Global Industrial Policy Shifts and MENA Implications in a Fragmented World

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 E.M. Mouhoud, Université PSL (Paris Sciences et Lettres)

Introduction

- 1. Global industrial policy has entered a new phase shaped by geopolitics, technology, and environmental transitions.
- 2. Technological innovation, driven by AI and the low carbon technologies, as a lever for regaining the competitive advantages of industrialized countries.
- 3. Fragmentation of global trade is pushing countries to reconsider their industrial strategies.
- 4. MENA countries can seize this moment to industrialize and diversify by leveraging proximity, labor force, and strategic sectors

Regionalisation of global chain value

Global exports of components and other intermediate goods provide a mixed picture of whether the globalization of manufacturing has run its course or is still unfolding. (index; 2010 = 100)



Source: United Nations COMTRADE database.

Note: The chart shows the following variables: exports of parts and components, exports of other intermediates, exports of intermediates (parts and components + others), 1990–2017.



- Lower world trade elastricities since 2010
- Implication: Global production is regionalizing.
- Industrial strategy is now shaped by geopolitics, energy transition, and tech.

Reshoring Trends United States and Europe

- United States: Companies are bringing production home at unprecedented rates.
- In 2023, U.S. reshoring and FDI
 => 287,000 manufacturing jobs
- Critical sectors drive this trend EV batteries, semiconductor fabs, and solar gear made up a large share (nearly 40% of jobs, boosted by IRA and CHIPS Act subsidies).
- This "reindustrialization" is seen as bolstering economic security amid global supply shocks





EU firms are also pivoting to "open strategic autonomy."

- 56% of large U.S./EU manufacturers invested in reshoring or nearshoring production in the past year (up from 42% a year before)
- Onshoring is set to rise by 2028 about 48% of capacity will be domestic (up 7 percentage points), with another 24% nearshored to neighboring countries
- **"Friend-shoring"** is growing too: 73% of firms plan to diversify supply chains toward trusted countries, reducing reliance on China
- North America, India/Vietnam, and North Africa are noted as popular destinations for new factories

Factors and taxonomy of reshoring activities

A taxonomy

- Ricardian reshoring activities
 - For labor costs unit reduction
 - Non sustainable : eg Inflation makes the labor costs increase and encourage offshoring
- Schumpeterian Reshoring activities
 - Based on technological innovation at the territorial level by substituting new processes and new intermediate goods GVC importations
 - More sustainable (Mouhoud, 2018, 2022)

Factors

- Increase in unit labor costs in emerging countries
- Automatization of the production process and assembly lines
- outsourcing failures
- Transportation and transaction (tarif and non tarif) costs increase
- Environmental and social factors
- Strategic autonomy based industrial policies
- Inter sectoral Heterogeneity
 - automatable/robotizable (solid materials) vs non automatable/robotizable sectors (textile-clothing products)
 - Heavy products
 - Services / manufacturing jobs

Industrial Policy Revival in Major Economies

- US: The 2022 Inflation Reduction Act earmarked \$369 billion
 - clean energy and manufacturing incentives the largest U.S.
 climate-industrial investment = > Domestic boom in EVs,
 batteries, chips, etc., backed by production and tax credits.
- EU launched a Green Deal Industrial Plan
 - reallocating ~€245 billion from existing funds)and loosened stateaid rules.
 - Fast-track permits (Net-Zero Industry Act) and targeted subsidies aim to scale up batteries, renewables, hydrogen and other "netzero" industries by 2030.

• China and Others:

 China's longstanding strategic subsidies and new industrial policies in India, Japan, and MENA => global shift back toward state-led industrial strategy = > supply chains (e.g. semiconductors, critical minerals) and capitalize on the green transition for jobs and growth.

Al and Digital Tech: New Competitive Frontiers

An AI system is a machine-based system that is capable of influencing the environment by producing an output (predictions, recommendations or decisions) for a given set of objectives (OECD 2022).

- It uses machine and/or human-based data and inputs to
 - (i) perceive real and/or virtual environments;
 - (ii) abstract these perceptions into models through analysis in an automated manner (e.g., with machine learning), or manually; and
 - *(iii) use model inference to formulate options for outcomes. AI systems are designed to operate with varying levels of autonomy (OECD).*
- Al adoption transforming manufacturing and services.
- OECD: Digital skills shortages in 47% of firms.
- Al boosts logistics, productivity, innovation ecosystems.

