The Sicilian Economy: Its Competitiveness, Structural Composition, and Evolution

Daniele Schilirò Department of Economics University of Messina dschiliro@unime.it

Abstract

This article aims to analyze the competitive capacity of the Sicilian production system in a region that has historically experienced delayed development. The essay also examines the structure of the Sicilian economy and its evolution over time, highlighting key factors that shed light on its current dynamics. In particular, it focuses on the recent boost in entrepreneurial activity, with start-ups emerging across various sectors-signaling positive trends in production, innovation, and development opportunities. It also addresses the growth of the tourism sector, despite its limitations. Furthermore, the article focuses on the experience of productive systems that have influenced regional policy towards small and medium-sized enterprises across various economic sectors, promoting the creation of business networks. Finally, it discusses the policies needed to enhance competitiveness and foster growth in Sicily. The essay first argues that innovation is the most critical driver of competitiveness, as it enhances total factor productivity. Second, it identifies investment in knowledge as the optimal strategy for improving the efficiency of production factors and as a cornerstone for long-term growth and development. Furthermore, the essay contends that institutions must foster competitiveness and growth through a regulatory framework that is simple, clear, and less bureaucratic. This is especially important in regions that have historically allocated substantial public resources yet achieved only modest outcomes in income and employment growth. The paper specifically emphasizes the need for significant public investment in infrastructure, education and training, and research. Equally important are private investments-not only to expand the production base but, more importantly, to improve it qualitatively through the adoption of new digital technologies.

Keywords: Competitiveness, Sicilian economy, productive districts, innovation, digital technologies, institutions.

1. INTRODUCTION

This paper aims to analyze the competitiveness of the production system in Sicily, a region that has long exhibited signs of delayed development. In fact, Sicily, like the other regions of Southern Italy, has historically been perceived as a territory facing significant structural challenges. Indeed, the region suffers from inadequate infrastructure—not only in transportation but also in essential public services such as water supply and waste management—affecting both the daily lives of citizens and the efficiency and competitiveness of businesses. Moreover, the region is characterized by a structurally imbalanced labor market, in which labor supply persistently exceeds demand. This disequilibrium is frequently accompanied by substantial skill mismatches, as employers often encounter difficulties in recruiting workers with the requisite qualifications—an issue that reflects broader structural challenges within the Italian labor market. The picture of the Sicilian economy is certainly complex, marked by both strengths and weaknesses. Despite infrastructural challenges, there are also positive signs, as the Sicilian economy has demonstrated a certain vitality in recent years—not only in the tourism sector but also in innovative activities. Additionally, a growing number of startups, often led by young entrepreneurs, are experimenting, innovating, and expanding into international markets. Therefore, the region has the potential to become a key hub for technological and economic innovation.

This essay examines the competitiveness, structure, and evolution of the Sicilian economy over time. It focuses on the experience of productive districts that, in different periods starting from 2007, have shaped the region's policy toward small and medium-sized enterprises across various economic sectors by promoting the creation of business networks. Finally, it discusses the policies needed to relaunch competitiveness and foster growth in Sicily, while also highlighting the expanding innovation ecosystem and the emerging opportunities for development.

2. THE STRUCTURE OF THE SICILIAN ECONOMY

The structure of the Sicilian economy has significantly changed over the last five decades. The agricultural sector, once the core of Sicily's economy, has undergone a profound transformation. Employment in agriculture has declined sharply, while notable innovations, shifts in crop types, increased productivity, and the abandonment of some farmland have marked the sector's evolution.

Meanwhile, industry has gained ground, although the island has experienced, as noted by Petino (2022), a 'late industrialism' compared to the regions of the North. A significant number of small and medium-sized enterprises (SMEs), including numerous micro firms, have been established in manufacturing. Two important industrial centers have emerged—in Catania and Palermo—contributing to increased employment in the

industrial sector. However, the tertiary sector—both public and private—remains the largest in terms of employment and turnover, despite its relatively low productivity, with tourism becoming increasingly important. In this section, I will examine the broader business environment in Sicily and its transformation. This includes an analysis of the demographic and GDP trends, employment and labor market conditions, industrial production, infrastructure, and administrative processes.

