

# Euro– Mediterranean Economic Cooperation in the Age of Deglobalisation



edited by Fabrizio Botti

Publication produced in the framework of IAI strategic partnership with Compagnia di San Paolo Foundation and in collaboration with SRM. The views expressed in this report are solely those of the authors.



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ISBN 978-88-9368-273-2

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## Foreword

The Covid-19 pandemic and the war in Ukraine have severely disrupted the world economy, forcing the future of globalisation to the top of the global economic agenda.

Reshoring, nearshoring and friendshoring are different approaches to the same issue: the strengthening of regional trade agreements and investment growth with partners who are geographically closer or considered more “reliable” in terms of shared values and geopolitical stability than those hitherto used in the era of full-blown globalisation.

I believe the two most interesting topics in this report are related to the role that infrastructure can play in the new scenario and the importance of the Mediterranean region as a hub of global trade. Great challenges always throw up great opportunities: by rethinking value chains, our world’s social and economic centre of gravity could gradually shift from east to south.

Italy and Europe therefore have the unique chance to leverage their strategic advantage in this arena, developing a partnership model capable of ensuring stability, peace, and economic growth for supplier countries. We need to relaunch the project of the Mediterranean area as an innovative laboratory of cooperation, starting from an essential diversification of energy sources and an implementation of flexible energy systems.

To solve the current crisis, there is still a long way to go: the infrastructure gap is one of the elements that contributes most to slowing down our region’s economic development and its full trade integration. The real challenge will now concern the mobilisation of public–private capital in order to improve intra-regional interconnections, create an efficient regional value chain and an integrated logistics platform, and support a highly competitive industrial ecosystem.

This report is a joint undertaking by two of Italy’s top think tanks and research centres: the Istituto Affari Internazionali (IAI) and Studi Ricerche Mezzogiorno (SRM) have put together an outstanding group of international experts as its

authors.

As Compagnia di San Paolo Foundation, we are very proud to have promoted this opportunity to deepen the future of globalisation and to foster that intermingling of competences that today, in a world of permanent transformation, is absolutely mandatory.

We hope that the report “Euro–Mediterranean Economic Cooperation in the Age of Deglobalisation” will provide useful insights for policymakers and support essential work to revitalize a trading system that impacts on everyone’s lives.

Fulvio Bersanetti  
Fondazione Compagnia di San Paolo  
Turin, November 2022

# Introduction

The pandemic crisis and the war in Ukraine, with its far-reaching geopolitical implications, have brought about or accelerated structural transformations in the economic and political international order.

Substantial vulnerabilities in many global supply chains have emerged as a result of these two global crises but also of long-lasting threats such as climate changes and the geopolitical tensions between China and the United States. Disruption in global production networks has revamped the debate on the future of globalisation and the potentialities and downsides of reshoring, nearshoring or friendshoring processes. Indeed, the reconfiguration of global value chains (GVCs) has been increasingly debated as an economic policy tool to secure the supply of critical products and establish strategic autonomy at the EU level.

The resurgence of geopolitics as an increasingly crucial factor in shaping economic policy decision-making may affect the functioning of the multilateral system and encourage plurilateralism and regionalisation processes. Economic national security is becoming a dominant concept in the political economy of the major global actors. The resulting fragmentation and push for reshoring may lead to a subsidy race in critical sectors (e.g. semiconductors); a growing weaponisation of trade and investment policy may ensue.

Nevertheless, the prospective restructuring of the position of Italy and the EU within the international production networks may favour the revitalisation of economic cooperation in the Mediterranean and the achievement of open strategic autonomy through enhanced interdependencies between the EU and its Southern neighbours, diversification of the access to key materials, and integration of partner countries in the area into the industrial supply chains.

The main objective of the volume is to explore the opportunities and challenges of an improved Euro-Mediterranean economic cooperation at times of geopolitical turbulence and the emergence of deglobalising trends and processes.



In section 1, Botti and Paviotti review the EU policy approach to supply chains resilience amid the recent global crises. They explore the state of advancement of the projects and initiatives that the EU is pursuing in the framework of its strategy aimed at ensuring an open strategic autonomy, as well as the potentialities of the economic cooperation with the southern neighbours for the development of EU–Mediterranean supply chains.

In section 2, Tanchum discusses key lessons for the success of regionalisation in the Mediterranean by looking at the lessons that can be drawn from the recent developments in the Europe–Maghreb automotive value chain and other success factors such as the local provision of critical raw materials, after the stress-test represented by the Russian invasion of Ukraine.

In section 3, Deandreis, Panaro and Ferrara provide a comprehensive analysis of the crucial role played by maritime transport and logistics both in the past globalisation wave and the current economic landscape shaped by global crises. The authors also investigate advantages and disadvantages of a strategy aimed at enhancing European value chains in the Mediterranean from the perspective of maritime economy.

# 1. EU Open Strategic Autonomy and the Prospects for Economic Cooperation with Southern Neighbours

by Fabrizio Botti and Irene Paviotti

Promoting the resilience and sustainability of supply chains is one of the pillars of the European Union's plan to achieve open strategic autonomy in the trade and investment domain. Despite the European Commission's traditional emphasis on the virtues of the rule-based trading system and of cooperative mechanisms when it comes to facilitating access to critical supplies, the European policy approach to the reconfiguration of supply chains recently embraced other potentially more assertive elements. Such defensive posturing raises concerns over a possible trade-off between the benefits of global interdependence (openness) and regional economic security (autonomy), especially for an export-driven economy such as the EU's.

In February 2021, through the issue of its 2021 Trade Policy Review, the Commission launched a new trade strategy that explicitly supports the EU's open strategic autonomy along three main directions:

1. openness to trade and investment for economic recovery;
2. responsibility for a greener and fairer world, with the aim of strengthening value chains' sustainability and resilience; and
3. assertiveness against unfair practices undermining the effectiveness of multilateral institutions.<sup>1</sup>

In particular, the Commission aims to integrate EU trade policy into the new sustainable-growth model defined by the Green Deal and the European Digital Strategy.

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<sup>1</sup> European Commission, *Trade Policy Review - An Open, Sustainable and Assertive Trade Policy* (COM/2021/66), 18 February 2021, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52021DC0066>.



Growing geo-economic competition has led the EU to develop a defensive trade- and industrial-policy toolbox, with an increasing focus on supply resilience.<sup>2</sup> Since the Covid-19 pandemic crisis, such resilience emerged as a key cross-cutting issue in the Union's policy toolbox with the aim of strengthening EU industrial and technological capacity and decreasing foreign dependence. Several EU policy measures and initiatives have been increasingly carried out in this area of intervention focused on supply-chain resilience.

The EU investment-screening framework is one of the most significant policy tools in the Union's set of defensive policy instruments, as it creates a cooperation mechanism between member states and the Commission for the prevention of threats to EU security and public order. Notably, the Foreign Direct Investment (FDI) Regulation establishing the framework provides a list of indicative factors to be considered by the Commission and the member states in the assessment of investment likely to endanger security or public order – in particular, the effect of third-country investments on critical infrastructure and technologies, the supply of critical inputs, access to sensitive information or the ability to control information, and the freedom and pluralism of the media.<sup>3</sup> According to the regulation, direct or indirect third-country control of investors is another indicative aspect to be examined – confirmation, if such were needed, of European responsiveness to the risks associated with Chinese state-owned enterprises, and Russian or Belarussian investments targeting critical European firms.

The Commission is also exploring “Europe's strategic dependencies”, with the aim of identifying and addressing related risks and opportunities. Its most recent in-depth review identifies the concentration of global production and limited opportunity for supply diversification in the rare-earths, magnesium and

<sup>2</sup> Other EU investment- and trade-policy measures involve the field of economic distortion, economic coercion, values and sustainability. For a comprehensive overview, see Tobia Gehrke, “Threading the Trade Needle on Open Strategic Autonomy”, in Niklas Helwig (ed.), *Strategic Autonomy and the Transformation of the EU. New Agendas for Security, Diplomacy, Trade and Technology*, FIIA Reports, No. 67 (2021), p. 89-103, <https://www.fiaa.fi/en/publication/strategic-autonomy-and-the-transformation-of-the-eu>.

<sup>3</sup> European Parliament and of the Council of the European Union, *Regulation (EU) 2019/452 of 19 March 2019 Establishing a Framework for the Screening of Foreign Direct Investments into the Union*, <https://eur-lex.europa.eu/eli/reg/2019/452/2020-09-19>.

photovoltaic (PV)-panel sectors.<sup>4</sup> Among the set of initiatives promoted by the Commission to address identified strategic dependencies on third countries, the report highlights the role of industrial alliances (on raw materials, batteries, hydrogen, semiconductors and cloud services) and Important Projects of Common European Interest (IPCEIs).

A relatively unknown provision of the Treaty on the Functioning of the European Union (Article 107(3)(b)) provides for the possibility of approving state aid for IPCEIs.<sup>5</sup> Such projects support the EU's strategic autonomy by insuring member states' investments in technological development against market failure. The Commission has so far approved three IPCEIs in the microelectronics and batteries sectors, while member states are assessing initiatives on clean hydrogen, health and the next-generation cloud.

Industrial alliances cluster together relevant partners along a value chain from the public and private sectors and civil society for cooperation and joint action towards relevant European strategies – as has been seen in the areas of batteries, the circular economy of plastics, clean hydrogen and raw materials.<sup>6</sup>

The EU is pursuing its geopolitical ambitions at the global level by diversifying its economic relations and building alliances with like-minded partners through its broad network of trade agreements. Since the Biden administration took office, the Union has attempted to deepen transatlantic trade and economic ties and to progress with the World Trade Organisation (WTO) reform agenda in the framework of increasing geopolitical tensions with China. In order to develop its global agenda, the EU should also engage in improved cooperation with African countries – especially its southern neighbours in the Mediterranean area.

<sup>4</sup> European Commission, *EU Strategic Dependencies and Capacities: Second Stage of In-depth Reviews* (SWD/2022/41), 22 February 2022, <https://ec.europa.eu/docsroom/documents/48878>.

<sup>5</sup> Clément Evroux, "Important Projects of Common European Interest: State of Play", in *EPRS Briefings*, April 2022, [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_BRI\(2022\)729402](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)729402).

<sup>6</sup> European Commission website: *Industrial Alliances*, <https://europa.eu/!BRQMG9>.

## 1.1 EU economic cooperation with its Southern Neighbourhood: Laying the groundwork for Mediterranean supply chains

### 1.1.1 The Southern Neighbourhood as a strategic partner

The recently introduced policies that aim to build the EU's strategic autonomy and resilience foresee cooperation with the Union's partners as a key factor in diversifying and strengthening supply chains. The European Commission's 2021 communication on trade policy states that "the EU has a strategic interest"<sup>7</sup> in supporting developing countries' integration into the world economy – especially those that are geographically close to Europe. To achieve the three medium-term goals of the policy,<sup>8</sup> one entire focus area calls for stronger partnerships with Europe's neighbourhood and Africa generally. According to the Commission, trade and investment agreements should be modernised to "foster strategic interdependencies between the EU and the Southern Neighbourhood and develop win-win integration initiatives, in particular on strategic value chains".<sup>9</sup>

Similarly, the Commission's updated industrial strategy aims to reduce and even prevent strategic dependencies through partnership diversification. This requires the EU to collaborate with "relevant stakeholders to identify measures to reinforce the EU's position in global value chains"<sup>10</sup> – i.e. to diversify trade relations. To this end, relations with the Union's neighbourhood are central. Since they are already well established and regulatory convergence exists to some extent, these should be exploited to strengthen and diversify the supply of materials needed for the EU's green and digital transitions.<sup>11</sup> This is

<sup>7</sup> European Commission, *Trade Policy Review*, cit., p. 6.

<sup>8</sup> "Supporting the recovery and fundamental transformation of the EU economy in line with its green and digital objectives" (ibid., p. 9); "shaping global rules for a more sustainable and fairer globalisation" (ibid., p. 10); and "increasing the EU's capacity to pursue its interests and enforce its rights, including autonomously where needed" (ibid., p. 10).

<sup>9</sup> Ibid., p. 17.

<sup>10</sup> European Commission, *Updating the 2020 New Industrial Strategy: Building a Stronger Single Market for Europe's Recovery* (COM/2021/350), 5 May 2021, p. 13, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52021DC0350>.

<sup>11</sup> Ibid.

especially true for critical raw materials<sup>12</sup> and alternative energy sources such as hydrogen,<sup>13</sup> for the provision of which partnerships have already been established with Southern Neighbourhood and African countries in the past two years – and new ones are currently being sought.<sup>14</sup>

In addition to sectoral policy frameworks that contain international partnership provisions, specific EU policies and instruments for Europe's external action either explicitly frame the Union's cooperation with its southern neighbours or create the conditions for future cooperation – with potential benefits for Mediterranean supply chains. To begin with, the revised Southern Neighbourhood strategy, or New Agenda for the Mediterranean, prioritises resilience, prosperity and digital transition among other issues, with a chapter on sustainable economies that includes economic diversification and open strategic autonomy. The strategy acknowledges that the EU's move towards open strategic autonomy and the pandemic-induced restructuring of global value chains creates new opportunities to create integrated industrial supply chains between Europe and its Southern Neighbourhood. In this regard, industrial clusters in southern partners are being promoted because they help connect businesses with global and regional value chains; reduce small and medium-sized enterprises' (SMEs') isolation; promote innovation; and, more generally, benefit trade and investment.<sup>15</sup>

One of the instruments that supports the implementation of the New Agenda for the Mediterranean is the Economic and Investment Plan for the Southern Neighbourhood (EIP). Under the Neighbourhood, Development and International Cooperation Instrument (NDICI) in the 2021–2027 Multiannual Financial Framework, 7 billion euro are allocated to promote the socio-economic recovery, sustainable development and regional economic potential

<sup>12</sup> European Commission, *EU Strategic Dependencies and Capacities*, cit.

<sup>13</sup> European Commission, *A Hydrogen Strategy for a Climate-Neutral Europe* (COM/2020/301), 8 July 2020, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52020DC0301>.

<sup>14</sup> Algerian Ministry of Energy, *La quatrième réunion annuelle du dialogue politique de haut niveau sur l'énergie entre l'Algérie et l'Union Européenne*, 10 October 2022, <https://www.energy.gov.dz/?article=la-quatrième-reunion-annuelle-du-dialogue-politique-de-haut-niveau-sur-l-energie-entre-l-algerie-et-l-union-europeenne>.

<sup>15</sup> European Commission, *Renewed Partnership with the Southern Neighbourhood. A New Agenda for the Mediterranean* (JOIN/2021/2), 9 February 2021, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52021JC0002>.

of the neighbourhood through a series of flagship projects. Flagship no. 5, “connected economies”, aims to provide technical assistance and “support access-to-finance for key sustainable value chains and clusters in sectors with the potential for economic integration and export”, in order to boost their integration into regional and global value chains.<sup>16</sup>

Financially, the External Investment Plan also targets the EU’s neighbourhood and Africa for the creation of jobs, stability and prosperity.<sup>17</sup> The three types of instruments it relies on (so-called pillars) are:

1. blending and guarantees under the European Fund for Sustainable Development (EFSD), which includes a Neighbourhood and an African Investment Platform;
2. technical assistance to local public- and private-sector bodies; and
3. dialogue to improve the business and investment environment.<sup>18</sup>

While the External Investment Plan covers a broader range of activities for the Southern Neighbourhood’s economic development, some of these might in the long term be conducive to the creation of Mediterranean supply chains – not least, via active support to neighbourhood economies.

Another initiative that might indirectly support the creation of Mediterranean value chains is the Global Gateway. As a strategy, it aims to create a broader framework within which the EU’s external action can be better understood. It revolves around the concept of connectivity, which should help – among other things – to boost the “competitiveness and security of global supply chains” through “smart, clean and secure links in the digital, energy and transport sectors”. In line with the increased assertiveness of EU policies under the current “geopolitical”<sup>19</sup> Commission, it aims to benefit both EU partners and

<sup>16</sup> European Commission, *Renewed Partnership with the Southern Neighbourhood Economic and Investment Plan for the Southern Neighbours* (SWD/2021/23), 9 February 2021, p. 3, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52021SC0023>.

<sup>17</sup> European Commission website: *EU External Investment Plan. About the Plan*, [https://ec.europa.eu/eu-external-investment-plan/about-plan\\_en](https://ec.europa.eu/eu-external-investment-plan/about-plan_en).

<sup>18</sup> European Commission, *Report on the Implementation of the European Fund for Sustainable Development* (COM/2020/224), 2 June 2020, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52020DC0224>.

<sup>19</sup> European Commission, *Speech by President-elect von der Leyen in the European Parliament Plenary on the Occasion of the Presentation of Her College of Commissioners and Their Programme*, Strasbourg, 27 November 2019, [https://ec.europa.eu/commission/presscorner/detail/en/speech\\_19\\_6408](https://ec.europa.eu/commission/presscorner/detail/en/speech_19_6408).

