

The challenges in a «post-» world

Post-global, post-green, post-digital...

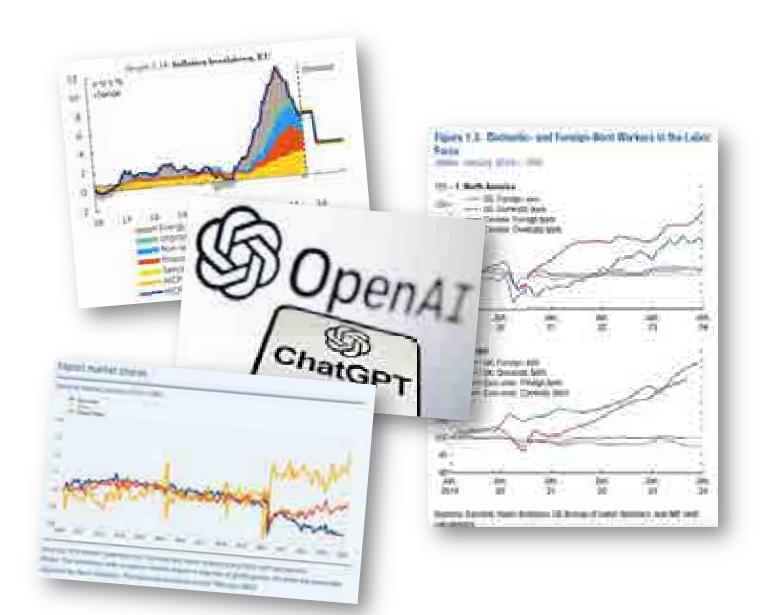
CIO Leaders Summit 14.3.2025

Carlo Alberto Carnevale-Maffè SDA Bocconi School of Management

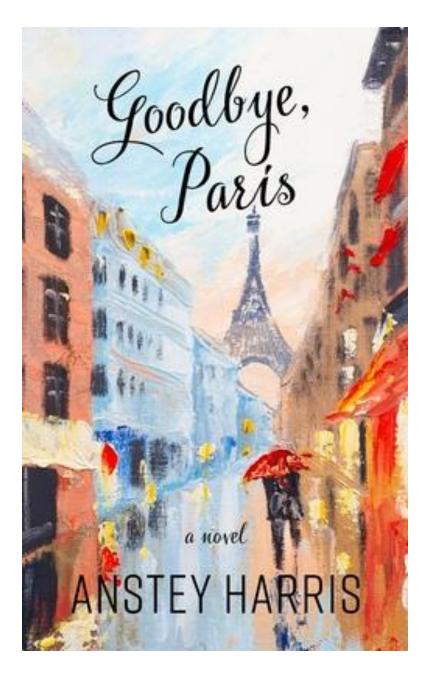
THE GEOPOLITICAL, MACROECONOMIC, AND TECHNOLOGICAL DRIVERS OF CHANGE

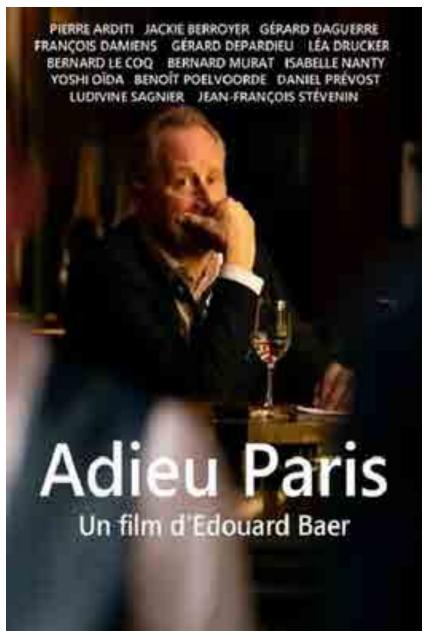


- 1. A post-global world
- 2. A post-green world
- 3. A post-digital world
- 4. Challenges and opportunities for CIOs









Goodbye, Paris...



Trumponomics 2.0

«It looks like it's going to be extremely disruptive, it's going to be a big change and, probably, according to a lot of estimates, higher inflation»

J. Politi, Financial Times

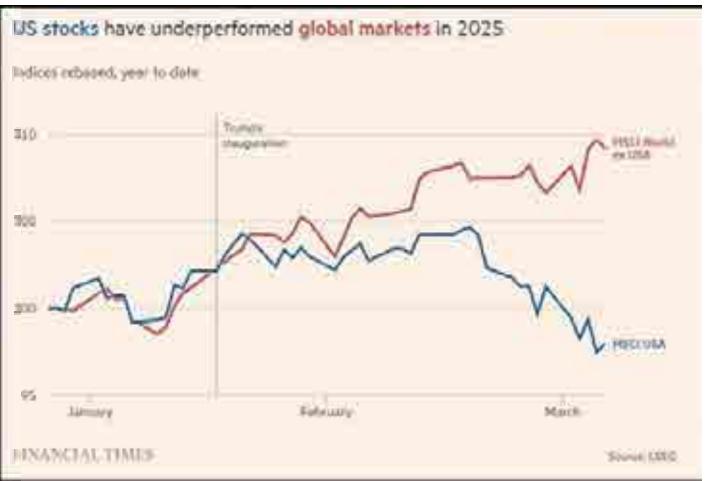


Trump vows to leave Paris climate agreement and 'drill, baby, drill'



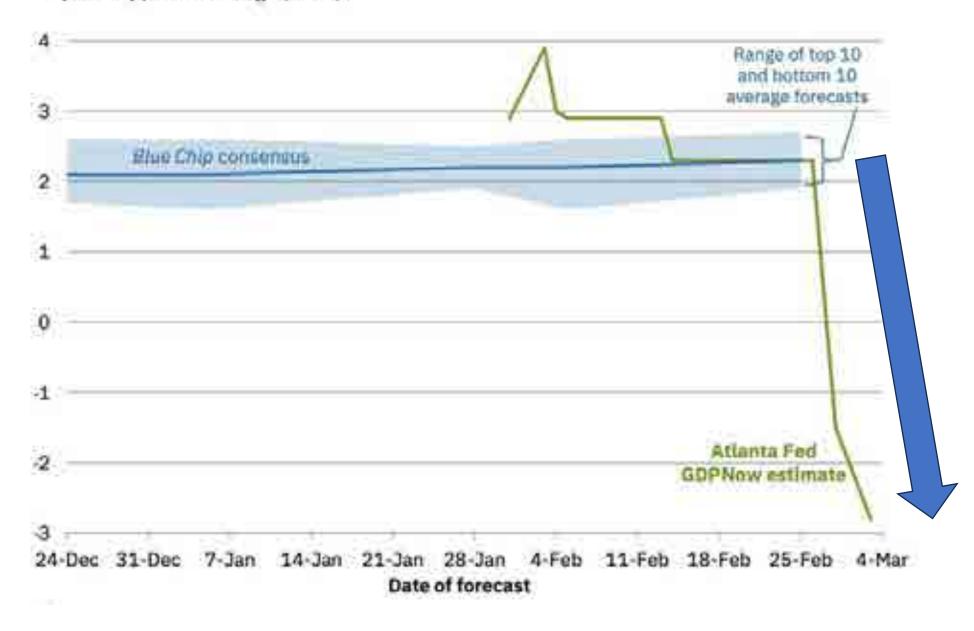
Make America Shoot Again...





Evolution of Atlanta Fed GDPNow real GDP estimate for 2025: Q1

Quarterly percent change (SAAR)



US GDP: Steering into the abyss

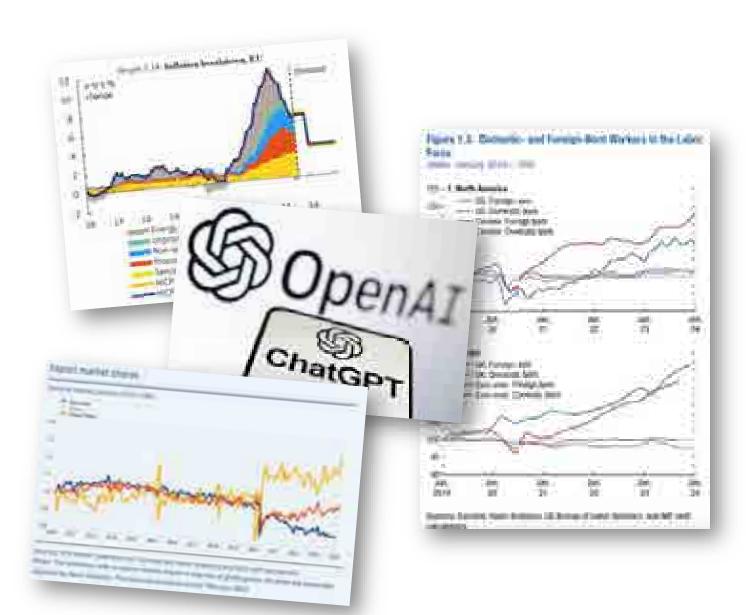
WHO & CO2: a war against the institutional and the environmental symbols of globalization





