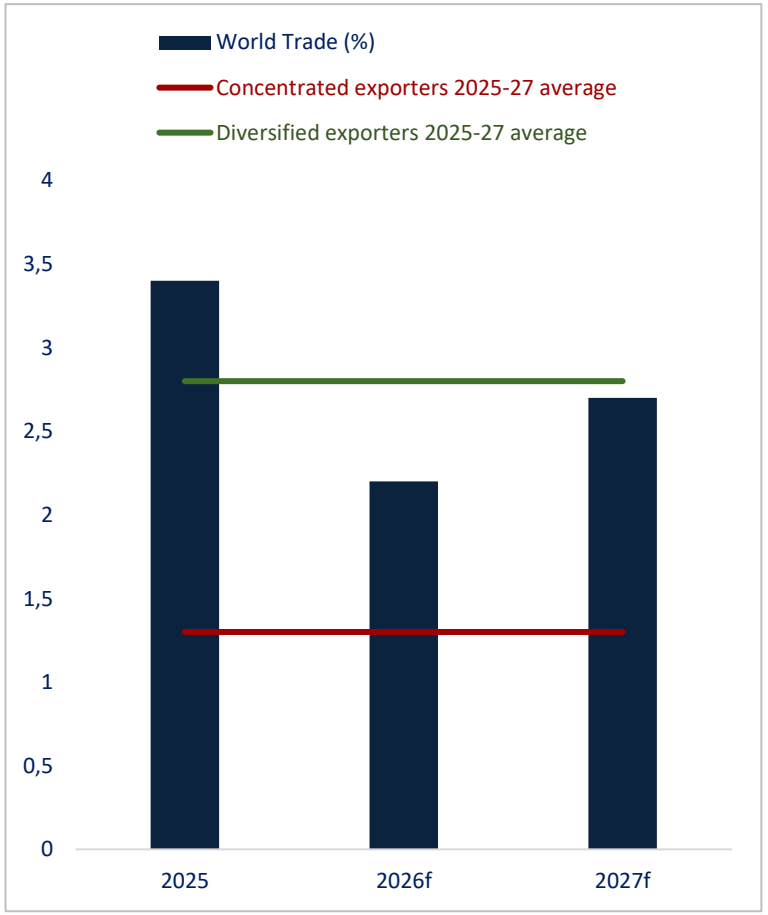
Source: UNCTAD (July-August 2026)

Trade in Goods by Trade Blocks (Share, %)



Source: World Bank (June 2026)

Growth of trade in goods and services (%)*

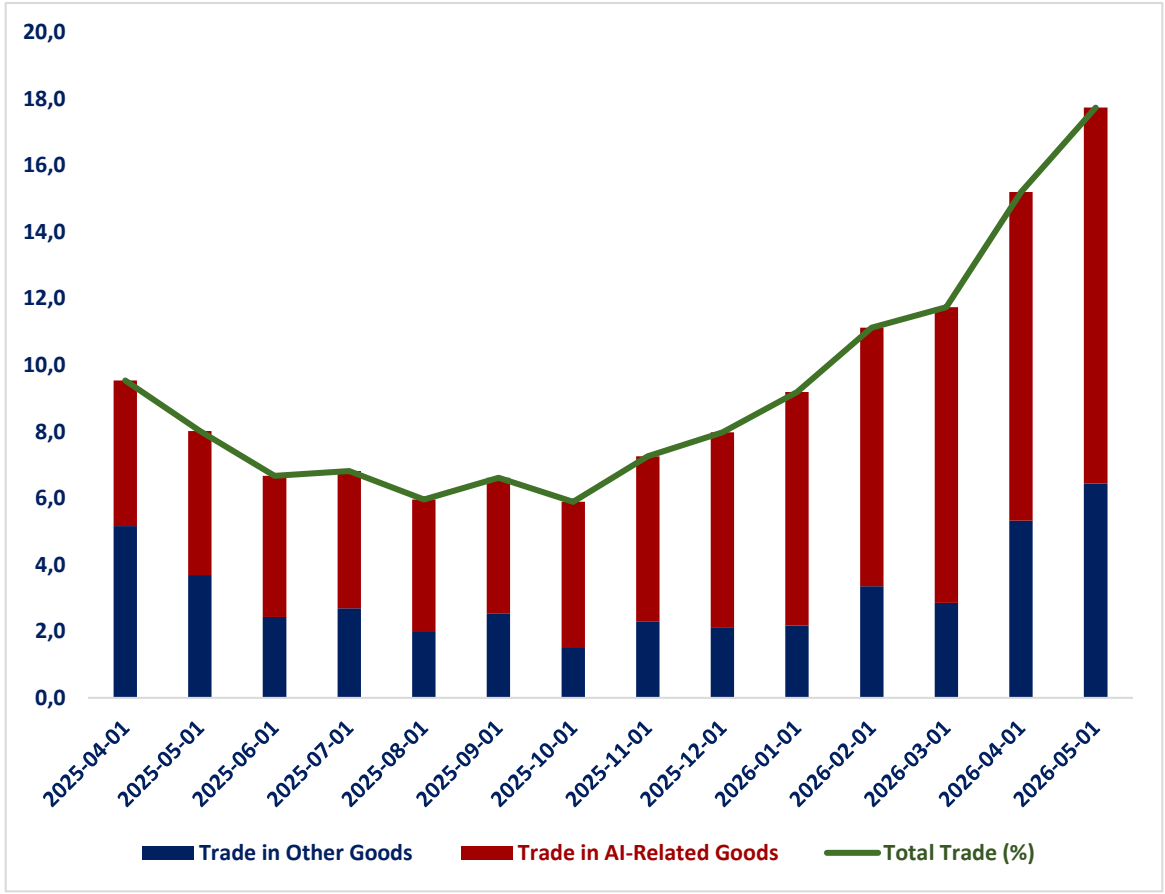


Source: World Bank. *Includes forecasts. Note: the World Bank splits countries into two groups using the Herfindahl-Hirschman Index (HHI).

AI-Related Trade and Trade Growth by Product

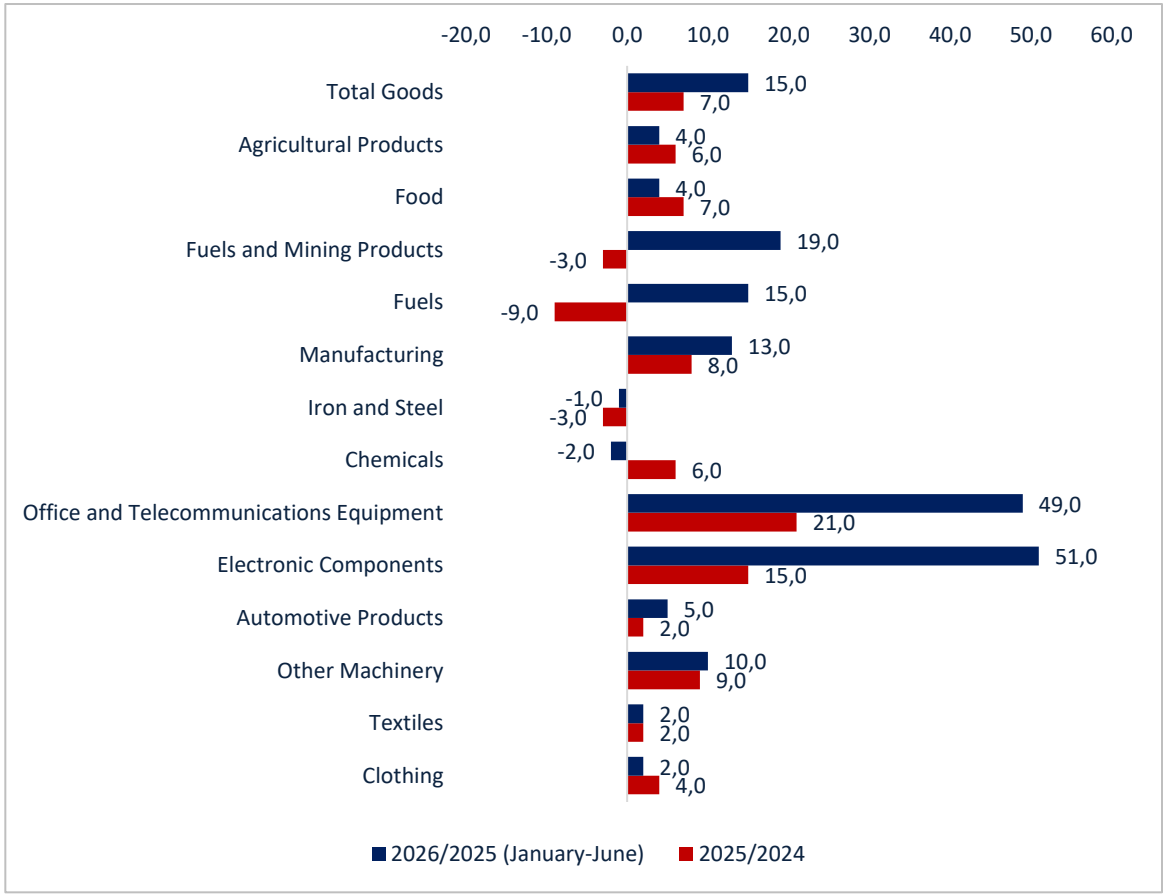
AI-related products were the main driver of world trade growth in the first half of 2025

Value of Global Trade (Contributions to y-o-y % changes, % pts)



Source: OECD

Annual goods trade growth by product (%), 2026/2025 (January–June)

