

Salvatore Villani<sup>1</sup>, Stefano Fiorentino<sup>2</sup>, Edgardo Bucciarelli<sup>3</sup>, Aurora  
Ascatigno<sup>4</sup>

EXAMINING THE IMPACT OF THE ITALIAN TAX SYSTEM  
ON THE NATURE AND EXTENT OF THE UNOBSERVED  
ECONOMY AND UNDECLARED WORK

*Received: 21 March 2024 / Accepted: 26 May 2024*

**Abstract**

This paper examines the influence of the Italian tax system on the characteristics and extent of the unobserved economy and undeclared work. Recognising the complexity and heterogeneity of the phenomenon under study, the first part of the paper examines the definitions and classifications used to describe it. The current spatial and temporal extent of undeclared work and its determinants are also examined. The second part reviews the strategies and measures implemented to combat undeclared work in Italy over the last forty years. Strategies and measures are distinguished according to their nature (direct and indirect) and the approach adopted (contractual and fiscal). Finally, the third part aims to study the impact of the tax reforms that have changed the discipline of the personal income tax (IRPEF) and the value added taxes (VAT and IRAP) applied in Italy in order to reduce the so-called “tax wedge on labour” and, more generally, the incentives for tax evasion and undeclared work. By examining the relationship between tax policy and undeclared economic activity, we can identify effective strategies

---

<sup>1</sup> University of Naples Federico II, via Rodinò, 22, Naples, Italy. Phone: +39-081-2188404; *E-mail address: salvatore.villani@unina.it*

<sup>2</sup> University of Naples Parthenope, via Generale Parisi, 13, Naples, Italy. Phone: +39-08118891090; *E-mail address: stefano.fiorentino@uniparthenope.it*.

<sup>3</sup> University of Chieti-Pescara, viale Pindaro 42, Pescara 65127, Italy, Phone: + 39 085 453 7980; *E-mail address: edgardo.bucciarelli@unich.it*.

<sup>4</sup> School of Advanced Studies, University of Chieti-Pescara, via dei Vestini 31, Chieti 66013, Italy, Phone: + 39 0871 3556077; *E-mail address: aurora.ascatigno@unich.it*.

to improve tax compliance and promote sustainability. This paper will provide insights for future research in this area.

**JEL CLASSIFICATION:** E26, H26, J30, J46

**KEYWORDS:** ECONOMIC ANALYSIS OF LAW, TAX AND SOCIAL SECURITY EVASION, TAX WEDGE ON LABOUR, UNDERGROUND ECONOMY, INFORMAL LABOUR MARKET, POLICY MEASURES

## **1. Introduction**

In recent years, the Italian government has intensified its efforts to combat the unobserved economy, paying particular attention on the phenomenon of undeclared work. As will be discussed in detail, the undeclared work in Italy is particularly widespread in some economic sectors, such as domestic services, construction and agriculture, and in some regions of the country (southern and central Italy). In December 2022, the Ministry of Labour and Social Policies launched two necessary measures (the adoption of the National Plan to Combat Undeclared Work 2023-2025; the establishment of the National Committee for the Prevention and Fight against Undeclared Work), which were widely promoted for their effectiveness in reducing irregular behaviour and encouraging the adoption of virtuous behaviour (i.e. in line with the current legislation on the combat against undeclared or irregular work). On 4 May, the so-called “Decreto Lavoro” (Decree-Law No. 48/2023) was also published in the Official Gazette, introducing several innovations and urgent measures aimed at promoting social inclusion and young people’s access to the world of work: From the reform of the citizen’s income (and new special measures to support workers and reduce the tax burden) to the further reduction of the tax wedge on wages, from the provision of “large shirts” (i.e. the possibility of more flexible use) for fixed-term contracts to the new tax incentives for youth employment.

These can be seen as measures that deserve recognition and that serve to confirm the government’s commitment to implementing a stable strategy capable of enhancing the role and synergies between the various actors, not only institutional, involved in the prevention, contrast of irregular work, and the evaluation of policies, according to a multi-agency approach, also concerning the diversity of productive sectors and territorial contexts (see Ministry of Labour and Social Policies, 2022). However, it should be noted

that there are still several gaps and critical issues in this area. Essentially, the gaps and problems are related to the discontinuity of the completed legislative processes and to the lack of awareness of the Legislator of the complex economic implications of the measures adopted, especially at the fiscal level, to combat the phenomenon of undeclared work.

A comprehensive assessment of these implications should begin with an analysis of the terminology and classifications used to describe the unobserved economy, its dimensions and the strategies and measures that have been adopted in recent years to combat it. The phenomenon is clearly broad and multifaceted, leading to equally varied and nuanced responses from the legal system. An analysis of these responses, while essential, is beyond the scope of this study. This paper aims to provide an overview of the unobserved economy, focusing in particular on the tax measures that have been implemented over time to address this problem in Italy. In particular, the paper examines, among other things, the primary economic effects of the implementation of such measures over time. We were motivated by the fact that the economic aspects are too often underestimated and, in some cases, completely overlooked.

The remainder of the paper is structured as follows: Sections 2 and 3 examine the definitions and classifications used to describe the phenomenon of unobserved economy. It should be noted that these definitions are not always unambiguous. Nevertheless, they provide an insight into the current extent of the phenomenon. In this respect, the sections consider both the spatial spread of the phenomenon, including its sectoral and territorial distribution, and its temporal spread, including past trends and recent developments. The underlying causes or determinants of the phenomenon are also considered. Section 4 provides an overview of the fiscal strategies and measures implemented over the last four decades to combat undeclared work. Sections 5 and 6 respectively examine the impact of tax reforms that have reshaped the discipline of income and value-added taxes (VAT and IRAP) in Italy to reduce the so-called “tax wedge on labour” and, more generally, the incentives for tax evasion and undeclared work.

## **2. The unobserved economy: Definitions, classifications, and dimensions of the phenomenon**

A corpus of production activities and work units that evade statistical observation for various reasons (e.g. evasion of taxes and contributions,

evasion of labour regulations, non-compliance with administrative rules) is a constant feature of all economic systems. Such activities are neither registered nor subject to regular taxation and are therefore not included in official statistics. Nevertheless, they are documented and quantified in a large number of studies and research reports of international importance, using a wide range of techniques and methodologies. According to the most recent estimates, the current average size of the so-called “shadow economy” (the estimate refers to 2021) represents a significant share of economic output in many countries. Indeed, it represents 16.1% of gross domestic product (GDP) in the countries generally considered to be the most advanced or developed in the world. The 36 countries of the Organisation for Economic Co-operation and Development (OECD) include 31 European countries, with estimates ranging from 5.8% in Switzerland to 32% in Turkey (see Table 1)<sup>5</sup>.

**Table 1. Size of the unobserved economy  
(values as a percentage of GDP; years: 2015-2021)**

	2015	2016	2017	2018	2019	2020	2021
Austria	8,2	7,8	7,1	6,7	6,1	7,2	6,9
Belgium	16,2	16,1	15,6	15,4	15,1	16,2	16,0
Bulgaria	30,6	30,3	29,6	30,8	30,1	32,9	32,4
Croatia	27,7	27,1	26,5	27,4	26,4	29,6	29,0
Czech Republic	15,1	14,9	14,1	13,6	13,1	14,2	13,9
Denmark	12,0	11,6	10,9	9,3	8,9	9,8	9,6
Estonia	26,2	25,4	24,6	23,2	22,1	23,6	23,1
Finland	12,4	12,0	11,5	11,0	10,6	11,4	10,9
France	12,3	12,6	12,8	12,5	12,4	13,6	13,1
Germany	11,2	10,8	10,4	9,7	8,5	10,4	10,0
Greece	22,4	22,0	21,5	20,8	19,2	20,9	20,3
Hungary	21,9	22,2	22,4	22,7	23,2	26,0	25,0
Ireland	11,3	10,8	10,4	9,7	8,9	9,9	9,4
Italy	20,6	20,2	19,8	19,5	18,7	20,4	20,2
Latvia	23,6	22,9	21,3	20,2	19,8	20,9	20,2
Lithuania	25,8	24,9	23,8	23,0	21,9	23,1	22,9
Luxembourg	8,3	8,4	8,2	7,9	7,4	8,6	8,4
Malta	24,3	24,0	23,6	23,2	22,0	23,5	23,1
Netherlands	9,0	8,8	8,4	7,5	7,0	8,1	7,8

<sup>5</sup> See Schneider (2022), pp. 303-305.

**Table 1. Size of the unobserved economy (continued)**  
(values as a percentage of GDP; years: 2015-2021)

	2015	2016	2017	2018	2019	2020	2021
Poland	23,3	23,0	22,2	21,7	20,7	22,5	22,0
Portugal	17,6	17,2	16,6	16,1	15,4	17,0	16,5
Romania	28,0	27,6	26,3	26,7	26,9	29,3	28,9
Slovenia	23,3	23,1	22,4	22,2	21,5	23,1	22,5
Cyprus	24,8	24,2	23,6	23,2	22,1	24,3	23,7
Spain	18,2	17,9	17,2	16,6	15,4	17,4	16,9
Slovakia	14,1	13,7	13,0	12,8	12,2	14,0	13,7
Sweden	13,2	12,6	12,1	11,6	10,7	11,7	11,0
United Kingdom	9,4	9,0	9,4	9,8	9,6	10,7	10,2
Norway	13,0	12,6	12,2	11,8	10,8	11,6	11,1
Switzerland	6,5	6,2	6,0	5,8	5,5	6,1	5,8
Turkey	27,0	26,8	27,2	28,3	29,4	32,5	32,0
Australia	10,3	9,8	9,4	9,2	8,9	9,7	9,5
Canada	10,3	10,0	9,8	9,6	9,4	10,3	9,7
Japan	8,4	8,5	8,6	8,5	8,2	9,1	8,8
New Zealand	8,0	7,8	7,4	6,9	6,8	7,9	7,3
USA	5,9	5,6	5,4	5,1	4,8	6,1	6,6
28 European countries of the OECD (average)	18,3	17,9	17,3	17,0	16,3	17,9	17,4
3 non-EU European OECD countries (average)	15,5	15,2	15,1	15,3	15,2	16,7	16,3
31 European countries (average)	17,9	17,7	17,1	16,7	16,2	17,8	17,3
5 highly developed non- European OECD countries (average)	8,6	8,3	8,1	7,9	7,6	8,6	8,4
Average of entire sample of 36 OECD countries	16,7	16,4	15,8	15,4	15,0	16,5	16,1

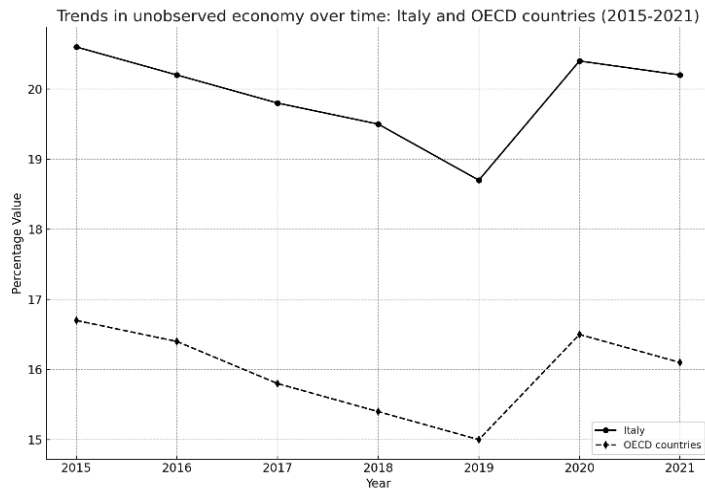
Source: Authors' own elaboration on OECD data and based on Schneider's (2022) analysis.