Concentration of Al talent This chart shows the concentration of Al talent – that is, the percentage of LinkedIn members with Al skills or who perform an Al occupation (e.g. machine learning engineer) – per country and in time.

India Israe 9.0% 9.0% 8.0% 8.0% 7.0% 7.0% 6.0% 6.0% Switzerlar Finland 5.0% 5.0% Turkey 4.0% 4.0% 3.0% 3.0% 2.0% 2.0% 1.0% 1.0% 0.0% - 0.0% 202 Year

Source: OECD.AI (2022), visualisations powered by JSI using data from LinkedIn, accessed on 16/12/2022, www.oecd.ai

Relative international AI skill demand

ICIALIVE IIICI IIICI III III ALI SKIII UCIIIAIIU



Concentration of AI talent by countries

Global **clean energy investment** by region in 2023 (USD billions)

Record Spending: Worldwide investment in clean

ENERGY \$1.7 trillion in 2023, an all-time high, now *well above* fossil fuel investments (~\$1.0 trillion)

- Solar power is attracting the most capital \$380 billion in 2023 surpassing upstream oil spending for the first time.
- EV manufacturing and infrastructure are booming as well (over \$130 billion in 2023, more than double 2021 levels)

China alone accounted for ~44% of worldwide renewable power investments, f Europe (21%) the US (15%). The Middle East & Africa region, while still a small share, saw rapid growth in 2023.



Decarbonization and Value Chains

- Green transition shortens value chains.
- Environmental tech = 6% of patents (2019).
- Carbon Border Adjustment Mechanism (CBAM) and low-carbon shift are remapping trade flows.

Composition effect : changing the composition of products

- Decarbonizing productive activities eg. reducing the use of fossil fuels in various economic sectors, by adopting less carbon-intensive technologies and practices
 - => reduce the number of steps and intermediaries needed to produce a good or service
 - => make the value chain more efficient and faster.
- Decarbonization can also impact the costs of different steps in the value chain, by reducing energy costs and improving the competitiveness of businesses.

Transaction costs effect Impact of the European imports Carbon tax





Clean tech patent families over time, by first hierarchy level, high quality, 3ya

Source: WIPO computations in Noailly (2022

US and EU Industrial Policy Post-2025

- US: From subsidies to tariffs (Trump 2025).
- EU: Strategic autonomy via CBAM, IPCEIs, Chips Act.
- Result: Fragmentation with parallel industrial blocs.

Trade Fragmentation and Protectionist Measures

- Trade-restrictive measures globally = X 3 since 2018.
- As of 2024, over 3,000 such measures are in place globally (WTO, Trade Monitoring Report, 2024).
- From Oct 2023 to Oct 2024, members introduced 169 new trade-restrictive measures (import bans, licensing, etc.) covering ~\$888 billion of trade, over 2.5× the prior year's amount.
- => the stock of import restrictions keeps growing by late 2024 roughly **11.8% of world imports** (almost \$3 trillion worth) were subject to restrictive measures, up from 9.9% a year before
- This creeping protectionism adds to business uncertainty and could undermine global value chains.

Geopolitics and "Friend-Shoring

- "Geopolitical tensions (U.S.–China tech rivalry, Ukraine war) are prompting "friend-shoring"
- **Export curbs** on critical goods (chips, vaccines, food commodities) have also been used in recent crises.
- Trade fragmentation => shave several percentage points off global GDP in the long run / rival economic blocs (IMF).
- **Carbon Tariffs & Green Protectionism :** Climate policies are now intersecting with trade.
- The EU's new Carbon Border Adjustment Mechanism (CBAM) entered a transitional phase in late 2023, requiring importers of carbon-intensive goods to report embedded emissions.
- CBAM will **levy carbon costs on imports** starting 2026 to mirror the EU carbon price. Other countries are considering similar carbon tariffs.

