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Overview

The Italy-MEDA emerging markets partnership: trade relationships, cross-border operations on firms' equity, and constant market shares analysis

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Abstract: In this paper, I delved into the Italy-MEDA emerging markets partnership from 2010 to 2019 using constant market shares analysis, presenting an innovative approach to understanding Italy-MEDA trade relationships. I analyzed the trade flows, cross-border operations on firms' equity, and firms' profitability by combining macro and microeconomic perspectives with data from sources ISTAT-Coeweb, UNCTAD-Comtrade, and ICE-Reprint. MEDA economies can represent an important opportunity for international business growth because destination markets for finished products and the Italian manufacturing industry's supply chain, especially following the "Arab Springs" unrest. The fluctuations in export-import dynamics, investment decisions, and firms' profitability may be attributed to this sociopolitical and economic upheaval. As a result, firms may have preferred to opt for more flexible market entry modes and lean organizations to better address perceived cultural differences on both sides. Finally, the study highlighted the need of updating policy frameworks to guide the Euro-Mediterranean partnership. Especially, it is necessary to align EU common actions with digital trade advancements.

Keywords: Italy; MEDA; Euro-Mediterranean; constant market share; trade; equity

JEL Codes: D22, F15, L60, M16

1. Introduction

Over the last decade, the production of goods and services has become increasingly fragmented at an international level, covering a wider geographical extension, and involving numerous actors in

global markets along global value chains (GVCs). Consequently, the organization of production is fragmented across global firm networks around the world, based on countries' economic advantages and specialization degrees (Hummels and Schaur, 2013; Timmer et al., 2014; Feenstra, 2015; Kowalski et al., 2015; Taglioni and Winkler, 2016; Bernard et al., 2018; Antràs, 2020; Coveri et al., 2020; Gereffi, et al., 2021; Coveri and Pianta, 2022; Coveri and Zanfei, 2023; Coveri et al., 2024; Desalegn et al., 2024).

This has resulted in firm productivity growth, technological spillovers, and know-how transfers. In other words, the spread of GVCs has had positive effects on economic growth in developed and developing countries (UNCTAD, 2019; World Bank, 2020). In this context, Italy is not only one of the major exporting countries but also one of the major economies involved in the Mediterranean region's GVCs. This is a result of the positioning of firms, which use imported inputs and, in turn, are also very important suppliers of specialized inputs purchased from foreign firms. Therefore, Italy holds a relevant position along GVCs both as a buyer and as a supplier, proving to be a fundamental hub or import-export platform for goods and services globally. Italy's role, however, must be interpreted considering the features of its production structure, characterized by a strong manufacturing component and small and medium-sized enterprises (SMEs).

In North African countries, manufacturing and extraction activities are particularly important, while in the Near Middle Eastern countries, mining, construction, commercial activities, and business services are significant, especially due to the lesser relevance of the manufacturing industry.

On the other hand, MEDA[1] emerging markets can have industries involved in several ways along GVCs, such as (i) agricultural and food production; (ii) chemical and petrochemical production; (iii) equipment and other light production; (iv) financial services and logistics; and (iv) some production to high tech. MEDA economies have then become more integrated into global markets (UNCTAD, 2019; World Bank, 2020).

However, this involvement has been hindered by unsound governance, flawed regulatory frameworks, bribery, arbitrary tax regimes, informal economy, and excessive public interventionism, finally discouraging private entrepreneurship and foreign investments (Summo and Pepe, 2008; Daniele and Malanima, 2008; D'Aponte, 2014; Pierangeli et al., 2015; Fracasso et al., 2018; Scalamonti, 2021; Scalamonti, 2024a). This means that there are some fundamental weaknesses relative to other emerging economies in the world that instead have improved their manufacturing systems (IMF, 2020).

In Figure 1, the average of the Ease of Doing Business (2020) scores over the period 2015–2019 for the MEDA economies are shown in decreasing order. Israel, Turkey, Morocco, Tunisia, and Jordan are above the reference benchmark, represented by the average value of the MEDA markets being 58%, while the values for Egypt, Lebanon, Algeria, Syria, and Libya are below the reference benchmark. As a result, I can evaluate the MEDA business environment on average as at least sufficiently adequate over the period.

I aim to analyze the Italy-MEDA emerging market partnership from 2010 to 2019. First, I provide an overview of the trade relationships and cross-border operations on firms' equity by effectively combining two quantitative approaches with aggregate data: (i) Macroeconomic data, in which the ISTAT-Coeweb and UNCTAD-Comtrade data from 2010 to 2019 on trade are processed; and (ii)

[1] The major markets on the South-Eastern shore of the Mediterranean Sea in terms of size and economic importance based on their per-capita GDP (US$) in 2019 are: Israel (44.5K), Libya (10.5K), Turkey (9.2K), Lebanon (8.9K), Jordan (4.2K), Algeria (4.0K), Tunisia (3.5K), Morocco (3.5K), Egypt (3K), and Syria (1.1K). Source: World Development Indicators (WDIs) – World Bank. These are also the major countries identified in the "Barcelona Declaration" in 1995.

microeconomic data, in which the data in the ICE-Reprint dataset from 2010 to 2017 (last available) of cross-border operations on firms' equity are instead processed. Second, I implement constant market shares analysis (CMSA).

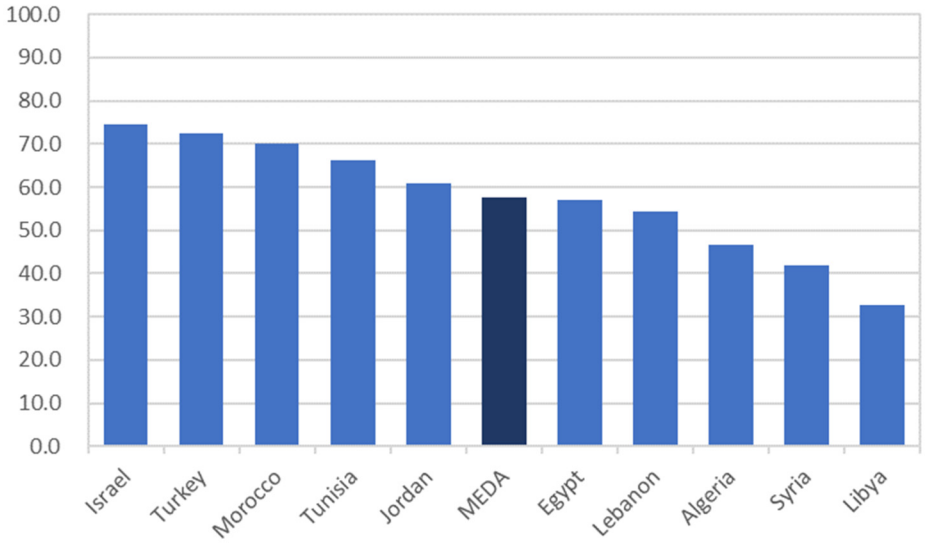

Figure 1. The Ease of Doing Business scores, percentage values.

To the best of my knowledge, this approach has never been implemented for Italy in relation to the MEDA countries' clusters. Therefore, the main contribution of my work lies in the CMSA to analyze the partnerships between Italy and MEDA emerging markets; hence, a heterogeneous cluster of countries battling with considerable governance and development challenges over the years.

As a result, I fill this gap in the international business literature, finally extending the body of knowledge. Moreover, I am contributing to the academic and scientific debate exploring the economic ties across Italy and MEDA economies, connecting this work to the international business literature on the economic complexity and the role of GVCs in economic development.

The paper has been structured as follows: Section 2 contains the related literature. Section 3 contains the empirical analysis. In Section 4, I conclude the paper.

2. Related literature

The fragmentation of production along GVCs involves both trade and FIs and can impact countries' growth in different ways (Coveri and Zanfei, 2023; Scalamonti, 2024b, 2025a). Trading tasks and unbundling foster capital mobility more than labor mobility, a relatively less mobile input.

As a result, the international fragmentation of production can pose a credible threat to workers, weakening their bargaining power, reducing their wage share, and increasing inequality in both developed and underdeveloped countries (Stansbury and Summers, 2020; Coveri and Pianta, 2022).

