



Economics of Global Interactions EGEI - Working Paper 3-2022

The Effect of International Migration on Tax Morale in the Home Country: Evidence from Poland

Jan Brzozowski

Jagiellonian University, Cracow, Poland.

E-mail: jan.brzozowski@uj.edu.pl

Nicola Daniele Coniglio

University of Bari Aldo Moro, Italy.

E-mail: nicoladaniele.coniglio@uniba.it

Suggested Citation: Brzozowski Jan and Nicola Daniele Coniglio. (2022): The Effect of International Migration on Tax Morale in the Home Country: Evidence from Poland, EGEI WP Series, 3/2022 <https://www.master-egei.eu/egei-working-paper-series/>

The Effect of International Migration on Tax Morale in the Home Country: Evidence from Poland

Jan Brzozowski - Jagiellonian University, Krakow, Poland. Email: jan.brzozowski@uj.edu.pl

Nicola Daniele Coniglio - University of Bari Aldo Moro, Italy. Email: nicoladaniele.coniglio@uniba.it

Abstract

International migration represents a potential channel for the transmission of norms, attitudes, and values back to the home countries. In this paper, we explore how the international migration of individuals affects tax morale and aversion to the free-riding of their household members left in the home country. We use a rich longitudinal household-level database which is representative of Polish society in the period 2007-2015 — one of the most important countries of emigration in the EU — and allows us to observe social attitudes and values of individuals before and after the actual migration of a member of the household. Our results show that having a migrant in the household has a significant and positive effect on tax morale and increases aversion toward free-riding of those who stay put. We demonstrate that the transmission of this important form of social remittances crucially depends on the characteristics — gender, level of education, role in the household — of both those who migrate and those who stay put within the household. The identification of the effects relies on individual-level longitudinal data which allows us to rule out any time-constant confounding factor affecting both international migrations of family members and individual attitudes toward tax avoidance.

Highlights:

- Studies on how international migration affects norms and values back home are scarce.
- We measure how having a migrant in the household influences attitudes on public goods.
- Having a migrant in the household reduces tolerance towards tax avoidance and free-riding of public goods.

Keywords: international migration, social remittances, values' transfer, tax morale.

JEL Codes: D83, F22, F24, H26, P20, Z10

1. Introduction

Why people pay taxes? How do they perceive public goods and collective obligations to finance public services? These questions have been raised for a long time within the literature on tax compliance and, one of its determinants, tax morale¹ (Alm, 2019). Traditional models based on rational *homo economicus* and the analysis of costs and benefits of deviating from tax obligations (Allingham and Sandmo, 1972) are not able to fully explain the incidence of relatively high levels of tax evasions and free-riding in some countries. A growing literature has shown that tax morale is dependent on the individual as well as context-level characteristics, such as ethnic and linguistic diversity of the society (Alesina, Miano and Stancheva 2018; Lago-Peñas and Lago-Peñas, 2010). Within this literature, behavioural economics has demonstrated the important role of social interactions as determinants of an individual's tax morale (Ritsatos, 2014; Pickhardt and Prinz, 2014).

International migration is likely to radically transform the nature of social interactions for all parties involved in the migration process; the migrants themselves as well as receiving and home communities. The nexus between international migration and attitudes toward redistribution and contribution to the finance of public goods has been recently addressed in the context of migrant-receiving countries (Alesina et al., 2018 and 2020) while, to our knowledge, the effects on migrant-sending countries have so far been less investigated.

In this paper, we analyse the effect of international migration on tax morale, or more generally on individual attitudes and norms toward the contribution to the financing of public goods. We rely on a unique longitudinal household-level database - the Polish Social Diagnosis (SD). SD is a large bi-annual survey carried out between 2007 and 2015, a period of intense outmigration of Poles due to the process of integration with the European Union – which allows us to observe the change of individual attitudes and social values, as well as a rich set of characteristics before and after the actual migration of each member of the household. We find that having a migrant in the household leads to a significant increase in individuals' aversion to tax avoidance and free-riding of social benefits and public goods. The positive effect of international migration on tax morale strongly depends on the

¹ In the rest of the paper, we refer to tax morale, in line with most studies in the literature, as self-reported attitudes toward tax evasion and free-riding of public goods. Tax morale can be considered as a 'separate' factor determining individuals' tax compliance or simply a 'proxy' of tax behaviour. This distinction is not of high relevance for our purposes. In fact, several studies have demonstrated that measures of tax morale similar to the one we employ in the paper are highly correlated to actual measures of the shadow economy (Torgler and Schneider 2009) or to tax compliance in experimental settings (Torgler 2004).

characteristics of both the migrant and the household members left home. With respect to the characteristics of migrants, this important type of social remittances is likely to materialize when those who leave are relatively young and highly educated. Thus, the transfer of attitudes, cultural traits, and norms is more likely to happen when migrants have a sufficient absorptive capacity. Interestingly, the increase in the aversion toward tax evasion due to international migration of family members is strong for those individuals who have generally lower tax morale: older and less educated members of the household who stay put. We also find that gender matters for this process, as the effect of international migration on tax morale, are found almost exclusively for male stayers and those who migrate within the family are also male. This latter result might be explained by the differences in the migration experience – for instance, employment opportunities and type and extent of social interactions in the destination country – that are often strongly based on gender.

The results suggest that the wave of post-accession migration from Poland after 2004 might have induced significant changes in pro-social behaviour in the households of migrants. Our findings are coherent with the increase in aggregate tax morale indexes observed in Poland. According to World Value Survey, while only 52.2 per cent of Poles considered cheating on taxes as ‘never justifiable’ in 2005, the share of such respondents has risen to 76.4 per cent in 2018 (WVS, 2021).

The existing literature has emphasized multiple-channels through which international migration impacts home countries (Clemens et al., 2014), ranging from skill transfers of the labour force across international borders and the changes in the human capital allocation due to migration decision (Docquier and Rapoport, 2012), through diaspora investments (Wei and Balasubramanyam, 2006; Boly et al., 2014), or via transfers of savings and worker's remittances (León-Ledesma and Piracha, 2004) and transnational entrepreneurial activities of immigrants conducted mutually in home and host country (Brzozowski and Cucculelli, 2020). In particular, our paper relates to the growing body of studies that focus on migration-induced social, cultural, and political change (Tuccio et al., 2019; Docquier et al., 2016; Barsbai et al., 2017). These cultural transfers became known in migration studies as social remittances (Levitt, 1998) and are understood as ideas, norms of behaviour, and cultural practices that are “imported” from – usually more developed – countries of residence to migrants’ countries of origin.

