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## **Why do consumers purchase goods and services in the informal economy?**

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**Abstract**

To evaluate critically the dominant discourse that consumers acquiring goods and services in the informal economy are rational economic actors seeking a lower price, the results of a 2007 Eurobarometer survey involving 26,659 face-to-face interviews in 27 European Union member states form the basis for analysis. The finding is that achieving a lower price is the sole motive for just 44 per cent of informal economy purchases, one of several rationales in 28 per cent of transactions and not a rationale in 28 per cent of acquisitions. Consumers also use the informal economy to circumvent the shortcomings of the formal economy in terms of the availability, speed and quality of goods and services provision, as well as for social and redistributive reasons, with multilevel mixed-effects logit regression analysis revealing how the prevalence of these rationales significantly vary across populations. The paper concludes by discussing the theoretical and policy implications of the findings.

**Key words:** consumer behavior; informal sector; underground economy; shadow economy; European Union.

**1. Introduction**

When consumers ask how much for cash, they are knowingly initiating the purchase of a good or service in the informal economy. Similarly, when suppliers offer a cheaper price without a receipt or for cash, most consumers know that they are engaging in an off-the-books transaction. The aim of this paper is to advance understanding of consumers' motives for making these purchases in the informal economy. Until now, despite

transactions in the informal economy equating to 31.2 per cent of global GDP (Buehn and Schneider, 2012), with the notable exception of a study in Slovenia (Culiberg and Bajde, 2013), the reasons for consumers purchasing goods and services in the informal economy has yet to receive attention from scholars. Instead, the widespread assumption, grounded in a rational economic actor model of consumption and the consumer, is that consumers acquire goods and services in the informal economy simply to save money (Allingham and Sandmo, 1972; Richardson and Sawyer, 2001). However, is paying a lower price always the motive or do additional drivers pull and push consumers into making informal sector purchases?

To answer this question, section 2 will review both the dominant rational economic actor explanation for consumers purchasing goods and services in the informal economy along with two alternative explanations that these transactions result from either social and redistributive rationales, or the failures of formal businesses in terms of the availability, speed and quality of their goods and service provision. To evaluate these possible explanations, section 3 will briefly present a 27-nation European survey involving 26,659 face-to-face interviews and section 4 will report the results. Revealing that consumers are not always simply rational economic actors seeking a lower price, section 5 will then discuss the theoretical and policy implications.

Before commencing, however, a definition of the informal economy is necessary. The informal economy here refers to remunerated exchanges unregistered by or hidden from the state, for tax, social security and/or labor law purposes but that are legal in all other respects (European Commission, 2007a; Williams, 2004). Hence, if the good and/or service is illegal, or no money changes hands, such transactions fall outside the informal

economy and are instead part of the criminal or unpaid economy respectively.

Nevertheless, blurred edges remain such as when the consumer gives gifts or in-kind labor in lieu of monetary payment (White and Williams, 2010). Here, the definition deems only exchanges involving money part of the informal economy.

## **2. Explaining consumer participation in the informal economy**

Today, the view of the informal economy as a residue from a past mode of production and disappearing is invalid (Geertz, 1963, Lewis, 1958). The recognition is that the informal economy is a persistent, extensive and growing feature of the global economy, employing some 60 per cent of the global workforce (Jütting and Laiglesia, 2009). This is problematic because formal businesses witness unfair competition, informal workers lack the same legal protections as formal workers, and informal sector purchasers lack legal recourse if they receive a poor job, insurance cover, guarantees in relation to the work they receive and certainty that the service or product conforms to health and safety regulations (Gallin, 2001; Williams, 2004). Understanding the reasons for participation in order to prevent this illicit activity is therefore important.

When examining what drives people to participate in the informal economy, suppliers' motives and developing policy measures to tackle the supply-side are the usual focus (Chen, 2012; Dekker, Oranje, Renooy, Rosing and Williams, 2010; European Commission, 2007a; OECD, 2012; Williams and Renooy, 2013). Little attention is paid to consumers' motives and preventing such illicit consumer behavior. Here, in consequence, a review of different possible explanations for consumers participating in

the informal economy is undertaken, each suggesting very different drivers and policy approaches.