Internationally fragmented production requires more skill- and capital-intensive activities than domestic production and international trade because a higher level of knowledge, capabilities and competencies are required for internationalized firms and their workers to operate along GVCs than for domestic firms (Castellani et al., 2015), as well as to perform specific and geographically dispersed

value-adding activities (Bernard et al., 2018; Antràs, 2020). The offshoring of low-skill tasks to underdeveloped countries may entail a higher (lower) remuneration of high-skilled workers in developed (underdeveloped) countries, increasing (reducing) income inequality within (across) developed (and underdeveloped) countries (Van Bergeijk, 2018; Irwin, 2020).

Furthermore, the offshoring of labor-intensive activities from capital-abundant countries to labor-abundant countries may involve a higher capital-output ratio in the former, reducing the wage share in developed countries to the extent that capital acts as a gross substitute for labor (Helpman, 2017).

Nevertheless, to the extent that underdeveloped countries are characterized by a lower level of education and capital endowment than developed countries are, the value chain functions offshored by the latter to the former may involve high-skill and capital-intensive activities, therefore increasing income inequality in both developed and underdeveloped countries (Jaumotte et al., 2013; Dao et al., 2019; Coveri et al., 2024). Finally, trading tasks and unbundling may foster countries' hyper-specialization in selected value chain activities (Dedrick et al., 2010; Timmer et al., 2014; Gereffi et al., 2018; Timmer et al., 2019; Coveri et al., 2020; Giovannetti et al., 2023).

GVCs include the production and cross-border distribution of goods and services by integrating various processes, from the acquisition of raw materials to the delivery of finished products to consumers. In other words, global supply, production, and labor chains involve various stages of the production process: From product conception to design and marketing to after-sales services.

These organizational networks have significant impacts on most of the production systems of the countries involved (Taticchi et al., 2012). In other words, this global connection has contributed to the creation of complex, diversified, fragmented, and dynamic production and organizational systems. Therefore, a globalized economy characterized by internationalized firms has enabled the removal of trade barriers, the diffusion of technology and innovation, the free movement of goods, capital, and people, ultimately fostering global economic development.

Although global value chains can be to lead by big multinational corporations, they can also incorporate SMEs, which increasingly follow the large ones toward foreign markets. According to the World Bank (2020), the growth of global value chains in Europe has occurred mainly in the machinery, consumer electronics, and transportation industries, while many countries in North Africa and the Middle East (MENA) are mainly involved in the supply of raw materials and intermediate goods processed in other global sites.

The trade diversification aim, whereby countries engage in the exchange of a diverse range of products, is principally at odds with the concepts of specialization, comparative advantage, and economies of scale, and it is not very well integrated into the mainstream understanding of the gains from trade. Nonetheless, the diversification value of these products has been acknowledged in the literature, both in terms of the variety of products traded and the variety of trade partners.

Especially, this is true in the context of emerging markets with very concentrated exports, as they are sometimes exposed to adverse commodity prices or partner-specific shocks, with long-term growth consequences (Minondo, 2010; Cadot et al., 2013; Parteka and Tamberi, 2013a; Parteka and Tamberi, 2013b; Mau, 2015; Kowalski et al., 2015; Basile et al., 2018).

The literature has demonstrated that production tends to diversify in terms of the variety of products offered as income increases for less developed economies; alternatively, at higher levels of income, production tends to concentrate due to specialization. However, it has been found that the relationship between diversification and growth may be nonlinear (De Benedictis et al., 2009; Cadot

et al., 2011; Koren and Tenreyro, 2013). It can be argued that a country with a diversified import structure has more secure supply links and more affluent consumers who value this variety.

Similarly, trading with a diversified range of partners is a sign of competitiveness and can be seen as an indicator of decreased vulnerability to external shocks. Trade diversification is an indicator of the economic development and attractiveness of a country.

Access to technology, knowledge, and know-how for value creation, including access to new areas of specialization in GVCs, has become pivotal for the country's economic development (Hausmann et al., 2014). The most economically developed countries can produce large and diverse products, including unique products (Poncet and Starosta De Waldemar, 2013; McMillan et al., 2014; Jouini et al., 2016; Zhu and Li, 2017; Díaz-Mora et al., 2018; Fernandes et al., 2019).

Country export heterogeneity positively influences growth and per capita income (Aditya and Acharyya, 2012; Felipe et al., 2012; Jankowska et al., 2012; Ourens, 2013; Bartley et al., 2018), reducing output volatility and income inequality (Akhtar and Freire, 2014; Manama, 2016; Hartmann et al., 2017; Gala, 2018). Under the renewed push for technological progress and the green transition, the progressive reduction of trade barriers and transport costs, countries' production systems have rapidly transformed and acquired a new form. The focus has shifted from the simple trade of goods and services to the trade of tasks and the related services required to produce these goods and services.

Production has been organized along value chains articulated at global, regional, and local levels, in which firms from different countries can interact and participate in the value-added creation. This leads to a geographical fragmentation of production and the establishment of intense and complex industrial relations. SMEs can enter these global chains and specialize in specific tasks and services. However, participation in value chains brings with it risks and opportunities. Firms with high-quality products can export more to many markets. Therefore, Italian and MEDA firms may find in the integration along the regional value chains the best strategy to exploit their comparative advantages and overcome some difficulties in their internationalization process and in the productivity gap, especially if they are SMEs (Scalamonti, 2025b).

Finally, the ability of emerging economies to improve their manufacturing systems and diversify into more heterogeneous production is among the other key factors determining why development in some economies takes off while other countries remain underdeveloped. Complex activities in GVCs tend to be spatially concentrated and sticky (Fagerberg et al., 2018; Davies and Maré, 2020; Castellani et al., 2022; Dam and Frenken, 2022; Lee et al., 2023). Studies emphasized that only a few countries specialize in high-complex activities while many others focus on low-complex activities (Balland and Rigby, 2016; Hidalgo et al., 2018; Balland et al., 2020; Mewes and Broekel, 2022).

The external knowledge is not exploitable by all GVCs participating countries. This means that the learning process is facilitated when the countries have some features such as a strong scientific and educational infrastructure, or sophisticated levels of knowledge (Crescenzi et al., 2013; Rodrik, 2018a; Yeung, 2020; Pintar and Scherngell, 2022; Colozza et al., 2024). For instance, Rodrik (2015) argued that developing countries are turning into service economies without going through an industrialization process, or that they are undergoing a deindustrialization process, suggesting that the labor-saving technological progress can explain the patterns of development in advanced economies, while trade specialization and globalization can explain them in developing countries. Balland et al. (2018) argued that countries need higher absorptive capacity to move to more complex activities and upgrade their existing activities. Specially, increased country participation in GVCs can influence not only flows of goods and services but can also act as a source of external knowledge for developing countries, when

their industries have an adequate absorptive capacity (Morrison et al., 2012; Cheng et al., 2015; Tajoli and Felice, 2018; Ponte et al., 2019; Boschma, 2022; Scalamonti, 2024c).

In other words, the benefits from participating in GVCs can increase when this participation moves to higher value-added sectors, triggering economic growth and the country's upgrading process (Gereffi, 2011; Borin and Mancini, 2019). Pinheiro et al. (2021) showed that diversification opportunities in high-income countries lie in more complex and sophisticated activities, while such opportunities in low-income countries are restricted only to less complex and sophisticated activities.

This implies that low-complexity countries tend to be trapped in economies specialized in low-value-added production, as they will have difficulty diversifying this into high-complexity activities (Borin and Mancini, 2015). This would mean that these countries are able to make a techno-economic jump into the manufacturing paradigm (Erdoğdu and Christiansen, 2016), which may be unlikely to happen since capabilities and skills are not immediately available (Lema et al., 2018). On the other hand, high-complexity countries are not trapped by their techno-economic manufacturing paradigm, as they can more easily shift production into complex activities, given that existing capabilities and accumulated knowledge capital allow them to do so (Lee et al., 2017).

The knowledge that a country needs to develop does not reside in a few people with different skills and capabilities but resides within organizational structures. Cooperation creates human connections in which individuals involved in the socioeconomic relationships are highly specialized or draw on the knowledge of others specialized in different fields (Bombarda and Gamberoni, 2013; Castellani et al., 2014).