Sicily's population has been declining due to a falling birth rate and significant emigration of young people, often those with higher levels of education. As of January 1, 2024, the region had a resident population of 4,794,512 (CREA, 2024), reflecting a 2.4% decrease over the past five years. In parallel, the GDP of the Sicilian economy—which accounted for approximately 5.7% of national GDP in 1995—has steadily declined in relative terms. By 2022, its share of national GDP had fallen to 4.6% (ISTAT, 2023). Moreover, in 2023, Sicily's GDP per capita stood at €22,900, significantly below the national average of €36,100 (ISTAT, 2025)

There are, however, positive signs in terms of GDP growth. According to Banca d'Italia (2024), economic activity in Sicily continued to expand in 2024, with output growing by approximately one percentage point compared to the same period in the previous year. This growth exceeded both the national average and that of the South. Notably, there has been an increase in construction activity, driven by the implementation of public works announced in recent years, while the trend in the tertiary sector has remained positive. However, investment levels remain limited.

Regarding the labor market, employment in Sicily has improved, surpassing the pre-COVID 2019 level in 2024, according to the Svimez Report (Svimez, 2024). In fact, employment in Sicily increased by 4.7% in 2024 compared to the previous year—the highest rate among all Italian regions.¹ This growth is more than double the national average of +1.8% and exceeds the +2.4% increase recorded in the South (Schilirò, 2025). However, when examining the employment rate, Eurostat (2025) reports that Sicily, at 46.8%, ranks among the lowest regions in the European Union, despite a 1.9 percentage point increase from the previous year, indicating a modest recovery. By comparison, the average employment rate in the EU is 75.8%, while in Italy it stands at 67.1%.

An analysis of employment distribution by sector in Sicily reveals a clear predominance of services (including public administration), which account for over 77% of total employment—compared to 73% in Italy and 74% in the South. Industry (including construction) represents a modest 15% of employment, in contrast to 24% nationally and 19% in the South. Agriculture maintains a relatively significant role, employing 7.6% of the workforce, compared to 6.7% in the South and just 3.4% at the national level (CREA, 2024). Employment in services—particularly in public administration—remains substantial, despite European policies imposing budgetary constraints aimed at limiting the expansion of the public sector (Schilirò, 2022).

However, significant challenges persist in the regional labor market, including widespread job insecurity. Involuntary part-time employment accounts for over 70% of all part-time positions. In-work poverty is also a major concern, with a high number of working poor significantly impacting the region. Many families with employed heads of household live in conditions of absolute poverty.² It is also worth noting that many employed workers in Italy—including those in Sicily—have experienced salary stagnation for the past 20 years, resulting in their classification as working poor. Additionally, Sicily has a high school dropout rate of over 20%, which limits educational opportunities and perpetuates socio-economic disparities with the rest of the country (Svimez, 2024). In terms of unemployment, Sicily continues to lag behind the national average, with a 2023 unemployment rate of 14.7%, compared to 7.5% nationally and 13.3% in the South (CREA, 2024). Youth unemployment is even more concerning, approaching 50%. This figure is particularly alarming, as those who do secure employment are often underpaid. As a result, many young people—including university graduates and PhD holders—choose to leave the island, relocating primarily to other regions, especially in the North, or abroad.

The employment situation in public administration—once a key avenue for young job seekers until the 1990s has also deteriorated significantly since the 2008 global financial crisis. In 2010, the government introduced Legislative Decree 78/2010, which capped hiring based on the cost of terminations in the previous year. This measure effectively imposed a hiring freeze through a turnover block that lasted nearly a decade. Furthermore, in Sicily—as in much of Southern Italy—recruitment in public administration is often influenced by clientelistic practices, with available positions frequently allocated based on political interests (Schilirò, 2025)a.

Furthermore, the issue of unemployment—particularly youth unemployment—in Sicily is both longstanding and structural, as noted by Schilirò (2013). Additionally, there are significant gender gaps, along with a polarized labor market that is heavily influenced by educational qualifications and skill levels (Schilirò, 2022). The Sicilian economy has an insufficient production base to absorb the available labor supply, and the jobs that are available are often low-skilled and poorly paid. Moreover, Sicily has long lacked effective training programs and active labor market policies, and the economy continues to be characterized by high levels of

¹ Even in In Italy, the number of employed people increased significantly in 2024 compared to 2023 (Schilirò, 2025).

² According to the Bank of Italy (2024), due to widespread poverty in Sicily, approximately 132,000 families in the region received the Inclusion Allowance in 2024—equivalent to 6.4% of all residents—significantly higher than the national average of 2.4%.

undeclared work and its associated challenges. According to ISTAT (2024), the number of irregular work units reached 2,986,000, accounting for 6.4%, though this figure is likely underestimated.

