



Study on the effectiveness of policies to tackle undeclared work (VT/2021/0380)

Final Report



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**Study on the effectiveness of
policies to tackle undeclared work
(VT/2021/0380)**

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Table of Contents

Executive summary	7
Zusammenfassung	12
Résumé	18
1 Introduction	23
1.1 Study objective and design.....	23
1.2 Structure of the report.....	28
2 Understanding the characteristics of types of undeclared work and their possible drivers	29
2.1 Types of undeclared work and policy implications.....	29
2.2 Drivers of undeclared work.....	39
3 Overview of recent estimates of the volume of undeclared work and scale of damage created	51
3.1 Overview of estimates of volume of undeclared work in contemporary research	51
3.2 Estimated economic damage created by undeclared work in EU countries.....	55
4 Synthesis of types of policies implemented by Member States and their effectiveness in tackling undeclared work	66
4.1 Distributions of key variables	68
4.2 Cross-analysis and associated recommendations.....	71
4.3 When are interventions effective?.....	80
4.4 Evidence of policy combinations to effectively tackle undeclared work ...	84
5 Needs for future research	87
6 Conclusions and recommendations	88
6.1 Evidence on the types of undeclared work and their possible determinants	88
6.2 Volume of undeclared work and damage for the EU economy.....	90
6.3 Evidence of policies effectively tackling undeclared work.....	91
References	93

Executive summary

Introduction

The European Commission broadly defines **undeclared work** as "*any paid activities that are lawful as regards their nature, but not declared to public authorities*". Undeclared work has important economic and social implications, including the loss of social security contributions and taxes, but also higher incidence of work accidents, missed professional development opportunities for workers, unfair competition and market distortions for businesses, among others. The European Union (EU) has set a target of a 78% employment rate of the population aged 20 to 64 by 2030 (European Pillar of Social Rights). Tackling undeclared work can contribute to this target by creating more declared work.

In this context, the European Commission launched this study to gather **deeper insights into, and empirical evidence of, successful policies and policy combinations for tackling undeclared work**. This study reviewed empirical evidence across the full range of direct and indirect policy measures, including their potential effectiveness in transforming undeclared work into declared work. The idea was to identify the most effective policies for reducing the volume of undeclared work and linked damages depending on the type of undeclared work, the target groups (drivers) and/or geographical specificities.

Methodology

The study implemented a meta-evaluation of studies on the types and drivers of undeclared work to determine their impact on policy instruments and on the scale of undeclared work. The study implemented a meta-evaluation of the recommendations regarding effectiveness of policies tackling undeclared work. The scope of the study was the past 20 years. The focus was on the 27 EU Member States (EU-27), as well as evidence gathered from developed countries or the Organisation of Economic Co-operation and Development (OECD) member countries more broadly.

Findings

Definitions and undeclared work types

The study's aim was to review studies regarding **definitions, types and characteristics** of undeclared work and their possible drivers:

- The **literature covers only broad types of undeclared work**, including unregistered employment, under-declared employment (envelope wages and other forms of hiding the true/full duration or remuneration of the employment), unregistered self-employment and bogus self-employment.
- A review of **legal frameworks** demonstrates that these focus on penalties and sanctions and refer largely to the same broad types of undeclared work. To note in this context is that penalties for undeclared work (labour law infringements, non-payment of social security) are part of a different type of legislation than penalties for non-payment of taxes. To what extent these legal frameworks are complementary, or contradictory has not been evidenced.
- Important **evidence gaps persist** with regard to the characteristics of the types of undeclared work. For example, current categories do not provide enough information on **how more complex forms of undeclared work** such as sub-contracting chains or platform work can be clustered within this typology.

- Another limitation of the typology is that current definitions focus primarily on **fiscal or financial motivations** to engage in undeclared work (to evade taxes or social security payments) **but less on others** such as participation in society (by working), absence of affordable quality state services (e.g. elderly care), debt traps, lack of opportunities, or promotion of social solidarity and exchange. Re-focussing the typology on the latter types of motivations would allow to focus policy interventions in a more comprehensive way on measures that can improve tax morale (as an important driver of undeclared work).
- Limitations of the current typology of undeclared work could be overcome if policy approaches considered a more local typology, clustering undeclared work types adding in country/regional specific drivers or risk profiles (for example focus on most common forms of undeclared work specific for the region, national level and their drivers) , as well as vulnerability (for example specific groups that need specific attention or protection) This can be supplemented by ranking the severity of undeclared work types. When developing targeted policy measures, it could be useful to differentiate the responsibilities of all stakeholders including users, facilitators, and advertisers, as well as the driver tackled. It may also give more visibility to the policy mix achieving the best results.

Drivers

The study sought to identify drivers and determinants that lead to participation in undeclared work and connect these to the identified types of undeclared work to provide a better overview of the range of policies tackling each type of undeclared work.

- Insights on how socio-economic characteristics impact on undeclared work more in general: **age and gender correlate with the occurrence of undeclared work**. Regarding age, the evidence suggests that the older the individual the lower the potential to engage in undeclared work. At the same time individuals are influenced by their life experience in their age category meaning that engaging in undeclared work is possible at any age. Gender has a direct and indirect effect on the occurrence of undeclared work. There is a higher probability that men engage in under-declared work. For **education**, no clear general link was established to correlate with the occurrence of undeclared work. Concerning business specific drivers, evidence indicates that **undeclared work is more prevalent in small and micro companies**. In terms of sectoral area, undeclared work is more prevalent in businesses operating in **agriculture and construction**.
- The available literature provides few insights or firm conclusions on how socio-demographic characteristics impact **specific types of undeclared work**. Despite this, a few pointers could be of interest regarding the development of effective policies: **gender** is not a significant factor for unregistered employment; and bogus self-employment might be more prevalent among **highly educated** individuals than among unskilled individuals. Unfortunately, little evidence was identified in relation to household size and size of settlement (rural/urban).
- In relation to economic and **wider systemic drivers** of undeclared work, the question of whether the **tax burden** impacts the scale of undeclared work cannot be empirically demonstrated.
- Analysis highlights the insignificance of the share of the **migrant population** on the size of the undeclared economy and rather points to the **lack of financial resources in general as an important factor** encouraging workers to engage in undeclared work. Although some labour suppliers participate in undeclared work out of **necessity**, many do so simply to defy the authorities and/or to increase their wealth. **Dissatisfaction with the work of public administration, distrust in the authorities**, and **low tax morale** are the most important motivators.

- There is a **gap in the literature in respect of other systemic drivers**, which prevent conclusions being drawn on the role of corruption, money laundering, repression, rule of law, ease of doing business, quality of social security, the viability of the pension system, and other country-specific factors as likely determinants of undeclared work.

Scale / volume

The study summarises the research on the most recent estimates of the size of undeclared work.

- Current empirical evidence on the scale and dynamics of undeclared work is **difficult to attribute to policy success**.
- Studies use a variety of methods and mathematical calculations to estimate undeclared work. Most frequently, the share of undeclared work is expressed as a **share (percentage) of the working population**, and then as a **share (percentage) of GDP**. However, due to the complex (hidden) nature of undeclared work, other studies use other methods of estimation, **limiting the potential to compare results** and to identify trends of undeclared work in EU Member States over time.
- For **2017**, a study estimated that the average size of the shadow economy in the EU-27 was **16.3% of GDP** at market prices (current prices). Another study estimated that, in **2019**, the share of undeclared work averaged **14.8% of gross value added (GVA)** in the EU-27. Estimates suggest that the shadow economy and the share of undeclared work in the EU-27 shrunk over the period 2013- 2023.
- **Regarding specific types of undeclared work, estimates on volume exist only for under-declared work or envelope wages**, as well as more broadly in employment relationships. Data indicates a trend of under-declared employment as the most prevalent form of undeclared work in the EU.
- An **agreed** approach to estimate undeclared work on a continuous basis would be preferential at EU level to continue to monitor volume and provide a comparative basis.

Damage

The study presents evidence on the damage caused by undeclared work in view of identifying the policies that may need to be prioritised to reduce the most damaging forms of undeclared work.

- The existing **research concentrates on the economic damage to society more broadly** without specifically estimating such damage or ranking the most damaging characteristics of undeclared work.
- The damage created by undeclared work¹ is estimated to represent **6.5% of total government spending** for the EU-27 (based on 2019 data). Of the 6.5% total tax revenue loss (or EUR 425 279 million), **4.1% was within an employment relationship**, 2.4% was caused by undeclared work carried out by self-employed persons and only 0.1% by undeclared work of family workers (with important country variations).

¹ Based on the estimated value of undeclared work (estimated in 2019 14.3% of GVA), the total tax revenue lost was examined and the tax lost (i.e. taxes on income and labour-related social contributions) was then calculated as a percentage of government spending.

- The **damage of the shadow economy more broadly** (equivalent to 16.3% of EU-27 GDP in 2017) based on the total lost tax revenue **can be estimated as 13.9% of total government spending** (lost government revenue of EUR 850 427 million).
- The study highlights that **the societal damage of undeclared work and the shadow economy is estimated to be significant**, even by the limited measures used for its estimation.
- The focus of policies should be on the most damaging forms of undeclared work for society more broadly, protecting those individuals that are most vulnerable, transforming their un/under-declared work situation into a declared one.

Policy interventions to tackle undeclared work

The study identifies the type of policy interventions that are sought by EU Member States most commonly to tackle undeclared work and presents evidence on their effectiveness.

- Western Europe and Central and Eastern Europe are **the most studied regions in the EU** in relation to socio-economic indicators that could affect undeclared work and related policies. Typically, **'tax-compliance'** considerations are more prevalent in **Western Europe**, while issues related to **'participation in undeclared work'** are more important in Central and Eastern Europe, suggesting different ways of implementing the policies recommended.
- Recommended policy interventions tend to be more general and high-level than involving specific and detailed measures. **'Providing information' is the most common recommendation** for tackling undeclared work in both regions. Western Europe has a wider range of recommendations. **Central and Eastern Europe has a somewhat higher share of recommendations that fall under the categories of 'modernise formal institutions' and 'tackle determinants of undeclared work'**, which may be linked to a lower performance in the chosen socio-economic indicators.
- Research finds that **enforcement interventions** demonstrate a high level of effectiveness, especially audits and inspections. However, **direct deterrence interventions need to be carefully considered** to ensure that they are used appropriately and in a targeted manner. A failure to understand the context of an intervention could have the **unintended consequence of increasing the level of undeclared work or tax non-compliance**, as individuals feel unfairly targeted and controlled.
- **Indirect measures** play an important role in tackling elements of undeclared work, especially those relating to tax non-compliance. **Simplifying communication** is a cost-effective way of increasing compliance and reducing the overall costs of enforcement.
- **Legislative and regulatory changes** are important in tackling undeclared work. Legislative options need to be carefully balanced to ensure that they enact positive change. Otherwise, they could create adverse situations where social and legal norms are not synchronised.

Recommended policy mixes to effectively tackle undeclared work as identified in research

By reviewing empirical evidence, the study identifies policy combinations that could contribute to a holistic framework for tackling each type of undeclared work. This evidence can be used at Member State level for policy design.

- Evidence suggests **not relying solely on enforcement, incentives, or indirect interventions when tackling undeclared work**. Evidence confirms the need to

develop policy approaches that are locally/regionally contextualised and responsive to the targeted type of undeclared work. This supports the idea that a holistic approach to tackle undeclared work is important.

- **Enforcement** interventions need **a strategy that combines other interventions** to be considered optimal, such as increasing levels of public awareness around tax compliance requirements, a combination of audit and penalty reminder letters sent to self-reporting individuals, the need to take indirect revenue into account when appraising the usefulness of an audit to ensure cost-effectiveness, and the inclusion of social norms messaging to appeal to individuals' sense of moral obligation.
- However, where the **underlying tax morale** within a society is deemed low, increasing enforcement efforts will have a marginal effect. Instead, more emphasis needs to be placed on responding to the underlying issues driving that low tax morale. Evidence is clear that 'purely relying on deterrence without **considering social norms** is probably an insufficient response to increasing levels of non-compliance'.

Zusammenfassung

Einleitung

Die Europäische Kommission definiert **nicht angemeldete Erwerbstätigkeit (Schwarzarbeit)** als *"jede bezahlte Tätigkeit, die ihrer Art nach rechtmäßig ist, aber den Behörden nicht gemeldet wird"*. Nicht angemeldete Erwerbstätigkeit hat erhebliche wirtschaftliche und soziale Auswirkungen, unter anderem den Verlust von Sozialversicherungsbeiträgen und Steuern, aber auch eine höhere Zahl von Arbeitsunfällen, verpasste berufliche Entwicklungsmöglichkeiten für Arbeitnehmer, unlauteren Wettbewerb und Marktverzerrungen für Unternehmen. Die Europäische Union (EU) hat sich das Ziel gesetzt, bis 2030 eine Beschäftigungsquote von 78% der Bevölkerung im Alter von 20 bis 64 Jahren zu erreichen (Europäische Säule sozialer Rechte). Die Bekämpfung der nicht angemeldeten Erwerbstätigkeit kann zu diesem Ziel beitragen, indem mehr angemeldete Arbeitsplätze geschaffen werden.

Vor diesem Hintergrund hat die Europäische Kommission diese Studie in Auftrag gegeben, um **tieferen Einblicke in und empirische Belege für erfolgreiche Maßnahmen und Maßnahmenkombinationen zur Bekämpfung der nicht angemeldeten Erwerbstätigkeit** zu gewinnen. In dieser Studie wurden empirische Belege für die gesamte Bandbreite direkter und indirekter politischer Maßnahmen untersucht, einschließlich ihrer potenziellen Wirksamkeit bei der Umwandlung von nicht angemeldeter in angemeldete Erwerbstätigkeit. Ziel war es, die wirksamsten politischen Maßnahmen zur Verringerung des Umfangs der Schwarzarbeit und der damit verbundenen Schäden in Abhängigkeit von der Art der nicht angemeldeten Erwerbstätigkeit, der Zielgruppen (Treibern) und/oder den geografischen Besonderheiten zu ermitteln.

Methodik

Im Rahmen der Studie wurde eine Meta-Evaluierung von Studien über die Arten und Triebkräfte der nicht angemeldeten Erwerbstätigkeit durchgeführt, um deren Auswirkungen auf politische Instrumente und das Ausmaß der nicht angemeldeten Erwerbstätigkeit zu ermitteln. Außerdem wurde eine Meta-Evaluierung der Empfehlungen zur Wirksamkeit der politischen Maßnahmen zur Bekämpfung der nicht angemeldeten Erwerbstätigkeit durchgeführt. Die Studie bezog sich auf die letzten 20 Jahre. Der Schwerpunkt lag auf den 27 EU-Mitgliedstaaten (EU-27), sowie auf den Erkenntnissen aus den Industrieländern und den Mitgliedstaaten der Organisation für wirtschaftliche Zusammenarbeit und Entwicklung (OECD).

Erkenntnisse

Definitionen und Arten nicht angemeldeter Erwerbstätigkeit

Ziel der Studie war es, Studien zu **Definitionen, Arten und Merkmalen** von nicht angemeldeter Erwerbstätigkeit und deren möglichen Ursachen auszuwerten:

- In der **Literatur** werden nur **weit gefasste Arten der Schwarzarbeit** behandelt, darunter nicht angemeldete Beschäftigung, nicht vollumfänglich angemeldete Beschäftigung (Umschlaglöhne und andere Formen der Verschleierung der wahren/vollständigen Dauer oder des Entgelts der Beschäftigung), nicht angemeldete Selbständigkeit und Scheinselbständigkeit.
- Eine Überprüfung der **rechtlichen Rahmenbedingungen** zeigt, dass diese sich auf Strafen und Sanktionen konzentrieren und sich weitgehend auf die gleichen weit gefassten Arten von nicht angemeldeter Erwerbstätigkeit beziehen. In diesem Zusammenhang ist anzumerken, dass Sanktionen für nicht angemeldete

Erwerbstätigkeit (Verstöße gegen das Arbeitsrecht, Nichtzahlung von Sozialversicherungsbeiträgen) Teil einer anderen Art von Rechtsvorschriften sind als Sanktionen für die Nichtzahlung von Steuern. Inwieweit sich diese Rechtsrahmen ergänzen oder widersprechen, ist nicht nachgewiesen worden.

- Hinsichtlich der Merkmale der nicht angemeldeten Erwerbstätigkeit bestehen **nach wie vor große Wissenslücken**. So liefern die derzeitigen Kategorien beispielsweise nicht genügend Informationen darüber, wie **komplexere Formen der nicht angemeldeten Erwerbstätigkeit** wie Subunternehmerketten oder Plattformarbeit in diese Typologie eingeordnet werden können.
- Eine weitere Einschränkung der Typologie besteht darin, dass sich die derzeitigen Definitionen in erster Linie auf **steuerliche oder finanzielle Beweggründe** für nicht angemeldete Erwerbstätigkeit konzentrieren (um Steuern oder Sozialversicherungszahlungen zu hinterziehen) und **weniger auf andere Gründe** wie gesellschaftliche Teilhabe (durch Arbeit), das Fehlen erschwinglicher, hochwertiger staatlicher Dienstleistungen (z. B. Altenpflege), Schuldenfallen, mangelnde Chancen oder die Förderung von sozialer Solidarität und sozialem Austausch. Eine Neuausrichtung der Typologie auf die letztgenannten Motivationsarten würde es ermöglichen, politische Interventionen umfassender auf Maßnahmen zu konzentrieren, die die Steuermoral (als wichtige Triebkraft der nicht angemeldeten Erwerbstätigkeit) verbessern können.
- Die Grenzen der derzeitigen Typologie der nicht angemeldeten Erwerbstätigkeit könnten überwunden werden, wenn politische Ansätze eine stärker lokal ausgerichtete Typologie berücksichtigen würden, bei der die Arten der nicht angemeldeten Erwerbstätigkeit geclustert und länder- bzw. regionalspezifische Ursachen oder Risikoprofile hinzugefügt werden (z. B. Konzentration auf die häufigsten Formen der nicht angemeldeten Erwerbstätigkeit auf regionaler oder nationaler Ebene und ihre Ursachen), sowie auf die Anfälligkeit (z. B. bestimmte Gruppen, die besondere Aufmerksamkeit oder besonderen Schutz benötigen). Bei der Entwicklung gezielter politischer Maßnahmen könnte es sinnvoll sein, die Zuständigkeiten aller Beteiligten, einschließlich der Nutzer, Vermittler und Werbetreibenden, sowie die zu bekämpfenden Faktoren zu differenzieren. Auf diese Weise könnte auch der Policy-Mix, der die besten Ergebnisse erzielt, besser sichtbar gemacht werden.

Ursachen

Im Rahmen der Studie sollten die Triebkräfte und Determinanten ermittelt werden, die zur Beteiligung an nicht angemeldeter Erwerbstätigkeit führen, und diese mit den ermittelten Arten nicht angemeldeter Erwerbstätigkeit in Verbindung gebracht werden, um einen besseren Überblick über das Spektrum der Maßnahmen zur Bekämpfung der einzelnen Arten von nicht angemeldeter Erwerbstätigkeit zu erhalten.

- Erkenntnisse darüber, wie sich sozioökonomische Merkmale auf die nicht angemeldete Erwerbstätigkeit im Allgemeinen auswirken: **Alter und Geschlecht korrelieren mit dem Auftreten von nicht angemeldeter Erwerbstätigkeit**. Was das Alter betrifft, so deuten die Ergebnisse darauf hin, dass das Potenzial, nicht angemeldete Erwerbstätigkeit auszuüben, umso geringer ist, je älter die Person ist. Gleichzeitig wird der Einzelne durch seine Lebenserfahrung in seiner Alterskategorie beeinflusst, was bedeutet, dass Schwarzarbeit in jedem Alter möglich ist. Das Geschlecht wirkt sich direkt und indirekt auf das Auftreten von nicht angemeldeter Erwerbstätigkeit aus. Die Wahrscheinlichkeit, dass Männer nicht angemeldete Arbeit verrichten, ist höher. Für die **Bildung** wurde kein eindeutiger allgemeiner Zusammenhang mit dem Auftreten von nicht angemeldeter Erwerbstätigkeit festgestellt. Was die unternehmensspezifischen Faktoren betrifft,

so gibt es Hinweise darauf, **dass nicht angemeldete Erwerbstätigkeit in Klein- und Kleinstunternehmen häufiger vorkommt**. Was den Sektor betrifft, so ist die nicht angemeldete Erwerbstätigkeit in Unternehmen, die in der **Landwirtschaft** und im **Baugewerbe** tätig sind, stärker ausgeprägt.

- Die verfügbare Literatur bietet nur wenige Einblicke oder eindeutige Schlussfolgerungen darüber, wie sich soziodemografische Merkmale auf **bestimmte Arten der nicht angemeldeten Erwerbstätigkeit** auswirken. Dennoch könnten einige Hinweise für die Entwicklung wirksamer politischer Maßnahmen von Interesse sein: Das **Geschlecht** ist kein signifikanter Faktor für die nicht angemeldete Erwerbstätigkeit, und die Scheinselbstständigkeit könnte bei **hochqualifizierten Personen** stärker verbreitet sein als bei unqualifizierten Personen. Leider wurden nur wenige Belege in Bezug auf die Haushaltsgröße und die Größe der Siedlung (ländlich/städtisch) gefunden.
- In Bezug auf die wirtschaftlichen und **allgemeineren systemischen Ursachen** der nicht angemeldeten Erwerbstätigkeit lässt sich nicht empirisch nachweisen, ob die **Steuerbelastung** Auswirkungen auf das Ausmaß der nicht angemeldeten Erwerbstätigkeit hat.
- Die Analyse zeigt, dass der Anteil der **Migranten** am Umfang der nicht angemeldeten Erwerbstätigkeit unbedeutend ist, und weist vielmehr darauf hin, dass der **Mangel an finanziellen Mitteln im Allgemeinen ein wichtiger Faktor** ist, der die Arbeitnehmer dazu veranlasst, nicht angemeldete Erwerbstätigkeit auszuüben. Obwohl einige Anbieter von Arbeitskräften **aus der Not heraus** Schwarzarbeit leisten, tun dies viele einfach, um den Behörden zu trotzen und/oder ihr Vermögen zu vermehren. Unzufriedenheit mit der Arbeit der öffentlichen Verwaltung, **Misstrauen gegenüber den Behörden** und eine **niedrige Steuermoral** sind die wichtigsten Motivatoren.
- Es gibt eine **Lücke in der Literatur in Bezug auf andere systemische Faktoren**, die Schlussfolgerungen über die Rolle von Korruption, Geldwäsche, Repression, Rechtsstaatlichkeit, „ease of doing business“, Qualität der sozialen Sicherheit, Tragfähigkeit des Rentensystems und andere länderspezifische Faktoren als wahrscheinliche Determinanten der nicht angemeldeten Erwerbstätigkeit verhindern.

Umfang

Die Studie fasst die Forschungsergebnisse der jüngsten Schätzungen zum Umfang der nicht angemeldeten Erwerbstätigkeit zusammen.

- Die derzeitigen empirischen Erkenntnisse über das Ausmaß und die Dynamik der nicht angemeldeten Erwerbstätigkeit lassen sich nur **schwer auf den Erfolg der Politik zurückführen**.
- Studien verwenden eine Vielzahl von Methoden und mathematischen Berechnungen, um die nicht angemeldete Erwerbstätigkeit zu schätzen. Am häufigsten wird der Anteil der nicht angemeldeten Erwerbstätigkeit als **Anteil (Prozentsatz) an der Erwerbsbevölkerung** und dann als **Anteil (Prozentsatz) am BIP** ausgedrückt. Aufgrund des komplexen (verborgenen) Charakters der nicht angemeldeten Erwerbstätigkeit werden in anderen Studien jedoch andere Schätzmethode verwendet. Dies **erschwert einen Vergleich der Ergebnisse** und die Ermittlung von Trends bei der nicht angemeldeten Erwerbstätigkeit in den EU-Mitgliedstaaten im Laufe der Zeit.
- Für das Jahr **2017** schätzte eine Studie die durchschnittliche Größe der Schattenwirtschaft in der EU-27 auf **16,3% des BIP** zu Marktpreisen (aktuelle Preise). Eine andere Studie schätzte, dass der Anteil der nicht angemeldeten

Erwerbstätigkeit im Jahr 2019 durchschnittlich **14,8% der Bruttowertschöpfung** (BWS) in der EU-27 ausmachte. Schätzungen gehen davon aus, dass die Schattenwirtschaft und der Anteil der nicht angemeldeten Erwerbstätigkeit in der EU-27 im Zeitraum von 2013 bis 2023 zurückgegangen sind.

- Was die spezifischen Formen der nicht angemeldeten Erwerbstätigkeit betrifft, so **gibt es Schätzungen zum Umfang nur für nicht angemeldete Erwerbstätigkeit oder Hüllenlöhne** sowie für Beschäftigungsverhältnisse im weiteren Sinne. Die Daten deuten darauf hin, dass die nicht vollumfänglich angemeldete Erwerbstätigkeit die häufigste Form der nicht angemeldeten Erwerbstätigkeit in der EU ist.
- Ein **koordinierter Ansatz** zur kontinuierlichen Schätzung der nicht angemeldeten Erwerbstätigkeit wäre auf EU-Ebene vorzuziehen, um deren Umfang weiterhin zu überwachen und eine Vergleichsbasis zu schaffen.

Schaden

In der Studie werden Anhaltspunkte für die durch nicht angemeldete Erwerbstätigkeit verursachten Schäden dargelegt, um zu ermitteln, welche politischen Maßnahmen vorrangig zu ergreifen sind, um die schädlichsten Formen der nicht angemeldeten Erwerbstätigkeit einzudämmen.

- Die vorhandenen **Forschungsarbeiten konzentrieren sich auf den wirtschaftlichen Schaden für die Gesellschaft im Allgemeinen**, ohne diesen Schaden speziell zu schätzen oder eine Rangfolge der schädlichsten Merkmale der nicht angemeldeten Erwerbstätigkeit aufzustellen.
- Der Schaden, der durch nicht angemeldete Erwerbstätigkeit² entsteht, macht schätzungsweise **6,5% der gesamten Staatsausgaben für die EU-27** aus (basierend auf den Daten für 2019). Von den 6,5% Gesamtsteuerausfällen (oder 425 279 Mio. EUR) **entfielen 4,1% auf Beschäftigungsverhältnisse**, 2,4% auf nicht angemeldete Erwerbstätigkeit von Selbstständigen und nur 0,1% auf nicht angemeldete Erwerbstätigkeit von mithelfenden Familienangehörigen (mit erheblichen länderspezifischen Unterschieden).
- Der **Schaden der Schattenwirtschaft im weiteren Sinne** (entspricht 16,3% des BIP der EU-27 im Jahr 2017) kann **auf Grundlage der gesamten entgangenen Steuereinnahmen auf 13,9% der gesamten Staatsausgaben geschätzt** werden (entgangene Staatseinnahmen von 850 427 Mio. EUR).
- Die Studie unterstreicht, dass der **gesellschaftliche Schaden der nicht angemeldeten Erwerbstätigkeit und der Schattenwirtschaft als erheblich eingeschätzt** wird, selbst bei den limitierten Maßstäben, die für die Schätzung verwendet wurden.
- Der Schwerpunkt der politischen Maßnahmen sollte auf den für die Gesellschaft schädlichsten Formen der nicht angemeldeten Erwerbstätigkeit im weiteren Sinne liegen, indem die am stärksten gefährdeten Personen geschützt werden und ihre nicht/unterdeklarierte Arbeitssituation in eine deklarierte umgewandelt wird.

Politische Maßnahmen zur Bekämpfung der nicht angemeldeten Erwerbstätigkeit

Die Studie ermittelt die Art der politischen Maßnahmen, die von den EU-Mitgliedstaaten am häufigsten angestrebt werden, um die nicht angemeldete Erwerbstätigkeit zu bekämpfen, und präsentiert Anhaltspunkte für deren Wirksamkeit.

² Auf der Grundlage des geschätzten Wertes der nicht angemeldeten Erwerbstätigkeit (im Jahr 2019 schätzungsweise 14,3 % der BWS) wurden die gesamten entgangenen Steuereinnahmen untersucht und die entgangenen Steuern (d. h. Einkommensteuern und arbeitsbezogene Sozialbeiträge) als Prozentsatz der Staatsausgaben berechnet.