However, the average size of the shadow economy is higher in Europe (17.4% of GDP in the 28 Member States of the European Union and 17.3% in the 31 European countries included in the sample of OECD countries surveyed) than in the five non-European OECD countries considered to be among the most developed in the world (Australia, Canada, Japan, New Zealand and the United States), where it is 8.4% of GDP. It is clear that the

performance of European countries is negatively affected by the prevailing trends in Eastern, Central and Southern Europe (such as Bulgaria, Cyprus, the Czech Republic, Latvia, Lithuania and Poland), where the shadow economy is more pronounced than in the countries of the Western European Union (see Table 1). Moreover, the estimated size of the shadow economy in Italy is subject to a negative bias due to the observed increase (+8.5%) in recent years, after a significant decrease between 2003 and 2019 (-28.3%), as shown in Table 1.

More specifically, Figure 1 shows the evolution over time of the average size of the shadow economy in Italy and in the 36 OECD countries (data taken from Table 1). Essentially, a similar trend can be observed within the two variables. At first sight, however, there are significant differences in the percentages of the shadow economy between Italy and the other OECD countries.

**Figure 1. The evolution over time of the average size of the shadow economy in Italy and in the 36 OECD countries**



Source: Authors' own elaboration.

To verify this first intuition, we use the t-test for paired samples (Kim, 2015). Using Python software, we first calculated the difference between

each pair of observations (the size of the unobserved economy in Italy and the OECD countries) by adopting this formula:

$$d_i = X_{Italy,i} - X_{OECD,i} \quad (1)$$

Subsequently, we calculated the average of the differences,  $\bar{d}$ :

$$\bar{d} = \frac{1}{n} \sum_{i=1}^n d_i \quad (2)$$

where  $n$  represents the number of pairs of observations.

We then calculated the standard deviation of the differences,  $s_d$ , as follows:

$$s_d = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (d_i - \bar{d})^2} \quad (3)$$

Once these calculations had been performed, we then calculated the t-value,  $t$ :

$$t = \frac{\bar{d}}{s_d/\sqrt{n}} \quad (4)$$

Overall, the paired samples t-test performed on our data shows a statistically significant difference between Italy and the OECD for the whole period, with a very low p-value ( $5.98 \times 10^{-105.98}$ ). This suggests that, on average, there is a persistent and significant difference between the size of the unobserved economy, expressed as a percentage of GDP, of Italy and the OECD.

Despite its considerable economic importance, the phenomenon of the unobserved economy has been the subject of little academic research. It is only since the end of the 1990s that some national institutions have shown an interest in the subject. At the Italian level, the debate on the size of the unobserved economy and its determinants has received very uneven

attention over a long period of time. In Italy, there has been a reawakening of interest in the unobserved economy that has coincided with the manifestation of other phenomena of global scope, such as waves of migration, climate change, trade tensions and rapid technological progress.

The intermittent interest in studying the unobserved economy can also be attributed to the challenges faced by scholars and researchers in obtaining sufficiently reliable data for statistical purposes. The most significant contribution to our understanding of this phenomenon has been made by the analysis of territorial business systems and, more generally, of social networks and the problems of territorial development (see Roma, 2001, p. 5). The limited focus, both scientific and institutional, has also been influenced by terminological confusion. This is due to the coexistence of numerous definitions, often used in an imprecise and ambiguous manner. It is therefore appropriate to clarify this point before analysing the phenomenon, its constituent elements and the various policies that can be used to combat or limit it.

According to the classifications derived from the most authoritative national accounting manuals and used by ISTAT, the Non-Observed Economy (NOE) includes all economic activities that, for various reasons, escape direct statistical observation. The main components of this phenomenon are the underground economy and the illegal economy, while the statistical underground and the informal economy represent the remaining elements of the spectrum. More precisely, within the broader category known as the “unobserved” or “unofficial” economy, it is common to distinguish between the illegal or criminal economy, the underground or unobserved economy, the statistical unobserved economy and the shadow economy.

The term “illegal economy” is used to describe the production of goods and services that are illegal in nature, or the production of goods and services that are legal in nature but carried out without the necessary authorisation or title. In this context, three distinct categories of illicit activities can be identified: the production and trafficking of illicit substances, the provision of prostitution services and the smuggling of tobacco products.

The shadow economy includes all activities that are legal but are voluntarily concealed from the tax, social security and statistical authorities through the submission of false declarations, both in terms of turnover

and/or costs of production units (under-declaration of value added) and the use of undeclared labour<sup>6</sup>.

This portion of the unobserved economy can be conceptualised as a complex network of parallel flows in comparison to those recorded by official statistical sources. It is important to note that this portion is not synonymous with tax evasion. Nevertheless, instances of evasion are frequently observed in such cases. It is, in fact, possible for tax evasion to exist independently of submergence when national accounting data report the amount of evasion and include it in their assessments of national magnitudes. Conversely, instances of tax evasion may occur in the absence of any underlying evasion, when no tax is owed on the unrecorded activity. This is exemplified by numerous agricultural activities, in which the evasion of social security contributions is nevertheless prevalent (see Monda, 2012).

This part of the unobserved economy can be conceptualised as a complex network of parallel flows compared to those recorded by official statistical sources. It is important to note that this part is not synonymous with tax evasion. Nevertheless, tax evasion is often observed in such cases. Tax evasion can indeed exist independently of the “shadow economy” if national accounts report the evaded amounts and include them in estimates of the national economy. Conversely, there may be cases of evasion where there is no underlying evasion, where no tax is due on the unrecorded activity. This is the case for many agricultural activities, where evasion of social security contributions is nevertheless widespread (see Monda, 2012).

The unobserved economy is also characterised by a high degree of informality, which includes all productive activities carried out in contexts that are either poorly organised or not organised at all. These activities are based on labour relations that are not regulated by formal contracts, but rather defined in the context of personal or family relationships. In more advanced or industrialised countries, the unobserved economy is often seen as a marginal sector of the economy, whose relevance is limited to specific geographical areas and activities. For example, domestic work and childcare are prevalent in metropolitan areas, while home-based agricultural work is more common in rural areas. In the economies of poorer and/or developing countries, the prevalence of irregular work hampers the ability to benefit

---

<sup>6</sup> The measurement of undeclared economic activities mainly involves the underestimation of value added, including that generated by informal work. In addition, estimates often include: (1) the valuation of tips received by employees in certain sectors; (2) adjustments resulting from the reconciliation of independent estimates of supply and demand; and (3) the estimated value of undeclared rental income.

from open trade, creating a cycle of poverty for workers in transition (see Bacchetta & Bustamante, 2009). However, the precariousness of the labour market and the race to the bottom in wages and workers' rights increasingly characterise contemporary forms of production (organised according to what Gallino, 2015, has termed the “Walmart model”), thereby facilitating the global spread of these forms of work.

Finally, the unobserved statistical component includes all activities that are not observed because of information inefficiencies inherent in the databases, such as sampling and non-sampling errors, or because of coverage errors in the archives. However, the prevalence of this component has now been reduced as a result of innovations in the sources of information on the economic accounts of enterprises, which reduce the need to resort to sample data and thus virtually eliminate statistical errors.

These brief preliminary remarks on the characteristics of the unobserved economy and its main components are sufficient to show that we are dealing with a complex and diverse set of phenomena. The total value of these phenomena in Italy, as estimated by the most recent ISTAT assessment (based on 2020 data), is 174.6 billion euro, or 10.5% of GDP. This value represents a decrease of 14.1% compared to the previous year. This decline was observed in all components of the unobserved economy (see Table 2). The shadow economy, which amounted to around 157.4 billion euro or 9.5% of GDP, contracted by around 26.5 billion euro compared to the previous year. This decrease was driven by a reduction in its main sub-components, namely the underestimation of value added and the use of irregular work. The former decreased by around 10.7 billion euro compared to 2019, while the latter decreased by around 14.6 billion euro compared to the same year. Conversely, the illegal economy contracted by more than €2.1 billion compared to 2019 (-10.96%), the first decrease since 2015.