In one of his contributions, Paolo Sylos Labini (1998) identified four factors that regulate the level of employment and help reduce unemployment, a framework that is also applicable to the regions of Southern Italy, including Sicily. These factors are: aggregate demand, technological innovations, labor market rigidity, and productive globalization—all of which interact with one another. Today, more than ever, technological innovation and the adoption of digital technologies are crucial for increasing company productivity, with significant implications for the future of work and for enhancing the competitiveness of the entire regional economy (Schilirò, 2021; Schilirò, 2024).

In terms of production, according to CREA (2024), industry—including construction—accounted for the largest share of Sicily's added value in 2022, followed by services and, lastly, agriculture, which contributed 4.6% to the region's total added value. Although industry contributes more than both services and agriculture, agriculture continues to play a key role in value creation and export performance. Services also represent a substantial part of the Sicilian economy, with public, state, and local administrations maintaining a strong presence. Moreover, tourism is a crucial and strategic sector in Sicily, thanks to its natural beauty and rich artistic and historical heritage. The region contributes 13% of Italy's tourism GDP—significantly higher than its share of national GDP, which stood at 4.6% in 2022.

Petroleum refining products are the primary component of both Sicilian industry and exports; in fact, Sicily has played—and continues to play—a fundamental role in Italy's oil industry. The ISAB refinery in Priolo, the largest in the country, supplies 25% of the national demand for refined petroleum. Other major refineries in Sicily include the Esso facility in Augusta and the Milazzo Refinery. Additionally, the Gela oil hub, established in the 1960s, is considered the heart of the island's oil industry. It hosts multiple oil companies and refineries that contribute significantly to the local economy. Sicily is also home to other key energy facilities, such as the Enel power plant in Priolo and the Archimede solar plant, both of which play a vital role in meeting energy needs in Sicily and across Italy (Schiliro, 2025)a.³ Agri-food is the second-largest export category, followed by chemical products, computers and electronic equipment, pharmaceutical products, electrical machinery, rubber and plastic articles, and metallurgical products, with progressively smaller contributions from other industries. The construction sector is also among the leading industries in Sicily. Overall, industry now carries more economic weight than agriculture, although agriculture remains a significant sector in terms of both value added and exports. Furthermore, in the service sector, tourism in Sicily is expanding and continues to break records. Sicily is undoubtedly a land of great tourist appeal, largely due to its geographical features. The presence of the sea, mountains, and a mild climate are valuable assets for tourism. Equally important are the island's historical and artistic heritage, which further enhance its attractiveness. In 2024, the island welcomed over 21.5 million visitors, marking a 4.2% increase compared to the previous year. Even more notable is the growth in foreign tourism, which rose by 11.1% compared to 2023—well above the national average of 3.7%. One of the key drivers of this growth is deseasonalization, which aims to make Sicily an attractive destination year-round. Experiential and sustainable tourism has also gained significant attention, leading to investments focused on enhancing villages, nature trails, and accommodation facilities in environmentally friendly and inclusive ways, as highlighted by Grasso and Schilirò (2021). However, a development model heavily focused on tourism has certain limitations. First and foremost, it relies on consumer demand that tends to fluctuate significantly, often displaying strong volatility influenced by external shocks. Another notable limitation—common to island tourism and characteristic of Sicily's development model-is the high prevalence of seasonal employment, alongside a substantial number of informal ('black market') workers. Furthermore, these workers often have an average level of education, which limits the ability to provide quality services.

Other small yet significant lights seem to illuminate the Sicilian economy. Sicily is home to three major business incubators, and several international corporations have established industrial plants there (Ruggeri, 2024). Furthermore, in the last two years, Sicily has seen a boom in entrepreneurial activity, with start-ups emerging in various sectors of the economy, including agriculture, industry, and services. These ventures are managed by young entrepreneurs, both Sicilian (some of whom have returned to the island after experiences elsewhere) and foreign, often digital nomads. Specifically, between 2023 and 2024, innovative start-ups in Palermo grew by 3.7%, while in the rest of Italy they decreased by 7%. Employment in Palermo grew by 6.9%, more than four times the national average. The Sicilian capital has become the top destination in Italy for digital nomads, signaling a shift in the city. This momentum aligns with those who argue that the South is finally moving at a faster pace than the rest of Italy. All of this confirms a picture of the Sicilian economy that is complex and multifaceted, with both strengths and weaknesses.