More specifically, we contribute to the economic literature on the relationship between international migration and social change in home countries in several aspects. First, our analysis focuses on social remittances in the form of changes in norms of cooperation and free riding in the home society. Individual attitudes towards public goods – such as tax evasion, free-riding, and misuse of social benefits – are crucial in shaping well-functioning Institutions and in sustaining the social pact on

which modern societies are built. International migration by exposing the migrants, as well as all individuals involved in the migration process, to a new reference point might significantly affect norms and behaviours in this crucial dimension. This form of social remittances has, to the best of our knowledge, not been investigated yet. Most existing studies in fact focus either on democracy and public institutions (Docquier et al., 2016; Barsbai, 2017), civic engagement (Nikolova et al., 2017), or corruption (Ivlevs and King, 2017).

Second, we take advantage of a longitudinal dimension of our dataset, which enables us to trace the evolution of the social attitudes of members of the household of migrants over time. So far, the few quantitative studies on social remittances were based on cross-sectional data (Nikolova et al., 2017). In cross-sectional studies, the obvious problem is a double selection of migration and return migration, as migrants tend to be positively selected while returnees are often found to be negatively selected (Wahba, 2014). Moreover, it is not possible to exclude that the observed differences in norms and social behaviours are also due to problems of selection; i.e., that households with migrants are different compared to those without migrants due to some observable as well as unobservable characteristics. Therefore, only datasets tracking changes in social norms and attitudes, as well as the location of household members over time, allow the researcher to causally assess the relationship between migration and changes in social behaviours.

Thirdly, our paper contributes to the literature by highlighting the heterogeneous and complex effect of international migration on the social transformation of sending countries. We find that the existence and the magnitude of social remittances depend on which specific sub-groups of the population are involved in the migration process. The transfer of norms and attitudes of household members leaving home is more likely when younger and more educated individuals migrate; this finding confirms that not all migrants are ‘agents’ of social transformation.

Finally, we focus on Poland which represents an interesting case study on the effect of international migration on social change as it is the largest immigrant-sending country in the European Union (EU) in the post-accession period (i.e., after 2004) (Bahna, 2016). Outmigration from Poland had a profound impact on sending and host economies and societies (Barrell et al., 2010; Coniglio and Brzozowski, 2018). While for almost all economic migrants from Poland, the destination countries are the most developed democracies of Western Europe, the potential impact of social remittances from these countries can indeed be substantial and drive social change in Poland. So far, most of the analyses on social remittances in post-communist economies were focused on relatively smaller or poorer economies such as Moldova (Barsbai et al., 2017; Berlinschi, 2019); or when it dealt with Poland, it relied mostly on qualitative studies (White, 2016; White, 2019; Jaźwińska and Grabowska,

2017; Grabowska and Garapich, 2016), which makes the generalizations more difficult. We employ a fully representative survey for the Polish economy and society, the Social Diagnosis database, which is specifically designed to monitor the evolution of attitudes, norms, and behaviours (Czapiński and Panek, 2015).

Our paper is structured as follows: in the second section, we present a literature review of research on international migration and social remittances. The third section presents the data set, the main hypothesis, and the empirical methodology. In section four, we present the results of empirical analysis and discuss our findings. Conclusive remarks are reported in the final section of the paper.

2. Literature review

Our study combines two distinct strands of literature: the one on tax compliance and tax morale (see Alm, 2019 for a survey), and the second on international migrant-induced social change in home countries (Tuccio et al., 2019). The economic analysis of tax compliance has been strongly influenced by Becker's (1968) seminal model of criminal behaviour which has been later adapted by Allingham and Sandmo (1972) to analyse tax compliance. In this pioneering approach, rational individuals decide the optimal level of payments of their tax liabilities based on a cost-benefit analysis which is influenced by enforcement measures imposed by the State. Yet, very soon, it became evident that the adoption of a *homo economicus* paradigm fails to explain the complexity of insights that emerged from empirical evidence (Lago-Peñas and Lago-Peñas, 2010). New insights from behavioural economics have enriched the analysis of tax compliance by considering the importance of fairness, empathy, shame, morality, etc. (Alm, 2019). In addition to intrinsic individual-specific factors, tax compliance is in fact strongly influenced by social interactions that shape attitudes and norms of cooperation (Pickhardt and Prinz, 2014). Pro-social and cooperative behaviour – and their antithesis such as free riding and tax-evasion – can be the result of specific social and institutional settings and hence explain (at least partly) the observed differences in tax compliance between countries and regions sharing similar tax enforcement efforts (Daude et al., 2013).

As attitudes, norms of behaviours, and social values are affected by the social context in which individuals live, international migration might represent a powerful shock to the type, intensity, and diversity of social interactions and, in turn, might have strong effects on them, including on those related to tax morale and free-riding behaviours (Kountouris and Remoundou, 2013; Alesina, Miano and Stancheva, 2018 and 2020). In particular, migration can affect the perception of social norms, i.e.

informal rules of behaviour that individuals belonging to a given community share and follow for reasons that are not totally explained by the fear of incurring penalties.

A relatively novel strand of economic research on international migration includes the analyses on how population movements induce social change in home countries (Tuccio et al., 2019) and how this social change can affect their economic, cultural, and political development (Docquier et al., 2016; Barsbai et al., 2017; Clemens et al., 2014). Non-financial transfers toward the countries of origin of migrants became known in migration studies as social remittances (Levitt, 1998) and are understood as ideas, norms of behaviour, and cultural practices that are “imported” from – usually more developed – host countries to migrants’ countries of origin.

In the economic literature, the empirical research on social remittances is relatively new, mostly due to data limitations. Social remittances might materialize in the form of migration-induced political change. Tuccio et al. (2019) show that having a returnee from Western European countries increases the need for political and social change in Moroccan households. Political change does not necessarily require the return of migrants, as demonstrated by the work of Barsbai (2017) which shows that in Moldovan regions with more intensive out-migration to Western Europe, the remaining adult population shifts voting to more democratic, liberal parties. Also, Docquier et al. (2016) have demonstrated that openness to international migration has a positive effect on home country institutions and democracy. Spilimbergo (2009) identifies student migration as a powerful channel for the transfer of democracy. Another strand of research analyses the impact of social remittances on civil society and attitudes toward public matters. For instance, Nikolova and associates (2017) find a positive linkage between having a family member or friend abroad and engaging in pro-social behaviour in Romania and Bulgaria. Ivlevs and King (2017) demonstrate that individuals in ex-Yugoslavian countries who have relatives abroad are less likely to bribe public officials and perceive more often bribing as socially less acceptable. Other studies have focussed on the role of international migration in transferring gender norms and promoting female empowerment. Bertoli and Marchetta (2013) using household-level data for Egypt show that return migration has a significant impact on fertility choices increasing the number of children. Focussing on Jordan, Tuccio and Wabha (2018) find evidence of a transfer of gender norms through return migration. Evidence of transfers of gender norms to home countries has also been found by Beine et al (2013) using cross-country evidence. Lodigiani and Salomone (2020) show – using panel data for a large sample of countries between 1970 and 2010 – that international migration positively affects female parliamentary representation in both host and home countries.

