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LIPPOLDT, PRIMO BRAGA

Industrial policy in the era of geopolitical fragmentation: emerging-market strategies

Institute for International Trade

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make history.

Industrial policy in the era of geopolitical fragmentation: emerging-market strategies

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Abbreviations

ASEAN	Association of Southeast Asian Nations
BCE	Before Common Era
CE	Common Era
EU	European Union
GTA	Global Trade Alert
IMF	International Monetary Fund
LAC	Lithium Americas Corporation
NIPO	New Industrial Policy Observatory
OECD	Organisation for Economic Co-operation and Development
US	United States
WTO	World Trade Organization

Geopolitical fragmentation was on full display at the 2025 G20 Summit in Johannesburg. South Africa set the theme of "Solidarity, Equality, Sustainability", but the Presidents of Argentina, China, Russia and the United States stayed away.

Executive Summary

When President Trump imposed sweeping tariffs in early 2025, declaring a national emergency to "increase our competitive edge", he signalled a sea change in U.S. trade policy orientation, violating international trade rules and rendering uncertain the role of the United States as a supporter of market openness and a guarantor of the multilateral trading system. For emerging market economies from Brazil to Indonesia, the moment revealed a pressing need to reconsider development strategies and potentially update views on industrial policy and international trade.

The pace of industrial policy interventions has risen dramatically in the years since the Great Recession (2008-2009). The United States, China, and European Union are leading this wave, creating cascading effects for emerging markets through subsidized competition and technology restrictions. Rather than choosing binary alignment, countries like Brazil and ASEAN members are pursuing "selective integration"—maintaining openness with peer economies while implementing targeted defensive measures against state-subsidized competition. This nuanced approach recognizes that traditional comparative advantage patterns may break down when facing industrial policy-backed competitors from major powers.

Strategic guidance for emerging markets:

The do's:

1. **Strategic openness with limited protection:** Emerging markets should maintain openness as the default position, protecting selectively rather than broadly. Broad protectionism can reduce competitive pressure and innovation incentives.
2. **Regional integration:** Emerging markets should prioritize regional integration and South-South trade agreements as a means of improving resilience.
3. **Transparent, rules-based measures:** Trade measures should be transparent, rules-based, and—in cases where they are potentially trade distorting—time-limited. They should include clear performance requirements and accountability mechanisms.
4. **Robust adjustment assistance:** Emerging market economies should complement liberalizing trade policy measures with robust adjustment assistance.

The don'ts:

1. **Avoid trade policy as structural fix:** Emerging market economies should avoid use of trade policy as a substitute for addressing domestic structural challenges.
2. **Don't retaliate against major powers:** Don't engage in tit-for-tat retaliation against major powers. Protectionist measures can be costly and spur further retaliation.
3. **Don't abandon WTO commitments:** Emerging market economies should maintain WTO commitments and support multilateral disciplines. This is a matter of self-interest.
4. **Don't ignore labor/environmental dimensions:** Emerging markets should address the labour and environmental dimensions of trade policy via complementary policies.

Conclusion: Success requires maintaining the delicate balance between defensive needs and competitive openness. The greatest strategic asset for emerging markets may be their ability to remain selectively open while building collective strength through peer cooperation.

1. Introduction

When President Trump imposed sweeping tariffs in early 2025, declaring a national emergency to "increase our competitive edge", he signalled a sea change in U.S. trade policy orientation, violating international trade rules and rendering uncertain the role of the United States as a supporter of market openness and a guarantor of the multilateral trading system.[1] For emerging market economies from Brazil to Indonesia (**Box 1**), the moment revealed a pressing need to reconsider development strategies and potentially update views on industrial policy and international trade.[2]

Industrial policy – the deliberate government intervention to promote specific economic sectors through subsidies, trade measures, regulations, and strategic investments – had already experienced a dramatic renaissance in recent years. Once dismissed by some adherents to the 1990s Washington Consensus[3] as market-distorting interference, industrial policy has returned to mainstream policy discourse as governments worldwide grapple with supply chain vulnerabilities, technological competition, and climate transition imperatives, in addition to rising economic nationalism. For emerging markets, industrial policy is often approached as offering a potential means to accelerate development. For some policymakers, it is also viewed in a defensive manner, as a tool for navigating an increasingly fragmented global economy where liberal trade rules are being disrupted due to great power competition.[4] At the same time, it is important to learn from the lessons of the past in terms of the costs of interventionist policies, particularly with respect to trade.

Box 1. What is an emerging market?

There is no standard definition of an emerging market economy. Where definitions are offered, in addition to indicators for economic scale and level of development, they often include additional elements reflecting the interests of the various institutions.[5, 6] For the purposes of the present paper, our objective was to consider those developing countries demonstrating dynamic economic performance and having achieved some heft in the global economy, but still lagging on some of the characteristics of advanced economies. To provide an illustration of economies with such characteristics, we considered the approach developed at the International Monetary Fund (IMF) by Francisco Arizala and Di Yang who employed a composite scoring approach.[7]

Arizala and Yang considered five elements for the period 2010-2020. After first excluding the advanced economies, they select from the remaining pool those economies among the top 20 for each element. They award a score of 1 for each country in the top 20 of each category and a zero score for other countries. The scores for each country are combined using a weighting as follows: nominal GDP (40%), population (15%), GDP per capita (15%), share of world trade (15%), and share of world external debt (15%). On this basis, the Arizala-Yang list of emerging markets includes Argentina, Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Iran, Malaysia, Mexico, the Philippines, Poland, Russia, Saudi Arabia, South Africa, Thailand, Turkey, and the United Arab Emirates.[8]

Applying a trade policy filter to this list, one may wish to exclude the EU members Hungary and Poland (as they have limited autonomy on trade policy matters), Iran (which has not yet completed its WTO accession process), and Russia (which is the subject of severe trade sanctions due to the war in Ukraine). China qualifies for the list but merits special consideration given its tremendous economic scale and disproportionate role in the multilateral trading system. Considering trade reforms and economic performance this century, a case could be made to add Vietnam.

1. The White House (2025a).

2. For a detailed listing of the cumulative tariffs imposed during 2025, see: Lowell et al. (2025), https://www.tradecomplianceresourcehub.com/2025/11/10/trump-2-0-tariff-tracker.

3. Key elements of the Washington Consensus included: 1) fiscal discipline; 2) public expenditure re-prioritization taking into account high economic returns and improved income distribution; 3) tax reforms to improve incentives and equity; 4) positive real interest rates; 5) competitive exchange rates; 6) trade liberalization; 7) foreign direct investment; 8) privatization; 9) deregulation; and 10) secure property rights. See Birdsall et al. (2010, p. 8), https://documents1.worldbank.org/curated/en/848411468156560921/pdf/WPS5316.pdf.