3. THE PRODUCTIVE DISTRICTS IN SICILY

³ International corporations in the energy and petrochemical sectors—such as ENI, Lukoil, Sonatrach, and Saras—operate significant plants throughout the region.

An analysis of the business system in Sicily reveals that business networks or district models have existed across various sectors of the Sicilian economy since 2007. The creation of productive districts in Sicily began in 2005, when the regional government first established the criteria for identifying and recognizing these districts, as well as the procedures for implementing the interventions outlined in the district development pact (Schilirò, 2010; Schilirò and Timpanaro, 2012). These aggregations of production firms were established with the aim of creating integrated production chains capable of territorial-level planning and supported by dedicated funding. The formal process concluded with the assessorial decree of 16 March 2007, which recognized 23 productive districts and approved them for financing. These 23 districts covered agriculture, fishing, wine production, as well as manufacturing sectors such as textiles, mechanics, mechatronics, and the nautical industry, along with industrial craftsmanship and tourism. Firms within each district were grouped according to sectoral affinities; however, greater emphasis was placed on territorial aggregation (Schilirò, 2010). Furthermore, in 2007, the total number of companies in the 23 productive districts was 3,448. While not particularly large in absolute terms, this number was significant within the context of the Sicilian production system (Schilirò, 2013).

This initial experience with productive districts in Sicily, as highlighted by Schilirò (2010) and Schilirò and Timpanaro (2012), was not particularly successful. Sicilian firms were generally reluctant to engage in networking, and over time, many withdrew from their districts. As a result, they failed to capitalize on the potential benefits of district economies, such as cost reductions. Moreover, firms within the Sicilian districts were often too small, operated in medium- and low-technology sectors, and were characterized by weak assets and financial fragility. In a survey on Sicilian districts, Sabatino (2015) noted that only four of the productive districts could be considered true industrial districts: Etna Valley (CT), Mechanics (SR), Mechatronics (PA), and Aluminum (PA). He emphasized that the regional district system showed limited capacity to respond to the shocks of the 2008–2010 economic crisis—except in the case of leading companies. These firms—due to their size, level of innovation, openness to external markets, export orientation, industrial relations, and networking systems-demonstrated a greater capacity to withstand the changes brought about by the crisis. In fact, only in the case of these firms do the data indicate a significant degree of resilience: the ability to absorb economic shocks and return to pre-crisis levels along a developmental path. Following the crisis, both the number of firms participating in the districts and the number of employees declined. This may reflect a natural process of redefining district boundaries and the meta-district network system, involving the exclusion of entities initially included more for quantitative consistency than for their qualitative contribution. Furthermore, the socioeconomic dynamics observed in the four Sicilian districts mirror those seen in other districts across Southern Italy and the country as a whole, highlighting structural challenges that have affected the Italian manufacturing system regardless of regional or territorial distinctions.

Subsequently, the Sicilian Region proposed new District Development Pacts for the three-year period 2011–2013 (Schilirò, 2013), acknowledging that the productive districts established during 2007–2010 had failed to create a cohesive fabric of economic and social networks. At the same time, both national and regional governments failed to meet expectations in providing the material and immaterial infrastructure necessary for the development of the districts. For the 2011–2013 period, 16 productive districts were officially recognized. In reality, only 8 of these were entirely new, while the remaining 8 were pre-existing districts that had been reorganized. Table 1 presents the productive districts marked with an asterisk are the eight newly established productive districts, while those without an asterisk are pre-existing districts that have been reorganized.

Table 1 The To Productive Districts in Sicily: 2011 – 2013
Single Regional Cereal District SWB (EN)
Mechanics Production District (SR)
Citrus Fruit District of Sicily* (CT)
Industrial Fishing District COSVAP (TP)
Mechatronics Productive District (PA)
Etna Valley Productive District (CT)
Poultry District* (RG)
Regional District of Fine Stone (TP)
Lava Stone District (CT)
Beef Supply Chain District* (PA)
Dolce Sicilia Production District* (ME)
Eda Ecodomus Production District* (AG)
Wood and Furniture Components District* (CT)
Calatino Sud Simeto Prickly Pear District* (CT)
Sicilian Dairy Production District* (RG)
Sicilian Floriculture District (ME)
Courses Descharting District Coursing Civily Descing

Table 1 The 16 Productive Districts in Sicily: 2011 – 2013

Source: Productive District Service, Sicily Region.