The data on which products are exported and to which countries reveal important information about the heterogeneity of the products and the abilities needed to produce them. The knowledge capital held by the country's firms is not directly observable, but can be defined by measuring labor skills, human capital formation, and country-specific features. In fact, governance climate, natural resource endowments, institutional quality, sociocultural factors, and infrastructural capital are pivotal in development paths of MEDA countries, especially regarding trade and customs duties after the "Arab Springs" upheavals (Funck et al., 2014). Therefore, there can be several reasons for the lack of MEDA countries' competitiveness: (i) The lack of exposure to international competition, (ii) the lack of scale in key industries, (iii) limited innovation in some sectors, or more generally, and (iv) the lack of a sound governance and institutional and business environment (El-Haddad et al., 2017; Dadush and Ali, 2018; Kamal and Zaki, 2018).

Furthermore, considering the country's production can reveal important information about the ability to produce these products. A growing body of the literature has also recognized that manufacturing system's features are important in explaining the country's economic growth.

Innovation, technology diffusion, job creation, and business opportunities play overall a crucial role in the development of manufacturing systems (Arjomand, 2016; Mijiyawa, 2017; Chikabwi et al., 2017; Ngo et al., 2019; Calza et al., 2018; Ibrahim, 2022; Ayadi et al., 2024).

Several empirical studies have then emphasized the importance of productivity in emerging and developing countries (Sun and Hong, 2011; Johnson and Noguera, 2012; Che and Zhang, 2017; Kreuser and Newman, 2018; Cieślik et al., 2018; Rahmati and Pilehvari, 2018; Xu et al., 2020; Abdu et al., 2021), while other studies have referred to the Middle Eastern and North African region (Hendy and Zaki, 2013; Bassem, 2014; Arjomand, 2016; Samargandi, 2018; Ibrahim, 2022; Ayadi et al., 2024; Kamarudin et al., 2024). Therefore, analyzing productivity with reference to MEDA economies is also pivotal in our study.

3. Empirical analysis

3.1. Italy-MEDA emerging markets partnership

In Figure 2, the trade dynamics between Italy and the MEDA markets from 2010 to 2019 are highlighted. Table 1 shows the Grubel-Lloyd (1971) index for sectoral trade specialization in 2015 and 2019. 1 shows the intensive and extensive margins for Italy-MEDA manufacturing trade from 2011 to 2019, with manufacturing industries grouped by technological intensity, as well as the relative annual manufacturing and primary sectoral shares. In Appendix A of Table A1, the evidence of the top three sectors for goods traded over the period 2015-2019 is shown. Table A2, instead, shows the intensive and extensive margins and the relative annual manufacturing and primary sectoral shares for each MEDA emerging market.

Figure 2. The manufacturing trade dynamics, trends on base = 2010, and imports on the second axis**.**

The most interesting evidence from Figure 2 emerges after the period of "Arab Springs" upheaval in 2011–2012. In Libya, there was a significant decline in both flows in 2011. Trade with Italy mainly involves the extractive and hydrocarbon sectors; thus, after 2011, the flow was interrupted but returned to preriot levels within a few years. Additionally, special economic zones (SEZs)[2] have emerged in

[2] The Special Economic Zones (SEZs) are geographically defined areas, governed in a separate way, with the aim of promoting foreign investments and increasing employment in the manufacturing industry. These zones permit the promotion and enhancement of industrial systems along GVCs, increasing countries' attractiveness and competitiveness. Firms located within them can benefit from a duty-free environment, facilitating knowledge capital accumulation.

specific areas of the country, contributing to changes in trade flow, especially exports (UNCTAD, 2019; OBG, 2023).

Table 1. The sectorial trade specialization index.

	Morocco		Algeria		Tunisia		Libya		Egypt	
	2015	2019	2015	2019	2015	2019	2015	2019	2015	2019
AA	0.55	0.34	0.13	0.28	0.45	0.39			0.86	0.77
BB	0.35	0.28	0.01	0.01	0.14	0.11	0.01	0.01	0.08	0.07
CA	0.26	0.40	0.17	0.18	0.30	0.29	0.02	0.01	0.80	0.79
CB	0.86	0.77	0.36	0.41	0.79	0.79	0.01	0.05	0.57	0.63
CC	0.22	0.24	0.01	0.02	0.20	0.30			0.02	0.02
CD			0.77	0.98	0.11	0.05	0.30	0.68	0.56	0.75
CE	0.35	0.41	0.36	0.55	0.51	0.58	0.62	0.12	0.64	0.92
CF	0.16	0.23		0.01		0.01			0.03	0.07
CG	0.07	0.09	0.01	0.01	0.60	0.75	0.01		0.65	0.91
CH	0.38	0.24	0.02	0.16	0.34	0.45	0.66	0.66	0.98	0.98
CI	0.05	0.06	0.01	0.21	0.93	0.88	0.01	0.02	0.05	0.05
CJ	0.89	0.06	0.01	0.01	1.00	0.92		0.01	0.08	0.08
CK	0.03	0.04	0.01	0.01	0.38	0.37	0.03	0.01	0.04	0.04
CL	0.62	0.38	0.01	0.03	0.94	0.54	0.02	0.01	0.11	0.08
CM	0.06	0.01	0.01		0.89	0.99			0.16	0.09
	Israel		Jordan		Lebanon		Syria		Turkey	
AA	0.31	0.62	0.02	0.04	0.01	0.31	0.33	0.90	0.28	0.12
BB	0.23	0.75		0.01	0.02	0.11	0.43	0.04	0.64	0.15
CA	0.18	0.12	0.10	0.01	0.01	0.03	0.40	0.70	0.90	0.88
CB	0.26	0.19	0.59	0.15	0.03	0.05	0.64	0.70	0.73	0.66
CC	0.01	0.08	0.04	0.01	0.03	0.03	0.01		0.28	0.41
CD	0.91	0.92		0.02					0.13	0.81
CE	0.95	0.90	0.46	0.81	0.13	0.37	0.01	0.01	0.55	0.63
CF	0.19	0.29	0.01	0.01	0.01		0.01		0.07	0.09
CG	0.47	0.51	0.01	0.01	0.03	0.06	0.31	0.01	0.94	0.95
CH	0.48	0.26	0.62	0.36	0.23	0.13	0.01		0.82	0.77
CI	0.97	0.88	0.03	0.02	0.02	0.02			0.66	0.58
CJ	0.36	0.16	0.02	0.04	0.02	0.02		0.01	0.78	0.85
CK	0.21	0.21	0.01	0.02	0.01	0.01	0.07	0.01	0.25	0.52
CL	0.15	0.29	0.08	0.03	0.02	0.01		0.48	0.82	0.60
CM	0.58	0.45	0.04	0.09	0.10	0.02	0.03	0.01	0.34	0.39

Algeria shows a trade flow resembling a “vise”. Exports increased while imports decreased until 2015. However, the trend reverses after this year, with exports decreasing and imports increasing. This evidence could be attributed to the country’s accumulation of foreign exchange reserves for competitive purposes. In other words, a competitive depreciation of the exchange rate may reflect a possible Balassa-Samuelson effect, potentially originating from the hydrocarbon sector (Chong et al., 2012). This effect occurs when there is a rapid increase in exports compared to imports or when imports decrease due to increased use of imported goods in the domestic market, resulting in cost savings (Barajas et al., 2010). Price increases in exports compared to imports may have also led to a contraction in production in non-tradable goods sectors, thus fostering exports through a depreciation of the exchange rate. Additionally, high population growth rates and increasing urbanization in the country may have prompted Algerian governance to allocate a significant portion of energy resources for domestic use (Tebbal and Lehzam, 2011; Dobbs et al., 2011; Kresl, 2013; Goerzen et al., 2014; Castells-Quintana, 2017; Santangelo, 2018; UNHSP 2020).

Imports from Egypt have experienced the highest growth. Morocco tends to be primarily a supply market. Syria shows a significant decline in trade flow with Italy. Israel remains a well-established destination market. On the other hand, Turkey is an important supply market.

Finally, MEDA economies have undergone a season of structural reforms to upgrade and make them more attractive to foreign investors over the years (Kern and Salhi, 2011; Martin et al., 2012; Moran, 2016), and they are member countries in the Euro-Mediterranean partnership (Georgantopoulos and Tsamis, 2011; Chami et al., 2012; Peeters et al., 2013; El-Said and Harrigan, 2014; Mossallam, 2015; Radl, 2017).

