Comparing tax compliance intentions of immigrants and native-born citizens: A fiscal citizenship perspective

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Abstract

Increased migration is a major contemporary trend in many developed nations. Political science research suggests that native-born citizens tend to have misperceptions about the fiscal situation and behaviours of immigrants, which may include immigrants' tax compliance intentions. We use a fiscal citizenship framework to investigate whether and why tax compliance intentions differ between immigrants and native-born citizens. Our investigation uses a cross-national survey (n=4,666) of adult taxpayers in three countries with high recent immigrant populations (Canada, Germany, and the United Kingdom). Overall, we find that both groups have high tax compliance intentions, although these intentions are higher for native-born citizens. We find that having a voice about tax policy increases tax compliance intentions for immigrants but not native-born citizens. The results also show that both groups feel obligated to pay taxes but generally do so reluctantly; however, these associations are significant for native-born citizens only, suggesting that immigrants have less potent attitudes about paying taxes than native-born citizens. We also find that tax compliance intentions are negatively correlated with corruption levels of the immigrants' previous country and positively correlated with their duration of host country stay. These findings provide insights for government bodies about ways to improve tax compliance.

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1. Introduction

Close to 300 million people worldwide are immigrants, that is, individuals who have changed their country of residence.[1] Globally, immigration is steadily increasing, especially from developing to developed countries (IOM, 2020).[2] Anti-immigrant sentiment is also increasing across developed nations (Brady & Finnigan, 2014; Card et al., 2012; Simonsen, 2021; Tripathi, 2022), perhaps because immigration in Western democracies is an issue "prone to misperceptions" from native-born citizens (Lutz & Bitschnau, 2023, p. 674). Misperceptions about immigrants' reasons for leaving their countries of origin include the view that they do so to access tax-funded welfare benefits in Western democracies (Dixon et al., 2019; Huber & Oberdabernig, 2016; Zimmerman, 2019). This assumption contributes to another false belief: that immigrants are a strain on the welfare system of host countries (Rodriguez-Justicia & Theilen, 2022). Unless corrected with empirical evidence, misperceptions about immigrants and their fiscal perspectives can hamper discourse around immigration politics (Lutz & Bitschnau, 2023).

One context in which immigration politics has seldom been examined is tax compliance. To the best of our knowledge, no empirical evidence exists which measures the tax compliance intentions of immigrants vis-à-vis native-born citizens. Providing empirical evidence about this ethical issue is important to either correct misperceptions if immigrants are generally tax

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[1] In this research, we adopt a broad definition of 'immigrant', per the United Nations (https://www.un.org/en/global-issues/migration), and do not distinguish between types of immigrants, such as economic immigrants versus refugees.

[2] Overall migration levels in developed countries is nearly double migration levels in developing countries (United Nations, 2020).

compliant, or to inform tax authorities if immigrants have relatively weak tax compliance attitudes compared to a native-born population.

Considerable research exists about individuals' willingness to be tax compliant (for reviews, see Alm, 2019; Kirchler, 2007; Slemrod, 2019). Tax compliance research uses two primary paradigms (Alm & Torgler, 2011; Alm et al., 2012). One is a deterrence paradigm, in which taxpayers will be compliant if they think the economic losses from tax evasion (penalties) are more likely than economic gains from tax evasion. The other is a socio-psychological paradigm, in which non-economic considerations, such as fairness and social norms, positively influence tax compliance intentions. Of these, the socio-psychological paradigm is arguably more powerful at explaining why most people are tax compliant (Kirchler, 2021). However, both paradigms assume homogenous populations of taxpayers and tend not to recognize heterogeneity of population clusters, such as immigrants. Compared to native-born citizens, immigrants may have different fiscal attitudes, which can include tax compliance attitudes, perhaps due to dissatisfaction with their host country's macroeconomy (Just & Anderson, 2015) or because immigrants may lack a sense of social belonging in host countries (Simonsen, 2017).

Tax research about immigrants is sparse but shows that, in the United States, owner-managed corporations with immigrant shareholders from countries with relatively high corruption scores versus low corruption scores are more likely to commit corporate tax evasion (DeBacker et al., 2015). It also shows that differences in tax rates across European countries can affect levels of immigration (Kleven et al., 2020). Like tax research, ethics research about immigrants' attitudes is limited. Jaffe et al. (2018) and Swaidan et al. (2006) examined how acculturation impacts ethical attitudes of immigrants. Jaffe et al. (2018) found that ethical perceptions of immigrant students in Israel were influenced by both home and host cultures. Swaidan et al. (2006) examined consumer

ethics amongst United States immigrant populations and found that immigrants who wanted to retain their original culture rather than adopt their host country's culture were comparatively less tolerant of unethical consumer practices. Leung et al. (2009) examined the marketing ethics of Chinese migrants and found that social identity influenced moral intentions. And, in Italy, Ravenda et al. (2021) found that immigrant population clusters are positively associated with labour tax avoidance practices adopted by firms. Overall, while there are some issue-specific and nuanced studies suggesting the presence of unethical tax attitudes amongst immigrants, there is a broader research gap in the tax compliance and immigrant ethics literatures related to how the tax compliance attitudes of immigrants and native-born citizens may differ.