MENA – Risks and Strategic Opportunities

• Opportunities: EU Regional value chains

- MENA can move up the value chain by embedding into EU reindustrialization strategies (e.g., battery and pharma value chains).
- Services industries are key target for entering the GVC
- North Africa's Strategic Position: Countries like Morocco, Egypt, and Tunisia are capitalizing on proximity to Europe. Morocco has attracted auto and aerospace factories, becoming a regional manufacturing hub integrated into EU value chains.
- Egypt is leveraging its large market and trade agreements (Africa, Arab region) to build up industries such as fertilizers, cement, and electronics
- local innovation ecosystems
 - The number of tech startups in MENA exceeded 5,000 in 2023, with over 1,100 in AI and digital sectors (MAGNiTT, 2024 MENA Venture Investment Report).
 - Al/Green Tech
 - 25% of global clean tech investments in 2023 were directed at emerging markets, with
 - MENA attracted \$7.6B in clean energy FDI in 2023, led by hydrogen and solar projects (IEA, World Energy Investment 2024). Egypt, UAE, and Saudi Arabia lead hydrogen pilot initiatives

Implication for MENA:

- Industrial upgrading = > leverage digital infrastructure, green hydrogen, and nearshoring dynamics to move up the value chain.
- However, MENA nations need to address
 - skill gaps, improve ease of doing business, and ensure consistent industrial policies.
 - Engaging the diaspora and foreign partners for technology transfer can also accelerate the region's industrial upgrade.
 - **Regional integration**: Deepen intra-MENA trade (10% of total MENA trade), harmonize regulations.
 - GO out from Hub and sopke relation with EU

Need a Policy coherence: A coordinated approach to industrial, education, and climate policy is needed to support long-term resilience and competitiveness.

Can the GCC Anchor Green Integration?

- Gulf funds + green tech = integration engine?
- NEOM, Hydrom, Masdar = green industrial platforms.
- Gulf capital + North African industry = synergy.
- High oil prices have provided fiscal space for investment, and visions like Saudi Arabia's Vision 2030 and UAE's Operation 300bn set targets to boost non-oil industries

Diversification .. and twilight of oil

- Manufacturing currently contributes only ~12% of MENA's GDP (versus ~17% globally)
- GCC states are now mostly led by young leaders keen on transitioning to a diversified post-oi economy
- Undertaking massive investments, and they have accumulated reserves to be able to continue investing in diversifying their economy
- GCC states have started to look out, in MENA and SSA, for investment opportunities, in manufacturing, agriculture, and clean energy.
- It would make sense to develop a large Arab market in the future, where Guld capital, and MI labor can combine to form competitive manufacturing and agro-business, especially focused on strategic areas where short GVC are necessary to ensure resilience in an age of geo-political chaos.

Investment (as share of GDP), over the years



Undertaking massive investments, and they have accumulated reserves

SWF capitalization, 2022/ Total: \$3,494 Trillions.

Source: https://www.swfinstitute.org/fund-rankings/sovereign-wealth-fund



Notes: ADIA: Abu Dhabi Investment Authority, KIA: Kuwait Investment Authority; PIF: Public Investment Fund (KSA); QIA: Qatar Investment Authority; ICD: Investment Corp of Dubai; Mubadala Investment Company (UAE); ADQ: Abu Dhabi Developmental Holding Company

\$ billions

Excellent business climate in the GCC

Source: 2024 Index of Economic Freedom, the Heritage



.. But disappointing success so far in diversification



EDI vs GDP per cap (current USD)

.. Can't really diversify in small countries..

	Population			
	Total	Nationals	Share	Share
	2022	2022	Expats	Expats
	(millions)	(millions)	(2022)	(2010)
Bahrain	1.47	0.70	52%	54%
Kuwait	4.27	1.31	69%	68%
Oman	4.58	2.69	41%	29%
Qatar	2.91	0.37	87%	86%
KSA	36.41	21.26	42%	31%
UAE	9.44	1.19	87%	89%
GCC	59.08	27.53	63%	59%

MENA Strategy – Five Key IP Actions

- 1. Build regional value chains
- 2. Invest in tech skills and education
- 3. Mobilize diaspora and co-financing
- 4. Support SMEs and green innovators
- 5. Create tech transfer ecosystems

Policy "Recommendations"

- Reform rent-based models.
- Coordinate industrial, education, and energy policy.
- Regional integration = resilience in a fractured global system.
- Services must be targeted
- Time to boost and deepen GAFTA with GCC as engine of growth and Regional Value Chain

Conclusion

- MENA has a historic window to industrialize.
- Fragmentation creates risk—but also space.
- With the right strategy, the region can become a resilient production hub.
- => Real Political reforms and stop subsiding the cronies