The total number of firms involved in the 16 new productive districts was 1,963—a lower figure compared to the 23 productive districts established previously. Finally, several of the new districts focus on sectors that were not covered by the previous 23 productive districts. Examples include the Calatino Prickly Pear District, the Sicilian Dairy Productive District, the Beef Supply Chain District, the Dolce Sicilia Productive District, the Poultry District, the Eda Ecodomus Productive District, and the Wood and Furniture Components Productive District. Even this second experience with productive districts in Sicily, like the previous one, did not have a significant impact. Over time, some districts ceased to exist, while many companies within the various districts abandoned the "District Pact." Institutional support was lacking, particularly in terms of infrastructure and meaningful dialogue with district companies. In turn, many companies viewed their participation in the districts merely as a formal act aimed at securing incentives from the Sicilian Region, rather than as an opportunity to enhance competitiveness and access national and international markets by leveraging the advantages of district economies. The partial failure of the development pacts for the productive districts-both during the first period (2007-2010) and the second (2011-2013)-led to a decline in the Sicilian Region's interest in the following years. As a result, in 2017, the system for recognizing districts was definitively halted, with no renewals or new district formations taking place thereafter (Schiliro, 2025)a. In July 2020, however, the Region decided to relaunch the productive district model, also aiming for a substantial reorganization of the district system to avoid overlaps within supply chains and to align with a national and international production landscape that had profoundly changed over the previous decade.

As a result, in October 2021, ten new districts were recognized, with the requirement that each constitute a production chain comprising at least 50 companies and 150 employees. These ten new districts are listed in Table 2. These ten new districts were added to the thirteen existing Sicilian productive districts, which were renewed in accordance with the updated criteria established by the Department of Productive Activities and officially recognized by the Region in July 2020.

Table 2. The 10 New Sicilian Production Districts Recognized in October 2021⁴

Table 2. The To New Sicilian Production Districts Recognized in October 2021
Made in Sicily Ceramics District, based in Palermo
Sicilian Marble District, based in Custonaci (TP)
Sicilian Wine District, based in Palermo
Dolce Sicilia District, based in Palermo
Sicilian Extra Virgin Olive Oil District, based in Castelvetrano (TP)
Sicilian Table Olives District, based in Castelvetrano (TP)
Sicilian Wool District, based in Cammarata (AG)
Luxury Hospitality District, based in Palermo (tourism sector)
Sicily 5.0 District, based in Catania
Sicily Valley District, based in Palermo

Source: Department of Productive Activities of the Sicilian Region

The thirteen districts are distributed across the regional territory and are listed in the following Table 3.

Table 3 The 13 Existing and Renewed Sicilian Productive Districts⁵

Sicilian Citrus District, based in Catania
Sicilian Prickly Pear District, based in San Michele di Ganzaria (CT)
Lava Stone District, based in Belpasso (CT)
Mechatronics District, based in Palermo
Mythos Fashion District, based in Palermo
Mediterranean Nautical District, based in Palermo
Fishing and Blue Growth District, based in Mazara del Vallo (TP)
South-East Sicily Horticultural District, based in Ragusa
Dairy District, based in Ragusa
Ecodomus District (specializing in construction and the renewable energy supply chain), based in Licata (AG)
Sicilian Dried Fruit District, based in Mazzarino (CL)
Meat Supply Chain District, based in Messina
Quality Fruit and Vegetable District, based in Syracuse

Source: Department of Productive Activities of the Sicilian Region

The firms that have joined these new districts are, on average, more technologically advanced than those of the past, and the productive districts now appear better integrated. It is important that this new initiative to

⁴ The presence of two production districts in Castelvetrano—one for oil and one for table olives—might appear redundant or excessive; however, the choice reflects the distinct nature of the two product types.

⁵ Table 3 also highlights some duplications. However, the Region's rationale is to represent the widest possible range of territories and their specific types of production.

revitalize the productive districts learns from past mistakes and that a genuine district culture gradually develops among Sicilian firms—one that goes beyond merely seeking regional funding and instead fully embraces the benefits of horizontal and vertical integration. Such collaboration within districts can foster innovation and growth, ultimately enhancing the competitiveness of firms in international markets.