**Table 2. The shadow economy and illegal activities  
(current values in millions of euro and percentage incidence of the components  
on GDP; years: 2015-2020)**

	2015	2016	2017
Shadow economy (current values)	191.145	189.392	194.965
- from sub declaration	93.910	95.020	98.473
- from irregular work	79.729	78.403	80.234
- other	17.506	15.969	16.257
Shadow economy (% of GDP )	11,5	11,2	11,2
- from subdeclaration	5,7	5,6	5,7
- from irregular work	4,8	4,6	4,6
- other	1,1	0,9	0,9
Illegal activities (current values)	17.233	18.078	18.896
Illegal activities ( % of GDP)	1,0	1,1	1,1
Unobserved economy (current values)	208.379	207.469	208.169
Unobserved economy (% of GDP)	12,6	12,2	11,8
Value added (current values)	1.488.049	1.522.754	1.589.576
GDP (current values)	1.655.355	1.695.787	1.771.391

**Table 2. The shadow economy and illegal activities (continued)**

	2018	2019	2020
Shadow economy (current values)	188.931	183.893	157.366
- from sub declaration	93.953	90.397	79.710
- from irregular work	78.034	77.033	62.427
- other	16.944	16.463	15.228
Shadow economy (% of GDP)	10,7	10,2	9,5
- from subdeclaration	5,3	5,0	4,8
- from irregular work	4,4	4,3	3,8
- other	1,0	0,9	0,9
Illegal activities (current values)	19.238	19.411	17.283
Illegal activities (% of GDP)	1,1	1,1	1,0
Unobserved economy (current values)	208.169	203.304	174.649
Unobserved economy (% of GDP)	11,8	11,3	10,5
Value added (current values)	1.589.576	1.611.368	1.502.119
GDP (current values)	1.736.593	1.796.649	1.660.621

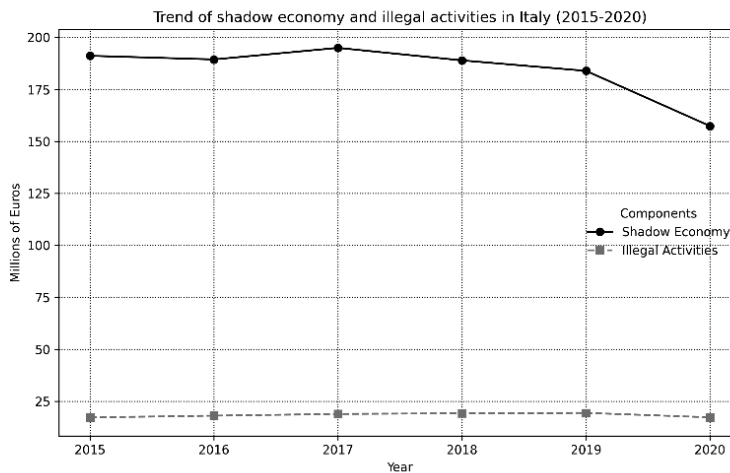
Source: Authors' own elaboration based on ISTAT data.

There was also a slight change in the weight of the different components of the unobserved economy (see Table 2). The decrease in the share of the sub-declaration (from 45.1% to 44.5%) was accompanied by an increase in the shares of undeclared work (from 37.5% to 37.9%) and the black

economy (from 9.2% to 9.6%). However, the contribution of the other components of the shadow economy remained unchanged.

Based on the data presented in Table 2, Figure 2 shows the joint evolution of the shadow economy and illegal activities in Italy from 2015 to 2020. At first sight, we can see that the current value of illegal activities, expressed in millions of euro, is part of the total shadow economy. We can therefore see that the shadow economy is made up of other components, as we have seen in Table 2.

**Figure 2. The joint evolution of the shadow economy and illegal activities in Italy from 2015 to 2020**



Source: Authors' own elaboration.

At this point, we ask whether there is a correlation between the two variables over time. To do this, we calculate the Pearson correlation coefficient (e.g., Benesty et al., 2009), which measures the strength and direction of the linear relationship between two variables. The analytical formula for the correlation coefficient  $r$  between two variables, the shadow economy,  $X$ , and illegal activities,  $Y$ , is as follows:

$$r = \frac{\sum(X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum(X_i - \bar{X})^2} \cdot \sqrt{\sum(Y_i - \bar{Y})^2}} \quad (5)$$

where  $X_i$  e  $Y_i$  represent the values of X and Y;  $\bar{X}$  are  $\bar{Y}$  the average values of X and Y, respectively. As widely known, this coefficient varies between -1 and 1. Applying this formula to our data, we obtained a correlation coefficient of 0.44, representing a positive but moderate correlation between shadow economy and illegal activities.

We also ask whether there is a correlation between the shadow economy and GDP and between illegal activities and GDP. In particular, applying equation (5) to these specific data in Table 2, we obtain the following results: The correlation between the shadow economy and GDP is equal to 0.4, indicating a moderate and positive correlation between the two variables. The correlation between illegal activities and GDP is very strong and positive, equal to 0.94. The latter result, in particular, suggests that illegal activities would tend to increase as GDP increases and vice versa.

As shown in Table 3, the sectors with the highest prevalence of irregular work are other personal services, agriculture, forestry and fishing, and construction. Together, these sectors account for 22%, 16.9% and 8.2% respectively of value added in 2020.

By comparison, the prevalence of irregular work is less pronounced in industry. In this sector, irregular work accounted for 1.1 % of value added in the production of intermediate goods, energy and waste, and 2.6 % in the production of capital goods. Furthermore, the phenomenon is less significant in the industrial sector, where it accounts for 1.1 % in the production of intermediate goods, energy and waste and 2.6 % in the production of capital goods. Furthermore, the tertiary sector activities dedicated to professions and business activities, including professional services (3.6 %) and other business services (1.5 %), also show a lower prevalence of irregular work.

**Table 3. Incidence of the components of the shadow economy on total value added by economic activity (percentage values; years: 2018-2020)**

	2018			
	Sub declaration	Irregular work	Other	Shadow economy (total)
Agriculture, forestry and fishing	0,0	17,1	0,0	17,1
Production of food and consumer goods	8,8	2,9	0,0	11,7
Production of capital goods	2,2	1,4	0,0	3,6
Production of intermediate goods, energy and waste	0,6	1,1	0,0	1,6
Construction	11,8	10,9	0,0	22,7
Wholesale and retail trade, transport and storage, accommodation and food service activities	12,4	7,4	3,0	22,8
Professional services	11,4	4,6	0,0	16,0
Other business services	2,4	1,6	1,5	5,5
General services for A.A.P.	0,0	0,0	0,0	0,0
Education, health and social work	2,5	5,4	0,0	7,9
Other services to people	12,7	23,0	0,7	36,4
Total	5,9	4,9	1,1	11,9
	2019			
	Sub declaration	Irregular work	Other	Shadow economy (total)
Agriculture, forestry and fishing	0,0	17,3	0,0	17,3
Production of food and consumer goods	8,1	2,9	0,0	11,0
Production of capital goods	2,2	1,3	0,0	3,5
Production of intermediate goods, energy and waste	0,6	1,0	0,0	1,6
Construction	11,0	9,8	0,0	20,8
Wholesale and retail trade, transport and storage, accommodation and food service activities	12,0	7,0	2,9	21,9
Professional services	9,2	4,6	0,0	13,8
Other business services	2,4	1,7	1,3	5,4
General services for A.A.P.	0,0	0,0	0,0	0,0
Education, health and social work	2,5	5,1	0,0	7,6
Other services to people	11,5	23,3	0,8	35,6
Total	5,6	4,8	1,0	11,4

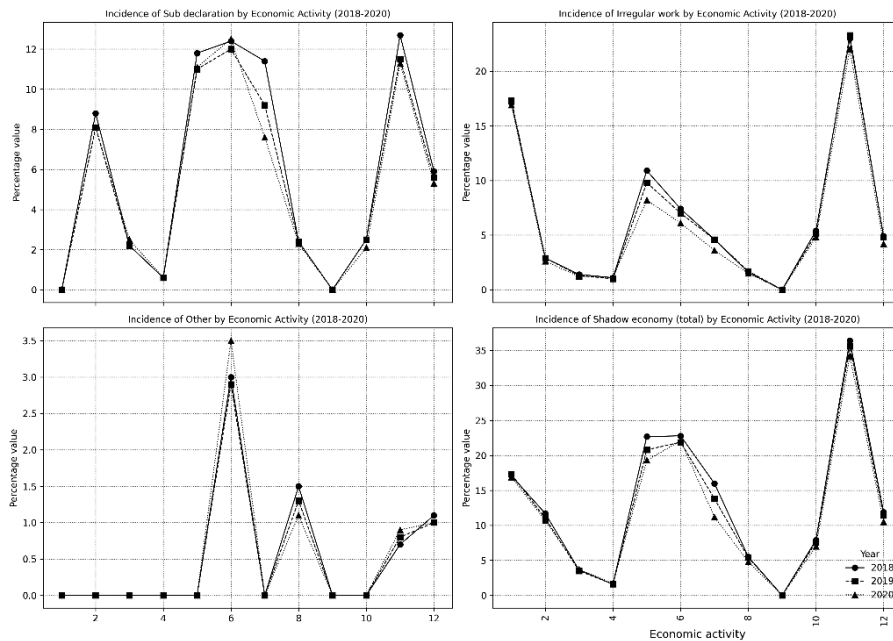
*Examining the impact of the Italian tax system on the nature and extent of the unobserved economy and undeclared work*

2020				
	Sub declaration	Irregular work	Other	Shadow economy (total)
Agriculture, forestry and fishing	0,0	16,9	0,0	16,9
Production of food and consumer goods	8,1	2,6	0,0	10,7
Production of capital goods	2,5	1,2	0,0	3,7
Production of intermediate goods, energy and waste	0,6	1,1	0,0	1,7
Construction	11,1	8,2	0,0	19,3
Wholesale and retail trade, transport and storage, hotels and restaurants	12,5	6,1	3,5	22,1
Professional services	7,6	3,6	0,0	11,2
Other business services	2,3	1,5	1,1	4,8
General services for A.A.P.	0,0	0,0	0,0	0,0
Education, health and social work	2,1	4,8	0,0	7,0
Other services to people	11,3	22,0	0,9	34,2
Total	5,3	4,2	1,0	10,5

Source: Authors' own elaboration based on ISTAT data.

In order to provide a relatively comprehensive overview of the incidence of the components of the shadow economy on total value added by economic activity, four graphs are presented in Figure 3. In these graphs, for each economic activity defined in Table 3 and numerically indexed in the graphs (1,...,12), we show the evolution over the period 2018-2020 of the incidence, expressed in percentage terms, with respect to sub-declaration, irregular work, other sources of the shadow economy and the total shadow economy, respectively.

**Figure 3. A comparison of economic activities, for each component of the shadow economy, over the period 2018-2020**



Source: Authors' own elaboration.