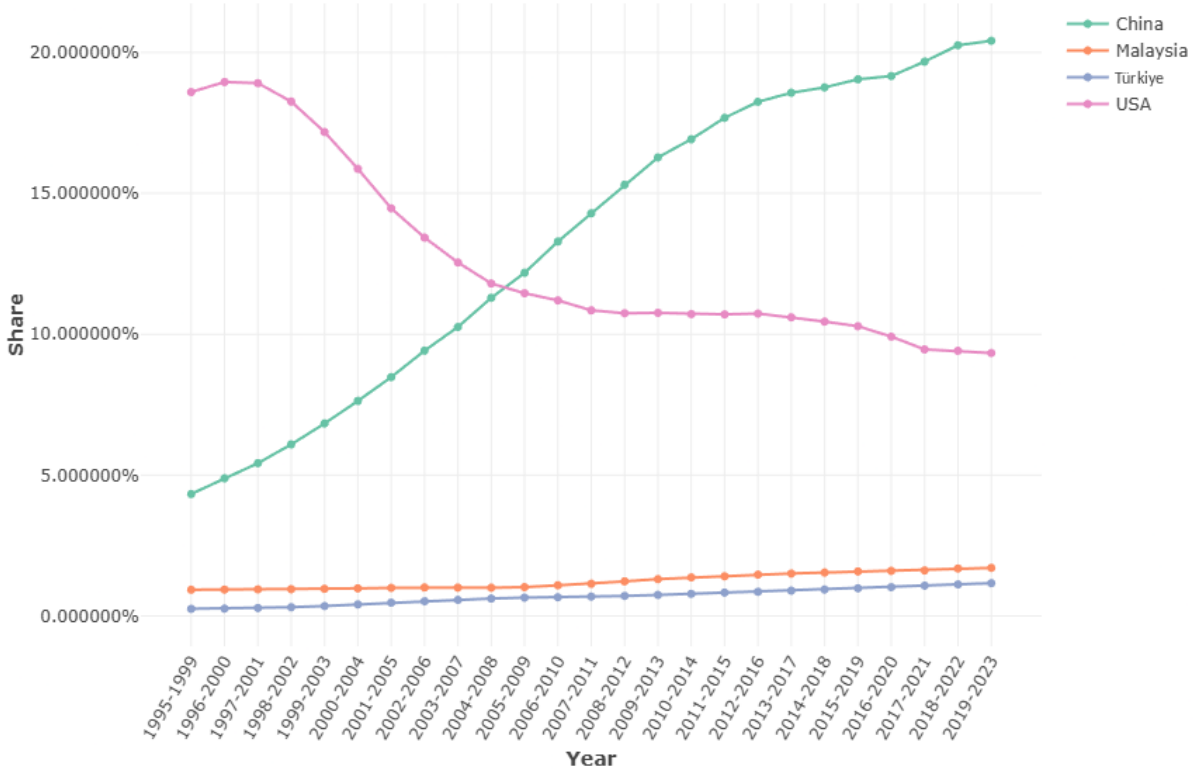


Source: World Trade Organization

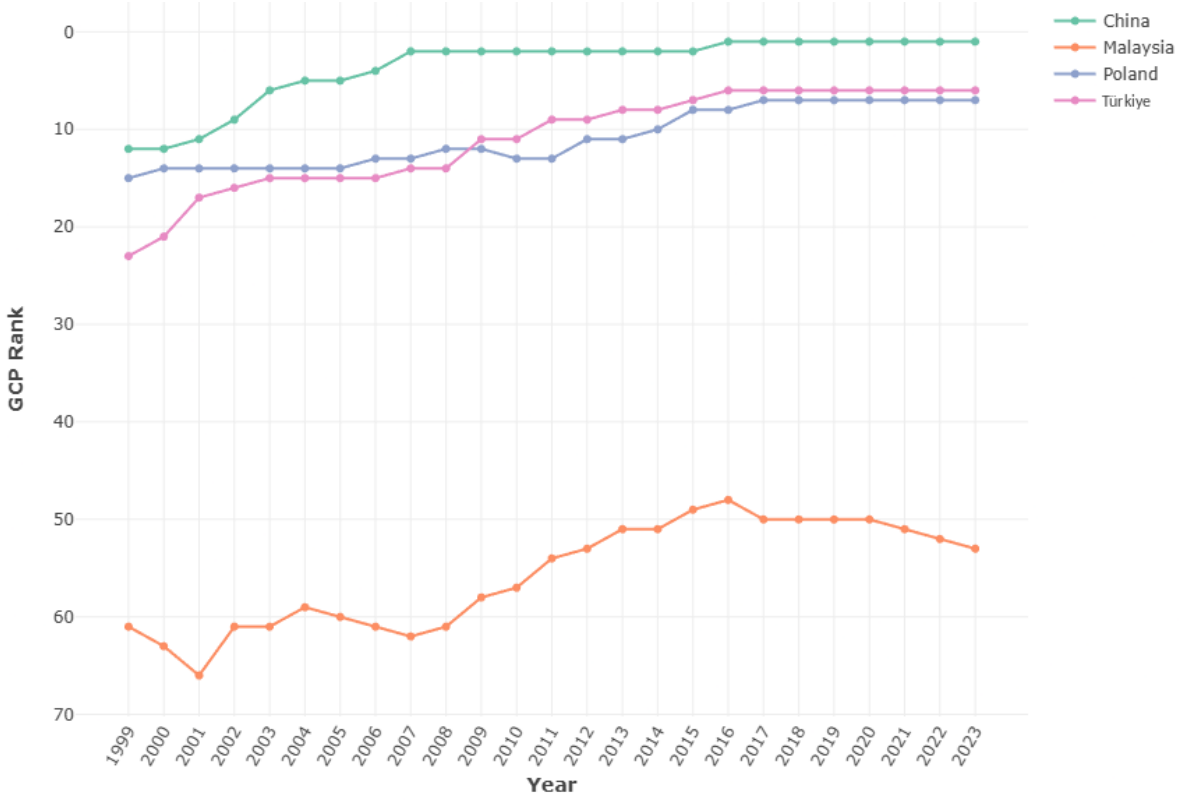
Global Competition in the Green Transition

China leads green product exports, while Türkiye has potential to diversify into complex green products

Country share in global exports of products within category 'All green products'



Green Complexity Potential



- **Green exports:** China's share of world green-product exports rose from about 4% to over 20%, while the US share halved; Türkiye's share remains around 1%.
- **Green Complexity Potential:** Türkiye has climbed from around 23rd to 6th, indicating strong capabilities to move into complex green products (rank, 1 = highest).

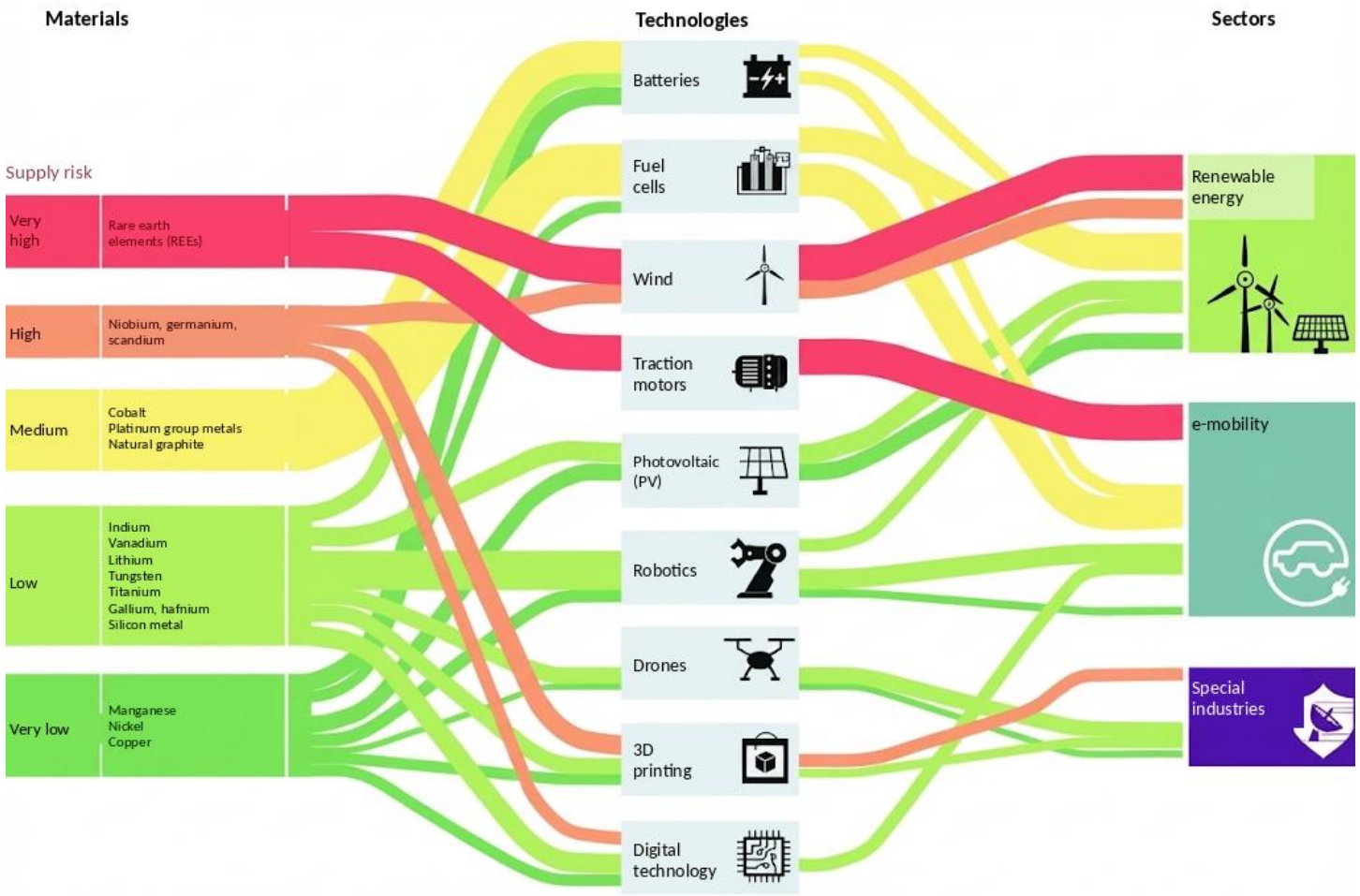
Source: Green Transition Navigator, based on Mealy & Teytelboym (2022) and UN Comtrade.

Critical Raw Materials and the Clean Technology Race

Access to critical raw materials and their efficient use are decisive in clean technology competition

Key uses in the green transition

- Electric vehicles
- Wind energy
- Solar energy
- Energy storage and grid systems
- Hydrogen production and fuel cells
- Energy-efficient lighting and electronics
- Carbon capture and storage (CCS)
- Electric/hybrid maritime and air transport



Source: Report on the supply potential of critical metals and minerals for the green energy transition in the Nordic region, ResearchGate (2021).

The Changing Composition of World Trade

Electronics dominate the most traded products of the top five traders; gold and computing components gained ground

Most traded products of the five largest trading economies, 2021

HS 6	Product	$ bn	Share (%)
270900	Crude petroleum	570.5	3.4
854231	Processors and controllers (chips)	495.1	3.0
851712	Mobile telephones*	338.0	2.0
854239	Other integrated circuits	336.8	2.0
854232	Memory chips	323.7	1.9
847130	Laptops and portable computers	259.2	1.6
870323	Passenger cars, petrol	234.3	1.4
300490	Medicaments, retail	215.4	1.3
260111	Iron ores and concentrates	201.9	1.2
847330	Parts of computers	181.1	1.1
	Top-10 total	**3,156**	**18.9**
	Total trade of the top-5 traders	**16,698**	**100**

Most traded products of the five largest trading economies, 2025

HS 6	Product	$ bn	Share (%)
270900	Crude petroleum	628.0	3.4
854231	Processors and controllers (chips)	591.6	3.2
710812	**Gold, unwrought**	**423.7**	**2.3**
854239	Other integrated circuits	350.1	1.9
854232	Memory chips	316.6	1.7
847330	Parts of computers	284.6	1.5
847150	**Computer processing units**	**275.4**	**1.5**
851713	Smartphones*	272.5	1.5
851762	**Voice, image and data transmission equipment**	**263.9**	**1.4**
710813	**Gold, semi-manufactured**	**262.1**	**1.4**
	Top-10 total	**3,669**	**19.9**
	Total trade of the top-5 traders	**18,440**	**100**

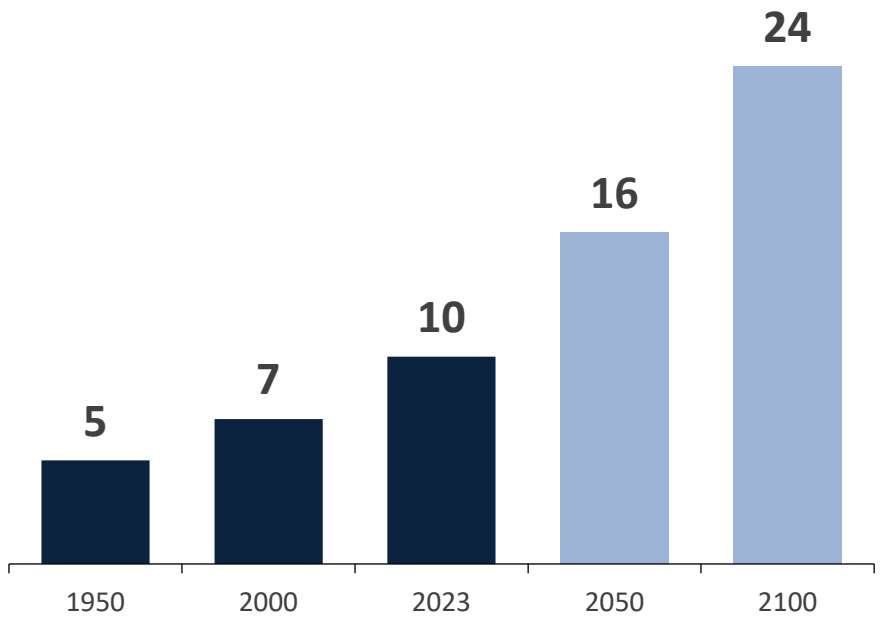
New in the 2025 top 10 (in red): unwrought and semi-manufactured gold, computer processing units and data transmission equipment. Laptops, cars, medicaments and iron ore dropped out.

Source: Trade Map. *HS 2022 splits mobile phones into smartphones (851713) and other phones. 'Commodities not elsewhere specified' (HS 999999) excluded.