In our study, we contribute to the existing literature by exploring social remittances from a new perspective by investigating the role of international migration on the attitudes toward free-riding and tax avoidance of members of the household left at home. In this aspect, Poland is a very promising object of research for migration–induced social change. In 2004, Poland has joined the European Union which resulted in facilitated cross-border mobility of Poles. As the result of enlargement, a significant new wave of international migration from Poland and other Central and Eastern European countries occurred. This migration flow was indeed substantial; in 2007, the number of EU-10 CEE² nationals in EU-15³ countries had risen to 3.7 million, compared to 1.5 million in 2003. Out of these 3.7 million migrants from CEE, approximately 1.3 million were Polish (Górny and Kaczmarczyk, 2019). There are already some theoretical (White, 2016) and empirical (Grabowska and Endbersen, 2016; Grabowska, 2018) studies that indicate that post-accession migration has indeed induced important changes in social, cultural, and political norms, especially at the local level. However, there is also some conservative opposition towards the assessment of changes promoted by migrants (Grabowska and Garapich, 2016).

Our hypotheses, which are common to the social remittance literature, assume that a socially accepted norm of behaviour can change when a member of the household is exposed, via migration, to alternative norms of behaviour; i.e., those prevailing in the host country. Most forms of social interactions, including those mediated by the tax system, are governed to some degree by a set of social norms.

² EU10 CEE countries include countries which entered the EU in 2004 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) and Bulgaria and Romania, which entered in 2007.

³ EU-15 are the “old” member states, i.e., those who were members of the European Union before 2004.

3. Data description and empirical methodology

We use data from the Social Diagnosis (SD) project, which is representative of Polish society in the 2003-2015 period (Czapiński and Panek, 2015). For the purpose of our study, we employ data for the period 2007-2015 as only these five waves (2007, 2009, 2011, 2013, and 2015) include details of the current migration experience of household members. We focus on all stayers belonging to households – the ones with and without members currently residing abroad. The panel dimension of our dataset allows us to employ a within-household approach as we investigate the change in norms of stayers due to migration within the household. It is well-known in the literature that migrants – and their families – are not random samples of the home country population. Stayers, our unit of analysis, may be self-selected based on observed and unobserved characteristics, thus generating endogeneity and selection bias that needs to be addressed with appropriate methodologies as in Tuccio et al., (2019).

We employ three main dependent variables that measure individuals' attitudes toward cooperative behaviours and free riding. The first variable, *social benefit misuse*, captures individual aversion towards free-riding of social benefits – unemployment benefit misuse⁴. In five consecutive waves of the SD survey, individuals have been asked the following question: “how much do you care if someone unjustly obtains unemployment benefit?” and the answers were coded from value 1 (i.e. not caring at all) to 5 (i.e. caring a lot). As a second measure, we employ the variable *tax avoidance*, which captures individual aversion towards tax avoidance. This variable is based on the following question: “how much do you care if someone pays lower taxes than he/she should?”. The third measure, *ticket avoidance*, measures free-riding on local public services and is based on the following question: “how much do you care if someone avoids paying the fares for the public transport? (e.g. buses, trains)”. The answers for those two questions were also coded from 1 (min) to 5 (max value). All of these variables reflect individuals' norms of cooperation and tax morale but capture its different dimensions. In fact, the avoidance of social benefits is more likely to be undertaken by individuals that are relatively worse-off within the society. On the contrary, tax avoidance is more likely to be more severe for the relatively well-off. As fairness consideration might shape norms (Alm, 2019; Barth et al., 2013), these measures of respectively free-riding from the ‘bottom’ and the ‘top’ end of the income distribution might be affected in a potentially heterogeneous way by exposure to international migration. The third variable, ticket avoidance, is potentially capturing a dimension of cooperation that is perceived as closer to the local community compared to the other two. An

⁴ The work by Sztandar-Sztanderska (2009) suggests that this form of exploitation of the Polish welfare system was a relevant issues in the period covered by SD survey (2007-2015).

additional consideration that might differentiate these three different measures of free-riding is the role of policymakers' effectiveness (Alm, 2019; Dell'Anno, 2009). In fact, tax evasion and tax morale can be affected by people's perceptions toward the ability of policymakers to employ tax receipts in a fair and effective way. International migration can affect individuals' trust in national and local policymakers differently.

Finally, we combine all of these three dimensions in a single variable, *public good*, which represents an overall index of individual aversion toward free-riding in a society.⁵

Our hypothesis is that the international migration of a member of the household affects individuals' pro-social attitudes as measured by the variables defined above. In fact, several studies have shown that attitudes and norms of cooperation – including those related to taxes – are strongly affected by social interactions (Alm, 2019). International migration might represent a powerful channel through which social interactions of the entire household – not only of migrants – change. In particular, households are exposed to different social norms, i.e., those prevailing in countries/localities where immigrants reside. Whether these 'new' social norms are remitted in destination countries might depend on several features of the migration experience, including the characteristics of those who migrate and those who stay put.

In the empirical analysis, we estimate the effect of international migration on our dependent variables using a panel approach specified as follows:

$$Free_riding_attitudes_{ijt} = \beta_0 + \beta_1 Migration_HH_{ijt} + \beta_2 X_{ijt} + \theta_i + \varepsilon_{ijt} \quad (1)$$

where $Free_riding_attitudes_{ijt}$ is the set of our dependent variables as described above for individual i , in household j at time t . $Migration_HH_{ijt}$ is our main independent covariate and is either specified as: i) a dummy which takes the value of 1 if between time t and $t-1$ (a 2-year period) a member of the household migrates abroad; ii) the number of household members migrated abroad in the same time interval. Our strategy is akin to a differences-in-differences approach as the estimated coefficient β_1 can be interpreted as the average effect of international migration (the 'treatment') on the household member left at home (the 'treated').

A set of time-variant control variables is included in the vector X_{ijt} . At the individual level, we include *marital status*, *age* (and its *square*), *educational level* (primary or lower, secondary and tertiary), and *employment status*. Changes in these variables might affect directly or indirectly – through changes in socio-economic interactions – cooperation attitudes and norms and, thus, tax

⁵ The variable public good is defined as a simple average of the three measures described above.

morale. As several studies show that income is also an important determinant of tax morale and compliance, we include the (log of) of *household income* in our specification. This variable might also be directly affected by the migration of one or more members of the household, hence controlling for this channel is important as we are interested in isolating social remittances from financial ones. At the household level, we control for changes in the *size of the household*. Finally, we include the *regional per capita GDP* as a control for the change in income in the area where the household lives.