3. DISCUSSION AND CONCLUSION

Our analysis of the Sicilian economy—its competitiveness, structural composition, and evolution—reveals that the island has undergone a profound structural transformation over the years. It presents a complex picture, with both strengths and weaknesses. The literature suggests that what matters most for firms are specialization, innovation, and the ability to compete in international markets. Therefore, a key policy consideration is that Sicily must now rethink its economic specializations and the positioning of its production within international markets. This reassessment is essential in a context marked by rapid technological, energy, and geopolitical changes, further compounded by U.S. tariff policies that have heightened global uncertainty. Another crucial policy consideration is that innovation is the most important driver of competitiveness (Schilirò 2010; 2012; 2017; 2022), as it tends to enhance total factor productivity. In particular, the adoption of digital technologies is vital for boosting productivity not only within firms but across the entire Sicilian economy. The implementation of emerging technologies—such as generative artificial intelligence, the Internet of Things, blockchain, cloud services, big data, 3D printing, and robotics—and their integration with data usage are essential for improving efficiency and competitiveness (Schilirò, 2024). In addition, investing in knowledge represents an optimal strategy to strengthen the capacity of production factors and is essential for long-term growth and development (Schilirò, 2010)a.

The digital and ecological transitions envisioned in the National Recovery and Resilience Plan undoubtedly represent a unique opportunity to revitalize the Sicilian economy—and beyond. In addition to enhancing overall competitiveness, these transitions also create new employment opportunities and contribute to the well-being of the broader community. Public investments are, in fact, essential to support infrastructure, education and training, research, and environmental protection. Equally important are private investments, particularly for enhancing the quality of the production base through the adoption of new digital technologies.

Also, institutions play a decisive role in economic development, as noted by Acemoglu, Johnson, and Robinson (2005) and Acemoglu and Robinson (2010). In Sicily, therefore, institutions—at the state, regional, and municipal levels—must work to establish the conditions for competitiveness and growth through a clear, transparent, and less bureaucratic regulatory framework. This virtuous institutional approach is essential, especially considering that the region has long spent substantial public resources with relatively modest results in terms of income and employment growth.

However, despite structural challenges—such as inadequate infrastructure, a production system still insufficient, a labor market characterized by persistent labor oversupply and widespread informal employment, the need of more education and workforce qualifications, and a slow, inefficient bureaucracy-Sicily shows some positive signs. According to the SRM Report (2024), the regional economic fabric has strengthened over the past two years. Innovative SMEs are on the rise, and many startups are flourishing, driven by a new generation of young entrepreneurs. Investment is increasing, particularly in initiatives aimed at enhancing structural capacity, supported by European funds under the National Recovery and Resilience Plan. There is also growing investment in digitalization, sustainability, and research. Furthermore, exports have increased, and employment has also risen-though not yet sufficiently to close the structural gap with the Italian average. At the same time, tourism has grown steadily over the years and remains a vital sector of the Sicilian economy. Although the island continues to attract visitors with its sun and sea, rich history and culture, unique traditions, scenic landscapes, and distinctive local products-particularly in the food sector-tourism must nonetheless be reimagined in response to evolving digital technologies, infrastructure needs, workforce qualifications, and shifting consumer preferences, all within a global market marked by increasing volatility and uncertainty. Sicily is undergoing a significant transition toward a more innovative and technologically advanced economic model, with an expanding innovation ecosystem and emerging opportunities for development. In particular, the region offers growth potential in sectors such as energy, agritech, and technology (Ruggeri, 2024).

Acknowledgment

I wish to thank Filippo Grasso for his insightful conversations and helpful comments. The usual disclaimer applies.

REFERENCES

Acemoglu, D., Robinson, J. (2010). The Role of Institutions in Growth and Development, *Review of Economics and Institutions*, 1(2), 1-33. http://dx.doi.org/10.5202/rei.v1i2.14