- Westeuropa sowie Mittel- und Osteuropa sind die **am meisten untersuchten Regionen** in der EU in Bezug auf sozioökonomische Indikatoren, die sich auf die nicht angemeldete Erwerbstätigkeit und damit verbundene Maßnahmen auswirken könnten. Typischerweise sind Überlegungen zur **"Steuerkonformität" in Westeuropa stärker ausgeprägt**, während Fragen im Zusammenhang mit der **"Beteiligung an nicht angemeldeter Erwerbstätigkeit"** in Mittel- und Osteuropa eine größere Rolle spielen, was auf unterschiedliche Wege zur Umsetzung der empfohlenen Maßnahmen hindeutet.
- Die empfohlenen politischen Maßnahmen sind eher allgemeiner und übergeordneter Art, als dass sie spezifische und detaillierte Maßnahmen beinhalten. Die **häufigste Empfehlung** zur Bekämpfung der nicht angemeldeten Erwerbstätigkeit ist in beiden Regionen die **"Bereitstellung von Informationen"**. Westeuropa hat ein breiteres Spektrum an Empfehlungen. **Mittel- und Osteuropa hat einen etwas höheren Anteil an Empfehlungen, die in die Kategorien "Modernisierung der formalen Institutionen" und "Bekämpfung der Determinanten der nicht angemeldeten Erwerbstätigkeit" fallen**, was mit einer geringeren Leistung bei den ausgewählten sozioökonomischen Indikatoren zusammenhängen könnte.
- Die Forschung zeigt, dass **Durchsetzungsmaßnahmen**, insbesondere Audits und Inspektionen, ein hohes Maß an Wirksamkeit aufweisen. **Direkte Abschreckungsmaßnahmen müssen jedoch sorgfältig geprüft werden**, um sicherzustellen, dass sie angemessen und zielgerichtet eingesetzt werden. Wenn der Kontext einer Intervention nicht verstanden wird, könnte dies die **unbeabsichtigte Folge** haben, dass **das Ausmaß der nicht angemeldeten Erwerbstätigkeit oder der Nichteinhaltung von Steuervorschriften zunimmt**, da sich der Einzelne ungerechtfertigt ins Visier genommen und kontrolliert fühlt.
- **Indirekte Maßnahmen** spielen eine wichtige Rolle bei der Bekämpfung von Elementen der nicht angemeldeten Erwerbstätigkeit, insbesondere im Zusammenhang mit der Nichteinhaltung von Steuervorschriften. Die **Vereinfachung der Kommunikation** ist ein kosteneffizienter Weg, um die Einhaltung der Vorschriften zu verbessern und die Gesamtkosten der Durchsetzung zu senken.
- **Änderungen von Gesetzen und Vorschriften** sind wichtig, um die nicht angemeldete Erwerbstätigkeit zu bekämpfen. Legislative Optionen müssen sorgfältig abgewogen werden, um sicherzustellen, dass sie einen positiven Wandel bewirken. Andernfalls könnten sie zu ungünstigen Situationen führen, in denen soziale und rechtliche Normen nicht aufeinander abgestimmt sind.

Empfohlener Policy-Mix zur wirksamen Bekämpfung der nicht angemeldeten Erwerbstätigkeit gemäß den Forschungsergebnissen

Durch die Überprüfung der empirischen Erkenntnisse werden in der Studie Maßnahmenkombinationen ermittelt, die zu einem ganzheitlichen Rahmen für die Bekämpfung jeder Art von nicht angemeldeter Erwerbstätigkeit beitragen könnten. Diese Erkenntnisse können auf Ebene der Mitgliedstaaten für die Gestaltung der Politik genutzt werden.

- Es gibt Hinweise darauf, dass man sich bei der Bekämpfung der nicht angemeldeten Erwerbstätigkeit **nicht allein auf Durchsetzung, Anreize oder indirekte Interventionen verlassen** sollte. Die Erkenntnisse bestätigen die Notwendigkeit, politische Ansätze zu entwickeln, die auf den lokalen/regionalen Kontext abgestimmt sind und auf die jeweilige Art der nicht angemeldeten Erwerbstätigkeit eingehen. Dies unterstreicht die Bedeutung eines ganzheitlichen Ansatzes zur Bekämpfung der nicht angemeldeten Erwerbstätigkeit.

- Optimale **Durchsetzungsmaßnahmen** erfordern eine Strategie, die andere Maßnahmen miteinander kombiniert, wie z. B. eine stärkere Sensibilisierung der Öffentlichkeit für die Anforderungen der Steuervorschriften, eine Kombination aus Prüfungs- und Mahnschreiben an Selbstanzeiger, die Notwendigkeit, bei der Bewertung des Nutzens einer Prüfung die indirekten Einnahmen zu berücksichtigen, um die Kosteneffizienz zu gewährleisten, und die Einbeziehung sozialer Normen, um an das moralische Verpflichtungsgefühl des Einzelnen zu appellieren.
- Wenn jedoch die **Steuer-moral** in einer Gesellschaft als niedrig eingeschätzt wird, haben verstärkte Durchsetzungsmaßnahmen nur eine geringe Wirkung. Stattdessen muss mehr Gewicht darauf gelegt werden, die Ursachen für die niedrige Steuer-moral zu bekämpfen. Es gibt eindeutige Belege dafür, dass "das alleinige Setzen auf Abschreckung ohne **Berücksichtigung sozialer Normen** wahrscheinlich eine unzureichende Antwort auf die zunehmende Nichteinhaltung von Vorschriften ist".

Résumé

Introduction

La Commission européenne définit au sens large le **travail non déclaré** comme "*toute activité rémunérée qui est légale quant à sa nature, mais qui n'est pas déclarée aux autorités publiques*". Le travail non déclaré a d'importantes implications économiques et sociales, notamment la perte de cotisations de sécurité sociale et d'impôts, mais aussi une incidence plus élevée d'accidents du travail, des opportunités de développement professionnel manquées pour les travailleurs, une concurrence déloyale et des distorsions du marché pour les entreprises, entre autres. L'Union européenne (UE) s'est fixé pour objectif d'atteindre un taux d'emploi de 78% de la population âgée de 20 à 64 ans d'ici 2030 (Pilier européen des droits sociaux). La lutte contre le travail non déclaré peut contribuer à cet objectif en créant davantage d'emplois déclarés.

Dans ce contexte, la Commission européenne a lancé cette étude afin de recueillir des **informations plus approfondies et des preuves empiriques sur les politiques et les combinaisons de politiques efficaces pour lutter contre le travail non déclaré**. Cette étude a examiné les preuves empiriques de l'ensemble des mesures politiques directes et indirectes, y compris leur efficacité potentielle dans la transformation du travail non déclaré en travail déclaré. L'idée était d'identifier les politiques les plus efficaces pour réduire le volume de travail non déclaré et les dommages liés en fonction du type de travail non déclaré, des groupes cibles (moteurs) et/ou des spécificités géographiques.

Méthodologie

L'étude a mis en œuvre une méta-évaluation des études sur les types et les moteurs du travail non déclaré afin de déterminer leur impact sur les instruments politiques et sur l'ampleur du travail non déclaré. L'étude a mis en œuvre une méta-évaluation des recommandations concernant l'efficacité des politiques de lutte contre le travail non déclaré. L'étude a porté sur les 20 dernières années. L'accent a été mis sur les 27 États membres de l'UE (UE-27), ainsi que sur les données recueillies dans les pays développés ou, plus largement, dans les pays membres de l'Organisation de coopération et de développement économiques (OCDE).

Résultats

Définitions et types de travail non déclarés

L'objectif de l'étude était d'examiner les études concernant les **définitions, les types** et les **caractéristiques** du travail non déclaré et leurs éventuels facteurs :

- La **littérature** ne **couvre** que des **types généraux de travail non déclaré**, notamment l'emploi non enregistré, l'emploi sous-déclaré (salaires enveloppés et autres formes de dissimulation de la durée ou de la rémunération réelle/complète de l'emploi), le travail indépendant non enregistré et le faux travail indépendant.
- L'examen des **cadres juridiques** montre que ceux-ci se concentrent sur les pénalités et les sanctions et se réfèrent largement aux mêmes grands types de travail non déclaré. Il convient de noter dans ce contexte que les sanctions pour travail non déclaré (infractions au droit du travail, non-paiement de la sécurité sociale) relèvent d'un autre type de législation que les sanctions pour non-paiement de l'impôt. La complémentarité ou la contradiction de ces cadres juridiques n'a pas été démontrée.
- D'importantes **lacunes persistent** en ce qui concerne les caractéristiques des types de travail non déclaré. Par exemple, les catégories actuelles ne fournissent

pas suffisamment d'informations sur **la manière dont les formes plus complexes de travail non déclaré**, telles que les chaînes de sous-traitance ou le travail sur plateforme, peuvent être regroupées dans cette typologie.

- Une autre limite de la typologie est que les définitions actuelles se concentrent principalement sur les **motivations fiscales ou financières** qui poussent à s'engager dans le travail non déclaré (pour échapper aux impôts ou aux paiements de sécurité sociale) **et moins sur d'autres motivations** telles que la participation à la société (en travaillant), l'absence de services publics de qualité abordables (par exemple, les soins aux personnes âgées), les pièges de l'endettement, le manque d'opportunités ou la promotion de la solidarité et de l'échange sociaux. Recentrer la typologie sur ces derniers types de motivations permettrait d'axer les interventions politiques de manière plus complète sur les mesures susceptibles d'améliorer la morale fiscale (qui est un facteur important du travail non déclaré).
- Les limites de la typologie actuelle du travail non déclaré pourraient être surmontées si les approches politiques envisageaient une typologie plus locale, en regroupant les types de travail non déclaré et en ajoutant des facteurs ou des profils de risque spécifiques au pays ou à la région (par exemple en se concentrant sur les formes les plus courantes de travail non déclaré spécifiques à la région, au niveau national et sur leurs facteurs), ainsi que sur la vulnérabilité (par exemple des groupes spécifiques qui nécessitent une attention ou une protection particulière). Lors de l'élaboration de mesures politiques ciblées, il pourrait être utile de différencier les responsabilités de toutes les parties prenantes, y compris les utilisateurs, les facilitateurs et les annonceurs, ainsi que les facteurs à prendre en compte. Cela pourrait également donner plus de visibilité à la combinaison de politiques donnant les meilleurs résultats.

Moteurs

L'étude a cherché à identifier les moteurs et les déterminants qui conduisent à la participation au travail non déclaré et à les relier aux types de travail non déclaré identifiés afin de fournir une meilleure vue d'ensemble de l'éventail des politiques s'adressant à chaque type de travail non déclaré.

- Aperçu de l'impact des caractéristiques socio-économiques sur le travail non déclaré en général : **l'âge et le sexe sont en corrélation avec l'occurrence du travail non déclaré**. En ce qui concerne l'âge, les données suggèrent que plus l'individu est âgé, moins il est susceptible de s'engager dans du travail non déclaré. Néanmoins, les individus sont influencés par leur expérience de vie dans leur catégorie d'âge, ce qui signifie que le travail non déclaré est possible à tout âge. Le sexe a un effet direct et indirect sur le travail non déclaré. La probabilité que les hommes s'engagent dans du travail non déclaré est plus élevée. En ce qui concerne **l'éducation**, aucun lien général clair n'a été établi avec l'apparition du travail non déclaré. En ce qui concerne les facteurs spécifiques aux entreprises, les données indiquent que **le travail non déclaré est plus répandu dans les petites et microentreprises**. En termes de secteur, le travail non déclaré est plus répandu dans les entreprises opérant dans **l'agriculture** et la **construction**.
- La littérature disponible fournit peu d'indications ou de conclusions solides sur la manière dont les caractéristiques sociodémographiques influencent les **types spécifiques de travail non déclaré**. Malgré cela, quelques indications pourraient être intéressantes pour l'élaboration de politiques efficaces : le **sexe** n'est pas un facteur significatif pour l'emploi non déclaré ; et le faux travail indépendant pourrait être plus répandu chez les personnes **très instruites** que chez les personnes non qualifiées. Malheureusement, peu d'éléments ont été identifiés en ce qui concerne la taille des ménages et la taille de l'établissement (rural/urbain).

- En ce qui concerne les **facteurs** économiques et **systemiques plus larges** du travail non déclaré, la question de savoir si la **charge fiscale** a un impact sur l'ampleur du travail non déclaré ne peut être démontrée de manière empirique.
- L'analyse met en évidence le caractère insignifiant de la part de la **population migrante** sur la taille de l'économie non déclarée et indique plutôt que le **manque de ressources financières en général est un facteur important** qui encourage les travailleurs à s'engager dans le travail non déclaré. Bien que certains fournisseurs de main-d'œuvre participent au travail non déclaré par **nécessité**, beaucoup le font simplement pour défier les autorités et/ou accroître leur richesse. **L'insatisfaction à l'égard du travail de l'administration publique, la méfiance à l'égard des autorités** et le **faible moral des contribuables** sont les principaux facteurs de motivation.
- **La littérature est lacunaire en ce qui concerne les autres facteurs systemiques**, ce qui empêche de tirer des conclusions sur le rôle de la corruption, du blanchiment d'argent, de la répression, de l'État de droit, de la facilité de faire des affaires, de la qualité de la sécurité sociale, de la viabilité du système de retraite et d'autres facteurs spécifiques au pays en tant que déterminants probables du travail non déclaré.

Échelle / volume

L'étude résume les recherches sur les estimations les plus récentes de l'ampleur du travail non déclaré.

- Les données empiriques actuelles sur l'ampleur et la dynamique du travail non déclaré sont **difficiles à attribuer à la réussite des politiques**.
- Les études utilisent une variété de méthodes et de calculs mathématiques pour estimer le travail non déclaré. Le plus souvent, la part du travail non déclaré est exprimée en pourcentage de **la population active**, puis en **pourcentage du PIB**. Cependant, en raison de la nature complexe (cachée) du travail non déclaré, d'autres études utilisent d'autres méthodes d'estimation, ce qui **limite la possibilité de comparer les résultats** et d'identifier les tendances du travail non déclaré dans les États membres de l'UE au fil du temps.
- Pour **2017**, une étude a estimé que la taille moyenne de l'économie souterraine dans l'UE-27 était de **16,3% du PIB** aux prix du marché (prix courants). Une autre étude a estimé qu'en **2019**, la part du travail non déclaré représentait en moyenne **14,8% de la valeur ajoutée brute (VAB)** dans l'UE-27. Les estimations suggèrent que l'économie souterraine et la part du travail non déclaré dans l'UE-27 ont diminué au cours de la période 2013-2023.
- **En ce qui concerne les types spécifiques de travail non déclaré, il n'existe d'estimations sur le volume que pour le travail non déclaré ou les salaires payés de main à la main**, ainsi que plus généralement dans les relations d'emploi. Les données indiquent que le travail sous-déclaré est la forme la plus répandue de travail non déclaré dans l'UE.
- Une approche **convenue** pour estimer le travail non déclaré sur une base continue serait préférable au niveau de l'UE pour continuer à contrôler le volume et fournir une base comparative.

Domages

L'étude présente des données sur les dommages causés par le travail non déclaré afin d'identifier les politiques à privilégier pour réduire les formes les plus préjudiciables de travail non déclaré.

- **La recherche existante se concentre sur les dommages économiques causés à la société de manière plus générale**, sans estimer spécifiquement ces dommages ni classer les caractéristiques les plus préjudiciables du travail non déclaré.
- Le préjudice causé par le travail non déclaré³ est estimé à **6,5% des dépenses publiques totales de l'UE-27** (sur la base des données de 2019). Sur les 6,5 % de pertes totales de recettes fiscales (soit 425 279 millions d'euros), **4,1% s'inscrivent dans le cadre d'une relation de travail**, 2,4% sont dus au travail non déclaré effectué par des travailleurs indépendants et seulement 0,1% au travail non déclaré des travailleurs familiaux (avec d'importantes variations d'un pays à l'autre).
- Les **dommages causés par l'économie souterraine de manière plus générale** (équivalant à 16,3% du PIB de l'UE-27 en 2017) sur la base de la perte totale de recettes fiscales **peuvent être estimés à 13,9% des dépenses publiques totales** (perte de recettes publiques de 850 427 millions d'euros).
- L'étude souligne que les **dommages sociétaux du travail non déclaré et de l'économie souterraine sont estimés significatifs**, même si l'on s'en tient aux mesures limitées utilisées pour leur estimation.
- Les politiques devraient se concentrer sur les formes de travail non déclaré les plus préjudiciables à la société dans son ensemble, en protégeant les personnes les plus vulnérables et en transformant leur situation de travail non déclaré ou sous-déclaré en une situation déclarée.

Interventions politiques pour lutter contre le travail non déclaré

L'étude identifie le type d'interventions politiques les plus couramment recherchées par les États membres de l'UE pour lutter contre le travail non déclaré et présente des preuves de leur efficacité.

- L'Europe occidentale et l'Europe centrale et orientale sont **les régions de l'UE les plus étudiées** en ce qui concerne les indicateurs socio-économiques susceptibles d'affecter le travail non déclaré et les politiques connexes. En règle générale, les considérations liées à la **"conformité fiscale"** sont plus répandues en **Europe occidentale**, tandis que les questions liées à la **"participation au travail non déclaré"** sont plus importantes en Europe centrale et orientale, ce qui suggère des manières différentes de mettre en œuvre les politiques recommandées.
- Les interventions politiques recommandées ont tendance à être plus générales et de haut niveau impliquant des mesures spécifiques et détaillées. **L'information est la recommandation la plus fréquente** pour lutter contre le travail non déclaré dans les deux régions. L'Europe occidentale dispose d'un plus large éventail de recommandations. **L'Europe centrale et orientale présente une proportion un peu plus élevée de recommandations relevant des catégories "moderniser les institutions formelles" et "s'attaquer aux déterminants du travail non déclaré"**, ce qui peut être lié à une performance plus faible dans les indicateurs socio-économiques choisis.
- La recherche montre que les **interventions de mise en œuvre sont** très efficaces, en particulier les audits et les inspections. Toutefois, les **interventions de dissuasion directe doivent être soigneusement étudiées** afin de s'assurer qu'elles sont utilisées de manière appropriée et ciblée. Une mauvaise

³ Sur la base de la valeur estimée du travail non déclaré (estimée en 2019 à 14,3 % de la valeur ajoutée brute), la perte totale de recettes fiscales a été examinée et l'impôt perdu (c'est-à-dire l'impôt sur le revenu et les cotisations sociales liées au travail) a ensuite été calculé en pourcentage des dépenses publiques.

compréhension du contexte d'une intervention pourrait avoir pour **conséquence involontaire d'augmenter le niveau de travail non déclaré ou de non-conformité fiscale**, les individus se sentant injustement ciblés et contrôlés.

- **Les mesures indirectes** jouent un rôle important dans la lutte contre les éléments du travail non déclaré, en particulier ceux liés au non-respect de la législation fiscale. La **simplification de la communication** est un moyen rentable d'accroître le respect des règles et de réduire les coûts globaux de l'application de la législation.
- **Les changements législatifs et réglementaires** sont importants pour lutter contre le travail non déclaré. Les options législatives doivent être soigneusement équilibrées afin de garantir qu'elles entraînent des changements positifs. Dans le cas contraire, elles pourraient créer des situations défavorables où les normes sociales et juridiques ne sont pas synchronisées.

Combinaisons de politiques recommandées pour lutter efficacement contre le travail non déclaré, telles qu'identifiées dans la recherche

En examinant les données empiriques, l'étude identifie les combinaisons de politiques qui pourraient contribuer à un cadre holistique de lutte contre chaque type de travail non déclaré. Ces données peuvent être utilisées au niveau des États membres pour l'élaboration des politiques.

- Les données suggèrent de **ne pas s'appuyer uniquement sur la répression, les incitations ou les interventions indirectes pour lutter contre le travail non déclaré**. Les données confirment la nécessité d'élaborer des approches politiques adaptées au contexte local/régional et au type de travail non déclaré ciblé. Cela confirme l'idée qu'il est important d'adopter une approche holistique pour lutter contre le travail non déclaré.
- Pour être considérées comme optimales, les interventions en matière d'**application de la loi** doivent s'appuyer sur **une stratégie combinant d'autres interventions**, telles qu'une sensibilisation accrue du public aux exigences de conformité fiscale, une combinaison de lettres de rappel d'audit et de pénalités envoyées aux personnes qui se déclarent, la nécessité de prendre en compte les recettes indirectes lors de l'évaluation de l'utilité d'un audit pour garantir un bon rapport coût-efficacité, et l'inclusion d'un message sur les normes sociales pour faire appel au sens de l'obligation morale des individus.
- Toutefois, lorsque la **morale fiscale sous-jacent** d'une société est jugé faible, l'augmentation des efforts de mise en œuvre n'aura qu'un effet marginal. Il faut plutôt s'attacher à répondre aux problèmes sous-jacents qui sont à l'origine de ce faible morale fiscale. Il est clair que "le fait de s'appuyer uniquement sur la dissuasion sans **tenir compte des normes sociales** est probablement une réponse insuffisante à l'augmentation des niveaux de non-conformité".

1 Introduction

The current report was commissioned by the European Commission to review available evidence on the effectiveness of policies tackling undeclared work. The report summarises the findings from a systematic and in-depth review of empirical evidence.

1.1 Study objective and design

This section provides an overview of the study's objective and research design. It outlines how this research fits into the broader policy intervention logic of tackling undeclared work. Some general limitations of the research approach are discussed, including those concerning definitions of undeclared work and the shadow economy, as well as the limitations inherent in research related to undeclared work.

1.1.1 Study objective

Despite Member States having deterrence and preventive policy measures in place to tackle undeclared work, little is known about the long-term effectiveness of these measures on the extent of undeclared work in the economy. There is some evidence that a holistic policy approach could achieve better results than single policy measures or actions.⁴

The differences in the productive structure, the institutional strength of public bodies and regulatory systems, and the scope of welfare state systems all need to be considered to inform effective national policy approaches to tackle undeclared work. In addition to these national features, individual determinants were also understood to play a role in identifying the most suitable combination of policies to tackle different types of undeclared work.

This study reviewed empirical evidence and knowledge across the full range of direct and indirect policy measures, including their potential effectiveness in transforming undeclared work into declared work. A meta-analysis⁵ of studies on the types and drivers of undeclared work was conducted to determine their impact on related policy instruments. The results were intended to inform a multidimensional model that estimates the impact/interrelation of different factors (e.g., incentives, sanctions, and context - described by predefined variables) on the volume of undeclared work. The study seeks to provide a consolidated evidence base on the effectiveness of tools in the fight to transform undeclared work into declared work and, importantly, on the comparative effectiveness of policies. Ideally, the study results would identify the key tools to develop in the short term.

The scope of the study is limited to the past 20 years. It focuses on the 27 EU Member States (EU-27) and on evidence gathered from developed countries more broadly (i.e., Organisation of Economic Co-operation and Development (OECD) countries).

The study team undertook two main tasks:

- Task 1 was primarily dedicated to a meta-analysis (meta-regression) of the determinants of undeclared work. It aimed to shed light on the individual and systemic drivers that lead to undeclared work. The analysis here illustrates the circumstances in which direct policy measures (identified under Task 2) are (in)effective.

Additional qualitative research was undertaken in order to better understand the definitions of undeclared work and types of undeclared work (see Section 2.1).

⁴ Williams, C.C. and Horodnic, I., Trends in the undeclared economy and policy approaches, European Commission, Brussels, 2021.

⁵ Meta-analysis is a statistical technique for combining data from multiple studies on a particular topic.

Task 1 also seeks to identify possible directions for narrowing the scope of interventions by understanding better how types of undeclared work are characterised (see Section 2.2). Finally, an overview is provided of data concerning the volume of undeclared work across the EU and, on that basis, to estimate the government loss in the state budget revenues in the EU-27 (Chapter 3).

- Task 2 was a meta-evaluation⁶ of information on the effectiveness of policies and measures to tackle various forms of undeclared work, including researching promising policy combinations (see Chapter 4).

Before presenting the results, it is useful to present the starting point and assumptions that guided the study design.

1.1.2 Policy intervention logic and study design

The policy intervention logic (see Figure 1 below) served as a logical framework through which the broader context and expected outcomes of undeclared work policies can be understood. It has several interrelated parts:

- **Needs and drivers** addressed by the policies;
- **Objectives** put in place by the legislation to address those needs;
- **Actions** undertaken to meet the needs;
- Expected **short-term results** of those actions;
- Expected **long-term impacts** that resolve the needs;
- **External influencers**, i.e., other factors that influence the consequences but are external to the scope of the legislation.

The ‘needs’ describe problems linked to undeclared work in the EU-27, while the ‘drivers’ describe factors known or theorised to contribute to work not being declared.⁷ Needs were not part of the focus of this research, which instead focuses on the drivers found in empirical research. Yet, policy makers start with the identification and definition of needs in order to determine the ‘overall objective’ of any intervention or policy measure.

The study assumes that the overall objective is to reduce the likelihood undeclared work or transform it into declared work. This overall objective can be reached by the achievement of ‘specific objectives’, such as an increase in regular employment, a decrease of the likelihood in undeclared work, or an increased awareness of issues related to undeclared work. This study considers all policies contributing to the achievement of one or more of the specific objectives (directly or indirectly) to be policies tackling undeclared work (although not all such policies are within the scope of this study). Figure 1 does not provide an exhaustive list of drivers, needs, or specific objectives but rather can be seen as examples (taken from the list of those found in the literature). The policy intervention logic uses the EU definition of undeclared work⁸ but does not develop the underpinning conceptual links between drivers and interventions. Nor does it tackle the wider shadow economy (see Section 2.1).

The sequence ‘Inputs’, ‘Outputs’, ‘Results’, and ‘Impacts’ describes how public policies tackling undeclared work are expected to work. *Inputs* are the efforts by public actors to

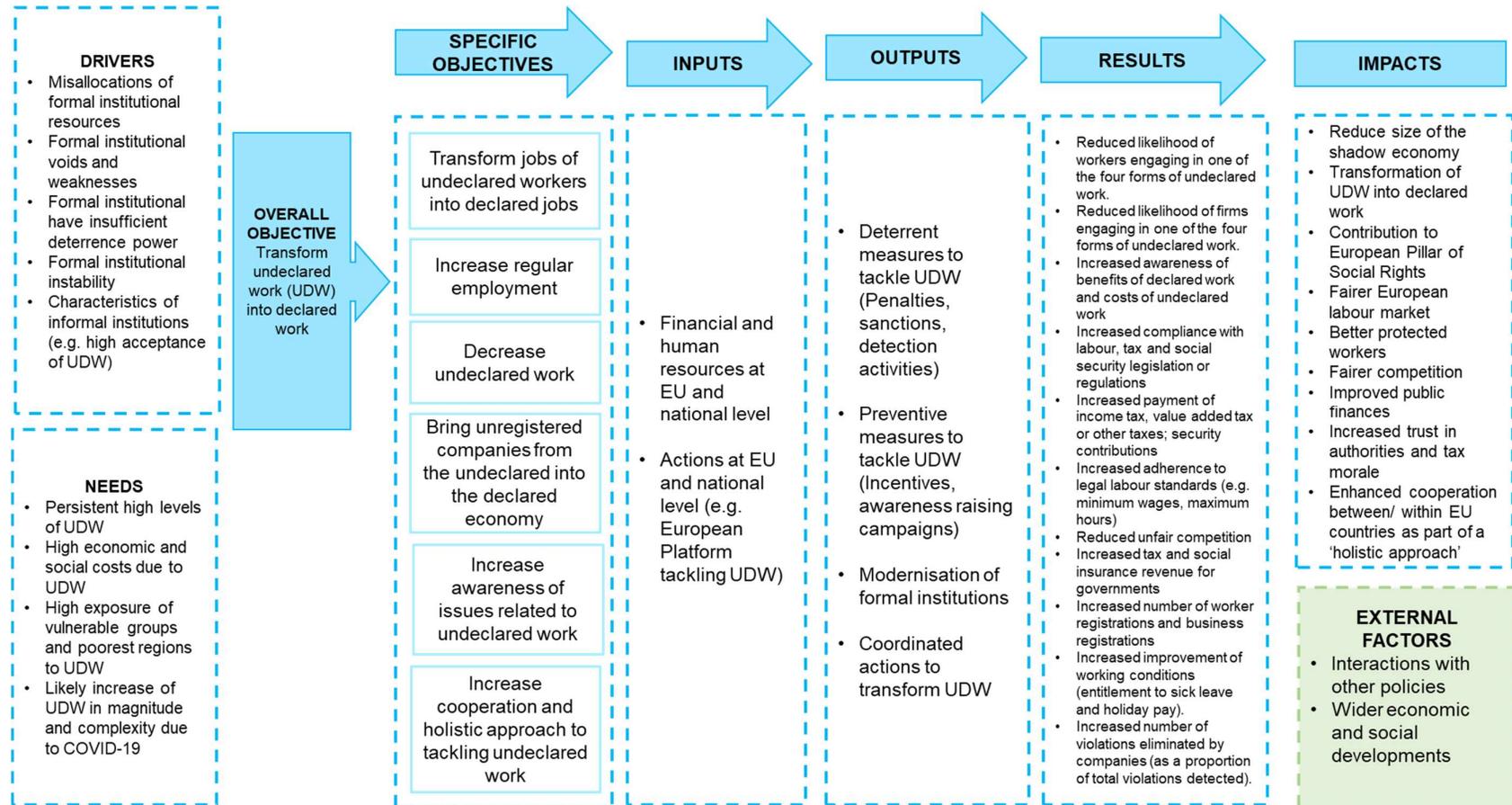
⁶ A meta-evaluation is an instrument used to aggregate findings from a series of evaluations

⁷ Section 2.2 describes the results of the research into the drivers and needs produced by undeclared work and explores the typology of undeclared work, its volume, and scale across the EU.

⁸ At EU level, undeclared work is defined as ‘any paid activities that are lawful as regards their nature, but not declared to public authorities, taking into account differences in the regulatory systems of the Member States’ (<https://www.ela.europa.eu/en/undeclared-work>).

develop and implement a policy. *Outputs* are the actions taken pursuant to that policy (quantifiable as applied). *Results* describe the direct, short-term achievement of the policy, while *impact* encapsulates the longer-term effects of those results. The aim of Task 2, looked at in Chapter 4, is to provide more information about the results and impacts in relation to the overall objective of reducing the likelihood of undeclared work.