Our specification includes *individual-level fixed effects*, θ_i , as we are interested in how the attitudes of stayers are affected by migration in the household. In order to better isolate the effect of international migration of those left behind, we restrict the sample to include only individuals who have been interviewed at least for 2 consecutive waves: 1) had never migrated in the past; 2) none of the members of their household has migrated in a previous wave (t-1).

In *Table 1*, we report the main summary statistics of the variables employed in the analysis. Our sample includes approximately 60 thousand individuals. In the considered period we observe that approximately 3% of the individuals in our sample experience the migration of at least one member of the household.

Table 1. Summary statistics and variable description

<i>Variables</i>	<i>Min</i>	<i>Max</i>	<i>Mean value / incidence</i>	<i>Standard Deviation</i>
social benefits misuse (ordinal)	1	4	2.581	1.076
tax avoidance (ordinal)	1	4	2.346	1.043
ticket avoidance (ordinal)	1	4	2.341	1.021
public good (ordinal)	1	4	2.416	0.951
migrants in HH (dummy)	0	1	0.03	0.164
total no of migrants in HH (continuous)	0	5	0.032	0.204
HH size (continuous)	1	15	3.616	1.823
married (dummy)	0	1	0.38	0.484
age (continuous)	9	105	48.176	18.809
female	0	1	0.56	0.496
primary education or lower (dummy)	0	1	0.13	0.337
secondary education (dummy)	0	1	0.40	0.489
tertiary education (dummy)	0	1	0.09	0.291
currently employed (dummy)	0	1	0.47	0.499
regional mean GDP (continuous)	0.7	1.6	0.904	0.353
(ln of) HH income	0	10.819	5.869	2.596

4. Empirical analysis

We report the first set of estimation results in *Table 2*, using alternatively as independent variables the dummy migrants in the household (columns 1 to 4) and the number of migrants in the household (columns 5 to 8) for the different measures of tax morale. International migration of a member of the household significantly affects the attitudes of those left behind, increasing their aversion to free-riding and opportunistic behaviours. The aversion to the abuse of unemployment benefits (*social benefits misuse*) increases. The change of the dependent variable is 0.11 when an individual experiences the migration of a family member, keeping other covariates at mean values; this is equivalent to a chance of 4% (*column 1*). When considering the number of migrants in the household, the change in the dependent variable is +0,57 when moving from the lowest value (0 emigrants) to the highest (6 emigrants), an increase of +22% at mean values for other covariates (*column 5*). The effect on individual aversion to tax evasion (*tax avoidance*) is also positive and significant and similar in magnitude; approximately +4,2% keeping other covariates at mean values (*column 2*) and +18,8% when the number of migrants in the household changes from the minimum to the maximum (*column 6*). The effect of migration on free-riding of local public services (*ticket avoidance*) is weakly significant and smaller in magnitude (+2,8% based on *column 3*), probably suggesting a stronger intrinsic tolerance toward deviation from cooperation and pro-social norms at the local community level or for free-riding of minor entities. Our results hold when using the overall aversion to free-riding, labelled *public good* in *Table 2*. These effects do not depend on the change in the *size of the household* or change in *household income* due to the international migration of a member of the family as we include both controls in the empirical specifications reported. These two variables, which are likely to be also affected by outmigration, have respectively a negative and positive effect on our dependent variables. Among other covariates, we find a weakly significant and positive effect of marital status while other covariates do not seem to affect attitudes toward free-riding and tax avoidance in a significant way.

Table 2. Impact of international migration on household members' attitudes towards public goods
(panel FE regression)

<i>Variables</i>	(1) <i>social benefits misuse</i>	(2) <i>tax avoidance</i>	(3) <i>ticket avoidance</i>	(4) <i>public good</i>	(5) <i>social benefits misuse</i>	(6) <i>tax avoidance</i>	(7) <i>ticket avoidance</i>	(8) <i>public good</i>
Migrants in HH (dummy)	0.109*** (0.041)	0.099** (0.041)	0.067* (0.040)	0.081** (0.037)				
Total no of migrants in HH					0.095*** (0.034)	0.075** (0.034)	0.054 (0.033)	0.063** (0.031)
HH size	-0.017** (0.009)	-0.018** (0.009)	-0.02*** (0.009)	-0.015** (0.008)	-0.018** (0.009)	-0.018** (0.009)	-0.022*** (0.009)	-0.015** (0.008)
Married (dummy)	0.0456 (0.032)	0.0958*** (0.031)	0.0537* (0.030)	0.0554** (0.028)	0.0459 (0.032)	0.0960*** (0.031)	0.0538* (0.030)	0.0556** (0.028)
Age	0.035*** (0.007)	0.033*** (0.007)	0.043*** (0.007)	0.037*** (0.007)	0.035*** (0.007)	0.033*** (0.007)	0.043*** (0.007)	0.037*** (0.007)
Age squared	-0.0002*** (0.00006)	-0.00005 (0.00006)	-0.0002*** (0.00006)	-0.0001** (0.00006)	-0.0002*** (0.00006)	-0.00005 (0.00006)	-0.0002*** (0.00006)	-0.0001** (0.00006)
Primary education or lower (dummy)	-0.020 (0.043)	-0.010 (0.042)	-0.014 (0.041)	-0.014 (0.038)	-0.020 (0.043)	-0.01 (0.042)	-0.014 (0.041)	-0.014 (0.038)
Tertiary education (dummy)	-0.037 (0.046)	0.026 (0.046)	-0.008 (0.044)	-0.006 (0.041)	-0.037 (0.046)	0.026 (0.046)	-0.007 (0.044)	-0.006 (0.041)
Currently employed (dummy)	0.025 (0.022)	0.030 (0.022)	-0.017 (0.021)	0.017 (0.020)	0.025 (0.022)	0.029 (0.022)	-0.017 (0.021)	0.017 (0.020)
Regional mean GDP	-0.247 (0.343)	-0.382 (0.340)	0.186 (0.330)	-0.142 (0.306)	-0.249 (0.343)	-0.385 (0.340)	0.184 (0.330)	-0.144 (0.306)
HH income (ln of)	0.005** (0.002)	0.007*** (0.002)	0.008*** (0.002)	0.006*** (0.002)	0.005** (0.002)	0.007*** (0.002)	0.0082*** (0.002)	0.006*** (0.002)
Constant	1.669*** (0.396)	1.070*** (0.393)	0.532 (0.381)	1.039*** (0.354)	1.670*** (0.396)	1.063*** (0.393)	0.530 (0.381)	1.036*** (0.354)
<i>Observations</i>	59,837	59,621	60,057	57,113	59,837	59,621	60,057	57,113
<i>R-squared</i>	0.001	0.005	0.003	0.004	0.001	0.005	0.003	0.004

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

As is the case in most longitudinal surveys, attrition bias might be an issue in our estimates too. In fact, one should note that participation in the different waves of the Social Diagnosis survey might be affected by international migration, in particular if the entire household migrates. The attrition bias is likely to generate a downward bias in our estimates. In order to address this issue, we have estimated the model restricting the sample to household observed at least in: i) three waves of the SD survey;

ii) four waves of the SD survey. The results, available in an *Online Appendix*, qualitatively confirm those reported in *Table 2*.