4. Dani Rodrik provided foundational thinking on modern industrial policy frameworks focusing on institutional frameworks for effective policy deployment. See: Rodrik (2004), https://www.hks.harvard.edu/publications/industrial-policy-twenty-first-century.

5. For example, investment-related firms such as MSCI or Bloomberg may include, respectively, market access or market capitalization criteria as a priority. MSCI (2025), https://www.msci.com/indexes/index-resources/market-classification. And, Bloomberg (2025), https://assets.bbhub.io/professional/sites/10/Bloomberg-Global-Equity-Indices-Methodology.pdf. NB, see the discussion in the report and the country listing on p. 17.

6. In another example, Ashoka Mody considered essential characteristics of emerging markets to include, among other factors, "their high degree of volatility and their transitional character, with transitions occurring in economic, political, social and demographic dimensions". See Mody (2004), https://www.imf.org/en/Publications/WP/Issues/2016/12/31/What-is-An-Emerging-Market-17598.

7. Arizala & Yang 2021, https://www.imf.org/external/pubs/ft/fandd/2021/06/pdf/the-future-of-emerging-markets-duttagupta-and-pazarbasioglu.pdf.

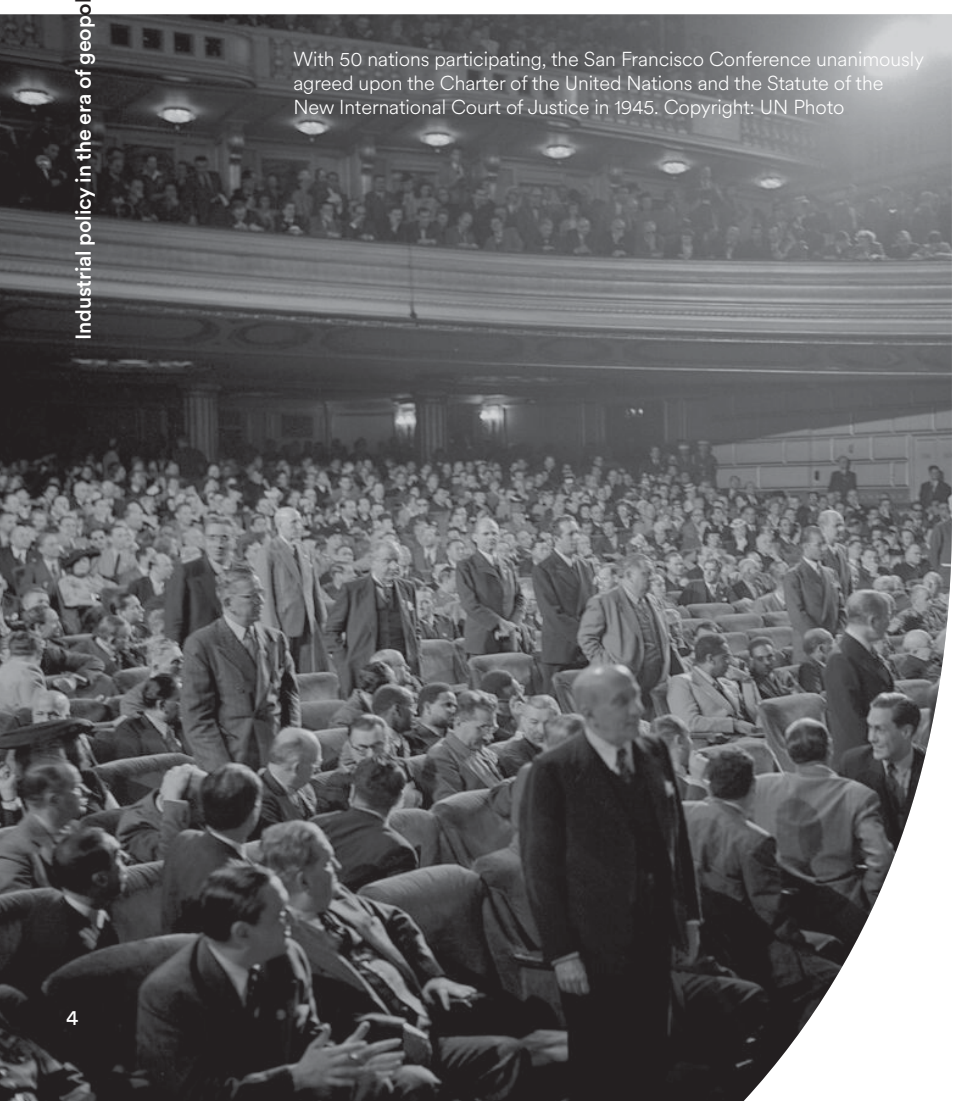
8. An alternative approach (considering poverty rather than external debt) is adopted in this report: Emerging Markets Institute 2024, Chapter 4, https://business.cornell.edu/centers/emi/emerging-markets-report/.

2. Pax Americana and industrial policies

Over the centuries, major empires have at times provided periods of relative stability and geopolitical dominance conducive to economic activity. For example, during the *Pax Romana*—roughly from Caesar Augustus to Marcus Aurelius *circa* 27 BCE to 180 CE – there was a period of economic dynamism across the Mediterranean Basin and beyond. The *Pax Sinica* provided a similar context during the years of the Western Han Dynasty (202 BCE-8 CE). Likewise for the *Pax Britannica*, marking the period from 1815 to 1914.

The *Pax Americana*, may be viewed as characterizing the post-World War II era, reflecting the economic and geopolitical power of the United States across much of the globe. The extent of US influence has been reflected in the dominance of the US dollar in trade and financial transactions, the expansion of the NATO military alliance, the global dispersion of American culture, and its role in the establishment of multilateral economic institutions (e.g., the IMF and the World Bank) and trade agreements (e.g., via multilateral trade negotiations under the General Agreement on Tariffs and Trade, GATT, framework).

While US geopolitical dominance was contested by the Soviet Union and its allies, this rivalry ended with the collapse of the Soviet Union and the Soviet bloc in 1991. At that time, the theme of the "end of history" advanced by Francis Fukuyama in a 1989 essay was generating significant debate.[9] Fukuyama's proposition was that there was no more serious competition for the *Pax Americana*, including its pillars related to market capitalism, globalization, and liberal democracy.



With 50 nations participating, the San Francisco Conference unanimously agreed upon the Charter of the United Nations and the Statute of the New International Court of Justice in 1945. Copyright: UN Photo

The Washington Consensus then became the mantra for economic development strategies supported by the IMF, the World Bank and the US Treasury. But the seeds of change were already fostering new narratives. The Asian Financial Crisis (1997-1998), the Global Financial Crisis (2007-2009), and the Eurozone Crisis (2009-2012), challenged the neoliberal dogma. These crises also fed populist movements in the United States and across Europe, as illustrated in 2016 by the BREXIT referendum in the United Kingdom and the election of Donald J. Trump in the United States, among many other developments.