An Ageing World

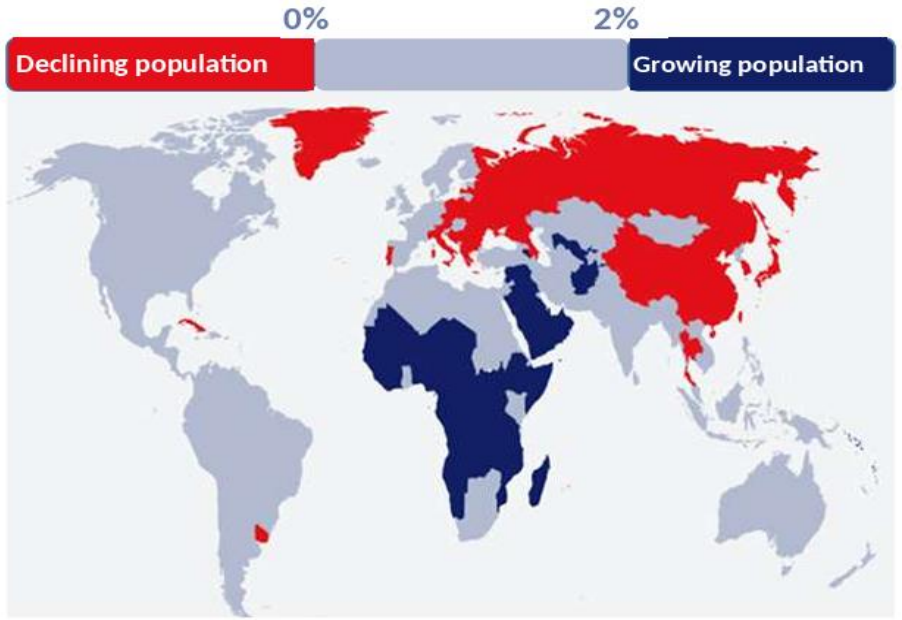
Population ageing is a defining trend that will shape global economic balances over the medium term

Population aged 65 and over (% of total)



2050 and 2100: UN projections

Population growth, 2023 (%)



Implications

- Shrinking workforces and slower potential growth in advanced economies and China
- Rising pressure on public finances from pensions and health care
- Africa and South Asia will supply most of the world's new workers
- **Raising income before the population ages** is a core priority for Türkiye

Source: IMF; United Nations, World Population Prospects; Ministry of Treasury and Finance.

Policy Approaches of the US, the EU and China

A comparison across trade, industrial, green transition and AI policies

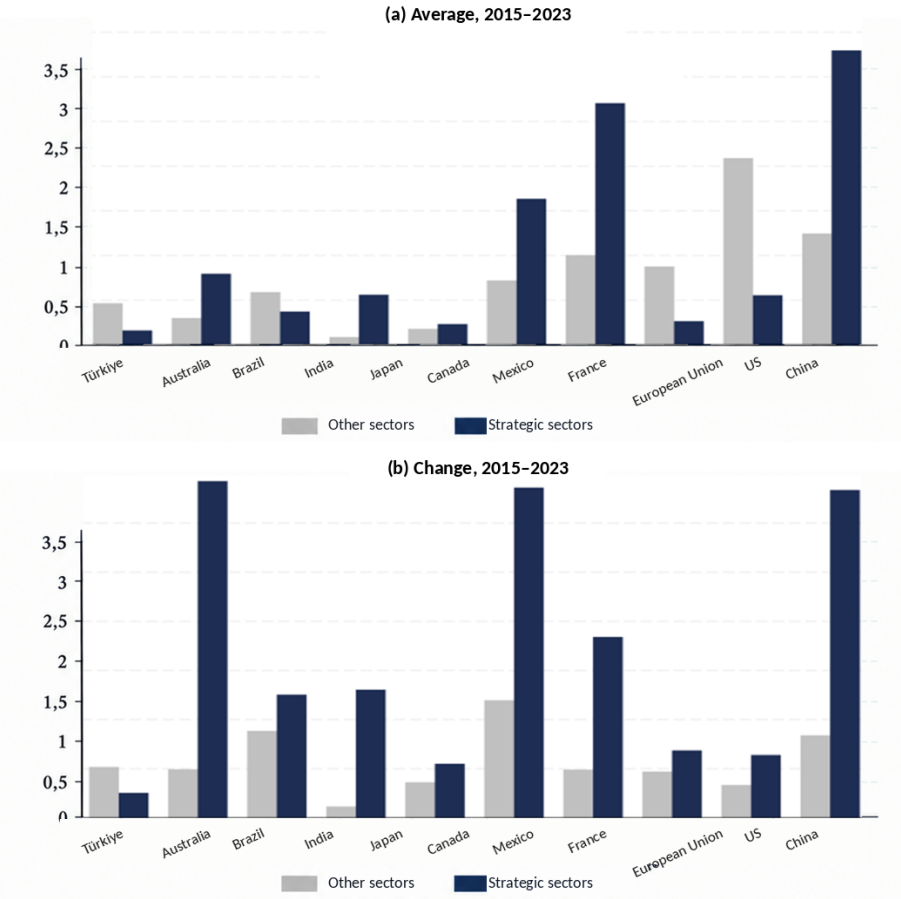
	United States	European Union	China
Trade policy	Tariffs as leverage; reciprocity-based trade plan; Section 122 and 301 tariffs	Rule-based openness; carbon border adjustment; conditions on foreign investment	Export restrictions on critical raw materials; **surplus redirected to third markets**
Industrial policy	Domestic production and clean-technology incentives (IRA), tax credits	Draghi Report → Industrial Accelerator Act; strategic sectors, EU-origin criteria	State-backed capacity and scale in strategic sectors
Green transition	Incentive-driven; federal volatility, but state and private investment continues	Rule-setter: Green Deal, Fit for 55, CBAM	Manufacturing leader in solar, wind, EVs and batteries
Artificial intelligence	Technological leadership: chips, models, cloud, platforms	Trust and industry: AI Act, Apply AI	Industrial scale: AI embedded in manufacturing and supply chains

Common feature: economic security and strategic autonomy now shape trade, industrial, climate and technology policy alike.

Source: TARGEM compilation based on department contributions.

The Resurgence of Industrial Policy

The US, China and now the EU are turning to targeted, strategic industrial policy



Draghi Report (2024)

- A widening productivity and innovation gap vs. the US and China
- About €800 bn of additional investment needed each year
- Priorities: close the innovation gap; decarbonise competitively; reduce strategic dependencies

Three converging trends

- From horizontal tools to tools differentiated by strategic priority
- Demand, investment, finance and skills instruments used together
- Delivery concentrated in specific economic geographies

Implication: horizontal policies need to be complemented by product-level, evidence-based prioritisation – the approach of our competitiveness study.

Source: IMF Working Paper 2026/155 (left: estimated subsidy share of value added, top-10 countries, 2015–2023); Draghi (2024).

Türkiye: Long-Term Gains and a Transformed Export Basket

An export-led growth strategy has made Türkiye a significant player in the world economy

11th

largest economy by PPP, 4th in Europe

$273.2 bn

exports in 2025 ($2.9 bn in 1980)

4.1% vs 2.8%

export growth 2014–25: Türkiye vs world

241

export markets (206 in 2000)

31st / 22nd

world rank: goods / services exports

5,130

HS6 products exported (4,522 in 2000)

Top 10 export products, 1980 vs 2025

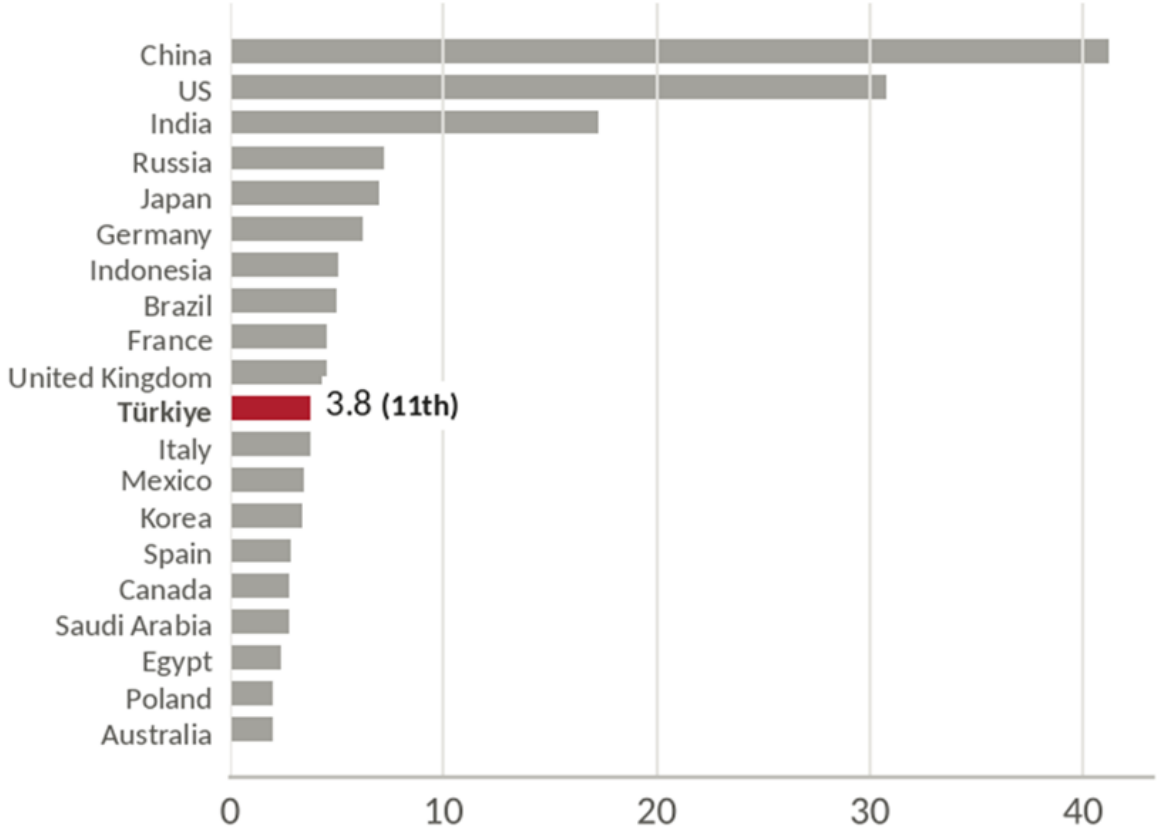
#	1980	$ mn	2025	$ mn
1	Fresh/dried fruit and nuts	717.8	Passenger cars	13,361
2	Cotton	329.9	Refined petroleum products	12,430
3	Unmanufactured tobacco	233.7	Jewellery of precious metals	9,795
4	Textile yarn	201.5	Motor vehicles for goods transport	8,664
5	Other crude minerals	148.9	Motor vehicle parts and accessories	8,404
6	Prepared fruit and vegetables	138.0	Fruit and nuts	6,046
7	Live animals	98.9	Other apparel	5,595
8	Carpets and floor coverings	83.9	Special transactions, not classified	5,479
9	Preserved vegetables and fruit	60.8	Household equipment	5,190
10	Women’s woven garments	55.9	Iron/steel bars, rods and sections	4,705

Source: IMF, World Bank, TÜİK (SITC), WTO.