Social remittances: who migrates and who remains matters!

The general argument related to social remittance is that migration, by exposing the migrants to a new socio-economic context, might represent a powerful vector for the transfer of attitudes, values, and norms to members of the household left home, and more generally from the host to the home country. While international migration generates a bridge between host and home countries, whether and how this new link generates a flow of social remittance depends on who migrates – i.e., individual's 'absorption' capacity of new values, attitudes, and norms in the new location – and on who remains. To our knowledge, this potential heterogeneity has not been explored in the current literature on social remittances, but it is a rather established fact in the literature on financial remittances⁶.

In this subsection, we explore whether the general results highlighted above mass some heterogeneity depending on some observable characteristics of those who migrate and of those who remain in the home country. In *Table 3*, we report the results of our estimates considering three different characteristics of migrants: *role within the household* (head, partner, or other), *educational level*, and *gender*.⁷

Interestingly, the positive effect of international migration on tax morale and the free-riding aversion of the family members left at home is found only if the migrant is not the head of the household or his/her partner. In fact, the transfer of tax morale attitudes and norms is associated with the migration of other dependants, generally the siblings who are the youngest and more educated components of the household. The result is confirmed when looking at the educational level. We find no evidence of change in attitudes toward free-riding and tax avoidance in society when migrants have primary or no formal education. On the contrary, the effect is positive and statistically significant for secondary education (for *social benefits misuse* and *tax avoidance*) and tertiary education (for *social benefits misuse* and *ticket avoidance*). A striking difference emerges also when we consider the gender of those who migrate. In fact, we find that the results are driven by the migration of males while the effects are not statistically significant when only females are the migrants within the family.

⁶ The propensity to send financial remittances is strongly heterogeneous across several dimension: such as gender (Carling 2008; Holst et al. 2012) or skill-level and formal education (Faini 2007).

⁷ In *Table 3*, we report only the estimated coefficients on the main covariates of interest. The full estimates are available in the *Online Appendix*.

Table 3. Impact of international migration on household members' attitudes towards public goods: impact of those who leave (panel FE regression)

<i>Variables</i>	(1)	(2)	(3)	(4)
	<i>social benefits misuse</i>	<i>tax avoidance</i>	<i>ticket avoidance</i>	<i>public good</i>
<i>Role of migrant within the household</i>				
Head of HH is migrant (dummy)	0.080 (0.094)	0.039 (0.094)	0.061 (0.091)	0.041 (0.085)
Partner of the head of HH is migrant (dummy)	-0.072 (0.127)	0.007 (0.122)	-0.080 (0.121)	-0.083 (0.115)
Other HH member is migrant (dummy)	0.119*** (0.040)	0.0904** (0.040)	0.0695* (0.039)	0.0856** (0.036)
<i>Observations</i>	59,837	59,621	60,057	57,113
<i>Number of households</i>	25,560	25,506	25,579	25,126
<i>Educational level of migrant</i>				
migrant in HH has primary or lower edu (dummy)	0.018 (0.152)	-0.022 (0.150)	0.076 (0.150)	0.025 (0.139)
migrant in HH has secondary edu (dummy)	0.108** (0.048)	0.108** (0.048)	0.021 (0.046)	0.065 (0.044)
migrant in HH has tertiary edu (dummy)	0.167* (0.093)	0.085 (0.093)	0.188** (0.088)	0.137 (0.084)
<i>Observations</i>	59,837	59,621	60,057	57,113
<i>Number of households</i>	25,560	25,506	25,579	25,126
<i>Gender of the migrant</i>				
migrants in HH are male only (dummy)	0.121** (0.052)	0.145*** (0.052)	0.076 (0.051)	0.106** (0.047)
migrants in HH are females only (dummy)	0.0438 (0.072)	0.012 (0.071)	0.0356 (0.069)	0.0143 (0.066)
migrants in HH both genders (dummy)	0.323** (0.160)	0.107 (0.159)	0.154 (0.157)	0.165 (0.146)
<i>Observations</i>	59,837	59,621	60,057	57,113
<i>Number of households</i>	25,560	25,506	25,579	25,126

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

(only the covariates of interest are reported; full estimates available upon request)

The above results suggest that social remittances do not happen automatically but depend on 'who' migrates. There are two possible and not mutually excludable explanations behind the heterogeneity

found in *Table 3*. The first is related to the fact that migrants with different characteristics are likely to have a different exposure to the host-country economy and society. For instance, high-skilled migrants might have professional opportunities that will lead to a social context that differs from the one to which low-skilled migrants are exposed. Gendered segmentation of the labour market in the destination country might lead to similar differences. The second explanation might rely upon a different absorptive capacity of attitudes and norms of migrants with different characteristics and abilities. Our methodological approach and the data at our disposal do not allow us to uncover the contribution of these factors as we do not have adequate information on the migration experience of those who leave.

Equally relevant are the characteristics of those who stay put, particularly in our analysis, these are the unit of observation. The results reported in *Table 4* show that the change in attitudes toward free-riding and tax avoidance is positive – implying improved tax morale – for the head of the household and his/her spouse when other members of the household migrate. In *Table 5*, we explore in more detail the effects on the dependent variables when considering the gender and educational level of the stayers. We find strong evidence on a change in attitudes due to migration only for males (*panel A*) while the effect is not statistically significant for female stayers. In the lower panels, we split the sample by gender of the stayers and consider explicitly the gender of the migrants as well. The results – although statistically weaker because of the splitting of the sample (*panels B and C*) – confirm that tax avoidance becomes less tolerated when a male migrates for both male and female stayers. For other measures of free-riding, we find no effects on female stayers irrespectively of the gender of the migrants. For male stayers, we find evidence that the effect is positive and weakly significant when other males within the family migrate; with the exception of ticket avoidance for which a positive – but again weakly significant – effect is found when only female members of the family migrate. Finally, in *panel D*, we report the effects of international migration on the dependent variables by the level of education of the stayers. Interestingly, international migration seems to have strongly positive and highly significant effects on all the four dependent variables for the least formally educated in the home society. This finding is particularly relevant as this group of stayers has significantly lower average values of tax and free-riding aversion; hence international migration seems to have a strong potential of increasing tax morale and, more generally, a pro-social attitude toward public goods.