The cumulative effect of this turbulence raised doubts about the sustainability of the *Pax Americana*. A deepening lack of consensus with respect to international economic policies, the political success of several populist and nationalist politicians, the rising economic and military strength of China based on an alternative approach to policy and governance, and the increased assertiveness of Russia in Eastern Europe have added to the uncertainty. In the United States, the adoption of protectionist trade measures and a transactional approach to international economic relations have heightened fears of a new cycle of beggar-thy-neighbour policies. Doubts have increased about the capacity of multilateral international institutions to sustain the rules-based trading system.

It is against this backdrop of eroding American hegemony, rising multipolarity, and institutional challenges that industrial policy has regained prominence—not just as a tool of great power competition, but also as a domestically-anchored response in emerging markets to turbulent international times. Together with bilateral and regional initiatives, industrial policy is seen by some emerging market economies as having the potential to improve resilience and sustain growth.

9. See Fukuyama (1989), http://www.jstor.org/stable/24027184.

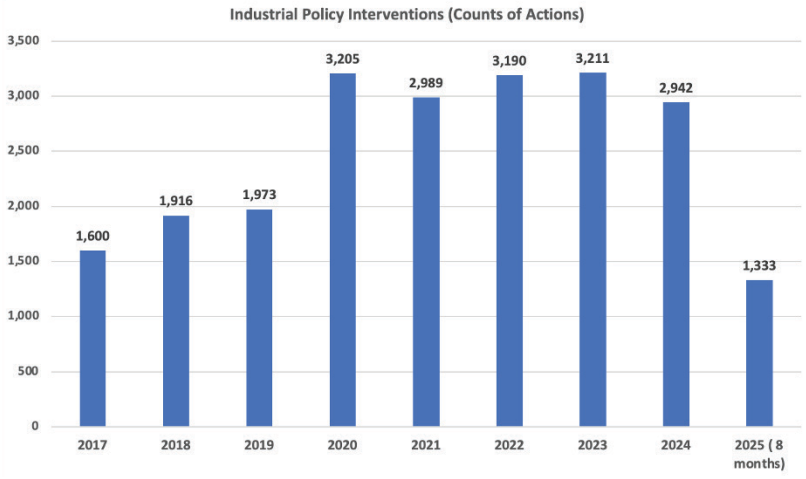
3. Industrial policies: recent trends and considerations

Considering the foregoing developments, it is perhaps not surprising that industrial policy is being ramped up, backed by substantial government spending and interventions across all major economies. While some actions are appropriate (not least, in trade remedy cases), the large scale and number of actions are raising concerns about transparency, economic distortion, and negative international spillovers.

Trends

As can be seen in **Figure 1**, the pace of industrial policy interventions has risen substantially in recent years. Some of this coincides with concerns about supply chain resilience during the COVID 19 pandemic of 2020-2022[10] (i.e., concerns related to availability of medical supplies, as well as uncertainty more broadly fuelled by transport disruption, hoarding and lockdowns, among other factors). More recently, the volume of actions has been bolstered by industrial policy initiatives embedded in cross-cutting policies such as the Inflation Reduction Act in the United States (2022)[11], China's 14th Five-Year Plan (2021-2025)[12], or the EU's Open Strategic Autonomy measures (initially launched in 2013 with respect to defence, but broadened and developed more extensively from 2021 onward[13]). Industrial policy related distortions were compounded by industrial policy responses such actions often elicited from trade partners. Cumulatively, such conditions contributed to persistence of the upturn.

Figure 1: The amount of industrial policy interventions, 2017-2025



Sources: Martín (2025) and Evenett et al. (2024).

Notes: The New Industrial Policy Observatory (NIPO) database covers targeted and selective government interventions aimed at developing or supporting specific locally based firms and economic sectors in line with certain motives (national security; geopolitical concerns; resilience and security of non-food supply chains; domestic competitiveness in strategic sectors; climate change mitigation and other environmental objectives). The NIPO tracking coverage includes 76 jurisdictions (customs territories). The broad categories of policy instruments covered include export barriers, import barriers, domestic subsidies, export incentives, procurement policies, and localization incentives or requirements. To be counted, each action must cover defined sectors or technologies of interest in the new industrial policy context (i.e., low-carbon technology, dual-use products, critical minerals, advanced technology products, semiconductors, medical products, and information technology and digital services). Coverage starts with measures announced or taking effect on or after 1 January 2017. For methodological details see: Evenett et al. (2024), pp 9 - 15.

10. Niu et al. (2025), https://doi.org/10.1287/msom.2024.0879.
11. Attinasi et al. (2023), https://cepr.org/voxeu/columns/unfriendly-friends-trade-and-relocation-effects-us-inflation-reduction-act.
12. For example, see Asia Society (2025), https://chinaexecutivebriefing.asiasociety.org/brief/14th-five-year-plan/.
13. European Parliament Think Tank (2022), https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)733589.

Table 1 draws upon a recent IMF release of the NIPO database containing a detailed breakdown of 2,580 industrial policy actions implemented during 2023 by 68 economies (Evenett et al. 2024 and the underlying data via IMF; see the table sources and notes for details). The table reveals that economically distortive measures outpaced the liberalizing measures by a ratio of 4 to 1 during the year. The advanced economies accounted for an overall majority of all actions, including about 71 percent of the distortive actions and just over half of the liberalizing actions. Emerging markets accounted for 41 percent of the liberalizing actions and 24 percent of the distorting actions. Other nations covered in the data accounted for less than 6 percent of the overall total actions. The United States was found to be the country implementing the largest number of distortive actions in 2023.

In assessing the type of action employed, Evenett et al. (2024, p. 17) find that "While [advanced economies] tend to rely on direct financial grants, state loans, and other state aid, [emerging markets and other economies] opt for import tariffs, state loans and tax relief, and in general more trade restrictions on imports and exports—policies which do not depend on direct expenditures from the government budget." Drawing on industrial-policy-related Global Trade Alert database entries (GTA, a trade policy tracking system that pre-dates NIPO, starting from November 2008), the team considered trade distorting measures implemented during 2021-2023.[14]

Table 1: Industrial policy interventions, 2023

	Nature of the Actions[16]		
	Liberalizing	Distortive	Total
Largest Traders:			
China	10	78	88
USA	4	365	369
Country groupings:			
Advanced economies	269	1,454	1,723
Emerging markets	217	495	712
Other economies	45	100	145
Totals	**531**	**2,049**	**2,580**

Sources: Martín (2025) and Evenett et al. (2024).

Notes: The data in this table should be treated as preliminary as they are based on a detailed version of the 2023 database published by IMF in January 2024. There can be a lag in government reporting on measures. Also note that China and the United States figure as largest traders as well as, respectively, in the country groupings "Emerging markets" and "Advanced economies".[17]

They found that among China, the European Union, and the United States, trade-related industrial policy actions often take place on a tit-for-tat basis. Introduction of a new subsidy or import curb in one economy was often followed with a responding action in the other two within 6 to 24 months.[15]

Considerations

Academic research is helping to shed some light on the nature of the current wave of industrial policy actions. While some scholars have highlighted the potential utility from careful application of industrial policy in specific situations, many also highlight risks arising from the introduction of economic distortions.