Figure 1. Policy intervention logic as underlying model for research



There are some limitations to the definition of undeclared work. The definition adopted by the European Commission in 2007 and used as the reference point for this literature search refers to any paid activities that are **'lawful as regards their nature, but not declared to public authorities'**, taking into account differences in the regulatory systems of the Member States.⁹

The definition of undeclared work remains broad, as Member States have different regulatory systems, each setting out different limitations on what can be considered lawful or unlawful. In addition, the definition does not specifically refer to the unpaid sphere, or to 'favours' between neighbours and friends (e.g., home services) or hobbies (e.g., art, music, amateur sports, interior design or jewellery for which small amounts are received regularly via online platforms) as well as new activities (e.g., social media, podcasting or internet activities financed via advertisements, or entertainment TV where participants can be qualified as employees¹⁰) that turn into declared work. The threshold may differ significantly among the Member States. The term 'informal economy' aims to take into account activities that may not be regulated by the state as activity or work that is carried out without a proper licence (e.g., selling goods at local markets, hairdressers without the actual licence). On the other hand, the term 'shadow economy' also includes criminal types of activities (selling illegal goods, misuse of public goods). In some cases, there is a fine line between what is categorised under national legal rules as 'criminal' or 'undeclared'. Some forms of 'undeclared work' may also be criminalised under national law such as employing undeclared workers in dangerous professions (due to high health and safety risks).

Accordingly, definitions describing undeclared work in the literature refer to one or more of the following three key motivations:

- To evade payment of income, VAT or other taxes;
- To evade payment of social security contributions;
- To evade certain legal labour standards, such as minimum wages, maximum hours, health and safety standards, etc.

Next to the issues around the definition, any research into undeclared work faces multiple challenges and the study sought to mitigate these where possible:¹¹

- Identify an approach to deal with definition and scope issues;
- Violation of laws (taxation, labour regulations, social security provision) are defined at national level and as such require multiple comparative studies to understand the relative effectiveness of policies;
- Understanding how drivers or policies may have impacted the scale and volume of undeclared work and specific types of undeclared work requires regular production of cross-country estimates to compare changes over time;
- While policy makers in the EU are conscious of the problems related to undeclared work and the European Labour Authority (ELA) has a mandate to tackle undeclared work and contribute to the transition into declared employment, the

⁹ European Commission, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - Stepping up the fight against undeclared work, *COM(2007) 628 final, 2007*.

¹⁰ According to Glance (Mediametrie), collecting data on TV formats and audiences both in Europe and outside Europe highlights that TV formats of an entertainment kind (with non-actor participants) represent about one third of primetime TV activities in the EU. Glance-Mediametrie (2019), Entertainment report, accessed at: <https://www.glance-mediаметrie.com/en/entertainment-tv-report-2019>.

A well-known case in France from 2009 of the Social Chamber of the High Court (Cours de Cassation) re-qualified a participant contract for an entertainment TV format (Temptation Island) as a labour contract – reference accessed here: <https://www.doctrine.fr/d/CASS/2009/JURITEXT000020708141>

¹¹ Chapter 5 of the OECD Employment Outlook (2004) contains a useful overview of challenges. Available at: <https://www.oecd.org/employment/emp/34846912.pdf>.

success of policies depends also on a broader social consensus on tackling undeclared work. The latter depends on several factors; for example, perceptions of fairness play an important role, such as how to tax labour. An example here is the on-going review of the classification of online platforms, namely distinguishing those that essentially aim to connect ‘friends’ to provide small amounts of help/work (gardening, repair works, etc. – platforms that are genuinely cooperative) from those that aim to link consumers to professionals (commercial platforms). Perceptions of a fair amount of additional secondary income are also of importance. This requires regulatory differentiation for example, again referring to the regulation of the use of online platforms (e.g. the need to tax differently those operations that are genuinely cooperative and those that are purely commercial). This requires a common understanding of how to tax secondary income.¹² Understanding the drivers and specific types of undeclared work requires national studies that combine an understanding of legal definitions, taxation, and drivers of using specific forms of undeclared work;

- Cultural and country specific factors continue to play a role in successful policy intervention to tackle undeclared work. In some areas, policies may pursue contradictory objectives. For example, the bureaucracy often associated with securing rights (social protection) and protection of property may be perceived as a reason to circumvent their application. Yet, the simplification of laws (labour law, administration of taxes or enterprises) can also have adverse effects, for example, facilitating corruption or the malfunctioning of institutions and legal frameworks, weakening property rights, and increasing the likelihood of undeclared work.
- Any conclusions on the effectiveness of a policy mix in tackling undeclared work requires sufficient empirical depth. A multivariate analysis that controls for the range of factors involved can also be used to help understand policy effectiveness.

1.2 Structure of the report

The report is structured following the logic of the tasks and the policy intervention logic (Figure 1 above):

- **Chapter 2** presents the results of the research on definitions and characteristics of undeclared work as well as the research examining the determinants of various forms of undeclared work. This is linked to Task 1 and contributed to refining the scope of the policies that contribute to tackle undeclared work;
- **Chapter 3** provides an overview of the volume and scale of undeclared work across the EU-27 and the associated (estimated) social damage. This analysis is part of Task 1 and contributed to understanding the needs and problem of undeclared work;
- **Chapter 4** presents the results of the research on policies tackling undeclared work (Task 2). The aim was to summarise Member States' policies to tackle undeclared work and the effectiveness of those policies;
- **Chapter 5** recaps on the literature review to identify areas for future research;
- **Chapter 6** summarises the study and offers conclusions.

¹² Differences in social norms play an important role. Local communities have a varying understanding of what is considered to be undeclared work. See for ex. Arendt, L., Grabowski, W.W., & Kukulak-Dolata, I. (2020), County-Level Patterns of Undeclared Work: An Empirical Analysis of a Highly Diversified Region in the European Union, *Social Indicators Research*, 149, 271-295; or Ianole-Călin, R., Horodnic, I.A., & Ploeanu, A. (2022), Intrinsic versus Extrinsic Drivers: An Investigation into Young People's Motives to Engage in Under-Declared Employment and Undeclared Work, *Eastern European Economics*, 60, 559 - 577.

2 Understanding the characteristics of types of undeclared work and their possible drivers

This section provides an overview of the types of undeclared work and their drivers.

2.1 Types of undeclared work and policy implications

This research took as its point of departure the hypothesis that different types of undeclared work might require different policy solutions. The aim of this research is to provide a multi-dimensional overview of three broad types of undeclared work that serve as its starting point. These three forms are as follows:

- Unregistered employment;¹³
- Under-declared employment,¹⁴ including envelope wages;¹⁵
- Undeclared self-employment;¹⁶

As a first step, information collected by the European Platform tackling undeclared work was reviewed for this study with the aim of analysing the existing information about legal definitions of undeclared work among EU countries. The reason for this step was to understand the extent to which various legal definitions in Member States were aligned with the EU's definition and referred to above types of undeclared work. Additionally, another aim of the analysis was to understand how the definitions on undeclared work links to the different types of legal areas (taxation law, labour law, social security law, any other laws) and whether additional sub-types of undeclared work have been defined in national laws of the Member States. Next, the research also looks at the extent to which legal definitions and legal concepts use a holistic approach (specifying undeclared work in various types of law – criminal, civil, labour, and tax law). The second step involved a review of the literature to identify categories and sub-types of undeclared work.

2.1.1 Review of legal definitions and types of undeclared work

From the information available (dated 2017) only 11 Member States have legal definitions of undeclared work. Of these, two Member States (BE, AT) have a legal definition of undeclared work in their criminal code (see Table 1 below) and two (DE, SI) have a specific Act on undeclared work. For another three Member States a legal definition is contained in the employment code (FR, LT, LU), and again for a further three States in the tax code (DK, NL, FI). One Member State (SE) has a national legal definition that aligns with the EU definition of undeclared work (see Table 1).

¹³ An employment relationship which is not registered with the authorities when it should be registered. Such employees often do not have written contracts or terms of employment and their remuneration is most probably undeclared in nature.

¹⁴ When formal employers pursue the illegal practice of reducing their tax and social security payments, and therefore labour costs, by under-declaring the remuneration of employees. This occurs when employers pay their formal employees two salaries: an official declared salary and an additional undeclared ('envelope') wage which is hidden from the authorities for tax and social security purposes. Alternatively, an employer can under-declare the number of hours an employee works to evade paying the minimum wage (see also Williams, C.C. and Horodnic, I.A. (2017) Evaluating the illegal employer practice of under-reporting employees' salaries", *British Journal of Industrial Relations*, Vol. 55, No. 1, pp. 83-111

¹⁵ Often used in the context of under-declared employment, an envelope wage is a cash-in-hand wage paid by a formal employer to a formal employee in addition to their official declared salary, to reduce their tax and social security payments and therefore labour costs. It arises from an agreement between the employer and employee, and additional conditions may be attached to its payment, which are not in the formal written contract or terms of employment – see also Williams, C.C. and Horodnic, I.A. (2017), Evaluating the illegal employer practice of under-reporting employees' salaries", *British Journal of Industrial Relations*, Vol. 55, No. 1, pp. 83-111

¹⁶ paid activity conducted by the self-employed where income is not declared for the purpose of evading either tax and/or social insurance contributions owed. The self-employed might not declare either some or all their income.

The remaining 16 Member States have no legal definition in codified law but use a working definition. This demonstrates that many Member States tend to operate on the basis of a common understanding concerning the broader definition of undeclared work, aligning with the definition used by the EU Platform tackling undeclared work. Yet, the legal approach (using a legal definition for undeclared work, legal area (tax, labour or criminal law) to tackling undeclared work is not the same. In addition, as already mentioned the EU's definition sets out a concept but does not provide specific categories or types of undeclared work.

Table 1. Member States' definitions of undeclared work

Type of undeclared work covered by Member State laws	Member States
Legal definition according to EU definition	SE
Legal definition found in Criminal Code	BE, AT
Legal definition found in Tax Code	DK, NL, FI
Legal definition found in Employment Code	FR, LT, LU
Legal definition found in Act on Undeclared Work	DE, SI
No legal definition – most relevant related to definition of illegal work	CZ, PL
No legal definition – most relevant related to definition of shadow/hidden/grey/underground/black/non-observed economy	BG, IE, EL, MT, RO
No legal definition – most relevant legal reference is provided by the Act on Illicit Work/Employment	SK
No legal definition – undeclared work considered to cover activities that are not declared to the relevant authorities	ES, IT, PT
No legal definition – national institutions use different definitions	EE, CY, LV, HU
No legal definition – national definition aligns with EU definition of undeclared work	HR

Source: ICF, based on European Platform tackling undeclared work, Member State Factsheet and Synthesis Report, Brussels: European Commission, 2017; Ministry of Social Security and Labour of the Republic of Lithuania, Illegal work, 2020. Available at: <https://socmin.lrv.lt/en/activities/labour-and-employment/labour-law/illegal-work>

Definitions of undeclared work can indicate whether a Member State follows a partial approach to tackling undeclared work, e.g., the main focus might be on fighting fraud (non-declaration of social security payments, non-declaration of wage payments). If specified in employment rules, for example, sanctions might focus on the regularisation of workers by requesting employers to declare the worker to social security bodies or ending the employment relationship (though making back payments for months employed), to end the non-compliance with employment rules.

But undeclared work also means that taxes or social security contributions are not paid, yet taxation law or social security law may not necessarily attach similar consequences and focus instead on the repayment of lost contributions and sanctions. This latter approach, however, could contribute to bankruptcy for a company or result in non-payment due to lack of funds. These types of rules would not necessarily contribute to transforming undeclared work into declared work. The sanctions can also be contradictory – by setting different incentives (not following tax law is maybe more problematic than not

following employment law). Sanctions classify the severity of undeclared work e.g. worse to operate an undeclared business with undeclared workers than operating a declared business with partially declared employees. Therefore, sanctions which set different incentives and consequences in different areas of focus can be at cross purposes and fail to achieve desired objectives in relation to reducing undeclared work. It also seems that sanctions do not consider missed opportunities for businesses such as other businesses operating with declared workers may have missed out business opportunities such as winning service contracts, or workers that could not build a career or receive further training are not considered as part of the sanctions. The latter may increase the tax morale for example and reduce incentives for undeclared work.

A definition of undeclared work in criminal law ensures that some forms of undeclared work that are considered to be more serious receive more severe punishment (employing personnel in sectors considered as high risk for health and safety e.g. construction or transport). This is interesting as it requires defining more precisely types of undeclared work and their severity (or ranking them according to severity). In Austria, for example, the criminal act focusses on 'organised undeclared work' as a form of organised crime suggesting that several cases of undeclared work linked to one organisation/employer is considered to be more severe than an employer with fewer cases of undeclared work. In contrast, in Belgium, the Social Criminal Code provides a definition that includes all types of undeclared work (mostly linked to the three types above in Section 2.1.). The most severely punished forms are those where an employer omits to declare a worker in specific sectors (e.g., construction, HORECA, agriculture)¹⁷ in compliance with the law. In these sectors the immediate declaration of a worker upon hiring is required compared to under- or late declaring in other sectors.

The German approach of having a specific law on undeclared work – Act of tackling undeclared work¹⁸ - is interesting in so far as it combines non-compliance in tax, labour, and social security law. The forms characterised as undeclared work in the German Act are undeclared employees (partial or fully) and bogus self-employment, operating an enterprise that does not have a licence to operate, not registered businesses, as well as under-declared employment. The German Act also defines what cannot be considered as undeclared work – namely, paid favours, activities that are provided without any intention to make profit (linked to helping neighbours or family). It punishes most severely 'organised undeclared work' or 'undeclared work provided to achieve important economic advantages' (Section 8 ScharzArbG). The latter considers the form of undeclared work of business that provide work on an undeclared basis to workers in order to operate at lower costs compared to its competitors. On other hand, it does not address prevention or turning undeclared work into declared work. The provisions in Slovenia (Prevention of Undeclared Work and Employment Act (ZPDZC-1)) on the other hand are also of interest, as under the national law it is illicit to advertise or facilitate undeclared work. This brings an additional category of actors into focus that seems to be largely ignored so far by the literature.

In general, the legal frameworks that define types of undeclared work focus primarily on recovering lost payments of taxes, social security contributions, and wages. In some Member States (with criminal law definitions) actors involved in undeclared work are punished more severely at a personal level. National legal definitions of undeclared work closely linked to the types of undeclared work that were identified at the start of this study, are essentially linked to non-compliance with labour and social security rules (non-declaration and under-declaration of employment). The research uncovered as a severe form of undeclared work 'organised undeclared work', which refers to an employer

¹⁷ Social Criminal Law Book, Art. 181, accessed at: https://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2010060607&table_name=loi

¹⁸ Schwarzarbeitsbekämpfungsgesetz SchwarzArbG – accessed at: https://www.gesetze-im-internet.de/schwarzarbg_2004/BJNR184210004.html

operating formally (declared enterprise) but with several un- or under-declared workers, as well as operating informally (without a business registration, without the required licences). The focus of law on non-declaration in the regulatory frameworks seems ill-adapted for more complex and sophisticated cases of undeclared work – such as those related to temporary work agencies.

The specific case of undeclared work in the context of temporary work agencies

Unregistered employment and under-declared employment involving temporary work agencies can take various forms. In cases of unregistered employment, workers can have a full-time or part-time, temporary or permanent job. Specific sub-types occur when more stakeholders are involved. For example, a recent study on the connection between temporary agency work and undeclared work reveals multiple forms of both unregistered and under-reported employment (Pavlovaite et al., 2021). Under-declared employment can occur where all three parties (worker, temporary agency work, and user company) are registered. Under-declared work can take place between:

The worker and the temporary work agency – when the agency under-reports the employment to save tax and social security costs and the user company is unaware;

The worker and the user company – when the user company under-reports the working time to the agency to save on fees;

The user company and the temporary work agency – where there is an agreement between the two parties and the agency covers up undeclared work by the employer by falsifying data or by retroactive agreements.

Where one or more stakeholders are not registered or licensed, various forms of unregistered employment occur:

Unregistered worker, licensed temporary work agency, and formal employer – where a licensed agency makes a worker available to a user company and does not register the worker in order to evade tax and social contributions;

Unregistered worker, unlicensed temporary work agency, and formal employer – where an unlicensed agency (e.g., unlicensed agricultural gangmaster agency) makes available an unregistered worker to a formal employer in exchange for a fee and the worker is paid ‘cash-in-hand’;

Unregistered worker, licensed temporary work agency, and unregistered company – where, for a fee, a licensed agency makes available an unregistered worker to work on an undeclared basis for an unregistered company;

Unregistered worker, unlicensed temporary work agency, and unregistered company – where an unlicensed agency makes available an unregistered worker to an unregistered company for an undeclared fee, i.e., where none of the three stakeholders declares the transaction (Pavlovaite et al., 2021).

The example of temporary agency work demonstrates that complex contractual situations involving multiple parties may result in a higher risk of undeclared work occurring. There is currently no clear evidence from the literature that flexible employment contracts (in their legal setting) can be seen as a sub-form of under-declared work. Casual work or other forms of flexible employment that offers, relatively speaking, only a small number of hours of work, provides low wages, and poorer working conditions may be a higher risk for under-declared work.¹⁹

¹⁹ Research on this has been undertaken by Eurofound of which a summary can be found via this link: <https://www.eurofound.europa.eu/topic/undeclared-work>

The literature reviewed tends to focus more on the specific definitions for undeclared work, sanctions, and penalties. However, it is rarer to find evidence that looks also at a combination of more general employment laws combined with fiscal regime of specific activities (taxation), as well as type of employment contract (preferably sector specific for those that are more prone to undeclared work).²⁰ Such evidence could contribute to identify legal gaps and drivers that perhaps facilitate or discriminate against some actors accessing markets equally, for example, in construction – lack of SMEs to respond to public procurement, access to markets (who can get a licence to sell on a local market), price of licences etc). This suggests that further analysis might offer a solution to identify potential contradictions and gaps to ensure a holistic approach is taken in legal frameworks and policy frameworks tackling undeclared work. To date, no such analysis has been identified either by a Member State or within academia.²¹

Key takeaways

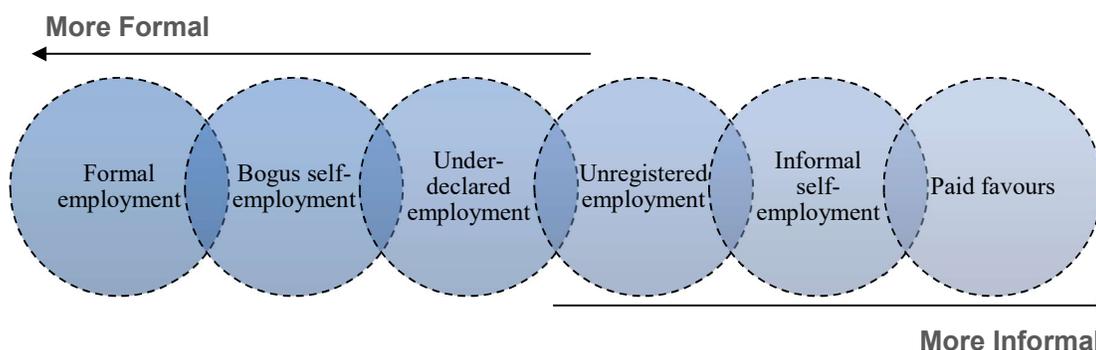
Legal frameworks focus on penalties and sanctions referring largely back to the main types of undeclared work outlined – undeclared employment and self-employment (or undeclared companies) and under-declared business operations and employment. In addition, legal definitions recognise ‘organised undeclared work’ as a more serious form of undeclared work (when several employees are involved to the benefit of another person, employer or others). In addition, those that ‘facilitate’ undeclared work or ‘advertise’ undeclared work can be considered equally serious.

2.1.2 Review of definitions and types of undeclared work in the literature

The literature typically **focuses on the ‘shadow economy’, ‘informal economy’** or ‘informal employment’, as well as undeclared work generally, rather than focusing on specific types of undeclared work.

Using a ‘**degree of formalisation**’ approach, combining the knowledge of literature reviewed, Figure 2 presents a useful understanding of the various forms of undeclared work by showing employment relationships on a continuum from formal to informal relationships.

Figure 2. A typology of informal employment relationships



Source: adapted from Williams (forthcoming, 2023).

²¹ Not in English at least – which was the language used for research.

The literature reviewed for this study **confirms the existence of these broad forms** of undeclared work. **Bogus self-employment** has also been identified as a form of undeclared work with specific dynamics.²² For example, according to a German study specifically young professionals and those with low professional educational achievements seemed to be at relatively high risk of bogus self-employment. On the other hand, highly professionally educated bogus self-employed are rarely uncovered as such because their contractual conditions are better negotiated/formulated.²³ This means that those with higher wages and good working conditions are rarely subject to a legal dispute and are unlikely to be identified as bogus self-employed (due to the contracts negotiated and limited possible legal re-qualification under the criteria available in labour law).

Understanding remains patchy of the specific characteristics of the broad types of undeclared work. For example, while under-declared self-employment could be considered as a form of tax-evasion, it has received least mention in the literature.

Types of under-declared employment

Other types of under-reported employment relate to the value and frequency of the unreported wage. Recent studies (Williams and Horodnic, 2017, Horodnic and Horodnic, 2022) revealed four main types of under-reported employment (envelope wages – identified for Romania, Bulgaria, Croatia, and FYR Macedonia):

- A monthly fixed cash supplement to the fixed official declared wage;
- A varying cash supplement to the fixed official declared wage in line with professional achievements (i.e., linked to speed/quality of work);
- A varying cash supplement to the fixed official declared wage, based on hours worked;
- An occasional undeclared cash payment, such as a holiday allowance, 13th month wage, or bonus;
- Unfortunately, the literature so far does not reveal more of under-reported practices in countries from Northern or Western European countries as supplements may also be cashless transfers (e.g., goods or other services).

Overall, the literature focuses less on understanding the practices to conceal activities from public authorities (and reasons for a chosen method of concealment) and more on the factors driving the engagement in undeclared work activities in general. This helps to determine the size and scale of the undeclared economy, as well as defining fields of action for policies to tackle undeclared work. To date, the ‘type’ of undeclared work has played a less formal role in research. For example, when examining determinants of undeclared work, a number of papers (principally based on Eurobarometer survey data) found that precarious work contracts (or no written contracts), variable salaries, or work by objective were characteristics of undeclared work (e.g., Popescu, et al 2016).²⁴ This suggests that precarious work and the fragmentation of labour relations (multiple employment contracts) play an important role in explaining variations of undeclared work across countries (e.g., Porto et al, 2017).²⁵ However, a more in-depth understanding of

²² A bogus self-employed is where a worker is registered as self-employed but, according to national definitions, should be registered as an employee because they effectively work mainly for one company in a situation that can be compared to that of an employee. Bogus self-employment thus evades the payment of social security contributions. No other new forms were uncovered in this research. It should be mentioned that under-declared self-employment and bogus self-employment are not the same. While under-declared self-employment could be considered as a form of tax-evasion, it has received least mention in the literature.

²³ Hans Dietrich, Alexander Patzina, Rolf Wank (ed.): Scheinselbständigkeit in Deutschland – rechtliche Grundlagen und empirische Befunde. IAB-Bibliothek Nr. 364, Bielefeld. p. 213-460 – English summary. Available at: <https://www.iab-forum.de/en/bogus-self-employment-in-germany-also-a-question-of-definition/>

²⁴ Popescu, M., Cristescu, A., Stanila, L., Vasilescu, M. (2016), Determinants of Undeclared Work in the EU Member States, *Procedia Economics and Finance*, Volume 39, 2016, Pages 520-525,

²⁵ Porto, E., Elia, L., & Tealdi, C. (2017), Informal work in a flexible labour market. *Oxford Economic Papers-new Series*, 69, p. 143-164.

the extent of the role these factors play or more in-depth research into these issues has not been uncovered.

A similar issue was found in the literature discussing the implications of the rise of collaborative platforms on the size of undeclared work. The transactions using collaborative platforms do not necessarily imply cash payments, but there is a concern that they may expand undeclared work and bogus self-employment (Williams et al., 2020). For example, a study in France revealed that only 15% of those using collaborative platforms declared their income (De Groen and Maselli, 2016).²⁶ Williams et al. (2020)²⁷ argue that a lack of clarity of regulations and tax systems leads to unintentional non-compliance. As the collaborative platforms operate often in a less clear legal environment, work organised by the platforms comes with a particular risk of being undeclared.²⁸

The 2019 Eurobarometer survey on undeclared work revealed that 4% of those who admitted engaging in undeclared work in the previous year conducted all their undeclared work mediated by digital platforms, while 9% conducted part of their undeclared work on platforms (European Commission, 2021a). These findings suggest that undeclared work mediated by digital platforms is not a minor issue. In 2013-2014 platform work was present in less than half of the countries in Europe, increasing now to about 1-2% of the workforce in Europe undertaking platform work as their main job and about 10% undertaking platform work occasionally (Eurofound, 2021). The number of digital labour platforms in the EU increased from 463 in 2016 to 516 in 2021 (European Commission, 2021b), with around 28 million people currently working through such platforms, a number that is expected to reach 43 million by 2025 (European Parliamentary Research Service (EPRS), 2022). There is little information on the direct link between digital labour platforms and undeclared work (to understand if it represents a form of under-declared employment, bogus-self-employment or non-declared employment or activity or is a separate type). The 2019 Eurobarometer showed that 13% of people who admitted engaging in undeclared work used digital platforms for some or all of their undeclared activities. In addition, platform work involves undeclared work for other individuals or households. As the findings suggest, the increase of non-cash payments does not always result in reduced undeclared work. The undeclared work conducted via digital platforms provides an example of non-cash payment for undeclared work.

Finally, the definitions of forms of undeclared work focus on the damage to social security and tax revenues, and on infringements of labour laws, and do not take account of other damage to workers or consumers. The literature says little about the severity of undeclared work and why it should be tackled. If the policy perspective was to focus on the damage to workers (e.g., health and safety risks, risk of poverty and exploitation), or to take the perspective of workers being at high risk of ending up in poverty with low earnings, it might yield other policy options and policy perspectives. This typology is explored in the Women in Informal Employment: Globalising and Organising (WIEGO) holistic framework on undeclared work (Figure 3Figure 3).²⁹

The model has been tested in developing countries (but also in developed countries such as Canada) stating that the more precarious employment relationships on which households depend were, the more they were exposed to a higher risk of poverty

²⁶ De Groen, W.P., Maselli, I., (2016), The Impact of the Collaborative Economy on the Labour Market, Centre for European Policy Studies Special Report No 138, European Union, Brussels.

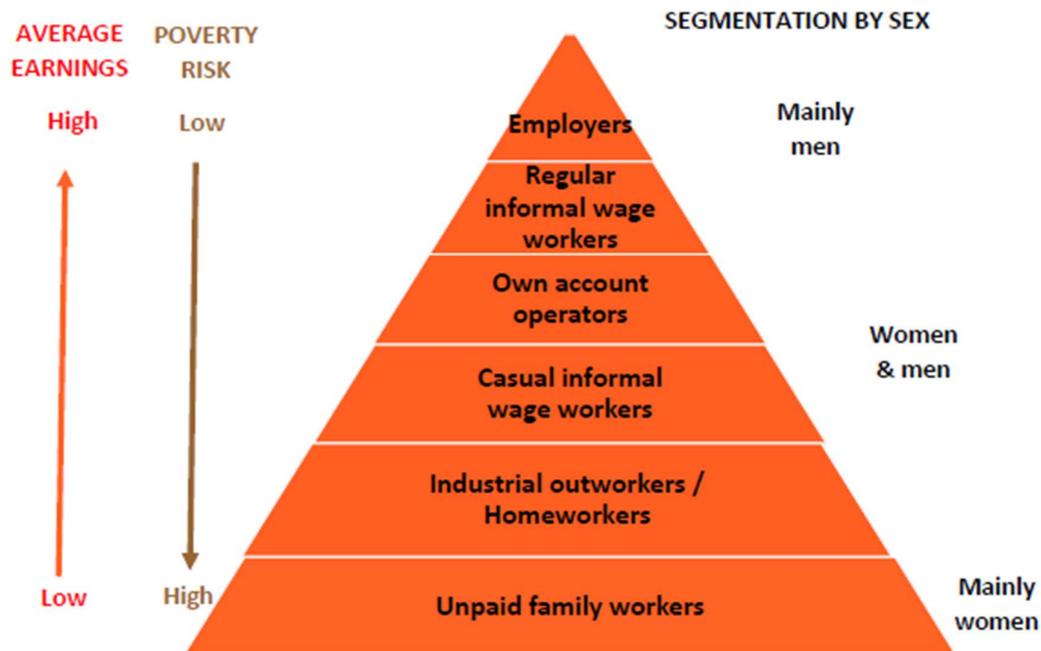
²⁷ Williams, Colin and LLOBERA VILA, MIREIA and Horodnic, Adrian (2020), Tackling Undeclared Work in the Collaborative Economy and Bogus Self-Employment. Available at SSRN: <https://ssrn.com/abstract=3707054> or <http://dx.doi.org/10.2139/ssrn.3707054>

²⁸ In December, the European Commission issued a proposal for a Directive regulating platform work which is still under negotiation in the European Parliament, October 2022 shortly before the EMPL Committee vote. Accessed here: [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2022\)698923](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)698923)

²⁹ Chen, M.A. (2007) Rethinking the Informal Economy: Linkages with the Formal Economy and the Formal Regulatory Environment, DESA Working Paper No. 46 ST/ESA/2007/DWP/46. Available at: https://www.un.org/esa/desa/papers/2007/wp46_2007.pdf

compared to those that work in regular employment (indefinite contracts). Even in the informal economy it is employers that have the highest average earnings compared to those that are own account operators (self-employed/free-lancer). The more households depend on flexible employment forms with lower average earnings the higher their risk of being in poverty (also due to more limited access to social protection schemes). The more vulnerable economically, the higher also the exposure to the informal economy, a hypothesis confirmed also by OECD (2019) research³⁰ focussing on developing countries. They do not only have a higher risk of poverty but also higher health and occupational risks. This indicates the importance of household level earnings but also that earnings from flexible employment are in general the source of lower and less regular earnings.