Table 4. Impact of international migration on household members' attitudes towards public goods: role in HH of those who stay (panel FE regression)

<i>Variables</i>	(1)	(2)	(3)	(4)
	<i>social benefits avoidance</i>	<i>tax avoidance</i>	<i>ticket avoidance</i>	<i>public good</i>
<i>Stayer is the household head</i>				
Partner of the head of HH is migrant (dummy)	-0.144	0.0272	-0.032	-0.085
	(0.154)	(0.150)	(0.147)	(0.139)
Other HH member is migrant (dummy)	0.113*	0.0689	0.122**	0.0906
	(0.061)	(0.060)	(0.059)	(0.055)
<i>Observations</i>	<i>30,131</i>	<i>30,060</i>	<i>30,223</i>	<i>28,810</i>
<i>Number of households</i>	<i>12,965</i>	<i>12,954</i>	<i>12,971</i>	<i>12,749</i>
<i>Stayer is the partner of HH head</i>				
Head of HH is migrant (dummy)	-0.016	-0.087	0.002	-0.061
	(0.134)	(0.132)	(0.128)	(0.122)
Other HH member is migrant (dummy)	0.129*	0.162**	0.009	0.103
	(0.076)	(0.074)	(0.074)	(0.068)
<i>Observations</i>	<i>17,214</i>	<i>17,189</i>	<i>17,314</i>	<i>16,401</i>
<i>Number of households</i>	<i>8,160</i>	<i>8,145</i>	<i>8,172</i>	<i>7,991</i>
<i>Stayer is other person in HH</i>				
Head of HH is migrant (dummy)	0.244	0.270	0.126	0.194
	(0.186)	(0.179)	(0.174)	(0.165)
Partner of the head of HH is migrant (dummy)	0.028	-0.191	-0.105	-0.094
	(0.323)	(0.294)	(0.293)	(0.287)
Other HH member is migrant (dummy)	0.076	0.047	0.040	0.045
	(0.093)	(0.095)	(0.088)	(0.086)
<i>Observations</i>	<i>12,492</i>	<i>12,372</i>	<i>12,520</i>	<i>11,902</i>
<i>Number of households</i>	<i>6,991</i>	<i>6,941</i>	<i>6,991</i>	<i>6,797</i>

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 (only the covariates of interest are reported; full estimates available upon request)

Table 5 – International migration and attitudes toward tax evasion and free-riding: the role of gender and educational level of the stayers

	(1) socialavoid	(2) taxavoid	(3) ticketavoid	(4) public good
Full sample				
Stayer is female * migration in HH	0.064 (0.054)	0.0742 (0.0534)	0.0119 (0.0518)	0.0324 (0.0489)
Stayer is male * migration in HH	0.170*** (0.063)	0.134** (0.063)	0.144** (0.061)	0.146** (0.057)
<i>Observations</i>	59837	59,621	60,057	57,113
<i>Number of households</i>	25,560	25,506	25,579	25,126
Only female (stayers)				
Migrants are only male	0.104 (0.065)	0.141** (0.064)	0.046 (0.062)	0.081 (0.059)
Migrants are only female	-0.054 (0.105)	-0.098 (0.103)	-0.098 (0.099)	-0.120 (0.096)
Migrants are of both genders	0.255 (0.219)	0.098 (0.213)	0.071 (0.210)	0.168 (0.194)
<i>Observations</i>	33,128	33,005	33,293	31,493
<i>Number of households</i>	14,243	14,217	14,252	13,972
Only male (stayers)				
Migrants are only male	0.160* (0.088)	0.155* (0.088)	0.127 (0.085)	0.152* (0.079)
Migrants are only female	0.135 (0.010)	0.115 (0.099)	0.159* (0.095)	0.136 (0.091)
Migrants are of both genders	0.398* (0.233)	0.123 (0.237)	0.263 (0.235)	0.169 (0.221)
<i>Observations</i>	26,709	26,616	26,764	25,620
<i>Number of households</i>	11,317	11,289	11,327	11,154
Educational level (all stayers)				
Primary edu and below * Migration HH	0.317*** (0.097)	0.230** (0.098)	0.309*** (0.096)	0.285*** (0.090)
Secondary edu * Migration HH	0.0564 (0.051)	0.0725 (0.050)	-0.0135 (0.049)	0.0249 (0.046)
Tertiary education * Migration HH	0.113 (0.098)	0.0756 (0.096)	0.147 (0.093)	0.101 (0.086)
<i>Observations</i>	59,837	59,621	60,057	57,113
<i>Number of households</i>	25,560	25,506	25,579	25,126

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 (only the covariates of interest are reported; full estimates available upon request)

A placebo test: Absence from the household for reasons other than migration

A critical issue in our empirical analysis might be that our findings are not specifically related to international migration but are simply driven by the temporary or permanent absence of a member of

the household for any reason. In *Table 6*, we present a placebo test by including internal migration as well as other reasons for the absence of some members from the household.⁸

Table 6 – Is international migration different from other forms of household members mobility? A placebo test.

	(1) socialavoid	(2) taxavoid	(3) ticketavoid	(4) public good
<i>International Migrants in HH</i>	0.109***	0.097**	0.067*	0.079**
	(0.041)	(0.041)	(0.040)	(0.037)
Internal Migrants in HH	0.017	0.173***	0.037	0.073
	(0.051)	(0.051)	(0.049)	(0.046)
Other reasons for absence HH	-0.058	-0.002	0.018	-0.013
	(0.039)	(0.039)	(0.038)	(0.035)
HH_size	-0.017**	-0.018**	-0.022***	-0.016**
	(0.009)	(0.009)	(0.008)	(0.008)
Married	0.046	0.096***	0.053*	0.055*
	(0.032)	(0.031)	(0.030)	(0.028)
Age	0.035***	0.033***	0.0425***	0.037***
	(0.007)	(0.008)	(0.007)	(0.007)
Age_square	-0.0002***	-4.65e-05	-0.0002***	-0.0001**
	(6.28e-05)	(6.23e-05)	(6.04e-05)	(5.60e-05)
Primary education or lower (dummy)	-0.020	-0.009	-0.013	-0.014
	(0.043)	(0.042)	(0.041)	(0.038)
Tertiary education or higher (dummy)	-0.036	0.026	-0.008	-0.006
	(0.046)	(0.046)	(0.044)	(0.041)
Currently employed	0.025	0.029	-0.017	0.017
	(0.022)	(0.022)	(0.021)	(0.020)
Region_mean GDP	-0.245	-0.370	0.188	-0.135
	(0.343)	(0.340)	(0.330)	(0.306)
HH income (ln of)	0.005**	0.007***	0.008***	0.006***
	(0.002)	(0.002)	(0.002)	(0.002)
Constant	1.660***	1.046***	0.529	1.025***
	(0.396)	(0.393)	(0.381)	(0.354)
<i>Observations</i>	59,837	59,621	60,057	57,113
<i>R-squared</i>	0.002	0.006	0.003	0.004