### **2.1 Financial gain explanation**

A long-standing and dominant view in the literature on the informal economy is that participants in informal transactions are rational economic actors pursuing financial gain (Bajada, 2002; Davis, 2006; Fortin, Garneau, Lacroix, Lemieux and Montmarquette, 1996; Gallin, 2001; Sassen, 1997). This derives from the seminal work of Allingham and Sandmo (1972) who represent informal workers and consumers as rational actors weighing up the rewards and risks of their actions and disobeying the law when the expected penalty and probability of detection are smaller than the profits. The resultant focus is on developing public policy measures to alter the cost-benefit ratio confronting suppliers and consumers either by raising the actual and perceived likelihood of detection and sanctions for those caught or by providing incentives to source goods and services formally (Richardson and Sawyer, 2001; Williams and Renooy, 2013). This dominant explanation for consumer participation in the informal economy is for the first time tested here by evaluating the following hypothesis:

- H1. The motive of financial gain drives consumers to purchase goods and services in the informal economy.

### **2.2 Social/redistributive rationales explanation**

An alternative explanation is inspired by a body of critical, post-structuralist, post-development and post-capitalist thought which transcends the conventional thin portrayal of economic endeavor as always purely market-like and profit-motivated and instead adopts thicker portrayals of monetary exchange which recognizes the complex mix of

logics, including social logics, often involved (Gibson-Graham, 2006; Leyshon, Lee and Williams, 2003; Zelizer, 2012). The result is a representation of participants in informal markets as social actors rather than rational economic actors (Nelson and Smith, 1999; Round and Williams, 2008; Williams, 2004). This view recognizes that informal work is often conducted for and by kin, neighbors, friends and acquaintances for social or redistributive rationales, such as to give an unemployed person money in a manner that avoids any connotation that charity is involved, which might prevent the recipient from accepting the money (Kempson, 1996). These exchanges are thus more paid favors than profit-motivated market-like transactions (Williams, 2004). To evaluate this proposed explanation, the following hypothesis is tested:

- H2. Social and/or redistributive motives drive consumers to purchase goods and services in the informal economy.

### **2.3 Formal economy failure explanation**

A third possible explanation is that consumers purchase in the informal economy due to the failures of the formal economy (De Soto, 1989, 2001; Maloney, 2004; Small Business Council, 2004). These failings are the lack of availability and reliability of formal businesses, the speed of their goods and services provision, and the quality of the goods and services they provide. From this perspective, ‘the real problem is not so much informality as formality’ (De Soto, 1989: 255) and unless these formal business failings are resolved, consumers will continue to purchase in the informal economy. To evaluate this market failure explanation, the following two hypotheses are tested:

- H3a. The lack of availability of goods and services on the formal market drives consumers to purchase goods and services in the informal economy; and

- H3b. The faster or better quality service drives consumers to purchase goods and services in the informal economy.

### **3. Methodology**

To evaluate what drives consumers' to purchase goods and services in the informal economy, the results of Special Eurobarometer No. 284 ("Undeclared work in the European Union"), involving 26,659 face-to-face interviews in all 27 European Union member states (European Commission, 2007b) form the basis for analysis. This survey employs the same multi-stage random (probability) sampling methodology as other Eurobarometer surveys with the weighting process ensuring that on the issues of gender, age, region and locality size, the sample is proportionate to the universe in each country.

The interview schedule adopts a gradual approach towards sensitive questions, commencing with attitudinal questions, then questions on the purchase of goods and services in the informal economy and finally, questions regarding the supply of informal work. Here, the participants' responses as consumers are the focus for analysis. The first question is: have you in the last 12 months acquired (1) any goods [and (2) any services] of which you have good reason to assume that they embodied undeclared work (i.e., that the income was not completely reported to tax or social security institutions)? The second question is: From the following, what made you buy it undeclared instead of buying it on the regular market? (lower price; faster service; better quality; good or service is not available on the regular market; in order to help someone who is in need of money; as a favor amongst friends/relative/colleagues).

### **4. Results: consumers' motives for informal sector purchases in the EU-27**



The finding is that 9 per cent of the survey participants across the EU-27 purchased one or more services in the informal economy during the last 12 months and 6 per cent one or more goods. Since some acquire both goods and services informally, the result is that 11 per cent of participants had acquired a good and/or service in the informal economy over the prior year.