THE GEOPOLITICAL, MACROECONOMIC, AND TECHNOLOGICAL DRIVERS OF CHANGE

- 1. A post-global world
- 2. A post-green world
- 3. A post-digital world
- 4. Challenges and opportunities for CIOs



European Parliament

2024,2029



TEXTS ADOPTED

P10 TA(2025)0034

White paper on the future of European defence

European Partisment residution of 12 March 2025 on the white paper on the future of

Europeun de

White Paper on Defense: Joint EU procurement and industrial integration with Ukraine

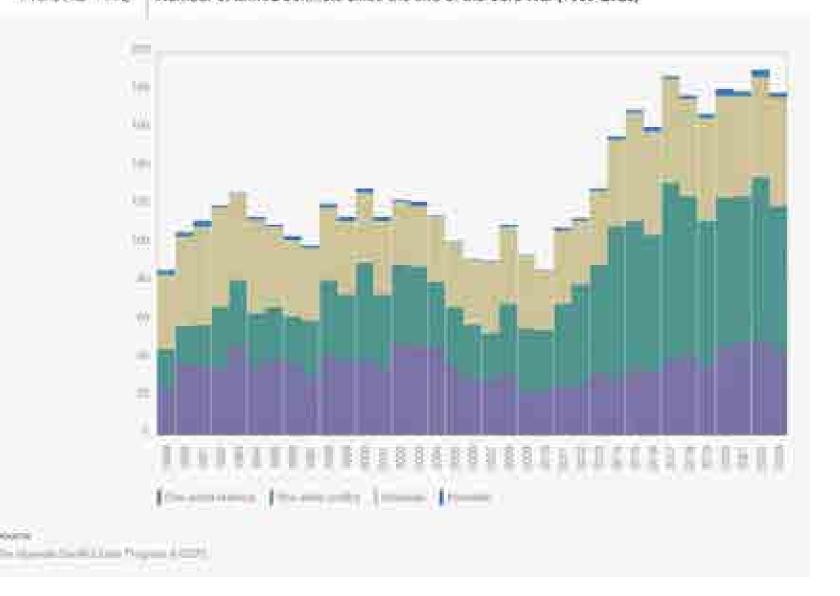


EU Defense: The Paper is White...

EU Commission White Paper sets out steps for 'single market for defence'

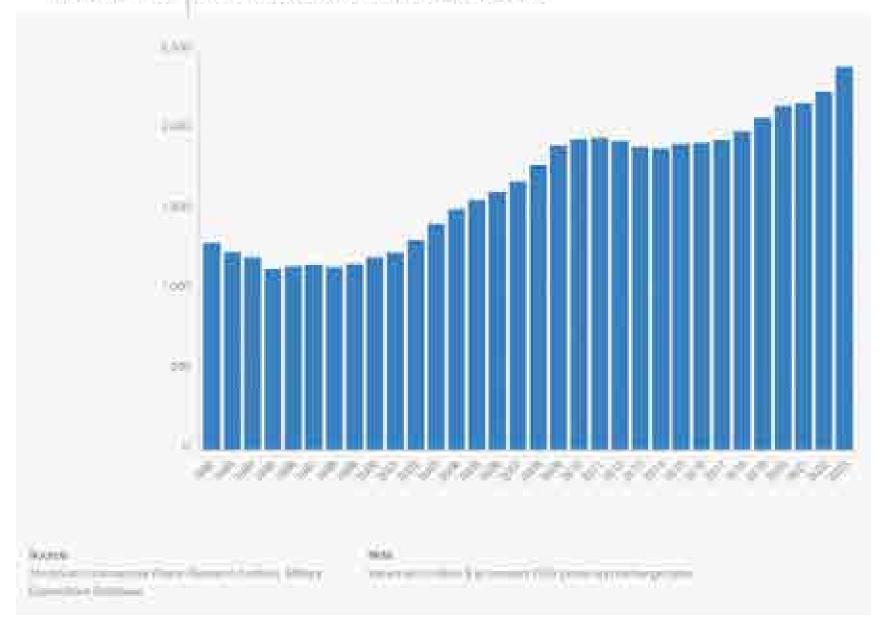
The Commission and reset south areas in which there are "several soffseed critical capability projects". where EU countries needed to provide speeding.





Armed conflicts: +60% in 10 years.

Since 2014, the number of armed conflicts has been elevated compared to the period from the 1990s to the early 2010s. Interstate conflicts, while they tend to present the greatest threats to global stability, only constitute a small proportion of the total number of armed conflicts, which also include one-sided, nonstate and intrastate armed conflicts.



In 2023 the historical record of military expenditure: \$2.4 trillion

World military expenditure increased for the ninth consecutive year in 2023, reaching a total of \$2.4 trillion,11 with 2023 seeing a steep rise over 2022 (see Figure 1.13). The top five countries accounted for 61% of the total. As governments with strengthening militaries perceive that multilateral constraints on unilateral military action are weaker, there could be more instances of cross-border military interventions in the coming years.

Export of Major Arms: Russia: -53%. France: +47%

The 25 largest suppliers accounted for 98 per cent of the total volume of exports, and the top 5—the United States, France, Russia, China and Germany—accounted for 75 per cent.

In recent years the USA's share of global exports has increased while Russia's share has decreased. In 2019–23 the USA's arms exports were 17 per cent higher than in 2014–18 and its share of the global total increased from 34 to 42 per cent.

In contrast, Russia's arms exports decreased by 53 per cent and its share of the global total dropped from 21 to 11 per cent.

Exports by France rose by 47 per cent between 2014–18 and 2019–23, resulting in France becoming the second largest exporter of major arms in 2019–23.

THE MAIN EXPORTERS AND IMPORTERS OF MAJOR ARMS, 2019-23

- 3252000		Global share (%)	Im	7.	Global share (%)	
1	USA	42	1	India	9.8	
2	France	11	2	Saudi Arab	ia 8.4	
3	Russia	11	3	Qatar	7.6	
4	China	5.8	4	Ukraine	4.9	
5	Germany	5.6	5	Pakistan	4.3	
6	Italy	4.3	6	Japan	4.1	
7	UK	3.7	7	Egypt	4.0	
8	Spain	2.7	8	Australia	3.7	
9	Israel	2.4	9	South Kore	ea 3.1	
10	South Kore	ea 2.0	10	China	2.9	

The fragmentation of EU defense industry

	EU	United States	
Defence Expenditure	€227bn	€545bn	
%age of GDP	1.3%	3.3%	
Investment per soldier	€27,639	€108,302	
Ouplication of Systems			
Number of weapons systems	178	30	
Main Battle Tanks	17	i	
Destroyers/Frigates	29	4	
Fighter Planes	20	6	