An index frequently used in applied analysis of international trade is the Grubel-Lloyd (1971) index[3], which is particularly useful as a specialization index for assessing the extent of industry trade when computed for a detailed sectoral classification. However, since I compute it for aggregate sectors, it should be interpreted with caution (Table 1). The ATECO (2007) sectoral code[4] aggregates industries into several macro-sectors using two letters as follows: (AA) Agricultural, forestry and fishing products; (BB) mining products; (CA) food, beverages and tobacco; (CB) textiles, clothing, leather and accessories; (CC) wood, wood products, paper and printing; (CD) coke, and oil-derivative products; (CE) chemical products; (CF) pharmaceutical, chemical-medicinal and botanical products; (CG) rubber products, plastic materials, and non-metallic mineral processing products; (CH) base metals and metal products; (CI) computers, electronic and optical equipment; (CJ) electrical equipment; (CK) machinery and other equipment; (CL) transport means; and (CM) other manufacturing products.

A low GL means that the country not only specializes in that industry but is also a specific inter-industry specialization, based on comparative advantages, especially low labor costs, than on product diversification, which would be highlighted by a higher GL, when the intra-industry trade is prevalent.

In other words, countries' sectoral trade specialization could largely reflect the differences existing in their manufacturing systems. Most MEDA economies are characterized by weak manufacturing specialization and limited exports. For instance, in Algeria and Libya, the extractive sector became even more important after the "Arab Spring", which suggests that these countries are far from achieving manufacturing diversification. In MEDA countries where exports have grown, these have been driven by the transformation of semifinished products into finished products, which are subsequently exported to foreign markets (Sekkat, 2012; Giovannetti, 2013). The exports were

[3] This index is defined for each *k*-sector of *i*-country as: $GL = 1 - (|X - M|) / (X + M)$. The index ranges from 0 to 1. The closer GL is to 0, the greater the extent of inter-industry trade – the *i*-country is completely specialized or de-specialized in the *k*-sector. The closer GL is to 1, the heavier the weight of intra-industry trade – the value of exports (X) and imports (M) of the *k*-sector are quite close.

[4] The ATECO (2007) sectoral code is a standardized classification system for sectors approved by the Italian National Statistical Institute (ISTAT) and based on the firm's core business, fostering data collection and comparison across different sectors. Pavitt's (1984) industry taxonomy is the following: (i) Traditional industries (or supplier dominated), in which firms seeking cost-efficiency and having a limited innovative capacity, such as those in the textile, clothing, leather, footwear and leather goods, wood and wood products, publishing and printing, other manufacturing industries; (ii) industries with strong economies of scale (or scale intensive), which includes sectors in which medium-large sized firms operate in derived food products, drinks and tobacco, paper and paper products, petroleum products, basic chemistry, soaps, detergents and cosmetics, synthetic and artificial fibers, rubber and plastic articles, non-metallic mineral products, metallurgy and metal products, household appliances, cables, electrical products and components, motor vehicles, and related components; (iii) specialized industries (or specialized supplier), in which mostly small and very small highly specialized firms operate and possess significant technological know-how, which often constitute the larger firms' suppliers, which thus includes the machines and mechanical equipment, instrumental electromechanics, naval and railway constructions; and (iv) highly technologically intensive industries (or science based), includes the most technologically advanced sectors where innovative and capital-intensive firms invest in R&D, such as the aerospace, derived chemical products, pharmaceutical products, electronic, optical and computer products.

concentrated in raw materials and labor-intensive production. Additionally, inter-industry trade is likely to have largely occurred across markets with similar features; moreover, intra-industry trade is likely to have occurred primarily toward developed economies seeking more natural resources and raw materials to support their manufacturing systems (Calza et al., 2010; Venables, 2011; Giovannetti et al., 2015; Noutary and Luçon, 2013; Hanieh, 2014; Ferragina, 2016; Radl, 2017).

Finally, I also observe the Italy MEDA trade dynamic considering the intensive and extensive margins[5], and the relative annual shares of the manufacturing and primary sectors (Table 2).

Table 2. The intensive and extensive margins and sectoral shares.

	Manufacturing				Margins		Shares	
	Supplier dominated	Scale intensive	Specialized supplier	Science based	Intensive	Extensive	Manufac-turing	Primary
	ITALY-MEDA							
2011			0.01		0.01	0.02	0.76	0.24
2012	−0.01		−0.03		−0.04	0.07	0.70	0.30
2013	0.01		0.04	0.01	0.06		0.72	0.28
2014						−0.04	0.74	0.26
2015	−0.02	−0.02	−0.05	−0.02	−0.11	−0.07	0.77	0.23
2016	−0.01		0.03	−0.01	0.01	−0.05	0.81	0.19
2017		−0.01	−0.01	0.01	−0.01	0.05	0.77	0.23
2018	0.01	−0.01	−0.01		−0.01		0.76	0.24
2019	−0.01	−0.01	−0.05	−0.02	−0.09	−0.02	0.75	0.25
μ	−0.01	−0.01	−0.01	−0.01	−0.02	−0.01	0.75	0.25
σ	0.01	0.01	0.03	0.01	0.05	0.05	0.03	0.03
	MEDA-ITALY							
2011	0.01	0.01	0.01	0.01	0.04	−0.20	0.34	0.66
2012	−0.02	−0.02	−0.01		−0.05	0.25	0.23	0.77
2013		0.01			0.01	−0.21	0.30	0.70
2014			0.01	0.01	0.02	−0.22	0.40	0.60
2015	−0.02			−0.02	−0.04	−0.17	0.46	0.54
2016			0.06		0.06	−0.06	0.52	0.48
2017		0.03	0.04	0.01	0.08	0.10	0.50	0.50
2018	0.01	0.03	0.02		0.06	0.15	0.46	0.54
2019		−0.01	−0.01		−0.02	−0.05	0.48	0.52
μ	−0.01	0.01	0.02	0.01	0.02	−0.05	0.41	0.59
σ	0.02	0.02	0.02	0.01	0.04	0.16	0.09	0.09

An increase in the extensive margin can contribute to productivity growth and per capita income through the trade of a wide variety of intermediate goods (El-Haddad et al., 2017; Dadush and Ali, 2018; Kamal and Zaki, 2018). In other words, as the per capita income of a country grows, the extensive margin also grows rapidly. As a result, the country produces, exports, and imports more goods. A nonlinear increasing relationship between intensive and extensive margins has been found (El-Enbaby et al., 2015). Countries that present a wider variety of traded goods are those that trade

[5] Intensive margin = $(X_{k,t} - X_{k,t-1}) / X_{t-1}$; extensive margin = $[(X_t - X_{t-1}) / X_{t-1}] - [(X_{k,t} - X_{k,t-1}) / X_{t-1}]$. In the index computed by Amiti and Freund (2010), the extensive and intensive margins of *i*-country depend on the value of exports. This decomposition is useful for analyzing the export growth of a country over time. Particularly, Amiti and Freund (2010) have decomposed the export growth of a country into three parts: (i) the increase in export growth due to the growth in products that were exported – intensive margin; (ii) the contraction in export growth due to products exported in the base year but no longer exported in the final year; and (iii) the increase in export growth due to the export of new products. Finally, they have defined the extensive margin as [(iii) – (ii)], i.e., the new-goods component minus the disappearing-goods component. Therefore, we have computed the extensive margin as a difference between export growth and the intensive margin.

more on average (Domat et al., 2012; Kahia, 2017; Brunelin et al., 2018). However, intensive margin growth occurs only after reaching and exceeding a given level of the extensive margin (Bensassi et al., 2011; Ghali et al., 2013). An increase in the variety of goods traded contributes to countries' economic growth and trade (Grossman and Helpman, 2018). As a result, bilateral trade across countries depends on maintaining the network of relations between countries and diplomatic initiatives (George, 2012; Baldwin and Jaimovich, 2012; Roux and Péridy, 2012; Smith, 2015; Ait-Ali, 2019; Gourdon et al., 2019; EU, 2019).