Analyzing consumers' motives, Table 1 reveals that a lower price is the sole motive for just 44 per cent of consumers' informal purchases, one of several rationales in 28 per cent of cases and not a rationale in the remaining 28 per cent of cases. Rationales other than financial gain, therefore, prevail in 56 per cent of purchases in the informal economy.

#### TABLE 1 HERE

Social and/or redistributive rationales are the sole driver of 10 per cent of all informal purchases and combine with other reasons in a further 15 per cent of cases. Formal sector failures are the sole reason for 15 per cent of informal purchases and combine with other motives in another 23 per cent of cases.

To analyze how consumers' motives vary across the EU-27, member states are grouped into four geographical regions: Western Europe (Belgium, Germany, France, Ireland, Luxembourg, Netherlands, Austria and the UK); Eastern and Central Europe (Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia); Southern Europe (Cyprus, Greece, Spain, Italy, Malta and Portugal) and the Nordic countries (Denmark, Finland; Sweden). Table 1 reveals the

variations in consumer motives across EU regions. Citing the motive of a lower price is less common, for instance, in Nordic nations but is more common in East-Central Europe.

#### ***4.1 What characteristics relate to consumers' motives?***

To analyze the effect on consumers' motives for purchasing informally of: (i) individual-level socio-demographic variables (e.g., gender, age, education, income) and (ii) country-level variables (e.g. GDP, gini-coefficient, perceptions of public sector corruption), a multilevel mixed effects logistic regression analysis is employed (Snijders and Bosker 2012), utilizing the hierarchical nature of the data (individuals within countries). The dependent variables are the motives for purchasing informally and the explanatory variables are those listed in Table 2 below.

The analysis involves three steps. Firstly, and to determine whether the data requires a multilevel analysis, the null model is estimated. Determining that multilevel analysis is required, secondly, a model with both first- (i.e., individual-) level and second- (i.e., country-) level variables understands their impacts on consumers' motives. This analysis includes filling in the missing values of the "don't know/refusal" answers by imputing the responses from the complete cases in the data set using multiple imputation through a system of chained equations (Collins et al., 2001; Rubin, 1987; Schafer and Graham, 2002).

Third and finally, and to help interpret variations in consumers' motives across country types, a representative European consumer is constructed. This representative consumer is a woman, retired and over 65 years old, who is a national of the EU country in which the interview took place, and is married with no income from formal

employment, lives in a rural area or village and holds a centrist political ideology and has a high tax morality. This enables an analysis of the motives for this representative consumer purchasing informally in three country-types. Type I countries are those with a higher than average GDP per capita, greater equality and lower levels of perceived public sector corruption, Type II countries have an average value on all three dimensions and Type III countries have a lower mean GDP per capita, higher inequality and greater corruption.

Table 2 reports the effect of individual- and country-level variables on the likelihood of consumers citing various motives. Consumers more likely to cite the motive of a lower price, and thus those consumers more susceptible to alterations in the cost/benefit ratio they face, are consumers with a lower tax morality, conservative political views, younger people, cohabiting or divorced persons, with children under 10 years old, living in large urban areas and with higher personal incomes. Those consumers statistically less susceptible to changes in the cost/benefit ratio are women, single people, manual workers and those not owning their own property.

#### INSERT TABLE 2

Those consumers purchasing for social and/or redistributive rationales have similar characteristics to those doing so for financial gain, except that social/redistributive rationales are more common in rural areas and amongst migrants from other non-EU European countries, and less cited by migrants from outside Europe.

Those consumers purchasing informally due to the lack of availability of the good or service on the regular market are more likely to be a widower, with children less than 10 years old, self-employed and managers. All the other individual-level characteristics are similar to those of consumers purchasing informally to save money. Consumers purchasing informally because of the faster or better quality service, meanwhile, are again more likely to be managers but also to be older age groups and to have older children (between 10 to 14 years old). Not owning a property again has a negative effect. To formalize the informal purchases of these consumer groups in particular therefore, formal businesses will need to change their practices.