Figure 3 shows that the trend in the incidence of the components of the shadow economy in total value added by economic activity is almost stable over the period considered. However, there are differences in the percentage of these incidences for construction (5), wholesale and retail trade, transport and storage, hotels and restaurants (6) and professional services (7).

From a territorial point of view, the northern regions of Italy have the highest concentration of irregular workers, with a total of 1,281,900. The southern regions have the second highest concentration of irregular workers, with a total of 1,202,400. The central regions, on the other hand, have a concentration of 787,700.

However, a different perspective emerges when the irregularity rate is taken into account. This is defined as the share of irregular work in total employment, including both regular and non-regular jobs. In this context, the

southern and central regions of Italy present the most critical scenarios, with the prevalence of irregular employment in 2020 exceeding the national average by 17.5 and 13.1 percentage points respectively. Furthermore, the unobserved economy contributes 7.4% and 4.9% respectively to the regional total, compared to the national average of 4.8%.

The most problematic situation is observed in Calabria, where 131,700 irregular workers contribute to an irregularity rate of 21.5% and an informal economy incidence of 9.2% of the regional total. The added value of irregular work is estimated at 2.7 billion euros. Similarly problematic is the situation in Campania, where 352,700 undeclared workers contribute to an irregularity rate of 18.7% and a GDP from undeclared work of 8.1% of the regional total (equivalent to 8.1 billion euro). The situation in Sicily is similarly worrying. The number of undeclared workers is 280,200, which corresponds to an irregularity rate of 18.5%. The added value of the unobserved economy compared to the official economy is 7.4% (5.9 billion euro).

**Table 4. Incidence at territorial level (regional and by macro-areas) of Value Added (V.A.) from irregular work on the total Value Added of the economy (2020)**

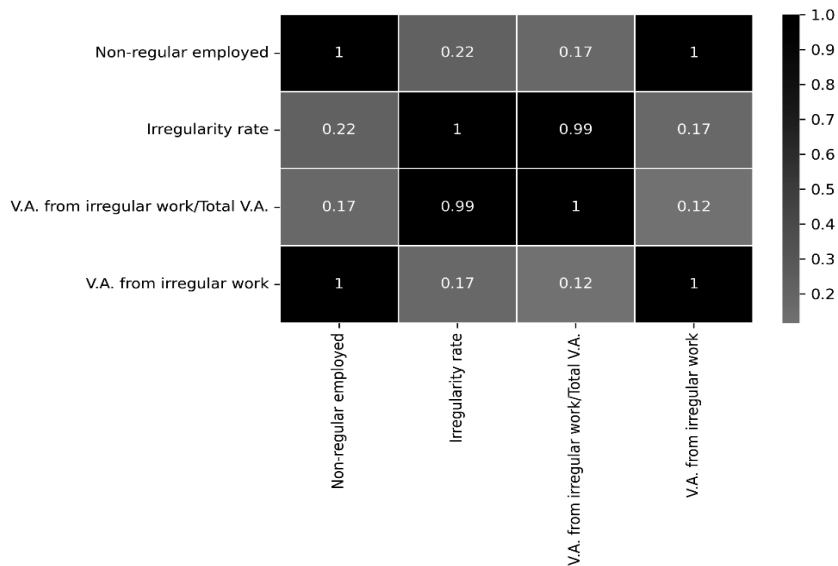
	Non-regular employed (number)	Irregularity rate (%)	V. A. from irregular work/Total V.A. (%)	V.A. from irregular work (million €)
Calabria	131.700	21,5	9,2	2.759
Campania	352.700	18,7	8,1	8.103
Sicilia	280.200	18,5	7,4	5.954
Puglia	221.200	15,9	6,9	4.784
Sardegna	94.100	15,3	6,6	2.111
Molise	17.100	15,8	6,2	366
Abruzzo	76.000	14,5	5,7	1.700
Basilicata	29.400	14,3	5,6	651
Umbria	48.300	13,0	5,4	1.124
Lazio	421.100	15,3	5,4	9.812
Valle d'Aosta	6.000	9,8	4,3	189
Liguria	79.800	11,8	4,3	1.928
Marche	70.300	10,5	4,3	1.647
Toscana	179.000	10,5	4,1	4.493
Emilia Romagna	207.700	9,5	3,9	5.651
Piemonte	190.900	10,0	3,9	4.770
Friuli V. Giulia	53.000	9,7	3,7	1.310
A.P. Trento	25.800	9,5	3,6	699
A.P. Bolzano	26.000	8,4	3,6	837
Lombardia	489.500	10,0	3,6	12.671
Veneto	203.200	8,8	3,5	5.259
<b>Italy</b>	<b>3.203.000</b>	<b>12,6</b>	<b>4,8</b>	<b>76.817</b>
North-west	766.200	10,2	3,7	19.558
North-east	515.700	9,2	3,7	13.755
Centre	718.700	13,1	4,9	17.076
South	1.202.400	17,5	7,4	26.428

Source: Authors' own elaboration based on ISTAT data.

On the basis of the data in Table 4, the average number of irregular workers in Italy is 1281200, with a standard deviation of 1103080 and a minimum observed in the north-east of Italy (515 700). The average rate of

irregularity in Italy is 12.52% with a standard deviation of 3.22%, with a minimum of 9.2% (North-East) and a maximum of 17.5% in the centre. As regards the share of value added from irregular work in total value added, the average percentage is 4.9% with a standard deviation of 1.51%, with a minimum of 3.7% (North-West and North-East) and a maximum of 7.4% in the South. Overall, the average value added of irregular work, expressed in millions of euro, is 30,326.8 with a standard deviation of 26,181.65, with a minimum of 13,755 in the North-East. To support what has been stated so far, Figure 4 shows the heat map of the correlation between the different economic variables related to irregular work in Italy reported in Table 4.

**Figure 4. Correlations between specific economic variables and irregular work**



Source: Authors' own elaboration.

Figure 4 shows that the correlation between the number of non-regular workers and the value added generated by non-regular work is particularly strong, reaching a value of 1.0. This indicates that as the number of irregular workers increases, there is also a direct increase in the economic value generated by non-regular work in absolute terms. This relationship suggests

that areas with a greater presence of irregular workers tend to have a greater economic impact from these activities.

An analysis of the correlation between the irregularity rate and the share of value added generated by non-regular work in total value added also shows a very high correlation of around 0.99. This means that in areas where the rate of irregular work is higher, the share of value added generated by this type of work in total value added is also higher. This indicates a strong economic influence of irregular work in percentage terms in regions with higher levels of irregularity. Other variables, on the other hand, show weaker correlations, with values below 0.3, indicating that there are no significant linear relationships between the number of irregular workers and the rate of irregularity, or between the value added generated by non-regular work and this rate, apart from the relationships already discussed. In summary, the heatmap clearly shows that the number of irregular workers and the economic value generated by these activities are closely linked. There is also a strong relationship between the irregularity rate and the share of non-regular work in total value added, suggesting that the economic importance of non-regular work increases in proportion to the irregularity rate.

### **3. The determinants of the unobserved economy**

The complexity and multidimensionality of the unobserved economy phenomenon can be attributed to the multiplicity of its causes or determinants, which have been the subject of extensive study in the economic literature. In addition to an analysis of the phenomenon itself and its constituent components, it is also important to study the factors that give rise to it. As will be discussed below, the determinants of the phenomenon may depend on the appropriate combination of policies and strategies that governments should adopt in order to address it.

Table 5 presents estimate of the average size of the unobserved economy in 38 OECD countries, along with the relative average impact of each determinant of the phenomenon, expressed as a percentage of the respective GDP. These estimates have been obtained through the application of the Multiple Indicators Multiple Causes (MIMIC) estimation method (for further details, see, for example, Buehn & Schneider, 2008), which is designed to analyse the impact of the un The observed economy policies adopted by a substantial number of countries across the globe (for example, 162 countries, including developing countries, Eastern European countries, Central Asian

countries and, finally, high-income OECD countries) over a specified time period. In this study, the period under consideration is 1999 to 2007. On the basis of the aforementioned estimates, which have been revised and updated to 2017, it is possible to assess the adequacy of policies designed to combat the unobserved economy by comparing them with the average relative impact of the determinants of the phenomenon. Indeed, an examination of the data presented in Table 5 allows for the calculation of the average relative impact of each determinant of the unobserved economy. Furthermore, it permits the assessment of the efficacy of the public policies implemented by the governments of the countries under study.

**Table 5. Average relative impact of the determinants of the shadow economy in 38 OECD countries (percentage values; years 1999-2017)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Australia	10,8	21,3	25,4	7,4	15,8	19,3	0,9	9,9
Austria	8,8	18,5	27,4	11,6	12,1	20,5	0,8	9,1
Belgium	20,5	19,2	20,2	19,1	16,5	17,3	0,4	7,2
Bulgaria	35,6	5,1	37,7	5,7	25,9	17,5	1,9	6,2
Canada	13,6	22,1	17,5	7,7	19,2	22,4	0,7	10,4
Chile	18,4	1,8	35,3	5,5	17,3	32,7	0,8	6,7
Cyprus	28,2	4,3	35,9	9,1	11,2	29,9	0,8	8,7
Czech								
Republic	15,6	7,8	30,7	9,4	19,0	23,5	1,2	8,3
Denmark	16,3	34,6	33,5	4,0	9,5	9,9	0,3	8,2
Estonia	20,7	10,0	36,0	11,7	21,8	10,4	1,8	8,3
Finland	15,4	19,7	29,1	8,7	18,6	15,2	0,8	7,9
France	14,8	12,8	24,3	15,5	23,2	15,1	0,4	8,6
Germany	15,7	16,6	24,2	8,3	24,3	16,9	0,6	9,1
Greece	27,0	5,8	21,8	10,4	18,0	37,6	0,7	5,7
Hungary	24,1	12,3	34,9	6,4	18,6	18,5	1,2	8,0
Iceland	14,2	19,9	39,7	6,5	7,1	17,9	0,6	8,2
Ireland	15,1	12,5	36,4	7,9	12,5	21,3	1,0	8,5
Italy	26,9	15,5	18,9	9,0	18,6	31,0	0,1	6,8
Korea	25,2	5,7	27,3	3,4	9,8	44,3	1,4	8,0
Latvia	21,0	8,2	32,3	13,3	23,3	14,6	1,8	6,6
Lithuania	25,4	9,0	28,8	17,5	19,9	17,1	1,5	6,1
Luxembourg	8,6	13,2	33,4	20,0	10,4	11,9	1,2	9,8
Malta	26,3	5,9	39,7	3,2	20,0	21,2	0,8	9,3