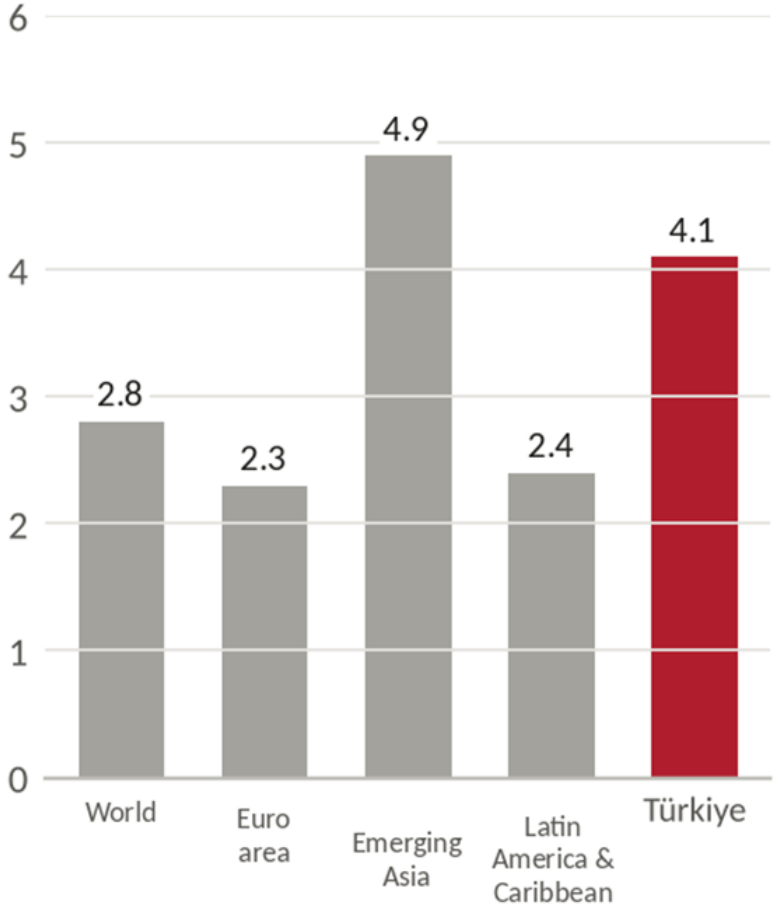
Türkiye in the World Economy

The world's 11th largest economy by PPP, with export growth well above the world average since 2014

a) GDP at purchasing power parity, 2025 ($ tn)



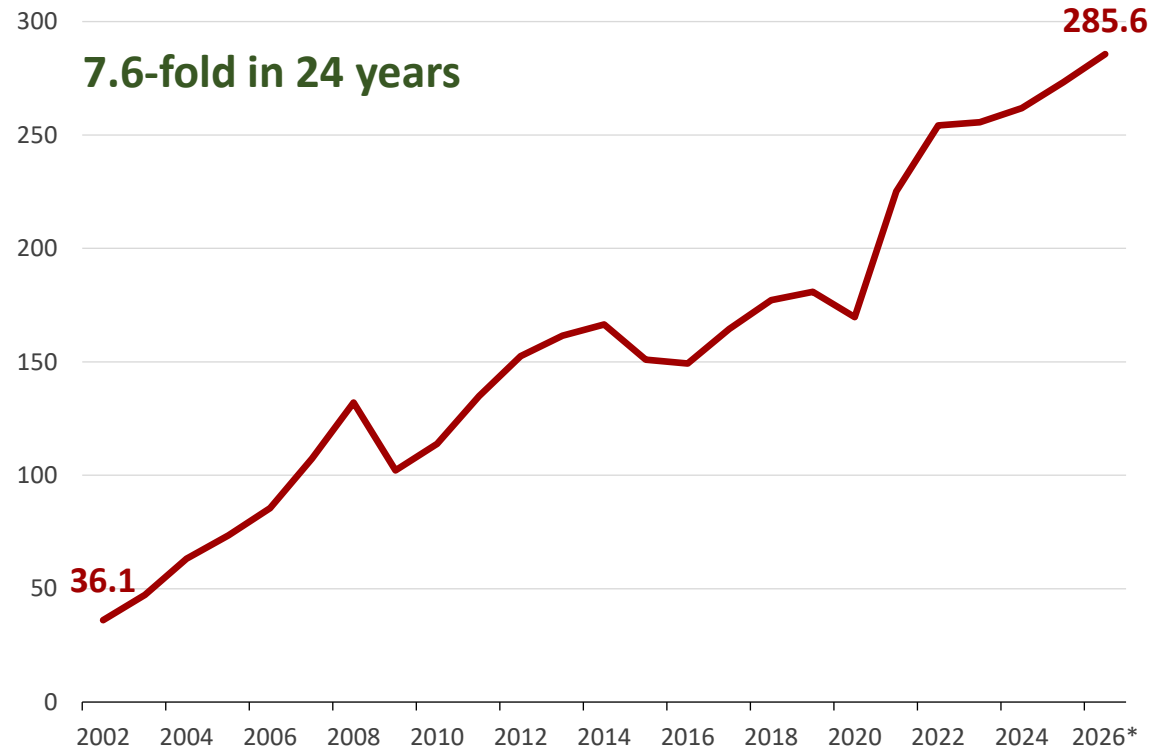
b) Average annual growth of goods exports, 2014-2025 (%)



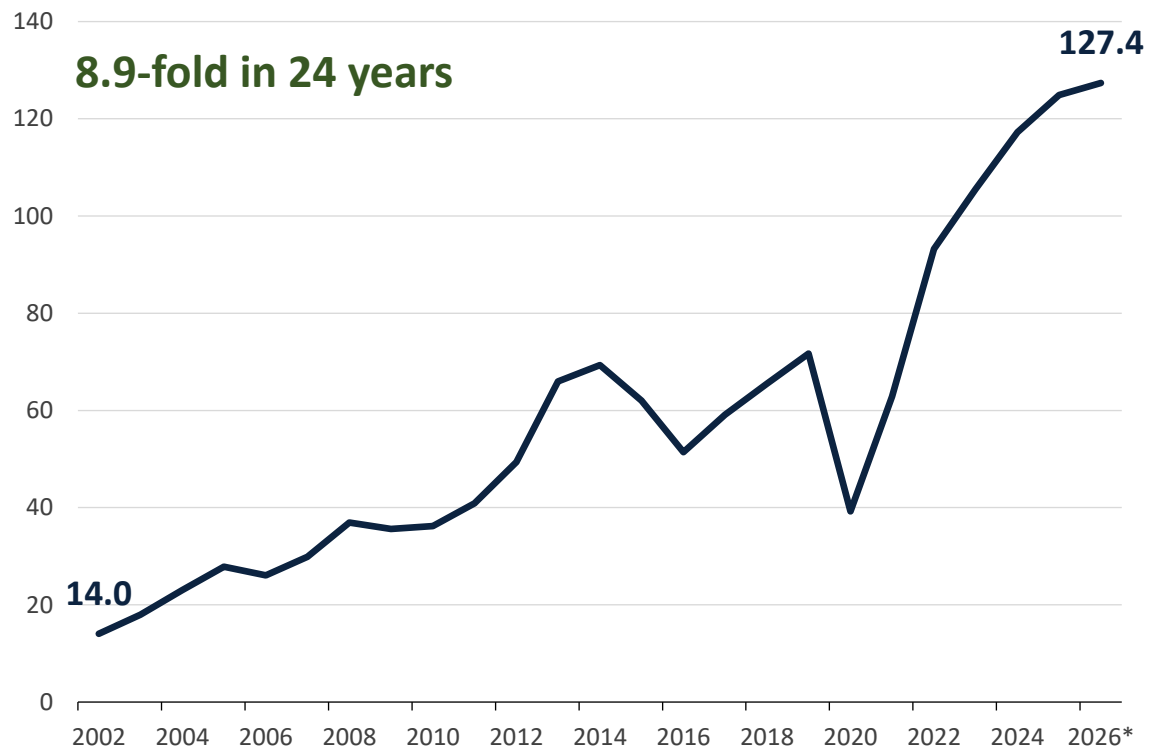
A Historic Rise in Exports

Türkiye’s goods and services exports have grown 7.9-fold over the past 24 years

Goods exports ($ bn)



Services exports ($ bn)

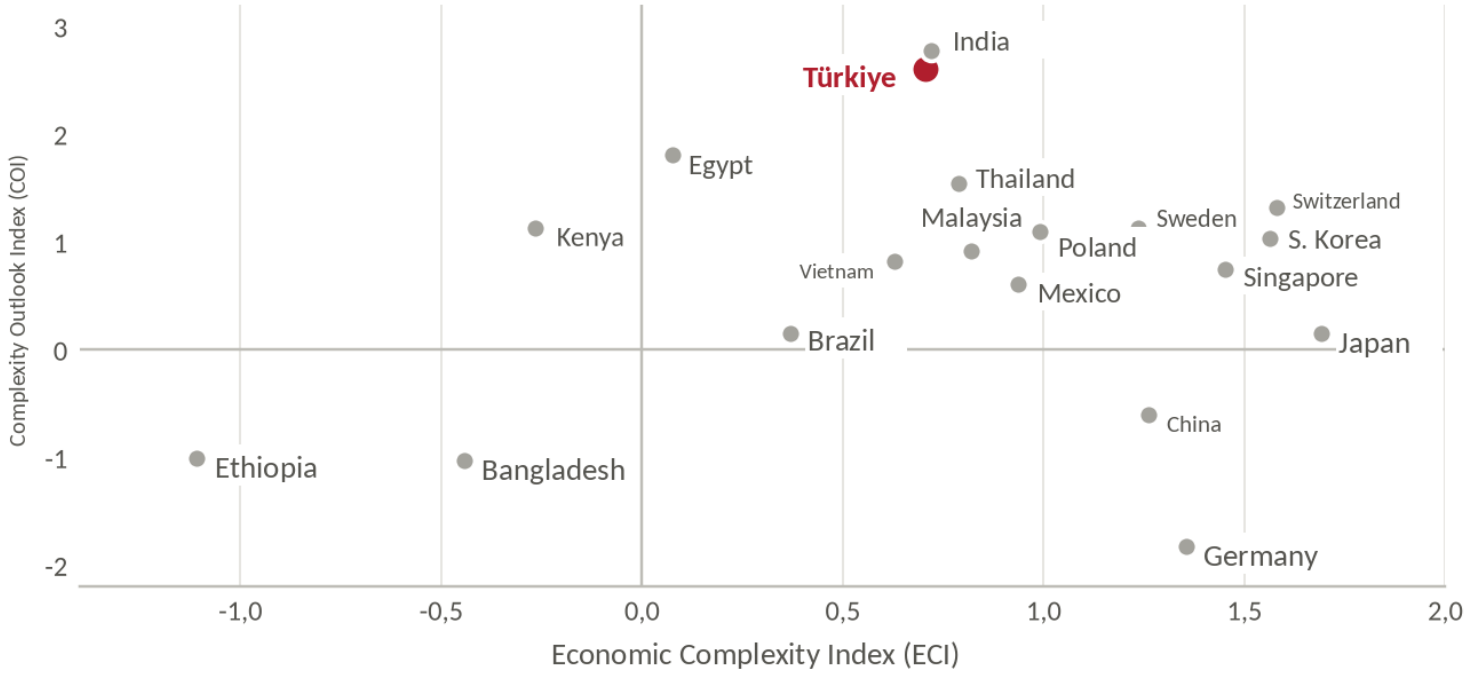


Special Trade System before 2013, General Trade System from 2013. *Annualised as of October 2026 (services exports for September–October 2026 based on Ministry of Trade estimates).

Source: Ministry of Trade, TÜİK, CBRT.

Rising Complexity and Technology Intensity

Türkiye has mid-level complexity today, but one of the world's highest potentials to move into more complex products



How to read: countries high on the vertical axis have many complex products within reach. Türkiye stands out with a mid-level ECI but a very high COI.

Economic Complexity Index (ECI) – horizontal axis

Measures the productive know-how embedded in a country's exports: how many products it exports competitively and how complex (rare, knowledge-intensive) those products are.

2nd Complexity Outlook Index (COI) – vertical axis

Measures how many complex products lie close to a country's existing capabilities – its potential to diversify into higher value added.