To understand the country-level effects on consumers' motives, Figure 1 shows the likelihood that a representative EU consumer living in three different country-types gives each explanation. Financial gain is more likely to be the driver of the representative EU consumer living in a type III country with a lower than average level of GDP per capita, greater level of inequality and higher perceived levels of public sector corruption and thus changing the cost/benefit ratio is more likely to be effective in this country type. In developed economies, alternative rationales are more likely. The social/redistributive motive is more likely to be the driver of the representative EU consumer living in a country with a higher GDP per capita, greater equality and less corruption. Turning to the lack of availability of the goods and services on the formal market, country-level characteristics do not play an important role. A faster or better quality of service, however, is more likely to be the driver in less developed, more unequal and corrupt countries, indicating that in this type of country formal businesses most need to improve the speed and quality of provision.

FIGURE 1 HERE

## **5. Discussion and Conclusions**

This paper has evaluated critically whether consumers purchasing goods and services in the informal economy are rational economic actors seeking to pay less and therefore whether altering the cost/benefit ratios confronting them will reduce consumer demand for informal economy purchases. In the EU-27, saving money is the sole motive in only 44 per cent of transactions, so altering the cost/benefit ratio will have no effect or only a partial effect on behavior in 56 per cent of cases. This is because other rationales drive consumers, namely social and redistributive rationales and poor formal provision.

Analyzing the theoretical implications, these findings display the need to transcend the universal applicability of the rational economic actor view that lower price drives consumers to purchase goods and services in the informal economy. Consumers can be social actors pursuing social/redistributive rationales and pushed into this realm due to shortcomings in the formal economy. To explain fully consumers' motives for purchasing informally, therefore, all three explanations are relevant, although the relative importance of each explanation varies across population groups and country types. Future research could usefully evaluate the relative importance of each driver across different sectors as well as in different contexts, such as contemporary recession-hit Europe or amongst for instance American consumers.

Turning to the policy implications, the finding is that consumers susceptible to changes in the cost/benefit ratio are younger, cohabiting or divorced persons, with children under 10 years of age, with a lower tax morality, conservative political views, living in large urban areas and with higher personal incomes. Policy measures to increase

the costs of informality and provide incentives for purchasing formally need to target these groups, as do government campaigns highlighting for example the costs of purchasing informally and/or benefits of purchasing formally. Such measures will be also more effective in countries with lower levels of GDP per capita, greater inequality and more corruption.

Other country-types and socio-demographic groups will require more emphasis on improving the availability, speed and quality of the goods and services provision of formal businesses, or tackling purchases made for social and redistributive rationales. On the one hand, circumventing the shortcomings of formal sector provision will require local-level phone hotlines, web-portals and one-stop shops that customers can contact to find formal sector suppliers and where such suppliers can advertise their services, along with an analysis of whether kite-marks might tackle the issue of reliability and quality. On the other hand, transactions between closer social relations for redistributive and social rationales require an evaluation of whether to adopt a laissez-faire approach, change the tax regulations regarding such favors and/or create new institutions to enable people to conduct such paid favors legitimately, such as Local Exchange and Trading Schemes (LETS) or time banks (Williams, Aldridge, Lee, Leyshon, Thrift and Tooke, 2001). Given the strong association between low tax morality and consumer participation in the informal economy, attention should also be given to publicity campaigns and tax education initiatives that promote greater commitment to paying taxes not least by explaining what they are used for (Job, Stout and Smith, 2007; Kirchler, 2007; Torgler, 2007).

In sum, if these results stimulate recognition of the need to move beyond a simplistic rational economic actor theorization and towards a more complex re-theorization of consumers' motives, these findings will have accomplished their main objective. If these results also stimulate a more nuanced evaluation of how to tackle this cash-in-hand consumer culture, then the findings will have accomplished their fuller intention.