**Table 5. Average relative impact of the determinants of the shadow economy in 38 OECD countries (percentage values; years 1999-2017) (continued)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mexico	31,0	2,3	42,1	10,2	5,9	33,8	0,4	5,3
Netherlands	11,8	13,6	32,5	13,0	10,4	19,7	0,8	10,0
New Zealand	11,2	21,8	25,4	8,4	11,9	22,9	0,6	9,1
Norway	17,6	21,2	31,5	12,5	10,8	13,0	0,5	10,5
Poland	25,4	6,1	27,8	7,8	26,1	25,7	1,3	5,3
Portugal	21,2	8,1	29,9	8,7	14,6	31,1	0,4	7,2
Romania	33,2	4,2	24,5	14,2	13,1	37,7	1,1	5,2
Slovakia	18,5	4,8	31,7	6,4	34,9	13,7	1,5	7,1
Slovenia	24,1	9,6	33,9	9,6	15,4	21,7	1,2	8,6
Spain	21,8	10,6	17,9	10,4	29,1	23,8	0,6	7,5
Sweden	16,6	23,5	30,6	8,7	15,2	13,2	0,8	8,0
Switzerland	7,3	17,7	30,7	9,0	9,6	23,8	0,5	8,7
Turkey	31,6	4,9	31,4	0,7	16,4	41,4	0,6	4,6
United Kingdom	11,5	18,2	30,8	8,1	14,3	18,0	0,6	9,9
USA	8,2	27,5	5,1	13,2	22,0	16,0	0,9	15,4
Tot. average	19,4	13,1	29,4	9,5	16,9	22,2	0,9	8,1

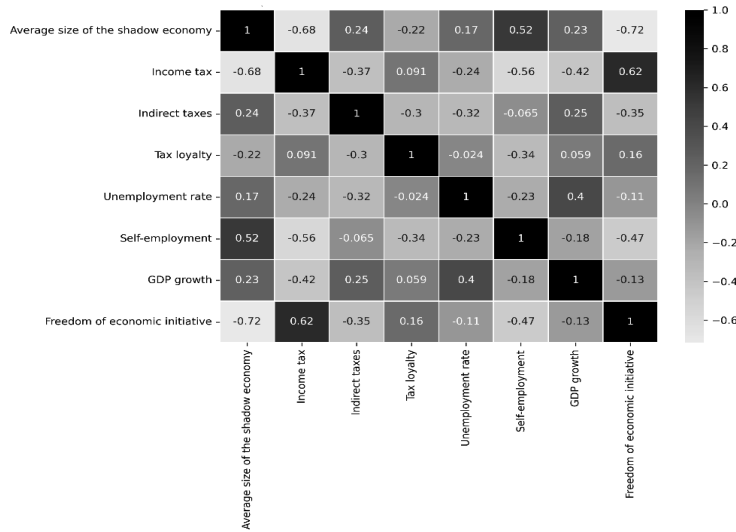
Source: Authors' own elaboration on OECD data and based on the analysis by Schneider (2022). Legend: (1) Average size of the shadow economy; (2) Income tax; (3) Indirect taxes; (4) Tax loyalty; (5) Unemployment rate; (6) Self-employment; (7) GDP growth; (8) Freedom of economic initiative.

The descriptive statistics on the determinants of the shadow economy show that the average size of the shadow economy is 19.45%, with a standard deviation of 7.38%. The observed values range from a minimum of 7.3% to a maximum of 35.6%, showing some variability in the distribution. For personal income tax, the average is 13.05%, with a standard deviation of 7.65% and values ranging from 1.8% to 34.6%. Indirect taxes also show an average of 29.37% with a standard deviation of 7.20% and values ranging from 5.1% to 42.1%.

When analysing tax loyalty, the mean value is 9.53% with a standard deviation of 4.13% and a range of 0.7% to 20.0%. The unemployment rate is on average 16.90% with a standard deviation of 6.27%, ranging from 5.9% to 34.9%. The self-employment rate is 22.15% on average with a standard

deviation of 8.61%, ranging from 9.9% to 44.3%. The GDP growth rate is lower, with an average of 0.88%, a standard deviation of 0.43% and a range of 0.1% to 1.9%. Finally, freedom of economic initiative has an average of 8.11 and a standard deviation of 1.93, ranging from a minimum of 4.6 to a maximum of 15.4. Figure 5 shows a heat map of the correlations between the different determinants of the shadow economy in the OECD countries.

**Figure 5. Correlations between the different determinants of the shadow economy in the OECD countries**



Source: Authors' own elaboration.

Figure 5 depicts a negative correlation between the average size of the shadow economy and personal income tax, with a coefficient of -0.68. This indicates that an increase in personal income tax is associated with a reduction in the shadow economy. This may be indicative of more rigorous tax administration in countries with higher income taxation. Similarly, there is a robust negative correlation between economic freedom and the size of the shadow economy (-0.72), indicating that greater economic freedom is associated with a reduction in incentives to operate in the shadow sector. However, the self-employment rate displays a positive correlation with the size of the shadow economy (0.52), suggesting that a greater prevalence of

self-employment may facilitate tax evasion or the utilisation of undeclared work.

A positive correlation is evident between personal income tax and economic freedom (0.62), indicating that countries with greater economic freedom also tend to have structured tax systems. Conversely, a negative correlation is observed between personal income tax and the self-employment rate (-0.56), indicating that higher taxation may act as a disincentive to self-employment. In contrast, indirect taxes demonstrate a moderate positive correlation with GDP growth (0.25), indicating that they may serve as a means of promoting economic expansion. Nevertheless, their impact on the unobserved economy seems to be relatively constrained.

The analysis yielded no statistically significant relationships between tax loyalty and the majority of variables. This indicates that the level of tax compliance is not significantly correlated with the size of the shadow economy or other economic variables. The unemployment rate is positively correlated with GDP growth (0.4), which may reflect circumstances of economic expansion that do not immediately result in the creation of new employment opportunities. Conversely, this rate exerts a constrained influence on the shadow economy in comparison to other factors.

The correlation between self-employment and the size of the shadow economy remains positive, while the correlation with economic freedom is negative ( $r = -0.47$ ). This indicates that in economies with greater economic freedom, there is a reduced propensity for individuals to engage in self-employment as a means of irregular employment. In addition to its correlation with the unemployment rate and indirect taxes, GDP growth exhibits low correlations with the other variables, indicating its relative independence from factors related to the shadow economy. Economic freedom is inversely correlated with the size of the shadow economy and positively correlated with income taxation, indicating that countries with greater economic freedom often also have an established tax structure.

In summary, the magnitude of the shadow economy is predominantly shaped by economic freedom and income taxation, both of which exhibit a negative correlation. The data suggests a positive correlation between self-employment and irregular work, indicating a potential link between this form of employment and this problem. The findings of the comprehensive analysis suggest that factors such as economic freedom and tax structure can serve as pivotal determinants in the reduction of the shadow economy.

A comprehensive examination of the data presented in Table 5, employing the MIMIC approach, enables the formulation of eight pivotal hypotheses concerning the underlying forces driving the unobserved economy and their influence on economic size.

- (1) An increase in the tax burden results in an expansion of the unobserved economy.
- (2) The presence of excessive and intricate regulatory frameworks gives rise to incentives for evasion and the operation of shadow economies.
- (3) A decline in the quality of institutions gives rise to greater incentives to engage in shadow economic activities.
- (4) A reduction in the level of tax compliance (institutional trust) will result in an increase in the incentive to evade taxes and engage in shadow economic activities.
- (5) A lower GDP per capita in a country provides greater incentives for individuals to engage in shadow economic activities.
- (6) An increase in unemployment rates is associated with an increase in hidden economic activities.
- (7) Countries with a higher prevalence of self-employment tend to exhibit elevated rates of tax evasion and a more substantial shadow economy.
- (8) The greater the freedom of private economic initiative, the smaller the unobserved economy.

The determinants of the unobserved economy are numerous and varied. However, the incidence of these determinants differs significantly depending on the case in question and the historical period under examination. To illustrate, an examination of the period between 1999 and 2017 (see Table 5) reveals that for certain countries, including Germany, Austria and Denmark, the primary driver or determinant of the unobserved economy is the direct and/or indirect tax burden. In contrast, in the case of other countries, such as Italy, Greece and Romania, the significance of the primary factors contributing to this phenomenon appears to be distinct. Firstly, the extent of the diffusion of self-employment would exert an influence, which would then be followed by the indirect tax pressure, the unemployment rate and the degree of tax loyalty diffused in the country, in order of relevance.

In conclusion, an effective policy to combat the unobserved economy should focus on the analysis of the main factors specific to each context. This approach should comprise a comprehensive package of reforms, the design of which should be meticulous in order to address these determinants. Such measures could include regulatory and institutional reforms, fiscal

policies and the promotion of a culture based on legality and administrative integrity. In the case of emerging economies, the implementation of key policies should include the reduction of regulatory and administrative burdens, the enhancement of transparency, the improvement of government efficiency, the promotion of tax fairness, the automation of processes and the encouragement of electronic payments. Moreover, well-designed policies should provide incentives for firms and workers to transition into the formal sector, particularly in countries that rely on remittances and where the unobserved economy often serves as a social safety net. In essence, policies designed to stimulate the creation of private sector jobs and promote inclusive growth have the potential to facilitate the transition of numerous firms and workers into the formal economy.

An appropriate combination of policies and measures should be evaluated and designed on a case-by-case basis, with an initial assessment of the principal factors influencing the observed phenomenon. Nevertheless, statistical analysis is frequently inadequate for discerning the actual impact of implemented policies. It is common practice for governments to address the issue of undeclared work through the implementation of punitive measures, which are occasionally complemented by incentive-based strategies designed to promote formal employment through individual initiative. Despite the utilisation of sophisticated methodologies, recent statistical research has frequently been unable to assess the efficacy of sanctions and incentives. The analysis of these effects is particularly complex, especially when considered in a comparative context. In order to gain an accurate understanding, it is necessary to gain detailed knowledge of the scope of sanctions, the mechanisms for imposing them, and the specific requirements for qualifying for incentives or benefits aimed at facilitating formal employment.