Here are a few illustrative examples:

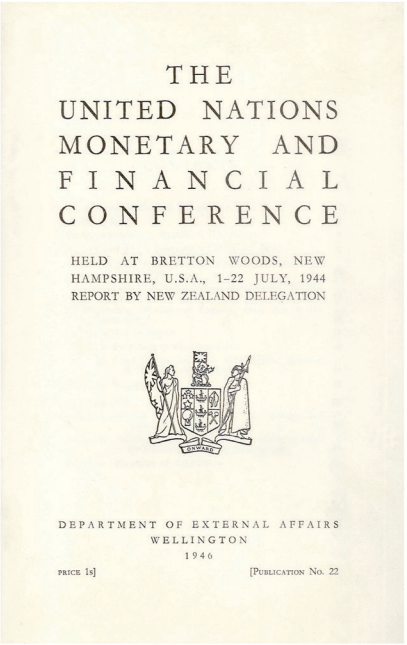
- Evenett et al. (2025) establish a new historical database that extends the NIPO database back to 2009 by drawing on selected GTA data that correspond to NIPO criteria with respect to policies and targeted sectors. This provides a 15-year perspective on industrial policy developments. The team confirms that 2020 did mark a shift toward increased recourse to industrial policy measures. The change was driven by a "new style" industrial policy landscape, which emphasizes supply chain resilience, national security and geopolitical concerns. Industrial policy in the earlier years tended to be motivated more often by

14. For more background on Global Trade Alert (GTA), Global Trade Alert (2025), https://sgeptupload.s3.eu-west-1.amazonaws.com/gta/GTA+handbook.pdf and the website https://www.globaltradealert.org/. The GTA database provides a relatively comprehensive tracking of trade-discriminatory and trade-liberalizing measures worldwide. The GTA documents government announcements that imply credible changes in the treatment of foreign versus domestic commercial interests. Coverage extends from traditional tariffs to behind-the-border regulations affecting services, investment rules, and procurement practices. The GTA database includes decisions by central governments, subnational authorities, public corporations, state financial institutions and firms. The NIPO database was launched with coverage from 1 January 2017 drawing in part on the GTA data as many of the trade interventions are relevant for industrial policy. NIPO methods track policy interventions from a different angle, however, going beyond GTA to provide supplementary information with respect to industrial policy elements (e.g., related to motives and targeted firms or sectors). Moreover, not all industrial policy actions are directly trade-related.

15. Evenett, et al. (2024), op cit., Table 1, p. 6.

16. The NIPO analytical team assessed the nature of actions as follows, "Distortive: The intervention or proposal almost certainly discriminates against foreign commercial interests by restricting market access or by providing subsidies to local commerce" and "Liberalising: The intervention opens market access on a non-discriminatory (i.e. most favoured nation) basis; or improves the transparency of a relevant policy".

17. Taking account our assessment from Box 1, Table 1 counted as emerging markets: Argentina, Brazil, Chile, China, Colombia, Egypt, Gulf Coordination Council (included given the weight of Saudi Arabia and United Arab Emirates in the regional economy), India, Indonesia, Malaysia, Mercosur (included given the weight of Argentina and Brazil in the regional economy), Mexico, Philippines. Southern African Customs Union (included given the weight of South Africa in the regional economy), Saudi Arabia, South Africa, Thailand, Turkey, United Arab Emirates and Vietnam. As tabulated for the table, advanced economies included Australia, Austria, Belgium, Canada, Croatia, Czechia, Denmark, European Union, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Italy, Japan, Netherlands, New Zealand, Poland, Portugal, South Korea, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Taiwan (Chinese Taipei), the United Kingdom and the United States. Other economies included Algeria, Bangladesh, Bolivia, Ecuador, Eurasian Economic Union (included given the weight of Russia in the regional economy), Ghana, Kenya, Morocco, Nepal, Nigeria, Pakistan, Peru, Russia, Serbia, Tunisia and Ukraine. The NIPO team tracks an additional 7 economies, but these had no recorded actions in the database for 2023: Bosnia & Herzegovina, East African Community, Israel, Mozambique, North Macedonia, Norway, and Qatar.



THE
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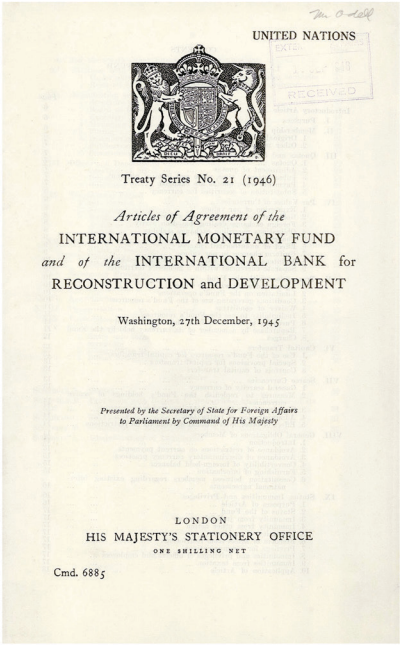
CONFERENCE

HELD AT BRETTON WOODS, NEW HAMPSHIRE, U.S.A., 1–22 JULY, 1944
REPORT BY NEW ZEALAND DELEGATION

DEPARTMENT OF EXTERNAL AFFAIRS
WELLINGTON
1946

PRICE 1s] [PUBLICATION No. 22



UNITED NATIONS

Treaty Series No. 21 (1946)

Articles of Agreement of the
INTERNATIONAL MONETARY FUND
and of the INTERNATIONAL BANK for
RECONSTRUCTION and DEVELOPMENT

Washington, 27th December, 1945

Presented by the Secretary of State for Foreign Affairs to Parliament by Command of His Majesty

LONDON
HIS MAJESTY'S STATIONERY OFFICE
ONE SHILLING NET

Cmd. 6885

At the Bretton Woods Conference in July 1944, the agreement for the founding of the International Monetary Fund and the World Bank was worked out.

competitiveness and climate change concerns. In the post 2020 period, exposure to geopolitically distant trading partners is associated with increased numbers of interventions affecting a given product, which the authors note is consistent with calls for derisking. The authors further note that since 2009 the share of countries implementing trade-distorting policies has increased markedly with respect to subsidies. Across all the interventions during the whole period, some 85 percent are trade distortive, creating a shift in conditions of competition in favour of local firms.