EU member states' private sector.<sup>20</sup> The most significant embodiment of the Global Gateway to date has been the EU–Africa Global Gateway Investment Package, launched at the February 2022 EU–Africa summit. 150 billion euro have been earmarked to support, among other things, sustainable growth and decent job creation. To do so, businesses will be supported, economic integration through the African Continental Free Trade Area will be promoted, training and investment in higher value-added sectors will be fostered in North Africa, sustainable raw-materials value chains will be developed and strategic corridors will be implemented.<sup>21</sup> The last-named are possibly the most relevant for Mediterranean supply chains. Strategic corridors are multi-country infrastructure networks, ranging from transport to digital and energy networks, with eventual logistics and economic-development relevance.<sup>22</sup> In the European Commission's vision, they will ultimately "support value chains, services and jobs that can benefit industries in both Africa and Europe".<sup>23</sup> Out of 55 corridors, 11 were eventually selected for further implementation, receiving specific funding and being the target for specific projects. Multiple corridors were initially identified in the Southern Neighbourhood (North Africa), as Figure 1 shows; nevertheless, only one corridor was selected: the Cairo–Khartoum–Juba–Kampala connection.<sup>24</sup>

Why are these corridors relevant? They aim to develop infrastructure networks in areas where these do not currently exist but where there are potential benefits in terms of local economic development and Europe–Africa connectivity. Infrastructure is one of the proximate sources of growth.<sup>25</sup> By investing in

<sup>20</sup> European Commission website: *Global Gateway*, <https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway>.

<sup>21</sup> European Commission website: *EU-Africa: Global Gateway Investment Package*, [https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway/eu-africa-global-gateway-investment-package\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway/eu-africa-global-gateway-investment-package_en).

<sup>22</sup> Claudia Baranzelli et al., "EU–Africa Strategic Corridors and Critical Raw Materials: Two-Way Approach to Regional Development and Security of Supply", in *International Journal of Mining, Reclamation and Environment*, Vol. 36, No. 9 (2022), p. 607-623, <https://doi.org/10.1080/17480930.2022.2124786>.

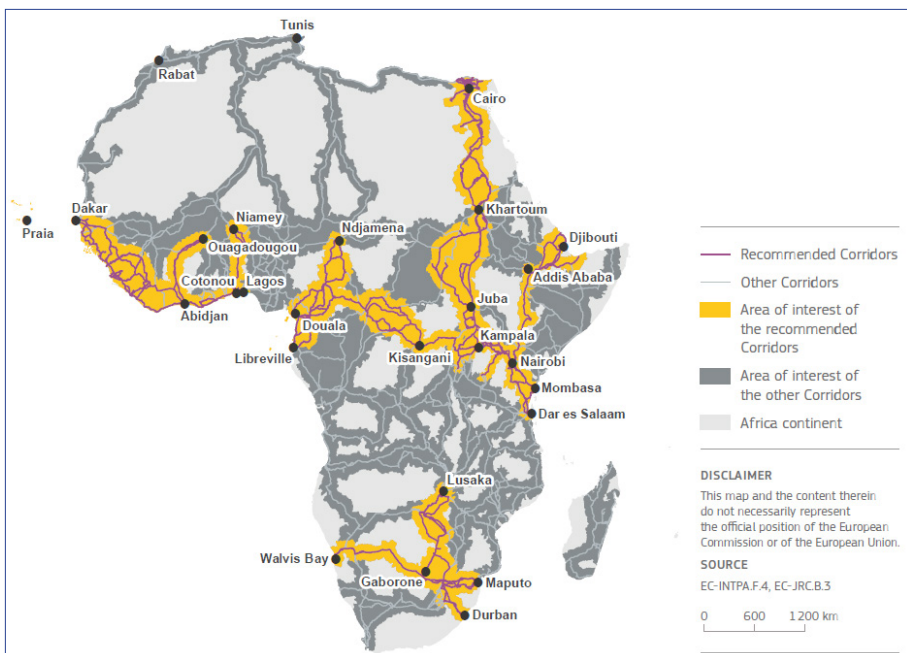
<sup>23</sup> European Commission, *EU-Africa: Global Gateway Investment Package - Strategic Corridors*, 18 February 2022, [https://ec.europa.eu/commission/presscorner/detail/en/fs\\_22\\_1119](https://ec.europa.eu/commission/presscorner/detail/en/fs_22_1119).

<sup>24</sup> Claudia Baranzelli et al., *Identification, Characterisation and Ranking of Strategic Corridors in Africa. CUSA project: phase 1*, Luxembourg, Publications Office of the European Union, 2022, <https://doi.org/10.2760/498757>.

<sup>25</sup> Angus Maddison, "Ultimate and Proximate Growth Causality: A Critique of Mancur Olson on the Rise and Decline of Nations", in *Scandinavian Economic History Review*, Vol. 36, No. 2 (1988), p. 25-29, <https://doi.org/10.1080/03585522.1988.10408114>.

key infrastructure networks in countries that have been clearly identified as strategic partners in the EU's path towards open strategic autonomy, the Commission is creating the conditions for the European private sector to get further involved in this strategic area. Coupled with cooperation initiatives that aim to build a strong economic sector in its regional-partner countries, the enabling conditions for Mediterranean supply chains are arguably being created.

**Figure 1** | Selected corridors under the EU–Africa Global Gateway Investment Package



Source: Claudia Baranzelli et al., “EU–Africa Strategic Corridors and Critical Raw Materials”, cit., p. 613.

### 1.1.2 Current EU–Southern Neighbourhood economic cooperation

The policy frameworks highlighting the Southern Neighbourhood as a strategic partner have been implemented through programmes and projects that include an economic development component. This mainly consists of support to small businesses, but more recently industrial and cluster cooperation



elements have been added, which could prove crucial in the development of EU–Mediterranean supply chains.

The 2021–2027 Multiannual Indicative Programme for the Southern Neighbourhood defines the priorities and objectives for EU regional cooperation. In the current financial cycle, one of the priority areas aims to strengthen the region's resilience, build its prosperity, and harness digitalisation by strengthening economic governance, entrepreneurship, trade and sustainable investment, and regional connectivity. The goal is to improve the investment climate, foster job creation and reinforce strategic value chains. The last-named objective, together with industrial clusters, is to be supported in those sectors with “potential for employment, economic integration and export development, and particularly those which integrate into EU, regional, and cross-regional value chains”.<sup>26</sup> To this end, technical assistance and access to finance will be provided in order to support the professionalisation of SMEs. The regional Multiannual Action Plan for the allocation of NDICI funds between 2021 and 2023 does indeed aim to support reforms in order to improve economic governance and foster social entrepreneurship through capacity building, knowledge exchange and funding for small enterprises.<sup>27</sup> This builds on previous regional action programmes that have aimed to support trade and investment policymaking processes for job creation and regional integration.<sup>28</sup>

<sup>26</sup> European Commission, *Neighbourhood, Development and International Cooperation Instrument. Multi-Annual Indicative Programme for the Southern Neighbourhood (2021-2027)*, 22 December 2021, p. 13, [https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-01/C\\_2021\\_9399\\_F1\\_ANNEX\\_EN\\_V2\\_P1\\_1627350.PDF](https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-01/C_2021_9399_F1_ANNEX_EN_V2_P1_1627350.PDF).

<sup>27</sup> European Commission, *Commission Implementing Decision of 16.12.2021 on the Financing of the Multiannual Action Plan Part I in Favour of the Neighbourhood, Development and International Cooperation Instrument (NDICI) Regional South Neighbourhood for 2021-2023*, [https://neighbourhood-enlargement.ec.europa.eu/system/files/2021-12/C\\_2021\\_9735\\_F1\\_COMMISSION\\_IMPLEMENTING\\_DECISION\\_EN\\_V3\\_P1\\_1690149.PDF](https://neighbourhood-enlargement.ec.europa.eu/system/files/2021-12/C_2021_9735_F1_COMMISSION_IMPLEMENTING_DECISION_EN_V3_P1_1690149.PDF); European Commission, *Annex IV of the Commission Implementing Decision on the Financing of the Multiannual Action Plan Part I in Favour of the Neighbourhood, Development and International Cooperation Instrument (NDICI) Regional South Neighbourhood for 2021-2023. Action Document for Support to post-COVID-19 Economic Recovery*, 22 December 2021, [https://neighbourhood-enlargement.ec.europa.eu/system/files/2021-12/C\\_2021\\_9735\\_F1\\_ANNEX\\_EN\\_V2\\_P1\\_1690229.PDF](https://neighbourhood-enlargement.ec.europa.eu/system/files/2021-12/C_2021_9735_F1_ANNEX_EN_V2_P1_1690229.PDF).

<sup>28</sup> European Commission, *Commission Implementing Decision of 17.10.2019 on the ENI South Annual Action Programme 2019, Part 2, Including Some Actions to be Carried Out in 2020*, [https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-02/C%282019%297436\\_main\\_1\\_EN.pdf](https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-02/C%282019%297436_main_1_EN.pdf); European Commission, *Annex I. Commission Implementing Decision on the ENI South Annual Action Programme 2019, Part 2, Including Some Actions to Be Carried Out in 2020. Action Document for Inclusive Economic Development and Job Creation in the Neighbourhood South*, 2019, [https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-02/C%282019%297436\\_annex1\\_1\\_EN.pdf](https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-02/C%282019%297436_annex1_1_EN.pdf).

Reflecting these priorities, several projects have been running in the past few years to support businesses – especially social entrepreneurs and SMEs, usually through financing support or technical assistance – to improve the business climate. Some of these are either nearing conclusion or will complete within the next few years.<sup>29</sup> Similar projects have been financed by the European Investment Bank (EIB) directly or by other financial institutions under the External Investment Plan for the Southern Neighbourhood. Under the Economic Resilience Initiative (ERI), for example, the EIB has provided credit lines to local banks and technical assistance to start-ups.<sup>30</sup> In addition, it has provided credit for both SMEs, especially during the pandemic, and industries – such as automotive glass manufacturing in Morocco (2017 and 2020) and mechatronic and cable manufacturing in Tunisia (2017 and 2021).<sup>31</sup> More broadly, the External Investment Plan has supported the EU Trade and Competitiveness Programme in Egypt and Jordan, to finance value chains and vertical and horizontal business (SME) linkages and the International Financial Corporation (IFC)-implemented Small Loan Guarantee Programme, which provided risk-sharing facilities and technical advice to local banks to increase lending to MSMEs (micro-, small and medium-sized enterprises).<sup>32</sup>

Business development and job creation are also two of the stated objectives of the Union for the Mediterranean (UfM), an intergovernmental institution gathering the 27 EU member states and 15 countries from the Southern and Eastern Mediterranean.<sup>33</sup> The UfM's goal is to foster regional integration and it wants to “develop a strategy for private sector development, advancing industrial cooperation, trade and investments in the region”.<sup>34</sup> To support business development, UfM projects leverage networks to provide increased access to finance and capacity building for SMEs – relying on project

<sup>29</sup> Examples include MedUPI, EBSOMED, the MED SMEs Programme, the SEMED MSME Financial Inclusion Programme, SANAD, and the MENA Guarantee Facility. Source: EU Neighbours South website: *EU Projects*, <https://south.euneighbours.eu/project>.

<sup>30</sup> European Investment Bank (EIB), *The EIB in the Southern Neighbourhood*, 20 September 2019, <https://www.eib.org/en/publications/the-eib-in-the-southern-neighbourhood>.

<sup>31</sup> EIB website: *Financed Projects: Mediterranean Countries, 1959-2022*, <https://www.eib.org/en/projects/loans/index.htm>.

<sup>32</sup> European Commission website: *European External Investment Plan. Projects: Southern Neighbourhood*, [https://ec.europa.eu/eu-external-investment-plan/projects-map?f%5B0%5D=field\\_eip\\_region%3A465&](https://ec.europa.eu/eu-external-investment-plan/projects-map?f%5B0%5D=field_eip_region%3A465&).

<sup>33</sup> Union for the Mediterranean (UfM) website: *Who We Are*, <https://ufmsecretariat.org/?p=41381>.

<sup>34</sup> UfM website: *Economic Development and Employment*, <https://ufmsecretariat.org/?p=64>.

incubators, mentoring programmes and technical assistance.<sup>35</sup> These actions fell under the purview of the 2014–2015 Euro-Mediterranean Industrial Cooperation Programme, which aimed to improve the business climate and promote entrepreneurship while also establishing a Euro-Mediterranean market for industrial products through trade policy measures.<sup>36</sup> The industrial sectors identified for support were textiles, leather, creative industries, agri-food, Information and Communications Technology (ICT), renewable energies, energy efficiency, logistics and green industries.<sup>37</sup>

Euro-Mediterranean business networks are also key for the creation of industrial clusters, which, as previously mentioned, form one of the stated goals of the EU's 2021–2027 regional cooperation. To support industrial clusters, the EU has been funding two initiatives. First, the European Cluster Collaboration Platform, the “European online hub for cluster stakeholders [...] and the reference one-stop-shop for stakeholders in third countries aiming to set up partnerships with European counterparts”.<sup>38</sup> This allows business actors to network, establish transnational collaborations, share knowledge and capacity building, and eventually “support the emergence of new value chains through cross-sectoral and cross-industrial cooperation”.<sup>39</sup> There is a specific branch focusing on European SMEs that want to expand internationally, which has supported a wide range of projects since 2016. Businesses from Southern Neighbourhood countries have collaborated with their European counterparts on water, transport, renewable energy, digital industry, food and green hydrogen.<sup>40</sup>

The second EU-funded initiative for cluster development is the Next Society, an organisation that “aims at mobilising, promoting and reinforcing innovation ecosystems and economic development in the MENA region”. To do so, it supports start-ups, clusters, and technology-transfer offices in their innovation

<sup>35</sup> Examples include the Euro-Med Guarantee Network, the EMIPO-EUROMED Investment Promotion & Observatory, and the Mediterranean Entrepreneurship Network. Source: *ibid.*

<sup>36</sup> UfM, *Euro-Mediterranean Industrial Cooperation 2014-2015 Work Programme*, 16 January 2014, <https://ufmsecretariat.org/wp-content/uploads/2014/02/WP-2014-2015-EN.pdf>.

<sup>37</sup> UfM, *Declaration of the Union for the Mediterranean Ministerial Meeting on Industrial Cooperation*, 19 February 2014, <https://ufmsecretariat.org/wp-content/uploads/2014/02/Declaration-EN.pdf>.

<sup>38</sup> European Cluster Collaboration Platform (ECCP) website: *Mission of the ECCP*, <https://clustercollaboration.eu/node/108801>.

<sup>39</sup> *Ibid.*

<sup>40</sup> ECCP website: *European Cluster Partnership for Going International*, <https://clustercollaboration.eu/node/108814>.

path.<sup>41</sup> One of the activities it conducted to foster Euro–Mediterranean connections was the 2019 EU–South Mediterranean Cluster Matchmaking Event and TechDays, gathering 17 European clusters and 22 clusters from the MENA (Middle East and North Africa) region in the agrifood, energy, environment, ICT, mechatronics, textile, transport and logistics sectors. The goal of the event was to “provide EU clusters access to South Mediterranean markets [...] through close cooperation with locally based organisations”.<sup>42</sup> The initiative was supported by the European Commission’s Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW).

## Conclusion

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Open strategic autonomy has only recently been added to the policy framework that guides the EU’s engagement with its Mediterranean partners, the Southern Neighbourhood. Regional strategies and programmes have started to include explicit references to industrial cooperation and strategic value chains, to be developed in the coming years – although the bulk of economic cooperation has so far mainly addressed small-business development. Nevertheless, collaboration between European and Southern Neighbourhood actors has been established and fostered through a series of projects – namely, under the UfM and the European Cluster Collaboration Platform. Coupled with the Global Gateway strategy for infrastructure development, the EU is supporting the development of an economic base that can be leveraged for the construction of strategic value chains, complementing Southern Neighbourhood countries’ own industrial-development strategies.

<sup>41</sup> The Next Society website: *About*, <https://www.thenextsociety.co/about>.

<sup>42</sup> Clémence Rottee, “Great Cooperation Opportunities Offered by the EU–South MED Cluster Matchmaking Event”, in *ECCP News*, 1 May 2019, <https://clustercollaboration.eu/node/13058>.

## 2. Trans-Mediterranean Connectivity as a Core of Supply-chain Resilience: Lessons from Euro–Maghreb Manufacturing Value Chains

by Michaël Tanchum\*

As global supply chains unwind, Europe will become more bound to North Africa, seeking enhanced trans-Mediterranean commercial connectivity in order to provide an increased measure of supply-chain resilience. While Europe's greater metropolitan areas will be the major consumer end-markets in the near future, sub-Saharan Africa's urban regions are emerging as important consumer end-markets positioning the Maghreb nations and Egypt as the economic and political "gatekeepers" of newly emerging Euro–Africa commercial corridors.<sup>1</sup> However, the growing manufacturing presence in North Africa of Turkey and the Arab Gulf states, in addition to China, means that European leadership in Europe–North Africa manufacturing value chains is not necessarily assured.<sup>2</sup> Thus, neither the success nor the composition of Euro–North Africa manufacturing value chains should be taken for granted.