It is necessary, therefore, to adopt a multi-faceted approach in order to gain a comprehensive understanding of the phenomenon of the unobserved economy. This approach combines statistical analysis of the determinants of the phenomenon with a legal assessment of the system of sanctions and incentives, including their evolution over time.

In the following sections, we will apply this approach to the Italian case, examining the evolution of relevant policies and measures over the last 35 years (starting in 1989 with the introduction of “reorientation contracts”) and comparing their initial objectives with the actual results, which have often been disappointing.

#### **4. Evolution of policies to combat undeclared work adopted in Italy: Fiscal measures**

Over the last few years, public policies to combat undeclared work have become an absolute priority on the political agenda, both at the national and European levels. This has profoundly changed the institutional context of reference regarding the institutional subjects involved and the choice of legal instruments used. The “direct” intervention measures and strategies based on the negotiation approach go beyond the scope of the work performed (among these, in particular, the so-called “realignment contracts”, which reached their definitive configuration only after constant feedback and updating work, started since the late 1980s). However, we will focus, albeit quickly for the specific and limited purposes of the investigation entrusted, on the evolution of measures and strategies of a “fiscal nature”, i.e. implying an interference by tax institutions with this phenomenon, and with it a “relationship” between the parties to the negotiating as mentioned earlier relationship and the Financial Administration. This is in order to evaluate, albeit in brief and limited to some more significant measures, the consistency of these interventions with the original rationale and with the superordinate principles, also because of the consequent - and too often neglected - economic implications.

##### *4.1 “Direct” intervention strategies based on tax breaks and substitutive tax regimes: An outline*

In Italy, towards the end of the 1990s and the beginning of the new century (that is, while the experience of realignment contracts was still ongoing), to combat the phenomenon of the shadow economy and irregular work more effectively, new “direct” intervention measures and strategies began to be developed, mainly based on a fiscal approach, such as the so-called “emergency programs” and tax incentives for building renovation costs and the purchase of used materials.

The first instrument is still governed today by Law No. 383/2001 (so-called “Tremonti-bis”), amended several times over time but still in force. This law had the objective of encouraging the spontaneous emergence of irregular work through the granting of tax and social security benefits (for further details on the functioning of the tax reduction mechanism provided for by Law No. 383/2001, see Villani, 2002). The advantages envisaged for

entrepreneurs who have resorted to irregular work, failing to fulfil the obligations established by current legislation on tax and social security matters, consist in the regularization of previous years through the payment of a tax in lieu of personal income tax and the income tax of legal persons (today corporate income tax), a substitute contribution on the higher taxable social security related to the declared income from work, and consequent to the declaration of emergency, and the payment of reduced premium rates, for insurance against accidents at work and occupational diseases (Art. 1, Paragraph 2, letter a), of Law No. 383/2001)..

The declaration of emergency, therefore, constitutes an “admission entitlement” to a special tax and social security incentive regime and can also be valid, upon specific request by the entrepreneur, as a proposal for a tax and social security “composition agreement”, if presented before the start of any accesses, inspections and checks or of the notification of the assessment or rectification notice. In this case, specifically, the entrepreneur is required to pay a substitute tax for personal income tax and corporate income tax, VAT, IRAP, social security contributions and insurance premiums, to the extent of 8% of the total labour cost declared for each tax period, without the application of penalties and interest (Art. 1, Paragraph 3, of Law No. 383/2001).

For their part, the workers of the companies adhering to the emergency programs can extinguish their tax and social security debts connected to the provision of irregular work for each of the years they intend to regularize through the payment of a substitute contribution, with separate taxation with respect to the remaining taxable amount, without the application of interest or penalties (Art. 1, Paragraph 4, of Law No. 383/2001).

The tax concessions for building renovation costs and for the purchase of used materials, on the other hand, unlike the emergency programmes, had a dual objective: on the one hand, they were intended to discourage recourse to undeclared work through a system of concessions which reduced the threshold of interest of clients in accessing a service that violates tax and social security obligations; on the other hand, they were aimed at supporting investments in the construction sector in times of recession or slowdown in demand. To achieve these objectives, Law No. 449/1997 and the 1999 and 2000 financial laws introduced a tax mechanism that acts through the application of IRPEF and VAT to bring exclusive advantage to those who can legally fulfil the order, allocating the production units that continue to be marginalized to resort to the submerged. Numerous other financial laws

then intervened to change the application mechanism of the aforementioned tax benefit, which was extended several times with subsequent provisions and is still operational today (see Budget Law 2022 and Art. 16-bis of Presidential Decree No. 917/86).

#### *4.2 Fiscal strategies of “indirect” intervention: Framework and general profiles*

Some intervention strategies, while not directly aimed at emergence, may be able to produce positive effects on irregular work. These tools include, in general, interventions that subordinate the benefits (of a fiscal and/or social security nature) envisaged by the Legislator to the increase in the workforce (new hires), to the use of contractual forms that facilitate entry into the world of work, to the creation of new businesses in poorer or economically disadvantaged territorial areas, in which it is more challenging to create development opportunities or to embark on a path of growth. At the same time, it is easier for forms of irregular work to develop.

In particular, in Italy, starting from the second half of the 1990s, various measures of this type have been implemented, which can basically be classified into five categories: (i) incentives for new employment; (ii) tax breaks aimed at encouraging and facilitating entrepreneurial initiatives; (iii) incentives for investments in disadvantaged areas of the country; (iv) incentives to favour entry into the world of work; (v) fiscal measures (such as the provision of changes to the main elements of the tax, the application of flat-rate regimes, substitute taxes and so on) which form part of the functioning of already structured and consolidated institutes and/or taxes and are aimed to indirectly create an incentive to emerge or a disincentive to enter into irregular employment contracts.

Among the indirect measures of fiscal nature, it is worth mentioning the tax credit for new hires introduced by Art. 7 of the Finance Law for 2001; the tax credit for new investments in disadvantaged areas (the so-called “Visco Sud”) according to Art. 1, paragraphs 271 to 279, of the Finance Law for 2007; tax breaks (of various types) “aimed at promoting the creation and growth of new innovative businesses”, provided for the first time with Decree-Law no. 179/2012 (but modified, increased and strengthened over the years)<sup>7</sup>; the so-called flat tax of individual VAT numbers and the

---

<sup>7</sup>These concessions can be classified among the “indirect” tax measures to combat undeclared work, enhancing the significant contribution that innovative *startups* (i.e. newly established companies that

changes to the regulation of the regional tax on productive activities (IRAP) introduced to reduce the cost of labour and the tax wedge borne by companies and to favour the hiring of permanent workers.

The difficulties encountered by businesses during and after the recent economic crisis caused by the COVID-19 pandemic led to a particular and broader spread of irregular work.

To contain the foreseeable repercussions of the health emergency on the country's economic and social system and to ensure adequate income support for those at risk of economic and social hardship in crises, new and specific economic measures have been introduced, both fiscal and non-fiscal, which are also potentially suitable for producing effects beneficial for combating irregular work<sup>8</sup>. Among the fiscal measures of this type, it is worth mentioning the tax credit for sports sponsorships (see Art. 81 of the so-called "August Decree" and Art. 10, Paragraphs 1-2 of the so-called *Sostegni-bis Decree*), the so-called holiday bonus (which essentially consisted of a tax credit, recognized up to a maximum amount of 500 euros, which can be used to pay for the services offered by tourist accommodation, bed & breakfast and agritourism companies: see Art. 176 of the so-called *Relaunch Decree*) and the recognition (Art. 79 of the so-called *August Decree*), only for the 2020 and 2021 tax periods, of the tax credit for the redevelopment and improvement of tourist accommodation facilities hotels under Art. 10 of Legislative Decree No. 83/2014.

Some economic support measures respond to the same logic, however essentially non-fiscal in nature, provided for in the so-called "Decreto Lavoro" in favour of people in impoverished conditions and at risk of social and/or occupational exclusion. Among these, we mention, in particular, the Inclusion allowance (governed by Art. 10 of the Decree as discussed above), the Support for training and work (established by Art. 12 of the Decree), the concessions provided (see Art. 27 of the Decree) for the hiring of the so-called "NEETs" (young people under 30 who are not engaged in instruction, work or training courses), incentives for the hiring of young people under 35 with disabilities (of which Art. 28 of the Decree) and the further reduction

---

carry out development, production and marketing activities of innovative products or services with high technological value ) provide, nowadays, to economic growth and employment, especially of youth.

<sup>8</sup> Indeed, according to ISTAT assessments (2022), these measures produced a strong unobserved reduction in the value of the economy in 2020 (by 14.1% compared to the previous year), which generally affected all components of the phenomenon. Non-regular employment, in particular, recorded a decrease of 18.4% compared to 2019, recording a decrease that is almost double that of the regular one (-9.9%). For further information on the impact of the aforementioned measures, see ISTAT 2022.

(provided for by Art. 39 of the Labour Decree) of 4 percentage points of the social security contributions payable by workers, which is added to that already provided for by the last Budget Law for on 2023.

Without prejudice to the summary survey carried out up to now of the fiscal measures indirectly and vaguely adopted to combat undeclared work, two types of tax interventions with a very significant economic impact have recently come to the attention, and to which the tax Legislator seems to have focused more to combat the spread of undeclared work. We are referring, in particular, to the subsidized tax regime, which replaces the IRPEF, envisaged for VAT holders and to the regulatory changes that have recently changed the structure of the IRAP to obtain a reduction in the cost of labour and the wedge tax levied on companies. The following paragraphs will, therefore, illustrate the discipline envisaged for these measures, analyzing their rationale and the main economic implications.

## **5. The effects of the introduction of the new flat-rate regime for individual VAT identification numbers**

The flat-rate regime (or flat tax) of individual VAT identification numbers (that is, intended for natural persons carrying out business or self-employment activities who meet specific requirements) was introduced in 2015, with the 2015 Stability Law, to bring the tax treatment of self-employed workers and individual entrepreneurs closer to that of dependent workers and pensioners and, in this way, reduce their incentives to evade (tax and social security contributions) and to hire undeclared workers. This regime provided, in particular, that subjects already in business or starting a new business, art or profession could benefit from the 15% substitute tax, provided that in the previous year, they had: (1) achieved revenues not exceeding certain thresholds, differentiated according to the ATECO sector group; (2) sustained expenses for ancillary work, employee work and salaries to collaborators (also hired concerning specific projects) not exceeding 5,000 gross euros; (3) sustained a cost for capital goods (gross of depreciation) not exceeding 20 thousand euros (see Art. 1, Paragraph 64, Law No. 190/2014).