Table 1: Comparison of US and EU systems®

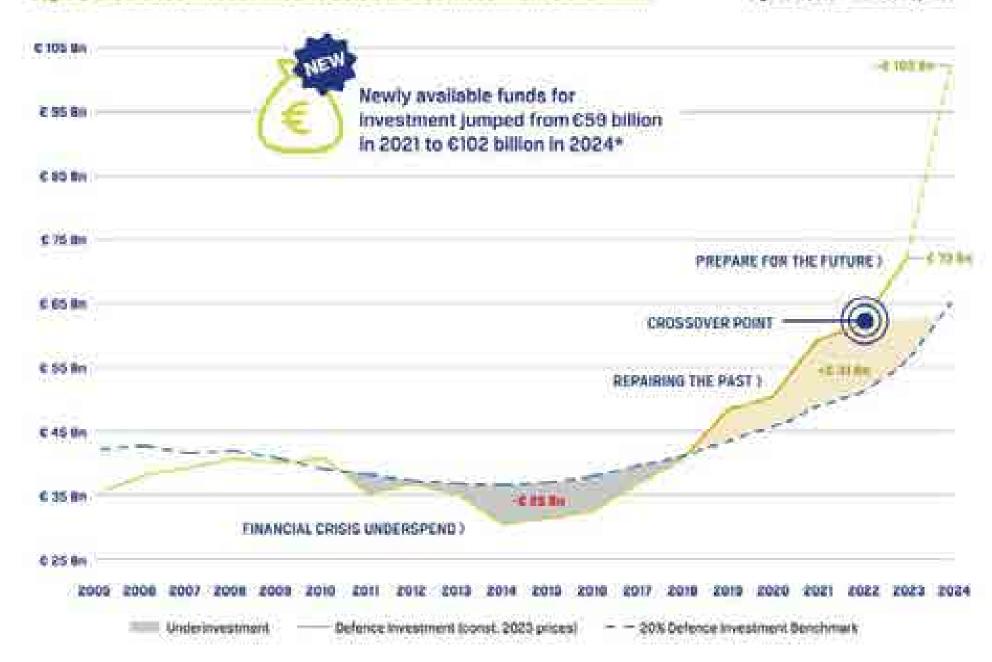
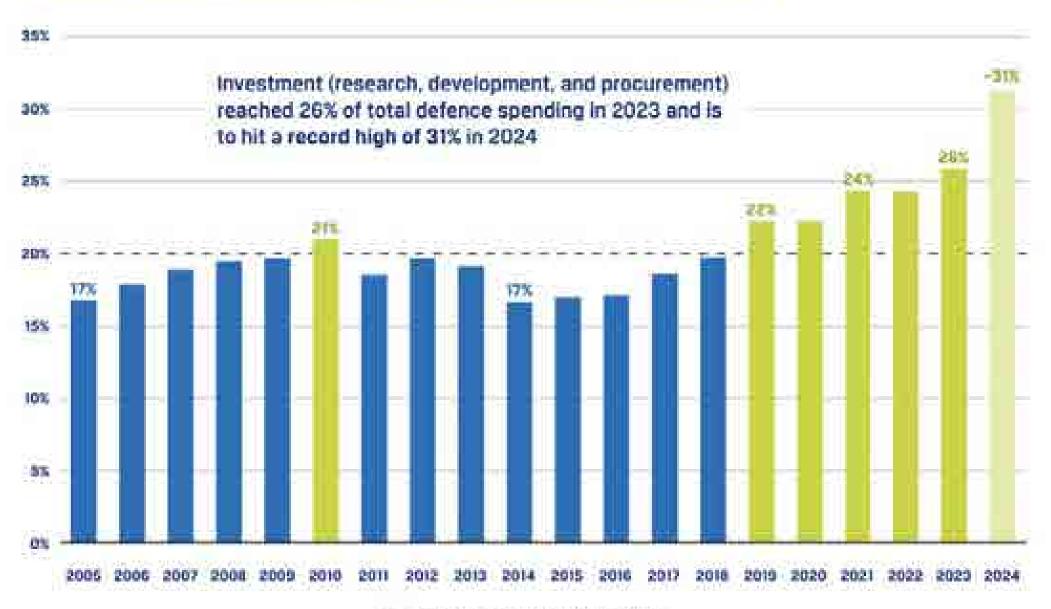
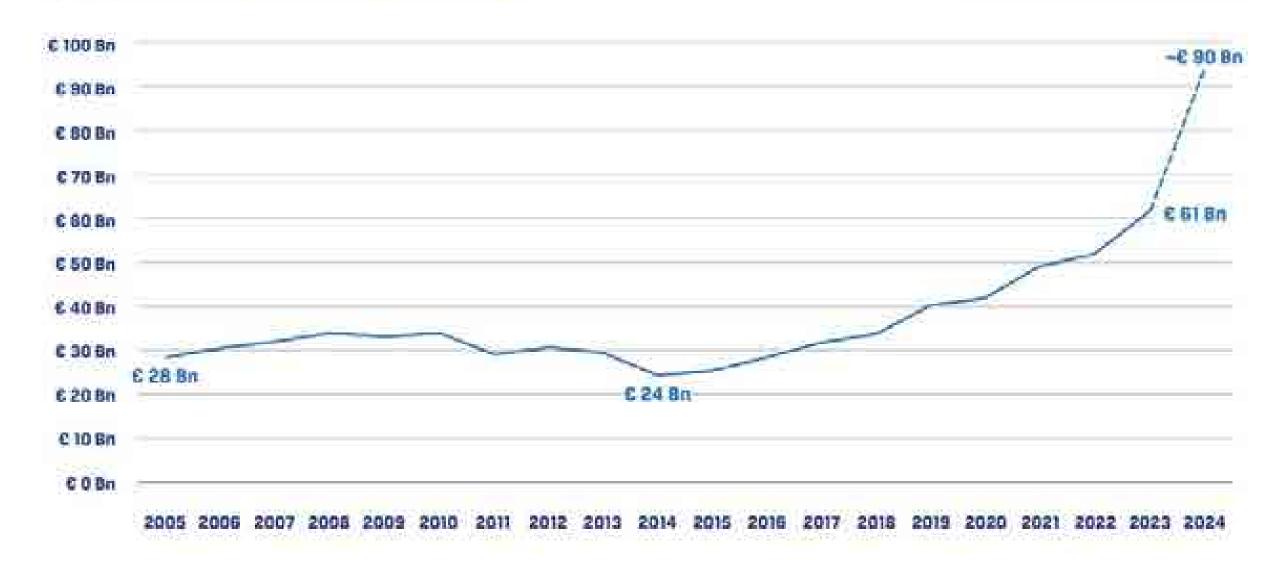
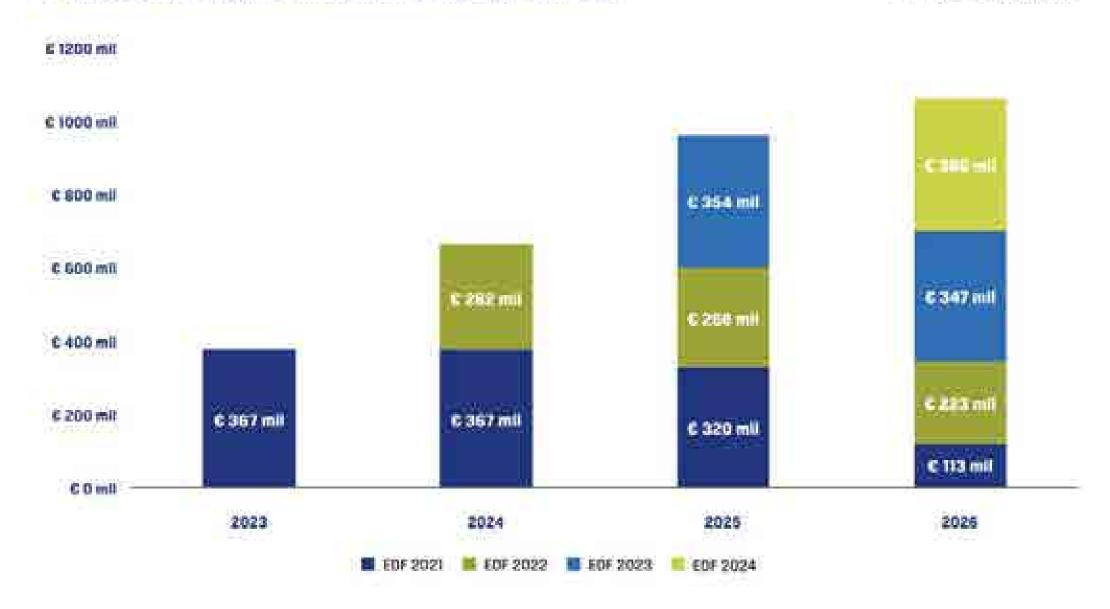


Figure 5. Share of Total Defence Expenditure Allocated to Defence Investment







Exploring Dual-Use Opportunities

Leveraging Defense Technologies for Civilian Use



Understanding Dual-Use Technology



Drones: Versatile Applications



Satellites: Bridging Sectors

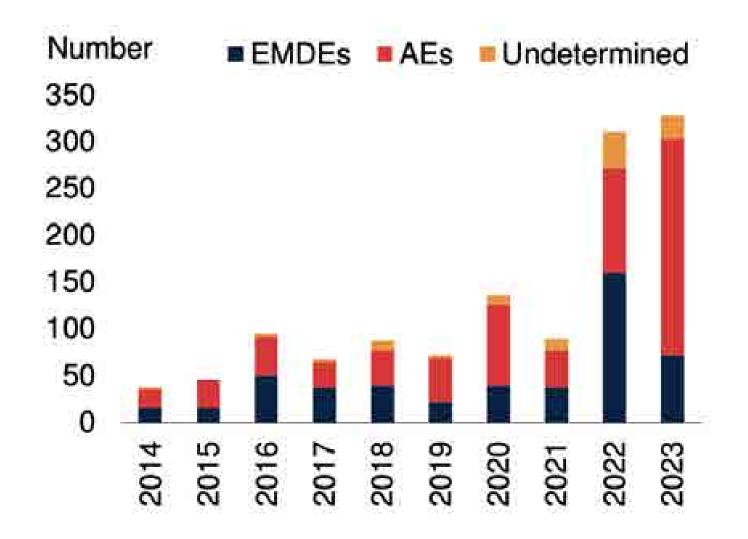


Artificial Intelligence: A Dual Role



Quantum
Computing: Future
Potential

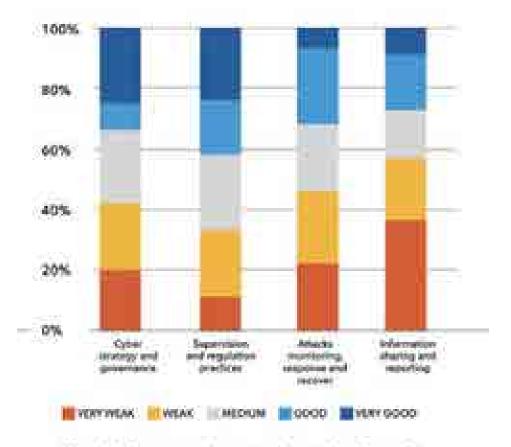
D. Frequency of cyber events in the financial and insurance sector