Figure 3. WIEGO holistic framework – Six-Segment Model, Segmentation of informal employment by average earnings, sex, and risk of poverty



Source: WIEGO – Women in Informal Employment: Globalising and Organising (<https://www.wiego.org/wiego-network-holistic-framework>) – from the UN Women report: Progress of the World's Women 2005: Women, Work and Poverty from 2005. The figure shows the hierarchy of earnings within the informal labour force. Earnings are highest for informal employers and regular informal wage workers (employee type).

Understanding how social benefits and other policies redistribute wealth, as well as labour regulations, could improve the situation of vulnerable workers at higher risk of poverty and exclusion while decreasing undeclared forms of work. Vermeylen (2008)³¹ explains that employment contracts are embedded in national systems and reflect the labour market policies and interventions in each Member State, potentially revealing a varying pyramid of exclusion and poverty. Similarly, a Eurofound publication examining policies tackling undeclared work (2013)³² found that the proportion of GDP spent on social protection

³⁰ OECD/ILO (2019), Tackling Vulnerability in the Informal Economy, Development Centre Studies, OECD Publishing, Paris, <https://doi.org/10.1787/939b7bcd-en>.

³¹ Vermeylen, G., Informal employment in the European Union, Paper prepared for WIEGO Workshop on Informal Employment in Developed Countries, Harvard University, 31 Oct -1 Nov 2008 Available at: https://www.wiego.org/sites/default/files/publications/files/Vermeylen_European_Union.pdf

³² Eurofound (2013), Tackling undeclared work in 27 European Union Member States and Norway: Approaches and measures since 2008, Eurofound, Dublin

benefits has a strong correlation with the size of the undeclared work economy in a country. The same study also found strong negative correlations between the impact of social transfers reducing the risk of poverty and the size of the undeclared work economy.

Renov (2004)³³ highlighted already in previous European Commission research on undeclared work that the type of female undeclared work in a country correlates with the type of welfare regime (egalitarian and social democratic conservative or Latin Rim³⁴). The more women are bound to a role of family tasks, the higher the risk of domestic undeclared labour. This research points out that there are types of undeclared work that would require focus in a holistic approach: namely types of undeclared work where typically vulnerable persons can be found, as well as those primarily dominated by women or by men. Still, it also means that undeclared work is undertaken by persons not necessarily vulnerable.

Pfau-Effinger (2009) conceptualises undeclared work based on motivation³⁵:

- Type 1: 'poverty escape' – workers seeking to avoid immediate extreme poverty;
- Type 2: 'moonlighting' – self-employment as a side job;
- Type 3: 'solidarity orientated' – exchange of goods and services to build a social network.

This clustering may provide a useful way to determine a policy mix for dealing with different drivers and motivations to use undeclared work and may also help to distinguish risk profiles (e.g., health and safety risks for workers requiring urgent attention, or broader socioeconomic risks such as avoiding extreme poverty). It means that the undeclared work typology would take as a starting point the variety of drivers.

A final reflection concerns the welfare regime. In some countries, most social security provisions form part of citizens' rights (e.g., pension schemes, universal healthcare), while others link social security rights to citizenship and employment, and still others predominantly provide access to work-related activities. Two factors pose potential problems in respect of undeclared work and social protection: access to rights (citizen versus worker), and/or the generosity of these rights (i.e., the relative weight of universal vs. work-related rights). Undeclared work forms are thus closely linked to national labour and social security laws. However, the focus here is potentially too narrow between standard/non-standard work and risks conflating poverty with informal undeclared work. Carré (2020) highlights a more recent risk for undeclared work affecting labour markets in EU Member States is the emergence of types of employment that are difficult to classify in

³³ Renov, P. (2004) Undeclared work in an enlarged Union: an analysis of undeclared work. In-depth study of specific items, European Commission study. Available at: <https://www.regioplan.nl/wp-content/uploads/data/file/internationaal/undeclared-work-2004.pdf>

³⁴ Definitions taken from Ibid 25. "Egalitarian and social democratic welfare regimes are found mainly in the Nordic countries. In these societies the household based, "female" type of informal employment is relatively rare. The tradition of housewife marriage is weak, in countries like Denmark, Finland and Sweden. There is a relatively broad system of public childcare and elderly care provided by the welfare state. Because of the relatively egalitarian income structure, cheap labour is rare. Furthermore, the egalitarian cultural tradition makes hiring of subordinate workers for household jobs or similar work culturally not well accepted. Instead, in Denmark, the welfare state organises employment, subsidised, if necessary, for the unemployed in domestic services." In the conservative welfare states, like West Germany, a broad undeclared work sector in the private households exists, ...due to cultural orientation towards a family household based on the tradition of the model of housewife with a male breadwinner supported this development. So did the cultural acceptance of having subordinate workers in the household. This hierarchical structuring of social inequality, which is one of the characteristics of the conservative welfare regime, contributed to this development. In the "Latin Rim" countries, the welfare state suffers from a number of deficiencies in the field of family policy, e.g. childcare and elderly care (family-based welfare regime), which is more developed in most West European countries...demand for domestic services (in these countries) which is to a certain extent filled in by informally employed legal and illegal female immigrants." Cited p. 181-182.

³⁵ Pfau-Effinger, B., 'Varieties of undeclared work in European societies', British Journal of Industrial Relations, Vol. 47, No 1, 2009, pp. 79-99.

the traditional divide – standard/ non-standard and self-employment – for example platform workers or dependent self-employment.³⁶

There is a need for further empirical research that could provide undeclared work typologies more on the basis of drivers rather than lack/degree of formal/informality. This research could also inform multidimensional clusters of types of undeclared work, e.g., differentiating between when under-declared employment occurs, who uses it, and in which sectors, and how it is hidden from public authorities. As yet, research design has not combined undeclared work forms with research focusing on precarious work or quality of work for the EU. A research design that combines legal, sociological, and economic methods could provide such insights.

Finally, another dimension that can play a role in building the typology of undeclared work is the remuneration for undeclared work, including the use of cash and the increase in cashless payments and cryptocurrencies. Reimers et al. (2020) argued that even if there is a link between the size of the informal sector and cash holdings, its quantitative importance is modest. They noted that reducing the shadow economy by half would decrease the demand for banknotes, with approximately 5% of total banknotes in circulation. Seitz et al. (2020) set out the hypothetical scenario of abolishing euro cash altogether and found that to do so would eliminate 1.8% of euro area Gross Domestic Product (GDP) (2017 calculations). Earlier, Takala and Virén (2010) also found that the changes in cash demand do not correspond to changes in the size of the informal economy, regardless of the type of measurement of the informal economy. Schneider (2016) found that only about 10% of cash is used for transactions in the informal economy. Unfortunately, no study was identified that examines the role of cryptocurrencies in the remuneration of undeclared work, or if in-kind remuneration could also be provided (e.g., by luxury goods or services/ events).

The role of remuneration and flow of payment/monies derived from undeclared work is similarly a less well studied topic. It may, however, play a role in detecting some forms of undeclared work (cash-in-hand or envelope wages) and in particular to determine more severe forms of undeclared work (such as 'organised undeclared work'), as well as including other stakeholders into the typology that are part of the 'system' of undeclared work (facilitators, advertisers of undeclared work as well as users).

Key takeaways

The literature largely distinguishes between unregistered employment and activities, under-declared work, and bogus self-employment. Under-declared work is distinguished by forms of payment, registration of employees to authorities, and working hours. More complex situations such as platform work, temporary agency work, or contractual chains, however, cannot be clustered into one of these types. The typology lacks more concrete sub-types and the link to labour contracts and other characteristics.

Another limitation of the typology is that current definitions focus only on the economic damage (missing taxes, social security contributions etc). It is not clustered to take account of specific drivers or the risk profiles of those most vulnerable to undeclared work and requiring specific protection.

Finally, changes in cash flows do not seem to correspond with changes in the size of informal work economy. Little research exists to understand how money laundering and corruption interacts with the size of the informal economy.

³⁶ Chen, M. and Carré, F (eds.) (2020), *The Informal Economy Revisited: Examining the Past, Envisioning the Future*, Routledge; Chapter 4, Carré, F *Informal employment in developed countries*, p. 54

2.2 Drivers of undeclared work

This section presents empirical evidence identified on drivers linked to each type of undeclared work. Drivers describe the motivations of workers and companies' engagement in undeclared work but there are also wider systemic drivers linked to the economy and administration. When connecting drivers with types of undeclared work, as well as policies targeting each type of undeclared work it provides further insights into a possible holistic policy approach.

The first sub-section discusses the different theoretical positions in studies on undeclared work in order to establish the theoretical framework. A second sub-section presents the identified range of drivers associated with undeclared work.

2.2.1 Theories on interpreting drivers of undeclared work

Four major – often competing – theories of undeclared work exist: modernisation theory, neo-liberal theory, political economic theory, and institutional theory. These influence the interpretation of drivers and guide assumptions for estimating the volume of undeclared work. The present section reviews the theories and provides an overview of how research has been guided by theoretical assumptions to identify drivers that increase the prevalence of undeclared work.

For much of the twentieth century, **modernisation theory** was the dominant explanation for the prevalence of undeclared work. It held that undeclared work occurred as a result of the under-development and lack of modernisation of government. Here, the **prevalence of undeclared work is seen as a stage in the evolutionary process of the economy that will inevitably reduce and ultimately disappear as a modern formal economy becomes established**. However, lived practice and later research showed that undeclared work is a persistent feature of both developing and developed economies. Nevertheless, scholars adopting this theoretical approach provide useful insights by identifying various structural drivers that generate a higher prevalence of undeclared work. These drivers include development measured in conventional terms (GDP per capita) and in alternative terms (e.g., household final consumption expenditure per capita, the Human Development Index and Social Progress Index (Bologna, 2014; Eilat and Zinnes, 2002; Kayaoglu and Williams, 2017; Williams and Horodnic, 2019)), the level of modernisation of government, measured as institutional quality, government effectiveness or satisfaction with the government (Omri, 2020; Kayaoglu and Williams, 2017; Putniņš and Sauka, 2015; Torgler and Schneider, 2009), and corruption (Franić, 2017; Davis and Henreksen, 2005; Krasniqi and Williams, 2017).

The second explanation for the prevalence of undeclared work derives from the **political economy** school of thought or **the under-intervention theory**. According to this view, **undeclared work is generated by inadequate state intervention in regulating work and welfare, resulting in lower protection that prompts workers to undertake undeclared work out of necessity, as a survival strategy** (Chen, 2012; ILO, 2014). Higher levels of state intervention in the regulation of work and welfare should therefore reduce levels of poverty and wider inequalities, and, consequently, lower participation in undeclared work. Indeed, previous studies validated the determinants of undeclared work identified in the political economy perspective, including: state intervention as measured by indicators such as the total expense of the government, healthcare expenditure, social expenditure, the effect of redistribution via social transfer, and active labour market policies (ALMPs) (Krasniqi and Williams, 2017; Loayza and Rigolini, 2011; Williams and Horodnic, 2019), and indicators of poverty and inequality, such as population at risk of poverty, severe material deprivation, income inequality and Gini coefficients (Franić, 2017; Baric and Williams, 2013).

Conversely, *neo-liberal theory* or *over-intervention theory* argues that undeclared work is not a necessity-driven strategy but **rather a choice made by the worker in response to high taxes and burdensome regulations that generate higher cost**, time and effort to declare the work (Becker, 2004; De Soto, 1989, 2001; Perry and Maloney, 2007). Previous studies were inconclusive on the issue of taxation, with some studies finding a positive association between the level of taxation and the level of undeclared work, and others finding no correlation, or a negative association (Buehn et al., 2009; Ciccarone et al., 2014; Dell'Anno, 2007; Teobaldelli, 2011; Kayaoglu and Williams, 2017; Williams, 2014; Williams and Horodnic, 2017).

Institutional theory has now become the dominant explanation for participation in undeclared work, as it both synthesises and incorporates many of the tenets of those earlier theories. It holds that undeclared work is generated by the asymmetry between the two types of institutions that exist in all societies, namely formal institutions represented by the formal rules, laws and regulations, and informal institutions representing citizens' norms and beliefs (Baumol and Blinder, 2008; Helmke and Levitsky, 2004; North, 1990). As such, undeclared work occurs **when there is an asymmetry between laws and regulations and what citizens and businesses find acceptable** (i.e., informal institutions). Tackling undeclared work requires the identification and remedying of the causes of this asymmetry, which implies determining the features of the formal and informal institutions that contribute to higher participation in undeclared work. Institutional theory covers **four categories of formal institutions'** characteristics that are seen as **driving undeclared work**:

- *Formal institutional resource misallocations and inefficiencies* (i.e., a government's lack of modernisation and high levels of corruption);
- *Formal institutional voids and weaknesses* (i.e., limited state intervention in work and welfare);
- *Formal institutional powerlessness* (i.e., lack of law and regulation enforcement capacity and incentives);
- *Formal institutional instability and uncertainty* (i.e., frequency of changing laws and regulations) (Williams, 2017).

Moving to the characteristics of **informal institutions** and their relationship with higher participation in undeclared work, it is important to **understand the extent to which various practices of undeclared work are deemed socially acceptable by workers and employers**. The most common indicators used to measure the acceptability of undeclared work are tax morale, often defined as the intrinsic motivation to pay taxes (Torgler, 2012; Torgler and Schneider, 2007), the notion of civic duty (Orviska and Hudson, 2003), and non-financial factors that determine tax compliance (Luttmer and Singhal, 2014). Earlier findings supported this view that a low level of tax morale is associated with higher participation in various forms of non-compliant behaviour, including unregistered employment (Feld and Larsen, 2012; Williams and Horodnic, 2016; Windebank and Horodnic, 2017) or under-registered employment (i.e., envelope wages) (Franić, 2017; Williams and Horodnic, 2015).

Another **key driver directly and indirectly influencing participation** in undeclared work (through shaping tax morale) is represented by the **level of trust** (Horodnic, 2018). Studies revealed a strong association between participation in undeclared work and a low level of **vertical trust**, i.e., citizens' trust in public institutions such as the government, the legal system and tax authorities (Franić, 2017; Williams et al., 2017; Williams and Horodnic, 2019) and **horizontal trust**, i.e., citizens' trust in their peers' compliance (often measured by perceptions of the spread of undeclared work) (Ciccarone et al., 2014; Horodnic and Williams, 2022).

As the dominant theory explaining participation in undeclared work, **institutional theory incorporates the most important tenets of the three earlier theories**, moving away from the structural conditions generating participation in undeclared work towards individual agency, in order to account for the fact that in an environment characterised by the same structural conditions, some individuals decide to participate to undeclared work and others do not. Table 2 summarises the four theories, together with their drivers and corresponding policy approaches.

These theoretical approaches facilitate the understanding of the different perspectives on undeclared work and the angle of approach for policy interventions to reduce or transform undeclared work.

Table 2. Overview of institutional theory explaining participation in undeclared work and policy approaches for tackling undeclared work

Theory/ perspective	Driver for undeclared work	Sub-drivers	Explanation/link to undeclared work participation	Policy examples
A. FORMAL INSTITUTIONAL CHANGE				
<i>Area for change 1: Formal institutional resource misallocations and inefficiencies</i>				
Modernisation perspective	Economic under- development		There is a surplus of labour supply and some groups of workers (e.g., vulnerable workers, unskilled workers, migrants) are excluded from the formal economy until economic progress and modernisation take place	<p><i>Actions to tackle wider structural economic and social determinants of undeclared work:</i></p> <p>Improve GDP per capita</p> <p>Improve household final consumption per capita</p> <p>Improve Human Development Index (HDI)</p> <p>Improve Social Progress Index (SPI)</p> <p>Increase productivity</p> <p>Enhance entrepreneurship and enterprise culture</p>
	Lack of modernisation of the government	Lack of redistributive justice	Citizens do not believe they receive the public goods and services they deserve for the taxes they pay	<p><i>Customer-friendly initiatives (enforcement agencies treat citizens in a respectful, impartial, and responsible manner):</i></p> <p>Improve redistributive justice</p>
		Lack of procedural justice	Citizens feel that the public authorities adopt an adversarial approach	Improve procedural justice
		Lack of procedural fairness	Citizens perceive that the taxes they pay are not fair compared to those paid by other citizens	Improve procedural fairness Information to citizens on how their taxes are used
Corruption and bribery	Misuse of public office for private gain	Citizens perceive that they are being extorted by public officials demanding or receiving gifts and bribes	Tackle bribery and corruption	

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Theory/perspective	Driver for undeclared work	Sub-drivers	Explanation/link to undeclared work participation	Policy examples
		State capture	Citizens perceive that the resources available for public goods and services are reduced due to powerful groups that influence the formulation of laws and policies to their own advantage and enable them to gain preferential treatment and resources	
		Personal connections	Citizens perceive that other citizens do not comply with formal rules and use personal connections to get preferential access to public services (e.g., education, health services)	
Area for change 2: Formal institutional voids and weaknesses				
Neo-liberal perspective		Burdensome regulatory environment	Citizens <i>voluntarily decide to exit</i> the over-regulated formal economy with its high taxes and large number of state-imposed institutional constraints that generate higher cost, time, and effort to operate in the formal economy	<p><i>Reduce regulations:</i></p> <ul style="list-style-type: none"> Reduce intensity of regulation Reduce bureaucracy Reduce regulatory burden (usually deregulation not better regulation) <p><i>Reduce tax rates:</i></p> <ul style="list-style-type: none"> Reduce current taxes on income and wealth, etc. Reduce tax revenue as a % of GDP Reduce total tax rate as a % of GDP Reduce share of direct and/or indirect taxation (% GDP) Reduce taxation on labour
Political economy perspective		Lack of worker protection	Citizens are <i>excluded</i> from the declared economy due to low levels of state intervention in work and welfare provision, which does not offer adequate protection to the worker and	<p><i>Increase intervention in work and welfare, and reduce inequalities and poverty:</i></p> <ul style="list-style-type: none"> Increase health expenditure

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Theory/ perspective	Driver for undeclared work	Sub-drivers	Explanation/link to undeclared work participation	Policy examples				
<p>gives them no other choice than to participate in undeclared work as a survival strategy</p> <p>Improve social protection Increase ALMPs Improve public employment services Reduce income inequalities Pursue labour market policies to reduce both in-work and out-of-work poverty Enhance employment participation rate</p>								
<p><i>Area for change 3: Formal institutional powerlessness</i></p>								
<table border="0" style="width: 100%;"> <tr> <td data-bbox="382 724 655 782" style="width: 15%;">Lack of capacity to enforce formal rules</td> <td data-bbox="663 724 873 782" style="width: 15%;">Weak deterrence measures</td> <td data-bbox="882 724 1381 834" style="width: 30%;">Citizens' participation in undeclared work is explained by low costs/consequences (i.e., low level of actual and/or perceived deterrents)</td> <td data-bbox="1390 724 1890 1094" style="width: 40%;"> <p><i>Enhance deterrence measures in enforcement authorities and increase power of authorities:</i></p> <p>Implement more effective sanctions (e.g., penalties and fines for employers or companies to deter participation in undeclared work; penalties that transform undeclared work into declared work; penalties for citizens or businesses who buy goods or services from the undeclared economy)</p> <p>Improve the risk of detection (e.g., workplace inspections, data mining and matching, risk assessment, coordination across government departments)</p> </td> </tr> </table>					Lack of capacity to enforce formal rules	Weak deterrence measures	Citizens' participation in undeclared work is explained by low costs/consequences (i.e., low level of actual and/or perceived deterrents)	<p><i>Enhance deterrence measures in enforcement authorities and increase power of authorities:</i></p> <p>Implement more effective sanctions (e.g., penalties and fines for employers or companies to deter participation in undeclared work; penalties that transform undeclared work into declared work; penalties for citizens or businesses who buy goods or services from the undeclared economy)</p> <p>Improve the risk of detection (e.g., workplace inspections, data mining and matching, risk assessment, coordination across government departments)</p>
Lack of capacity to enforce formal rules	Weak deterrence measures	Citizens' participation in undeclared work is explained by low costs/consequences (i.e., low level of actual and/or perceived deterrents)	<p><i>Enhance deterrence measures in enforcement authorities and increase power of authorities:</i></p> <p>Implement more effective sanctions (e.g., penalties and fines for employers or companies to deter participation in undeclared work; penalties that transform undeclared work into declared work; penalties for citizens or businesses who buy goods or services from the undeclared economy)</p> <p>Improve the risk of detection (e.g., workplace inspections, data mining and matching, risk assessment, coordination across government departments)</p>					
<table border="0" style="width: 100%;"> <tr> <td data-bbox="382 1114 655 1243" style="width: 15%;">Lack of ability to provide incentives to encourage adherence to formal rules</td> <td data-bbox="663 1114 873 1192" style="width: 15%;">Low benefits of operating in undeclared sector</td> <td data-bbox="882 1114 1381 1269" style="width: 30%;">Citizens participate in undeclared work because they perceive low benefits for compliance. Incentives and rewards are required to increase the benefits of operating in the declared sector and to encourage compliant behaviour</td> <td data-bbox="1390 1114 1890 1352" style="width: 40%;"> <p><i>Make it easier to engage in declared work and incentivize declared work:</i></p> <p>Supply-side incentives (e.g., simplify compliance through easier registration procedures, simplify forms, formal advice and support, direct tax incentives, targeted VAT reduction)</p> <p>Demand-side incentives (e.g., service vouchers,</p> </td> </tr> </table>					Lack of ability to provide incentives to encourage adherence to formal rules	Low benefits of operating in undeclared sector	Citizens participate in undeclared work because they perceive low benefits for compliance. Incentives and rewards are required to increase the benefits of operating in the declared sector and to encourage compliant behaviour	<p><i>Make it easier to engage in declared work and incentivize declared work:</i></p> <p>Supply-side incentives (e.g., simplify compliance through easier registration procedures, simplify forms, formal advice and support, direct tax incentives, targeted VAT reduction)</p> <p>Demand-side incentives (e.g., service vouchers,</p>
Lack of ability to provide incentives to encourage adherence to formal rules	Low benefits of operating in undeclared sector	Citizens participate in undeclared work because they perceive low benefits for compliance. Incentives and rewards are required to increase the benefits of operating in the declared sector and to encourage compliant behaviour	<p><i>Make it easier to engage in declared work and incentivize declared work:</i></p> <p>Supply-side incentives (e.g., simplify compliance through easier registration procedures, simplify forms, formal advice and support, direct tax incentives, targeted VAT reduction)</p> <p>Demand-side incentives (e.g., service vouchers,</p>					

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Theory/ perspective	Driver for undeclared work	Sub-drivers	Explanation/link to undeclared work participation	Policy examples
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targeted direct and indirect tax incentives such as rebates and VAT reductions)

Area for change 4: Formal institutional instability and uncertainty

Instability and uncertainty of formal rules

Continuous changes in laws and regulations

Citizens experienced continuous changes in the formal rules and thus do not expect that the current regulations will remain in force for the medium and long term. They perceive little benefit in paying social contributions, given that they do not believe that future regulations will allow them to benefit from unemployment benefits, pensions, etc.

Provide better predictability of regulations

Reduce frequent changes in regulations

Improve regulation applicability for medium and long term

B. INFORMAL INSTITUTIONAL CHANGE

High acceptability of undeclared work (high asymmetry between formal and informal institutions or low tax morale)

Low vertical trust

Citizens participate in undeclared work due to the low trust in public institutions such as the government, the legal system, and tax authorities.

Education and awareness campaigns to increase trust and enhance voluntary compliance:

Low horizontal trust

Citizens participate in undeclared work because they do not expect their peers to be compliant. They perceive that a large share of the population engages in undeclared work and/or personally know people engaged in undeclared work and are therefore more likely to adopt the same behaviour (social norm)

Information units in enforcement authorities

Advisory inspections

Education in schools on tax, social insurance, and labour law

Awareness-raising campaigns to increase voluntary compliance (e.g., benefits of declared work, issues related to purchasing undeclared goods and services)

Campaigns to improve horizontal trust in other citizens (e.g., competing firms, other citizens)

Campaigns to improve vertical trust in government

Source: Abridged and adapted from Williams (2017), Horodnic and Williams (2019) and Williams and Puts (2017).

2.2.1.1 Results of the review of determinants of undeclared work

Using a meta-analysis approach and reviewing the available empirical research, the study team was able to confirm a limited number of characteristics (drivers) by research identified (see Table 3) as being relevant. These characteristics were clustered within the conceptual framework of institutional theory, separating socioeconomic characteristics, formal institutional drivers, and informal institutional drivers.

Table 3. Determinants identified in reviewed publications on undeclared work

I. SOCIOECONOMIC CHARACTERISTICS	
Category of driver	
Characteristics identified in literature	<i>Worker/employee characteristics</i> <i>Firm characteristics</i> Age Education level Gender Marital status Political ideology/views Psychological factors (e.g., emotions, anger) Sector Financial situation Firm size (no. of employees, turnover) Sector
II. FORMAL INSTITUTIONS	
Area of change	II.1. FORMAL INSTITUTIONAL RESOURCE MISALLOCATIONS AND INEFFICIENCIES
Driver	II.1.1. Level of modernisation of government
Characteristics identified in the literature	Satisfaction with tax system
	II.1.2. Formal institutions acting in a corrupt manner
	Control of corruption
	II.2. FORMAL INSTITUTIONAL VOIDS AND WEAKNESSES
	II.2.1. Modernisation explanation – Level of ‘development’
	II.2.2. State intervention
	Welfare systems
	II.3. FORMAL INSTITUTIONAL POWERLESSNESS
	II.3.1. Lack of capacity to enforce policies
	II.3.2. Lack of power in ability to provide incentives to encourage adherence to the formal rules
	II.3.3. Lack of trust in authorities
	II.4. FORMAL INSTITUTIONAL INSTABILITY AND UNCERTAINTY
III. INFORMAL INSTITUTIONS	
	Tax moral

Note: formal and informal (institutions) drivers grouped according to Williams and Horodnic (2020).

While a wide variety of characteristics (more than 32) were identified in the available literature only a very limited number of characteristics could be confirmed as relevant. This does not mean that other characteristics, as well as the category of drivers and areas for change identified by institutional theory are not valid. It means only that when conducting a meta-evaluation of all characteristics the empirical evidence (focusing on developed countries) is currently limited to confirm the statistical relevance. This points to a need for additional research. Regarding the types of undeclared work, the next subsection will explain in more detail the characteristics identified as relevant also.

Key takeaway

There are four dominant theories that influence empirical research in the identification of drivers and determinants increasing participation and volume of undeclared work: modernisation theory, political economy theory or the under-intervention theory, neo-liberal theory or over-intervention theory, and institutional theory.

The dominant theory present in recent research is institutional theory which combines elements of the other theories. It explains that undeclared work occurs when there is an asymmetry between what is presented in laws and regulations and what citizens and businesses find acceptable (in terms of regulation). This theory identifies four areas of formal institutional change or determinants that lead to an increase in undeclared work in combination with what citizens and businesses find socially acceptable.

Conducting a meta-analysis of the available empirical evidence on drivers led to a cluster of confirmed drivers. Placing the latter into the cluster of determinants based on institutional theory it demonstrates more visually the available limited empirical evidence of drivers that from a statistical point of view are most likely to increase undeclared work. Hence, more research is required to fully confirm theoretical assumptions.

2.2.2 Socio-demographic and other individual-specific drivers of undeclared work

Several determinants influence the individual motivation for participation in undeclared work. This step of the research calculated the percentage of research studies that found a positive effect, a negative effect, and no effect at all on the motivation for participation in undeclared work for each determinant/characteristic. This section presents the results of that analysis for the following types of undeclared work: unregistered employment, under-declared employment, bogus self-employment, and 'other violations' that encompass atypical forms of labour law and tax violations (i.e., any non-compliance other than unregistered employment, under-declared employment, bogus self-employment, undeclared self-employment, undeclared work by companies, and the purchase of undeclared goods and services).

Most studies analysing the determinants of undeclared work centre on socio-demographic characteristics of labour suppliers, with factors such as *age*, *gender*, and *education* found to play a significant role. For instance, there is a strong indication that men are far more likely to engage in under-declared employment than women. More specifically, 103 studies found that women are less likely to receive envelope wages, while 15 studies identified no difference for gender. Two papers highlighted that women are more likely to engage in under-declared work. This difference can be explained by the sectoral focus in such papers. *Gender* appears to be a more relevant factor in newer EU Member States than in the EU-15³⁷. This may however be due to limited evidence and research conducted with focus on the EU-15.

³⁷ Refers to 15 pre-2004 EU Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, the United Kingdom

A closer examination of the studies reviewed revealed that *gender* plays both a direct and indirect role. While men prevail in professions and/or sectors that are more susceptible to wage under-reporting, the effect of gender remains significant even after controlling for this variable. While meta-regression³⁸ allows for direct and indirect effects to be disentangled, the insufficient sample size made it unfeasible here.

The results concerning gender are not overly clear in respect of the types of undeclared work. For instance, the majority of studies found that *gender* is not a significant driver of unregistered employment. The same is true for bogus self-employment, but only at EU level. When large-scale studies of some non-EU countries are included, the balance shifts towards men being slightly more likely to engage in bogus self-employment. That finding should be read cautiously, however, given the small number of studies analysing the link between *gender* and participation in bogus self-employment.