- Hoekman and Nelson (2024) underscore the costs of uncoordinated unilateral industrial policy interventions.[18] Where countries have similar objectives, it may be that cooperative approaches can address negative spillovers and yield mutual benefits. In many cases, however, industrial policy actions are trade distorting in their effects, which may interfere with attaining related economic goals (e.g., promotion of innovation) as well as other objectives (e.g., promotion of competition or improved environmental conditions).
- Hillman and Manak (2023) acknowledge that industrial policy has a role to play in addressing pressing challenges such as climate change and supply chain instability.[19] But, they also highlight the need for care in use of such policy measures. As they put it, "industrial policy—done wrong—can stifle innovation, create substantial inefficiencies, exacerbate the concentration of corporate power, waste precious taxpayer funds, and fuel crony capitalism."[20] As a guardrail against harmful subsidies, these authors stress the need for reformed multilateral disciplines with respect to trade-related subsidies in order to ensure disclosure and to strengthen penalties for non-compliance with international subsidies rules.
- Cernat (2025) highlights a shifting paradigm for global trade policy in the period following the Second World War.[21] In a first phase lasting perhaps five decades, policy makers tended to take a macroeconomic approach. Focusing on reduction of tariff [and quota] impediments to trade, negotiators aimed to maximize gains from trade to support GDP growth. In recent decades, this was followed by a more nuanced microeconomic phase, with negotiators tackling firm-level challenges such as regulatory barriers and services market access. During both phases, policy makers tended to recognize principles supporting liberalization and reduced discrimination, market openness, multilateralism, and rules-based operation of the system. Win-win outcomes were sought. In recent years, a new phase is emerging marked by an emphasis on resilience, reduced interdependence, and improved security. Industrial policy has reemerged as an important part of the policy framework. Win-win approaches have given way in some cases to zero-sum views of trade. Cernat anticipates an uncertain future, with one of three possible outcomes: (1) the existing system could right itself, reverting to use of rules-based approaches, while reforming policy to address new realities in the global economy; (2) the multilateral system may just carry on with diminished force, supplemented by regionalism offering some complementary support for trade, and these elements operating in parallel with industrial policy actions that aim to address domestic priorities; (3) under a worst case scenario Cernat would anticipate widespread use of unilateral measures, open rule-breaking and rising protectionism, with industrial policy employed to avoid dependencies and chokepoints in supply chains. Among these three scenarios, the outcome will depend in part on the willingness of policy makers to invest political capital in achieving new collaborative approaches.

18. Hoekman and Nelson (2024), https://papers.ssrn.com/sol3/Delivery.cfm/4940313.pdf?abstractid=4940313&mirid=1.
19. Hillman and Manak (2023), https://www.cfr.org/report/rethinking-international-rules-subsidies?utm_medium=social_share&utm_source=emailfwd.
20. Ibid, p. 2.
21. Cernat (2025), https://ecipe.org/wp-content/uploads/2025/11/ECI_25_PolicyBrief_18-2025_Policy30_LY03.pdf.

4. The big three

We now turn to a brief sample of industrial policies concretely illustrating some measures comprised in the numbers presented in the previous sections. We focus on the big three economies, which are leaders in the on-going wave of interventions. The actions of the United States, China and the European Union have risked creating an ever more fragmented economic and technology landscape facing emerging markets.

United States

Shifts in US policy orientation have exacerbated the drive towards greater use of industrial policy. The United States is no longer functioning as the guarantor for multilateral institutions. It has instead implemented a range of interventionist actions under Presidents Donald Trump and Joe Biden. During Biden's tenure in the White House, executive actions in areas such as artificial intelligence[22], were complemented by legislative actions including the CHIPS and Science Act[23] and the Inflation Reduction Act. The objectives of these two legislative actions included, respectively, support for the semiconductor sector in the United States and fiscal stimulus in favour of infrastructure development, easing of supply chain bottle necks, and climate change mitigation. Trade policy measures in the United States included simultaneously tightening export controls on advanced semiconductors and artificial intelligence technologies.[24] During the second Trump Administration, the frequent recourse to tariff interventions has been fuelled in part by a desire to create a competitive advantage for domestic manufacturing.[25]

It is also worth noting that the Trump administration is pursuing a series of investments in private companies (**Box 2**) using money already allocated to different initiatives (e.g., funding from the CHIPS and Science Act or resources from the Pentagon and other agencies). These investments are being rationalized in part as mechanisms to promote national security (as is also the case in the use of Section 232 to impose tariffs on certain US imports[26]). By taking stakes, the U.S. Government is creating a web of links between itself and these private-sector firms, something that risks creating tensions between US industrial policy objectives and the principles of corporate governance (e.g., due to the risk of preferential regulatory treatment for government-linked firms or challenges in ensuring representation of non-governmental shareholder interests). More broadly, this shift in policy poses a challenge for potential emerging market investors and trade partners, who will need additional risk awareness as part of due diligence for any future investments or commerce with firms in the United States. A U.S. Government stake in an investment target or trade partner could potentially encumber a deal (e.g., with respect to matters such as technology transfer or third-country market access).

China

In the years since the Global Financial Crisis (2007-2009), China has responded with its own industrial upgrading policy anchored by the *Made in China 2025* initiative, which aimed to reduce reliance on foreign technology and move Chinese manufacturing up the global value chain in ten strategic sectors.[27] The Belt and Road Initiative was launched in 2013 as an industrial policy complement helping to address domestic concerns of reducing excess capacity in several mature industrial sectors (e.g., iron and steel, cement, electrolytic aluminium, flat glass, and shipbuilding) and promoting social stability, as well as ensuring better utilization of China's excess foreign exchange reserves.[28] These policy initiatives have been accompanied in some instances by protective or retaliatory trade measures (e.g. export controls on rare earths). And in some cases, deemed as national security-related (e.g., access to restricted content), measures have forced trade partners (whether businesses or countries) to choose sides or develop alternatives.

It is important to recognize that China's development model and its associated industrial policy have combined an export orientation with a bias toward excess capacity in critical economic sectors. The externalities of the surge in Chinese manufactured exports in recent decades have helped fuel the renewed interest in industrial policies around the world. This situation has played a role in undermining the stability of the multilateral trading system.[29]

22. For a discussion of AI policy in the United States under the Biden Administration, see Appendix 2 in Lippoldt (2024), https://www.cigionline.org/static/documents/no.292.pdf.

23. U.S. Congress (2022), "H.R. 4346 – CHIPS and Science Act", Creating Helpful Incentives to Produce Semiconductors (CHIPS), 9 August; https://www.congress.gov/bill/117th-congress/house-bill/4346 .

24. US trade policies since 2018 – particularly tariffs – have reflected the use of trade measures as industrial policy tools. Tariffs on Chinese goods have been designed not only to protect domestic industries, but also to incentivize reshoring of manufacturing and reduce dependence on strategic competitors. See Bown (2021), https://doi.org/10.1016/j.jpolmod.2021.02.006.