Cyber-attacks against financial institutions have tripled in the past 2 years

Figure 1.6 Cyber Gaps

(state of cyber risk oversight at supervisory authorities, share of surveyed countries)

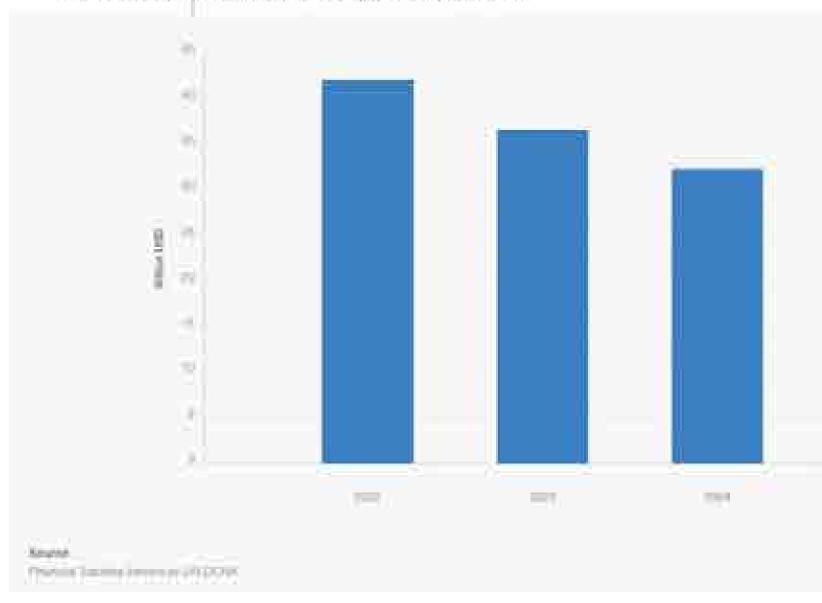


Weak defenses against attacks put the financial sector at risk, but collective action could help thwart these costly threats.

Source: MF staff oursey, state of play at expensiony authorities.

Note: IMF stell surveyed ST errorging merters and attentioning secondaries between December 2023 and Micro 2023. The classification of the prantices are based solely on owney responses and the secondaries exclude guateries available by their soul.

Almost 60% of financial institution have weak or very weak defenses against cyberattacks.



Humanitarian funding: -20% in 2 years + USAID cancelled in 2025

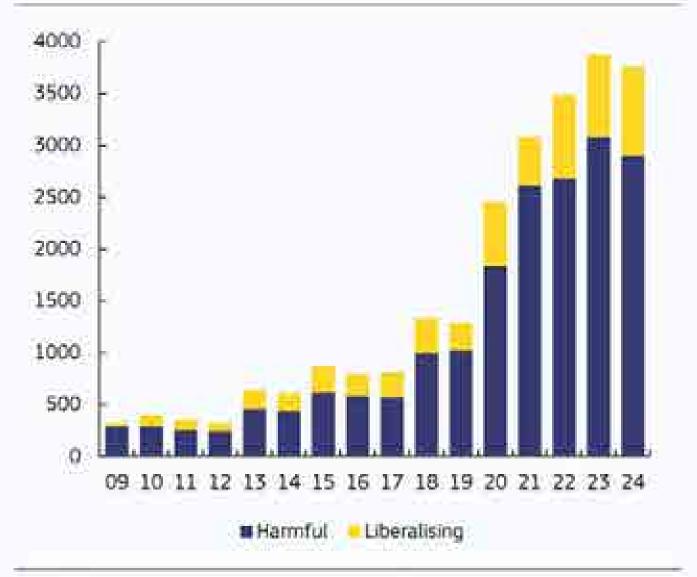
Even beyond global security considerations, multilateralism appears set to endure its most difficult period since the founding of the UN in 1945. Over the next two years, more questions are likely to be asked by national governments about the roles and priorities of key multilateral institutions, and there could be constraints placed on their funding. The outlook for this broader weakening of multilateralism is associated with declining global budgets for humanitarian aid



Once upon a time, it never really existed a world of wfree trade»...



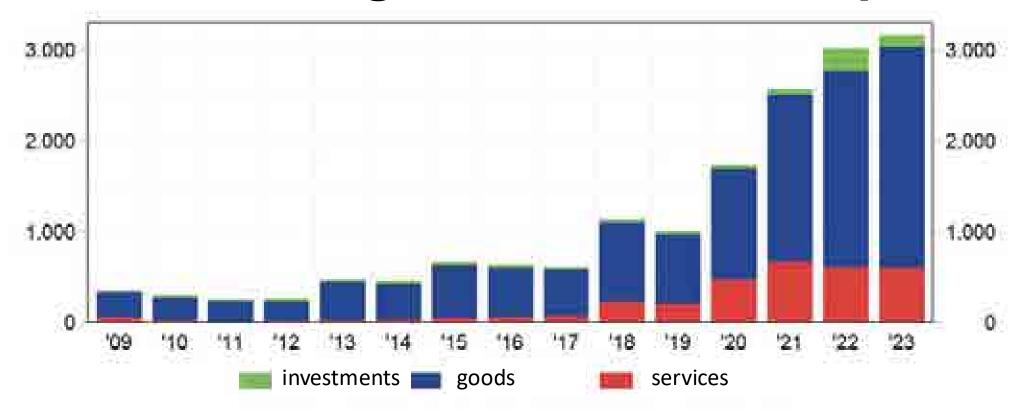
Graph 1: New trade policy interventions



Source: https://www.globaltradealert.org/

More than 10.000 harmful interventions on trade just in the last 4 years

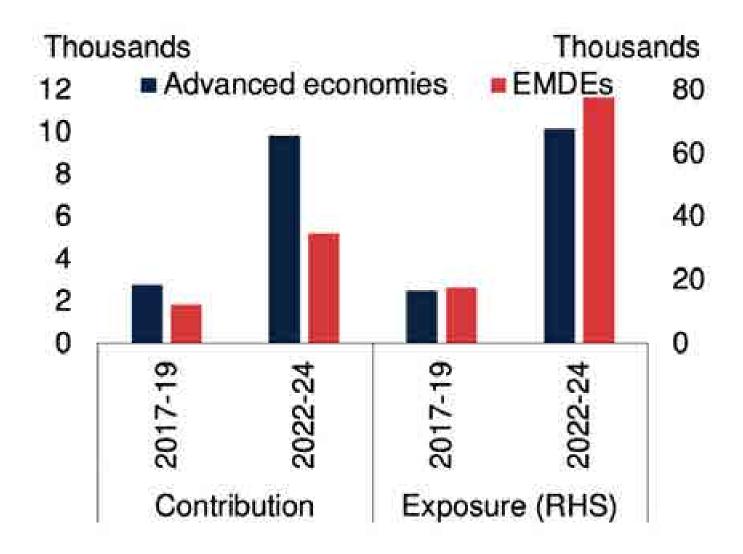
Unilateral commercial and investment restrictions at global level have tripled



Fonte: Global Trade Alert.

(1) Modifiche unilaterali nel trattamento relativo degli interessi commerciali esteri rispetto a quelli nazionali. I dati si riferiscono sia ai flussi commerciali sia agli investimenti esteri diretti.