Age is another frequently examined determinant of undeclared work. The bulk of the sources found a negative relationship between age and the tendency to engage in undeclared work, suggesting that older individuals are less willing to violate the legislation. This is particularly evident for under-declared employment, with 126 studies from the EU finding a significant negative effect of age and only 11 concluding the opposite.

The exception is bogus self-employment where the majority of studies found that older individuals are more likely to engage in this practice. These results are expected, given that bogus self-employment frequently emerges from a standard employment relationship. It usually takes some time for both parties to develop mutual trust, which is the key precondition for bogus self-employment.

Age also appears to exert both direct and indirect effects on the likelihood of violating labour and tax legislation. Following a regression analysis (the authors of the current study included some other determinants such as marital status and education in the model), the role of *age* remained statistically significant, suggesting that workers' motivations to engage in such violations are influenced by their life experiences within their particular age group.

Certain non-categorical variables, such as *marriage*, pose challenges when attempting to systematise these findings. Following the recoding of marital status into two categories (married and not-married), married individuals were compared to the rest of the population (i.e., individuals that are single, widowed, cohabiting, and other types of partnership). The analysis showed that married individuals do not typically differ from other groups in terms of the likelihood of participating in standard types of undeclared work. This does not hold for other violations, with the majority of studies finding married individuals less likely to engage.

A similar pattern is visible for the effect of *education*. For instance, none of the studies concluded that higher *education* entails a higher tendency to work without any contract or to engage in less frequent types of undeclared work. However, the number of papers revealing a negative effect was comparable to those finding no effect. Although 'no effect' predominates for under-declared employment and bogus self-employment, the results for the remaining two outcomes (positive and negative) are somewhat different. For instance, there is some evidence that bogus self-employment might be more prevalent among highly educated individuals than among unskilled individuals. In addition, the quasi-formal realm appears to embrace both low-paid workers and those in the upper tier of the workforce.

Unfortunately, the resulting dataset does not provide a satisfactory amount of information on the effects of *household size* and the *size of settlement* (rural/urban). From these rather small numbers of available studies, it can only be hypothesised that neither variable

³⁸ Meta-regression uses regression analysis to combine, compare, and synthesize research findings from multiple studies and their corresponding data sets.

plays a particularly significant role in the decision-making process of economic agents with respect to (non-)declaration of activities.

Key takeaways

While the analysis reveals that gender, age, and education clearly play a direct and indirect role in undeclared work the available evidence can demonstrate only the obvious. Only a few pointers are of interest:

- Men tend to be more prevalent in under-declared work (this can depend on sector specific situations depending on whether it is female or male dominated sector), but no significant influence is found for unregistered employment.
- Younger individuals are generally more likely to participate in undeclared work. This, however, does not apply to bogus self-employment, which is more prevalent among experienced workers.
- From the available evidence it is not possible to establish a general link between level of education and provision of undeclared work. Rather, limited evidence points out that bogus self-employment might be more prevalent among those with higher levels of education than among those with lower levels. In addition, the quasi-formal realm appears to embrace both low-paid workers and those in the upper tier of the workforce.

2.2.3 Economic and wider systemic drivers of undeclared work

The size of the company appears to be a strong negative predictor of undeclared work. This primarily applies to under-declared employment, as the majority of studies found that this typically occurs in micro and small companies. These results are unsurprising, as owners of small-scale businesses find it much easier to extract cash from the system and to develop mutual trust with their employees. The lack of evidence concerning the relationship of bogus self-employment and size of the company is understandable due to complex set-ups making estimates difficult.

The lack of data on sectors is problematic. Rarely evaluated in research studies, an additional limitation was imposed by methodological divergence, with many authors commonly including only a few sectors in their analysis, for example. The reference category was usually determined by convenience, often making it impossible to rearrange the extracted data into comparable units. Despite these obstacles, it was possible to draw conclusions about two key sectors – construction and agriculture, which are highly prone to undeclared work. This holds in the case of unregistered employment, quasi-formal employment, and bogus self-employment. No significant effect was found for other types of violations.

Although a non-negligible number of studies concluded that immigrants are more likely to work fully or partially undeclared compared to individuals born in the country of work, a larger proportion of those suggest that this aspect is not relevant. Rather, it is the *ability to make ends meet* that dominates, with the majority of studies finding a firm link between *financial situation and readiness* to participate in undeclared work – people who struggle to pay their bills or debts are more likely to seek additional off-the-book revenues. Bogus self-employment is the only exception, with every study concluding that there is no direct link between these two variables.

The findings further suggest that *people's subjective beliefs* are at least as important as socio-demographic and economic factors in beginning and sustaining undeclared work. For example, most studies found that people who believe that public administration does a satisfactory job are less likely to engage in illegitimate economic transactions than individuals disappointed with public institutions. The majority of studies also found a negative association between trust in the authorities and willingness to operate informally.

In other words, higher trust entails a lower predisposition to seek tax evasion strategies and to avoid participation in undeclared work.

Tax morale was found to exert a negative effect on the likelihood of working undeclared, with 84 of 93 studies concluding that people with a high intrinsic willingness to pay taxes are less likely to accept envelope wages. Only five studies found the opposite.³⁹ The same is true for less frequent types of non-compliance, although there is a lack of evidence for unregistered employment and bogus self-employment. The same limitation exists in the case of corruption, with few studies available to be evaluated.

Chapter 3 describes the available research on the volume and scale of the economic damage caused by undeclared work.

Key Takeaways

In relation to the economic and wider systemic drivers of undeclared work, systematised findings failed to provide a clear answer about the relevance of the tax burden.

Despite limited data, some important economic, cultural, and wider systemic drivers of undeclared work were evident. For instance, there is evidence of undeclared work being more prevalent in small and micro companies, particularly in businesses operating in agriculture and construction. The analysis also highlighted the lack of financial resources as an important factor encouraging workers to engage in undeclared work. Migrant or immigrant background was found as having no significant effect on undeclared work.

Although some workers participate in undeclared work out of necessity, others do so simply to defy the authorities and/or to increase their wealth. Dissatisfaction with the work of public administration, distrust in the authorities, and low tax morale are the most important motivators.

Nevertheless, there is an important gap in the literature in respect to other systemic drivers, which prevented drawing conclusions on the role of corruption, repression, rule of law, ease of doing business, quality of social security, the viability of the pension system, and other country-level peculiarities mentioned in the literature as likely determinants of undeclared work.

³⁹ The fact that people strongly opposing tax evasion are sometimes more likely to work on an undeclared basis compared to the rest of the population implies that tax morale is important but not the decisive determinant. As many labour suppliers find undeclared work the only means of escaping from poverty, they are forced to go against their moral values.

3 Overview of recent estimates of the volume of undeclared work and scale of damage created

The following section outlines the meta-analysis undertaken to estimate the volume of undeclared work and the scale of economic damage caused by undeclared work.

3.1 Overview of estimates of volume of undeclared work in contemporary research

Studies estimating the volume of undeclared work draw their data from a range of different aspects of undeclared work including tax and social security non-compliance, labour law non-compliance, levels of unregistered employment. They also use various hypotheses and assumptions to estimate the scale of undeclared work. The results presented here bring together the results from the literature reviewed.

In total 141 studies have been reviewed including estimates on volume. While the scope of this exercise included 'developed countries', three studies have been included into the sample that went beyond this remit including also developing countries. The majority of papers, however, focus on not only one country but a combination of countries. Only 20 papers included estimates for one specific country, including estimates for Italy, France, US, Poland, Austria, Denmark, Russia, Turkey, Ukraine, Greece, Latvia, Romania, Croatia, Hungary, and Czech Republic.

All papers together included 556 models to estimate the share of informal/ undeclared work. **Share of the working population** was the unit of analysis most frequently used to determine the volume of undeclared work, used in over 288 models. The share of **GDP** was also employed often, in 178 models. The share of **total population** was calculated 34 times, while the share of **Gross Value Added (GVA)** was used 13 times. Thirty-two models based their measures of the volume of undeclared work on other variables, such as revenue, gross income, or the share of self-employed.

There is considerable variability in the values reported for undeclared work as a share of GDP. Combining all models from the papers, on average, undeclared work represents 33.9% of GDP in developed countries, with the median somewhat lower, at 25.3%. Most model works with e values under 34.8% for developed countries. Focusing specifically on the **volume of under-declared employment and envelope wages**, the various studies reported values of **22.3% of GDP** on average for developed countries across the relevant models. The volume of under-declared employment and envelope wages was, on average, reported at **6.8% of the working population** and **8.2% of the total population**. This finding is anomalous as the total population includes age groups that typically would not participate in any type of paid work. The results are not comparable between GDP and working age population, and total population as they may not be drawn from the same papers. This highlights the limitations of the available information to draw conclusions or make comparisons, as the data vary significantly in terms of time periods and locations. The median values reached 20.4% of GDP, 5.6% of the working population, and 5.0% of the total population. The range of volume measures appeared more restrained compared to considering all types of undeclared work at once: the volume of under-declared employment and envelope wages ranged between 2.8% and 50.0% of GDP, 3.0% and 40.0% of the working population, and 3.4% and 39.3% of the total population. Due to the wide range of geographical regions and time periods covered by the various datasets, **measures of the volume of different types of undeclared work varied greatly**. This prevents any determination of precise values for volumes of undeclared work for the EU Member States as a whole and individually. Rather, a preferred approach would be to obtain data on engagement in undeclared work in the EU-27 from **other datasets**

analysing the same issue across all countries, especially if the volumes are to be based on the same types of data and comparable across countries.

To discuss the trends in the EU Member States on volume of undeclared work five recent studies providing estimates of the shadow economy and undeclared work for the EU 27 were selected using the same method over time (see Table 4). Despite the varying definitions, results are somewhat similar across the studies. Looking at the shadow economy⁴⁰ (based on 2017 figures by Medina and Schneider (2019)), the average size of the shadow economy in the EU-27 was 16.3% of GDP at market prices (current prices). As a proportion of GDP, the 2017 estimates for the shadow economy were highest in Cyprus, Greece, Romania, Bulgaria, and Croatia, with the lowest shares in Austria, the Netherlands, Luxembourg, and Ireland. Based on the 2019 figures by Franic, Horodnic, and Williams (2022) using the Labour Input Method (LIM) the share of undeclared work in the EU-27 represented on average 14.8% of GVA.

⁴⁰ The definition used for shadow economy includes activities that as such are not illegal but use illegal practices such as employment of illegal migrants, as well as illegal activities.

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Table 4. Estimated scale of undeclared work in the European Union

Country	Shadow economy ¹⁾ , 2017	Shadow economy ²⁾ , 2022	Undeclared work (LIM estimates) ³⁾ , 2013		Undeclared work (LIM estimates) ⁴⁾ , 2019		Demand for undeclared work ⁵⁾ , 2019	Supply of undeclared work ⁵⁾ , 2019	Envelope wages ⁵⁾ , 2019	
	(% GDP)	(% GDP)	(% GVA)	(% labour Input)	(% GVA)	(% labour Input)	(% responses)	(% responses)	(% responses)	(% gross salary)
	Eurobarometer 2019									
Total EU-27	16.3		16.4	11.6	14.8	11.1	11	4	3	27
Belgium	16.5	16.3	15.4	11.9	14.0	10.8	16	6	6	26
Bulgaria	22.9		19.2	17.8	23.8	19.3	17	5	6	38
Czechia	11.7		16.9	7.7	9.6	7.0	16	4	3	15
Denmark	11.7		14.3	9.6	9.3	8.6	16	8	3	15
Germany	10.4	8.7	7.1	4.4	8.6	3.9	7	3	2	24
Estonia	20.1		21.3	14.8	16.4	12.2	13	6	4	56
Ireland	9.6	10.1	13.0	8.6	11.1	7.3	14	5	4	19
Greece	24.8	20.9	22.5	12.4	18.8	12.6	27	3	6	44
Spain	20.3	15.8	17.9	8.8	16.5	6.7	9	4	4	22
France	11.7	14.2	11.0	8.8	13.6	11.8	8	4	2	21
Croatia	22.7		17.1	14.2	13.5	10.7	18	3	4	24
Italy	19.8	20.3	17.2	12.9	20.4	12.6	12	3	4	30
Cyprus	25.2		17.9	13.8	10.6	8.6	16	1	3	47

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Latvia	18.0		22.3	18.3	14.9	14.0	21	6	7	40
Lithuania	19.7		25.2	19.8	26.0	20.8	16	3	3	44
Luxembourg	8.8		9.1	5.4	7.0	6.7	13	7	3	No data
Hungary	19.8		23.2	17.3	20.1	16.0	15	4	6	36
Malta	18.6		No data	No data	23.4	17.9	30	1	1	100
Netherlands	8.8	8.2	11.9	5.2	12.8	4.8	27	10	1	7
Austria	7.1	6.6	10.0	8.7	5.3	5.1	12	4	2	27
Poland	19.9		27.3	20.8	19.7	16.0	5	1	5	32
Portugal	16.1	15.7	15.5	6.6	12.0	7.5	16	3	3	41
Romania	23.0		26.2	18.9	27.1	21.7	7	2	5	16
Slovenia	19.0		16.4	13.2	13.0	10.8	11	5	3	18
Slovakia	13.1		14.7	13.4	14.5	12.1	12	3	4	34
Finland	10.8	10.8	11.8	9.3	9.9	7.8	14	3	1	10
Sweden	10.7	10.8	9.7	7.7	7.5	5.3	13	7	2	9

Notes:

¹⁾ Medina, L. and Schneider, F., *Shedding light on the shadow economy: a global database and the interaction with the official one*, CESifo Working Paper No. 7981, Munich: Munich Society for the Promotion of Economic Research – CESifo, 2019. | [Details](#) | [Shadow Economy Data](#) | unweighted average for total EU-27.

²⁾ Schneider, F. and Boockmann, B., *Die Größe der Schattenwirtschaft – Methodik und Berechnungen für das Jahr 2022*, 2022. Available at: <https://www.iaw.edu/pressemitteilungen-detail/deutlicher-rueckgang-der-schattenwirtschaft-in-deutschland.html>

³⁾ Williams, C.C., Bejakovic, P., Mikulic, D., Franic, J., Kedir, A. and Horodnic, I.A., *An evaluation of the scale of undeclared work in the European Union and its structural determinants: estimates using the Labour Input Method (LIM)*, Brussels: European Commission, 2017 | [Details and Undeclared Work Data](#) | EU average includes UK (EU-27 + UK).

⁴⁾ Franic, J., Horodnic, I.A. and Williams, C.C., *Extent of undeclared work in the European Union*, European Labour Authority, European Platform tackling undeclared work, 2022.

⁵⁾ European Commission, *Special Eurobarometer 498 – September 2019 (Wave EB92.1). Undeclared Work in the European Union*, Brussels: European Commission, 2020 | [Details](#), [Undeclared Work and Envelope Wages Data](#) |

When comparing values from 2017 and 2022 for the shadow economy (interpretation of data requires caution as methods used in their calculation may differ), one trend that can be identified is a reduction in the overall size of the shadow economy. However, country specific variations exist which indicate that while the shadow economy shrank in Germany, Greece, Spain, Austria, and Portugal, it experienced a slight increase in Ireland, France and Italy. The volume of the shadow economy's share of GDP in Belgium, Netherlands, Finland, and Sweden seems to have remained unchanged.

Comparing the values for the estimates of undeclared work as a percentage of GVA from 2013 and 2019 a similar trend towards the decline of undeclared work can be seen. When comparing values at Member State level it shows that a slight increase of undeclared work as percentage of GVA occurred in Bulgaria, Germany, France, Italy, Lithuania, Netherlands, and Romania.

The estimated scale of undeclared work across the EU can in some cases be related to categories of undeclared work (see Chapter 2). For example, the LIM (Labour Input Method) estimates⁴¹ measure unregistered employment,⁴² and 'envelope wages' corresponded to the type 'under-declared employment'. Other study estimates, however, were not linked, as they measured more than one specific type of undeclared work or encompassed a larger sphere than undeclared work (the shadow economy).

Key takeaways

Different studies use different methods to estimate undeclared work. **The share of undeclared work is expressed most frequently as a percentage of the working population** and, secondly, as a percentage of **GDP**. Typically, studies have multi-country scope covering a range of geographical regions and time periods using various datasets. The result is that **measures of the volume of undeclared work varied greatly** between studies. These factors limit the potential to compare results across studies and identify trends in undeclared work in EU Member States over time.

Five recent studies were identified that can be used to identify trends in volume of undeclared work over time in EU Member States. One study estimated that the average size of the shadow economy in the EU-27 in **2017** was **16.3% of GDP** at market prices (current prices). Another study estimated that in **2019** the share of undeclared work averaged **14.8% of GVA** in the EU-27. Estimates show that the shadow economy and the share of undeclared work in the EU-27 shrunk over the past 10 years.

Only for under-declared work or envelope wages estimates of volume exist albeit for the EU-27 only based on survey data.

3.2 Estimated economic damage created by undeclared work in EU countries

This section presents estimates of the damage caused by undeclared work across the EU based on the estimated scale of undeclared work. No studies specifically estimated such damage or ranked the most damaging characteristics of undeclared work.

Murphy's (2012) approach was used to show the economic damage caused by undeclared work to governments and societies. Based on the estimated value of the shadow economy, the total tax revenue lost is examined, with that tax loss calculated as a

⁴¹ For explanation about this method and previous figures from 2017 please see Williams, C.C., Bejakovic, P., Mikulic, D., Franic, J., Kedir, A. and Horodnic, I.A., An evaluation of the scale of undeclared work in the European Union and its structural determinants: Estimates using the Labour Input Method, Brussels, European Commission, 2017.

⁴² Unregistered would also be the work provided and paid outside the employment contract (e.g., informal 'upgrading' of a part-time job to full-time employment).

percentage of the government's spending. The results provided should be cautiously interpreted due to the fact that they evaluate the shadow economy as a whole (i.e., undeclared work being only a part of it). However, this approach provides a broader understanding of the size of the analysed phenomenon.

Based on 2017 figures by Medina and Schneider (2019), the average size of the shadow economy in EU-27 was 16.3% of GDP at market prices (current prices) (see Table 5). According to Eurostat data, taxes and social contributions (defined by Eurostat as total receipts from taxes and compulsory social contributions after deduction of amounts assessed but unlikely to be collected) accounted for 39.9% of GDP in 2017. Failing to collect the taxes and social contributions as a result of the shadow economy in the EU-27 thus translates into lost government revenue of more than EUR 850 000 million. Total government spending was 46.7% of GDP in EU-27. **Lost government revenue of EUR 850 427 million represents 13.9% of total government spending.**

Table 5. Government revenue lost due to shadow economy in EU-27 (2017)

Country ¹⁾	Shadow economy ²⁾	GDP ³⁾	Taxes & social contributions ⁴⁾	Gov revenue lost due to shadow economy ^{A)}	Gov spending (total) as % of GDP ⁵⁾	Estimated gov revenue lost (% of total spending) ^{B)}
	(% GDP)	(EUR million)	(% GDP)	(EUR million)	(%)	(%)
<i>Total EU-27</i>	16.3	13 076 046	39.9	850 427	46.7	13.9
Belgium	16.5	445 050	44.7	32 825	52.0	14.2
Bulgaria	22.9	52 531	29.8	3 585	34.8	19.6
Czechia	11.7	194 133	35.4	8 041	39.0	10.6
iDenmark	11.7	294 808	45.7	15 763	50.5	10.6
Germany	10.4	3 267 160	39.3	133 535	44.2	9.2
Estonia	20.1	23 834	32.8	1 571	39.2	16.8
Ireland	9.6	296 925	22.6	6 442	26.2	8.3
Greece	24.8	176 903	39.4	17 286	48.5	20.1
Spain	20.3	1 161 867	34.0	80 192	41.2	16.8
France	11.7	2 297 242	46.4	124 713	56.5	9.6
Croatia	22.7	49 889	37.0	4 190	44.7	18.8
Italy	19.8	1 736 593	41.8	143 727	48.8	17.0
Cyprus	25.2	20 245	33.0	1 684	36.5	22.8
Latvia	18.0	26 984	31.1	1 511	38.7	14.5
Lithuania	19.7	42 276	29.4	2 449	33.2	17.4
Luxembou rg	8.8	58 169	36.8	1 884	41.3	7.8
Hungary	19.8	127 046	37.9	9 534	46.7	16.1
Malta	18.6	11 955	30.2	672	34.4	16.3
Netherlan ds	8.8	738 146	38.7	25 138	42.4	8.0
Austria	7.1	369 362	41.9	10 988	49.3	6.0
Poland	19.9	467 427	34.1	31 719	41.3	16.4
Portugal	16.1	195 947	34.1	10 758	45.4	12.1
Romania	23.0	187 773	24.9	10 754	33.5	17.1
Slovenia	19.0	43 011	37.3	3 048	44.1	16.1

Slovakia	13.1	84 443	33.9	3 750	39.6	11.2
Finland	10.8	226 301	42.9	10 485	53.6	8.6
Sweden	10.7	480 026	44.1	22 651	49.2	9.6

Notes:

¹⁾ Countries listed in protocol order of EU Member States – Eurostat.

²⁾ Medina, L. and Schneider, F., *Shedding light on the shadow economy: a global database and the interaction with the official one*, CESifo Working Paper No. 7981, Munich: Munich Society for the Promotion of Economic Research – CESifo, 2019 | Details | Shadow Economy Data | unweighted average for total EU-27.

³⁾ GDP at market prices (current prices, EUR million) | Details | Eurostat – GDP (market prices) Data, extracted June 2022 |.

⁴⁾ Total receipts from taxes and compulsory social contributions after deduction of amounts assessed but unlikely to be collected | Details | Eurostat – main national accounts tax aggregates Data, extracted June 2022 |.

⁵⁾ General government expenditure by function (COFOG) – Total, Public order and safety, Environmental protection, Health, Education | Details | Eurostat – general government expenditure Data, extracted June 2022 |.

^{A)} Shadow economy (% GDP) x GDP (EUR million) x taxes and social contributions (% GDP) | ^{B)} [Gov revenue lost due to shadow economy (EUR million) * 100] / [Gov spending, total (% of GDP) x GDP (EUR million)].

Source: Authors' calculations based on data from Medina and Schneider (2019) and Eurostat

The same approach (Murphy, 2012) was used to show the damage of undeclared work alone. Based on the estimated value of undeclared work, the total tax revenue lost was examined and the tax lost (i.e., taxes on income and labour-related social contributions) was then calculated as a percentage of government spending.

The first step was to obtain the figures for total taxes on income and labour-related social contributions for each country (see Table 6). Alongside tax revenue from labour (on income from employment, paid by employers and employees), tax revenue on income of the self-employed was considered, as also undeclared work by the self-employed causes losses in tax revenue on income. These data were extracted from a report produced for the European Commission, Directorate-General for Taxation and Customs Union (see Table 8, note 2; details for the methodology used are available in Annex B in the Taxation Trends in the EU Report: Methodological and explanatory notes).

According to Table 6 taxes on income and social contributions (labour-related) accounted for 20.5% of GDP in the EU-27 in 2019. This share was converted to EUR millions and expressed as a share of GVA (Table 8, last column). Secondly, based on 2019 figures by Franic et al. (2022), the average size of undeclared work in the EU-27 was 14.8% of GVA. Considering the GVA value expressed in EUR millions and the share of taxes on income and social contributions (labour-related) in GVA, the government revenue lost due to undeclared work was then calculated. As such, not collecting the taxes on income and labour-related social contributions as a result of the undeclared work in the EU-27 translated into EUR 425 279 million of lost government revenue.

Table 7 shows 2019 Eurostat data on general government expenditure as a percentage of GDP. Total government spending was 46.5% of GDP in the EU-27. Assuming that government revenue lost due to undeclared work was EUR 425 279 million, that represented 6.5% of total government spending.

Table 6. Taxes on income and labour-related social contributions, EU-27, 2019

Country ¹⁾	Tax revenue ²⁾ :			Income of self-employed ⁴⁴	Taxes on income and social contributions (labour-related) ^{A)}	GDP ³⁾	Taxes on income and social contributions (labour-related) ^{B)}	GVA ⁴⁾	Taxes on income and social contributions (labour-related) ^{C)}	
	Labour on income from employment ⁴³		Total							
	of which paid by:			(% GDP)	(% GDP)	(% GDP)	(% GDP)	(EUR million)	(EUR million)	(EUR million)
	employers	employees								
Total EU-27	18.4	8.2	10.2	2.1	20.5	14 017 091	2 873 504	12,533,706	22.9	
Belgium	19.9	7.9	12.0	2.3	22.2	478 161	106 152	426,900	24.9	
Bulgaria	11.1	5.4	5.7	0.8	11.9	61 558	7 325	53,151	13.8	
Czechia	18.0	10.0	7.9	1.1	19.1	225 569	43 084	203,808	21.1	
Denmark	17.9	0.7	17.2	0.9	18.8	310 476	58 369	270,438	21.6	
Germany	20.4	6.9	13.5	2.1	22.5	3 473 350	781 504	3,130,661	25.0	
Estonia	16.1	11.0	5.1	0.1	16.2	27 732	4 493	24,088	18.7	
Ireland	9.5	2.6	6.9	0.7	10.2	356 526	36 366	335,300	10.8	
Greece	15.0	5.6	9.4	0.8	15.8	183 250	28 954	158,762	18.2	

⁴³ Taxes on employed labour income (first 3 columns in Table 8), according to the methodology used in European Commission report, 2022 edition, Taxation trends in the European Union - Data for the EU Member States, Iceland and Norway: "Taxes on employed labour comprise all taxes, directly linked to wages and mostly withheld at source, paid by employers and employees, including actual compulsory social contributions. They include compulsory actual employers' social contributions and payroll taxes, compulsory social contributions paid by employees and the part of personal income tax that is related to earned income.

Under the definition of taxes on employed labour income adopted in this report, the categories 'personal income tax' and 'social contributions' are used in a wide sense including all other taxes that are susceptible to increase the cost of labour. Therefore, the recorded amount of 'personal income tax' in the Nordic countries not only consists of central government income tax, but also includes the state income tax, or municipality income tax, and sometimes also church tax. In France, the generalised social contribution (CSG) and the contribution for the reduction in the debt of the social security institutions (CRDS) are partially booked as income tax on labour income."

⁴⁴ Taxes on the income of the self-employed (column 4 in Table 8), according to the methodology used in European Commission report, 2022 edition, Taxation trends in the European Union - Data for the EU Member States, Iceland and Norway: "The question arose whether part of the self-employed income should be treated as a remuneration of labour and whether the related taxes should be included in taxes on labour. The best compromise between economic rationale and data availability was to consider self-employment income to be income from capital ... Personal income taxes, along with social contributions of the self-employed are, therefore, allocated to the capital income subcategory for the self-employed. This assumption includes the part of self-employment income equivalent to the remuneration of self-employment own labour."

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Spain	16.1	9.0	7.1	1.6	17.7	1 244 375	220 254	1,128,481	19.5
France	21.2	12.4	8.8	1.9	23.1	2 437 635	563 094	2,169,269	26.0
Croatia	13.8	5.6	8.3	0.6	14.4	55 571	8 002	45,754	17.5
Italy	18.2	9.8	8.4	3.3	21.5	1 796 634	386 276	1,611,354	24.0
Cyprus	13.9	8.3	5.6	0.6	14.5	23 010	3 336	20,160	16.5
Latvia	14.7	6.7	8.0	0.3	15.0	30 647	4 597	26,692	17.2
Lithuania	13.9	0.7	13.1	0.6	14.5	48 860	7 085	43,901	16.1
Luxembourg	15.6	4.5	11.1	0.8	16.4	62 704	10 283	56,923	18.1
Hungary	16.5	6.6	9.9	0.7	17.2	146 113	25 131	123,671	20.3
Malta	10.6	2.4	8.2	0.8	11.4	14 042	1 601	12,546	12.8
Netherlands	15.6	5.5	10.1	2.8	18.4	813 055	149 602	724,960	20.6
Austria	21.2	9.6	11.6	2.9	24.1	397 519	95 802	355,291	27.0
Poland	13.4	5.4	8.0	4.3	17.7	533 600	94 447	469,114	20.1
Portugal	13.3	5.8	7.5	0.6	13.9	214 375	29 798	185,536	16.1
Romania	11.9	1.0	11.0	0.2	12.1	223 163	27 003	201,790	13.4
Slovenia	18.1	5.7	12.4	1.5	19.6	48 397	9 486	42,329	22.4
Slovakia	16.0	9.1	6.9	0.1	16.1	94 048	15 142	84,047	18.0
Finland	18.0	7.4	10.6	1.7	19.7	239 852	47 251	207,285	22.8
Sweden	22.3	11.9	10.3	0.4	22.7	476 870	108 249	423,512	25.6

Notes:

¹⁾ Countries listed in EU protocol order – Eurostat.

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

²⁾ Tax revenue: structure by economic function (% of GDP); European Commission, Directorate-General for Taxation and Customs Union (2021). Taxation trends in the European Union: data for the EU Member States, Iceland, Norway and United Kingdom. 1st Edition. Luxembourg: Publications Office of the European Union. | [Details and Tax Revenue Data](#) |.

⁵⁾ GDP at market prices (current prices, EUR million) | [Details](#) | [Eurostat – GDP \(market prices\) Data](#), extracted June 2022 |.