In conclusion, the Italy MEDA trade flow is stable and driven above all by the search for cost advantages derived from the outsourcing of business services or by the search for advanced skills in the manufacturing industry (López-Cálix et al., 2010; Karam and Zaki, 2013; Karam and Zaki, 2015; Ferragina, 2016; Alcidi et al., 2017).

3.2. Cross-border operations on the firms' equity

Foreign direct investments (FDIs) have long been strongly related to cross-border merchandise trade (Medvedev, 2012; Atala et al., 2016; Hakimi and Hamdi, 2016; Javorcik et al., 2017; OECD, 2018). This interdependence has grown and changed quantitatively and qualitatively in the last decade, consequently leading to changes in international trade costs and technology transfer, as well as due to ex-post evaluation mechanisms of the effects and impacts of capital movements.

FDIs and the merchandise trade have traditionally been thought of as either alternative or complementary ways of serving foreign markets. FDIs can be an effective means of establishing similar productive activities in a different country. On the one hand, FDIs can incentivize production organizations in GVCs.

Therefore, FDIs and merchandise trade are sometimes considered complementary activities. On the other hand, products are often closely related to services (Heuser et al., 2017), and in many instances, modern services are organized around the agricultural and manufacturing industries to facilitate their production (Frija et al., 2015; Carbone, 2017). The services are typically defined as those products that are not physically embodied in a product, but they can determine changes in other goods consumption, personal habits, and behaviors. Therefore, they can have features distinguishing them from physical goods, as well as characteristics making them closely related to these.

The operations on firms' equity recorded in the ICE-Reprint dataset are related to cross-border mergers and acquisitions, which may involve brownfield or greenfield investments. Controlling, parity, and minority equity participation in the subsidiary, affiliate, or joint ventures are recorded, as well as equity participation in strategic alliances, provided that the foreign investor's stake allows them to have a significant influence on corporate governance. As a result, speculative investments, or those without strategic repercussions on corporate governance, are not considered. The presence of Italian firms in MEDA markets from 2010 to 2017 appears to be stable, as does the presence of MEDA investors in Italy, except for Egyptian investors (Table 3). Table A3 in Appendix A reports the details of the number of firms with controlling, parity, and minority participation. Firms tend to concentrate mainly on the utilities and advanced services sectors, which are closely connected to the manufacturing sector and where large manufacturing firms operate (Mariotti and Mutinelli, 2017).

Table 3. The foreign firms that participated in percentage values.

	CONTROLLING, PARITY, AND MINORITY EQUITY PARTICIPATIONS							
	MEDA firms owned by Italian firms							
	2010	2011	2012	2013	2014	2015	2016	2017
Morocco	13.8	12.6	13.3	13.6	14.5	15.1	14.8	15.1
Algeria	10.7	9.87	9.25	8.99	9.02	8.74	8.98	8.74
Tunisia	29.9	29.1	29.2	29.3	28.5	28.0	28.3	28.4
Libya	3.59	4.21	4.13	4.03	3.82	3.67	3.50	3.34
Egypt	10.0	10.6	10.2	10.1	10.1	10.3	9.36	9.47
Israel	2.93	2.51	2.47	2.32	2.85	2.87	2.99	2.80
Jordan	1.03	0.88	0.86	0.86	0.85	0.79	0.83	0.73
Lebanon	1.76	2.20	2.10	2.08	1.94	1.95	1.97	2.00
Syria	0.51	0.50	0.49	0.49	0.42	0.37	0.38	0.40
Turkey	25.8	27.5	28.0	28.2	28.0	28.3	28.9	29.0
MEDA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Italian firms owned by MEDA firms							
Morocco	0.66	0.64	0.61	0.57	0.00	0.00	0.00	0.00
Algeria	1.97	1.91	1.83	1.72	2.25	3.78	2.26	2.33
Tunisia	3.95	4.46	4.88	4.02	3.37	2.70	1.89	1.95
Libya	6.58	5.10	4.27	4.60	5.06	4.86	3.40	3.50
Egypt	5.26	1.91	2.44	4.60	3.93	4.86	30.9	27.2
Israel	52.0	58.6	60.4	55.2	55.1	53.0	38.1	41.2
Jordan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lebanon	1.32	0.64	0.61	1.15	0.56	0.54	0.38	0.39
Syria	0.66	0.00	0.00	0.57	0.56	0.54	0.00	0.00
Turkey	27.6	26.8	25.0	27.6	29.2	29.7	23.0	23.3
MEDA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

In the presence of increasingly open, fragmented, and heterogeneous production systems, national system competitiveness is highly important. Consequently, firms' competitiveness increasingly depends on their ability to continuously improve productivity, effectiveness, and efficiency to create value.

Recent evidence has shown better performance among internationalized firms than among those operating only in domestic markets (Barba Navaretti et al., 2011; Altomonte et al., 2013; Giovannetti and Marvasi, 2017). Internationalized firms tend to have higher average profitability per employee; otherwise, they are more capable of fully implementing productive and organizational innovation (Cristadoro and D'Aurizio, 2014; Rodrik, 2015; Curtis, 2016; Borin and Mancini, 2016; Bentivogli and Mirenda, 2017). As a result, internationalized firms tend to be more effective and efficient on average and possess more skills, know-how, managerial capabilities, scale advantages, and networking opportunities (Taticchi et al., 2012; Calza et al., 2013; Castellacci, 2015; Ferrucci et al., 2018).

Therefore, we calculated the average profitability of firms recorded from 2010 to 2017 in the ICE-Reprint dataset as the ratio between the cumulative turnover and the average annual cumulative number of employees. When interpreting this index, it should also be considered that high inflation can cause a virtual increase in turnover without a real increase in profitability. In fact, price changes affect the numerator, as the denominator is expressed in monetary terms.

Figure 3 clearly shows the differences in the average profitability performance of MEDA firms owned by Italian firms (a) and Italian firms owned by MEDA firms (b). The average profitability of (a) remains relatively stable over the period and is significantly lower than that of (b), at least until 2015. However, after this year, the former begins to rise, while the latter declines. Moreover, the average profitability of (b) shows an irregular trend that, so to speak, gives it a peculiar "camel's back" shape. The profitability gap could result from inefficiency in the economic organization of production processes in MEDA economies (*x*-inefficiency). This could be the result of inefficiency in country

systems because they suffer from structural inertia in institutional change and negative externalities from obsolete manufacturing systems.

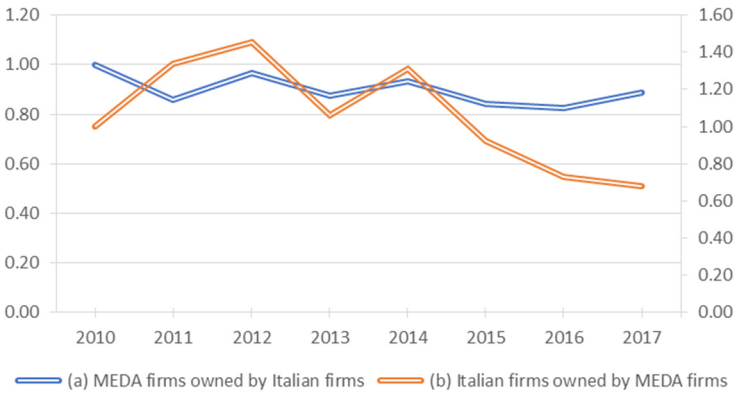

Figure 3. The firms' average profitability, trends on base = 2010, and (b) on the second axis.

However, I highlight that this profitability index must be interpreted with caution. It can hide the effects of sectoral and dimensional compositions of firms. In other words, the different sizes of firms (small, medium, and large) included in the sample of each country, given the structurally different features of firms' profitability, are inevitably reflected in the results. Therefore, it is evident that such a composition cannot be the same in every country. Indeed, the average profitability could experience a negative (positive) effect due to the cumulative number of employees whenever it is higher (lower) than the opposite effect due to cumulative turnover. Finally, the ICE-Reprint dataset does not enable me to capture firms' sectoral composition in the cluster of MEDA economies.

Figure A1 in Appendix A shows for each country the average profitability of MEDA firms owned by Italian firms and Italian firms owned by MEDA firms.