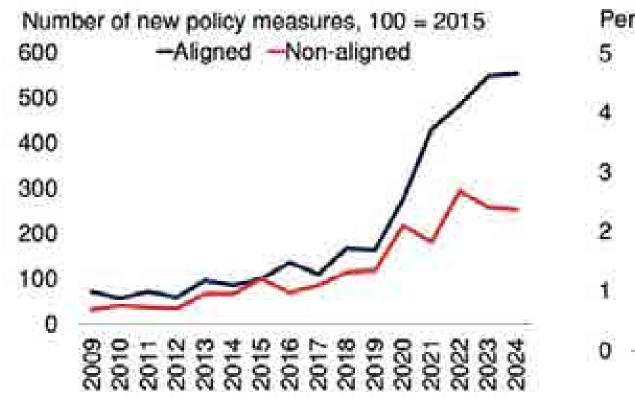
A. New trade-distorting policy measures

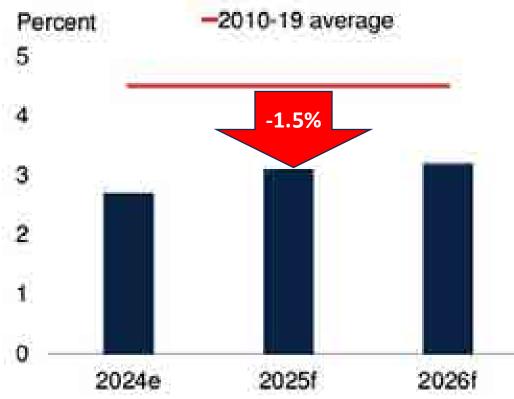


Neo-mercantilism:
Advanced Economies
are imposing 2x tariffs
than Emerging
Economies, impacted
by approx 80.000 tradedistorting policies

C. Trade-distorting policy measures, by UN voting alignment

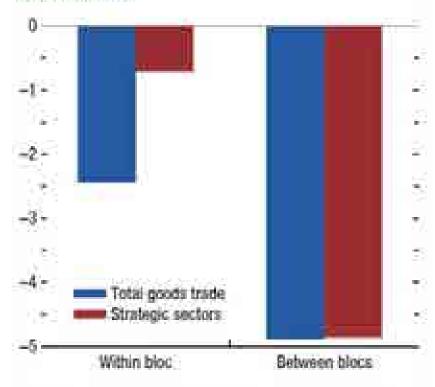
D. Global trade growth





Sources: Aiyar, Malacrino, and Presbitero (2024); Bailey, Strezhnev, and Voeten (2017); CPB Netherlands Bureau of Economic Policy Analysis; Global Trade Alert (database); Haver Analytics; World Bank.

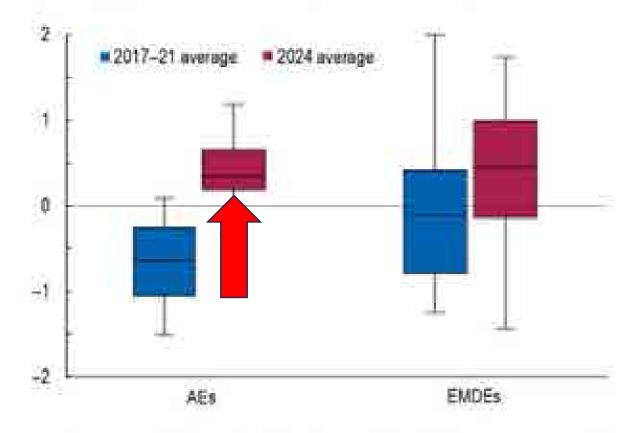
Figure 1.1.1. Fragmentation Affecting Trade (Percentage points; difference in trade growth before and after war)



Sources: Trade Data Monitor; and IMF staff calculations. Note: Bilateral quarterly growth rates are computed as the difference in log bilateral trade averaged using weights equal to the bilateral nominal trade. Strategic sectors include the following Harmonized System two-digit chapters: 28, 29, 30, 38, 84, 85, 87, 88, 90, and 93. Before the war is between 2017.01 and 2021.04. The bloc definition is based on a hypothetical bloc comprising Australia, Canada, Europe, New Zealand, and the US and a hypothetical bloc including China, Russia, and countries siding with Russia during the March 2, 2022, UN General Assembly vote on the war in Ukraine. Other countries are considered nonslighed.

Geopolitical fragmentation and global trade

Figure 3. Cross-Country Inflation Expectations (Percentage point deviation from target, next 12 months)



Sources: Central bank websites: Consensus Economics: Haver Analytics, and IMF staff calculations.

Note: The horizontal lines in the middle of the boxes are the medians, and the upper (lower) limits of the boxes are the third (first) quartiles. The whiskers show the maximum and minimum within a boundary of 1.5 times the interquartile range from the upper and lower quartiles, respectively. AEs = advanced economies, EMDEs = emerging market and developing economies. The magnitude of the inflationary effect from tariffs is especially uncertain. While recent empirical studies find high pass-through to import prices, estimates of pass-through to consumer prices are lower and subject to significant uncertainty. Nevertheless, compared with what took place in earlier episodes of trade disputes, several factors suggest that upside risks to inflation from tariff hikes could be higher this time.

First, the global economy is coming out of the most significant inflation surge in recent memory. Inflation expectations, especially in many advanced economies, are farther above the central bank target today than in 2017–21 (Figure 3).

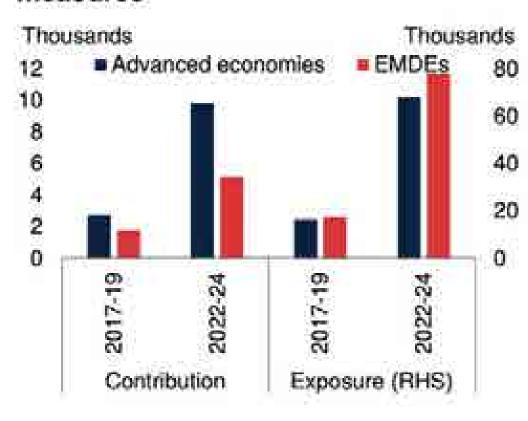
Second, the cyclical positions of many major economies are more conducive to higher inflation today than in 2016.

Third, retaliation in the form of restrictions on specific, difficult-to-substitute materials or intermediate goods may have an outsized impact on aggregate inflation.

E. Policy rates in advanced economies and EMDEs

Percent Percent 6 2010-19 average 4 2 0 2025 2024 2024 2023 2023 EMDEs (RHS) Advanced economies

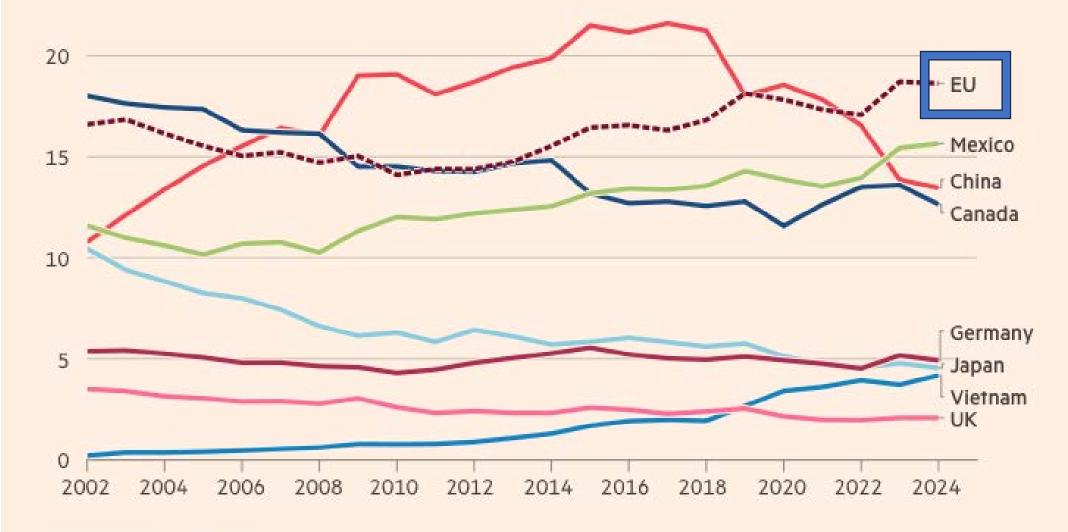
F. New trade-distorting policy measures



Sources: Bloomberg; Consensus Economics; Global Trade Alert (database); Haver Analytics; International Energy Agency (IEA); World Bank.

Note: AEs = advanced economies; avg. = average; e = estimate; EMDEs = emerging market and developing economies; f = forecast; RHS = right-hand scale. Unless otherwise indicated, aggregates are calculated using real U.S. dollar GDP weights at average 2010-19 prices and market exchange rates.