³⁾ GVA (current prices, EUR million) | [Details](#) | [Eurostat – GVA data](#), extracted June 2022 |.

⁴⁾ Tax revenue, labour-on income from employment, TOTAL (% GDP) + tax revenue, income of self-employed (% GDP) | ^{B)} Taxes on income and social contributions (labour-related) (% GDP) x GDP (EUR million) | ^{C)} [Taxes on income and social contributions (labour-related) (EUR million) * 100] / [GVA (EUR million)].

Source: Authors' calculations based on data from Franic et al. (2022), European Commission (2021), and Eurostat.

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Table 7. Government revenue lost due to undeclared work, EU-27, 2019

Country ¹⁾	Undeclared work (LIM estimates) ²⁾	GVA ³⁾	Taxes on income and social contributions (labour-related) ⁴⁾	Gov revenue lost due to undeclared work ^{A)}	GDP ⁵⁾	Gov spending (total) as % of GDP ⁶⁾	Estimated gov revenue lost as % of total spending ^{B)}
	(% GVA)	(EUR million)	(% GVA)	(EUR million)	(EUR million)	(%)	(%)
<i>Total EU-27</i>	14.8	12 533 706	22.9	425 279	14 017 091	46.5	6.5
Belgium	14.0	426 900	24.9	14 861	478 161	51.8	6.0
Bulgaria	23.8	53 151	13.8	1 743	61 558	35.5	8.0
Czechia	9.6	203 808	21.1	4 136	225 569	41.1	4.5
Denmark	9.3	270 438	21.6	5428	310 476	49.5	3.5
Germany	8.6	3 130 661	25.0	67 209	3 473 350	45.0	4.3
Estonia	16.4	24 088	18.7	737	27 732	39.4	6.7
Ireland	11.1	335 300	10.8	4 037	356 526	24.2	4.7
Greece	18.8	158 762	18.2	5 443	183 250	47.9	6.2
Spain	16.5	1 128 481	19.5	36 342	1 244 375	42.1	6.9
France	13.6	2 169 269	26.0	76 581	2 437 635	55.4	5.7
Croatia	13.5	45 754	17.5	1 080	55 571	46.0	4.2
Italy	20.4	1 611 354	24.0	78 800	1 796 634	48.5	9.0
Cyprus	10.6	20 160	16.5	354	23 010	38.4	4.0
Latvia	14.9	26 692	17.2	685	30 647	38.2	5.9
Lithuania	26.0	43 901	16.1	1 842	48 860	34.8	10.8

EFFECTIVENESS OF POLICIES TO TACKLE UNDECLARED WORK

Luxembourg	7.0	56 923	18.1	720	62 704	42.9	2.7
Hungary	20.1	123 671	20.3	5 051	146 113	45.7	7.6
Malta	23.4	12 546	12.8	375	14 042	36.0	7.4
Netherlands	12.8	724 960	20.6	19 149	813 055	42.0	5.6
Austria	5.3	355 291	27.0	5 078	397 519	48.6	2.6
Poland	19.7	469 114	20.1	18 606	533 600	41.8	8.3
Portugal	12.0	185 536	16.1	3 576	214 375	42.5	3.9
Romania	27.1	201 790	13.4	7 318	223 163	36.3	9.0
Slovenia	13.0	42 329	22.4	1 233	48 397	43.3	5.9
Slovakia	14.5	84 047	18.0	2 196	94 048	40.7	5.7
Finland	9.9	207 285	22.8	4 678	239 852	53.3	3.7
Sweden	7.5	423 512	25.6	8 119	476 870	49.1	3.5

Notes:

¹⁾ Countries listed in EU protocol order – Eurostat.

²⁾ Franic, J., Horodnic, I.A. and Williams, C.C., *Extent of undeclared work in the European Union*, European Labour Authority, European Platform tackling undeclared work, 2022.

³⁾ GVA (current prices, EUR million) | [Details | Eurostat – GVA data](#), extracted June 2022 |; ⁴⁾ Taxes on income and social contributions (labour-related)..

⁵⁾ GDP at market prices (current prices, EUR million) | [Details | Eurostat – GDP \(market prices\) data](#), extracted June 2022 |.

⁶⁾ General government expenditure by function (Classification of the Functions of Government – COFOG) – total, public order and safety, environmental protection, health, education | [Details | Eurostat – general government expenditure data](#), extracted June 2022 |.

^{A)} Undeclared work (LIM estimates) (% GVA) x GVA (EUR million) x taxes on income and social contributions (labour-related) (% GVA) | ^{B)} [Gov revenue lost due to undeclared work (EUR million) * 100] / [Gov spending, total (% of GDP) x GDP (EUR million)].

Source: Authors' calculations based on data from Franic et al. (2022), European Commission (2021), and Eurostat.

Little or no information exists on the damage of each form of undeclared work. However, taking together the few studies that analyse the various forms of undeclared work can yield some insights. Putninš and Sauka (2015) concluded that for Baltic countries, of the three main components of the undeclared economy (unreported income by businesses, unregistered employment, under-registered employment), under-registered employment is the largest, accounting for 39% - 52% of the total undeclared economy for those countries.

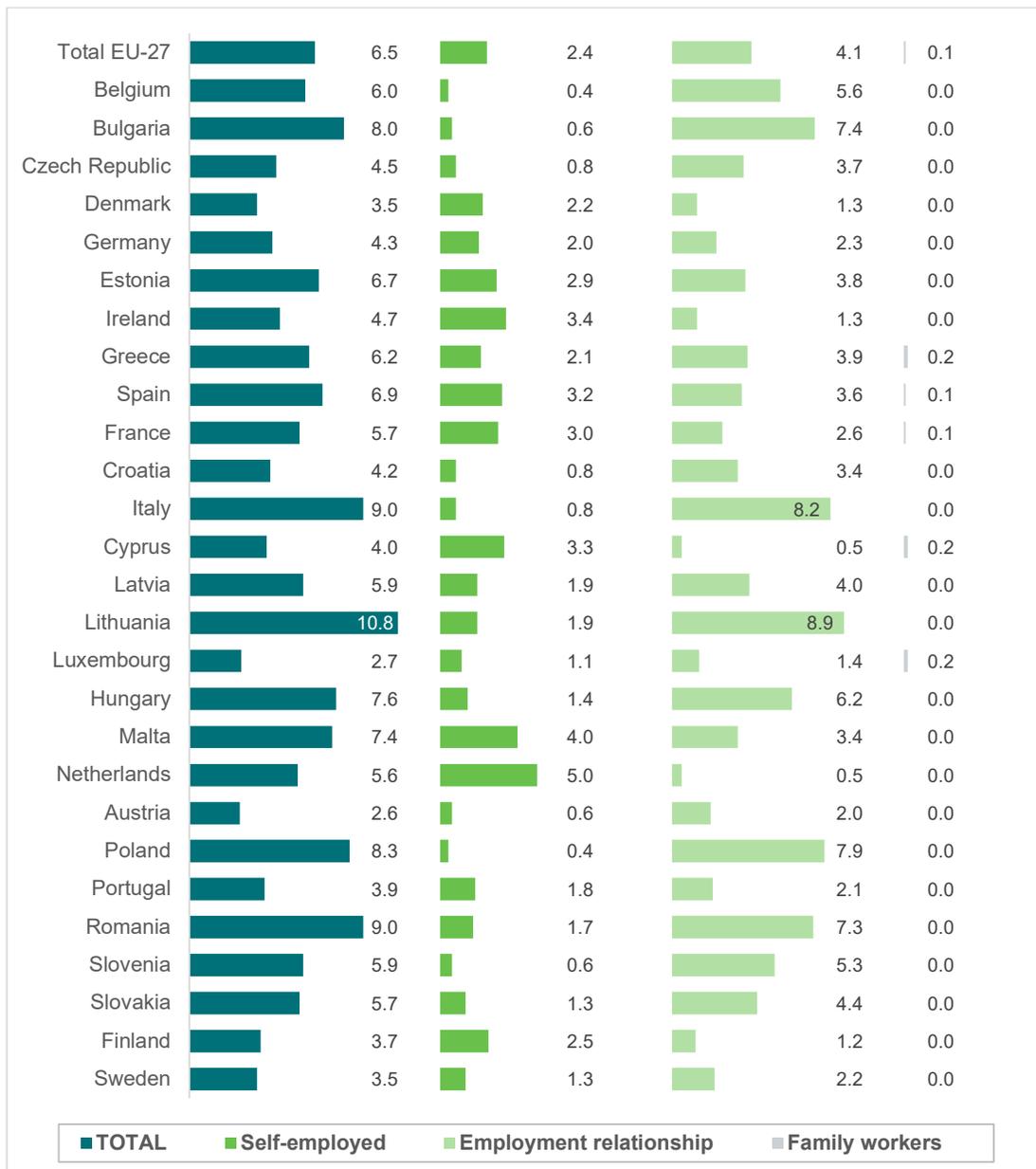
Under-reported employment was also found to be more prevalent than other forms of undeclared work in a more recent study (Horodnic and Horodnic, 2022) on the construction industry in Romania. Workers were asked to select all working situations applicable to them from a list of fully formal work and nine types of undeclared work (covering various types of under-reporting employment, as well as unregistered employment and undeclared self-employment). The results showed that 13% of the workers received one or more forms of envelope wages (i.e., 5% received a monthly fixed cash supplement to the fixed official declared wage; 3% received a varying cash supplement to the fixed official declared wage, in line with professional achievements (i.e. speed/quality of work); 4% received a varying cash supplement to the fixed official declared wage based on hours worked; and 1% received an occasional undeclared cash payment, such as holiday allowances, 13th month wage, bonuses). In addition, 4% of workers, although having fully declared the income with their employer, carried out undeclared paid activities on their own account in their free time. Thus, 17% of the workers under-reported their real income. Only 1% worked for an employer and were entirely undeclared (without an employment contract), while 1% worked entirely undeclared on their own, i.e., without having any legal form of registered self-employment (Horodnic and Horodnic, 2022).

These findings suggest that while under-reported employment hides only a share of the worker wage, in fact it represents a higher share of the total of undeclared work, as it is far more frequent and difficult to detect.

An EU-level study concluded that the main component of undeclared work is work that takes place in the context of an employment relationship (62.9%), compared to 36.3% accounted for by self-employment, and 0.8% by family work (Franic et al., 2022). However, the study does not differentiate the various forms of undeclared work carried out under an employment relationship, such as unregistered employment or under-declared employment. Nevertheless, using Franic et al.'s estimates on the structure of the undeclared labour market across the EU, the estimated damage provided in Figure 5 can be split by type of employment. Thus, at EU-27 level, of the 6.5% of the total tax revenue lost due to undeclared work, 4.1% was caused by undeclared work carried out within an employment relationship, 2.4% by self-employed persons, and only 0.1% by undeclared work of family work (see Figure 4). However, large cross-country variations exist. In some countries the majority of the damage is caused by undeclared work among the self-employed (e.g., the Netherlands Malta, Ireland, Cyprus), while the damage in other Member States stems primarily from undeclared work within an employment relationship (e.g., Lithuania, Italy, Poland, Bulgaria, Romania, Belgium, Hungary, Slovenia, Slovakia).

This approach – estimating the damage of the shadow economy and undeclared work – has certain limitations. Firstly, there are limits to estimating the size of both the shadow economy and undeclared work, including the lack of data preventing an analysis of damage by different types of undeclared work. Secondly, there are limitations in trying to understand the true nature of the damage caused, as this approach looks solely at the tax revenue lost and excludes other aspects of the damage for governments and societies (e.g., lack of worker protection). Finally, different Member States have different tax and social security systems, making it difficult to compare the damage across countries. Nevertheless, it allows an estimate of the damage in terms of public goods and services foregone as a result of the shadow economy and undeclared work.

Figure 4. Estimated government revenue lost as % of total government spending, EU-27, by type of employment, 2019



Notes: Countries listed in EU protocol order– Eurostat; Data on the structure of the undeclared labour market across the EU (by type of employment) was extracted from Franic et al. (2022).

Source: Authors' calculations based on data from Franic et al. (2022).

Key takeaways

The damage of the shadow economy and/or undeclared work can only be estimated in terms of lost government revenue. For the shadow economy this represents 13.9% of total government spending for the EU-27 (based on 2017 data). For undeclared work this represents 6.5% of total government spending (based on 2019 data), out of which about two thirds or 4.1% is related to under-declared employment.

4 Synthesis of types of policies implemented by Member States and their effectiveness in tackling undeclared work

This section presents the nature and pattern of policy recommendations in the literature and provides some more detailed insights on policy effectiveness based on the existing evidence. Limited evidence is available on some areas of policy to tackle undeclared work in EU Member States including, for example, on the holistic approach as well as on the effectiveness of combining and sequencing multiple policy measures.

This study follows a similar logic, implementing a meta-evaluation of policy recommendations⁴⁵ provided in research that reviewed interventions tackling undeclared work, tax evasion or shadow economy more broadly with a view to analysing and detecting effective policy combinations. In addition, socio-economic characteristics of different regional groupings are used as a point of comparison where recommendations are linked to a specific region/country to cross-check effectiveness and fit of the recommendations.

Figure 5. Structure of a typical paper on undeclared work



Source(s): ICF, Cambridge Econometrics analysis.

Five types of policy interventions available to governments to tackle undeclared work are presented below inspired by the Jessen and Kluven (2021) framework.⁴⁶ These include enforcement, financial, informational, administrative, and regulatory interventions:

1. **Enforcement interventions** aim to increase compliance with the law, rules or obligations through compelling actions or observance. Examples include labour inspections, tax audits, sanctions, and increasing the perceived probability of detection, such as through reminder letters or data analytics;
2. **Financial interventions** reduce the monetary costs of (transitioning into) declared work, including interventions that lower the tax burden and social security contributions or reimburse registration fees. Monetary compliance rewards fall under the category, as does subsidising the development of small and medium-

⁴⁵ It means a meta evaluation of the quality of policy recommendations and their effectiveness for undeclared work/ shadow economy or tax evasion. It uses a set of multiple studies and their corresponding dataset coding insights of geographical scope, outcome measures, type of policy intervention used and recommendation made to gather deeper insights into policy combinations and their effectiveness.

⁴⁶ The final typology of policy intervention applied in the study database does not map perfectly onto the categorisation by Jessen and Kluven (2020). The study team slightly modified the set of codes after working through the initial review of the literature. The key difference is that this typology a) combines Jessen and Kluven's (2020) categories of 'financial incentives' with 'tax incentives and social security reductions'; and b) adds a category of 'regulatory and legal interventions' to capture otherwise unclassifiable literature sources.

sized enterprises (SMEs), different fiscal reforms related to the size and distribution of the tax burden, and public spending. The majority of the publications identified under this typology include an analysis of the effect of (marginal) tax rates on undeclared work (e.g. Annicchiarico and Cesaroni, 2016⁴⁷; Cuccarone, Giuli and Marchetti, 2014⁴⁸; Feld and Larsen, 2012⁴⁹; Kleven et al., 2011⁵⁰; Kuehn, 2007⁵¹);

3. **Information interventions** aim to convey knowledge of processes and highlight the benefits of achieving the objective of the undeclared work policy (e.g., increased quality of public services if paying taxes). The policy type encompasses a wide range of measures. Several studies in the database analysed the effect of taxpayer communications, including simplifications, normative appeals, and/or offers of assistance (e.g., De Neve et al., 2019⁵²; Hasseldine et al., 2007⁵³). Another cluster of publications investigated tax morale as a measure of trust in formal institutions⁵⁴ and horizontal trust in fellow citizens⁵⁵ (e.g., Williams and Öz-Yalaman, 2021⁵⁶). Other examples of policy measures are shaming penalties, peer comparisons, public disclosure of tax information, design of tax return forms, and communication form (e.g., posted vs handed-out tax notification letters).
4. **Administrative interventions** aim to enable compliance by improving the management of public affairs. This type includes policy measures that aim to process a socio-cultural shift in how stakeholders approach tackling undeclared work, voluntary disclosure initiatives, increasing the take-up of tax benefits, collaborating with third-party organisations including social partners, charities, and credit card companies, as well as simplification measures that aim to reduce the financial and mental burden of declaring taxes by adopting a data-driven approach to tax return forms and payment systems (e.g., Bankman, 2008⁵⁷).
5. **Regulatory interventions** focus on changes in the legal framework to address wider socioeconomic factors that may (unintentionally) sustain undeclared work. Examples include altering minimum wages, minimum income, the quality and consistency of employment (protection) regulation, international reforms and agreements on international taxation, creating new supervisory political units, control within subcontracting chains, improving political representation and

⁴⁷ Annicchiarico, B. and Cesaroni, C. 'Tax reforms and the underground economy: a simulation-based analysis', CEIS Working Paper No. 366, 2016, available at: <https://ssrn.com/abstract=2729963> or <http://dx.doi.org/10.2139/ssrn.2729963>

⁴⁸ Cuccarone, G., Giuli, F. and Marchetti, E., 'Tackling undeclared work. Suggestions from a business cycle model with search frictions', *Economia Politica*, Vol. 31, No 2, 2014, pp.125-148.

⁴⁹ Feld, L. P. and Larsen, C., 'Self-perceptions, government policies and tax compliance in Germany', *International Tax and Public Finance*, Vol. 19, No 1, 2012, pp. 78-103.

⁵⁰ Kleven, H.J., Knudsen, M.B., Kreiner, C.T., Pedersen, S. and Saez, E., 'Unwilling or unable to cheat? evidence from a tax audit experiment in Denmark', *Econometrica*, Vol. 79, 2011, pp. 651-692, available at: <https://doi.org/10.3982/ECTA9113>

⁵¹ Kuehn, Z., Tax rates, governance, and the informal economy in high-income countries, 2007.

⁵² De Neve, J.-E., Imbert, C., Spinnewijn, J., Tsankova, T. and Luts, M., 'How to improve tax compliance? evidence from population-wide experiments in Belgium', *SSRN Electronic Journal*, 2019, available at: <https://doi.org/10.2139/ssrn.3389405>

⁵³ Hasseldine, J., Hite, P., James, S. and Toumi, M., 'Persuasive communications: Tax compliance enforcement strategies for sole proprietors', *Contemporary Accounting Research*, Vol. 24, No 1, 2007, pp. 171-194, available at: <https://doi.org/10.1506/P207-004L-4205-7NX0>

⁵⁴ 'Participants were asked to rate the acceptability of five types of undeclared work using a 10-point Likert scale (where 1 means absolutely unacceptable and 10 means absolutely acceptable). [...] for example,]: an individual is hired by a household and does not declare the payment received to the tax or social security authorities even though it should be declared; [...] a firm hires an individual and all or a part of the wages paid to them are not officially declared, [...]' (Williams and Öz-Yalaman, 2021, p. 410).

⁵⁵ 'Do you personally know any people who work without declaring their income or part of their income to tax or social security institutions?' (Williams and Öz-Yalaman, 2021, p. 411).

⁵⁶ Williams, C.C. and Öz-Yalaman, G., 'Re-theorising participation in undeclared work in the European Union: lessons from a 2019 Eurobarometer survey', *European Societies*, 2021, pp. 1-25.

⁵⁷ Review of two technological-based pilot programmes in California, where, among others, the government provided pro-forma or tentative tax returns to taxpayers (Bankman, J., 'Using technology to simplify individual tax filing', *National Tax Journal*, Vol. 61, No 4 Part 2, 2008, pp. 773-789).

governance quality, as well as realigning the overall tax system (enforcement rules, remittance rules, determining the tax base and tax rate) (Slemrod, 2016⁵⁸).

Before presenting the outcomes of the analysis a number of limitations should be kept in mind:

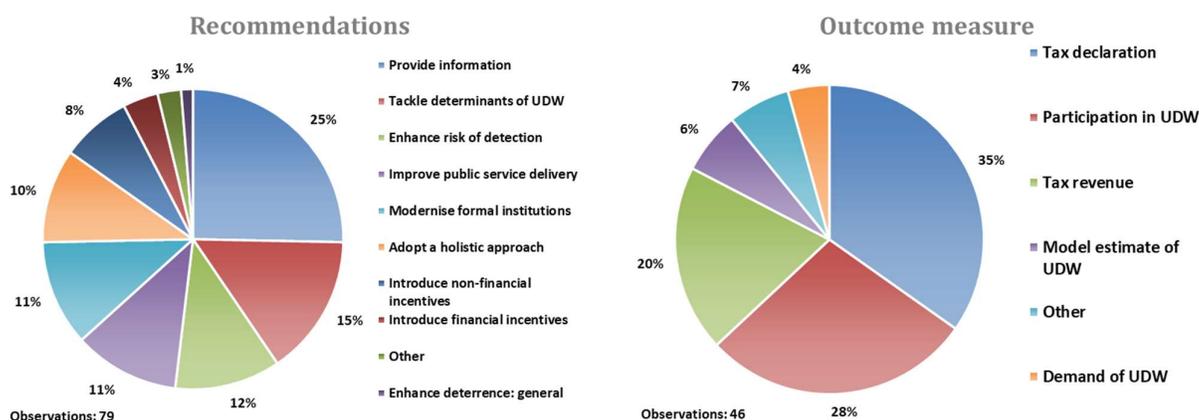
- Few studies analysed the long-term effects of the policy intervention in question for more than a year and those that did so tended to use quasi-experimental or statistical association research designs;⁵⁹
- Qualitative methods, simulation models, laboratory experiments, and systematic reviews were less well-represented. There was a lack of research at company rather than individual level. Studies were more likely to analyse specific groups of individuals, such as taxpayers, students, or workers, often with no explicit distinction between employed and self-employed workers;
- Publications seldom acknowledged the role of different industries or sought to cover all industries. The level of analysis was often (cross-) national rather than at local or regional level.

This may usefully point to areas of future research, whether to bolster promising lines of enquiry or fill evidence gaps.

4.1 Distributions of key variables

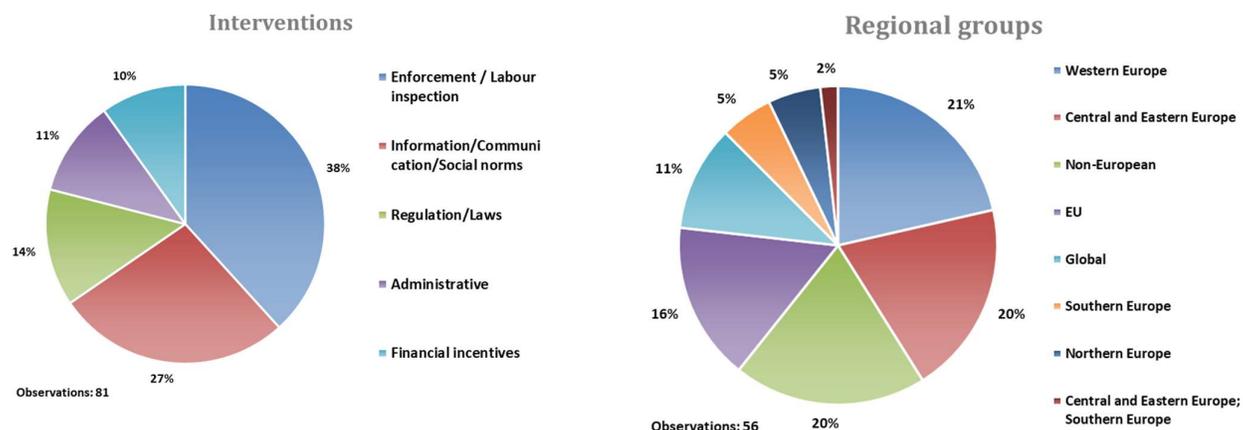
The following section presents an overview quantifying the variables (recommendations, type of policy intervention, outcome measures, geographic region) extracted from the literature on policy measures. Figure 6 summarises these variables.

Figure 6. Distribution of observations by different variables



⁵⁸ Slemrod, J., 'Tax compliance and enforcement New research and its policy implications', SSRN 2726077, 2016.

⁵⁹ In addition to the time horizon of the intervention assessed, the study team tracked the time period of the data considered in the analysis. The starting years of analysis ranged from 1930-2020 (with most publications starting somewhere between 2007 and 2016). The end years of analysis ranged from 2000 to 2020 (with most publications considering up to a year between 2013 and 2016). Few papers used 10+ years of data (eight publications) – these include literature reviews, calibration models build on large amounts of past data, statistical correlation analysis with administrative data, and some quasi-experimental designs (e.g. to investigate the parallel trends assumptions for a difference-in-differences research design).



Note: The regional group *Central and Eastern Europe, Southern Europe* includes Bulgaria, Croatia, Cyprus, Greece, Romania, Slovenia.

Source(s): ICF, Cambridge Econometrics analysis.

The observations represent unique paper-variable such as recommendations, regions pairs⁶⁰. The top-left panel shows 79 unique paper-recommendation combinations:⁶¹

- 25% of which fall under the broad category of *Provide information*, followed by *Tackle determinants of undeclared work* (15%);
- Categories such as *Enhance risk of detection*, *Improve public service delivery*, *Modernise formal institutions*, *Adopt a holistic approach*, and *Introduce non-financial incentives* have lower, but similar, shares, at around 10% (eight/nine instances apiece);
- Other interventions are far less common, such as *Introduce financial incentives* (three occurrences) and *Enhance deterrence: general* (one occurrence).

The recommendations provided by the literature span a wide array of policies, with a preference for providing more information on undeclared work and raising public awareness. Some of these recommendations naturally follow the type of intervention the research paper focuses on – for example, if a piece of research focused on the success of information campaigns, then it would typically recommend continuing information campaigns. Given the theoretical movement towards a holistic approach, such a recommendation occurred frequently, recognising the need to consider both formal and informal institutions in efforts to transform undeclared work into declared work. Such recommendations to provide information often focussed on the need for information campaigns to help demystify tax collection processes, to help communicate the purpose and use of tax payments and focussing on the social and local benefits of paying taxes. The conclusions of the papers often lacked specificity, but nevertheless identified and recognised that a suite of interventions (range of measures, variety of actors) is required for longer-term, and wider spanning success. It should be noted however that no single research paper was identified that provided for a comparative assessment of different policy instruments.

⁶⁰ By pairs we mean that we take out an overview of the individual categories considered in the analysis (how is undeclared work defined and measured, which policy interventions are studied, which regional groups were included in the analysis/affected). We then analyse each variable in combination with policy recommendations to shed light on ways to tackle undeclared work, thus answering the questions – what policies were recommended for the defined type of undeclared work; were certain interventions identified as more effective; were these recommendations valid for all geographic regions or only some.

⁶¹ Papers that did not propose any recommendations were excluded.

The top-right panel (Figure 6) shows the **measure of undeclared work considered** in the various papers. More than **half of the observations fall under *Tax declaration or Tax revenue***, highlighting the emphasis on tax compliance. A high share of the interventions considered and policies recommended are thus in the context of closing gaps in the tax take. After tax compliance, **28% of the observations related to the workers' side of undeclared work (*Participation in undeclared work*)**, with just two papers considering the companies (*Demand for undeclared work*). Recommendations proposed were therefore more likely to consider how to better engage workers to switch to declared work, rather than how to increase companies' demand for declared work. The literature has little to say about that demand, precluding any robust conclusions.

The bottom-left panel in Figure 6 shows the **policy interventions** covered by the literature. With a share of **38%, *Enforcement/labour inspections* is by far the most studied policy intervention**, highlighting the high degree of attention paid to direct control policies, as the traditional tool used by governments. However, ***Improve information* accounts for 28%** of interventions, pointing to a reasonable level of interest in indirect control policies. Other interventions (***Regulation/laws, Administrative, and Financial incentives***) **have lower, but far from negligible shares, with around 10 instances observed for each**. The recommendations that followed from these last three classes of intervention were quite mixed (see Section 4.1.3) Whether larger group sizes would inform firmer conclusions (or continued support for a mix of approaches) cannot be determined from the data collected.

The bottom-right panel (Figure 6) shows the regions covered. Each paper focused on one or more countries, which were grouped into different regions for the purposes of this analysis. The regional groups follow the EuroVoc classification.⁶² It shows *Western Europe, Central and Eastern Europe*, and *Non-European* as the most-studied regions, followed by the *EU* (as a whole), and *Global*. Few of the papers identified studied *Northern Europe* and *Southern Europe*, and only one paper studied countries in both *Central and Eastern Europe* and *Southern Europe*.⁶³ Interestingly, just two of the four European regions were studied by a significant share of the literature reviewed: *Western Europe*, and *Central and Eastern Europe*. The absence of studies devoted specifically to *Southern Europe* is perhaps most notable, suggesting that the study of countries within *Northern* and *Southern Europe* may represent a fruitful avenue for future research to fill evidence gaps. On the basis of the dataset here, little can be concluded about policy needs in these two regions. Table 8 shows the categorisation of countries into the four regional groups.⁶⁴

Table 8. Countries studied and regional group membership

Central and Eastern Europe	Northern Europe	Southern Europe	Western Europe
Bulgaria	Denmark	Cyprus	Austria
Croatia	Norway	Greece	Belgium
Czechia		Italy	France
Hungary		Spain	Germany
Montenegro		Turkey	Netherlands

⁶² See <https://eur-lex.europa.eu/browse/eurovoc.html?params=72%2C7216>

⁶³ Bulgaria, Croatia, Cyprus, Greece, Romania, Slovenia.

⁶⁴ The study considered an alternative regional classification based on types of welfare system but this did not yield additional insights and was excluded from the analysis.

North Macedonia		Portugal	Switzerland
Poland			UK
Romania			
Serbia			
Slovakia			
Slovenia			

Source(s): ICF, Cambridge Econometrics analysis based on EuroVoc classification.