7th in product diversity

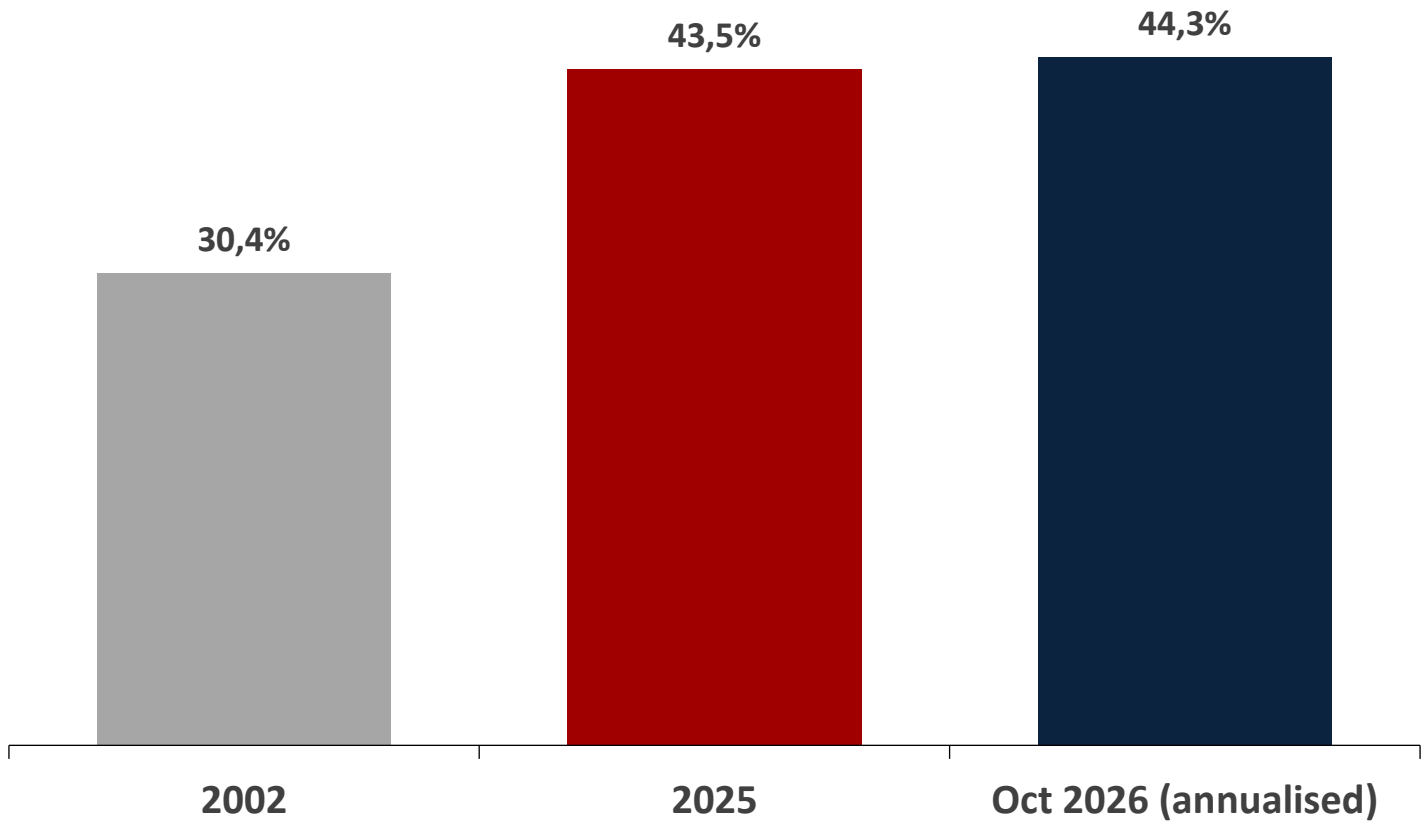
Türkiye also had the 6th largest gain in world market share in 2004–2024 among 118 countries. A broad product range reflects a wide base of production capabilities.

Source: Harvard Growth Lab, The Atlas of Economic Complexity; TÜİK. ECI: Economic Complexity Index; COI: Complexity Outlook Index.

Medium-High and High-Technology Exports

Medium-high and high-tech products now account for more than 44% of manufacturing exports

Share of medium-high and high-tech products in manufacturing exports (%)



$10.2 bn → $111.9 bn

Medium-high and high-tech exports, 2002 → 2025

$97.4 bn

January–October 2026, up from $90.7 bn a year earlier

$118.6 bn

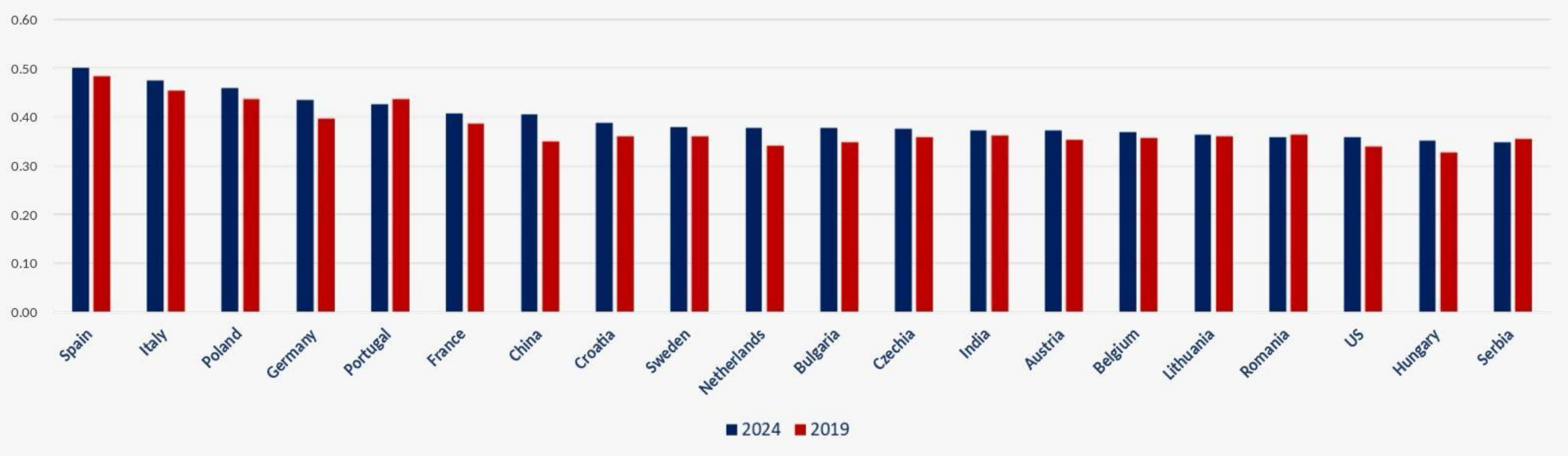
Annualised as of October 2026 – a share of 44.3%

Source: Ministry of Trade data.

Türkiye’s Main Competitors

EU economies dominate Türkiye’s export-similarity ranking, and China is climbing

Trade Similarity Index



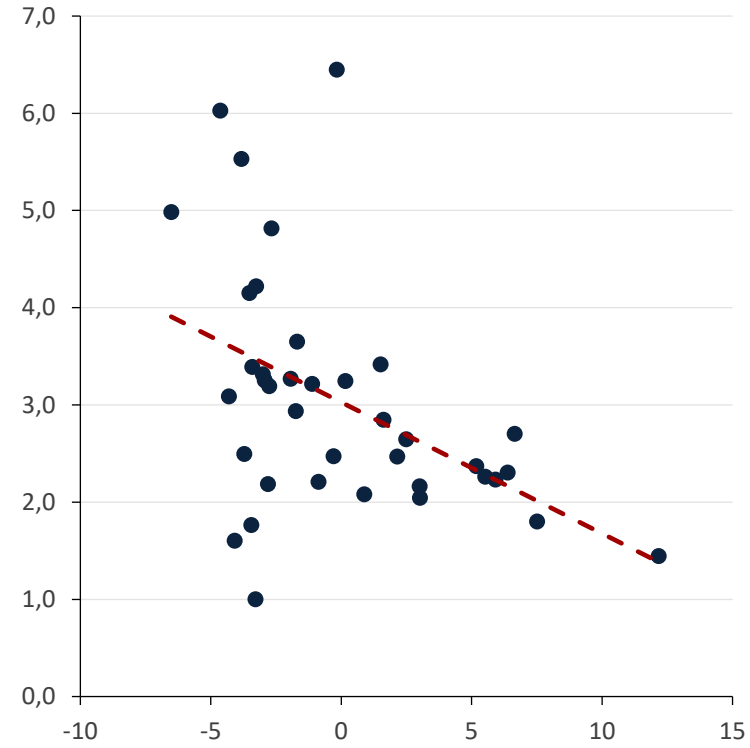
- **Spain, Italy and Poland** have the export structures most similar to Türkiye’s.
- **China ranks 7th**, with a marked increase since 2019 – intensifying competition in medium-tech products in third markets and at home.
- **New pressures:** EU green regulation and industrial policy in our largest market; a still limited share in fast-growing digital services trade.

Source: Ministry of Trade, DG Trade Research and Risk Assessment calculations (UN Comtrade), Trade Similarity Index.

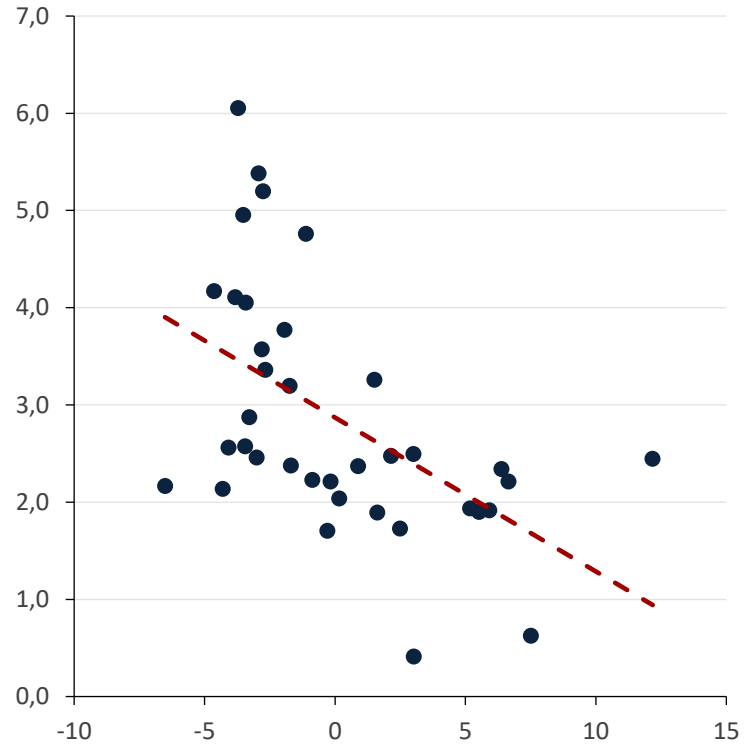
Why a Sustainable Current Account Matters

In OECD countries, stronger external balances go with more stable growth, lower inflation and higher income

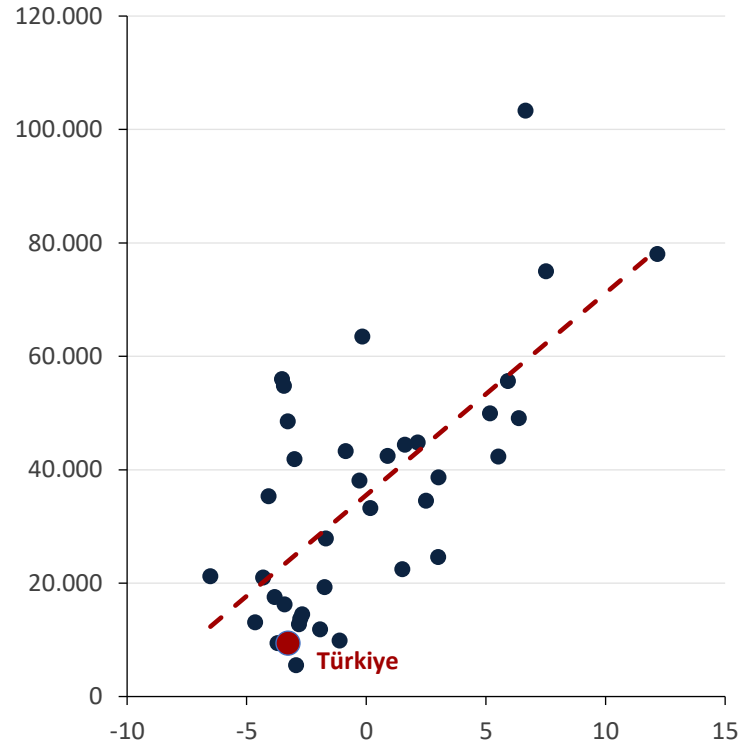
Volatility of GDP growth (std. dev., pp) (y) vs. current account balance, % of GDP (x)



CPI inflation (%) (y) vs. current account balance, % of GDP (x)



GDP per capita ($) (y) vs. current account balance, % of GDP (x)



Lesson: external balance is not only a financing issue – it is closely linked to macroeconomic stability and long-run prosperity, **which is why export competitiveness matters.**

Source: OECD; IMF; TARGEM calculations. Each point is an OECD country (2000–2024 averages); dashed line: linear fit.