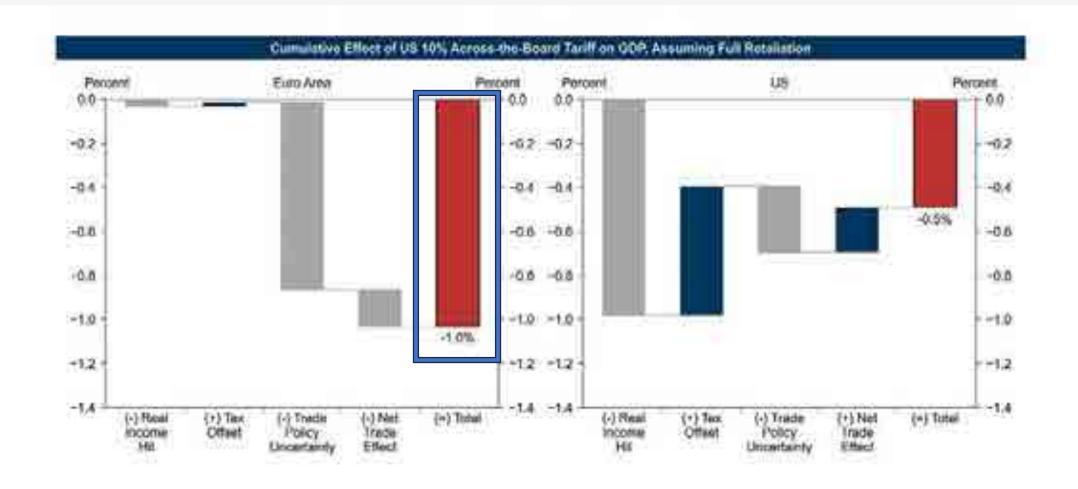
Share of all US goods imports (%)*



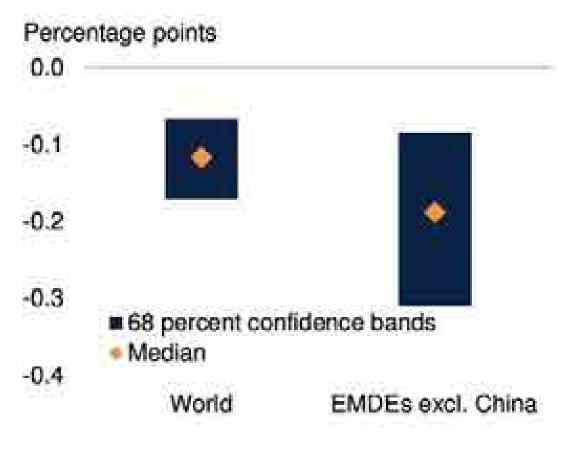
Source: US Census Bureau • *2024 data up to November



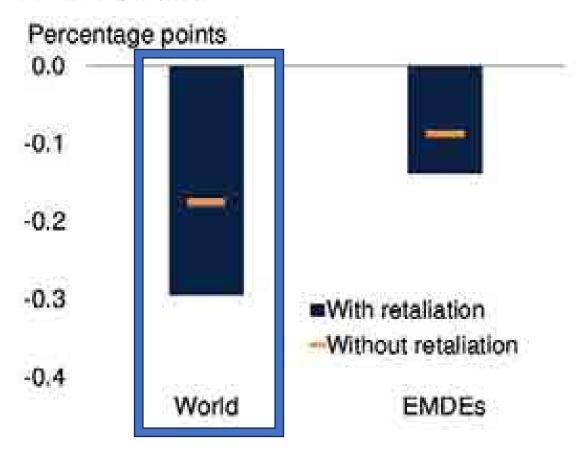
Proposed Tariffs Would Likely Lower GDP by More in the Euro Area than the US



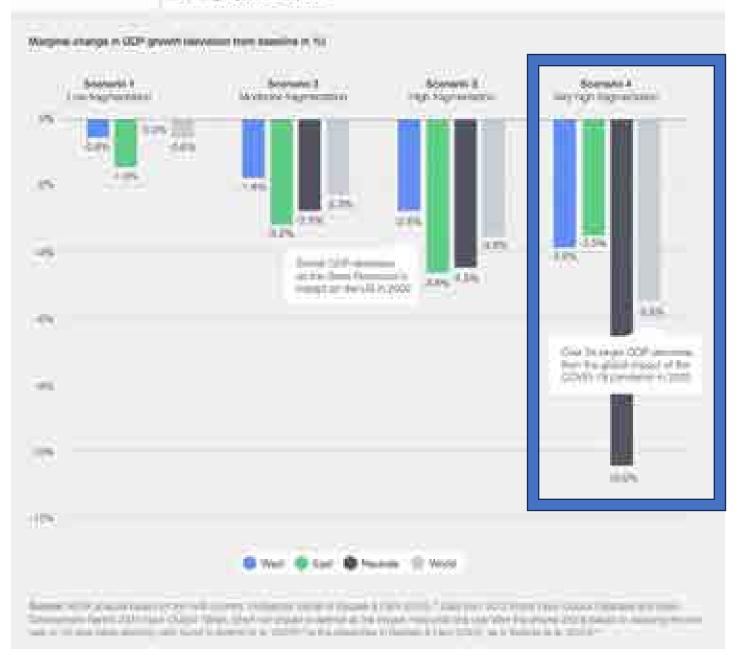
A. Cumulative impact of a 10 percent rise in global economic policy uncertainty on output growth



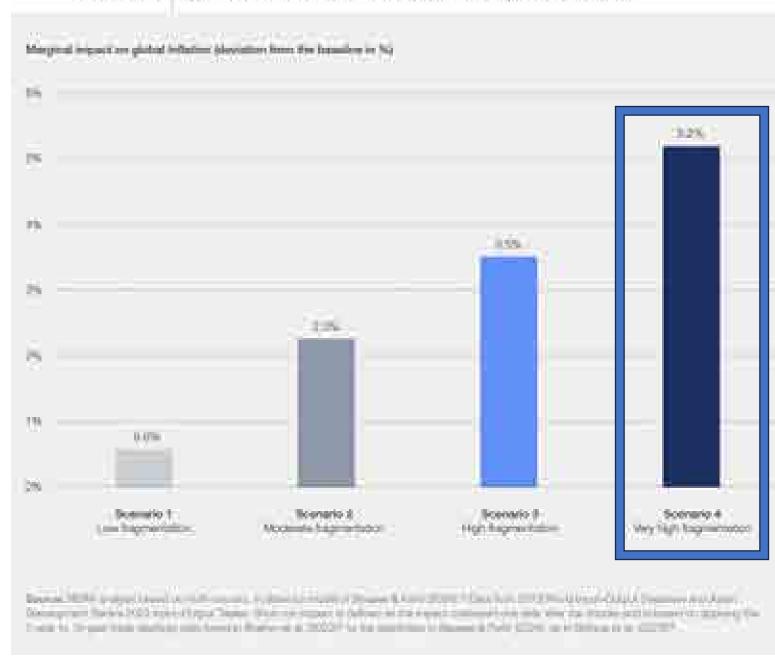
B. Impact of a 10-percentage-point increase in U.S. tariffs on global and EMDE growth



HBURE 7 Short-run impact of financial fragmentation on gross demestic product across geopolitical blocs

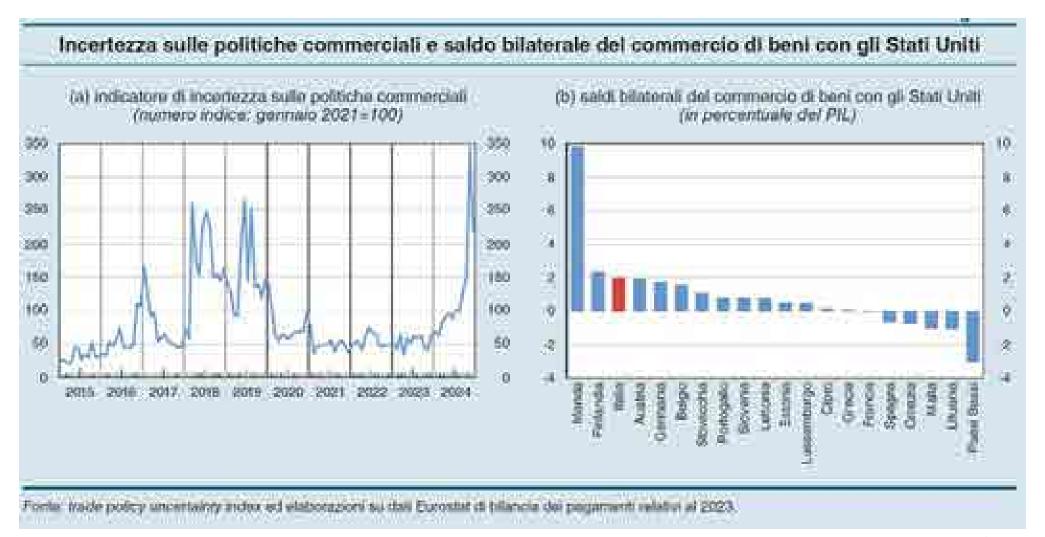


Very high fragmentation will have 2x larger GDP decrease than the COVID-19 pandemic