- Acemoglu, D., Johnson, S., Robinson, J. (2005). Institutions as the Fundamental Cause of Long-Run Growth, in P. Aghion, S. Durlauf (eds.), *Handbook of Economic Growth*, Amsterdam, North Holland (pp. 386-464).
- Banca d'Italia (2024). L'economia della Sicilia. Aggiornamento congiunturale. Economie Regionali No.41, Roma, Banca d'Italia.https://www.bancaditalia.it/pubblicazioni/economie-regionali/2024/2024-0041/index.html
- CREA (2024). L'Agricoltura in Sicilia in Cifre 2024, Roma, CREA.https://www.crea.gov.it/documents/68457/0/Sicilia_InCifre_2024_WEB_DEF+%285%29.pdf/2336ca81-81e6-c208-cf78-aa39fff29c3d?t=1742982015557
- Grasso, F., Schilirò, D. (2021). Per un turismo sostenibile: il Turismo di ritorno. Aspetti socio-economici e politiche turisticoterritoriali, *Turistica. Italian Journal of Tourism*, vol. XXX, No.4, 23-34.
- EUROSTAT (2025). *Employment annual statistics*, Statistical Themes, April 2025.https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Employment_-_annual_statistics
- ISTAT (2024). Economia non osservata nei conti nazionali Anni 2019-2022. Tavole. Comunicato stampa 18 Ottobre 2024. https://www.istat.it/comunicato-stampa/economia-non-osservata-nei-conti-nazionali-anni-2019-2022/
- ISTAT (2025). Conti economici territoriali Anni 2021-2023. Tavole. Comunicato stampa 28 gennaio 2025. https://www.istat.it/wp-content/uploads/2025/01/REPORT-CONTI-TERRITORIALI_Anni-2021-2023.pdf
- Petino, G. (2020). Il tardo industrialismo in Sicilia, tra coesistenze e conflitti, AGEI Geotema, 69, 50-69.
- Ruggeri, R. (2024). Rapporto Sud Innovation 2024. sud Innovation APS.
- Sabatino, M. (2015). Competitività e resilienza dei Distretti Produttivi in Sicilia, XXXVI Conferenza Italiana di Scienze Regionali, Cosenza, Settembre.
- Schilirò, D. (2010). I distretti produttivi in Sicilia. Analisi e proposte per la competitività, *Economia e Società Regionale*, *111*(3), 92-113.
- Schilirò, D. (2010)a. Investing in Knowledge: Knowledge, Human Capital and Institutions for the Long Run Growth. In M. J. Arentsen, W. van Rossum, Albert E. Steenge, (eds.), *Governance of Innovation*, Edward Elgar, Cheltenham, pp.33-50.
- Schilirò, D. (2012). Italian industrial districts: A model of success or a weak productive system? AAPP | Physical, Mathematical, and Natural Sciences, Vol.90, Supplement No.1, PISRS Proceedings Part I, pp. C2:1 -12.
- Schilirò, D. (2013). I patti di sviluppo dei distretti produttivi in Sicilia: 2011-2013, StrumentiRes, Vol. V, No. 5, 1-23.
- Schilirò, D. (2017). Italian industrial districts: theories, profiles and competitiveness, *Management and Organizational Studies*, Vol,4, No. 4, pp.1-11.
- Schilirò, D. (2021). Digital transformation, COVID-19, and the future of work, *International Journal of Business Management* and Economic Research(IJBMER), 12(3), 1945-1952. http://ijbmer.com/docs/volumes/vol12issue3/ijbmer2021120303.pdf
- Schilirò, D. (2022). Occupazione e crescita in Europa e in Italia: 1997-2015 [Employment and Growth in Europe and Italy: 1975-2015] *MPRA paper* No. 119868.
- Schilirò, D. (2024). Digital Economics. Exploring the Digital Economy, Roma, Aracne.
- Schilirò, D. (2025). High employment rate and unresolved issues in the Italian labor market, International Journal of Business Management and Economic Research(IJBMER), 16(1), 2551-2556. http://ijbmer.com/docs/volumes/vol16issue1/ijbmer2025160101.pdf
- Schilirò, D. (2025)a. Competitività nell'economia siciliana, MPRA Paper No. 122879.https://ideas.repec.org/p/pra/mprapa/122879.html
- Schilirò, D., Timpanaro, G. (2012). I distretti produttivi in Sicilia: l'esperienza degli anni 2007-2010, MPRA paper No. 43121.
- Sylos Labini, P. (1998). Disoccupazione e sviluppo economico, in B. Moro, (a cura di), Sviluppo Economico e Occupazione. Materiali per un manifesto contro la disoccupazione in Europa, Milano, Franco Angeli.

Svimez (2024). Rapporto Svimez 2024. L'economia e la società del mezzogiorno, Roma, Svimez.

- https://www.svimez.it/rapporto-svimez-2024/
- SRM (2024). Mezzogiorno: SRM presenta il nuovo numero del Panorama economico di mezz'estate, *Comunicato Stampa*, Torino, Fondazione Compagnia di San Paolo.