Rationale for a Product-Level Analysis

Sustained growth requires continuously moving into new and more complex products

What development economics tells us

Lucas (1993)
Sustained growth needs not only learning on a fixed set of goods but the **continual introduction of new goods.**

Eichengreen et al. (2012)
Near the technology frontier, imported technology is no longer enough; **innovation must be home-grown.**

Flaaen et al. (2013)
Returns to cheap labour and imitation decline – **moving to an innovation-based economy is key.**

Stiglitz & Greenwald (2015)
The gap between nations is a **knowledge gap**; growth depends on how fast it is closed.

Yülek & Santos (2022)
Income gaps persist because value is captured through pricing power – **technology, design and branding** – not only technical efficiency.

Why now, for Türkiye

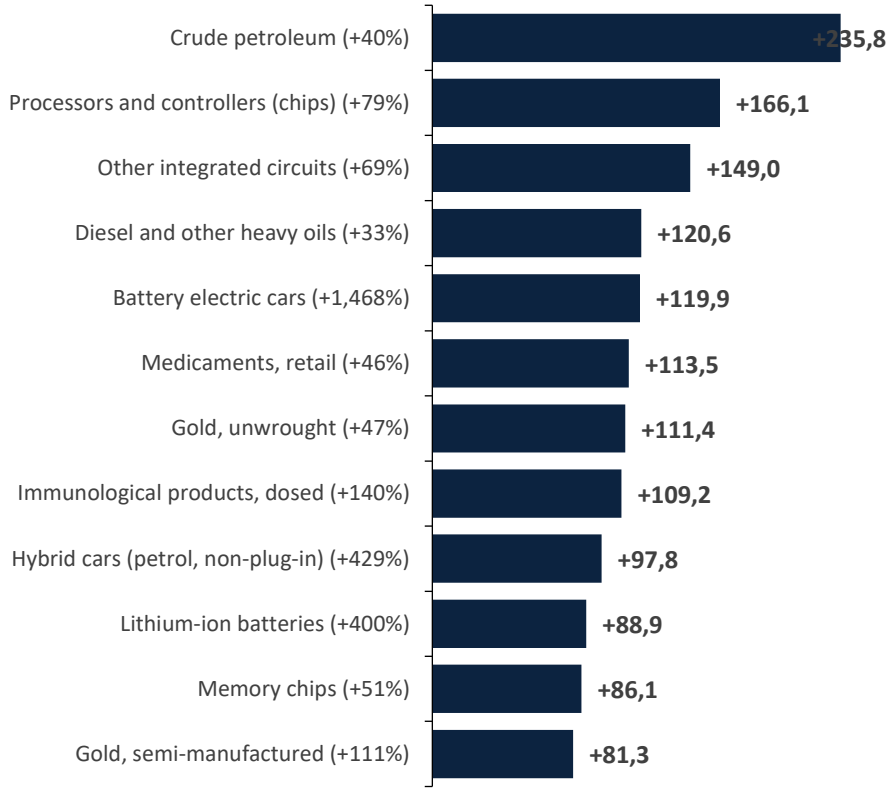
- **Weaker global trade dynamics:** export growth depends more on gaining market share than on expanding demand
- **Shifting demand:** the move east and AI-linked goods redefine which products grow
- **Locking in gains:** the number of economies generating 95% of global growth fell from 54 to 32 (IMF)
- **Capabilities to build on:** 2nd on the Complexity Outlook Index
- **Effective use of public resources:** focus and coordination across incentives, trade, finance and procurement
- **Türkiye's location becomes crucial:** provides opportunities for friend-shoring and near shoring

Source: Lucas (1993); Eichengreen, Park & Shin (2012); Flaaen, Ghani & Mishra (2013); Stiglitz & Greenwald (2015); Yülek & Santos (2022); IMF (2026)

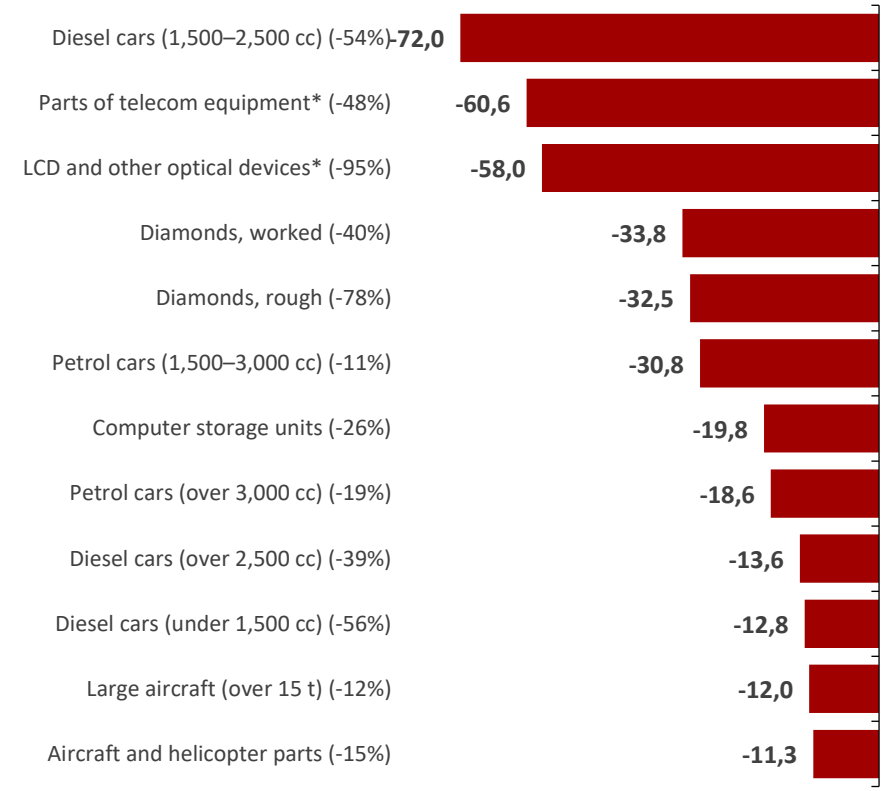
Winners and Losers in World Trade, 2017–2024

The 12 HS6 products with the largest absolute increase and decrease in world exports ($ bn)

Largest increases



Largest decreases



28%

Share of the 10 fastest-growing of 5,611 products in the net rise in world exports

3,672 / 1,939

Products with rising / falling world exports

+$5.55 tn

Total increase, against only −$0.90 tn in total decreases

Percentages in brackets: change vs 2017. *Partly reflects the HS 2022 reclassification of flat-panel display modules.

Source: UN Comtrade (HS 2022, 6-digit, current US$; 2017 values mapped to HS 2022); TARGEM calculations.

Fastest Risers and Fastest Fallers, 2017–2024

Among 590 products with world exports of at least $5 bn in 2017: electrification and electronics lead the change

10 fastest-growing products

Product	2017 → 2024 ($ bn)	Change
Battery electric cars	8.2 → 128.0	**15.7×**
Plug-in hybrid cars (petrol)	9.2 → 62.6	**6.8×**
Hybrid cars (petrol, non-plug-in)	22.8 → 120.6	**5.3×**
Lithium-ion batteries	22.2 → 111.1	**5.0×**
Other computer units	22.3 → 102.9	**4.6×**
Polypeptide and protein hormones	8.1 → 32.2	**4.0×**
Linear low-density polyethylene	7.0 → 18.1	**2.6×**
Coal-tar distillation products	8.2 → 20.9	**2.5×**
Immunological products, dosed	77.9 → 187.1	**2.4×**
Cocoa butter	5.3 → 12.4	**2.4×**

10 fastest-shrinking products

Product	2017 → 2024 ($ bn)	Change
Cobalt oxides and hydroxides	5.3 → 0.4	**–92%**
TV receivers without screen (e.g. set-top boxes)	11.9 → 2.5	**–79%**
Diamonds, rough	41.8 → 9.3	**–78%**
Flat-panel display manufacturing machines	8.9 → 2.8	**–68%**
Base stations	7.1 → 2.8	**–60%**
Amino acids (other)	9.0 → 3.9	**–57%**
Refined copper (other, unwrought)	7.1 → 3.0	**–57%**
Diesel cars (under 1,500 cc)	22.7 → 9.9	**–56%**
Diesel cars (1,500–2,500 cc)	132.9 → 60.9	**–54%**
Alloy steel, hot-rolled coils	9.6 → 4.9	**–49%**

Pattern: electric mobility, batteries, computing and biopharmaceuticals are expanding fastest; diesel cars and older electronics are in decline.

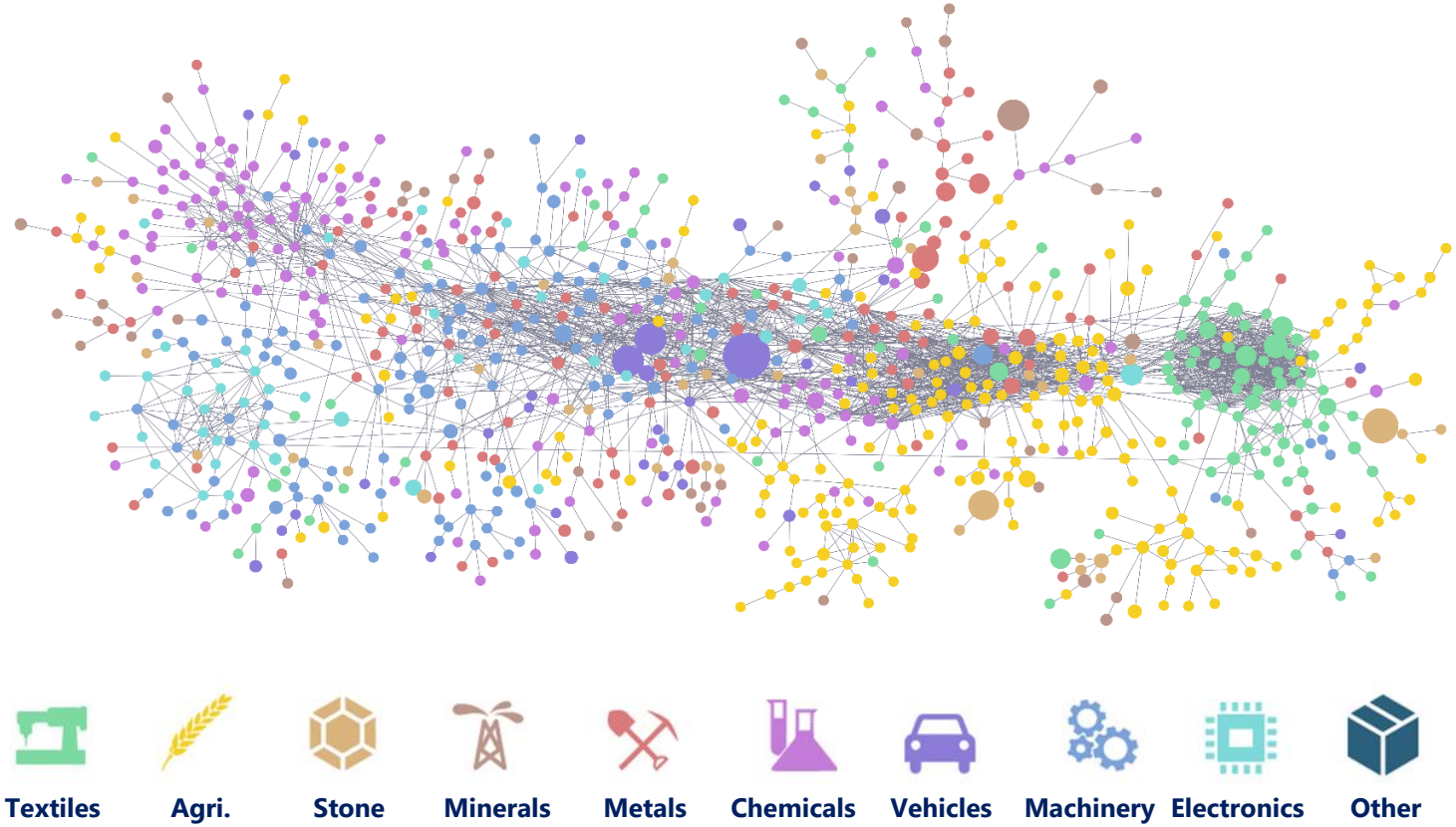
Source: UN Comtrade (HS 2022, 6-digit, current US$); TARGEM calculations. Products possibly affected by reclassification excluded.