Recent developments in Europe–Maghreb value chains provide valuable insights into both the challenges and opportunities moving forward as supply-chain shortening proceeds at an accelerating pace. In the years immediately prior to the Covid-19 pandemic, global supply chains were already starting to shorten as companies and countries placed greater emphasis on resilience than on just-in-time inventories serviced by distant East and Southeast Asian suppliers. For Europe, this structural transformation meant bringing sourcing and manufacturing closer to European end-markets. The imperative to "nearshore"

\* The author thanks Rocco Schwerfel, Sarah Pechenik and Averie Bischoff for their research assistance.

<sup>1</sup> Michaël Tanchum, "Europe–Africa Connectivity Outlook 2021: Post-Covid-19 Challenges and Strategic Opportunities", in *IAI Papers*, No. 21|20 (May 2021), <https://www.iai.it/en/node/13326>.

<sup>2</sup> Michaël Tanchum, "Turkey's Maghreb–West Africa Economic Architecture: Challenges and Opportunities for the European Union", in *CATS Working Papers*, No. 3 (June 2021), <https://www.swp-berlin.org/en/publication/turkeys-maghreb-west-africa-economic-architecture-challenges-and-opportunities-for-the-european-union>.

while maintaining a competitive advantage in operating expenditures has provided an impetus to international firms to locate manufacturing facilities in North Africa. The expected pandemic-induced supply-chain disruptions during 2021 served to further hasten this trend. However, it has been the sudden supply-chain shocks generated by Russia's invasion of Ukraine, beginning on 24 February 2022, that have served as the equivalent of value-chain stress testing, revealing both resilience and system fragilities.

Under such circumstances of geopolitical stress, the functioning of a commercial corridor that couples sufficient high-speed, high-volume capacity transportation with a prior existing manufacturing value chain produces a cascading, self-reinforcing effect that both deepens and broadens manufacturing capacity – as has happened in Morocco. In the absence of these two fundamental components of a commercial corridor, supply-chain stress produces no similar “slingshot effect” to catapult countries into more advanced, higher value-added manufacturing – as has been observed in Tunisia and Algeria. The resulting widening disparity in the Maghreb becomes problematic – particularly as the current political animosity between Algeria and Morocco prevents intra-regional cooperation that could create vital efficiencies of scale benefiting all three nations individually while increasing the robustness of Europe–Maghreb value chains.

## 2.1 The Russia–Ukraine war and Europe–Maghreb automotive value-chain resilience

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The severe supply-chain disruptions in the wake of Russia's 24 February 2022 invasion of Ukraine highlighted North Africa's role in ensuring the resilience of European-led manufacturing value chains – a role most prominently displayed in Europe's automotive manufacturing sector. The sudden shutdown of Ukraine's automotive wiring-harness manufacturing plants due to Russia's military campaign has threatened to bring 15 per cent of Europe's automobile production to a halt.<sup>3</sup> Essential components for automobile manufacturing,

<sup>3</sup> Craig Trudell and Wilfried Eckl-Dorna, “Ukraine Plant Shutdowns Put 15% of Europe Car Output at Risk”, in *Bloomberg News*, 15 March 2022, <https://www.bnnbloomberg.ca/ukraine-plant-shutdowns-put-15-of-europe-car-output-at-risk-1.1737785>.

wiring harnesses are devices that bundle wires in a protective housing to optimise space while guarding a vehicle against electrical fires and short circuits that could result from vibrations and abrasions. Even more vital than automotive semiconductors, no passenger car or commercial vehicle can be built without them.

Estimates of the size of the current global wiring-harness market range from 36 to 46 billion US dollars, with all appraisals predicting a greater than 4 per cent compounded annual growth rate throughout the decade as the increasing prevalence of electric vehicles, which require more wiring harnesses than their petrol-driven counterparts, further drive the rising demand.<sup>4</sup> Low-tech but highly labour-intensive, the manufacture of wiring harnesses for vehicles sold in the European Union is only commercially feasible in countries with low-cost labour markets relative to the EU and within short transportation distances, such as Ukraine. The inability of Ukraine's factories to produce the critical component has already led to a wiring-harness shortage, forcing auto manufacturers in Germany – such as BMW, Mercedes-Benz, Porsche, Volkswagen and Ford – to cut production at their plants.<sup>5</sup>

To cover the shortfall from the virtual overnight disruption of Ukrainian supplies, automakers have turned to North Africa, looking to factories in Tunisia and Morocco to fill the gap. In Tunisia, German auto-component manufacturers Leoni and Dräxlmaier each operate four wiring-harness plants, while Japanese industry leaders Sumitomo and Yazaki operate one and two, respectively. Collectively, the plants of these four manufacturers employ about 25,000 Tunisians.<sup>6</sup> Tunisia's own Coficab is also an industry leader in the production of wiring harnesses and automotive electric cables.<sup>7</sup> In general,

4 "Global Automotive Wiring Harness Market (2021-2030)", in *Market Research Reports*, March 2022, <https://www.strategicmarketresearch.com/market-report/automotive-wiring-harness-market>.

5 "Wire Harness Maker Leoni Restores Some Ukraine Output", in *Reuters*, 23 March 2022, <https://www.reuters.com/article/leoni-ukraine-idCNL5N2VQ2A7>.

6 Leïla Ben Mansour, "L'entreprise allemande Dräxlmaier compte embaucher près de 3 000 personnes en Tunisie", in *Magazine Entreprises*, 21 April 2022, <https://www.entreprises-magazine.com/?p=32771>; Khémaies Krimi, "La percée spectaculaire du géant japonais Sumitomo en Tunisie", in *Kapitalis*, 16 December 2019, <http://kapitalis.com/tunisie/2019/12/16/la-percee-spectaculaire-du-geant-japonais-sumitomo-en-tunisie>; Sofiene Ghoubantini, "Yazaki : le ministère de l'industrie dément la fermeture des usines", in *L'Économiste Maghrébin*, 31 December 2020, <https://www.leconomistemaghrebin.com/?p=366637>.

7 COFICAB Group website: *About Us*, <https://www.coficab.com/about-us>.



Tunisia's automotive-parts manufacturing sector accounts for about 14 per cent of the country's exports<sup>8</sup> – earning it 2.4 billion euro in export revenues and employing over 90,000 Tunisians.<sup>9</sup> The sector's top destinations for export markets are Germany (37 per cent), France (21 per cent), Romania (12 per cent) and Italy (11 per cent).<sup>10</sup>

Wiring-harness manufacturing tends to be an on-ramp industry for countries needing to develop technical and organisational capacities necessary to move up the value chain to more advanced manufacturing processes. Despite its advantages in offering an affordable labour pool and inexpensive transportation costs, Tunisia has so far failed to realise its potential as a regional auto-manufacturing hub – highlighting the need for political stability and effective governance to provide a conducive environment for foreign investment in local manufacturing. In 2016, the major American wiring harness manufacturer Lear closed its factory in Tunisia, citing “security and political reasons”<sup>11</sup> and opting to increase its production operations in Morocco.<sup>12</sup> Leoni similarly operates several plants across Morocco,<sup>13</sup> as do the other major producers including Tunisian-headquartered Coficab.<sup>14</sup> The situation is more detrimental in Algeria, where the political climate and difficult government–industry relations have led to a string of plant closures such as Volkswagen's suspending operations indefinitely at its factory in 2019,<sup>15</sup> Renault's shuttering its plant since February 2020,<sup>16</sup> South Korea's KIA subsequently closing down its facility in May 2020,<sup>17</sup>

<sup>8</sup> Najoua Hizaoui, “Industrie des composants automobiles : Le coût de la main-d'œuvre, un élément de différenciation de la destination Tunisie”, in *La Presse.tn*, 17 November 2021, <https://wp.me/paSHqw-tVX>.

<sup>9</sup> “Myriam Elloumi : «COFICAB, leader mondial en matière de conception et production de câbles électriques automobiles.»”, in *Entreprises Magazines*, 18 July 2021, <https://www.entreprises-magazine.com/?p=27142>.

<sup>10</sup> Najoua Hizaoui, “Industrie des composants automobiles”, cit.

<sup>11</sup> Yassine Benargane, “Câbles de voitures : Lear Corporation quitte la Tunisie et transfère ses activités au Maroc”, in *Yabiladi*, 27 July 2016, <https://www.yabiladi.com/articles/details/45945>.

<sup>12</sup> Mehdi Idrissi, “Industrie automobile : Lear Corporation s'installe à Meknès”, in *Les Écos.ma*, 7 December 2020, <https://lesec.ma/?p=169249>.

<sup>13</sup> Morocco Ministry of Industry and Trade, *Inauguration of the Leoni Factory in Morocco*, 8 May 2017, <https://www.mcinet.gov.ma/en/node/1226>.

<sup>14</sup> Seif Soudani, “Groupe Elloumi investit massivement dans une nouvelle usine au Maroc”, in *Le Courrier de l'Atlas*, 27 October 2017, <https://www.lecourrierdelatlas.com/?p=135388>.

<sup>15</sup> AFP, “Volkswagen Says Production Suspended in Algeria”, in *France 24*, 16 December 2019, <https://www.france24.com/en/20191216-volkswagen-says-production-suspended-in-algeria>.

<sup>16</sup> “Industrie auto. Renault dans l'impasse depuis deux ans en Algérie”, in *L'Argus PRO*, 11 May 2022, <https://pro.largus.fr/actualites/industrie-auto-renault-dans-limpasse-depuis-deux-ans-en-algerie-10938390.html>.

<sup>17</sup> AFP, “Carmaker Kia Closes Algeria Assembly Line Over Supply Disruptions”, in *France 24*, 15 May

and Groupe PSA opting not to open its Peugeot Citroën Production Algeria plant in Oran.<sup>18</sup> While Algerian President Abdelmadjid Tebboune has pinned the blame on the foreign auto companies for the country's failure to develop a robust automotive-manufacturing industry like Morocco's,<sup>19</sup> the responsibility primarily rests with Algiers.

## 2.2 The cascading effect of Morocco's West Africa-to-Western Europe commercial corridor

Just as the difficulties faced by Algeria and Tunisia illustrate the challenges entailed in establishing Europe–North Africa manufacturing value chains, the example of Morocco's emergence as the hub of a Euro–Africa automotive-manufacturing value chain, with the capacity to produce over 700,000 vehicles per year,<sup>20</sup> provides important lessons for the successful regionalisation of supply chains in the Mediterranean basin. Morocco's automotive industry developed by strategically integrating investment in both transportation infrastructure and automotive production, which formed the foundation of a Morocco-centred West Africa-to-Western Europe commercial corridor. Morocco's construction of the al-Boraq high-speed rail line, Africa's first, along with the Tanger Med port, the Mediterranean's largest, provided the transportation backbone for this value chain.

In contrast, Tunisia and Algeria have no comparable transportation infrastructure. Tunisia's six medium-sized ports do not provide an economy of scale sufficient to sustain an economic corridor. With the country's current economic trouble and political turmoil, there are no clear indications when – or even, if – construction will begin on Tunisia's proposed deep-sea port at

2020, <https://www.france24.com/en/20200515-carmaker-kia-closes-algeria-assembly-line-over-supply-disruptions>.

<sup>18</sup> Peter Sigal, "Algeria's Auto Dreams Clouded by Uncertainty", in *Automotive News Europe*, Vol. 11, No. 4 (April 2020), p. 15, [https://www.nxtbook.com/nxtbooks/crain/ane\\_3495899034GGYMR/index.php?startid=15#/p/14](https://www.nxtbook.com/nxtbooks/crain/ane_3495899034GGYMR/index.php?startid=15#/p/14).

<sup>19</sup> Arezki Benali, "Tebboune : « L'usine Renault qui est ici n'a rien à voir avec celle qui est installée au Maroc »", in *Algerie Eco*, 20 February 2020, <https://www.algerie-eco.com/?p=81950>.

<sup>20</sup> Oxford Business Group, "Morocco Attracts Automotive Manufacturers and Suppliers", in *Morocco Country Profile 2020*, <https://oxfordbusinessgroup.com/node/955961>.

Enfidha.<sup>21</sup> Algeria's Chinese-built El Hamdania port, 60 km west of Algiers, is slated to have a container capacity of 6.5 million twenty-foot-equivalent units (TEUs),<sup>22</sup> but the six-year-old project is still facing construction delays that would see the port become operational only toward the end of the 2020s at the earliest.<sup>23</sup>

While a prerequisite for commercial corridors, such commercial transportation infrastructure is insufficient on its own. Commercial corridors emerge only where the necessary large investments in port, rail and road infrastructure are coupled with an industrial base anchored in a manufacturing value chain. As noted in a prior IAI publication,<sup>24</sup> Morocco's linked state-of-the-art port and rail prompted Groupe Renault to establish a second Moroccan manufacturing plant and Groupe PSA (now Stellantis) to open a Peugeot manufacturing plant in Kénitra, north of Rabat. The Renault and Peugeot plants are supported by approximately 200 international suppliers operating their own local manufacturing plants, including Leoni, Sumitomo and Lear. Chinese manufacturers have sought to integrate into the value chain – among them CITIC Dicastal, whose 400 million US dollars Kénitra plant can produce 6 million pieces annually to supply Peugeot.

Rabat's smart infrastructure investments and careful management of its foreign partnerships has led Morocco to play an increasingly important role in associated higher value-added, supply chains – notably, the production of semiconductors. Franco-Italian STMicroelectronics, Europe's leading integrated-device manufacturer, operates an important autochip-production facility in Bouskoura, on the outskirts of Casablanca and connected by rail link to the rest of the country's auto-manufacturing chain. Illustrating the cascading effect toward greater manufacturing capacity, the company inaugurated a new production line in Morocco in 2021 to manufacture electronic chips for

<sup>21</sup> “Le port en eau profonde d’Enfidha verra-t-il un jour... le jour?”, in *Kapitalis*, 18 June 2021, <https://kapitalis.com/tunisie/2021/06/18/le-port-en-eau-profonde-denfidha-verra-t-il-un-jour-le-jour>.

<sup>22</sup> “China to Construct Mega Sea Port in Algeria”, in *Construction Review*, 5 April 2016, <https://constructionreviewonline.com/?p=32254>.

<sup>23</sup> “Projet du Grand Port d’El Hamdania à Tipasa : Le lancement des travaux en février 2022 compromis?”, in *El Watan*, 20 December 2021, <https://www.elwatan.com/edition/actualite/le-lancement-des-travaux-en-fevrier-2022-compromis-20-12-2021>.

<sup>24</sup> Michaël Tanchum, “Europe–Africa Connectivity Outlook 2021”, cit.

American electric-car pioneer Tesla.<sup>25</sup>

Through electric vehicle (EV) autochip production, Morocco has positioned itself to become North Africa's first all-electric passenger-car manufacturer. In August 2021, Stellantis announced that its German auto-manufacturing subsidiary Opel would begin EV production in Morocco at the Kénitra plant of its sister company Peugeot.<sup>26</sup> The design of Opel's new two-seater EV was developed at the Morocco Technical Center (MTC) in Casablanca, the design-and-engineering R&D laboratory originally founded by Groupe PSA.<sup>27</sup> MTC's design has helped Opel to minimise production costs in order to reduce the retail price of the EV two-seater to as little as 7,000 US dollars.<sup>28</sup> Initially intended for congested major European urban markets as a carbon-free urban-mobility solution, this affordable model could be sold from Opel's Morocco production line into West African markets, the biggest prize of which is Nigeria – Africa's most populous country, with a driving-age population of about 99 million.<sup>29</sup> Manufacturing in Morocco will increasingly position itself advantageously for both end-markets in Europe and the rapidly growing – yet underserved – urban end-markets of West Africa.

## 2.3 Raw materials and green hydrogen

In addition to its labour advantage, North Africa is an attractive location for nearshoring factories due to the region's ability to provide certain critical raw materials. While the Maghreb nations may not be large exporters of industrial metals, their ability to provide these metals for local manufacturing helps to ensure against supply-chain disruptions. This is especially the case for metals such as copper, upon which depend the European Green Deal's energy-

<sup>25</sup> Yahya Benabdellah, "STMicroelectronics se prépare à inaugurer sa nouvelle ligne de production pour Tesla au Maroc", in *Médias24*, 15 July 2021, <https://medias24.com/2021/07/15/stmicroelectronics-se-prepare-a-inaugurer-sa-nouvelle-ligne-de-production-pour-tesla-au-maroc>.

<sup>26</sup> Yahya Benabdellah, "La nouvelle voiture électrique Opel Rocks-e sera produite à Kénitra", in *Médias24*, 29 August 2021, <https://www.medias24.com/2021/08/29/la-nouvelle-voiture-electrique-opel-rocks-e-sera-produite-a-kenitra>.

<sup>27</sup> Ibid.

<sup>28</sup> Jay Ramey, "Opel Rocks-e Squeezes More Range Out of Ami EV, in *Autoweek*, 25 August 2021, <https://www.autoweek.com/news/green-cars/a37397196/opel-rocks-e-ev>.