Key takeaways

Regarding **types of interventions**, the largest share of research papers focus on enforcement (38%), closely followed by communication and information-related measures, including the appeal to social norms (27%).

The top three recommendations were: provide information, tackle the underlying determinants of undeclared work, and enhance the risk of detection. There is a data gap on comparative assessment of policy instruments and their implementation.

4.2 Cross-analysis and associated recommendations

This section considers pairs of variables to examine whether patterns emerge from combinations of policy features, e.g., whether certain recommendations were more likely to be put forward in certain regions, or if common types of recommendations followed from analyses of different policy interventions. It treats recommendations as observations, and other variables as characteristics and/or broader features of those observations.

4.2.1 Outcome measures

The main metrics of undeclared work analysed in the literature were *Participation in undeclared work*, *Tax declaration*, and *Tax revenue* (see **Error! Reference source not found.**). This section focuses on these metrics (as synonym to describe more broadly undeclared work as academic literature is very limited focusing on undeclared work and its sub-types only) and the associated recommendations.

To reduce ***Participation in undeclared work***, the literature recommends a diverse set of policies, **without clear support for a single measure**. This confirms research on drivers (see Section 2.2.) and the multifaceted nature of *Participation in undeclared work* as a phenomenon. This also confirms the need to tackle the issue from different angles through a holistic approach.

When undeclared work is measured by the degree of ***Tax declaration***,⁶⁵ the literature **was divided**, with some papers suggesting a more direct approach (raising the risk of detection) and a more indirect approach (providing more information and improving communication). One possible interpretation is an underlying disagreement about the most effective solution but, equally, such a split could support the idea that tackling

⁶⁵ Tax declaration often focused on individuals' self-assessment tax returns.

undeclared work (as measured by *Tax declaration*) may require a combination of approaches.⁶⁶

For undeclared work measured in *Tax revenue*, the literature clearly favours interventions that improve the availability of information and knowledge, preferring indirect interventions rather than direct enforcement.

Key takeaways

The analysis corroborates the idea that indirect policies such as *Provide information* are useful to address different types of motivations to *Participate in undeclared work*. On the other hand, more direct tools such as *Enhance risk of detection* are seen as more suited to addressing undeclared work measured by *Tax declaration*.

4.2.2 Interventions

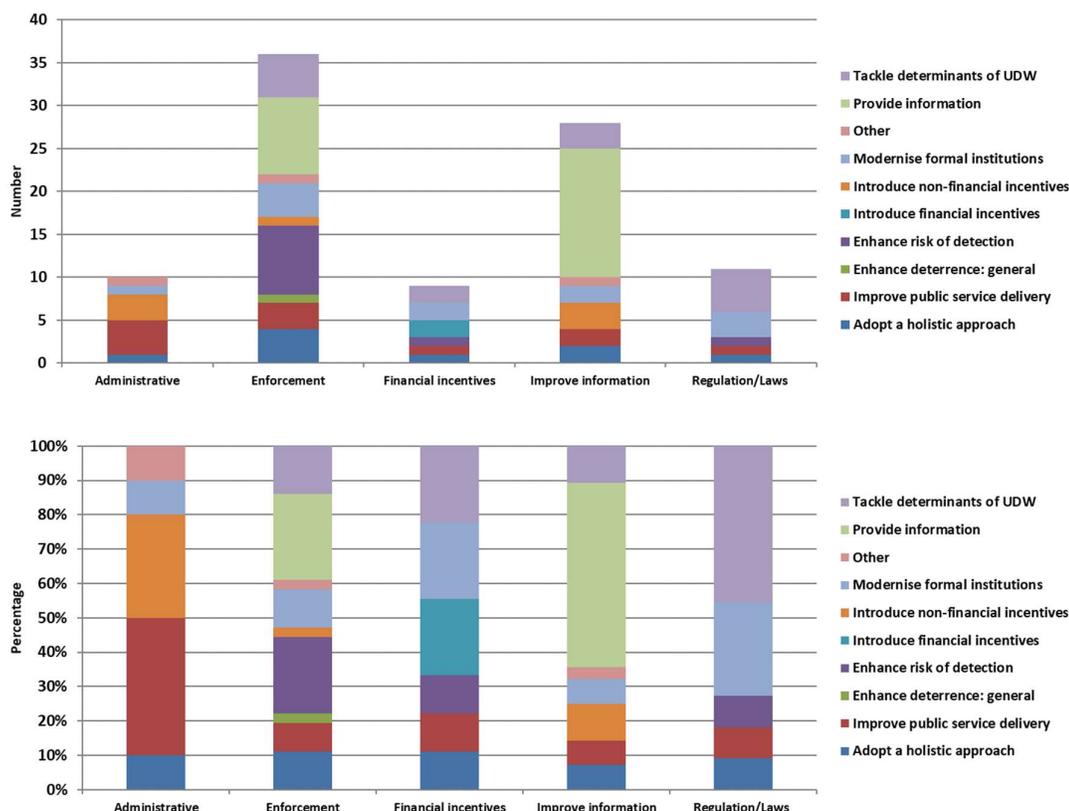
To understand if interventions were effective, the relationship between the intervention examined, and the recommendations (of the research paper) has been analysed. Interventions (i.e., Administration Enforcement, Provide Information, etc.) that were the subject of this research report were chosen on the basis that they were effective measures albeit the research conducted of the paper may find out otherwise.⁶⁷ Again, the potential for publication bias should be borne in mind, as the literature may show a tendency to study what researchers already believe to be effective.

Figure 7 shows the distribution of recommendations, grouped by policy intervention examined, in both numbers and percentages. The interventions most frequently analysed fell under the categories of *Enforcement* and *Improve information*, with some attention given to others. For *Enforcement* interventions, around 25% of the subsequent recommendations suggested *Provide information* and another 25% to *Enhance the risk of detection*. The recommendations suggests that alternative or supplementary measures to increasing *Enforcement* should be implemented, particularly via provision of more information and improving knowledge as well as via increasing *Enforcement* by raising the risk of detection. The remaining recommendations spanned a mix of categories, with little indication of any strong preference.

⁶⁶ This includes the idea that enforcement ensures the bulk of compliance but further measures are needed to address the residual non-compliance or that communication and behavioural interventions enable enforcement to have its full effect.

⁶⁷ As such, recommendations are highly contextual and can differ from a paper's conclusion of the overall effectiveness of a policy intervention (this applies especially in quantitative assessments and papers arguing for saturation effects to enforcement).

Figure 7. Distribution of recommendations by policy interventions, numbers (upper panel) and percentages (lower panel)



Source(s): ICF, Cambridge Econometrics analysis.

While examination of enforcement-oriented interventions does not clearly lend support for direct tools/ actions, views on actions to *Improve information* (the other major type of intervention considered) were more positive. Here, the data show an overwhelming majority of recommendations in support of providing more information and knowledge. **Interventions aimed at improving information were deemed effective, with some consensus on the positive role of information-related actions.**

The robustness of other findings was reduced by the small numbers of papers in the other categories. Nevertheless, when analysing *Regulation/laws* interventions (for which the data list 11 recommendations), the literature proposes *Tackle determinants of undeclared work*, possibly hinting at the need for **new regulations to tackle systemic factors**. However, such regulations need to be carefully balanced so as to avoid overregulation that might inadvertently increase participation in undeclared work, as seen in Italy (Vallanti and Gianfreda, 2020). There were three calls to *Modernise formal institutions*, suggesting the inadequacy of current legal frameworks and the possible need to close regulatory gaps (e.g., Wagner and Berntsen (2016) described the establishment of chain liability in contracting processes in the construction sector in Germany). Other suggestions were to provide **greater resourcing to tax enforcement agencies to increase internal capacity and capability**, and, where appropriate, to centralise tax enforcement activities. The literature's assessment of regulatory and legal interventions offers very little support (just one recommendation out of 11) for the direct approach in the form of greater detection.

When analysing **Administrative interventions**, the literature suggests that public administration should improve the way it provides services, for example, by putting in

place information and tax collection systems that ease compliance, or by improving methods to examine tax returns. The literature may therefore be identifying weaknesses in the operation of public administration that need to be corrected. Introducing **non-financial incentives** was also deemed useful, suggesting less need for direct intervention by the state. Analyses of financial incentives do **not clearly conclude that they are effective**.

Key takeaways

The literature was mixed on the kind of recommendations associated with research papers on enforcement interventions to improve (further) effectiveness of *Enforcement* interventions. A similar share of papers recommend a focus on enhancing risk of detection and deterrence measures as papers preferring to focus on providing information (possibly to bolster existing enforcement measures).

A frequent recommendation in regard to *Administrative interventions* was to improve the delivery of public services (e.g. access to public funds and support, delivery and quality of public administration) for *Regulatory interventions* to tackle systemic factors (equipped enforcement authorities (resources in terms of staff), clarity of regulations) .

4.2.3 Regions

The cross-analysis of regional groups and recommendations begins by examining differences between regional groups for key socioeconomic variables. Differences in these indicators might have an impact on the recommendations put forward by the literature, either by calling for specific policy interventions or by qualifying the implications for those policy interventions.

Table 9 shows a range of socioeconomic and governance indicators, by regional group, over the period 2010-2019. This spans the period between the financial crisis and the COVID-19 pandemic. The period was chosen because it is comparatively stable when considering structural indicators for EU Member States, as well as matching the publication timeframe of much of the literature. The choice of individual indicators was informed by a broad assessment of structural factors and data availability.⁶⁸

Unsurprisingly, the table shows a clear divide in Europe with respect to the main macroeconomic indicators. Western and Northern European countries have significantly higher GDP per capita, almost double that of the other two regions. Employment rates are also higher in Western and Northern Europe by more than 10 percentage points (p.p.) compared to their Central and Eastern or Southern European counterparts. A similar – if less pronounced – feature is evident on tax revenues as a share of GDP. While Southern Europe is somewhat closer to Northern and Western Europe, with tax revenue equivalent to around 40% of GDP, the share in the Central and Eastern European region is noticeably lower at closer to 30%.

The employment statistics show broadly similar patterns. The share of the workforce earning the minimum wage, or close to it, is highest in Central and Eastern, and Southern Europe, and far lower in the more developed regions. The shares of self-employment are also higher in Central and Eastern, and Southern Europe, with this form of employment less prevalent in Northern and Western Europe. The share of migrant workers is highest in Southern and Western Europe, followed closely by Northern Europe; the average share in Central and Eastern Europe is much lower, at little more than 1%.

Employment in the construction, agriculture, and accommodation sectors does not deviate from the general trends. These sectors are generally not associated with high salaries and

⁶⁸ Experts confirmed the lack of a widely accepted model for the determinants of undeclared work but accepted the plausibility and rationale for the indicators selected.

are among those believed to be most susceptible to undeclared work. The Central and Eastern European region and Southern Europe have much higher shares of employment in these sectors (around 22%), than Northern and Western Europe (around 13%).

The averages summarise 10 years of data into single numbers, but the ranking of these regions remained relatively stable over the period (see Table 10), with few instances of a region improving its relative standing. For example, Southern Europe was overtaken by Central and Eastern Europe in the rate of employment and by Western Europe in the share of migrant workers. Significant change was evident only in the construction sector, where Southern Europe went from having the highest share of employment in the sector to having the lowest. The opposite happened in Northern Europe, which went from the lowest share to the second-highest share.

The governance indicators come from a separate source (World Bank's World Governance Indicators) and, while quantitative in nature, rely on expert judgement. The patterns are almost identical to those observed in the Eurostat data. Western and Northern Europe are considered frontrunners in government effectiveness, regulatory quality, and control of corruption, respectively, while Southern Europe is third, with scores half (or less) than those of the previous two. Central and Eastern Europe lags behind on governance indicators, particularly control of corruption, for which it scores almost zero.

Table 9. Socioeconomic and governance characteristics of Eurovoc regional country groups, 2010-2019 averages

	Central and Eastern Europe	Northern Europe	Southern Europe	Western Europe
GDP per capita PPP (EUR)	16 880	40 500	22 608	34 940
Employment rate (%)	60.1%	73.7%	58.2%	71.2%
Tax revenue as a percentage of GDP (%)	33.5%	43.6%	37.0%	40.2%
Share of migrant workers in total employment (%)	1.1%	7.2%	10.5%	11.2%
Share of minimum wage earners* (%)	6.5%	1.5%	4.8%	2.3%
Share of self-employed (%)	16.1%	7.6%	20.6%	12.7%
Share of employment in construction, agriculture, and accommodation (%)	22.0%	12.4%	22.7%	13.6%
Government effectiveness**	0.44	1.90	0.73	1.63
Regulatory quality**	0.62	1.70	0.72	1.56
Control of corruption**	0.13	2.24	0.45	1.72

Note(s): Regional country groups follow the definitions in Table 10, only covering countries listed in Eurostat in each Eurovoc group.

Figures are the arithmetic mean of the results for each country group to give an indication of how the groups compare. Prior inspection of the ranges of results by country suggests the rankings/spread of results is adequately reflected in the above (without having to weight by population).

* Minimum wage share for 2017 only.

** World Governance Index variables range from -2.5 to 2.5.

Source(s): Eurostat (dark blue) and World Governance Indicators (light blue).

Table 10. Rankings of socioeconomic and governance characteristics of regional country groups, 2010 and 2019

	Central and Eastern Europe		Northern Europe		Southern Europe		Western Europe	
	2010	2019	2010	2019	2010	2019	2010	2019
GDP per capita	5	5	2	2	4	4	2	2
Employment rate	5	4	1	1	4	5	2	2
Share of self-employed	2	2	5	5	1	1	4	4
Share of migrant workers	5	5	4	3	1	2	2	1
Tax revenue as a % of GDP	5	5	1	1	4	4	3	3
Share of employment in construction	3	1	5	2	1	5	4	4
Share of employment in accommodation	4	3	5	5	1	1	3	4
Share of employment in agriculture	1	1	5	4	2	2	4	5
Share of employment in construction+accommodation+agriculture	2	2	5	5	1	1	4	4
Government effectiveness	5	5	1	1	4	4	2	2
Regulatory quality	5	5	1	1	4	4	2	2
Control of corruption	5	5	1	1	4	4	2	2

Source(s): ICF, Cambridge Econometrics analysis based on Eurostat and World Governance Indicators data

Notes: a rank of 1 represents the highest absolute value across regional country groups, a rank of 5 represents the lowest value.

Figure 8 shows the distribution of recommendations by regional group, in both number of observations and percentages. *Northern Europe* and *Southern Europe* have a limited number of observations, necessitating a focus on comparisons between *Western Europe* and *Central and Eastern Europe*.

In both regional groups, *Provide information* was the recommendation most often put forward in the literature (41% of recommendations in Western Europe; 33% in Central and Eastern Europe). *Provide information* includes recommendations to improve citizens' awareness of the benefits of declared work, simplifying the communication of public administration, and fostering a culture of compliance. The similar frequency of these kinds of recommendations in both **Western Europe and Central and Eastern Europe suggests that perceptions and culture may remain relevant in different socioeconomic contexts** (see Figure 8). For example, Western Europe has much higher values for indicators of institutional quality such as government effectiveness, regulatory quality, and control of corruption. Even regions/countries with well-functioning

government institutions may benefit from ensuring that citizens are engaged and knowledgeable about the processes to and/or benefits of declared work.

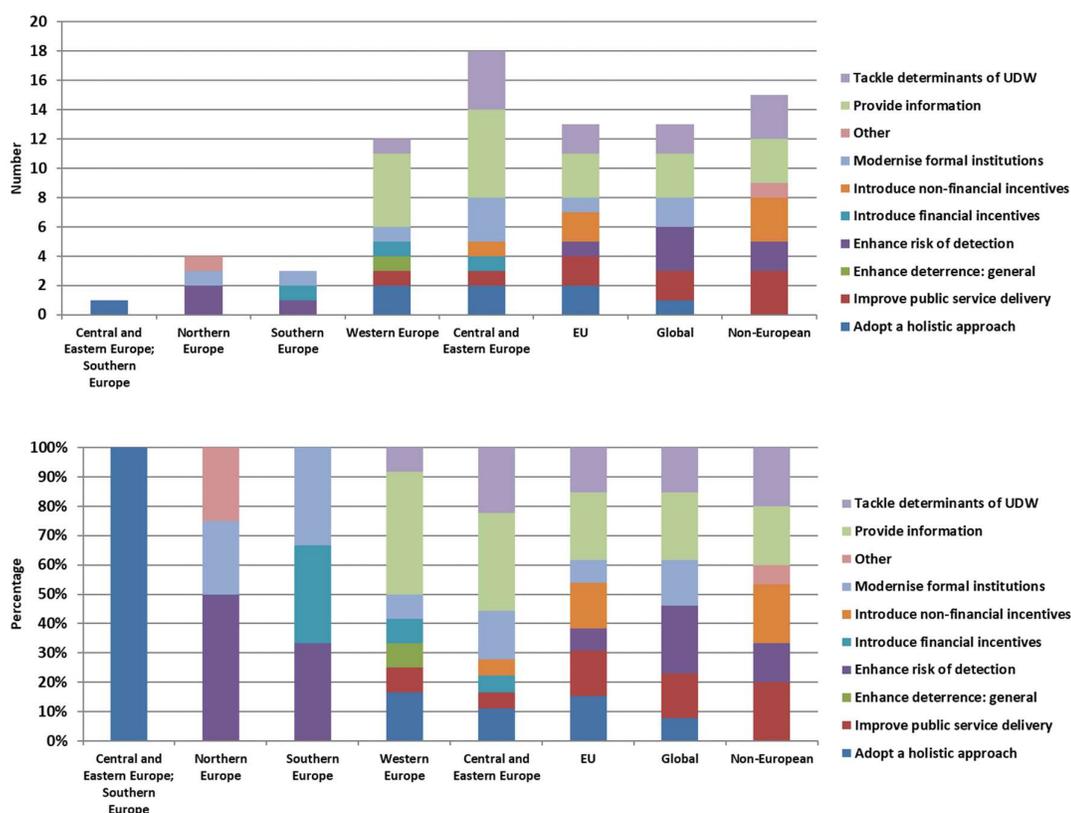
Central and Eastern Europe has a higher share of recommendations to Tackle determinants of undeclared work (22% in Central and Eastern Europe vs 8% in Western Europe). Significant differences exist between Western Europe and Central and Eastern Europe across several dimensions: Central and Eastern Europe has lower GDP per capita, lower tax revenues as a share of GDP, lower employment rates, a higher share of employment in construction, agriculture, and accommodation, lower shares of migrants in the workforce, a higher share of self-employed and lower institutional quality (see Table 9 above). These are all factors that can be linked to higher levels of undeclared work and, by highlighting the need to tackle the determinants of undeclared work, the literature could be considered to emphasise the need for interventions with a wider/systemic scope in Central and Eastern Europe. The lower values of the indicators of institutional quality may also be linked to a somewhat higher share of recommendations classified as *Modernise formal institutions* in Central and Eastern Europe compared to Western Europe (16% and 8%, respectively). The literature appears to favour addressing systemic factors (institutional and economy-wide) to a greater degree in Central and Eastern Europe.

A number of papers concerned the EU as a whole, and the recommendations put forward focus more equally on both regions (Central and Eastern Europe and Western Europe). Recommendations advocating to **Introduce non-financial incentives** focussed on the value of preventative efforts, shifting away from resolving undeclared work after it occurred. Such efforts included the possible cooperation between governments and social partners to undertake appropriate pilot initiatives focussed on preventing participation in UDW. Other examples here include the redesigning of tax-return forms to better incentivise completion rates. Papers recommending to **Improve public service delivery have higher shares for the EU as a group**. Interestingly, *Adopt a holistic approach* is mentioned at a similar rate for the EU (as a whole) , Central and Eastern Europe, and Western Europe. Yet, a more detailed analysis for Southern and Northern Europe was not identified so far on this aspect.

Comparing the EU with the *Non-European* group, it is evident that the two groups are quite similar in the composition of their recommendations. By contrast, **Global⁶⁹ had a higher share of Enhance risk of detection**, although this is likely a product of the approach, as the Global papers often supported deterrence involving labour inspections and tax audits.

⁶⁹ Global includes the US and groups of countries such as the OECD.

Figure 8. Distribution of recommendations, by regional group, number (upper panel) and percentage (lower panel)

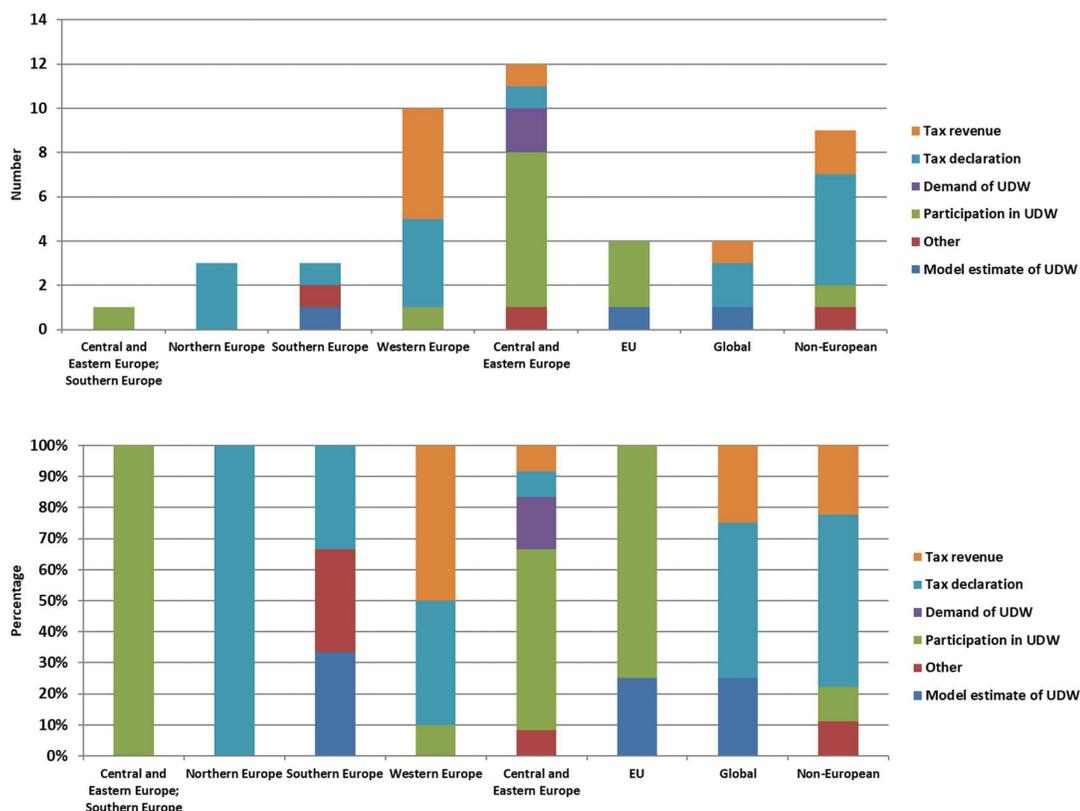


Note: regional group *Central and Eastern Europe*, *Southern Europe* includes Bulgaria, Croatia, Cyprus, Greece, Romania, Slovenia.

Source(s): ICF, Cambridge Econometrics analysis.

Further insight into the linkages between policy recommendations and the broader socioeconomic context can be gained by comparing the regional groups with the measures of undeclared work studied in the literature. This may reveal that certain forms of non-declaration (taxes or work) are more prevalent in some regional groups, possibly depending on underlying socioeconomic conditions. There is a clear difference in the type of undeclared work analysed by regional group (see Figure 9). In Western Europe, 90% of observations related to either *Tax revenue* or *Tax declaration*, whereas in Central and Eastern Europe there was more emphasis on *Participation in undeclared work* (60% of observations). Differences in labour market indicators may explain these patterns: Central and Eastern Europe has lower employment rates, a higher share of workers on minimum wage, and higher shares of workers in sectors often associated with informality (i.e., construction, agriculture, accommodation). Given these labour market conditions, it may be reasonable for the focus in **Central and Eastern Europe to be more oriented towards bringing workers into declared work.**

Figure 9. Distribution of outcome measures, by regional group, number (upper panel) and percentage (lower panel)



Note: regional group *Central and Eastern Europe*, *Southern Europe* includes Bulgaria, Croatia, Cyprus, Greece, Romania, Slovenia.

Source(s): ICF, Cambridge Econometrics analysis.

In **Western Europe** the focus was more on **increasing tax compliance**, possibly suggesting the presence of different types of undeclared work (e.g., bogus self-employment, see Section 2.1). These findings augment the analysis of recommendations by regional group (see Figure 9). For example, the earlier analysis showed that **Provide information was a common recommendation for both Central and Eastern Europe and Western Europe**. However, the content of that information could be different, given the measures considered: in Central and Eastern Europe the focus related more to spreading knowledge about the benefits of declared work, while in Western Europe the context suggested improving the capability/willingness of citizens to correctly file their tax declarations. Similar reasoning may apply to the other policies recommended.

Breakdowns by further dimensions were possible but yielded very small numbers of observations, preventing any firm conclusions. Although these findings are not reported in detail, the breakdowns nevertheless suggest that efforts to reduce participation in undeclared work in Central and Eastern Europe might involve a mix of modernisation of formal institutions and the provision of information. Similarly, the dataset casts (at least some) doubt on the effectiveness of enforcement/labour inspection interventions in Central and Eastern Europe.

Key takeaways

Regional groups show significant differences in broad socioeconomic indicators that could affect undeclared work and related policies, with Western Europe and Central and Eastern Europe being studied most so far.

- *Provide information* was the most common recommendation in both regions.
- Western Europe had a wider range of recommendations.
- Central and Eastern Europe had a somewhat higher share of *Modernise formal institutions* and *Tackle determinants* of undeclared work, which may be linked to a lower performance in the chosen socioeconomic indicators.
- Tax-compliance considerations were more prevalent in Western Europe,
- Issues related to *Participation in undeclared work* were more important in Central and Eastern Europe, suggesting different ways of implementing the policies recommended.

4.3 When are interventions effective?

Building on the preceding analyses, this section provides a more detailed account of when and where certain interventions demonstrated effectiveness. It uses the typology of interventions discussed in Section 4.1.2 to organise the discussion.

4.3.1 Enforcement/labour inspections

Enforcement interventions are primarily deployed to increase levels of compliance with legislative requirements. Across the research papers examined for this study, effective interventions were identified at national and local level in the Member States (Belgium, Germany, Denmark, Spain, Slovenia), the UK, and the US. A range of effective enforcement interventions were identified, particularly when attempting to improve tax compliance.

In Belgium, **a combination of enforcement interventions** (including financial penalties and labour inspections) demonstrated some effectiveness in **tackling tax non-compliance within businesses**. A **greater impact** was demonstrated when such measures were implemented **in conjunction with the simplification of tax payment systems** and **messages to help taxpayers to understand tax compliance** processes (De Neve et al., 2019).

In Germany, deterrence measures such as fines, inspections, and imprisonment created the perception of undeclared work as high-risk, with such interventions shown to negatively correlate with undeclared work (Feld and Larsen, 2012). In a case study on the payment of local church taxes in Bavaria, **the announcement of audits significantly reduced the likelihood of tax evasion**. It also increased the likelihood of donations and tax payment, although this was **more effective for individuals who were partially or fully evading taxes prior to the intervention** (Dwenger et al., 2016).

In Denmark, both **audits and the perceived threat of audit were effective in increasing tax compliance rates** on all forms of **personal income**, although this was more effective for individuals who were self-reporting their income and no third-party information was available (Kleven et al., 2011). This further suggests the importance of **third-party reported information** to increasing the risk of detection (e.g., employers, credit card companies). Similarly, in the UK, **audits** were found to be effective and constituted an important part of the enforcement strategy in tackling **tax compliance among self-reporting individuals** (Hasseldine, 2007; Advani et al., 2015).

Communications that noted the threat of an audit, the threat of an audit with penalties attached for any identification of non-compliance, and the identification of an individual as pre-selected for an audit all demonstrated effectiveness in **increasing tax compliance among sole proprietors** (Hasseldine, 2007). While somewhat costly, when dealing with individuals self-completing tax returns, it was identified that communicating to such individuals that they had been pre-selected for an audit was significantly more effective in improving compliance rates than the threat of an audit or the threat of an audit with penalties.

In Slovenia, direct interventions such as **financial penalties, audits and the criminalising** of unpaid social security contributions were all effective in increasing compliance rates (Lesnik et al., 2014). Spain imposed better **monitoring of transactions** and required **companies** to maintain financial paper trails to tackle the **evasion of corporation tax**. Both measures reduced tax evasion across sectors, although the effectiveness of monitoring differed according to the position of the company in the value chain. **Implementing stringent monitoring procedures proved more effective where it was significantly harder for companies to misreport** transaction information, compared to companies selling directly to consumers and that had more opportunities to misreport certain transactions (Almunia and Lopez-Rodriguez, 2014). Finally, in Norway, on-site audits examined real-time staff registers to help in the investigation of collusion and tax evasion within companies, identifying tax evasion particularly in **smaller firms** (Bjørneby et al., 2018).