Methodology of the Competitiveness Study

The study combines competitiveness, product space, technology and growth–market share analyses

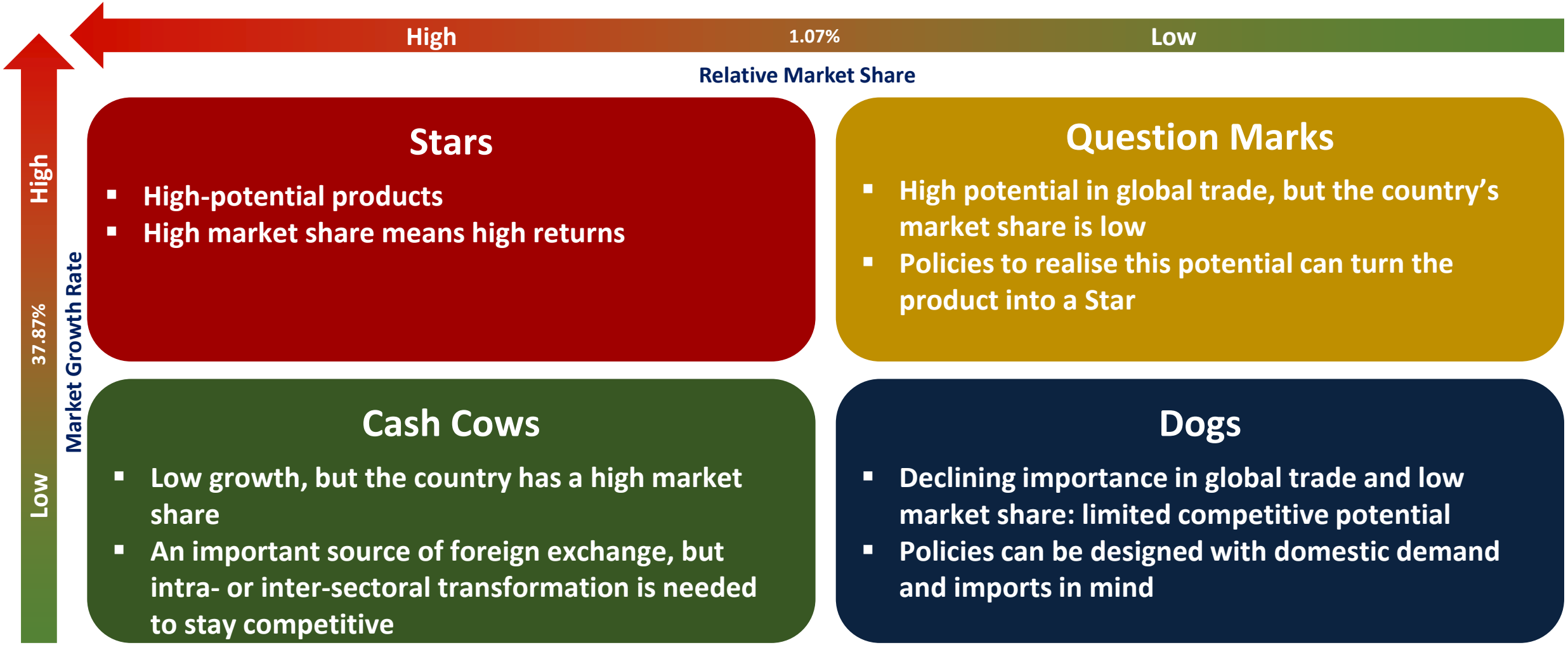
- Using UN Comtrade data for 2017 and 2024, competitiveness, product space, technology and growth–market share analyses were carried out for 5,611 six-digit, 1,229 four-digit and 97 two-digit HS products/sectors and 21 product groups.
- According to the product space approach, countries grow by upgrading the products they make and export.
- The technology, capital, institutions and skills needed for new products are adapted from those used for existing ones; some products are therefore close to a country's capabilities, others far away.

Product Space



Methodology: The Growth–Share Matrix

Product groups according to the BCG growth–share matrix*



Stars

- High-potential products
- High market share means high returns

Question Marks

- High potential in global trade, but the country's market share is low
- Policies to realise this potential can turn the product into a Star

Cash Cows

- Low growth, but the country has a high market share
- An important source of foreign exchange, but intra- or inter-sectoral transformation is needed to stay competitive

Dogs

- Declining importance in global trade and low market share: limited competitive potential
- Policies can be designed with domestic demand and imports in mind

** Bayar, Güzin (2025), "Türkiye İhracatının Yapısı: Teknoloji, Bilgi ve Gelişmişlik Seviyesi, İmkânlar", Sosyoekonomi, 33(66), 461–500.*

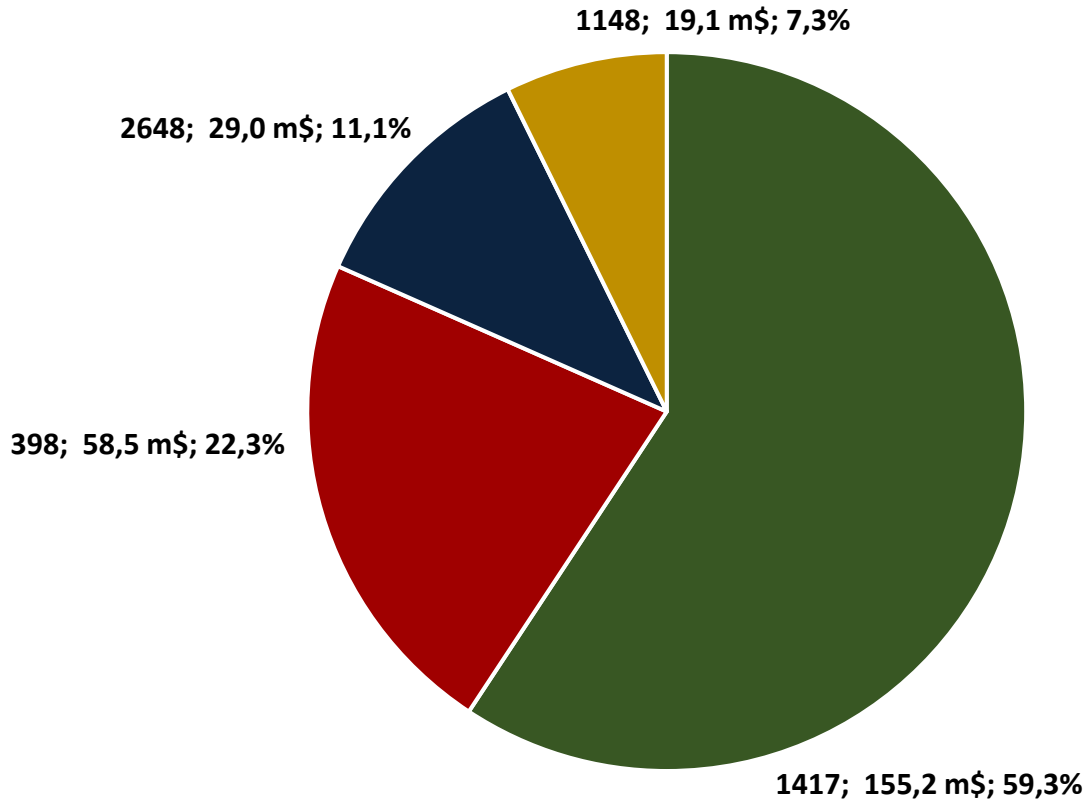
Growth–Share Analysis

Growth–share analysis of Türkiye's exports

Of the 5,611 products traded worldwide in 2024:

- **1,417 Cash Cows ($155.2 bn)**
- **398 Stars ($58.5 bn)**
- **2,648 Dogs ($29.0 bn)**
- **1,148 Question Marks ($19.1 bn)**
- Dogs are the majority by number but account for only 11.1% of exports.
- Cash Cows make up 59.3% of total exports by value.

Türkiye's exports by growth–share category ($ bn)



Growth–Share Analysis

Growth–share analysis of Türkiye's exports

Category	No. of products	World exports ($ bn)	Türkiye's exports ($ bn)	Average exports per product ($ mn)	Median exports per product ($ mn)
Cash Cows	1417	4,149	155.2	109.5	23.1
Stars	398	1,674	58.5	147.0	40.0
Dogs	2648	7,966	29.0	10.9	0.4
Question Marks	1148	8,151	19.1	16.6	0.8

- Average and median exports per product are by far the highest for Stars.
- Of the products gaining share in world exports, Türkiye has a high market share in about $1.7 tn (Stars).
- In about $8.1 tn of these products, Türkiye's competitiveness is weak (Question Marks).
- Türkiye has yet to seize opportunities in a large part of the products gaining share in world exports.
- **If Türkiye's market share in Question Marks reached its average world export share (1.07%), 2024 exports of these products would be about $87 bn – some $68 bn higher than the actual $19.1 bn.**

Untapped Export Potential

Closing the market-share gap in Question Marks would add about $68 bn to exports

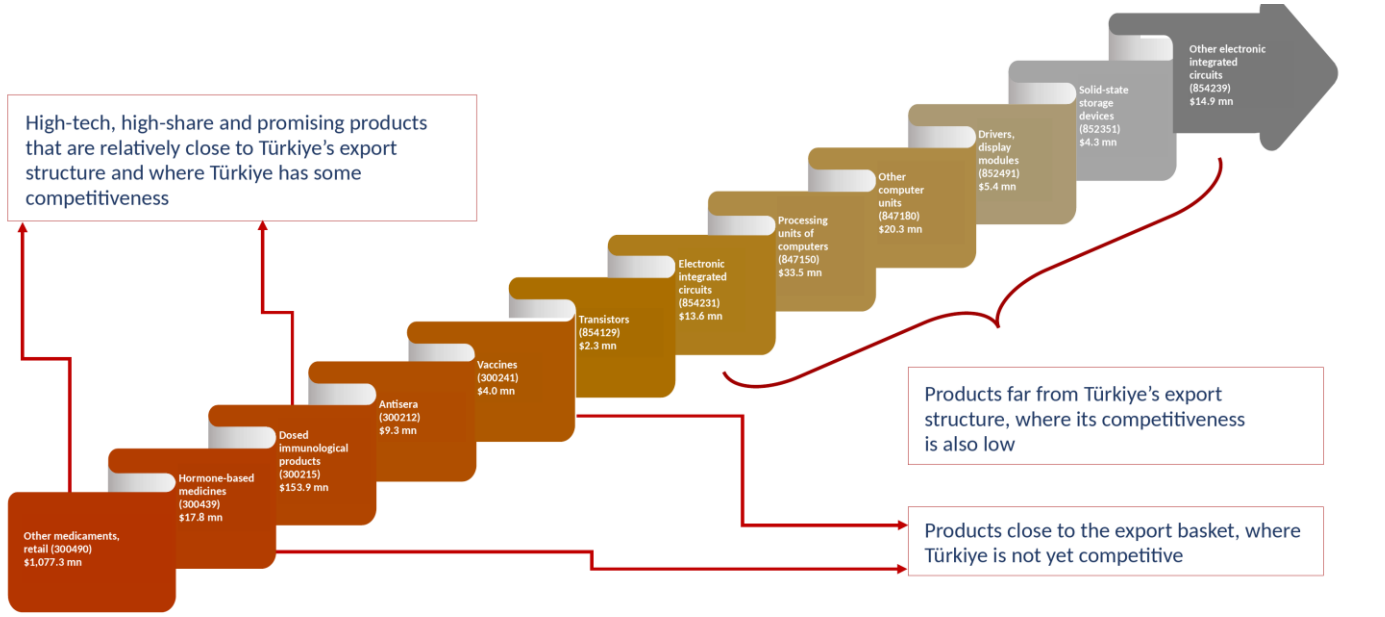
≈ $68 bn

If Türkiye's share in Question Marks equalled its average world share (1.07%), these exports would be about $87 bn instead of $19.1 bn.