<sup>29</sup> Emmanuel Paul, "The State of Nigeria's Automotive Industry and Its Far-Reaching Effects", in *Techpoint Africa*, 22 December 2020, <https://techpoint.africa/2020/12/22/nigerias-automotive-industry>.

transition goals. For example, Morocco possesses the world's eleventh largest cobalt reserves,<sup>30</sup> with its 2020 cobalt exports totalling 84 million US dollars – ranking it the thirteenth largest exporter.<sup>31</sup> This expensive and difficult-to-obtain metal is needed to make lithium-ion batteries used in electronic devices and in electric vehicles. While a cellular phone battery requires 5–10 grams of cobalt, an electric car battery requires 22–44 kilograms.<sup>32</sup> Presently, there about 12 million electric passenger cars in use worldwide, but the number is expected to jump to 54 million as early as 2025.<sup>33</sup> With the European Commission's July 2021 directive to phase out all fossil-fuel-powered vehicles in the EU by 2035,<sup>34</sup> manufacturers serving European automotive markets are facing enormous demand pressure for cobalt. In anticipation of the demand, German automaker BMW signed a 100-million-euro contract in July 2020 with Moroccan mining company Managem to supply 20 per cent of the cobalt required to manufacture BMW's next-generation electric-drive trains.<sup>35</sup> On 1 June 2022, Groupe Renault signed a seven-year supply contract with Managem for 5,000 tonnes of cobalt sulphate annually, starting from 2025.<sup>36</sup>

Further illustrating the slingshot effect, global mining and metal-trading giant Glencore entered into partnership with Managem in January 2022 to produce recycled cobalt from disused lithium-ion batteries at Managem's hydrometallurgical refinery near Marrakech,<sup>37</sup> thereby catapulting Morocco

<sup>30</sup> Oumaima Latrech, "Morocco Endeavors to Increase Cobalt Production", in *Morocco World News*, 27 February 2022, <https://www.moroccoworldnews.com/2022/02/347328/morocco-endeavors-to-increase-cobalt-production>.

<sup>31</sup> Observatory of Economic Complexity (OEC), *Cobalt in Morocco*, 24 June 2022, <https://oec.world/en/profile/bilateral-product/cobalt/reporter/mar>.

<sup>32</sup> Todd C. Frankel, "The Cobalt Pipeline", in *The Washington Post*, 30 September 2016, <https://www.washingtonpost.com/graphics/business/batteries/congo-cobalt-mining-for-lithium-ion-battery>.

<sup>33</sup> Statista, *Projected Size of the Global Electric Vehicle Fleet between 2021 and 2025*, 28 September 2022, <https://www.statista.com/statistics/970958>.

<sup>34</sup> "EU Set to Sideline ICE Vehicles by 2035 with Tougher Car Emissions Proposal", in *S&P Global Commodity Insights*, 14 July 2021, <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/071421-eu-set-to-sideline-ice-vehicles-by-2035-with-tougher-car-emissions-proposal>.

<sup>35</sup> BMW Group, *Raw Materials Supplies for Battery Cells: BMW Group Sources Sustainable Cobalt Worth around 100 Million Euros from Morocco*, 9 July 2020, <https://www.press.bmwgroup.com/global/article/detail/T0310907EN/raw-material-supplies-for-battery-cells-bmw-group-sources-sustainable-cobalt-worth-around-100-million-euros-from-morocco?language=en>.

<sup>36</sup> "Morocco's Managem to Supply Renault with Cobalt for EV Batteries", in *Reuters*, 1 June 2022, <https://www.reuters.com/article/morocco-autos-cobalt-idUSL1N2XO1SK>.

<sup>37</sup> Glencore, *Glencore & Managem Set Up Partnership for Moroccan Production of Cobalt from Recycled Battery Materials*, 26 January 2022, <https://www.glencore.com/media-and-insights/news/glencore-and-managem-set-up-partnership>.

into the crucial growth industry of recycling hazardous and troublesome materials essential to the production and use of renewable energy.

Among the most heavily utilised industrial metals, Morocco possesses iron, copper and zinc – as does Algeria, while Tunisia has deposits of iron and zinc. While Maghreb-country reserves may be small compared with those of the top exporters, the proximity of these sources to manufacturing sites in the Maghreb itself and in Europe will prove increasingly important for supply-chain resilience. Moreover, the Maghreb's proximity to sub-Saharan Africa's raw materials makes the location of manufacturing sites in the region additionally attractive. Morocco's Atlantic coast and its high-speed rail, slated to be extended southward through the disputed Sahara to the Mauritanian border, afford Rabat further advantaged position in trans-Mediterranean value chains. Eventually, the safe and full operation of the Trans-Saharan Highway running from Algiers through the Sahel to Lagos, Nigeria could confer similar advantages on Algeria. The lack of robust commercial traffic between Algeria and Morocco prevents the utilisation of economic synergies, reducing the region's commercial prowess as well as keeping Tunisia confined within Algeria's transportation orbit.

The same pattern already exists in the sectors of renewable-energy power generation and green-hydrogen production. Morocco is in the process of operationalising the world's largest solar-power complex. In 2020, Morocco's installed solar capacity stood at 751 MW,<sup>38</sup> while Algeria's stood at 343 MW.<sup>39</sup> In 2022, Morocco inaugurated the operation of the next phase of its project adding an additional 333 MW, nearly equal to Algeria's entire 2020 capacity.<sup>40</sup> In terms of the production of green hydrogen and its derivative green ammonia, Morocco has three projects<sup>41</sup> underway while Algeria signed its first major green-hydrogen agreement with Italian energy major Eni in May

<sup>38</sup> Statista, *Installed Energy Capacity in Morocco as of 2020, by Source*, 6 April 2022, <https://www.statista.com/statistics/1299673>.

<sup>39</sup> Darrell Proctor, "Algeria Targets Renewables to Diversify Generation", in *Power Magazine*, 1 July 2021, <https://www.powermag.com/?p=153487>.

<sup>40</sup> Jorge Ortiz, "Morocco Launches the Noor II Solar Power Plant", in *Atalayar*, 18 April 2022, <https://atalayar.com/en/node/25941>.

<sup>41</sup> Michaël Tanchum, "Morocco's New Challenges as a Gatekeeper of the World's Food Supply: The Geopolitics, Economics, and Sustainability of OCP's Global Fertilizer Exports", in *MEI Articles*, 18 January 2022, <https://www.mei.edu/node/83805>.

2022.<sup>42</sup> The agreement aims to explore how green hydrogen can reduce the carbon footprint of Eni's operations in Algeria's natural-gas production. The pilot phase of the largest of Morocco's green-hydrogen projects will produce 183,000 tonnes of green ammonia per year by 2026, equivalent to about 10 per cent of the country's current production input requirements for its fertilizer-manufacturing sector.<sup>43</sup> The 850 million US dollars plant is being developed by an Ireland-headquartered hydrogen-technology firm with plans to scale-up production, while Dutch commodity-trading giant Vitol has signed a memorandum of understanding to manage surplus offtake in order to sell green ammonia in Europe and other nearby markets.<sup>44</sup> Tunisia, like Algeria, lags in solar-power-generation development and is engaged in only one feasibility study for green-hydrogen production.

## Conclusion

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In the absence of a sustainable ceasefire settlement between Russia and Ukraine, Europe will be on an intensifying near-war footing throughout 2022 and perhaps beyond. Thus, the continent will be engaged in supply-chain shortening under extreme geopolitical stress. Europe's geopolitical duress would worsen exponentially with a Russian assault on the Black Sea port of Odesa, putting the viability of western Ukraine and Moldova into question and therefore directly threatening the EU member states of Eastern Europe and the eastern Balkans. Europe–Maghreb manufacturing value chains, barring deliberate remedial action, will build out on the pattern that has already emerged – with a cascading effect toward more advanced manufacturing processes in Morocco, while Algeria and Tunisia struggle to establish more low-value manufacturing processes.

<sup>42</sup> Eni, *New Agreement Reached by SONATRACH and Eni to Accelerate the Development of Gas Projects and Decarbonization Via Green Hydrogen*, 26 May 2022, <https://www.eni.com/en-IT/media/press-release/2022/05/new-agreement-eni-sonatrach-gas-development-green-hydrogen-draghi-tebboune.html>.

<sup>43</sup> Michaël Tanchum, "Morocco's New Challenges as a Gatekeeper of the World's Food Supply", cit.

<sup>44</sup> Ruth Sharpe, "Morocco Outlines Plans for New Green Ammonia Project", in *Argus Media*, 20 July 2021, <https://www.argusmedia.com/en/news/2235820-morocco-outlines-plans-for-new-green-ammonia-project>.



This widening gap exacerbates Algeria–Morocco political tensions and undermines the advancement of trans-Mediterranean value chains. The EU and its member states are well positioned to bridge the gap as well as facilitate win–win economic cooperation between Morocco and Algeria, including east–west commercial traffic across the Maghreb. Adding east–west links to trans-Mediterranean value chains would also have beneficial spillover effects for Tunisia. The current creation of two or three separate, “stove-piped” value chains across the Mediterranean could entrench dangerous regional divisions.

In the case of Algeria, the EU may not be Algiers’ primary partner in Europe–Maghreb commercial connectivity. Already, Turkish firms collectively are the largest foreign employer in Algeria, with Turkish factories dominating Algeria’s steel and textile manufacturing sectors.<sup>45</sup> In October 2020, Algiers signed an economic and technical cooperation agreement to deepen Algeria’s participation in Beijing’s Belt and Road Initiative.<sup>46</sup> In Tunisia, Qatar has become the country’s second largest investor – behind France, but surpassing both Italy and Germany.<sup>47</sup> Morocco, which possesses both Atlantic and Mediterranean coastlines, is deepening its partnerships with the US, the UK and Brazil.

Europe needs a more intentional approach to the Maghreb rooted in the geo-economics of connectivity, a comprehensive approach in which manufacturing-value-chain resilience is pursued as a matter of mutual defence for both shores of the Mediterranean.

<sup>45</sup> Michaël Tanchum, “Turkey’s Maghreb–West Africa Economic Architecture”, cit.

<sup>46</sup> “Algeria, China Ink Economic and Technical Cooperation Agreement”, in *APS*, 11 October 2020, <https://www.aps.dz/en/economy/36083>.

<sup>47</sup> “Amir’s Visit Confirms Tunisia’s Distinguished Ties with Qatar”, in *Gulf Times*, 25 February 2020, <https://m.gulf-times.com/story/656843>.

### 3. The Role of Shipping and Logistics for the Fluidity of Global Value Chains. New Opportunities in the Euro-Mediterranean Region

by Massimo Deandreis, Alessandro Panaro and Olimpia Ferrara

The Mediterranean area finds itself at the centre of a process of change involving businesses, economies and countries.

First the Covid-19 pandemic and then the Russia–Ukraine conflict have changed the role of the Mediterranean, from sea of passage to centre of great interests. It is increasingly becoming a sea of competition between the ports that border it and the countries that invest in it.

The growing trend toward regionalisation and “reshoring” (also known as “nearshoring”) makes the phenomena taking place around this basin even more evident. The growth in investment, the strategic choices of large operators who choose “the Med” as a key port of call and the decisive role played by the Suez Canal are all key elements of this system, which also aims for growth through the use of short sea shipping (SSS) routes and sustainability.

In an increasingly complex scenario, regionalisation and sustainability are, precisely, the two macro directions that shipping development is following.

The global value chain (GVC)<sup>1</sup> and the just-in-time model (i.e. strong warehousing-cost reduction and demand-driven production in a continuous supply-chain flow) have driven globalisation since China entered the World Trade Organisation (WTO) in 2001. On this point, Massimo Deandreis, General Manager of SRM, commented:

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<sup>1</sup> On the definition of GVCs see also World Bank, *World Development Report 2020. Trading for Development in the Age of Global Value Chains*, Washington, World Bank, 2020, <https://www.worldbank.org/en/publication/wdr2020>.

Indeed, the entry of the Asian communist giant into the temple of world trade liberalism appeared to be the start of a new season. These were also the years in which the growth of China, which has now become a true economic, political and military power, strengthened to a steady and robust level. But that process of globalisation, which seemed likely to last indefinitely partly because it was amplified by the parallel evolution of digital technologies, is being transformed. Perhaps not permanently, but certainly it is time to register a significant change of pace.<sup>2</sup>

Some aspects of increasing trade have helped to make shipping the backbone of globalisation. This is because production is now concentrated in a narrow area in Asia while the areas of greatest consumption lie mainly in America and Europe. The necessity to move from one area to another is the condition that has caused the volume of sea transport to almost triple (2.5 times) in the past 30 years, from 4.9 to over 12 billion tonnes. This is the figure recorded in 2021, equivalent to a +3.25 per cent growth over the previous year – a figure very close to that for 2019. Forecasts for 2022 and 2023 also predict growth, albeit at a lower rate of increase (Figure 1).

This performance has made maritime transport the route through which 90 per cent of the world's goods transit. The fast recovery after the sharp reduction of 2020 testifies also the resilience of international trade.

According to the latest forecasts, the world economy is still growing – albeit at a slower pace than expected. Indeed, gross domestic product (GDP) is projected to increase by 3.2 per cent in 2022 and 2.7 per cent in 2023<sup>3</sup> (versus an April 2022 assumption of 3.6 per cent for both years), with trade seeing estimates of +3.5 per cent in 2022 and +1 per cent in 2023.<sup>4</sup> The global economy, however, is under pressure; the long wave of Covid-19 and critical supply issues,

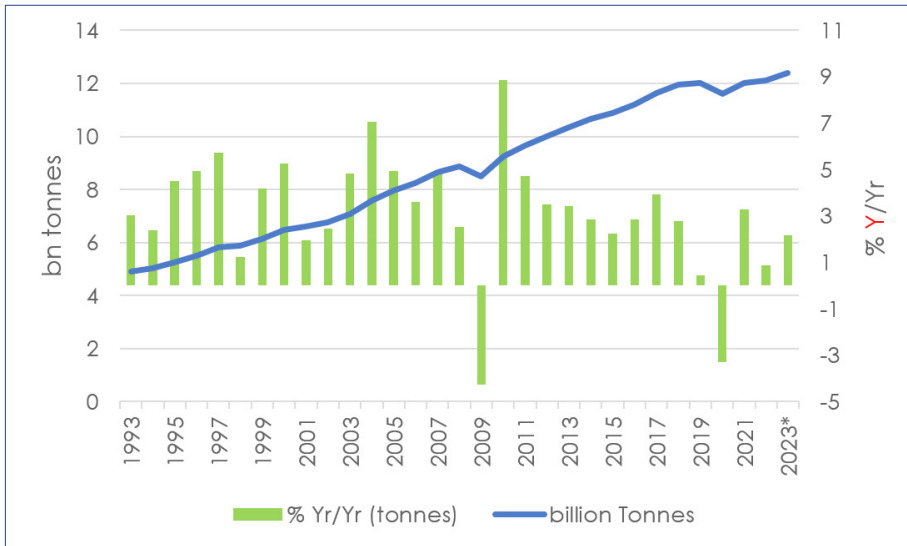
<sup>2</sup> Massimo Deandreis, "La regionalizzazione della globalizzazione e il Mediterraneo", in Enrico Sasson (ed.), *Progetto Macrotends 2021-2022. La grande transizione*, Harvard Business Review Italia, November 2021, p. 38-42.

<sup>3</sup> International Monetary Fund (IMF), *World Economic Outlook Report, October 2022: Countering the Cost-of-Living Crisis*, <https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>.

<sup>4</sup> World Trade Organisation (WTO), *Trade Growth to Slow Sharply in 2023 as Global Economy Faces Strong Headwinds*, 5 October 2022, [https://www.wto.org/english/news\\_e/pres22\\_e/pr909\\_e.htm](https://www.wto.org/english/news_e/pres22_e/pr909_e.htm).

compounded by Russia–Ukraine war tensions, are sending prices soaring and leading to rising inflation.

**Figure 1** | Annual global seaborne trade (billion tonnes and %)



Note: \*forecasts.

Source: SRM on Clarksons.

Despite this pressure, projections for 2022 suggest that global seaborne-trade volumes could further grow by 0.9 per cent in tonnage terms (a downgrade of 2.6 per cent from pre-conflict forecasts of +3.5 per cent)<sup>5</sup> even if there are divergent trends across shipping segments. A major contraction is expected for grain, oil and containers while the volume of gas transported by sea will increase due to the effect of the conflict between Russia and Ukraine (see Figure 2, below). Consequently, Europe is being forced to import gas from other regions (the United States, the Middle East, North Africa) while reducing the intake of gas from Russia (from which it imported about 26 per cent of its needs in April 2022, down from 40 per cent the previous year).<sup>6</sup> While previous

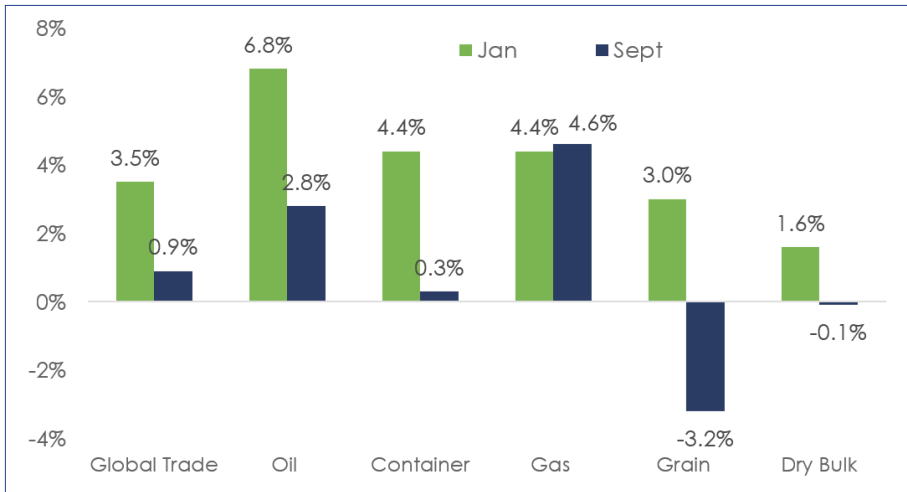
<sup>5</sup> Clarksons, *Container Intelligence Monthly*, May 2022.