## References

- Allingham, M. & Sandmo, A. (1972). Income tax evasion: a theoretical analysis. of *Public Economics*, 1 (2), 323-38.
- Bajada, C. (2002). *Australia's cash economy: a troubling issue for policymakers*. Aldershot: Ashgate.
- Buehn, A. & Schneider F. (2012). Shadow economies around the world: novel insights, accepted knowledge and new estimates. *International Tax and Public Finance*, 19 (1), 139-71.
- Chen, M. (2012). *The Informal Economy: definitions, theories and policies*. Manchester: WIEGO.
- Collins, L. M., Schafer, J. L. & Kam, C. M. (2001). A comparison of inclusive and restrictive strategies in modern missing data procedures. *Psychological Methods*, 6 (4), 330–351.
- Culiberg, B. and Bajde, D. (2013). Do you need a receipt? Exploring consumer participation in consumption tax evasion as an ethical dilemma. *Journal of Business Ethics*, DOI 10.1007/s10551-013-1870-4
- Davis, M. (2006). *Planet of Slums*. London: Verso.

- De Soto, H. (1989). *The Other Path: the economic answer to terrorism*. London: Harper and Row.
- De Soto, H. (2001). *The Mystery of Capital: why capitalism triumphs in the West and fails everywhere else*. London: Black Swan.
- Dekker, H., Oranje, E., Renooy, P., Rosing, F. & Williams, C.C. (2010). *Joining up the fight against undeclared work*. Brussels: DG Employment, Social Affairs and Equal Opportunities.
- European Commission (2007a). *Stepping up the fight against undeclared work*. Brussels: European Commission.
- European Commission (2007b). *Undeclared work in the European Union*. Brussels: European Commission.
- Fortin, B., Garneau, G., Lacroix, G., Lemieux, T. & Montmarquette, C. (1996). *L'Economie souterraine au Quebec: mythes et realites*. Laval : Presses de l'Universite Laval.
- Gallin, D. (2001). Propositions on trade unions and informal employment in times of globalization. *Antipode*, 19(4), 531-49.
- Geertz, C. (1963). *Peddlers and princes: social change and economic modernization in two Indonesian towns*. Chicago: University of Chicago.
- Gibson-Graham, J-K. (2006). *Post-capitalist politics*. Minneapolis: University of Minnesota Press.
- Job, J., Stout, A. & Smith, R. (2007). Culture change in three taxation administrations: from command and control to responsive regulation. *Law and Policy*, 29, 84-101.



- Jütting, J. P. & Laiglesia, J. R. (2009). Employment, poverty reduction and development: what's new? In J.P. Jütting & J.R. Laiglesia (eds.). *Is Informal Normal? Towards more and better jobs in developing countries* (pp. 20-42). Paris: OECD.
- Kempson, E. (1996). *Life on a low income*. York: York Publishing Services.
- Kirchler, E. (2007). *The economic psychology of tax behavior*. Cambridge: Cambridge University Press.
- Lewis, A. (1959). *The theory of economic growth*. London: Allen and Unwin.
- Leyshon, A., Lee, R., Williams, C.C. (2003). (Eds.) *Alternative economic spaces*. London: Sage.
- Maloney, W.F. (2004). Informality revisited. *World Development*, 32(7), 1159-78.
- Nelson, M.K. & Smith, J. (1999). *Working hard and making do: surviving in small town America*. Los Angeles: University of California Press.
- OECD (2012). *Reducing opportunities for tax non-compliance in the underground economy*. Paris: OECD.
- Richardson, M. & Sawyer, A. (2001). A taxonomy of the tax compliance literature: further findings, problems and prospects. *Australian Tax Forum*, 16(2), 137-320.
- Round, J. & Williams, C.C. (2008). Everyday tactics and spaces of power: the role of informal economies in post-Soviet Ukraine. *Social and Cultural Geography*, 9(2), 171-85.
- Rubin, D. (1987). *Multiple Imputation for Nonresponse in Surveys*. New York: Wiley.
- Schafer, J. & Graham, J. (2002). Missing data: our view of the state of the art. *Psychological Methods*, 7(2), 1-47.