3.3. Constant market shares analysis

3.3.1. Methodology and modeling

The CMSA is a technique used to shed light on the factors underlying the comparative export performance of a country or cluster of countries to analyze patterns and trends and formulate trading policies. The CMSA is a technique for decomposing the growth in a country's exports into components that correspond to holding its market shares constant at various levels. It is designed to help better understand the relative importance of the various possible drivers of export growth. It is a relatively simple way of analyzing complex trade patterns. It is based on solid theoretical and statistical foundations and concisely summarizes key aspects of a large volume of data.

Finally, it can provide insights into countries' competitiveness useful in designing export strategies as well as in evaluating the impact of existing trade policies. However, measurement errors in the data flow directly into the results. Indicators should be taken at an appropriate level of aggregation. Trade shares vary from year to year, and when the level of disaggregation is higher.

This technique is based on the construction of an identity equation and is the first and most powerful descriptive method indicating whether a given country's comparative export performance reflects changing market shares based on total export trends. In other words, the CMSA is useful to

analyze the international trade of countries descriptively. It consists of a method for decomposing the change in the market share of an exporting/importing country into a series of components, enabling the identification of the contribution of each component to determine the outcome.

Several versions of the CMSA have been formulated in the literature (Leamer and Stern, 1970; Richardson, 1971; Fagerberg and Sollie, 1987), each of which has implemented its own technique for computing the various components or effects. However, what all CMSA types have in common is that country's trade may grow faster or slower than the benchmark because its exports are concentrated in commodities for which demand is growing relatively quickly or slowly, otherwise, because its exports are dominated by countries that are growing relatively quickly or slowly because the economic conditions are gradually becoming more or less favorable, or even some combination of these, but trading agreements and partnerships can help to mitigate these effects.

Therefore, CMSA allows us to investigate a country's exports to identify the reasons for their failure or growth. This method permits us to distinguish (i) the regions in which exports are mainly directed, (ii) whether exports are concentrated in certain industries, and (iii) whether countries can adapt exports to changes in the business environment and competitiveness factors. Finally, CMSA analysis can be a useful tool for helping policy-makers formulate industrial and trade policies by providing them with significant information about the country's export process.

In this study, I adopted the formulation proposed by Fagerberg and Sollie (1987), which considers the change in market share rather than the absolute change in exports. Therefore, in my version, five composition effects are shown (Bonanno, 2014). In addition to the *product* and *market effects,* the two static components, the *competitiveness effect*, the *product adaptation effect*, and the *market adaptation effect,* the three dynamic components, are also considered. The first dynamic component captures the contribution of competitiveness factors to explaining the change in market share during a specific period. In other words, it measures the exporting country's ability to penetrate each product market. The other two express information about the country's ability to change the composition of its exports toward products and markets, showing expansive trends.

Our model has been mathematically formulated as below using the following equations and notations, where: I is the Italy index, i is the MEDA country or area index, h is the manufacturing sector index, o is the antecedent-period index, t is the subsequent-period index, x is the manufacturing export, X is the total export, and m is the Italian manufacturing imports from the i-MEDA country. The data source is UNCTAD-Comtrade/trade in goods and services. The computations related to the model were reported in the supplementary file attached to this study.

For the Italian manufacturing export shares to i-MEDA country on Italian total export [i-MEDA/ITALY], the indicators of interest are [1] and [2]:

$$Q_I = \frac{x_i}{X} \; ; \tag{1}$$

$$a_I = \frac{x_{hi}}{x_h} \; ; \quad b_I = \frac{x_h}{x} \; ; \quad c_I = \frac{x}{X} \; ; \quad d_I = \frac{x_i}{x} \; . \tag{2}$$

Here, Q_I is a vector $(1 \times i)$, a_I is a matrix $(i \times h)$, b_I is a vector $(1 \times h)$, and d_I is a vector $(1 \times i)$. While the relationships across the indicators are [3]:

$$ab_I = \frac{x_{hi}}{x} \; ; \quad bc_I = \frac{x_h}{X} \; ; \quad cd_I = Q_I \; ; \quad abc_I = \frac{x_{hi}}{X} \; . \tag{3}$$

For the Italian manufacturing import shares from i-MEDA country on i-MEDA country total export [ITALY/i-MEDA], the indicators of interest are [4] and [5]:

$$Q_i = \frac{m}{X} \ ; \qquad [4]$$

$$a_i = \frac{m_h}{x_h} \ ; \quad b_i = \frac{x_h}{x} \ ; \quad c_i = \frac{x}{X} \ ; \quad d_i = \frac{m}{x} \ . \qquad [5]$$

Here, Q_i is a vector (1×1), a_i is a vector $(1 \times h)$, b_i is a vector $(1 \times h)$, c_i is a vector (1×1), d_i is a vector (1×1). While the relationships across the indicators are [6]:

$$ab_i = \frac{m_h}{x} \ ; \quad bc_i = \frac{x_h}{X} \ ; \quad cd_i = Q_i \ ; \quad abc_i = \frac{m_h}{X} \ . \qquad [6]$$

Finally, the composition effects and overall equation are shown below. The composition effects were computed in this way [7]:

I.	competitiveness effect:	$[\sum_h (\boldsymbol{a}^t - \boldsymbol{a}^o)_h \, \boldsymbol{b}_h^o \, \boldsymbol{c}^o]\boldsymbol{X}$;
II.	product effect:	$[\sum_h (\boldsymbol{b}^t - \boldsymbol{b}^o)_h \, \boldsymbol{a}_h^o \, \boldsymbol{c}^o]\boldsymbol{X}$;
III.	market effect:	$[(\boldsymbol{c}^t - \boldsymbol{c}^o)\boldsymbol{d}^o]\boldsymbol{X}$;
IV.	product adaption effect:	$[\sum_h (\boldsymbol{a}^t - \boldsymbol{a}^o)_h \, (\boldsymbol{b}^t - \boldsymbol{b}^o)_h \, \boldsymbol{c}^o]\boldsymbol{X}$;
V.	market adaption effect:	$[(\boldsymbol{c}^t - \boldsymbol{c}^o)(\boldsymbol{d}^t - \boldsymbol{d}^o)]\boldsymbol{X}$.

[7]

The relationship across the five composition effects is as follows [8]:

$$\Delta \boldsymbol{Q} = (\boldsymbol{Q}^t - \boldsymbol{Q}^o)\boldsymbol{X} = (\boldsymbol{c}\boldsymbol{d}^t - \boldsymbol{c}\boldsymbol{d}^o)\boldsymbol{X} = \boldsymbol{I} + \boldsymbol{II} + \boldsymbol{III} + \boldsymbol{IV} + \boldsymbol{V} \ . \qquad [8]$$

The *competitiveness effect* represents the contribution to the overall variation in market share due to changes in micro-quotes $(\boldsymbol{a}^t - \boldsymbol{a}^o)$ weighted with the product composition $\boldsymbol{b}^o$ and the market's contributions at initial time $\boldsymbol{c}^o$. It is the effect that captures the difference between the actual export growth and the growth that would have occurred had the export shares remained constant. A positive value is interpreted as an increase in export competitiveness.

The *product effect* is calculated as the change in the commodity composition of export markets $(\boldsymbol{b}^t - \boldsymbol{b}^o)$ weighted for the initial micro-quote $\boldsymbol{a}^o$ and weights for the $\boldsymbol{c}^o$. It is the part of growth attributed to the product composition of the country's exports. If it is positive, exports are concentrated in products in which demand is growing relatively quickly.

The *market effect* represents the contribution to the variation of the overall share provided by the changes occurring in the geographical composition of the market $(\boldsymbol{c}^t - \boldsymbol{c}^o)$ weighted for the macro-quote of the initial period $\boldsymbol{d}^o$. It is the part of growth attributed to the market composition of the country's exports. If it is positive, exports are concentrated in markets that are experiencing relatively rapid growth.

The *product adaptation effect* contributes to explaining the change in commodity structure of the exporting country given by the change in micro-quotes $(\boldsymbol{a}^t - \boldsymbol{a}^o)$ weighted for the change in product composition $(\boldsymbol{b}^t - \boldsymbol{b}^o)$ and the market's contributions at initial time $\boldsymbol{c}^o$. This additional effect refers to the adaptation effect when changes occur in the exported products' structure.