<sup>6</sup> European Commission, *Opening Remarks by Commissioner Simson on the REPowerEU Plan in the ITRC Committee of the European Parliament*, 14 June 2022, [https://ec.europa.eu/commission/presscorner/detail/en/SPEECH\\_22\\_3714](https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_22_3714); and Isabelle van Halm, “How Can the EU End Its Dependence on Russian Gas?”, in *Energy Monitor*, 11 May 2022, <https://www.energymonitor.ai/?p=78289>.

imports relied on pipelines, new gas will mostly be imported via sea.

Further increases in flow from third countries will be expected in the future. Indeed, on 6 October 2022, the European Council adopted its latest package of sanctions against Russia's escalating war on Ukraine. The package introduces into EU legislation a price cap related to the maritime transport of Russian oil and further restrictions on the maritime transport of crude oil (as of December 2022) and petroleum products (as of February 2023) that originate in or are exported from Russia.<sup>7</sup>

**Figure 2** | Projected seaborne trade and main products in 2022 (differences between provisional data made in January and September)



Source: SRM on Clarksons.

Supply chains have already been challenged in the past by rising commodity prices and freight rates will come under further pressure in the future.

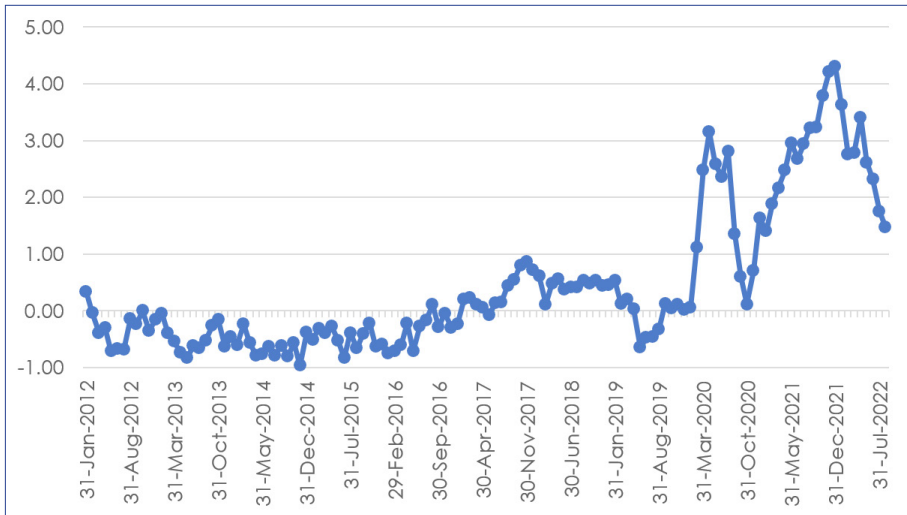
According to the New York Federal Reserve's global supply-chain pressure index (GSCPI)<sup>8</sup> – which takes account of issues such as freight rates, delivery

<sup>7</sup> European Council, *EU Adopts Its Latest Package of Sanctions against Russia over the Illegal Annexation of Ukraine's Donetsk, Luhansk, Zaporizhzhia and Kherson Regions*, 6 October 2022, <https://europa.eu/!QKw67y>.

<sup>8</sup> Federal Reserve Bank of New York: *Global Supply Chain Pressure Index (GSCPI)*, <https://www>.

times and backlogs<sup>9</sup> – supply chains are under unprecedented pressure. They are experiencing first-time levels of stress, as evidenced by the peak reached in May 2022. Although this stress has been decreasing in the past few months, it is still very high if compared with pre-pandemic data.

**Figure 3** | The Global Supply-chain Pressure Index: January 2012–July 2022



Note: Y-axis shows standard deviations from average value.

Source: Federal Reserve Bank of New York: *Global Supply Chain Pressure Index*, cit.

The economic consequences of the Russia–Ukraine war will play a role in determining cargo demand, and could potentially bring forward ongoing supply-chain disruption in the container sector (modes through which manufacturing travels predominantly by sea).

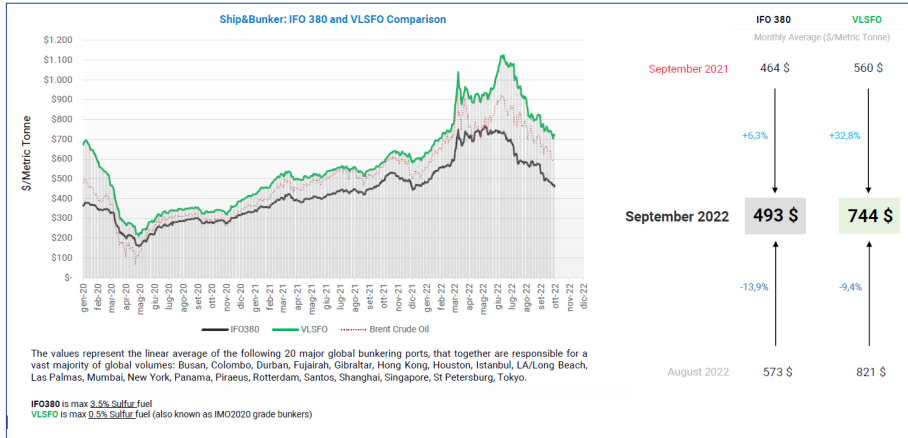
The price of fuel (both heavy and low-sulphur oil) saw a decrease from August to September 2022, but it is still very high in comparison with figures for the

[newyorkfed.org/research/policy/gscpi](https://newyorkfed.org/research/policy/gscpi).

<sup>9</sup> The GSCPI integrates over 27 variables from commonly used metrics, including data from global transportation costs and regional manufacturing surveys across seven economies (United States, China, Japan, the Euro area, South Korea, Taiwan and the United Kingdom), to track shifts in supply-chain pressures from 1997 to the present. For further detail, see Gianluca Benigno et al., “Global Supply Chain Pressure Index: May 2022 Update”, in *Liberty Street Economics*, 18 May 2022, <https://libertystreeteconomics.newyorkfed.org/?p=16088>.

previous year.

**Figure 4** | Bunker price IFO380 and VLSFO, January 2020–September 2022



Note: IFO380 = Intermediate Fuel Oil; VLSFO = Very Low Sulphur Fuel Oil.

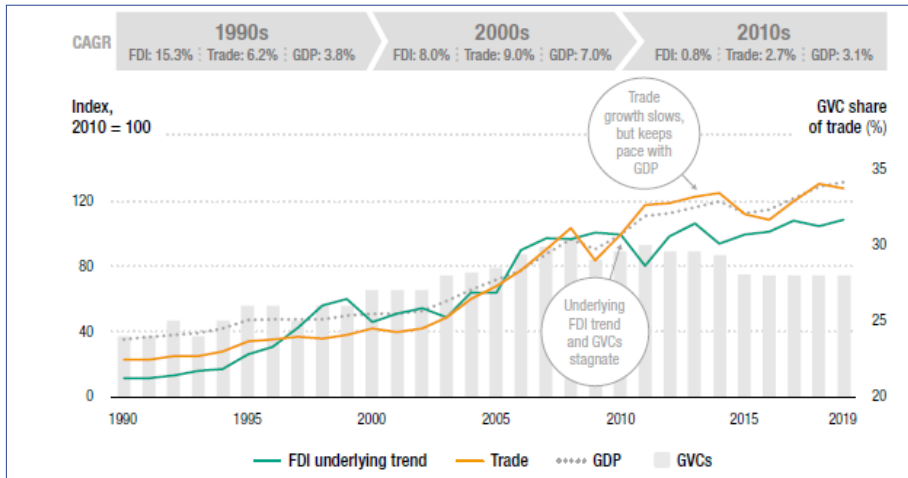
Source: DB Group Market Update September 2022 on IFO 380 and VLSFO from ShipAndBunker.com; Europe Brent Price from EIA.

Significant changes in trade patterns have already occurred, as some buyers (especially in Europe) are seeking alternative supplies to Russian oil and gas. Regarding shipping, the initial direct impacts of the conflict include the suspension of trade operations in Ukrainian ports (now partially resumed) for security reasons, and the curbing of maritime exports. Russia is the world's leading exporter of grain, oil and refined products, with a 10 per cent share of maritime oil exports (9 per cent crude, 11 per cent petroleum products); 8 per cent of liquefied natural gas (LNG) exports; and 13 per cent of coal shipments.<sup>10</sup>

Thus, the hyper-globalisation of the late 1990s and early 2000s appears to be decelerating and the rhythm of growth of the global value chain (as a percentage of global trade) is reducing.

<sup>10</sup> Clarksons Research, Russia-Ukraine: *Shipping Context Update No. 3* (24 March 2022).



**Figure 5** | Major economic component trend (FDI, trade, GDP, GVC), 1990–2019

Note: FDI = Foreign direct investment.

Source: Richard Bolwijn et al., “Global Value Chain Transformation to 2030: Overall Direction and Policy Implications”, in *VoxEU*, 13 August 2020, <https://cepr.org/node/358906>.

Since the outbreak of the Covid-19 pandemic and to a greater extent after the Russia–Ukraine war, the critical issues that have emerged in the arenas of transportation and logistics have continued to change.

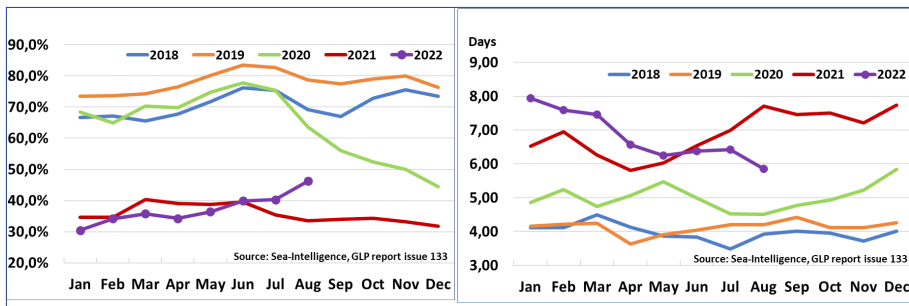
Supply-chain pressures increased enormously with the onset of the pandemic – and shipping costs, starting from the second half of 2020, experienced a decisive spike; the Shanghai Containerized Freight Index (SCFI) – calculated by the Shanghai Shipping Exchange, one of the benchmarks most commonly used to assess freight rate trends – increased by 529 per cent between June 2019 and March 2022, surpassing in January 2022 the previous all-time high of 5,000 points then decreasing sharply to reach 2,343 points in September 2022.<sup>11</sup> Nonetheless, the figures remain high if compared with pre-pandemic levels (September 2019: 754 points, for instance). This shrinkage is due to the drop-in demand for goods, caused in Europe by rising inflation and fear of an economic slowdown.

<sup>11</sup> Clarksons database.

Port congestion (ships stopped at ports waiting to load and unload), however, persists – mainly due to the Covid-zero policy implemented by the Chinese government to fight the pandemic – and indices of future delivery times indicate that supply-chain disruption also continues.<sup>12</sup>

Global schedule reliability declined from 70 per cent in July 2020 to 46 per cent in August 2022. Consequently, delay days have increased from four to eight between the first half of 2020 and January 2022. There was a small reversal in August 2022, when the average delay decreased to six days.

**Figure 6** | Global schedule reliability (left) and global average delays for late vessel arrivals (right)



Source: Sea-Intelligence, GLP Report, No. 133.

The aforementioned issues are also related to the difficult handling of megaships – especially container vessels of more than 20,000 TEUs (twenty-foot-equivalent units) – which has been exacerbated by the pandemic. The phenomenon of naval gigantism that began in the 1950s continues unabated to this day, and orders in the coming years are also expected to include the construction of large container ships (in 2022, the order-book rate for number of ships of 17,000+ TEUs was 21 per cent).<sup>13</sup> The handling of megaships involves difficulties not only in terms of infrastructure (very large cranes, deep bottoms, long docks and large spaces) but also efficiency (lengthening of loading and

<sup>12</sup> IMF, "Global Trade and Value Chains in the Pandemic", in *World Economic Outlook, April 2022: War Sets Back the Global Recovery*, p. 101, <https://www.imf.org/en/Publications/WEO/Issues/2022/04/19/world-economic-outlook-april-2022>.

<sup>13</sup> SRM on Clarksons 2022.

unloading times).

The handling of large ships has become even more difficult with the pandemic due to dockworkers' diseases and lockdowns at ports. Shanghai is slowly emerging from a stressful Covid-19 lockdown that has all but immobilised the city since March 2022. Although the Shanghai port, which handles one-fifth of China's shipping volumes,<sup>14</sup> kept operating, it runned at about half of its capacity in the next few months. Many shipments have been cancelled, postponed, or rerouted to other Chinese megaports such as Ningbo-Zhoushan. The consequence has been congestion in these Chinese ports with the creation of long ship queues and resulting missed departures. Furthermore, the Shanghai lockdown has caused a "ripple effect" at some US ports (e.g. the Port of Oakland)<sup>15</sup> and has wreaked havoc on the scheduling of ocean carriers. This is because port business depends on the Asia–US trade route.

In addition, "the ports of Los Angeles and Long Beach, California, together responsible for approximately 40 per cent of US seaborne trade, suffered severe slowdowns in 2022, with a share of containers on hold lagging behind 20 per cent in October 2019 [but reaching] 75 per cent in November 2021 and with a peak of containers waiting – 109 ships – reached on 9 January 2022".<sup>16</sup>

Thus, port congestion and delays contribute to supply-chain disruption.

Since the reopening of the city of Shanghai on June 1, 2022, its port has been in overdrive as manufacturers try to clear the backlog of orders – with serious effects around the world. Not only Asian and North American ports, but also northern European ports are experiencing congestion as a result.<sup>17</sup>

<sup>14</sup> Sarah Schiffing and Nikolaos Valantasis Kanellos, "Shanghai: World's Biggest Port Is Returning to Normal, But Supply Chains Will Get Worse Before They Get Better", in *The Conversation*, 24 May 2022, <https://theconversation.com/shanghai-worlds-biggest-port-is-returning-to-normal-but-supply-chains-will-get-worse-before-they-get-better-182720>.

<sup>15</sup> Alejandra Salgado, "'Ripple Effect': How Shanghai's Lockdown Is Dampening Port of Oakland Volumes", in *Supply Chain Dive*, 27 May 2022, <https://www.supplychaindive.com/news/624327>.

<sup>16</sup> Angela Stefania Bergantino, "Supply chains sempre sotto stress", in *ISPI Articles*, 17 June 2022, <https://www.ispionline.it/it/node/35412>.

<sup>17</sup> Mike Wackett, "North Europe Container Ports at Capacity Ahead of Peak Season", in *gCaptain*, 1 June 2022, <https://gcaptain.com/?p=164631>.

Congestion in ports and a subsequent accumulation of vessel delays requires more port omissions to combat service disruption.

Very high yard density in container terminals and inland transport bottlenecks are aggravating port-congestion problems. A lack of port labour and shortage of truck drivers has led to increased dwell times for import containers.

Moreover, other phenomena contribute to supply-chain disruptions. Containerised transportation globally is characterised by the paradox of high service costs and very low quality. A joint effect of high cost and low reliability has jeopardised the organisation of supply chains.

Low service quality – resulting in vessel delays, the deletion of scheduled departures and the choice not to scale some ports included in the services – has actually caused other bottlenecks in the logistics process. One example is the lack of empty containers available for export: the so-called container shortage phenomenon has put pressure on countries export oriented (e.g. those in Asia).

These phenomena have not only created inefficiencies but have also led to further increases in transportation costs, as premium fees and penalties have had to be paid for containers' return and cargo delays. In 2021, The United Nations Conference on Trade and Development (UNCTAD) estimated that the increase in freight rates during the pandemic boosted global consumer prices by 1.5 per cent.