- Small Business Council (2004). *Small businesses in the informal economy: making the transition to the formal economy*. London: Small Business Council.
- Snijders, T. A. B. & Bosker, R. J. (2012). *Multilevel Analysis: an introduction to basic and advanced multilevel modeling*. London: Sage.
- Torgler, B. (2007). *Tax compliance and tax morale: a theoretical and empirical analysis*. Cheltenham: Edward Elgar.
- White, R. & Williams, C. C. (2010). Re-thinking monetary exchange: some lessons from England. *Review of Social Economy*, 68(3), 317–38.
- Williams, C. C. (2004). *Cash-in-hand work: the underground sector and the hidden economy of favours*. Basingstoke: Palgrave Macmillan.
- Williams, C. C. & Renooy, P. (2013). *Tackling Undeclared Work in 27 European Union Member States and Norway: approaches and measures since 2008*. Dublin: European Foundation for the Improvement of Living and Working Conditions.
- Williams, C. C., Aldridge, T., Lee, R., Leyshon, A., Thrift, N. & Tooke, J. (2001). *Bridges into work? an evaluation of Local Exchange and Trading Schemes (LETS)*. Bristol: Policy Press.
- Zelizer, V. (2005). *The purchase of intimacy*. Princeton: Princeton University Press.

Table 1 Rationales for purchasing goods and/or services in the informal economy in the EU-27: by EU region

	Lower price alone	Poor formal provision alone	Social rationales alone	Mixture of lower price & poor formal provision	Mixture of lower price and social rationales	Mixture of poor formal provision & social rationales	Mixture of lower price, poor formal provision & social rationales
EU-27	44	15	10	16	8	3	4
Nordic	35	18	10	22	7	3	5
Western Europe	44	14	11	14	9	3	5

East-Central Europe	47	15	7	19	5	2	5
Southern Europe	44	15	8	16	7	4	3

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Source: Eurobarometer 284 (2007): Undeclared Work in the European Union

Table 2. Multilevel mixed-effects linear regression of the reasons for purchasing goods and services in the informal economy in the EU-27<sup>a</sup>

Variables	Lower price	Social and/or redistributive reasons	Lack of availability on regular market	Faster/better service on informal market
Tax morality	0.28***	0.31***	0.24***	0.24***
Political ideology	0.03**	0.02	-0.02	0.06***
Female	0.34***	-0.21***	-0.18*	-0.13*
Age (RC: over 65)				
15-24	0.28*	-0.20	-0.43	-0.46**
25-34	0.41***	-0.01	-0.24	-0.29
35-44	0.36***	0.03	-0.10	-0.32*
45-54	0.33***	0.03	-0.20	-0.19
55-64	0.20*	0.03	0.02	-0.06
Citizenship status (RC: Own country)				
Other EU	-0.01	0.08	-0.41	-0.29
Europe non-EU	0.30	0.69**	0.19	0.38
Outside Europe	0.01	-1.27**	-1.11	-0.05
Marital status (RC: Married)				
Cohabiting	0.20**	0.44***	0.20	0.25**
Single	-0.16*	-0.24	-0.20	-0.08
Separated/Divorced	0.19***	0.46***	0.18	0.17*
Widowed	-0.11	0.26*	0.40**	-0.32**
Children (RC: No children)				
Children less 10 years old	0.11*	0.14	0.32**	0.14
Children 10 to 14 years old	0.04	0.02	-0.14	0.23***
Occupation (RC:Retired)				
Self-employed	0.00	0.23	0.55**	0.24
Managers	-0.03	0.10	0.66*	0.36**
Other white collars	-0.11	0.05	0.39	0.18
Manual workers	-0.29***	-0.05	-0.15	-0.15
Housekeeper	-0.06	0.06	0.04	-0.04
Unemployed	0.16	-0.13	0.31	-0.02
Students	-0.06	0.09	0.42	-0.03
Personal income (RC: No income)				
Less than 500 euros	0.35***	0.17	0.48**	0.30*
500-1000 euros	0.43***	0.27*	0.28	0.48***
1000-2000 euros	0.34***	0.09	0.42**	0.22
2000-3000 euros	0.57***	0.42**	0.21	0.43***
More than 3000 euros	0.56***	0.35*	0.61***	0.52***
Household property (RC: Mortgage paid)				
Not own property	-0.12*	-0.18	-0.09	-0.24**
Paying mortgage	0.11	0.15	0.10	0.14
Number of household goods	0.11***	0.12***	0.14***	0.14***
Community size (RC: Rural area or village)				
Small or middle size area	0.02	-0.237***	0.113	0.09
Large area	0.14**	-0.230**	0.283**	0.12
GDP per capita (ln)	-0.51	0.028	0.097	-0.92**
Corruption perceptions index (CPI)	0.03	0.040	0.013	0.07
Gini	-0.03	-0.040*	0.02	-0.04
Constant	1.73	-4.444	-7.30*	5.11
Observations	26,659	26,659	26,659	26,659
Number of groups	27	27	27	27
Random-effects Parameters				