Some interventions were deemed ineffective in tackling varieties of undeclared work. Contrary to the findings in Germany, in Croatia no relationship was identified between participation in undeclared work and the reported perception of detection and level of penalties that would be applied. Despite this, there was a clear correlation between higher participation in undeclared work and lower levels of tax morale.⁷⁰ As such, **increasing enforcement was deemed inefficient unless systemic issues were identified and addressed**, namely the need to improve cultural elements, buy in, and belief in systems of taxation (Williams and Franic, 2015). A similar situation was identified among Polish citizens, with no association found between the perception of deterrence and engagement with undeclared work. Rather, tax morale was a key underlying factor in the demand and supply of undeclared work. In Bulgaria, enhanced monitoring and auditing of newly established firms was deemed counter-productive, as it resulted in targeted firms feeling unfairly watched and controlled, leading to a visible reduction in tax compliance (Gangl et al., 2014).

Key takeaways

Enforcement interventions demonstrate a level of effectiveness, especially audits and inspections. Yet, direct deterrence actions need to be carefully considered. Recommendations point out that actions need to be used appropriately and not in a discriminatory way.

A failure to understand the context of an intervention can have the unintended consequence of increasing the level of undeclared work or tax non-compliance within the targeted sector. Many papers noted that enforcement activities alone are insufficient in fully tackling undeclared work. Rather, a combination with informational and motivational interventions is needed for any enforcement strategy to be considered optimal. These combinations include increasing levels of public awareness around tax compliance requirements (Lesnik et al., 2014), a combination of audit and penalty

⁷⁰ Tax morale aims to measure the symmetry between individual- and state norms. It tends to be measured through attitudinal questions based on the Eurobarometer survey which rate the acceptability of various types of undeclared work on a 10 point scale. For example, see Colin C. Williams & Ioana A. Horodnic (2015) *Explaining and tackling the shadow economy in Estonia, Latvia and Lithuania: a tax morale approach*, *Baltic Journal of Economics*, 15:2, 81-98, DOI: 10.1080/1406099X.2015.1114714

reminder letters sent to self-reporting individuals (Hasseldine, 2007), the need to take indirect revenue into account when appraising the usefulness of an audit to ensure cost-effectiveness (Advani et al., 2015), and the inclusion of social norms messaging to appeal to individuals' sense of moral obligation (Larkin et al. 2018).

Where the **underlying tax morale within a society is deemed low, increasing enforcement efforts will have a marginal effect**. Instead, more emphasis must be placed on responding to the underlying issues driving that low tax morale (Francic, 2020). As Feld and Larsen (2012) noted, 'purely relying on deterrence without considering social norms is probably an insufficient response to increasing levels of non-compliance' (p. 100).

4.3.2 Information, communications, social norms

This section examines social norm interventions and other preventive approaches in more detail. Interventions within this category aimed to provide information and clear communication to individuals and firms and were frequently preventive in nature. They focused on improving tax compliance through the clear communication of procedures, information and deadlines, providing further information and transparency on the way in which tax is used within the wider community, and appealing to the moral and social obligation and significance of tax compliance. Such interventions were deemed effective in some Member States, as well as in the UK.

In Belgium, **simplified messaging** from the national tax authority demonstrated clear effectiveness in increasing tax compliance, as did the use of deterrence messages focusing on enforcement action or the issuing of financial penalties (De Neve et al., 2019). Such measures were consistent across taxpayer populations and throughout most of the tax-paying process in reducing levels of tax non-compliance. This effect diminished as time went on, with further enforcement action taken. Significantly, **communications focussing on tax morale issues had no positive effect on compliance rates**.

In Germany, the 2004 Act to Combat Undeclared Work and Tax Fraud (*SchwarzArbG*) significantly increased the likelihood of an individual being identified and sanctioned for engaging in undeclared work. It is also important, however, to examine the social norms that underpin participation in undeclared work, with a higher likelihood of engagement in undeclared work in situations where it was considered more acceptable, particularly between private individuals. For interventions to be effective they must address the underlying social norms and **make participation within undeclared work socially unacceptable within the wider community**.

In the UK, messages were sent to targeted individuals who had completed self-assessment tax returns but had not yet paid the correct amount. These messages focused on social norms and the moral duty to pay tax. They were deemed effective, as they accelerated the rate of tax payment and indirectly reduced enforcement costs. **Messages were particularly effective when they identified an individual as being a part of a minority of non-compliant individuals** (Hallsworth et al., 2017; Larkin et al., 2018).

Key takeaways

Indirect measures play an important role in tackling elements of undeclared work, especially those relating to tax non-compliance. Simplifying communications is a cost-effective way of increasing compliance and reducing the overall costs of enforcement.

4.3.3 Regulation/laws

Regulatory and legal interventions focus on changing the system landscape, including the targeting of wider socioeconomic systems that may be sustaining undeclared work.

In Italy, stricter employment protection regulations led to a **higher regulatory burden**, particularly for smaller companies, which were then more likely to seek informal employment arrangements (Vallanti and Gianfreda, 2020). As such, there is **potential for such legislation to lead to an expansion of undeclared work and adversely reduce the protection for certain categories of workers**. Legislative and regulatory attempts to enhance and expand enforcement and deterrence (through increasing audits or fines) may deepen the loss in firms' flexibility and productivity (Vallanti and Gianfreda, 2020) and should therefore be carefully balanced when considering the appropriate policy mix.

Within the construction industry in Germany, statutory **chain liability** within the contracting chain demonstrated some **effectiveness in protecting workers' pay and enforcing labour rights** (Wagner and Berntsen, 2016). In 2015, the Netherlands extended the chain liability measure to encompass the payment of wages under collective agreements. This resulted in some **policy harmonisation** across both countries, which is necessary to tackle issues around cross-border labour mobility. Prior to alignment, contractors in the Netherlands could avoid liability by hiring temporary employment agencies. Further, in practice, wages under collective agreements were less often paid out fully as workers could not directly claim unpaid wages from the main contractor.

Whilst statutory chain liability and regulatory harmonisation are considered effective policy tools, enforcement challenges remain. Regarding the measure itself, enforcement ability is hampered by sector- and item-specific legal loopholes and practical obstacles to statutory chain liability. Two exemplary scenarios under the German system result in workers' payments being incomplete or severely delayed. Given statutory chain liability, the main contractor typically ensures their compliance through a system of checks such as signed declarations from all employees across sub-contractors that they are receiving the minimum wage and holiday pay. If the main contractor does cover any wage debt but the wages did not reach workers, court proceedings to enforce workers' rights may be made more complicated by the need for additional proof for workers to demonstrate that payments were not received. This case may occur, if the sub-contractors become insolvent and such payments are sequestered by national authorities.

Employers' liability can be affirmed under **conditions of effective representation** of mobile EU workers and smooth **cooperation** across multi-layered enforcement structures. However, at the time of writing, mobile EU workers less often joined trade unions of the host country, amongst others, due to a lack of awareness or fear of employers' retaliation. As measures to overcome the representation gap, Wagner and Berntsen (2016) recommend the possibility of trade unions to undertake collective redress as well as specialised information centres and cross-border trade union initiatives. Further, enforcement structures and responsibilities are fragmented with different rules at the level of the construction sites, company, region, nation, and EU.

Following the 2001 flat rate **income tax reform** in Russia, **tax evasion reduced among taxpayers who experienced the largest decrease in their income tax rates** (Gorodnichenko et al., 2008). The introduction of such legislative changes are not themselves sufficient to improve tax productivity, but in countries where there are prevalent levels of tax evasion, they can prompt a positive change.

Key takeaways

Legislative and regulatory changes are important in tackling undeclared work. **Legislative options need to be carefully balanced to ensure that they enact positive change** and avoid adverse situations of high regulatory burden or where social

and legal norms are not synchronised. Closing regulatory gaps is an ongoing task which can be supported by general conditions of effective representation for workers' protection and cross-border cooperation on enforcement.

4.4 Evidence of policy combinations to effectively tackle undeclared work

The review showed that the literature on **practical design and implementation of a holistic approach is still in its infancy**. Experts have noted a lack of evidence on the effectiveness of a holistic approach (Hallsworth, 2014⁷¹; Williams, 2017⁷²). To do so would require a detailed analysis of different combinations and sequencing on the level of policy measures alongside an examination of systemic drivers. Effect sizes should be systematically related to the magnitude of impact and cost-benefit comparison of interventions, rather than merely making approximate comparisons (Hallsworth et al., 2017⁷³; Kleven et al., 2011⁷⁴).

Few papers analysed the effect of a specific and robustly measurable policy intervention beyond deterrence measures. Even fewer studied a combination of policy measures in the same paper. The 14 studies that did examine combinations typically looked at enforcement together with at least one other type of intervention (in order of frequency: communication, regulation, financial incentives). Not all publications investigating policy mixes used quantitative methods (e.g., regression models with interaction terms) or specifically designed quasi-experimental studies. Four of the 14 publications drew theoretical or argumentative links based on laboratory experiments, qualitative methods, or systematic reviews. While this points to an awareness in the literature that the enabling environment is key to effective enforcement policies, the sample is too small to yield conclusions on patterns that drive findings of effectiveness.

Assessing the advantages of coordinated EU-level action on undeclared work is hindered by the transferability of results and geographical distribution of publications. Research designs typically focus on a single country rather than comparing countries and regions. Quasi-experimental studies have questionable transferability of results to different environments. Similarly, transposing research into policy is particularly challenging for social norm messaging, as unacknowledged deviations are likely to alter effectiveness. Even cross-country studies typically ignore the impact of European mobile labour and migrants.

Nevertheless, this review shows the different perspectives on undeclared work in moving beyond a singular approach centred on enforcement towards a holistic approach. The coding exercise balanced publications' detailed insights with aggregate codes to address the broader research question. This, however, required focusing the quantitative analysis on typologies of policy interventions, with supplementary contextual information on concrete policy from the database.

Most importantly, the publications' theoretical model on human decision-making correlates with various other characteristics, such as research method, geographical scope, and outcome measure of undeclared work (see Section 4.2). Two bodies of literature emerged. Firstly, a **social actor perspective** tended to use qualitative or statistical

⁷¹ Hallsworth, M., 'The use of field experiments to increase tax compliance', Oxford Review of Economic Policy, Vol. 30, No 4, 2014, pp. 658–679.

⁷² Williams, C., 'Developing a Holistic Approach for Tackling Undeclared Work', SSRN Electronic Journal, 2017.

⁷³ Hallsworth, M., List, J.A., Metcalfe, R.D. and Vlaev, I., 'The behavioralist as tax collector: using natural field experiments to enhance tax compliance', Journal of Public Economics, Vol. 148, 2017, pp.14–31, <https://www.nber.org/papers/w20007.pdf>

⁷⁴ Kleven, H.J., Knudsen, M.B., Kreiner, C.T., Pedersen, S. and Saez, E., 'Unwilling or unable to cheat? evidence from a tax audit experiment in Denmark', Econometrica, Vol. 79, 2011, pp. 651-692, <https://doi.org/10.3982/ECTA9113>

association methods to investigate a theory of the determinants of undeclared work or country-level characteristics. Research focused on subjective and general measures for policy approaches and undeclared work in Central and Eastern Europe, as well as the then EU-28 data. Secondly, a **rational actor perspective** tended to be associated with empirical studies in Western Europe and international developed countries, using an observable measure for detecting tax non-compliance (as a proxy for undeclared work) in administrative datasets.

Consequently, the potential research biases and validity of findings are likely to differ systematically between the two identified bodies of literature. This includes a range of biases specific to research methodologies (e.g., interviewing, subjective measures, measurement error).⁷⁵ It is also potentially subject to confirmation bias, where the authors' hypothesis (unintentionally) affected their research methodology to strengthen the premise. In this case, the authors would have interpreted the data in light of its capacity to support their initial hypothesis.

Neither body of literature suggests relying solely on enforcement, incentivising, or indirect interventions. Rather, a range of measures demonstrated effectiveness in a variety of contexts. While enforcement activities are the predominant method of tackling undeclared work and attempting to reduce/transfer undeclared work, the need to supplement such approaches with a variety of alternatives that are contextual and responsive to the targeted type of undeclared work is a recurring theme across the papers.

The **social actor body of literature** argues for moving away from a predominant focus on direct measures (specifically enforcement) to tackle undeclared work towards indirect measures. The literature takes a **system-level approach and strongly endorses aligning and raising the capacity of all social systems simultaneously to enable declared work**. This includes social norms, organisational culture, education, and the justice system. A frequently emphasised concern is that enforcement measures crowd out social norms and should be used as a last resort. Evidence is drawn from institutional asymmetry theory, laboratory evidence, qualitative analysis, and regression analysis of the Eurobarometer survey (which measures undeclared work from the perspective of people engaging in it). Publications studying combined policy measures typically added interaction terms to the (probit) regression models between four reported explanatory measures (i.e., perceived risk of detection, harshness of sanctions, tax morale, horizontal trust). No consistent pattern emerges across the papers, possibly due to the limitations of regression analysis and subjective measures.⁷⁶

The **rational actor body of literature** generally **ascribes the largest explanatory power to enforcement interventions**, meaning that they achieve the largest effect sizes in quasi-experimental studies and account for the majority of undeclared work, often proxied by tax non-compliance.⁷⁷ Most publications did not focus on measuring the effectiveness of indirect measures, even if their recommendations considered these in a wider sense (e.g., from country context, further literature, or enforcement already operating optimally). The **assumption is that people mainly engage in undeclared work due to the system and context** (Kleven et al., 2010).

These publications typically estimated the effectiveness of (multiple) single interventions. Yet, the standard rational actor model was frequently extended with behavioural insights

⁷⁵ The complete database includes papers with a wide range of methodological approaches, measurement, and scoping choices, as well as underlying theories of participation in undeclared work. There is no benchmark on the extent to which these choices influence conclusions on the effectiveness of policy interventions. However, Hallsworth (2014) cites evidence of a weak relationship between reported and observed measures of undeclared work. For example, the Williams papers used perceived trust in institutions from Eurobarometer surveys, whereas Kluge and Libman (2017) used an index of court repressiveness and subsidy levels on firm registration.

⁷⁶ Research designs do not isolate confounding factors such as risk perception and socioeconomic characteristics by gender, country, age, and financial situation. It is harder to differentiate several forms of undeclared work, e.g., engagement in paid mutual aid and favours.

⁷⁷ By improving declaration of taxes and settling tax liabilities.

(e.g., ‘nudges’ towards rational decision-making) or consideration of the information environment (e.g., third parties double-reporting income from employment). Some publications investigated heterogeneous and saturation effects of enforcement, tending to look at distinctive research angles or designs (e.g., gender, industry sectors, employment status, type of taxpayers, type of income). For example, Kleven et al. (2011) found that audits were significantly more effective for self-employed people compared to dependent employees. This implies that expanding third-party reporting and formalising businesses to increase company size seems to be the more appropriate strategy (supply-side incentives and modernising formal institutions codes). **The identified literature provided no analysis of sequencing policy measures.**

The holistic thinking in rational actor-oriented publications relates to a smaller scale, partially due to the research method. Quasi-experimental research assumes that norms, firstly, hold constant any fixed or slowly changing contextual factors such as social norms. For example, publications investigating tax enforcement may take for granted the given tax system. According to Slemrod (2016),⁷⁸ the tax system is a set of rules, regulations, and procedures with three aspects: enforcement rules, remittance rules, tax base and tax rates. The three aspects are intricately related and have a substantial influence on the enforceability of taxation.

Key takeaways

There is a lack of evidence on the effectiveness of combining and sequencing multiple policy measures. Papers typically do not contextualise statistical findings on effect sizes with the magnitude of impacts or a cost-benefit comparison.

Two main bodies of literature emerge which differ in their assumptions about the drivers of human behaviour, research methods, regional focus, and proxy measure for undeclared work. This can risk confirmation bias, hinder combining research findings, and create a trade-off between the robustness/specificity and country coverage of the research.

The main debate is not on whether to utilise multiple policy tools but the degree to which they contribute to effectively reducing undeclared work. First, the social actor perspective advocates for a ‘holistic approach’, which moves away from the dominant focus on deterrence, towards a system-wide enhancement of capacities (including social norms) – the literature remains mostly conceptual. Second, the rational actor perspective aims to supplement enforcement measures to address ‘residual’ tax evaders or increase cost-efficiency. Most papers studying concrete policy combinations adopt this perspective to look at enforcement in combination with communication (including behavioural insights), regulatory, and financial incentives.

There is a gap in research in linking the policy approach to a positive outcome in transforming undeclared work into declared work also across a long-term perspective.

⁷⁸ Slemrod, J., 'Tax compliance and enforcement: new research and its policy implications, SSRN 2726077, 2016.

5 Needs for future research

Based on the high number of academic papers and grey literature reviewed for this study, the following recommendations emerge regarding future needs for research:

- Studies should focus to generate evidence on results achieved by real-life policies (for example more pilots or experimental design studies) that have been implemented in Europe. Research needs to include the wider objectives of tackling undeclared work beyond increasing tax revenues, including labour market protection, and transforming undeclared into declared work. Include alternative policies such as active labour market policies to provide a broader understanding of the cost-effectiveness of undeclared work interventions in their research design;
- There is a need for more formal evaluations of policy interventions (ex-post evaluations of policies or ex-ante impact assessments) to tackle undeclared work in Europe. These need to assess different combinations and sequencing of policy interventions. Further, effect sizes should be systematically related to the magnitude of impact. Cost-benefits comparison of interventions should be undertaken, rather than merely making approximating comparisons. Policy monitoring and evaluations should include more collaboration between policy makers and research;
- Adopt research designs that compare countries or focus on macro-regions. The transferability of research into policy is particularly challenging for social norm messaging since unacknowledged deviations from the studied implementation are likely to alter effectiveness.

To gather more insights concerning how a holistic policy approach may bring effective results in tackling undeclared work requires understanding of the following aspects:

- Understanding the sub-types of undeclared work is needed to develop a multi-dimensional framework. Better indications why people or firms engage in specific types of undeclared work could improve better targeting of policies. Focus should be on understanding the level of tax morale and social norms of a region to tackle social acceptance of undeclared work;
- Understanding the approach to tackle undeclared work (social acceptance as mentioned previously) or a risk-related clustering of types of undeclared work (high risk of poverty trap, health and safety damages, or gender segmentation) may help prioritise further policy actions, especially when considering damage to workers. Linked to the latter are the issues for national economies - for example, tackling poverty decreases involvement in undeclared work but also helps to reduce the risk of social exclusion and costs for health and well-being (currently, however, this is not well evidenced in the available research etc.). To understand what works for policy-makers, measures need to be accompanied by ex-ante and ex-poste evaluations;
- Understanding the role of systemic drivers on the volume of undeclared work is important such as, for example, understanding the role of precarious forms of formal work and their regulation on the volume of undeclared work to improve national regulatory frameworks.

The current available empirical evidence limits recommendations for EU regions or clustering of countries and to link determinants to policy effectiveness from a holistic point of view. To further promote the drive towards holistic policy approaches to tackling undeclared work, a broader monitoring and evaluation framework on policy effectiveness would need to be developed.

6 Conclusions and recommendations

Following the analysis of the previous chapters, the focus of this final chapter is to summarise the research findings and to provide a summary of:

- The characteristics of the identified types of undeclared work and their possible drivers;
- The scale of identified types of undeclared work and the estimated damage;
- The types of policies that have been implemented by EU Member States and their effectiveness in tackling undeclared work to understand if a holistic approach can be empirically evidenced;
- The extent to which this results in a concrete policy intervention matrix to tackle specific types of undeclared work.

6.1 Evidence on the types of undeclared work and their possible determinants

The aim for this research was to provide a multi-dimensional overview of three broad types of undeclared work that served as its starting point. These three forms were:

- Unregistered employment;
- Under-declared employment - including envelope wages;
- Undeclared self-employment.

The legal review and the literature broadly confirm these types of undeclared work, yet further refinement focussing on sub-categories and their characteristics is required to help contextualise and target policy interventions. This is specifically the case for more complex forms of undeclared work (in subcontracting chains, temporary work agency situations or platform economy). Such attempts have been made, yet such endeavours are to date only partially able to produce an overview of undeclared work and its drivers.

In addition to these definitions the research found that bogus self-employment was an additional form of undeclared work, though entirely distinct from undeclared self-employment. This is due to bogus self-employment being incorrectly reported for social security purposes, whereas undeclared self-employment is entirely unregistered. Bogus self-employment, as well as under-declared self-employment may be at national level more closely linked to taxation and social security contribution fraud.

The review of legal definitions of undeclared work also pointed out that some forms of undeclared work are identified as more severe. This is the case for 'organised undeclared work.' In addition, some Member States also recognise 'facilitators of undeclared work' and 'advertisers'. However, the literature has not further analysed the role of different stakeholders contributing to undeclared work. It would however be useful, when considering complex forms of undeclared work. There is also an absence of understanding more specifically of how undeclared is dissimulated in practice (specifically money flows).

When (legal) definitions focus primarily on the type of 'violation', such as on the non-declaration of employment, these definitions are only able to offer a partial account of the phenomenon and are limited in their understanding of the damage for the stakeholders involved (especially the damage caused to workers, or other businesses operating lawfully) that each of these types of undeclared work produce.

Similarly, focussing on certain metrics for understanding the success of policies can be unhelpful, simply offering a metric that is disconnected from an underlying qualitative

understanding of the mechanisms of change. For example, focussing on the level of fines collected when penalising those involved does not provide any information about, if the fines were paid, what those fines have been used for or whether those fined transformed their undeclared practices into declared practices. Furthermore, when evidence is provided that demonstrates the conversion of employment violations into formal employment there is a lack of longitudinal or follow-up work that provides clearer and deeper insights into the changes that took place for the worker, and whether their quality of life or precarity of employment were improved.

As such, there is an overarching issue within the field to embed research into theoretical models to portray the motivations of those engaging in undeclared work. For example, the reporting on how combating poverty also helps to tackle undeclared work and ultimately has the potential to improve the quality of life of those that such policies help. There have been some attempts to achieve this, namely the model offered by Pfau-Effinger (2009) that delineates key individual motivations into undeclared work types:

- Type 1: The 'poverty escape' type – supplied by workers with the aim to avoid immediate extreme poverty;
- Type 2: The 'moonlighting' type – self-employment as a side-job
- Type 3: The 'solidarity orientated' type – exchange of goods and services to build a social network.

Still, more is needed here to fully supplement the theoretical models outlined earlier in this report. The typology above does not include for example those that want to gain and profit at a maximum from their business activities and not pay their fair share in the form of taxation or wages and employment conditions.

Finally, there is no empirical evidence concerning the role of the type of payments used (whether cash or cashless or in-kind etc.) for undeclared work and the types of undeclared work.

A large variety of drivers were mentioned in the research reviewed. Results confirmed the relevance of some individual level socio-demographic drivers for unregistered and under-declared employment, as well as 'other violations' (fraudulent forms of contracting). No evidence was found for drivers of undeclared self-employment. The available research also lacks understanding of more systemic drivers that impact on types of undeclared work.

In relation to socio-demographic and individual-specific drivers the analysis reveals that gender and age clearly play a direct and indirect role in undeclared work, yet the available evidence can demonstrate only the obvious. Only a few pointers are of interest in this regard:

- A trend that men are more likely to participate in under-declared work was found (albeit with variations depending on the sector focused on in the studies). Gender is insignificant for unregistered employment;
- There is no general link between level of education and provision of undeclared work. Rather, limited evidence points out that bogus self-employment might be more prevalent among highly educated individuals than among unskilled individuals. In addition, the quasi-formal realm appears to embrace both low-paid workers and those in the upper tier of the workforce;
- Undeclared work is more prevalent in small and micro companies, particularly in businesses operating in agriculture and construction.

In relation to the economic and wider systemic drivers of undeclared work, systematised findings failed to provide a clear answer about the relevance of the tax burden. Although a substantial number of studies pointed in both directions, those that did not find any effect prevailed.

Despite limited data, some drivers of undeclared work were evident. For instance, the lack of financial resources is an important factor encouraging workers to engage in undeclared work. Migrant or immigrant background was found as having no significant effect on taking up undeclared work.

Although some labour suppliers participate in undeclared work out of necessity, many do so simply to defy the authorities and/or to increase their wealth. Dissatisfaction with the work of public administration, distrust in the authorities, and low tax morale are the most important motivators. Nevertheless, there is an important gap in the literature in respect of other systemic drivers, which prevented any conclusions being drawn on the role of corruption, repression, rule of law, ease of doing business, quality of social security, the viability of the pension system, and other country-level peculiarities underlined in the literature as likely determinants of undeclared work.

Building a multi-dimensional typology for drivers and types of undeclared work that accounts for both the risks and motivations, at both the structural (or systemic drivers) and individual level was only partially possible due to gaps in the empirical evidence as highlighted.

6.2 Volume of undeclared work and damage for the EU economy

A number of studies estimate the volume of undeclared work at the national level. However, due to the divergent methodologies used to estimate the size of the undeclared economy these studies cannot be compared. Only few multi-country studies exist for different time periods but also not using the same method of estimation for undeclared work. This limits comparability.

Five recent studies were identified and show trends of volume of undeclared work over time in EU Member States. For 2017 a study estimated that the average size of the shadow economy in the EU-27 was 16.3% of GDP at market prices (current prices). A study estimated in 2019 the share of undeclared work averaged 14.8% of GVA in the EU-27. Estimates suggest that the shadow economy and the share of undeclared work in the EU-27 shrunk over the past 10 years.

Studies carried out so far have not evaluated the damage of undeclared work for the economies in EU Member States and related stakeholders. Hence, estimates have been calculated for the purposes of this study. The damage of the shadow economy and/or undeclared work can only be estimated in terms of lost government revenue. For the shadow economy this represents 13.9% for the EU-27 (based on 2017 data) of government spending. For undeclared work this represents 6.5% (based on 2019 data).

Most undeclared work occurs in employment relationships (under-declared work). Of the 6.5% of lost government revenue, 4.1% related to under-declared employment.

Nevertheless, this needs to be read with caution. For example, in a case where undeclared work is predominantly a 'poverty escape', it means that public interventions should aim to improve income of households (e.g., higher benefits for minimum income schemes to delimit the risk of poverty) or other measures should improve welfare distribution, labour market access or wages for example. If such interventions have contributed to reduce undeclared work or contributed to delimit the loss of taxes/social security payments, it was not evidenced in research that has been collected for this study.

6.3 Evidence of policies effectively tackling undeclared work

As outlined in Chapter 4, a range of policy interventions demonstrated effectiveness in tackling the volume of undeclared work. Across papers focussing on enforcement interventions there was a clear demonstration of the effectiveness of measures such as audits and inspections, but the conclusions from these papers noted the need for care when implementing measures of direct deterrence. Namely, that such measures are utilised appropriately and discriminately with a clear understanding of the context in which they are being deployed. A failure to do so can have the adverse result of increasing the level of undeclared work or tax non-compliance as firms and individuals feel unfairly targeted, overly surveyed, and controlled. Importantly, a key takeaway from these studies was the recognition that enforcement activities offer diminishing returns in their effectiveness and are never able to fully transfer undeclared work into declared work. As such, papers argue for a combination of interventions to ensure an optimal enforcement strategy. Such a combination included an increase in public awareness around tax compliance requirements (Lesnik, Kracun, and Jagric, 2014), a combination of audit and penalty reminder letters sent to self-reporting individuals (Hasseldine, 2007), the need to take indirect revenue (revenues generated by side activities not the core business) into account when appraising the usefulness of an audit to ensure cost-effectiveness (Advani, Elming, and Shaw, 2015), and the inclusion of ethical messaging to appeal to individuals' sense of moral obligation. Nevertheless, there is a strand of literature that highlights the importance of understanding and targeting the underlying tax morale within a region to ensure effective enforcement. Where tax morale is low, enforcement alone will not remedy the issue of undeclared work (Franic, 2020). Interventions aimed at improving information could therefore also be prioritised, as they are deemed effective to counter undeclared work.

Information and clear communication of tax-compliance processes offered demonstrable progress in accelerating tax-payment rates and in improving overall compliance. There are two aspects here, one is systemic and structural focussing on the administrative and bureaucratic structures of a region, the other focusses on the identification and communication with firms and individuals to improve tax compliance. If a region is noted for having burdensome administrative processes and systems, then measures must be taken to streamline and improve these. As demonstrated in Belgium, the simplification of messages sent from the national tax authority increased tax compliance rates (De Neve, et al. 2019). Similarly, in regions where tax morale is demonstrated to be high, there has been some effectiveness of communications that appeal to local social and moral norms, and that identify individuals as being part of a minority of non-compliant individuals (Hallsworth et al. 2017; Larkin et al. 2018). An important point to consider here is the implementation cost of such an initiative. Communication campaigns are cost-effective along two fronts: firstly in increasing tax compliance, secondly in the subsequent reduction in costs related to enforcement activities and as such form an important supplementation to direct enforcement interventions.

Legislative interventions have significant potential in closing regulatory gaps, in enhancing worker protections, in offering relief to taxpayers (Gorodnichenko, Martinez-Vazquez, and Sabirianova, 2008), and in expanding the enforcement capacities of national authorities. More attention is needed for a coherent legal approach regarding what is considered undeclared work, how it is sanctioned (administrative fee, other sanctions) and how it is distinguished from corruption, fraud, tax criminality, and money laundering. Regulatory options need to be carefully worked out and balanced. As demonstrated in Italy (Vallanti and Gianfreda, 2020), the unintended consequence of legislative action increased the regulatory burden on smaller firms that, in seeking to alleviate the burden of increased regulation, turned to informal employment arrangements.

Finally, weaknesses in the operation of public administration should be detected and corrected to improve administrative interventions with more effective services provided, giving more comprehensible information and tax collection systems.

The diversification of enforcement teams within national tax agencies to include IT experts alongside traditional inspectors to ensure agencies are able to keep pace with digital transformations and digital aspects of undeclared work, is also a point for consideration.

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