Port congestion and inefficiencies remain a multifaceted problem, which is expected to persist until at least the first half of 2023.<sup>18</sup> In addition to the effects related to the activity of carriers, there are also changes in the activity of some distributors to consider. Distributors are trying to maintain their regular lines without incurring massive delays, and final users are experiencing significant increases in prices. As for the distributors, an interesting – albeit, probably temporary – phenomenon of disintermediation is occurring. In order to avoid the high freight rates charged by transportation companies, as well as the possibility of delays and “blank sailing” (when carriers sometimes skip a port

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<sup>18</sup> Drewry Maritime Research, *Container Forecaster*, 1Q 2022.

stop in order to save time), some major retailers decide to directly charter ships to transport their own goods. These include companies like Walmart, IKEA and Coca-Cola, but forwarders themselves – such as DSV and Geovis – can also adopt this approach. This is a way to guarantee consistency in delivery times and avoid stopovers at other ports or further increases in costs. Furthermore, discount retailer Lidl has also recently announced its own shipping company (Tailwind Shipping Line) with its own container vessels.<sup>19</sup>

Other large retailers – among them, VF (the owner of clothing brands such as North Face, Vans and Supreme) – have tried to overcome the problem by relying on air transport, incurring higher costs that will be eventually dumped downstream.

The reliability and efficiency of liner services in shipping is worrying manufacturing companies. “Some industries such as automobiles have faced large supply disruptions. Moreover, shipping costs remain elevated along some routes despite having come down from their peaks, and some ports remain congested, contributing to continuing supply chain disruptions.”<sup>20</sup>

The deterioration in service has emerged since the shipowner alliances<sup>21</sup> have become stronger; where before Covid-19, manufacturing companies could count on 4–5 sailings a week, now they cannot. When the possibility of embarkation is reduced, companies perforce face major difficulties.

The effects of port congestion have set the stage for new integration operations by global carriers, which can thereby increase their control over the entire supply chain and reduce the risks of delays and disruption. In the past two years, as a result of higher freight rates, global carriers have accrued strong gains. “The carrier industry will turn an incredible 275 billion US dollars EBIT (Earnings Before Interests and Taxes) profit in 2022, building on the estimated

<sup>19</sup> “Lidl avvierà una propria compagnia marittima”, in *Shipping Italy*, 6 April 2022, <https://www.shippingitaly.it/?p=25640>.

<sup>20</sup> IMF, “Global Trade and Value Chains in the Pandemic”, cit.

<sup>21</sup> Shipowner alliances comprise groups of container shippers that have linked together for common goals, and to gain economies of scale and scope. Three significant such groupings dominate the world of global trade today: the “2M Alliance” (Maersk, MSC); the “Ocean Alliance” (COSCO, OOCL, CMA CGM, Evergreen); and “THE Alliance” (ONE, Hapag-Lloyd, Yang Ming, HMM). See also: *Alphaliner Weekly Newsletter*, No. 10/2022.

214 billion US dollars scored in 2021”.<sup>22</sup> The average EBIT margin<sup>23</sup> in 2022 is 46 per cent.

**Table 1** | Revenue of some of the major global carriers

Company	Revenues (\$bn)	2021/2020 (%)
COSCO	50,850	111
Maersk	48,232	65
CMA CGM	45,290	89
Hapag-Lloyd	26,330	81
Evergreen	17,519	149
Yang Ming	11,945	133
Zim	10,729	169

Source: Drewry Maritime Research.

To strengthen their influence on the supply chain, global carriers also continue to pursue a strategy of vertical integration in various business sectors of freight logistics. This is a way of increasing their service offerings and geographical coverage.

M&A (merger-and-acquisition) activity will continue at an accelerated pace. In 2021, there were 24 vertical integration agreements related to port infrastructure, with a total revealed value of 11.7 billion US dollars compared with the 10.9 billion recorded in the 22 agreements of 2020 (Table 2).<sup>24</sup>

It is also necessary to underline the additional deals related to the logistics sector such as MSC’s acquisition of Bolloré Africa Logistics for 6.41 billion US dollars and LF Logistics purchase by Maersk for 3.76 billion US dollars.<sup>25</sup>

<sup>22</sup> Drewry Maritime Research, *Container Forecaster*, 3Q 2022.

<sup>23</sup> On EBIT/Revenue see *ibid.*

<sup>24</sup> PwC, *Transport & Logistics Barometer. 2021 Full-Year Analysis*, 25 January 2022, p. 32, <https://www.pwc.de/en/transport-und-logistik/pwc-transport-and-logistics-barometer-h2-2021.pdf>.

<sup>25</sup> See also, Massimo Deandrei, Alessandro Panaro and Olimpia Ferrara, “Maritime Scenario in the Mediterranean: Analysis of the Competitiveness and Investments of the Major Logistics Players”, in *IAI Papers*, No. 22|07 (April 2022), <https://www.iai.it/en/node/15207>.

**Table 2** | Top M&A deals in shipping

Announcement	Target	Target nation	Buyer	Buyer nation	Deal status	Deal value (\$bn)
July 2021	Ningbo-Zhoushan Port Group Co., Ltd (18.8% stake)	China	China Merchants Port Group Co., Ltd	China	Pending	2.23
November 2021	Fenix Marine Services Ltd (90% stake)	US	CMA CGM SA	France	Pending	1.80
July 2021	China Merchants Port Group Co., Ltd (23.1% stake)	China	Zhejiang Province Port Investment Operation Group Co. Ltd	China	Pending	1.72
October 2021	Yingkou Port Bulk Cargo	China	Liaogang Holdings (Yingkou) Co., Ltd	China	Pending	1.14
June 2021	MMC Corp. Bhd (48.2% stake)	Malaysia	Seaport Terminal (Johore) Sdn Bhd	Malaysia	Pending	0.71
July 2021	Marsa Maroc (35% stake)	Morocco	Tanger Med dev Log SA	Morocco	Completed	0.61
March 2021	Gangavaram Port Ltd (58.1% stake)	India	Adani Ports & Special Economic Zone Ltd	India	Pending	0.50
April 2021	Adani Krishnapatnam Port Ltd (25% stake)	India	Adani Ports & Special Economic Zone Ltd	India	Pending	0.38
October 2021	DP World Plc-Port Assets	Egypt	CDC Group PLC	UK	Pending	0.32
January 2021	Red Sea Gateway Terminal Ltd (40% stake)	Saudi Arabia	Investor Group of COSCO Shipping Ports Ltd and Saudi Arabian Sovereign Wealth Fund PIF	Saudi Arabia	Completed	0.28

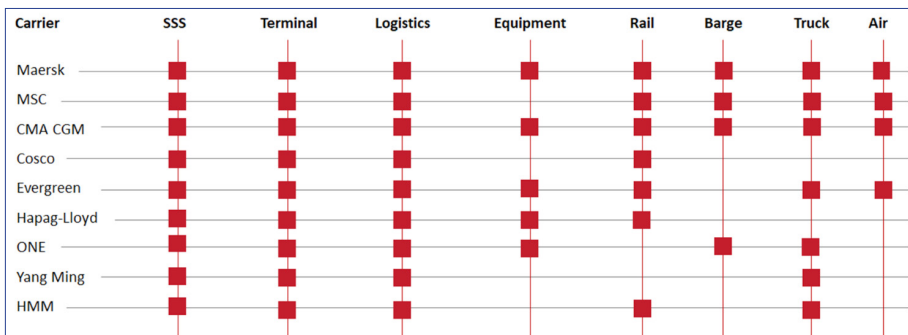
Source: PwC, *Transport & Logistics Barometer. 2021 Full-Year Analysis*, cit., p. 14.

Due to the difficulties encountered in the supply chain, many companies are attempting to redesign their geographical-diversification strategies in production and procurement. From a long-term perspective, companies are being pushed to rethink their current locations – trying to bring their production centres closer together or, at the very least, to diversify them. This has paved the way for “friendshoring” and/or reshoring (i.e. bringing some of

the production back home or to countries that are otherwise closer to you, as a way of being closer to areas of consumption and ensuring that supply chains are more resilient). This phenomenon has been witnessed recently because of the Covid-19 emergency and related blockade of Chinese factories, and the Russia–Ukraine conflict – both of which have highlighted just how critical dependencies between distant economies can be and the potential convenience of moving to shorter, less geographically dispersed, value chains.

The world's top carriers are also increasingly active in related segments other than pure shipping. Notably, four major shipping companies active in the container-shipping business – MSC, Maersk, CMA CGM and Evergreen – have recently launched their own airline companies.

**Figure 7** | Processes of vertical integration of the main container carrier

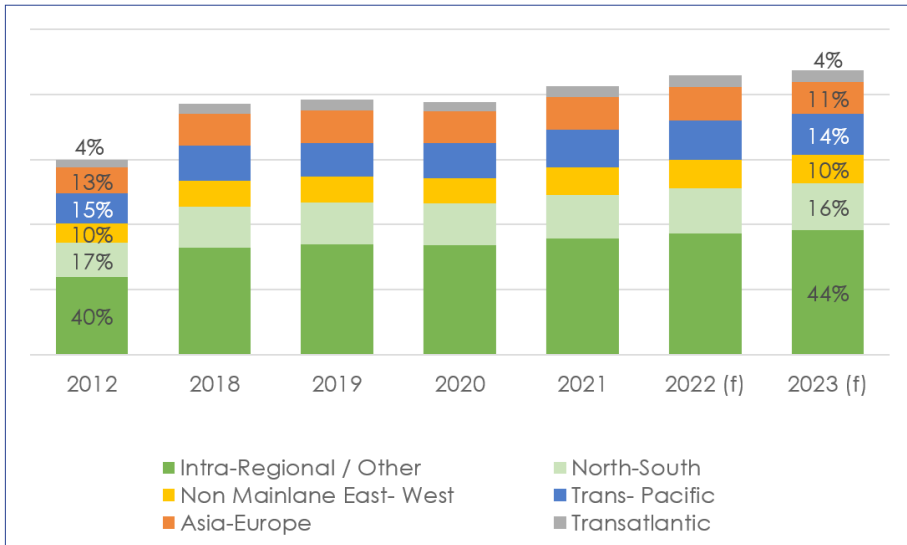


Source: SRM on OECD and various.

Realistically, it will not be possible to nearshore all production because most developed countries are probably unable to compete in labour-intensive terms: their labour costs are too high. It should also be noted that friendshoring/reshoring is not easy to implement, even considering that China has become Asia's leading manufacturing centre and its market share, in some sectors, has exceeded 50 per cent.<sup>26</sup>

<sup>26</sup> Alessandro Placa, "The Regionalization of Global Trade and Supply Chains", in *CS Window*, 4 August 2022, <https://www.cswindow.contshipitalia.com/en/the-regionalization-of-global-trade-and-supply-chains>.



**Figure 8** | Seaborne container trade by routes (% on million TEUs), 2012–2023

Note: (f) = forecasts.

Source: SRM on Clarksons.

Nonetheless, friendshoring/nearshoring strategies do allow production to be moved closer to source. Furthermore, they foster the regionalisation process that appears to be on the rise in shipping. If we look at the movements of container ships (the mode by which the majority of goods, and especially manufactured goods, move), we see that regional routes are growing strongly and now account for the largest share of world maritime trade. Between 2012 and 2023, trade on the world's regional routes is projected to increase from 40 per cent of the total market share to 44 per cent. In the same time interval, container trade on regional routes increased from 60 million TEUs to 96 million TEUs (+60 per cent). Consequently, the global routes (transatlantic and Asia–Europe) now account for much smaller percentages than hitherto (4 per cent and 11 per cent, respectively) and the transpacific route is in the process of declining from 15 to 14 per cent. The process of regionalisation was intensified by Covid-19, and will further increase owing to the Russia-Ukraine conflict.

GVCs are becoming increasingly regional and are clustering around the world into three main production systems, the so-called three global “factories”: the Factory Asia, which includes East Asian countries (China, Thailand, Malaysia,

Indonesia, Vietnam, etc.); the Factory Europe (which includes Central and Eastern European countries); and the Factory North America, in which Mexico is integrated with other Central and North American economies.<sup>27</sup> Because of its strategic position at the centre of these three big clusters, the Med area is growing in significance.

### 3.1 Advantages and disadvantages of regionalising European value chains in the Euro–Mediterranean region

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The Covid-19 pandemic has shown that infrastructural investments in some areas are critical in mitigating supply disruptions related to trade logistics. For example, upgrading and modernising port infrastructures on major global shipping routes will help reduce interruptions in GVCs and generate new, shorter and more regional value chains. Modernising port infrastructures and creating new free zones are fostering the birth of new industrial production areas in the Med area. Two major examples are those close to the free zones of Tanger Med in Morocco and Port Said in Egypt.<sup>28</sup>

The Mediterranean has always been a connecting point between West and East. Moreover, with the new Belt and Road Initiative promoted by Chinese President Xi Jinping in 2013, it has now also become a centre of interest for China's expanding economy. Between 2013 and 2021, port investments amounted to about 6 billion US dollars (11.7 billion if we include the first investments in Piraeus, Greece in 2009) across 12 Euro-Mediterranean ports.<sup>29</sup> Furthermore, investments not only from China but also from the Emirates, Singapore, etc. have increased in the Mediterranean area.<sup>30</sup>

<sup>27</sup> SRM, *Il valore delle filiere produttive nel nuovo contesto competitivo e innovativo, tra Industria 4.0 e Circular Economy*, Napoli, Giannini, 2018.

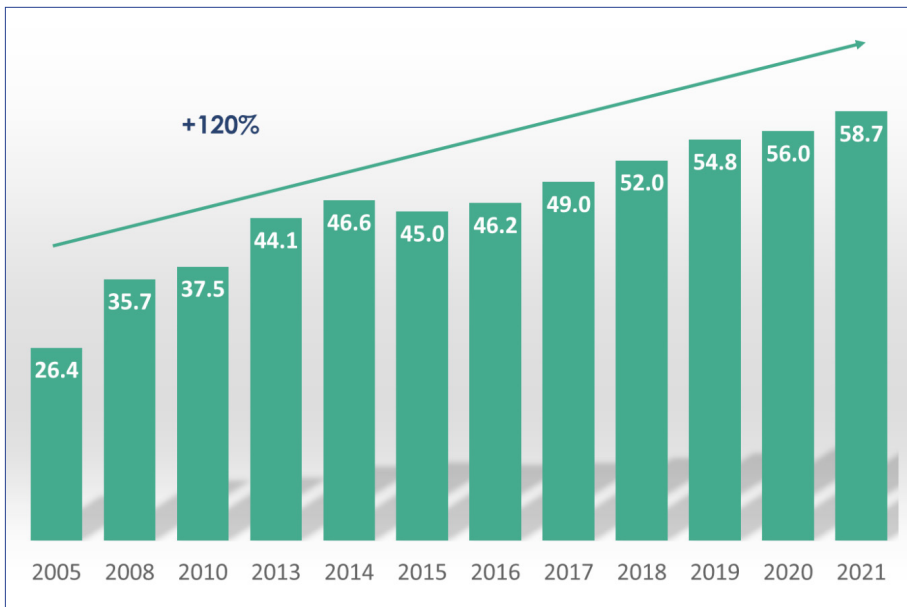
<sup>28</sup> Massimo Deandreis, Alessandro Panaro and Olimpia Ferrara, "Maritime Scenario in the Mediterranean", cit.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.; see also slides by Massimo Deandreis, *Presentation of the Italian Maritime Economy Report 2021*, 7 July 2021, <https://www.sr-m.it/index.php?action=download&ctrl=Media&id=25087&type=attachment>.

Thanks to new investments in these ports,<sup>31</sup> about 2 billion tonnes of goods now transit the Mediterranean Basin every year.<sup>32</sup> The number of containers handled by Med ports has increased tremendously – from 26 million in 2005 to 59 million in 2021.

**Figure 9** | Trend of traffic in the top 25 Med container ports (million TEUs), 2005–2021



Source: SRM on Port Authorities.

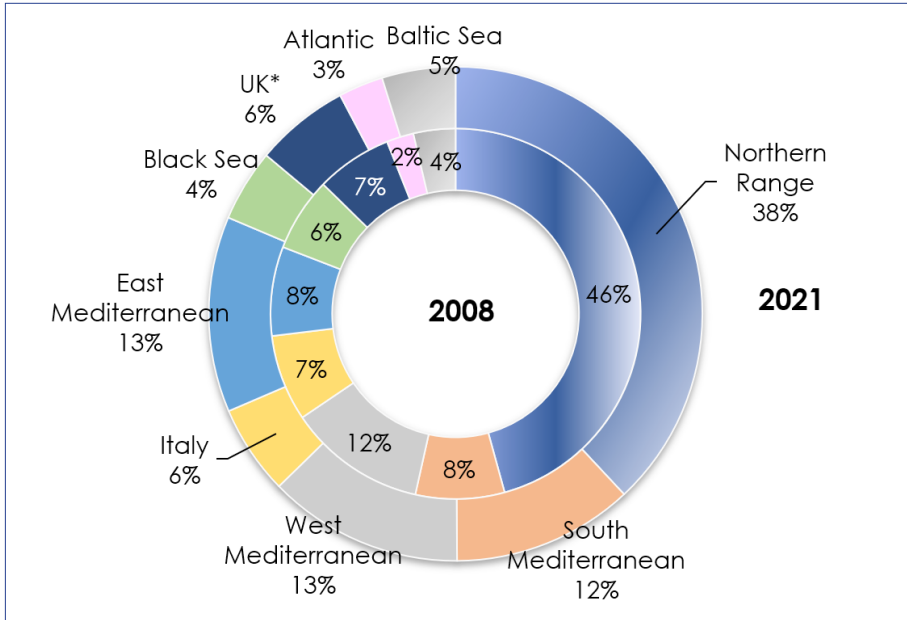
As Figure 10 shows, the various areas of the Mediterranean – excluding Italy – currently show a market share that is in countertrend with Northern European ports, which are losing competitiveness. (Nonetheless, they remain the most efficient ports as of now.) Overall, while the Northern Range market share declined from 46 per cent in 2008 to 38 per cent in 2021, that of Med container ports – including Italy – increased from 35 to 44 per cent over the 2008–21 period. Specifically, East Med increased its market share from 8 to 13 per cent

<sup>31</sup> Ibid.