An indicator of the competitiveness gap – not a forecast.

In products with rising world share, Türkiye is strong in about $1.7 tn of trade (Stars) but weak in about $8.1 tn (Question Marks).

High-tech Question Marks among the world's top 100 traded products: proximity to our export basket



- **Close, with some competitiveness:** medicaments, dosed immunological products
- **Close, not yet competitive:** hormone-based medicines, antisera, vaccines
- **Distant:** integrated circuits, computer units, display modules, semiconductors → FDI and international partnerships

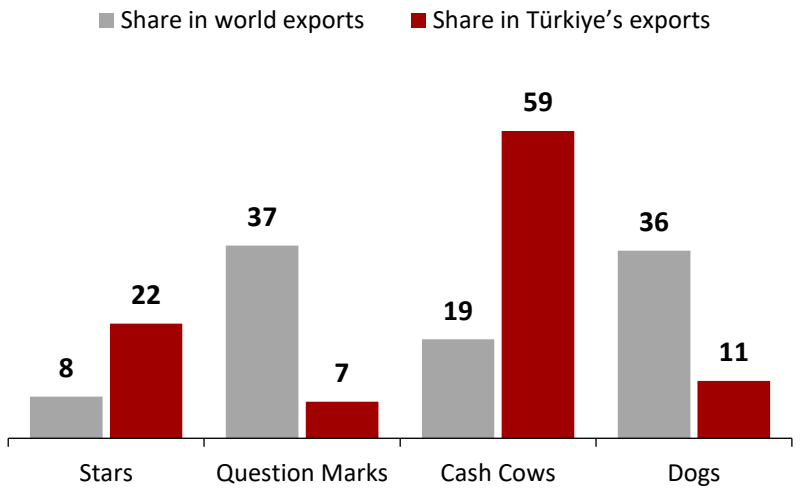
Source: UN Comtrade; TARGEM calculations. Codes in brackets are HS 6-digit codes.

Where Does Türkiye Stand in the Winning Products?

The 20 fastest-growing products made up 42% of the net rise in world exports, but only 9.6% of Türkiye's exports

Product	TR share 2017 → 2024 (%)	TR exports 2024 ($ mn)	Group
Crude petroleum	0.00 → 0.00	<1	Question Mark
Processors and controllers (chips)	0.00 → 0.00	14	Question Mark
Other integrated circuits	0.01 → 0.00	15	Question Mark
Diesel and other heavy oils	0.54 → 2.59	12,485	Cash Cow
Battery electric cars	0.01 → 0.08	96	Question Mark
Medicaments, retail	0.25 → 0.30	1,077	Question Mark
Gold, unwrought	2.81 → 0.99	3,444	Question Mark
Immunological products, dosed	0.00 → 0.08	154	Question Mark
Hybrid cars (petrol, non-plug-in)	8.71 → 3.96	4,780	Star
Lithium-ion batteries	0.03 → 0.08	88	Question Mark
Memory chips	0.00 → 0.00	3	Question Mark
Gold, semi-manufactured	0.00 → 0.02	38	Question Mark
Other computer units	0.02 → 0.02	20	Question Mark
Servers (processing units)	0.03 → 0.03	33	Question Mark
Smartphones	0.00 → 0.01	17	Dog
Iron ores	0.06 → 0.14	181	Question Mark
Plug-in hybrid cars (petrol)	0.04 → 1.54	962	Star
Semiconductor manufacturing machines	0.00 → 0.00	2	Question Mark
Petrol and other light oils	0.93 → 0.54	1,522	Dog
Static converters (inverters etc.)	0.17 → 0.22	208	Question Mark

Products grouped by Türkiye's position: their share in world exports vs in Türkiye's exports, 2024 (%)



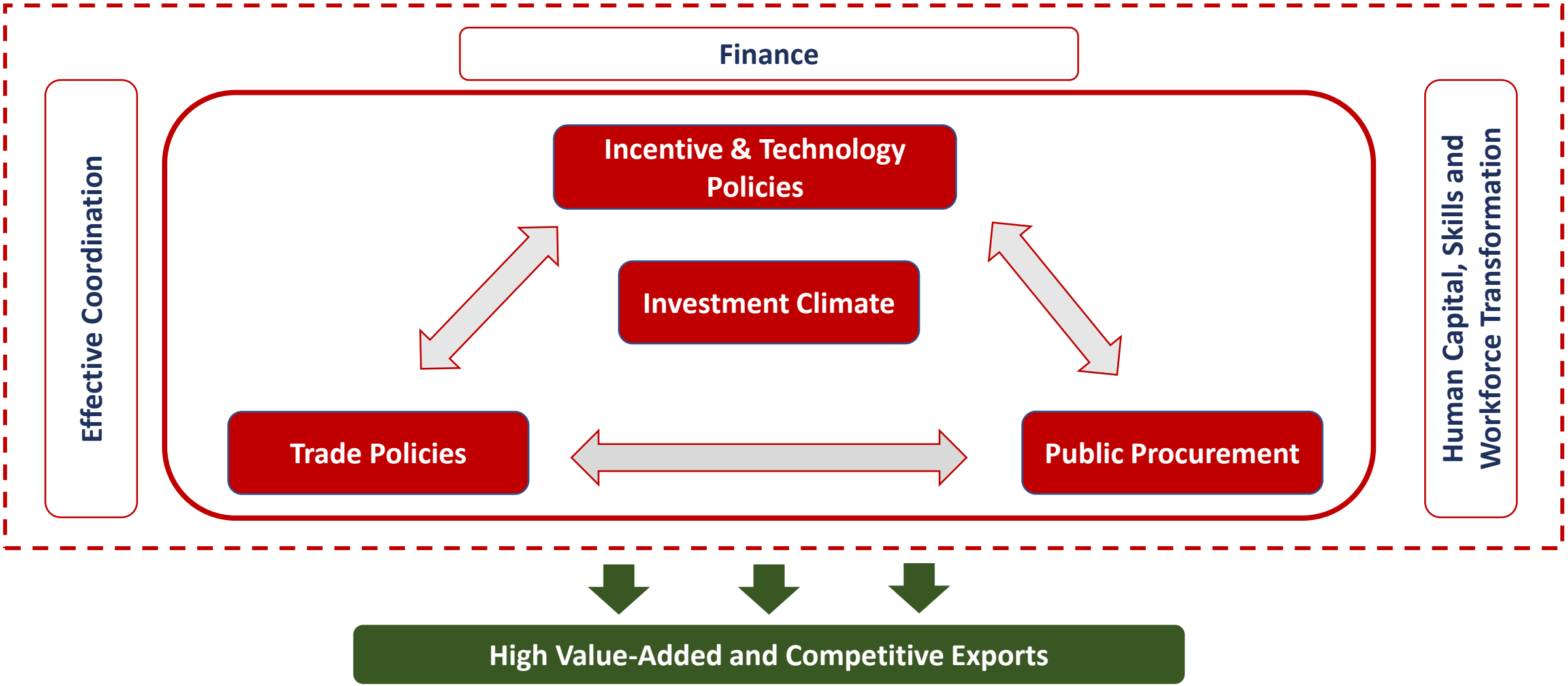
How to read: products in which Türkiye is a Question Mark make up 37% of world exports but only 7% of ours; Cash Cows, 19% vs 59%. Fast-growing groups (Stars + Question Marks): 45% of world exports, 30% of Türkiye's.

0.52% Türkiye's combined world share in the 20 winning products (average: 1.07%)

Source: UN Comtrade (HS 2022, 6-digit, current US$); TARGEM calculations. Growth threshold: 37.9% world export growth 2017–24; share threshold: 1.07%.

Policy Framework for Structural Transformation

The goal of high value-added, competitive exports requires policies to be coordinated



Policy Areas for Value-Added, Competitive Exports

Policy proposals by product group

Stars
(Rising world demand / we are competitive)

- Policies to protect and strengthen existing competitiveness
- Capacity expansion and new investment in line with global demand
- Export support aligned with market-expansion strategies

Question Marks
(Rising world demand / we are not competitive)

- Support for R&D and innovation; wider STEM education opportunities
- Strategic use of public procurement
- FDI and international partnerships in sectors far from our production structure (HIT-30, HAMLE)

Cash Cows
(Falling world demand / we are competitive)

- Support for maintenance/renewal investment and productivity in products with better demand conditions
- For products losing the most world share: sectoral transformation combined with employment and reskilling strategies

Dogs
(Falling world demand / we are not competitive)

- Consider import substitution for high-import products that are inputs to many others
- Sectoral transformation strategies, including reskilling, for labour-intensive sectors losing ground

From Analysis to Policy: Medium-Term Programme Measures

The study's findings have been reflected in three consecutive Medium-Term Programmes

MTP 2025–2027

Product-based support and sectoral transformation approaches introduced

MTP 2026–2028

Two measures on product-based support and transformation

MTP 2027–2029

Measure 2 sharpened: state aid to be updated to drive transformation

Measure 1

- Support mechanisms will be developed to increase export competitiveness, taking into account – at product level – growth trends in global trade, Türkiye's market share, technology level, labour intensity and the need for sectoral transformation.

Measure 2

- For low-tech, labour-intensive products whose share in world trade is declining but in which Türkiye's market share is high, existing state aid will be reviewed and updated to enable intra- and inter-sectoral transformation.

Source: Medium-Term Programmes (2025–2027, 2026–2028, 2027–2029).

AI and Competitiveness: New Sources of Advantage

Owning technology matters – but so does turning it into productivity, value added and exports

Chips + energy → **Data + cloud** → **Models + software** → **Industry + exports**

For firms

- Efficiency in cost, quality and logistics
- Smart, personalised products
- Data-driven decisions and demand forecasting

For trade

- Digital services and new export channels
- Technical standards and regulatory compliance
- Supply security in chips and critical inputs

For Türkiye

- Spreading AI applications in industry
- High value-added goods and services exports
- SME access to data, talent and infrastructure

Future competitiveness depends as much on turning AI into production, exports and productivity as on developing it.

Source: WTO, World Trade Report 2025; OECD (2026); European Investment Bank (2026); department contribution.

Products and Skills of the Future

What the winners of world trade tell us about where opportunities – and careers – will be

Products of the future

- Semiconductors and computing hardware
- Electric vehicles and batteries
- Pharmaceuticals and biotechnology
- Clean energy equipment: solar, wind, inverters
- Critical-mineral processing and advanced materials

Skills in demand

- Electrical, electronic and software engineering
- Data science and artificial intelligence
- Chemistry, materials science and life sciences
- Industrial design, automation and robotics
- Trade, supply-chain and international market expertise

Messages for students

- Combine technical depth with digital skills
- Think in value chains, not single products
- Learn standards and regulation: carbon, data, AI
- Be ready to keep learning as technologies change

Türkiye's opportunity: its broad manufacturing base allows moves into nearby, more complex products – if skills keep pace.

Source: TARGEM, based on the competitiveness study findings.

Conclusions

Competitiveness in a fragmented world requires focus, coordination and agility

1. **Market share gains are increasingly decisive**
   Global demand growth alone no longer drives export performance.

2. **Strategic industrial policy has returned**
   The US, the EU and China rely on incentives, rules and scale.

3. **Uncertainty calls for agile policies**
   Frequent shocks require flexible, evidence-based policies that can be adjusted quickly.

4. **Türkiye has a strong capability base**
   Broad capabilities (2nd on the Complexity Outlook Index) allow moves into nearby, more complex products.

5. **Product-level, coordinated policies**
   Trade, investment, technology, skills, finance and procurement working towards the same targets.

TÜRKİYE CUMHURİYETİ
TİCARET BAKANLIĞI

Thank You

Republic of Türkiye Ministry of Trade

Directorate General of Trade Research and Risk Assessment