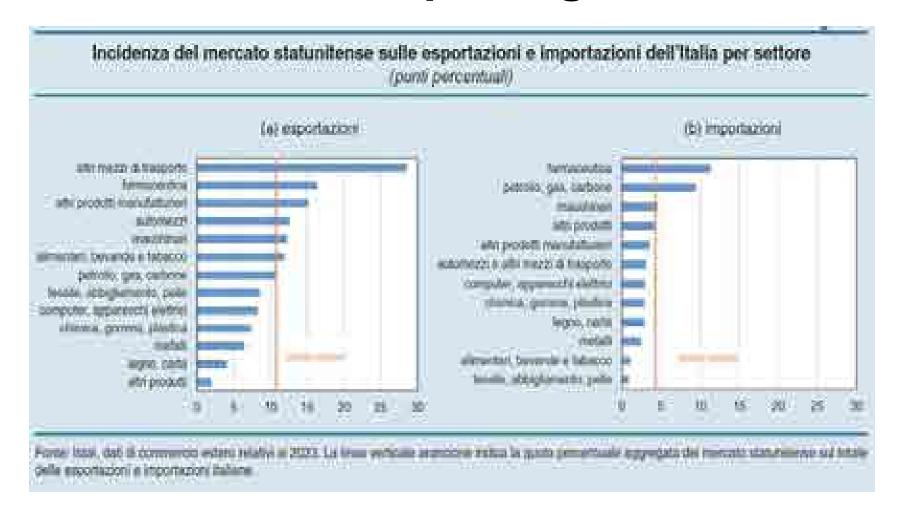


Very high fragmentation will have up to 5.2% marginal impact on global inflation

US Tariffs: Italy is at maximum risk



Italian SMEs are the most exposed to tariffs: 27% of their exports go to the US market

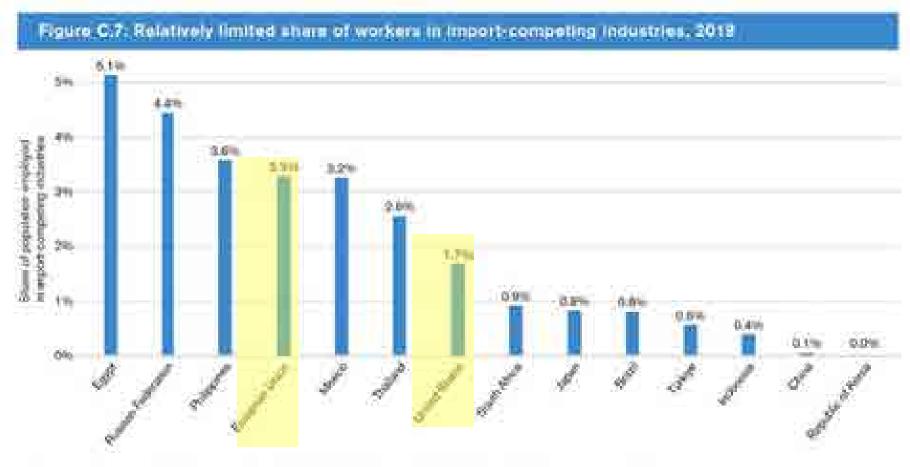


Gli Stati Uniti costituiscono un mercato di destinazione per quasi un terzo delle aziende esportatrici italiane4. Poco più della metà delle vendite verso questo paese è realizzata da grandi imprese (con almeno 250 addetti), con un'esposizione media pari al 5 per cento del fatturato e al 15 per cento delle proprie esportazioni. Per le imprese piccole e medie il mercato americano risulta relativamente più rilevante (in media, circa il 7 per cento del fatturato e il 27 per cento delle esportazioni). A questa classe dimensionale appartiene inoltre la quasi totalità degli esportatori caratterizzati da un'esposizione particolarmente elevata verso gli Stati Uniti.

In conclusione, un inasprimento dei dazi avrebbe effetti significativi sulle aziende italiane che esportano verso il mercato statunitense, soprattutto le piccole e le medie. In aggiunta agli effetti diretti, le restrizioni commerciali potrebbero colpire anche i produttori che, pur non esportando direttamente, forniscono input intermedi incorporati nei beni destinati agli Stati Uniti6. Peraltro, l'elevata incertezza sulle politiche commerciali può costituire di per sé un freno consistente agli investimenti.

Protectionism is just baseless populism

Only 1.7% of US workers and 3.3% of EU workers are employed in import-competing industries

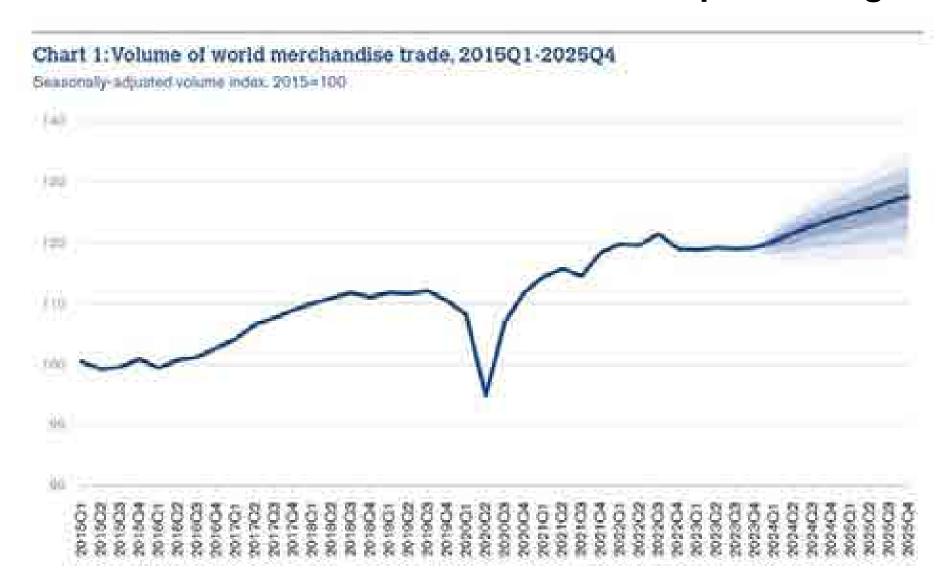


Source: Authors' sulculations, based on OECD Trade in Value Added (19VA) and Trade in Engloyment databases.

Note: The figure shows the employment share in import-competing industries for selected exocorries with large population and available data in 2019. Import-competing industries are defined as those with group reports assenting 15 per cent of import presenting the top 25 per cent of industries in terms of import presenting in database.

A large share of workers in economies at all income levels, but particularly in high income economies with large public services sectors, do not face import competition. In fact, based on data by the Organisation for Economic Co-operation and Development (OECD), the average population share affected by import competition was only 1.85 per cent in 2019 for the 14 most populous economies covered in the database (see Figure C.7), and has hardly changed relative to 1995. (WTO, 2024)

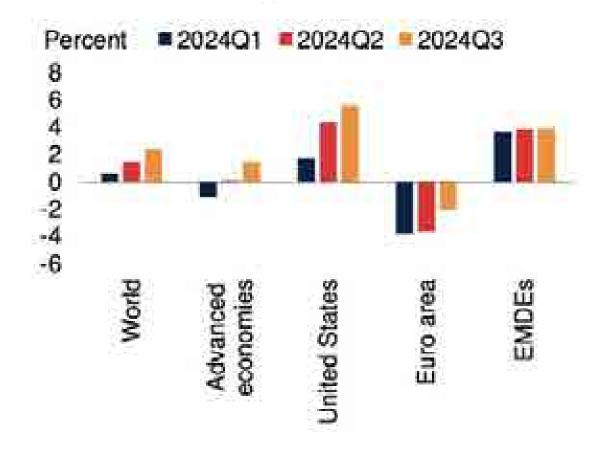
Volume of world merchandise trade is expected to grow in 2025



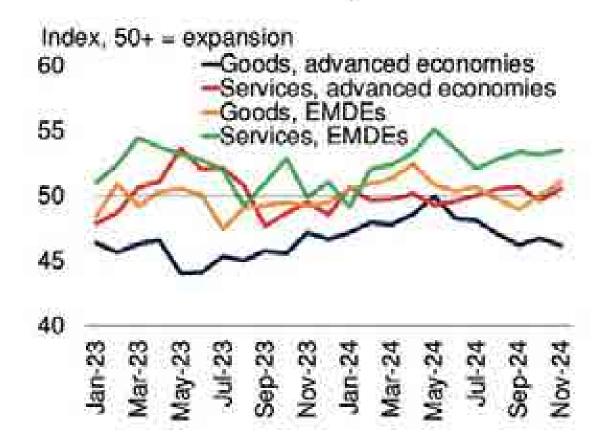
Note: The shaded region represents both random variation and subjective assessment of risk.

Source: WTO and UNCTAD for historical data, WTO Secretariat estimates for forecasts.