25. For example, see, The White House (2025a).

26. The reference here is to Section 232 of the US Trade Expansion Act of 1962, which "allows the President to impose restrictions on goods imports or enter into negotiations with trading partners if the U.S. Secretary of Commerce determines, following an investigation, that the quantity or other circumstance of those imports 'threaten to impair' U.S. national security." See Kitamura (2025), https://www.congress.gov/crs-product/IF13006.

27. For a recent take on the Made in China 2025 initiative, see Kuo (2025), https://www.weforum.org/stories/2025/06/how-china-is-reinventing-the-future-of-global-manufacturing/.

28. Chan (2024), http://dx.doi.org/10.2139/ssrn.4789560.

29. Draper (2025), https://research.hinrichfoundation.com/the-ghost-in-capitalisms-machine-industrial-policy-returns-to-global-trade.

Box 2. Some recent US government equity stakes fuelled by national security concerns

The Trump administration is pursuing strategic equity investments in private companies, such as:

Intel - A US$8.9 billion equity stake in Intel acquired through CHIPS Act grants and Defense Production Act Secure Enclave program funds, giving the government a 9.9 percent stake in the company.[30] It aims to advance national priorities with respect to the semiconductor industry.

MP Materials Corporation - A US$400 million Department of Defense equity investment, in part via Title III of the Defense Production Act and Executive Order 14241 (20 March 2025).[31] This is part of a complex procurement action for specialty magnets and it is further supported by a Department of Defense loan for US$150 million and includes 10 year warrants for the Department to potentially acquire up to 15 percent of the firm.

Lithium Americas Corporation (LAC) - A restructured deal with LAC (a Canadian company) that provides the U.S. Government with 5 percent equity ownership in the form of warrants plus an additional 5 percent ownership in warrants in the Lithium Americas/General Motors joint venture.[32] The deal was originally structured through the U.S. Department of Energy's Loan Programs Office in October 2024 and subsequently restructured in October 2025. It is designed to finance construction of facilities expected to produce approximately 40,000 tons per year of battery-grade lithium carbonate.

Trilogy Metals, Inc. – The U.S. Government announced that it will acquire a 10 percent stake in this Canadian firm via a US$35.6 million investment, with warrants to purchase an additional 7.5 percent. Funding will be drawn from U.S. Department of War resources, though the authority for this was not yet publicly specified.[33] The purpose of this investment is to support mining exploration in Alaska's Ambler Mining District, which the White House described as "one of the largest undeveloped copper-zinc mineral belts in the world and contains extensive deposits of copper, silver, gold, lead, cobalt, and other strategic metals." [34]

European Union

Members have sought to co-ordinate on policies to shield themselves from the effects of rising geopolitical tensions by promoting "Open Strategic Autonomy" (Draper and Langhammer 2022, pp.3-6). This refers to boosting the capacity of the European Union to function independently in terms of sourcing inputs and operating supply chains in key sectors. Early in the 2010s, the focus was primarily on security and defence, but more recently the focus has broadened to include a range of other issues such as medical supplies (i.e., amid the COVID-19 pandemic) and even "values" such as human rights and environmental concerns. While taking pains to affirm the value of openness, the European Union has launched substantial industrial policy measures such as the Green Deal Industrial Plan (promoting achievement of net-zero carbon objectives)[35] and Critical Raw Materials Act (promoting domestic supply and supply chain resilience).[36]

Developments in the United States, China and the European Union have created both challenges and opportunities for emerging markets, which must now navigate competing demands for alignment while pursuing their own development objectives.

30. Intel (2025), https://d1io3yog0oux5.cloudfront.net/_a9c76828df1af0b055f7cffea57824a7/intel/news/2025-08-22_Intel_and_Trump_Administration_Reach_Historic_1748.pdf.

31. Wu, Alice (2025), "Unpacking The Department of Defense and MP Materials Critical Minerals Partnership", Federation of American Scientists, 15 July, https://fas.org/publication/unpacking-dod-and-mp-partnership/ . Also please note that the US Administration renamed the Department of Defense as the Department of War on 5 September 2025; see Olay (2025), https://www.war.gov/News/News-Stories/Article/Article/4295826/trump-renames-dod-to-department-of-war/.

32. U.S. Department of Energy (2025), https://www.energy.gov/articles/department-energy-restructures-lithium-americas-deal-protect-taxpayers-and-onshore.

33. Trilogy Metals, Inc. (2025), https://trilogymetals.com/news-and-media/news/trilogy-metals-announces-strategic-investment-by-us-federal-government/ and Watson (2025), https://finance.yahoo.com/news/u-ownership-stake-trilogy-metals-222811198.html.

34. The White House (2025b).

35. European Commission (2023), https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial-plan_en.

36. The reference here is to industrial inputs such as lithium, cobalt and nickel (used to produce batteries), gallium (used in solar panels), raw boron (used in wind technologies), and titanium and tungsten (used in the space and defense sectors). See European Commission (2023), https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial-plan/european-critical-raw-materials-act_en .

5. Implications for emerging markets

Emerging markets are responding to fragmentation in the global market place through hedging strategies that combine selective protection and sectoral support with targeted openness.[37] Rather than choosing binary alignment with major powers, countries like Brazil and the ASEAN members, are pursuing "selective integration" that maintains open markets with peer economies while implementing defensive measures against subsidized competition from internationally dominant players.[38] This approach recognizes that traditional comparative advantage patterns may break down when facing state-subsidized competitors benefiting from various industrial policy measures extended by trade partners. Failure to respond with an apt policy may result in an emerging market's failure to realize potential gains from its areas of comparative advantage. At the same time, in the current environment, nuanced policy responses are required, targeting specific distortions rather than broad sectoral protection (Aiginger and Rodrik, 2020). For a resource constrained emerging market, there may be sizable opportunity costs from an overreaction or miscalibration of the response (e.g., harming performance in other sectors of the domestic economy). Moreover, in the current charged geopolitical atmosphere, broad provocatory actions are likely to attract responses from the major economies that are negatively affected.

Brazil and ASEAN provide illustrations of practical implementation of these strategies, which vary by region and context.

- For ASEAN, collective action through deeper services integration and regulatory convergence offers a path to achieve scale economies and competitive strength without surrendering strategic autonomy to any single major power (ASEAN 2025; Sundram & Poddar 2025).[39] ASEAN's next logical step involves accelerating services liberalization among member states, particularly in digital services, professional qualifications, and logistics---areas where fragmentation currently undermines the region's competitive potential.
- For Brazil, the path forward likely requires parallel advancement on multiple tracks: deepening intra-Mercosur integration through regulatory convergence and infrastructure development, while simultaneously pursuing ratification of the EU-Mercosur agreement to diversify trade relationships and reduce over-dependence on China.[40] Brazil has also taken issue with unilateral protectionist tariff actions by the United States in part by launching a dispute via the appropriate World Trade Organization dispute settlement mechanism.[41]

These approaches have the potential to promote openness among similarly minded peer countries, while also strengthening negotiating positions vis-a-vis major economies. They stand in contrast with some of the costly previous strategies in the emerging markets that favoured import substitution and hampered incentives to innovate and boost competitiveness.[42]

37. Aiyar et al. (2023), https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/01/11/Geo-Economic-Fragmentation-and-the-Future-of-Multilateralism-527266. These authors analyse the impacts of policy-driven economic fragmentation in reshaping global economic integration and international cooperation. Areas hit include trade, migration, capital flows, technology diffusion and the provision of global public goods.