In 2019, new rules for accessing the scheme, as mentioned earlier, were introduced. Indeed, the 2019 Budget Law established that the maximum threshold of revenues and fees should no longer vary according to the ATECO code and, moreover, the elimination of the access requirements

previously envisaged concerning the cost of capital goods and personnel. According to the new rules, therefore, taxpayers who are already in business or starting a new business, art or profession and who have revenues or fees not exceeding 65 thousand euros can benefit from the 15% substitute tax. (Art. 1, co. 9, Law No. 145/2018). With the 2020 Budget Law, the criterion relating to personnel costs was instead restored, allowing access to the 2019 flat-rate scheme only to persons who have incurred expenses for a total gross amount not exceeding 20 thousand euros for employment, work ancillary and remuneration to collaborators, also hired in the manner attributable to a project.

Finally, with the 2023 Budget Law, the Government expanded the number of beneficiaries of this subsidy, introducing the following important innovations: (1) the raising from 65,000 euros to 85,000 euros of the threshold for revenues or fees that allow access to the flat-rate scheme; (2) the immediate obligation to leave the flat-rate regime for taxpayers who exceed the limit of 100,000 euros in revenues or fees during the year; (3) a fixed tax of 15% instead of IRPEF and related surtaxes, to be applied on the portion of income accrued only in 2023 over the highest among those of the previous three-year period (so-called “flat tax incremental”). According to the Government’s intentions, these last modifications should have a double effect: to stimulate economic growth, thanks to the raising of the threshold of revenues or compensations that allow access to the flat-rate scheme, and simultaneously, due to the incentive mechanism envisaged with the introduction of the incremental flat tax, to stimulate taxpayers to declare the tax base that had been hidden to return to the “old” flat-rate regime, with significant effects in terms of reducing evasion and irregular work. Above all, with the introduction of the incremental flat tax, the distorting effects produced by the pre-existing regime should be eliminated or reduced, i.e. the impact of self-selection of taxpayers with revenues and fees below the maximum threshold of 65 thousand euros, to benefit from the facilitation provided by the flat-rate scheme. According to Ministry of Economy and Finance technicians, this effect probably depended on taxpayers reducing their productive activity or on a tendency to under-declare revenues to avoid exceeding the threshold described above.

The inspiring rationale of the modifications above is, therefore, undoubtedly appreciable. However, we believe it is our duty to propose some observations below, which should push the Legislator to resort to a less

distortive instrument in order to achieve the even more commendable objectives that have been proposed.

First of all, the possible adverse effects that the measures introduced could produce on IRPEF and the very structure of the tax system as a whole should be taken into consideration. The innovations introduced with the 2023 Budget Law contribute, indeed, to further eroding the income tax base and increasing the system's erratic nature, complexity, and unfairness.

Furthermore, within the group of beneficiaries of the measures, as mentioned earlier, there is the risk of discrimination between those who could be defined as “safeguarded by the flat tax” and those “abandoned to the progressivity of the IRPEF”. This effect would certainly arouse strong perplexities and criticisms regarding the constitutional stability of the system, regarding both the principle of ability to pay and that of equality.

Finally, if we consider the tax savings resulting from the application of the incremental flat tax, we can realise that the tax savings would be minimal, so much so that, it is difficult to understand how they can incentivise behaviour aimed at increasing the taxpayer's income. On the other hand, it is more probable, in the event that incremental taxation really does affect workers' choices, that opportunistic behaviours aimed at having income increases every other year will occur<sup>9</sup>.

## **6. Changes to the IRAP regulation and its effects on labour costs and the tax wedge**

In recent years, significant regulatory changes have been introduced which have directly influenced the structure of IRAP (for a summary description of only the changes aimed at reducing the so-called “tax wedge” on labour, see Table 6), changing the rate and introducing deductions to encourage permanent employment, and indirectly, through measures to reduce social security contributions which have reduced the wedge borne by the employer between the gross salary of employees and the cost of labour:

– in 2011, the so-called “Salva Italia” manoeuvre (launched with Legislative Decree No. 211/2011) introduced two structural measures, intending to reduce the tax burden on corporate profits (the ACE) and the

---

<sup>9</sup> In this regard, see the results of some recent simulations, which demonstrate how the changes made to the 2023 Budget Law would produce insignificant tax savings and, therefore, not sufficient to push people to improve their position.

reduction of labour costs<sup>10</sup> obtained through the full deduction of IRAP on labour costs from income taxes;

– in 2012, differentiated territorial measures were introduced in favour of companies located in the Southern regions, which increased the deductions from the IRAP taxable base on the cost of labour in the case of hiring new permanent workers (Art. 1, Paragraphs 484 and 485 of the 2013 Stability Law);

– in 2013, the measures adopted (Art. 1, Paragraph 132 of the Stability Law for 2014) led to a continuation of the manoeuvres aimed at reducing the cost of labour and the tax wedge for the company through the increase of deductions from the IRAP taxable base on labour costs in the case of new permanent hires (see Art. 1, paragraph 132, of the Stability Law for 2014 ) and a reduction in the IRAP rate (provided for by Art. 2 of the so-called “IRPEF-Spending Review Decree”, launched on 26 April 2014);

– the 2015 Stability Law included further amendments to IRAP that were not differentiated at a territorial level: the complete elimination of labour costs from the taxable amount (see Art. 1, Paragraph 20) and the almost complete deduction of social security contributions for three years in favour of companies that take on permanent contracts in 2015 alone (see Art. 1, Paragraphs from 118 to 122);

– the 2016 Stability Law provided (Art. 1, Paragraph 70), starting from the tax period following the one in progress on 31/12/2015, for the exclusion from IRAP of subjects operating in the agricultural sector, small-scale fishing cooperatives and their consortia, and cooperatives and their consortia which mainly provide services in the forestry sector, also in the interest of third parties; the same provision also increased the amounts deductible from IRAP in favour of some more minor subjects, strengthening the deductions in favour of general partnerships and limited partnerships (and equivalent) and natural persons carrying out commercial activities, as well as natural persons and simple companies exercising arts and professions;

---

<sup>10</sup> The Aid for Economic Growth (ACE) introduced by the so-called “Salva-Italia” manoeuvre is a form of incentive which, by allowing the deduction from taxable income of the notional return on equity capital contributions, intends to favour capital strengthening and corporate restructuring. Basically, it promises facilitated taxation inspired by the well-known ACE (Allowance for Corporate Equity) model, proposed by the Biasco Commission in 2007-2008, which in fact, constitutes a reformulation of the DIT (Dual Income Tax), introduced with Legislative Decree No. 466/1997 (so-called Visco reform) and subsequently repealed by the so-called “100-day manoeuvre” of the so-called second Berlusconi government (Art. 5 of Law No. 383/2001).

– the 2022 Budget Law no longer intervened on the system of deductions from the IRAP tax base but established (Art. 1, Paragraph 8) a critical novelty: The exclusion from IRAP of taxpayers who are natural persons who carry out commercial activities, as well as arts and professions. The exemption concerns individual entrepreneurs and non-associated professionals/artists who have not chosen the flat-rate and advantageous regimes (old minimums) and for whom the requisites of “autonomous organization” are met, a concept that has been gradually consolidating over time through the rulings of the Court of Cassation.

**Table 6. Evolution of the IRAP deduction system for the reduction of the so-called “tax wedge”**

	Main changes to the labour cost deduction system from taxable base of IRAP envisaged by Legislative Decree No. 446/1997
Law 388/2000 (Finance Law 2001).	For the generality of taxable persons, the deductibility from the taxable base is also foreseen of expenses relating to the disabled (Art. 16, Paragraph 1, letter a).
Law 289/2002 (Finance Law 2003).	Introduction of a further deduction (flat-rate deduction for employees) in favour of small-sized subjects who make use of employees.
Law 311/2004 (Finance Law 2005).	Granted the possibility of deducting (deduction for the increase in the employment base) the cost incurred for workers hired with open-ended contracts in each of the three tax periods following the one in progress as at 31/12/2004, provided that they constitute an increase with respect to the number of employees (hired under the same contract) on average employed in the current tax period as at 31/12/2004 (so-called “basic deduction”). It has been envisaged that, in the depressed areas of the country, the aforesaid deduction for the increase in the employment base is due in double amount (so-called “increased deduction”).
Law 296/2006 (Finance Law 2007).	- Introduction of new deductions aimed at reducing the IRAP tax base in the presence of permanent employees. Provision of a new deduction from the IRAP tax base for the hiring of disadvantaged female workers.

**Table 6. Evolution of the IRAP deduction system for the reduction of the so-called “tax wedge” (continued)**

Main changes to the labour cost deduction system from taxable base of IRAP envisaged by Legislative Decree No. 446/1997	
Law decree 185/2008 (so-called “First anti-crisis law decree”).	Provided for the deductibility from income taxes (IRPEF and IRES) of an amount equal to 10% of IRAP , on a flat-rate basis referring to the taxable portion of interest expense (net of interest income) and labour costs for employees or similar.
Law Decree 201/2011 (so-called “Save Italy Decree”).	Introduced an analytical deduction from the IRAP income tax relating to personnel expenses.
Law 228/2012 (Stability Law 2013).	Expected increase in IRAP deductions for the reduction of the so-called “tax wedge” (ie the lump-sum deductions provided for new permanent hires) and the additional lump-sum deduction by bracket (envisaged to favour smaller companies).
Law 147/2013 (Stability Law 2014).	Introduction of a new deduction for the increase in the employment base.
Stability Law 2015.	<p>Full deductibility of the labour cost incurred for employees hired with permanent contracts from the IRAP taxable base (Paragraph 20, Art. 1: under Art. 5 of the Stability Decree) and a tax credit of 10% are envisaged of the IRAP liquidated by taxpayers who do not make use of employees (Paragraph 21, Art. 1) .</p> <ul style="list-style-type: none"> <li>– Exemption from INPS social security contributions for companies that take on new permanent workers in 2015, up to a maximum of 8,060 euros and for a maximum period of 36 months (Paragraphs from 118 to 122, Art. 1: pursuant to Art. 12 of Stability Law).</li> <li>– For the financing of the de-contribution of social security contributions (equal to 1 billion euros for each of the years 2015, 2016 and 2017 and to 500 million euros for the year 2018) provision has been made (Art. 1, Paragraph 122, of the Law of Stability) the use of the resources of the Action and Cohesion Plan, or of the European funds assigned by the European Union and not yet committed as of 09/30/2014.</li> </ul>

Source: Stornaiuolo & Villani (2015).