<sup>32</sup> SRM, *Italian Maritime Economy. Ports, Shipping and Logistics: Outlook for the Global Maritime Context. Focus on the Impact of the Pandemic and War on Mediterranean Trends*, 2022.

over the 2008–21 period, followed by South Med from 8 to 12 per cent, and West Med from 12 to 13 per cent while Italy's share decreased from 7 to 6 per cent.

**Figure 10** | Top container ports in EU and in the Mediterranean (TEUs), 2008 and 2021 (market share by geographic area)



Notes: \*UK data 2020. - Ports that handled more than 400,000 TEUs in 2021 were considered.

Northern Range ports: Rotterdam, Antwerp, Hamburg, Bremen, Le Havre, Zeebrugge.

South Mediterranean ports: Port Said, Tanger Med, Alexandria, Damietta, Sokhna.

West Mediterranean: Barcelona, Valencia, Algeciras, Marseilles.

Italy: Gioia Tauro, Genoa, La Spezia.

East Med: Koper, Piraeus, Thessaloniki, Izmir, Mersin, Haifa, Ashdod.

Black Sea: Ambarli, Beirut, Costanza, Novorossiysk, Odesa.

UK: Felixstowe, London, Southampton.

Atlantic: Bilbao, Las Palmas, Sines PSA.

Baltic Sea: Gdansk, St Petersburg, Gdynia, Klaipeda.

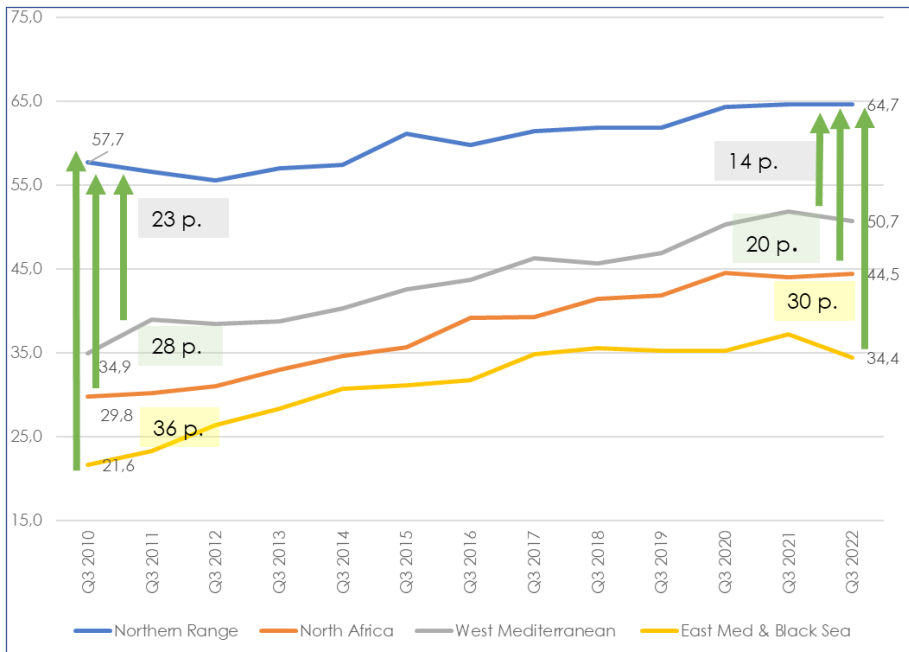
Source: SRM on Port Authorities.

In addition, as the trend of the Port Liner Shipping Connectivity index (PLSCI)<sup>33</sup>

<sup>33</sup> The PLSCI is an UNCTAD indicator generated, for more than 900 container ports around the world, from six components: (1) the number of scheduled ship calls per week in the port; (2) the deployed annual capacity in twenty-foot-equivalent Units (TEUs): total deployed capacity offered at the port; (3)

shows in Figure 11, between the third quarters of 2010 and 2022, the ports of the North Africa,<sup>34</sup> East Med & Black Sea,<sup>35</sup> and West Med regions (Italy included)<sup>36</sup> gained momentum in competitiveness by approaching the level of maritime connectivity demonstrated by the Northern Range ports.<sup>37</sup>

**Figure 11** | Port Liner Shipping Connectivity Index: Comparison between Northern Range, West Med, North Africa and East Med & Black Sea ports, Q3 2010–Q3 2022



Source: SRM on UNCTAD.

the number of regular liner shipping services from and to the port; (4) the number of liner shipping companies that provide services from and to the port; (5) the average size in TEU of the ships deployed by the scheduled service with the largest average vessel size; (6) the number of other ports that are connected to the port through direct liner shipping services.

<sup>34</sup> North Africa ports: Egypt, Port Said; Morocco, Tanger Med; Egypt, Alexandria; Egypt, Damietta; Egypt, Sokhna.

<sup>35</sup> East Med & Black Sea ports: Greece, Piraeus; Greece, Thessaloniki; Israel, Ashdod; Israel, Haifa; Turkey, Izmir; Turkey, Mersin; Malta, Marsaxlokk; Slovenia, Koper; Lebanon, Beirut; Ukraine, Odesa; Turkey, Ambarli; Russian Federation, Novorossiysk.

<sup>36</sup> West Med ports: France, Marseilles; Spain, Barcelona; Spain, Valencia; Spain, Algeciras; Italy, Genoa; Italy, Gioia Tauro; Italy, La Spezia.

<sup>37</sup> Northern Range ports: Belgium, Antwerp; Belgium, Zeebrugge; Germany, Bremen; Germany, Hamburg; Netherlands, Rotterdam; France, Le Havre.

In an ever-faster-paced competitive environment, sea constrictions have become increasingly important – as shown by the running aground of the mega container ship *Ever Given* in March 2021 in the Suez Canal. Another such incident was registered in September 2022 when the tanker *Affinity V* blocked the Canal for a few hours.<sup>38</sup> These interruptions caused problems in the days following, showing the importance of the Canal for the functioning of global supply chains as well as the fragility of the system: the delay produced interruptions in production cycles, stock-outs, congestion at ports, empty containers that did not return to China on schedule, rising crude oil prices and higher freight rates.

Following the *Ever Given* accident, the Egyptian government announced a new tranche of construction, scheduled for completion by 2023, to deepen the seabed and widen the Canal at its southern mouth. The aim is to reduce pressure on the chokepoint to avoid interruptions in traffic flows.

Despite these events, and even during the Russia–Ukraine war, the Suez Canal has still shown its dynamism: in the first eight months of 2022, no fewer than 15,329 ships transited through it – an increase of 15.1 per cent over the previous period, generating a new all-time peak in revenues (5.1 billion US dollars). Inflationary trends, however, are also pushing the channel to revise tariffs from January 2023: +15 per cent for all ship types, excluding bulk carriers and cruise ships (for which the increase will be 10 per cent). This hike in transit fees is also a consequence of the strategic nature of the Suez Canal in relation to longer-distance and more fuel-hungry alternative sea routes. At arguably the most economically complex time in history, Suez stands out as a strategic hub for Mediterranean trade by continuing to account for 12 per cent of world traffic and 7–8 per cent of oil traffic.<sup>39</sup>

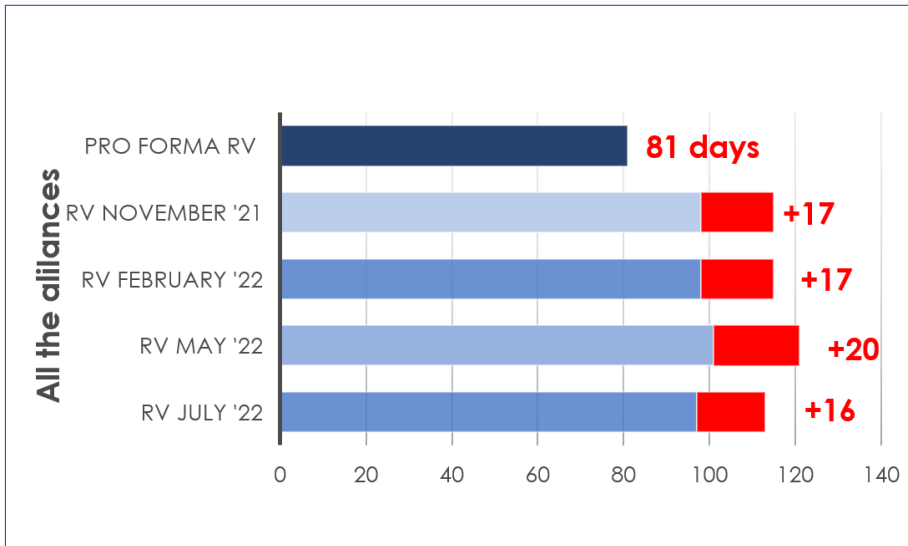
However, delays persist in the Euro-Med area even now. According to Alphaliner, in July 2022, container ships deployed on the Asia–North Europe trade (so, transiting through the Med) currently need on average 81 days to

<sup>38</sup> Martin Farrer, “Suez Canal Briefly Blocked Again after Another Ship, *Affinity V*, Becomes Stuck”, in *The Guardian*, 1 September 2022, <https://www.theguardian.com/p/m6k6y>.

<sup>39</sup> Alphaliner, *Weekly Newsletter*, No. 38/2022.

complete a full round voyage. Therefore, they arrive on average 16 days later than expected (4 days less than May 2022) in China for their next round trip. This forces carriers to blank some sailings as there are no vessels available.<sup>40</sup>

**Figure 12** | Incoming ship delays on the route Asia–Northern Europe



Notes: Pro-forma = The indicator shows what duration the voyage should have. RV = round voyage.

Source: SRM on Alphaliner.

As the European Central Bank underlines, in Europe “in particular, supply constraints caused by disruptions to transportation and logistics are more pervasive and are likely to be more persistent in the absence of any softening of global demand”.<sup>41</sup>

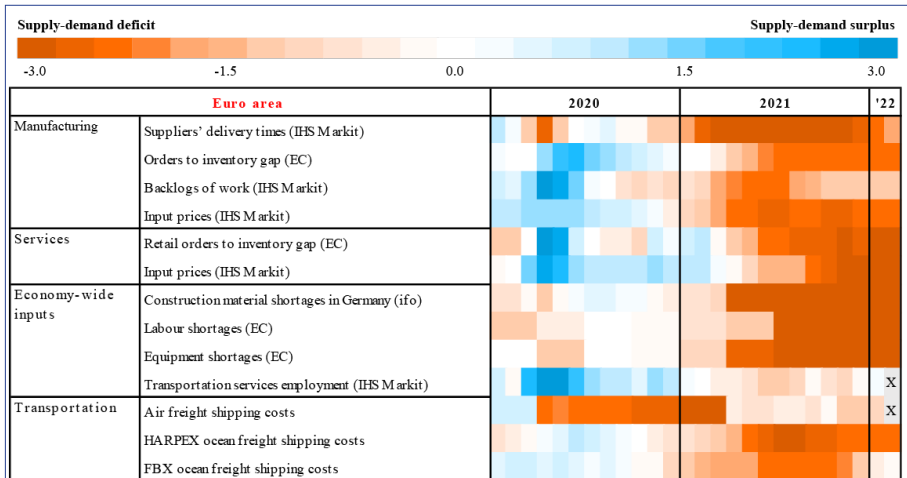
As the figures show, all the indicators of efficiency for the European supply chain – from delivery times to freight rates – have been under increasing pressure between 2020 and 2022 in the Euro-area, and supply bottlenecks remain at historically high levels. The heatmaps, which range from dark blue

<sup>40</sup> Alphaliner, *Weekly Newsletter*, No. 32/2022.

<sup>41</sup> Maria Grazia Attinasi et al., “Supply Chain Bottlenecks in the Euro Area and the United States: Where Do We Stand?”, in *ECB Economic Bulletin*, No. 2/2022, p. 51-54 at p. 52, <https://www.ecb.europa.eu/pub/economic-bulletin/html/eb202202.en.html>.

(abundant supply relative to demand) to dark red (supply shortages), show that all 13 indicators<sup>42</sup> moved from a mostly blue of 2020 to a shade of red over the course of 2021 and 2022 (to February).

**Figure 13** | Supply-chain pressures: Heatmaps for the euro area



Note: x indicates data not available.

Source: Maria Grazia Attinasi et al., "Supply Chain Bottlenecks in the Euro Area and the United States", cit., p. 53.

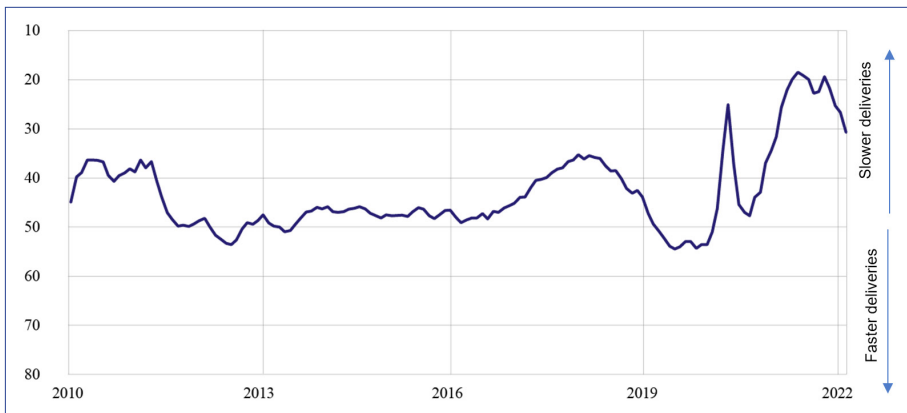
Continuing pressures result from supply-chain disruptions, as Figure 13, below, shows. According to the European Central Bank, the PMI (Purchasing Managers'

<sup>42</sup> Indicators: (1) The suppliers' delivery times index by IHS Markit's PMI business surveys captures the extent of supply-chain delays in an economy, which in turn acts as a useful barometer of capacity constraints; (2) Orders to inventory gap by EC.Europe.eu: orders, terms of trade, and the production gap; (3) The backlogs of work index from IHS Markit's PMI business surveys captures the volume of orders that a company has received but has yet to either start work on or complete; (4) The input prices index from the J.P. Morgan Global Composite PMI; (5) Retail orders to inventory gap by EC.Europe.eu; (6) Input prices in services by IHS Markit; (7) Construction-materials shortages in Germany, German IFO institute; (8) Labor shortages from European Labour Authority (EC); (9) Equipment shortages from EC as factor limiting production; (10) Transportation services employment (IHS Markit); (11) Air-freight shipping costs, Freightos Air Freight Index (<https://fbx.freightos.com/fax/global>); (12) Harper Petersen Charter Rate Index (Harpex), a composite indicator of weekly container-shipping rate changes in the time-charter market for eight different classes of container ships; (13) The Freightos Baltic Global Container (FBX), a composite indicator of container freight spot rates across 12 major global trade lanes. For the definition of the last two indicators, see also Maria Grazia Attinasi, Alina Bobasu and Rinalds Gerinovics, "What Is Driving the Recent Surge in Shipping Costs?", in *ECB Economic Bulletin*, No. 3/2021, p. 26-32, <https://www.ecb.europa.eu/pub/economic-bulletin/html/eb202103.en.html>.



Index)<sup>43</sup> SDT (suppliers' delivery times) is a useful indicator for monitoring supply disruptions in the logistics sector.<sup>44</sup> "The January/February 2022 data for the PMI SDT [...] suggest that supply chain pressures, while still historically high, have peaked and started to ease in [the economy]".<sup>45</sup>

**Figure 14** | Supply-chain pressure in the euro area: PMI manufacturing suppliers' delivery times index (left-hand scale, inverted)



Source: Maria Grazia Attinasi et al., "Supply Chain Bottlenecks in the Euro Area and the United States", cit., p. 54.

All this pressure and the bottlenecks in the supply chain are driving a reshoring of enterprises, especially in Europe. A 2022 inquiry<sup>46</sup> shows that over 60 per cent of major companies<sup>47</sup> are considering onshoring or reshoring part of

<sup>43</sup> The Purchasing Managers' Index™ (PMI™) contains market-moving monthly economic indicators covering over 40 countries and 4,000 PMI indices, covering a range of sectors such as automotive, chemical, energy, food and beverage, consumer services, manufacturing, construction, and technology. Based on monthly surveys of carefully selected companies representing major and developing economies worldwide, it is the main world economic indicator on the trend of the market. The PMI provides early indications of what is really happening in private economic sectors by monitoring changes in variables such as output, new orders, employment levels, and prices.