38. For an illustration, see Wolf (2025), https://on.ft.com/3IKIS0I.

39. ASEAN's current strategic plan (ASEAN 2025) builds on the initial blueprint for the ASEAN Economic Community: (ASEAN 2015), https://asean.org/book/asean-economic-community-blueprint-2025/. The original blueprint outlined strategic measures for regional economic integration during the period from 2016 to 2025.

40. Brazilian Ministry of Foreign Affairs (2024), https://www.gov.br/mre/en/content-centers/statements-and-other-documents/factsheet-mercosur-european-union-partnership-agreement-december-6-2024.

41. World Trade Organization (2025), https://www.wto.org/english/news_e/news25_e/ds640rfc_11aug25_e.htm.

42. For example, Brazil's experience with import substitution has shown it was costly, with negative incentives for domestic firms to innovate and compete in global markets. See Chandra et al. (2009), https://www.oecd.org/en/publications/innovation-and-growth_9789264073975-en.html.

6. Trade policy as industrial policy: do's and don'ts for emerging markets

As emerging markets navigate the fragmented geopolitical landscape, trade policy has increasingly become a tool of industrial strategy rather than simply a means to influence commerce. The challenge lies in wielding this tool effectively without repeating past mistakes or succumbing to the protectionist temptations exemplified by current U.S. policies.

The do's: strategic openness with limited recourse to trade protection

First, emerging markets should maintain openness as the default position, protecting selectively rather than broadly. Brazil's experience with import substitution demonstrates that broad protectionism reduces competitive pressure and innovation incentives, ultimately hampering rather than helping industrial development.[43] Instead, targeted measures framed within the bounds of multilateral rules to address specific market distortions—such as countervailing measures in response to subsidized competition from state-backed enterprises—can level the playing field without sacrificing the benefits of international competition.

Second, emerging markets should prioritize regional integration and South-South trade agreements. ASEAN's approach to deeper services integration and regulatory convergence offers a template for achieving scale economies while maintaining strategic autonomy (ASEAN 2025). Regional agreements create demonstration effects that build domestic constituencies for liberalization and strengthen negotiating positions with major economic blocs. Trade agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) can help to ensure continued trade openness and steps towards a level playing field for similar minded countries outside of the great power conflicts.[44]

Third, in relation to industrial policy, emerging market economies should design any trade measures to be transparent, rules-based, and – in cases where they are potentially trade distorting – time-limited. But care is needed in targeting. Strategic government policy may help to promote emerging technology ecosystems through comprehensive national strategies and targeted capacity building. Well-designed interventions work best when they include clear performance requirements and accountability mechanisms.[45]

Fourth, emerging market economies should complement liberalizing trade policy measures with robust adjustment assistance. The political backlash against trade in advanced economies stems in part from inadequate support for workers and communities disrupted by import competition. And, in emerging market economies, limited social safety nets may be stressed by pressure to respond to economic adjustment needs. Research on trade and employment has shown that while market openness delivers benefits, these may be reinforced when accompanied by appropriate education, active labour market policies, and social protection systems that help people adapt to changing economic conditions.[46]

The don'ts: avoiding costly traps

First, an important industrial policy lesson from experience is for emerging market economies to avoid use of trade policy as a substitute for addressing domestic structural challenges. Tariffs cannot directly fix problems of inadequate infrastructure, weak institutions, or poor education systems. Argentina's experience illustrates how protectionist policies starting in the 1940s, combined with political instability, among other factors, contributed to long-term economic decline rather than competitive industrial development.[47]

Second, as highlighted above, the major economies are responsive to unilateral trade distorting measures. For emerging economies, a restrained approach may yield better results. In other words, don't engage in tit-for-tat retaliation against major powers. The Global Trade Alert database demonstrates how protectionist measures spread across sectors and countries, creating contamination effects that ultimately harm everyone including the initiators.[48] Absent an effective rules-based multilateral dispute resolution system, smaller economies have particularly limited leverage in trade wars with economic superpowers.

Third, for similar reasons, it is important that emerging market economies don't abandon WTO commitments or multilateral disciplines. The WTO framework remains essential for economies that lack bilateral negotiating power, providing a mechanism to challenge abusive trade actions as a peer. Moreover, analysis of geoeconomic

43. Ibid.

44. Suominen 2021, https://www.csis.org/analysis/cptpp-global-docking-station-free-traders.

45. Lippoldt (2025), https://www.cigionline.org/publications/developing-countries-business-participation-in-the-ai-economy/.

46. OECD (2012), https://www.oecd.org/en/publications/policy-priorities-for-international-trade-and-jobs_9789264180178-en.html.

47. See: (1) Galiani & Somaini (2018), https://latinaer.springeropen.com/articles/10.1007/s40503-017-0047-4 ; (2) World Economic Forum (2014), https://www.weforum.org/stories/2014/12/lessons-from-argentina-on-economic-decline/.

48. For example, drawing on GTA data, Klint (2025, https://www.weforum.org/stories/2025/01/5-key-actions-business-fragmented-geoeconomic-landscape/) points out that the number of harmful trade and investment policy measures rose from 600 in 2017 to over 3,000 per year in 2022, 2023, and 2024. See also analytical reporting on the Global Trade Alert web site at https://www.globaltradealert.org/.

fragmentation shows how policy-driven economic fragmentation harms trade, technology diffusion, and provision of global public goods—areas where multilateral cooperation remains critical and where emerging markets have clear needs.[49] Where multilateralist approaches are not successful, open plurilateral accords (preferably within the WTO framework) or open regional approaches may still provide a means to advance in addressing challenges using a rules-based approach.[50]

Fourth, emerging market economies would do well to take note of the admonition "Don't ignore the labour and environmental dimensions of trade policy". The exclusion of labour standards from WTO disciplines has contributed challenges to launch an integrated approach to trade and labour matters. But this has fed resistance to continued market openness in some advanced economies (e.g., due to fears about a race to the bottom in labour standards) and it has raised a challenge for social inclusion as developing countries advance. The planned International Trade Organization envisioned in the 1948 Havana Charter would have included labour standards, but ratification was blocked by protectionist interests—a historical lesson about the costs of excluding these considerations.[51] Emerging markets that proactively address these issues through cooperation with the International Labor Organization and environmental agreements strengthen rather than weaken their trading positions, including vis-à-vis consumers. Care is required, however, in that potential gains from climate-motivated industrial policy measures could easily turn negative if misdirected (e.g., due to influence of politically connected sectors).[52]

The fundamental insight from trade economics remains valid: openness combined with appropriate complementary policies delivers superior outcomes in comparison to protectionism. The key lies in defining "appropriate" for the specific challenges of geopolitical fragmentation, maintaining selective integration with peers while building defensive capacity against subsidized competition, all while preserving the institutional capabilities for transparent, rules-based policymaking that serves broad development objectives rather than narrow special interests.