The estimates relating to the economic effects produced by the most significant of the amendments mentioned above, i.e. the elimination of labour costs from the IRAP taxable base, as envisaged by Art. 1, co. 20, of the 2015 Italian Stability Law, have shown (see Tab. 7) a potential substantial reduction in the cost of labour and the tax wedge in favour of businesses. But, as happened in the years in which the tax measures aimed at reducing IRAP were homogeneous throughout the national territory, the entity of these reductions—both in absolute and relative value—was much more significant in favour of companies in the Centre-North of the country (see Stornaiuolo & Villani, 2015).

**Table 7. Changes in the marginal cost of labour determined by the maneuvers on the tax wedge, by deductions from the IRAP taxable base and by the reduction of the rate (2014-2015) - Absolute values in euro**

	North	Center	Center-North	South
<b>Year 2014</b> (2014 Stability Law; Law No. 147/2013 + IRPEF Spending Review Decree)				
(a) Gross salary (average values, estimate)	31,730	28,544	30,137	25,488
Contrib . paid by the employer	10,020	9,014	9,517	8,049
Labour cost for the employer net of IRAP	41,750	37,558	39,654	33,537
Base deduction for new occ. (Finance law 2013)	7,500	7,500	7,500	15,000
Additional deduction for new occ. ( Stability Law 2014)	15,000	15,000	15,000	10,488
IRAP tax base (net deducted )	9,230	6,044	7,637	-
IRAP revenue net of deductions and contributions ( $\alpha=0.039$ )	360	236	298	-
Indirect effect on unit cost	326	316	321	398
Overall effect of IRAP on the marginal cost of labour	686	552	619	398
Marginal cost of labour gross of IRAP	42,436	38,110	40,273	33,935
Employer wedge	10,706	9,566	10,136	8,447
Employer wedge % labour cost	25.23	25.1	25.17	24.892
IRAP tax advantages for businesses	942	913	928	1.151

**Table 7. Changes in the marginal cost of labour determined by the maneuvers on the tax wedge, by deductions from the IRAP taxable base and by the reduction of the rate (2014-2015) - Absolute values in euro (continued)**

	North	Center	Center-North	South
<b>Year 2015 (Stability Law 2015)</b>				
(a) Gross salary (average values)	31,730	28,544	30,137	25,488
Contribution paid by the employer	10,020	9,014	9,517	8,049
Deduct . of social charges . for new occ. (upper limit, Art. 1, Paragraphs from 118 to 122, of the 2015 Italian Stability Law)	8,060	8,060	8,060	8,049
Contrib. payable by the employer net of deductions on social charges.	1,960	954	1,457	0
IRAP tax base (net deducted)	33,690	29,498	31,594	25,488
IRAP revenue: deduct. full cost of labour (Art. 1, Paragraph 20, of the 2015 Italian Stability Law)	-	-	-	-
Indirect effect on unit cost	338	296	317	303
Overall effect of IRAP on the marginal cost of labour	338	296	317	303
Marginal cost of labour gross of IRAP	34,028	29,794	31,911	25,791
Employer wedge	2,298	1,250	1,774	303
Employer wedge % labour cost	6.75	4.2	5.48	1.17
IRAP tax advantages for businesses (deductions)	1,327	1,162	1,245	1,192

Source: Stornaiuolo & Villani (2015).

Such empirical evidence raises fears that the minor benefits in the reduction of labour costs and the tax wedge, together with other production and financial constraints present in the South (lower value added per employee, higher effective interest rates, credit rationing), can make it more attractive for an entrepreneur to increase the demand for labour in companies located in the Centre-North areas rather than in the South. All this would not lead to a reduction in the rates of irregularity found in this area of the country and would lead to an increase in pre-existing development gaps rather than a decrease.

## **7. Conclusions**

The analysis carried out in the work shows how there has been a progressive specification over the years of the tools and strategies adopted by the Legislator to contrast and prevent the spread of undeclared work and, in particular, irregular work. It should also be noted that, to this end, there seems to be a tendency to use—to an increasingly intense extent—fiscal instruments, both direct and indirect. However, the legislative path undertaken was not always logical and consistent with the inspiring rationale of the measures adopted. It should be pointed out that there are various gaps and critical issues, essentially linked to the lack of awareness of the Legislator about the complex economic implications of the measures adopted from time to time, especially on a fiscal level, to counter the phenomenon of undeclared work. Notable systematic problems, in particular, are attributable to the variety and heterogeneity of the so-called “incentive” tax measures, both when structured through the pervasive use of substitute regimes not coordinated with the “general” IRPEF discipline and when implemented with subtractive measures of the tax whose specific rationale is difficult to grasp, both in terms of the comparison of conformity with the superordinate constitutional principles and in terms of the enucleation of criteria that allow a reasonably foreseeable application<sup>11</sup>. In particular, it was found that the provision and subsequent extension of the flat-rate regime for VAT numbers do not adequately consider the possible adverse effects that the introduced measures could have on IRPEF and on the structure of the tax system as a whole. Much less have the risks of constitutional stability of the system been taken into due consideration concerning both the principle of ability to pay and that of equality.

Furthermore, it is difficult to understand how the measures introduced can encourage virtuous behaviour (e.g., the emergence of previously hidden tax bases and irregular employment relationships), given the smallness of the tax savings that should derive from them.

Finally, it is necessary to underline the Legislator’s lack of consideration of the different possible territorial effectiveness of the tax innovations introduced. The estimates relating to the economic effects produced by the

---

<sup>11</sup> For further information on these profiles (Fiorentino, 2022a, 2022b) where, among other things, it is noted that the Constitutional Court itself (Sentence No. 120/2020) has recently affirmed the need to reiterate and clarify the conceptual distinction—also relevant in terms of constitutionality control—between subtractive tax measures that operate in line with the *ratio* of the tax and those that instead have their own subsidy *ratio*, concretely derogating from the tax to which they access.

changes to the IRAP structure approved in recent years have shown how the homogeneity of the subsidised measures adopted has created a reduction in labour costs for all businesses, wherever they are located, but the reduction of labour costs and tax wedges was lower for firms in the South than for those in the Centre-North, thus reducing the potential positive effect on the demand for labour in these areas of the country (see Stornaiuolo & Villani, 2015). These effects lead us to expect an increase rather than a reduction in the rates of irregularity in employment relationships, albeit geographically diversified, as well as in the pre-existing development gaps between the main macro-areas.

### Acknowledgements

The authors appreciate and acknowledge the comments and suggestions from two anonymous reviewers. The authors declare no conflicts of interest. All the authors contributed to the study's conception and design. Salvatore Villani carried out a first descriptive statistical analysis of the sizes of the underground economy, prepared the material for legislative documentation, and performed normative analysis. Stefano Fiorentino dealt with the evolution of fiscal policies and interventions. Edgardo Bucciarelli and Aurora Ascagnò performed the quantitative analysis and other computations after reorganising the data sets and then conducted the final review and editing. The introduction and the conclusions originated from a joint reflection of all authors who commented on previous versions and approved the final manuscript.

### References

Bacchetta, M., Bustamante, J.P. (2009), *Globalization and informal jobs in developing countries: A joint study of the International Labour Office and the Secretariat of the World Trade Organization*, WTO Secretariat, Geneva.

Benesty, J., Chen, J., Huang, Y., & Cohen, I. (2009), *Pearson Correlation Coefficient*, in: Noise Reduction in Speech Processing. Springer Topics in Signal Processing, Vol 2. Springer, Heidelberg, DE.

Buehn, A., & Schneider, F.G. (2008), *MIMIC models, cointegration and error correction: An application to the French shadow economy* (No. 2200), CESifo working paper.

Fiorentino, S. (2022a), *L'agevolazione fiscale: riflessioni critiche e spunti ricostruttivi*, Diritto e Pratica Tributaria, 2, 245-280.

Fiorentino, S. (2022b), *The right to advantageous regimes: tax relief*, in A. Carinci and T. Tassani (edited by), *The rights of the tax payer. Principles, protections and defense models*, Giuffrè Francis Lefebvre, Milan, IT.

Gallino, L. (2015), *Il denaro, il debito e la doppia crisi*, Einaudi, Torino.

ISTAT (2022), *The economy not observed in the national accounts - Years 2017-2020*, Rome, 14 October.

Kim, T.K. (2015), *T test as a parametric statistic*, Korean journal of anesthesiology, 68(6), 540-546.

Ministry of Economy and Finance (2022), *Report on the unobserved economy and on tax and social security evasion*, Rome, 19 September 2022.

Ministry of Labour and Social Policies (2022), *National plan to fight undeclared work for the three-year period 2023-2025*, Ministerial Decree No. 221 of 19 December 2022, Rome.

Monda, M. (2012), *L'evasione dei contributi sociali nel settore agricolo*, Agriregionieuropa, VIII, n. 30, Settembre 2012.

Roma, G. (2001), *L'economia sommersa*, Laterza, Bari, IT.

Schneider, F. (2022), *New COVID-related results for estimating the shadow economy in the global economy in 2021 and 2022*, International Economics and Economic Policy, 19(2), 299-313.

Stornaiuolo, G., & Villani, S. (2015), *Changes to the discipline of IRAP and its effects on the labour costs and the tax wedge: A territorial comparison*, Rivista Economica del Mezzogiorno – Trimestrale SVIMEZ XXIX, 1-2, 5-42.

Villani, S. (2002), *Il regime di alternatività fra Tremonti-bis e Visco-Sud*, Rivista della Guardia di Finanza, 4, 1537-1570.