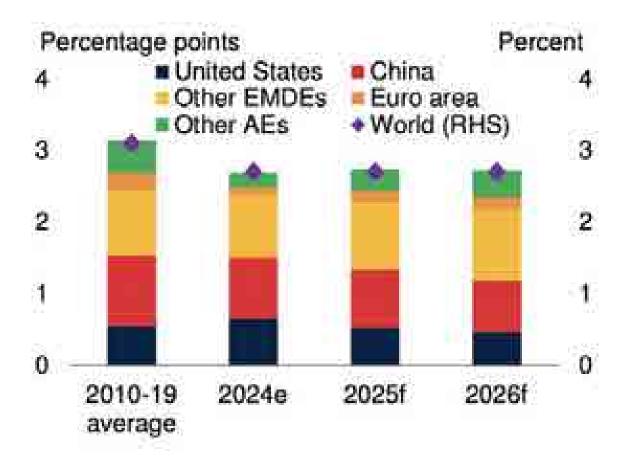
A. Goods trade growth



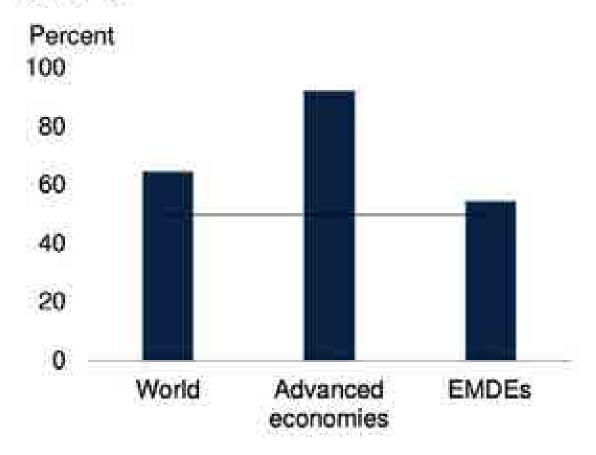
B. Global PMI: New export orders



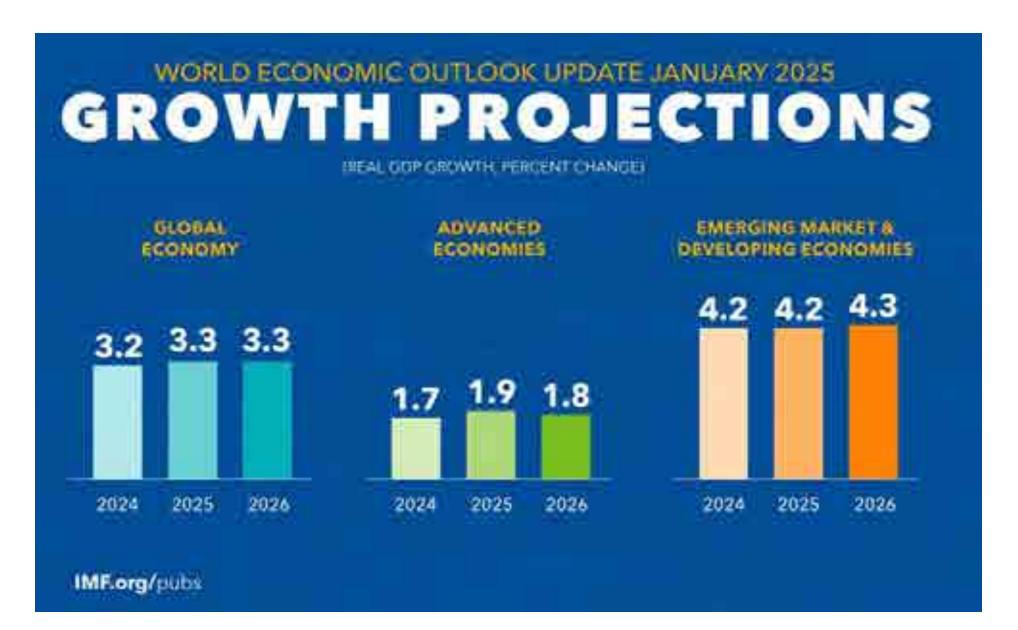
A. Contributions to global growth



B. Share of economies with average trade growth in 2025-26 lower than in 2010-19



Crisis? Which crisis?



(Source: IMF, January 2025)

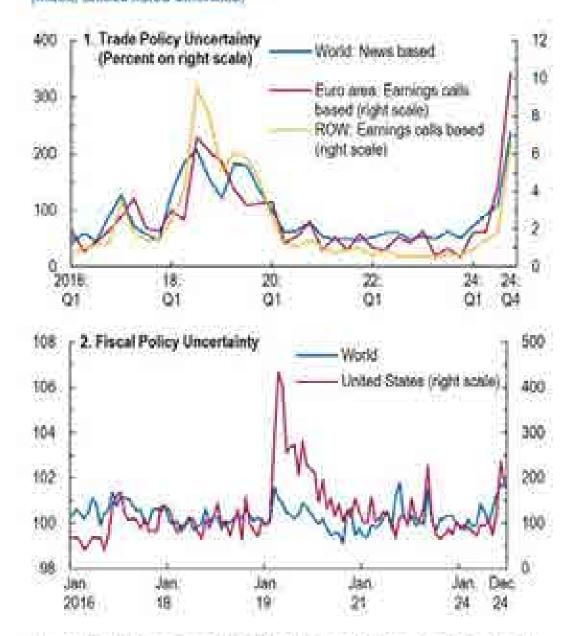
World Economic Outlook Growth Projections

	ESTIMATE	PROJECTIONS	
(fixe) GDP. assembly personn change?	2024	2025	2026
Warte Cotput	23	33	33
Advanced Economies	1.7	1.9	11.4
United States	2.8	2.7	2.1
Euro Aren	8.0	1.0	114
Germany	-0.2	0.3	11.3
France	1.1	0.8	1.1
Italy	0.6	0.7	0.9
Spain	3.1	2.3	1.8
Japan	-0.2	2.1	0.8
United Kingdom	0.9	1.6.	1.5
Canada	1.3	2.0	2.0
Other Advanced Economies	2.0	2.1	2.5
Emerging Market and Developing Economies	42	42	443
Emerging and Developing Asia	5.2	5.1	5.1
China	4.8	4.6	4.5
India	6.5	8.5	6.5
Emerging and Developing Europe	3.2	2.2	2,4
Missia	3.6	9.4	9.2
Latin America and the Caribbean	2.4	2.5	2.7
Brazil	3.7	2.2	2.1
Mexico	1.8	1.4	2.0
Middle East and Central Asia	2.4	3.6	3.9
Saudi Arabia	1.4	3.3	4.1

All major countries are (slowly) growing...

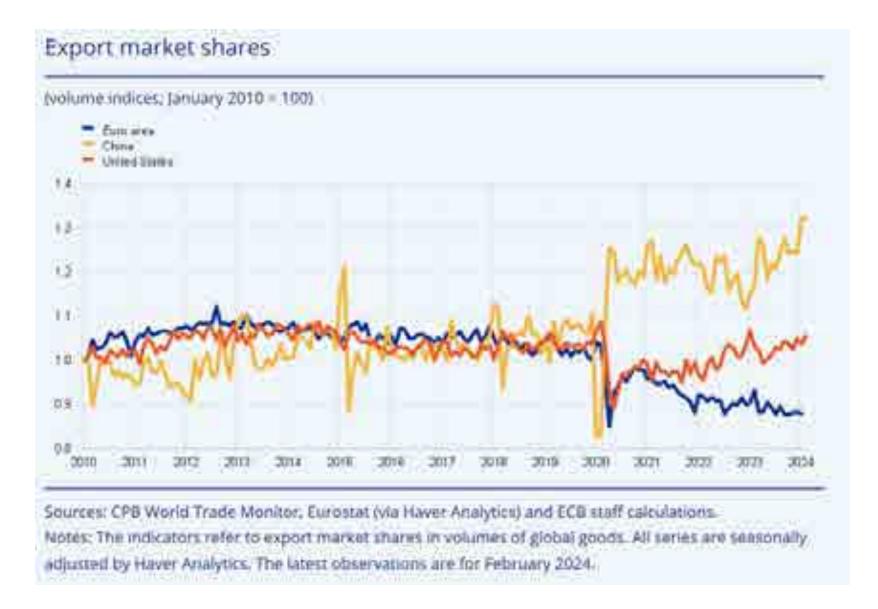
(Source: IMF, January 2025)

Figure 1. Policy Uncertainty (Index, unless noted otherwise)



Sources: Baker, Bloom, and Davis 2016; Caldars and others 2020; Refinitiv Elkon, and IMF staff calculations.

WORLD ECONOMIC OUTLOOK UPDATE Global Growth: Divergent and Uncertain



China's share of export markets has increased (through dumping...?), while Europe has lost ground.

Source: ECB, June 2024