49. Aiyar et al. (2023), op cit, https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/01/11/Geo-Economic-Fragmentation-and-the-Future-of-Multilateralism-527266.

50. For example, see: Akman et al. (2023), https://doi.org/10.54648/TRAD2023036.

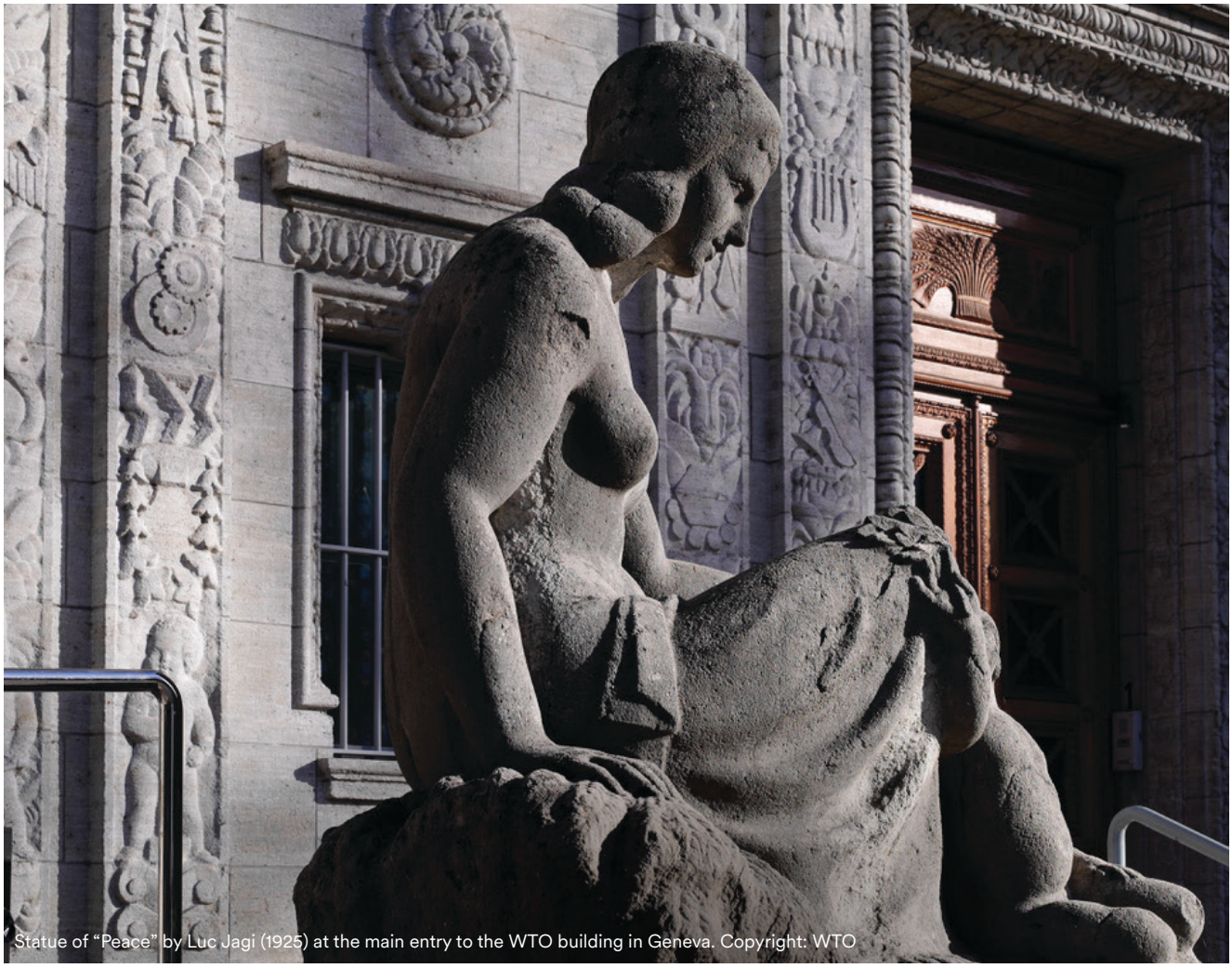
51. See VanGrasstek, Craig (2013), https://www.wto-ilibrary.org/content/books/9789287042347; and Wikipedia, "International Trade Organization", viewed on 21 October 2025; https://en.wikipedia.org/wiki/Havana_Charter.

52. IMF (2024, Chapter 2), https://www.imf.org/en/-/media/files/publications/fiscal-monitor/2024/april/english/ch2.pdf) has a helpful discussion on this issue. The chapter notes that policy makers face a challenge in balancing between climate goals, debt sustainability, and policy feasibility. Per IMF (2024, p. 16), emerging market economies below the technological frontier would do well to focus on a "well-calibrated policy mix to facilitate adoption of existing technologies."

7. Concluding remarks

The current geopolitical environment poses major challenges for the developing world and for the WTO.[53] The Trump administration is explicitly advancing a power-based approach to international relations. China, in turn, is reaffirming its reliance on external demand to support economic growth while planning to enhance technological self-reliance to insulate its economy from external pressures. These trends will continue to challenge the stability of the rules-based multilateral trading system in the coming years.

Looking ahead, the success of emerging market industrial policy will depend on maintaining the delicate balance between (a) addressing defensive needs such as responding to unfair competition and market failures and (b) ensuring the benefits of access to competitive inputs and exposure to international competition and opportunities. The key lies in designing policies that are transparent, rules-based, and targeted at specific distortions rather than broad protectionism. This requires institutional capabilities that many emerging markets are still developing, including sophisticated trade remedy mechanisms, regulatory impact assessment, and coordination across government agencies. Most importantly, it demands recognition that in an era of geopolitical fragmentation, the greatest strategic asset for emerging markets may be their ability to remain selectively open while building collective strength through peer cooperation—offering a pragmatic alternative to the stark choices imposed by great power competition.[54]



Statue of "Peace" by Luc Jagi (1925) at the main entry to the WTO building in Geneva. Copyright: WTO

53. See Mavroidis (2025).

54. See Lippoldt, op cit. (2025) for examples of AI sector development in middle-income countries supported in part via promotion of digital technology ecosystems through national strategies, regulatory frameworks, and targeted capacity building initiatives. For a perspective on developing country use of selective industrial policies, see Chang (2002), https://www.google.com/books/edition/Kicking_Away_the_Ladder/X5N7JMS1wNYC?hl=en&gbpv=1.

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