The *market adaptation effect* is the contribution of the variation of the initial macro-quotes $(\boldsymbol{d}^t - \boldsymbol{d}^o)$ together with the change in the geographical composition $(\boldsymbol{c}^t - \boldsymbol{c}^o)$. This other additional effect instead refers to the adaptation effect when changes occur in the destination markets composition. All effects then are multiplying by total export $\boldsymbol{X}$ to obtain their amount.

3.3.2. Results and discussion

A summary of the results is shown in Table 4. For each side, the first two columns show the average value (μ) and the standard deviation (σ) for the time-series data. Instead, the last columns give,

on average, the percentage of market shares considering the MEDA as a whole market over the period 2010-2019. Turkey, Algeria, Egypt, and Tunisia are the top three MEDA markets in terms of shares held by Italy, or in other terms, they are the MEDA markets served by Italy. Moreover, Tunisia, Turkey, Egypt, and Morocco are the top three MEDA markets based on the prominence of Italy as a destination market for their productions.

Table 4. Summary of CMSA results.

	i-MEDA/ITALY Q			ITALY/*i*-MEDA		
	μ	σ	(%)	μ	σ	(%)
Morocco	0.32	0.02	6.51	2.56	0.24	5.32
Algeria	0.71	0.14	14.2	0.16	0.08	0.68
Tunisia	0.52	0.07	10.4	13.5	0.75	18.9
Libya	0.17	0.12	3.33	0.26	0.15	0.57
Egypt	0.53	0.08	10.8	2.59	0.31	6.25
Israel	0.47	0.03	9.53	1.25	0.15	7.07
Jordan	0.11	0.01	2.16	0.38	0.05	0.25
Lebanon	0.16	0.02	3.35	0.50	0.09	0.20
Syria	0.06	0.06	1.13	0.65	0.47	0.26
Turkey	1.92	0.20	38.7	4.48	0.64	60.5
MEDA	4.96	0.55	100.0	3.01	0.41	100.0

Changes in the national structure of trade (*competitiveness effect*) and changes in geographical composition (*market effect*) turned out to be of great importance for the export performance of Italy and MEDA markets over the period. In Tables A4, A5, and A6 in Appendix A, the time-series data of the market shares, their variations, composition effects, and components are shown.

Diversifying production could be easier when products incorporate similar know-how. In other words, shifts toward productions relatively similar to what countries already produce well are more likely to occur (Scalamonti, 2024c). However, how exactly this shift occurs, particularly what role governance and industrial policy play, is difficult to establish (Scalamonti, 2024b). An industrial policy enabling this change should allow firms to develop their capabilities but should also include a set of liberal interventions fostering worker migrations and encouraging investments, as well as a set of regulatory interventions correcting economic externalities and market failures or incentivizing investments in seeking particular skills (Kichou, 2011; Bernard et al., 2011; Testas and Karagiannis, 2012; Mako, 2012; Loewe, 2013; Rossi, 2013; Atallah and Srour, 2014; El-Mokri, 2016; Ayadi and Mattoussi, 2016; Gignoux and Suwa-Eisenmann, 2017; Farzanegan et al., 2020; Grumiller et al., 2020).

Less developed countries tend to produce few relatively standardized goods (Poncet and Starosta De Waldemar, 2013; McMillan et al., 2014; Jouini et al., 2016; Zhu and Li, 2017; Díaz-Mora et al., 2018; Fernandes et al., 2019). As a result, export heterogeneity positively influences a country's growth and per-capita income (Aditya and Acharyya, 2012; Felipe et al., 2012; Jankowska et al., 2012; Ourens, 2013; McMillan et al., 2014; Bartley et al., 2018), ultimately reducing output volatility and income inequality (Akhtar and Freire, 2014; Manama, 2016; Hartmann et al., 2017; Gala, 2018). Finally, diversification in countries' exports can also be a valid indicator of better growth prospects (Hoekman and Nicita, 2011; Bahramitash and Esfahani, 2016; Hasanov and Cherif, 2019; EU, 2020).

This means that the ability of some MEDA economies to improve their manufacturing systems and diversify into more heterogeneous productions has been a key factor in determining why growth has taken off in some MEDA economies, while it has remained stagnant in others.

4. Conclusion

4.1. Concluding remarks and contribution

With the accentuation of globalization in the Nineties, the world economy began experiencing increasing levels of integration of national production systems along GVCs. Facilitating foreign investments and nexus across investors and local firms is the core of the strategy of economic systems based on GVCs and led by sound governance (Van Bergeijk, 2013). Creating an institutional and business environment conducive to innovation and technology transfer is the other aim in creating effective GVCs (Hummels and Schaur, 2013; Timmer et al., 2014; Feenstra, 2015; Kowalski et al., 2015; Taglioni and Winkler, 2016; Gereffi, et al., 2021).

This led to different countries' sectoral specializations (Melitz and Redding, 2013) and the fragmentation of the manufacturing process at different production sites around the world, resulting in increasing trade flows (Baldwin and Venables, 2013; Antràs, 2020; Fernandes et al., 2022). While it is true that trade in goods and services has increased, another aspect not to be overlooked when interpreting international trade data is the possibility of goods being double counted at customs (Koopman et al., 2012; Wang et al., 2013; Montalbano and Nenci, 2014; Los et al., 2015; Van Bergeijk, 2024).

In a globalized world, firms seeking internationalization could prefer entry modes into emerging markets, mostly focusing on trade agreements and joint ventures, which are more advantageous and secure (López-Cálix et al., 2010; Karam and Zaki, 2013; Karam and Zaki, 2015; Ferragina, 2016; Alcidi et al., 2017). The persistence of macroeconomic uncertainties and sociopolitical unrest in MEDA contexts thus requires Italian firms to wait to invest in these emerging markets to make greater economic and managerial efforts to seek adaptability to different contexts (Yildiz and Fey, 2012; Calza et al., 2015; Singh et al., 2021; Scalamonti, 2024d).

Therefore, MEDA economies can represent an important opportunity for Italian firms, even if they can be perceived as culturally distant, because a smaller cultural distance, for example, across mature markets, does not necessarily translate into less uncertainty for business decision-makers.

Following the instability caused by the "Arab Springs", firms that needed a local headquarters fled from the MEDA emerging markets. As a result, Italian firms could prefer more flexible entry modes and lean organizations to mitigate perceived cultural differences on both sides, which require little staff to function effectively and often resort to lean contractual forms such as licensing, franchising, spot contracts, or other forms characterized by low resource specificity and relational low uncertainty (Dei Ottati, 2017).

MEDA economies can represent an important opportunity for business growth abroad for Italian firms that want to approach new markets effectively without giving up being lean or flat, or looking for low sunk costs to internationalize them (Chakrabarti, 2011; Brouthers, 2012; Matarazzo and Resciniti, 2014; Cantele and Campedelli, 2016; Ruzzier et al., 2017; Delbufalo and Monsurrò, 2019; Scalamonti, 2024d).

In other words, an effective business networking strategy, if adequately combined with adaptation and standardization strategies, for instance, can be a powerful tool for making tangible and transparent the products and services offered by firms (Mahmood and Zhu, 2015; Alcácer et al., 2016; Tarek et al., 2017; Ferrucci et al., 2018; Peng and Lin, 2019). This means that resilience and adaptability are currently the most sought-after modes for firms in terms of organizational, business, and corporate strategies to compete in dynamic and complex international contexts (Shin et al., 2012; Bullough et al., 2013; Hartmann et al., 2019). Therefore, firms that better understand the political, religious,

cultural, and trade uniqueness of emerging markets will likely be better capable of effectively addressing the changes imposed by this new phase of globalization (Giovannetti and Marvasi, 2019).

The irregularities found in export-import dynamics, investment decisions, and firm profitability could be the result of sociopolitical and economic disorders after the "Arab Springs" upheaval (Ayeb, 2012; Asongu and Nwachukwu, 2015; Fawcett, 2016; Hafez, 2016). Despite this, the MEDA region holds strategic importance for the Italian manufacturing industry, with important supply and destination markets (Calza et al., 2010; Giovannetti et al., 2015; Ferragina, 2016; Ayadi et al., 2024). For instance, to reduce risks associated with trade across Euro-Mediterranean countries, we propose at least the following EU common actions.