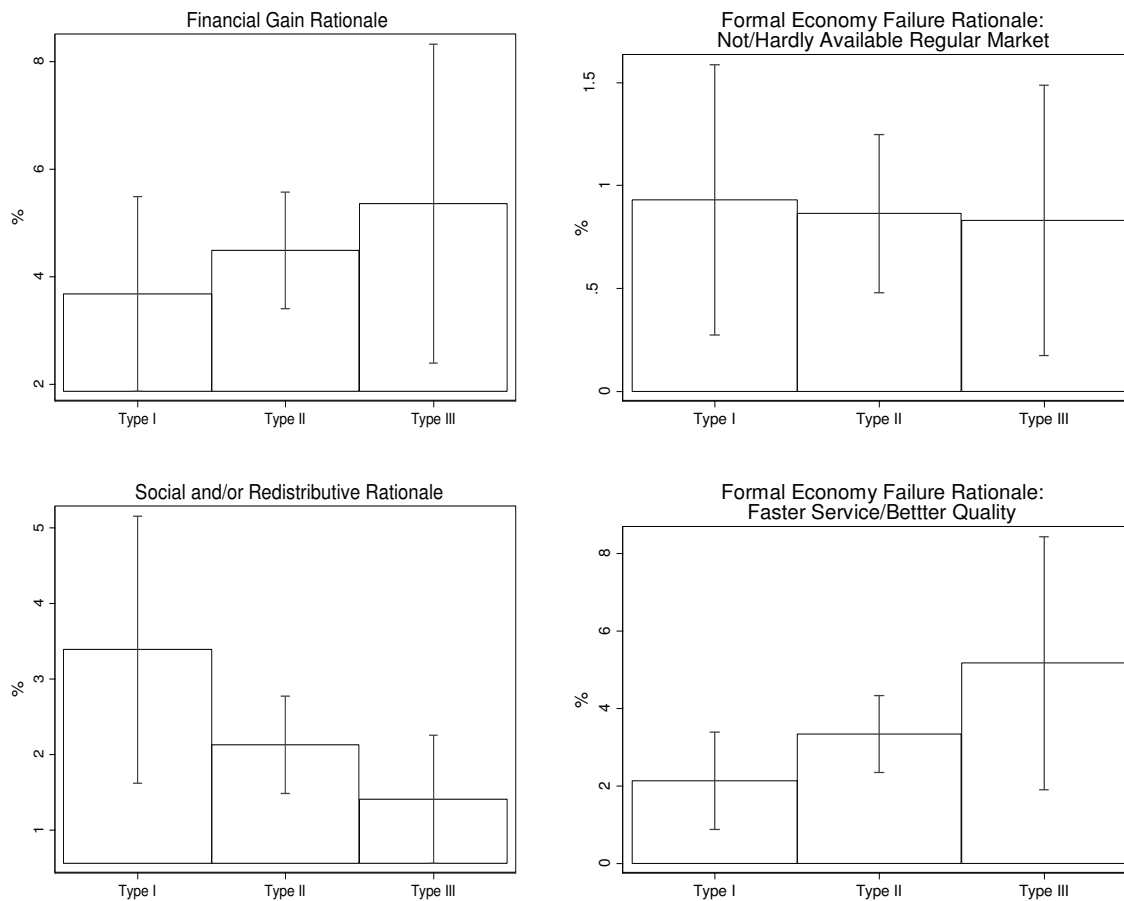
Identity: Country	Variance (constant)	0.41***	0.38***	0.47***	0.45***
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a. Estimates from multiple imputation (10 imputations used)

Significant levels at: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: Eurobarometer 284 (2007): Undeclared Work in the European Union

Figure 1. Predicted odds of purchasing goods and services in the informal market for a representative EU citizen living in three different types of country (with 95% CI)



Source: Eurobarometer 284 (2007): Undeclared Work in the European Union