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 (only the covariates of interest are reported; full estimates available upon request)

Also, these different types of mobility might in principle generate new social contacts that have the potential to affect the attitudes toward free-riding and tax aversion of members left behind. This is particularly true when considering internal migration, although we expect that the change in the social

⁸ Among other reasons for absence from the household, we consider the following: residence in a hospital or nursing home, non-voluntary residence in other places (ex. prison), business travel, military service, etc.

context – as regions within a country share common Institutional and cultural traits – is likely to be less radical compared to international migration and, thus, leads to a lower impact in terms of transfer of values and norms. The results reported in *Table 6* confirm that our findings are indeed specific to international migration. No statistically significant effect is found on our four dependent variables when a member of the household is absent for reasons other than migration. Interestingly, internal migration is found to have a statistically significant and strongly positive effect on the aversion to tax avoidance; exposure to other regions within the country is probably a channel through which individuals are better able to appreciate the fundamental importance of public goods and cooperative behaviour.

5. Conclusive remarks

International migration is a powerful engine of social, economic, and cultural change as it facilitates the circulation of not only tangible resources but also equally important intangible ones. Migrants are vectors of ideas that contaminate and modify the set of information and knowledge on which choices are made and of new models that might potentially change how people perceive social interactions. This paper suggests that international migration can be an important determinant of individual attitudes toward tax compliance and free-riding leading to an increase in pro-social behaviours. We document this effect using individual-level data from a longitudinal survey (Social Diagnosis) carried out in Poland, the most important migrant-sending country within European Union between 2007 and 2015. While existing studies on social remittances in Poland have focused mostly on qualitative analyses (White, 2016) with limited potential to generalization and investigated mostly return migrants – stressing the change in their personal attitudes but also some resistance towards their actions who aim to change their communities upon return (Grabowska and Garapich, 2016) – our study based on a representative survey clearly demonstrates that international migration can induce social change in a large fraction of Polish society. Consequently, this paper demonstrates that a profound change in aggregate tax morale indexes as found in Word Value Survey between 2005 and 2018 can be at least partially explained by social norms transferred by Polish migrants back home.

The panel dimension of the analysis and the richness of information contained in the dataset allows us to conduct an analysis that is akin to a difference-in-difference approach and hence measure the impact of emigration of individuals on the tax morale of their family members who stay put in the home country. The focus of our analysis on non-movers and the evidence that they are affected by migrants from their households is a novel finding in the literature: this implies that social remittances can materialize even without the definite return of the household's members from a foreign country.

Our study brings novel insights into a research area that we believe is important and has not received so far the due attention, but we acknowledge that the Polish emigration experience – although one of the most important of the last decades - may not be fully representative for the experiences of all developing and transitioning economies. Where migrants go, the cultural and institutional proximity between host and home countries is also likely to be important in the cross-border transfer of values and norms of behaviours. In this respect, our study provides little knowledge on the specific role of destinations, given that Polish outmigration has been largely directed toward a group of relatively rich and homogeneous Western European countries.

Consequently, we argue that more studies on different countries and with different data and methodologies would enrich the finding uncovered in this initial contribution on the effect of migration on tax morale in the home country. In particular, more studies applying longitudinal data are needed, and also the transnational activity of immigrants (Grabowska and Engbersen, 2016) should be deeper investigated. This second aspect is of growing importance, as currently with covid-19 pandemic and substantial travel restrictions, the influence of migrants on their families back home might be exerted through electronic/distance channels, such as social media and Internet communicators.

References:

- Alesina, A., Miano A. & S. Stantcheva (2018), Immigration and Redistribution, NBER Working Paper 24733, available at <http://www.nber.org/papers/w24733>
- Alesina, A., Miano A. & S. Stantcheva (2020), Diversity, Immigration, and Redistribution, *American Economic Review: Papers and Proceedings* 110: 329-334.
- Allingham, M.G. and Sandmo, A. (1972) Income tax evasion: A theoretical analysis. *Journal of Public Economics* 1(3-4): 323-338.
- Alm, J. (2019). What motivates tax compliance? *Journal of Economic Surveys*, 33(2), 353-388.
- Alm, J., Martinez-Vazque, J., & Torgler, B. (2006). Russian attitudes toward paying taxes—before, during, and after the transition. *International Journal of Social Economics*. 33(12), 832-857.
- Barsbai, T., Rapoport, H., Steinmayr, A., & Trebesch, C. (2017). The effect of labor migration on the diffusion of democracy: evidence from a former Soviet Republic. *American Economic Journal: Applied Economics*, 9(3), 36-69.
- Becker, G.S. (1968) Crime and punishment – An economic approach. *The Journal of Political Economy* 76(2): 169-217.
- Beine M, Docquier F, & Schiff M (2013). International Migration, Transfers of Norms and Home Country Fertility. *Canadian Journal of Economics*, 46(4):1406-1430.
- Berlinschi, R. (2019). Migration and geopolitical preferences. *Post-Soviet Affairs*, 35(2), 93-121.
- Bertoli S, Marchetta F. (2013). Bringing It All Back Home – Return Migration and Fertility Choices. *World Development* 65:27-40.
- Boly, A., Coniglio, N. D., Prota, F., & Seric, A. (2014). Diaspora investments and firm export performance in selected sub-Saharan African countries. *World Development*, 59, 422-433.
- Brzozowski, J., & Cucculelli, M. (2020). Transnational ties and performance of immigrant firms: evidence from Central Italy. *International Journal of Entrepreneurial Behavior & Research*. Vol. 26 No. 8, pp. 1787-1806.
- Carling, J. (2008). The Determinants of Migrant Remittances.” *Oxford Review of Economic Policy* 24(3): 582-99.
- Clemens, M. A., Özden, Ç., & Rapoport, H. (2014). Migration and development research is moving far beyond remittances. *World Development*, 64, 121-124.