First, develop a shared regional data platform for trade-related risk assessment to support real-time monitoring of some risk hotspots in local GVCs. This platform should help policy-makers identify the highest-risk pathways and prioritize some policy interventions. Second, rethink existing multi-stakeholder cooperation frameworks and establish a fair risk compensation mechanism. This strategy should enable countries to effectively monitor their trade transactions. Third, identify critical geographic sources of regional trade risks based on a net effect analysis of trade impacts. This strategy should help developing countries to properly identify the main goods and services to be traded, thereby effectively reducing trade-related costs.

Ultimately, this study provided an updated examination of the relationships intertwining Italian and MEDA firms. Entry into GVCs can trigger an increase in firms' profitability, increasing their competitiveness (Hsu et al., 2019). Additionally, this can represent an incentive to explore unexpected opportunities and improve the know-how held by firms (Del Prete et al., 2018; Arezki et al., 2019).

GVCs represent a production system based on the localization of the different phases of the production process in many countries across the world, hence exploiting as much as possible the differences between them in terms of costs, quality of work, productivity, level of technology, customs duties, extra-tariff obstacles, environmental standards, market size, proximity and access to market, governmental subsidies, bureaucracy quality, and transportation, communication, financing, and energy costs (Hummels and Schaur, 2013; Timmer et al., 2014; Feenstra, 2015; Kowalski et al., 2015; Taglioni and Winkler, 2016; Gereffi, et al., 2021). In such a production system, the advantages of scale and networking economies belong above all to the firms upstream of the value chain, which are also the owners of intangible assets, such as patents and know-how, and suppliers of goods and services related to the internet revolution, micro-electronics, e-commerce, and the digital economy in general (Balland et al., 2020; Castellani et al., 2022; Lee et al., 2023; Desalegn et al., 2024; Coveri et al., 2024).

However, the different specificities characterizing the relationships intertwining the countries' firms remain. This means that to operate in a globalized context, firms could need an adequate system of interlocutors capable of providing a reliable "nexus of contacts" to reduce perceived uncertainty, effectively containing transaction costs and the liability of foreignness associated with foreign transactions (Scalamonti, 2025b).

4.2. Policy implications

Over the last decade, GVCs have increasingly intensified. These have been characterized by ever more fragmented, complex, and multidirectional backwards-and-forward trading tasks, as well as an increase in cross-border operations on firms' equity and the movements of people and workers. Given the increasing interdependence between trade in goods and services and foreign investments, even small changes in import-export conditions can shape incentives for foreign investments and vice versa (Lee and Cho, 2017; Díaz-Mora et al., 2018; Lane, 2020; Aiginger and Rodrik, 2020).

Better-integrated production systems in GVCs can benefit from manufacturing specialization, increased openness, and the ability to negotiate international agreements (López-Cálix et al., 2010; Karam and Zaki, 2013, 2015; Ferragina, 2016; Alcidi et al., 2017; Scalamonti, 2025c).

With globalization intensifying, MEDA economies experienced a challenging transition since the 1990s (Rodrik, 2011; Rodrik, 2013). Few countries experienced true upgrading and industrial reorganization with a significant increase in exporting (Baldwin, 2016; Ayadi and Sessa, 2017). Other countries experienced a premature form of industrialization or openness beyond their capabilities, with unsatisfactory political and governance commitment (Rodrik, 2015). Therefore, while globalization can have facilitated the economic convergence of some MEDA countries, it has also increased competition and triggered new regional and global imbalances (Rodrik, 2018b).

Despite this, various advantages can be achieved by firms through the resumption of integration programs across Euro-Mediterranean countries, for instance, by enhancing infrastructural and logistic services. Multilateral cooperation programs such as the Euro-Mediterranean partnership should be revitalized to establish a free trade area extended to economic systems on the South-Eastern shore of the Mediterranean Sea (Kern and Salhi, 2011; Bicchi and Gillespie, 2012; Tankosić et al., 2013; Pace, 2014; Dandashly, 2015; Abbott and Teti, 2017; Gueciloueur, 2019). This implies that numerous challenges need to be overcome before a satisfactory country's integration can be achieved, as this is not only economic but also societal (Prodi, 2023; Guerrieri and Padoan, 2024). While efforts and progress have been made, MEDA countries' macroeconomic conditions are not always satisfactory, and European governance's privileging particularism has contributed to weakening Euro-Mediterranean relationships.

MEDA countries differ in terms of socioeconomic development and cultural background (Çizakça, 2011; Bianchi, 2013; Anderson and Anderson, 2014), and they also differ in the intertwined relationships with Italy and Europe (Calza et al., 2010; Giovannetti et al., 2015; Ferragina, 2016; Radl, 2017). Therefore, European and, especially, Italian policymakers should focus on coordinated interventions to minimize disadvantages and maximize the benefits of international economic integration. For instance, interesting and noteworthy could be the partnerships between Italy, Israel, and Turkey in high-tech industries and between Italy, Algeria, and Libya to optimize trade in energy resources.

In these terms, to understand foreign contexts, effective diplomacy would also be necessary. For instance, this could operationally translate into the establishment of dedicated captive front desks for activities abroad. These dedicated front desks could intercept the potential international investors or effectively capture the soft signals deriving from target markets, ultimately offering valuable support to firms seeking internationalization. In this sense, a good interpretative model could be based on information, training, and networking (Giovannetti and Marvasi, 2019).

Important initiatives may be necessary in the context of Euro-Mediterranean cooperation and in supporting firms' internationalization to strengthen ties with MEDA economies, also in terms of job creation, better social integration, technology transfer, innovation, and promoting the digital economy (El-Saady, 2011; Giovannetti, 2013). For instance, it could implement "triple helix" models and their further recent developments that employ the systems integration function to effectively explain the complexity characterizing the trade relationships across Euro-Mediterranean countries (Saad and Zawdie, 2011; Peris-Ortiz et al., 2016; Galvao et al., 2019). Although the strength of these trade relationships may vary based on the level of development achieved by countries, more moderate trade relationships may occur between developing or transitional economies due to the push for growth, on the one hand, and the pull for technological advancement, on the other hand, while stronger trade relationships may occur between sounder or advanced economies.

The Euro-Mediterranean partnership could represent an important opportunity for both European and MEDA firms to improve their joint competitiveness and effectively foster industrial and business policies, boosting countries' growth and development in light of important changes in the international economy (EU, 2021). This means that there will also be significant economic and political impacts for Europe and especially for Italy, if they assume a proactive role in promoting and spreading the socioeconomic and institutional progress that the countries on the South-Eastern shore of the Mediterranean Sea need (Schlumberger, 2011; Boserup and Tassinari, 2012; Tömmel, 2013; Pace, 2014; Dandashly, 2015; Abbott and Teti, 2017; Gueciloeur, 2019; Amighini et al., 2023; Mariotti, 2024).

4.3. Limitations and suggestions

I did not employ econometric estimation techniques; therefore, further development may involve robustness checks on the CMSA, for instance, through a set of statistical tests or a sensitivity analysis. Additionally, future studies could also consider analyzing the determining variables of firms' internationalization across MEDA traditional economies using data from the World Bank Enterprise Surveys (WBESs) related to firm-level characteristics and investors' perception about the countries' institutional and business environment, for instance, by employing probabilistic models or instrumental variables approaches.

I also highlight that the ICE-Reprint dataset ends in 2017; therefore, it could be interesting to extend the data sources, for instance, to reports and business cases, if it is not possible to have a longer time-series from the dataset. Additionally, it could be interesting to examine the trade attractiveness of MEDA transitional economies towards advanced markets, the European markets in general, and the Italian market, particularly. In fact, Italy's strategic geographical position as a hub for the transit of commodities, finished products, and people in the Mediterranean region makes it noteworthy. For instance, this analysis could leverage models based on the gravity equation, focusing on trade agreements across countries. Furthermore, I could consider incorporating a measure of cultural affinity into these models in substitution for geographical distance, especially considering that its perception has today been attenuated by the efficiency of transport and organizational networks.

Use of AI tools declaration

The authors declare they have not used Artificial Intelligence (AI) tools in the creation of this article.

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Conflict of interest

All authors declare no conflicts of interest in this paper.

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