<sup>44</sup> The PMI SDT provides the percentage of companies reporting an improvement, deterioration, or no change in delivery times for intermediate and finished goods. An index below 50 implies that delivery times have deteriorated relative to the previous month.

<sup>45</sup> Maria Grazia Attinasi et al., "Supply Chain Bottlenecks in the Euro Area and the United States", cit., p. 54.

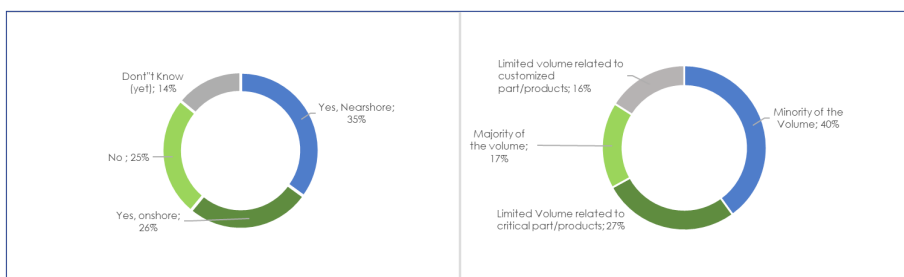
<sup>46</sup> BCI Global, *Global Reshoring & Footprint Strategy*, 16 February 2022, <https://extranet.bci-global.com/documents/Global%20Reshoring%20and%20Footprint%20Strategy.pdf>.

<sup>47</sup> 125 corporations and big companies (70 from Europe) active in pharma & medtech, machinery & automotive and consumer packaged goods.

their production from Asia back to Europe in the next three years. In most of these, cases the focus is limited to volumes and/or critical parts and products. However, 17 per cent intend to bring back the majority of their Chinese and Asian production capacity.

**Figure 15** | Survey on choice of European companies to reshore, 2022

left: % of onshoring/reshoring in next 3 years  
right: % onshoring/reshoring for part of business

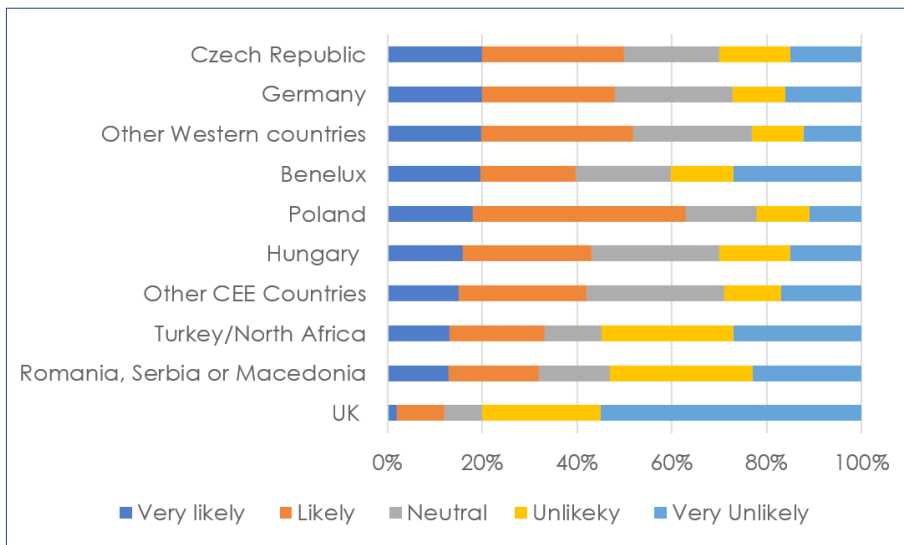


Source: SRM on BCI Global.

European enterprises are focusing their relocation efforts on Central and Eastern Europe (particularly Poland, the Czech Republic, and Hungary) but also in the Med Area (and, in particular, Turkey and North Africa). Indeed, more than 30 per cent of companies declare that they are in favour (“very likely”/“likely”) of potentially reshoring in Turkey/North Africa (Figure 16).

In particular, an analysis<sup>48</sup> for individual European countries shows that Italy is the second most popular nation in Europe for reshoring cases after France. According to the data, 44 per cent of reshoring cases in Italy come from companies located in Asia, 33 per cent of which come from China (Figure 17).

<sup>48</sup> Stefano Elia et al., *Scenari del commercio mondiale e il ruolo dell'Italia: trend in atto, catene globali del valore e potenziale dell'e-commerce*, 2021, Politecnico di Milano, 2021, <https://www.alsea.mi.it/ReportPOLIMI.pdf>.

**Figure 16** | Choice of reshoring by countries in Europe and North Africa

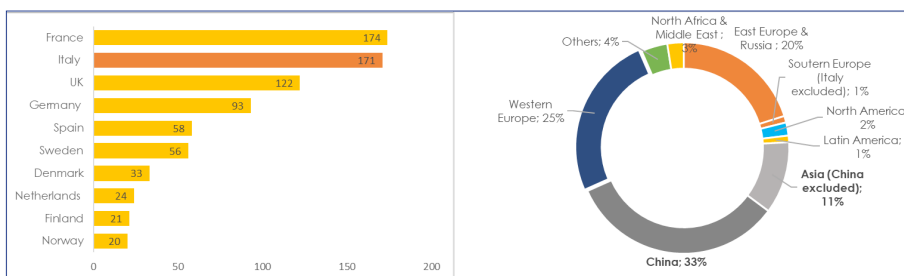
Note: CEE = Central and Eastern European.

Source: SRM on BCI Global.

**Figure 17** | Supply-chain shrinkage drives reshoring

left: N. reshoring cases in Europe (top 10 countries)

right: Areas of origin of reshoring in Italy (%)

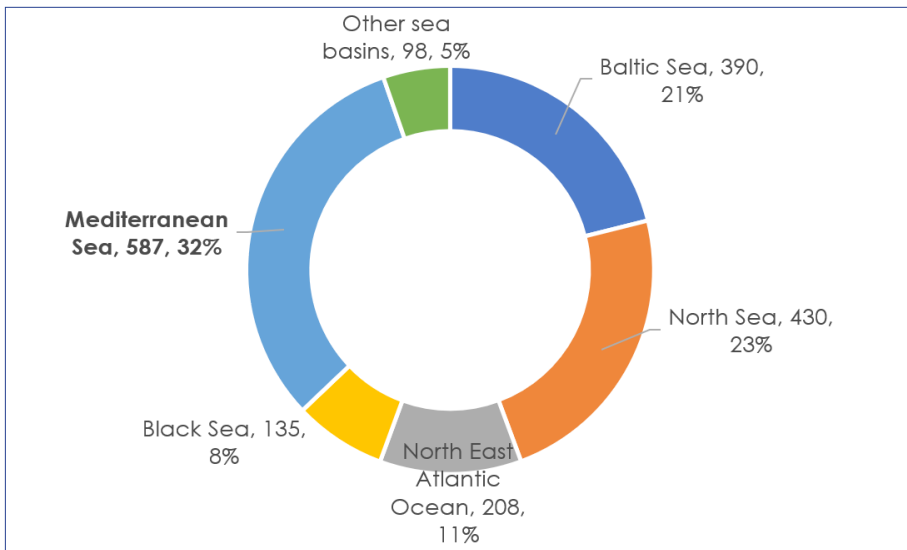


Source: Stefano Elia et al., *Scenari del commercio mondiale e il ruolo dell'Italia*, cit., p. 36.

All in all, despite the overall reduction in GVCs, it will be difficult to completely reverse globalisation.

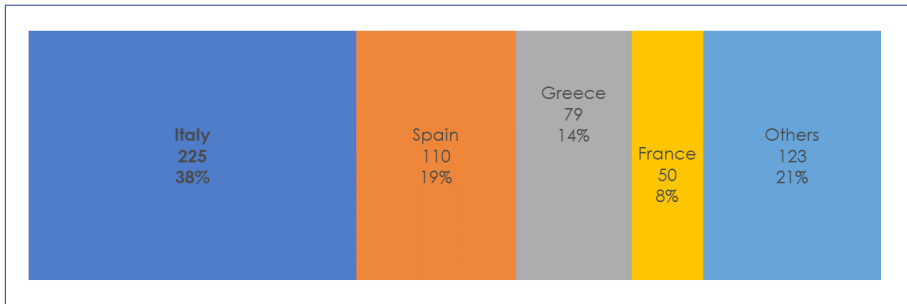
Nonetheless, the increased regionalisation of trade is producing stronger activity along short sea-shipping routes, called Short Sea Shipping (SSS). The Mediterranean basin represents – among all the areas subject to European SSS activity – the busiest region, with more than 587 million tonnes transported (equal to 32 per cent of the total).

**Figure 18** | Destination areas for SSS goods, EU27 (million tonnes and %)



Source: SRM on Eurostat 2022 on data 2020.

Italy also consolidated its leading position among EU countries in the SSS segment of the Mediterranean, with 225 million tonnes or a 38 per cent market share. Italy is also strengthening its leadership with its ferry fleet, which is the largest in the world by size, employment, number of lines served, passengers and cargo. Furthermore, Italy is also leader in SSS among the European Union countries.

**Figure 19** | SSS share in the Med (million tonnes and share %), 2020

Source: SRM on Eurostat 2022 on data 2020.

Roll on-Roll off (“Ro-Ro”)<sup>49</sup> represents one of the main categories in the SSS market.<sup>50</sup> Moreover, this type of transport can be also used to move trucks off the road in order to travel by ship. This operation is called “Motorways of the Sea”, and it represents a successful initiative that also supports sustainability, which is increasingly at the centre of the global and European political agenda.<sup>51</sup> Shipping currently generates 2.3 per cent of CO<sub>2</sub> globally,<sup>52</sup> and Ro-Ro is one of the leading segments that is investing heavily in decarbonisation.<sup>53</sup>

The intra-Mediterranean Ro-Ro maritime intermodal sector proved to be the most resilient sector during the pandemic, and it still is today. This is because it was capable of absorbing surges in prices of raw materials without increasing freight rates proportionally. Except for dry bulk, which experienced a sharp decline in the third quarter 2022 due to high volatility (related to falling demand in construction),<sup>54</sup> the Ro-Ro sector experienced the lowest increase in freight rates during the recent pandemic and war period.

<sup>49</sup> A roll on-roll off unit, abbreviated as “Ro-Ro”, is wheeled freight-carrying equipment such as a lorry, trailer, or semi-trailer, which can be driven or towed onto a ship or vessel. Eurostat definition: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Roll\\_on\\_-\\_roll\\_off](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Roll_on_-_roll_off).

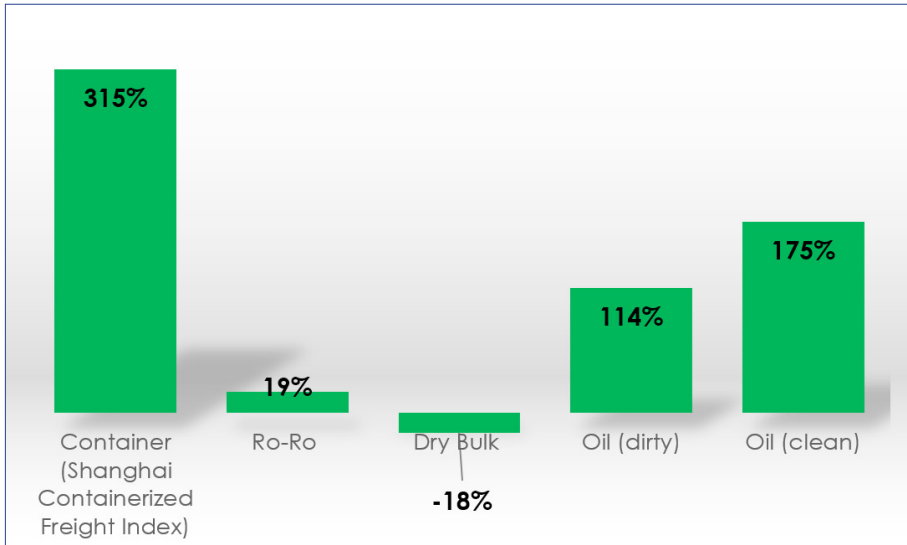
<sup>50</sup> Anastasia Christodoulou, Zeeshan Raza and Johan Woxenius, “The Integration of RoRo Shipping in Sustainable Intermodal Transport Chains: The Case of a North European RoRo Service”, in *Sustainability*, Vol. 11, No. 8 (2019), Article 2422, <https://doi.org/10.3390/su11082422>.

<sup>51</sup> European Commission website: *Motorways of the Sea*, <https://europa.eu/!p4wcYb>.

<sup>52</sup> Clarksons 2022.

<sup>53</sup> Alis-SRM, *Scenario economico globale. Gli effetti della crisi geopolitica sulle prospettive di crescita ed il ruolo strategico del trasporto intermodale*, 2022.

<sup>54</sup> Clarksons, *Dry Bulk Trade Outlook*, Vol. 28, No. 9 (September 2022).

**Figure 20** | Global freight rate variation by each mode, Q3 2019–Q3 2022

Source: SRM on Clarksons.

The mode of combined transport performed by Ro-Ro carrier, which specialises in the movement of trucks, trailers, semi-trailers, is becoming increasingly strategic in the mapping of European transport networks. This mode of transport enjoys greater elasticity, compared to other segments since it can adapt more flexibly to the needs of demand, according to a door-to-door logic. The elasticity of the service goes hand in hand with greater integrability with road and rail services, it then results, because of the substitution effect with the road carrier over medium to long distances, [in] a better contribution to the realisation of environmentally sustainable intermodal transport networks.<sup>55</sup>

The trend toward regionalisation, dictated by an unprecedented crisis, is creating new opportunities for Italy, which is the second largest manufacturing power in Europe and the eighth largest exporter in the world. Its privileged position in the Mediterranean basin and its high-quality industrial aptitude have made it a collection-and-transit point for both subcontracting from North

<sup>55</sup> Alis-SRM, *Scenario economico globale*, cit.

African countries and moving intermediate goods produced by Italian small to medium-sized enterprises (SMEs) and bound for Southern Europe.

## Conclusion

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The maritime economy, through which 90 per cent of world trade flows, is emblematic of the changes taking place globally, as confirmed by other SRM studies: rising freight rates are evidence that bottlenecks and restrictions on global trade make shipping more expensive, contributing significantly to inflationary pressures.

Regional routes are growing strongly in popularity, and now represent the largest share of global maritime trade.

By looking at the Mediterranean, we see how this sea is a mirror of all these changes: the region is undergoing a process of transformation, characterised by the increasing competitiveness of its ports and the areas around them.

Indeed, global competition is not limited to the seas; it also affects the entire port and land logistics chain that is at the centre of the current challenges.

This growth of international investment in Mediterranean ports goes hand in hand with a process of vertical integration that is affecting the global shipping industry.

However, this evolution – dictated, perhaps, by the need to generate greater economies of scale and ensure improved quality standards and timing of deliveries – has the effect of making these operators real players capable of significantly affecting the organisation of global value chain.

In a world where everything is changing, trade is becoming less global and more regional – and trade competition is becoming stiffer.

The Covid-19 pandemic and the Russia–Ukraine conflict have shown the vulnerability of supply chains – and regionalisation accelerates reshoring, which must be interpreted within a proximity logic, and so in a Euro-Mediterranean

scope. This is an advantage for Italy, not because a massive return on investment is to be expected but because having a shorter, less global chain makes it possible to reduce dependence on remote suppliers. Furthermore, it secures the supply of intermediate and final goods for the most strategic manufacturing sectors. Moreover, being at the centre of a shorter circle (the Euro-Mediterranean area) strengthens Italy's geo-economic role.

This context also reassigns strategic weight to Short Sea Shipping, in which Italy is an absolute leader. This is especially true in the Ro-Ro segment and the arena of Motorways of the Sea, where there has also been a strong process of ship modernisation and a major push for sustainability.



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# Euro–Mediterranean Economic Cooperation in the Age of Deglobalisation

The pandemic crisis and the war in Ukraine, with its far-reaching geopolitical implications, have shown substantial vulnerabilities in many global supply chains that revamped the debate on the future of globalisation and the potentialities and downsides of reshoring, nearshoring or friendshoring processes. Indeed, the reconfiguration of global value chains has been increasingly debated as an economic policy tool to secure the supply of critical products and establish strategic autonomy at the EU level. The prospective restructuring of the position of Italy and the EU within the international production networks may favour the revitalisation of economic cooperation in the Mediterranean and the achievement of open strategic autonomy through enhanced interdependencies between the EU and its Southern neighbours, diversification of the access to key materials, and integration of partner countries in the area into the industrial supply chains. The main objective of the report is to explore the opportunities and challenges of an improved Euro-Mediterranean economic cooperation at times of geopolitical turbulence and the emergence of deglobalising trends and processes.



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