- Daude, C., Gutierrez, H., & Melguizo, A. (2013). What drives tax morale? A focus on emerging economies. *Review of Public Economics*, 207(4), 9-40.
- Docquier, F., & Rapoport, H. (2012). Globalization, brain drain, and development. *Journal of Economic Literature*, 50(3), 681-730.
- Docquier, F., Lodigiani, E., Rapoport, H., & Schiff, M. (2016). Emigration and democracy. *Journal of Development Economics*, 100(120), 209-223.
- Faini, R. (2007). Remittances and the Brain Drain: Do More Skilled Migrants Remit More?, *The World Bank Economic Review*, 21(2): 177-191.
- Górny, A., & Kaczmarczyk, P. (2019). European Migration Transition in the Context of Post-Enlargement Migration from and into Central and Eastern Europe. [in:] C. Inglis, W. Li and B. Khandria, *The SAGE Handbook of International Migration*, Sage: 358-375.
- Grabowska, I. (2018). Social skills, workplaces and social remittances: a case of post-accession migrants. *Work, Employment and Society*, 32(5), 868-886.
- Grabowska, I., & Engbersen, G. (2016). Social Remittances and the Impact of Temporary Migration on an EU Sending Country: The Case of Poland. *Central Eastern European Migration Review*, 5(2). 99-117.
- Grabowska, I., & Garapich, M. P. (2016). Social remittances and intra-EU mobility: non-financial transfers between UK and Poland. *Journal of Ethnic and Migration Studies*, 42(13), 2146-2162.
- Holst E., Schafer A., & M. Schrooten (2012). Gender and Remittances: Evidence from Germany, *Feminist Economics*, Vol. 18(2): 201-229.
- Ivlevs, A., & King, R. M. (2017). Does emigration reduce corruption?. *Public Choice*, 171(3-4), 389-408.
- Jaźwińska, E., & Grabowska, I. (2017). Efekty społecznych przekazów migracyjnych (social remittances) w polskich społecznościach lokalnych. *Studia Socjologiczne* 1(244), 139-164.
- Kountouris, Y., & Remoundou, K. (2013). Is there a cultural component in tax morale? Evidence from immigrants in Europe. *Journal of Economic Behavior & Organization*, 96, 104-119.
- Lago-Peñas, I., & Lago-Peñas, S. (2010). The determinants of tax morale in comparative perspective: Evidence from European countries. *European Journal of Political economy*, 26(4), 441-453.

- León-Ledesma, M., & Piracha, M. (2004). International migration and the role of remittances in Eastern Europe. *International Migration*, 42(4), 65-83.
- Levitt, P. (1998). Social remittances: Migration driven local-level forms of cultural diffusion. *International Migration Review*, 32(4), 926-948.
- Lodigiani, E. & S. Salomone (2020), Migration-induced transfers of norms: the case of female political empowerment, *Journal of Demographic Economics*, 86(4): 435-477.
- Mendelski, M. (2009). The Impact of the EU on Governance Reforms in Post-Communist Europe: A Comparison between First and Second-Wave Candidates. *Romanian Journal of Political Sciences*, (02), 42-64.
- Mishler, W., & Rose, R. (1997). Trust, distrust and skepticism: Popular evaluations of civil and political institutions in post-communist societies. *The Journal of Politics*, 59(2), 418-451.
- Nikolova, M., Roman, M., & Zimmermann, K. F. (2017). Left behind but doing good? Civic engagement in two post-socialist countries. *Journal of Comparative Economics*, 45(3), 658-684.
- Ritsatos, T. (2014). Tax evasion and compliance; from the neo classical paradigm to behavioural economics, a review. *Journal of Accounting & Organizational Change*. 10(2), pp. 244-262.
- Ross, A. M., & McGee, R. W. (2012). A demographic study of polish attitudes toward tax evasion. *Academy of Accounting and Financial Studies Journal*, 16(4), 1-40.
- Spilimbergo, A. (2009). Democracy and foreign education. *American Economic Review*, 99(1):528–543.
- Sztandar-Sztanderska, K. (2009), Activation of the unemployed in Poland: from policy design to policy implementation, *International Journal of Sociology and Social Policy*, 29(11/12): 624 – 636.
- Taylor, J. E., Arango, J., Hugo, G., Kouaouci, A., Massey, D. S., & Pellegrino, A. (1996). *International migration and national development. Population Index*, 181-212.
- Torgler, B. & Schneider, F. (2009). The impact of tax morale and institutional quality on the shadow economy, *Journal of Economic Psychology*, vol. 30(2), pages 228-245, April
- Torgler, B. (2003). Tax Morale in Transition Countries, *Post-Communist Economies*, 15(3), 357-381.
- Torgler, B. (2004). Cross-culture comparison of tax morale and tax compliance: evidence from Costa Rica and Switzerland, *International Journal of Comparative Sociology*, 45(1–2), 17–43.

- Tuccio, M., & Wahba, J. (2018). Return migration and the transfer of gender norms: Evidence from the Middle East. *Journal of Comparative Economics*, 46(4): 1006-1029
- Tuccio, M., Wahba, J., & Hamdouch, B. (2019). International migration as a driver of political and social change: evidence from Morocco. *Journal of Population Economics*, 32 (4): 1171–1203.
- Wahba, J. (2015). Selection, selection, selection: the impact of return migration. *Journal of Population Economics*, 28(3), 535-563.
- Wallace, C., & Latcheva, R. (2006). Economic transformation outside the law: corruption, trust in public institutions and the informal economy in transition countries of Central and Eastern Europe. *Europe-Asia Studies*, 58(1), 81-102.
- Wei, Y., & Balasubramanyam, V. N. (2006). Diaspora and development. *World Economy*, 29(11), 1599-1609.
- White, A. (2016). Social Remittances and Migration (Sub-) Cultures in Contemporary Poland. *Central and Eastern European Migration Review*, 5(2), 63-80.
- White, A. (2019). Migration impact inside-out: stayers, sociology and social remittances. *Journal of Ethnic and Migration Studies*, 1-19. Online first, oi.org/10.1080/1369183X.2019.1691513
- Woolfson, C. (2007). Pushing the envelope: the ‘informalization’ of labour in post-communist new EU member states. *Work, Employment and Society*, 21(3), 551-564.
- WVS (2021), World Values Survey – Online Data Analysis, available at: <http://www.worldvaluessurvey.org/>

Table 7. Description of main variables

Variables	Description
social benefits misuse	Answer to a question how much do you care if someone unjustly obtains unemployment benefit (1 - min, 5 max)
tax avoidance	Answer to a question how much do you care if someone pays lower taxes than he/she should? (1 min, 5 max)
ticket avoidance	Answer to a question how much do you care if someone avoids paying the fares for the public transport? (e.g. buses, trains 1 min, 5 max)
public good	Calculated from a combination of 3 indexes of tax morale ((taxavoid+ticketavoid+socialavoid)/3)
migrants in HH	Dummy for having at least 1 migrant in household at time t
total no of migrants in HH	Total number of migrants in household at time t
HH size	Size of the household (number of persons residing in HH)
married	Dummy for marital status
age	Age of the individual (years)
primary education or lower	Dummy when individual has primary education completed or lower
secondary education	Dummy when individual has secondary education completed
tertiary education	Dummy when individual has tertiary education completed
currently employed	Dummy when individual is employed at time t
regional mean GDP	Index of regional GDP where household is located as % of country mean
ln of income	natural logarithm of HH income