To address this gap, we conduct a survey across a sample from three countries with high levels of immigration (Canada, Germany, and the United Kingdom (UK)).[3] Our sample size is 4,666 adults; of these, 492 (just over 10%) are immigrants. Using exploratory factor analysis, our survey develops and tests a theoretical model of fiscal citizenship from political science literature about citizenship and its dimensions (Bloemraad et al., 2008; Delanty, 1997; Isin & Turner, 2002; Van Bochove & Rusinovic, 2008). Fiscal citizenship is a normative construct referring to taxation as a social contract between the state and its citizens (Freund, 2019; Mehrotra, 2008, 2015; Zelenak, 2013). Delanty (1997, p. 288) observes, "If citizenship is centrally concerned with defining the relationship between the individual and the state, immigrants, it may be suggested, as newcomers to a polity, are the test case of citizenship." Thus, we expect that fiscal citizenship can provide a lens through which to view immigrants' tax compliance intentions as part of their social contract between themselves and their new country.

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[3] These three countries represent three of the eight countries with the highest number of immigrants globally (DeDavis 2023; World Population Review, 2023).

Our resulting model of fiscal citizenship has four primary factors: fiscal citizen *voice*, fiscal citizen *contribution*, fiscal citizen *social exclusion*, and fiscal citizen *tax compliance*. *Voice* refers to taxpayers' opportunities to express concerns and participate in decision-making processes. The primary factor of *voice* has secondary factors of *voting* and *say* (i.e., any other type of voice other than voting). *Contribution* refers to paying taxes to fund government programs and services. The primary factor of *contribution* has secondary factors of *obligation* and *willingness*. *Social exclusion* refers to restricting who taxpayers believe should receive government benefits and services. Finally, *tax compliance* refers to taxpayers' intent to cooperate with tax laws. That our model contains tax compliance is noteworthy as it suggests that the other primary factors in the model are associated with tax compliance and may be antecedents of tax compliance.

To specifically address our research objective, which is to examine how the tax compliance attitudes of migrants and native-born citizens may differ, we model paths from each of the *voice* subfactors (*voting* and *say*), *contribution* subfactors (*obligation* and *willingness*), and *social exclusion* factor to the *tax compliance* factor, as well as conduct structural equations modeling on two subsamples, one with immigrants and the other with native-born citizens. Of the five associations with tax compliance (involving *voting*, *say*, *obligation*, *willingness*, and *social exclusion*), three differ significantly across subsamples. If taxpayers' voice is in the form of a vote, tax compliance increases (decreases) significantly for immigrants (native-born citizens). Thus, the *voting* subfactor is directionally dissimilar for both subsamples. Moreover, although the *obligation* and *willingness* factors are directionally similar for both subsamples, there are significant associations with compliance for native-born citizens only. Thus, the strength of these associations differs between immigrants and native-born citizens.

We also compare the overall tax compliance scores of native-born citizens and immigrants and find that compliance is higher for native-born citizens (mean of 3.89 / 5) than for immigrants (mean of 3.73 / 5). The compliance mean for native-born citizens is significantly higher than for immigrants (t=3.00, p<0.01, one-tailed). Nevertheless, both groups have relatively high tax compliance intentions. When we perform the same analysis by country, we observe a consistent pattern in the means; however only the difference between native-born and immigrant populations in the UK is not statistically significant. We also investigate whether the tax compliance intentions of immigrants are influenced by the corruption level of their country of origin (cf. DeBacker et al. 2015) as well as how long they have been resident in their host country (cf. Jaffe et al. 2018; Swaidan et al. 2006). Tax compliance intentions are significantly correlated with corruption level, such that lower corruption levels in the country of origin are correlated with higher tax compliance intentions in the host country. We also find a significant correlation between years living in a host country and tax compliance intentions, such that a longer duration in a host country is correlated with higher tax compliance intentions.

Our study contributes to the tax ethics literatures on tax compliance and immigrant attitudes by introducing the concept of fiscal citizenship and developing reliable and valid measures of dimensions of fiscal citizenship. We also extend socio-psychological research on tax compliance using the theoretical model of fiscal citizenship to identify specific antecedents of tax compliance. Our model extends existing socio-psychological models of tax compliance (such as the slippery slope framework; Kirchler et al., 2008) by identifying additional antecedents of tax compliance which have not yet been identified (voting, say, and social exclusion). Our finding that the mean compliance score is higher for native-born citizens than for immigrants, and our finding that not all of the antecedents of tax compliance in our model influence immigrants and native-born citizens

similarly, shows that compliance intentions can differ across these groups. In turn, these findings extend tax ethics research about tax compliance by suggesting the importance of considering population clusters in tax compliance research.

Our paper is organized as follows. In the next section, we set out our theoretical model of fiscal citizenship and describe the scale development procedures. Since our theoretical model contains tax compliance intentions as a standalone dimension of fiscal citizenship, we then undertake an exploratory structural equations analysis and model paths from the other constructs in the model to tax compliance. After analyzing the direction and significance of the path coefficients, we conclude with a discussion of the implications of our findings for tax compliance researchers and tax policy makers.

2. Scale development of the fiscal citizenship construct

In this section explain the survey for our empirical work comparing tax compliance attitudes for immigrants and native-born citizens. We begin by discussing citizenship broadly and then in a fiscal context.

Citizenship is "usually defined as a form of membership in a political and geographic community" (Bloemraad et al., 2008, p. 154). The notion of citizenship often refers to specific rights and obligations allocated to individuals through the authority of a nation-state. Citizenship in many cases has entailed political and social struggles for recognition and economic redistribution that have occurred over long periods of time (Isin & Turner, 2002).

Conceptually, citizenship is often disaggregated into four dimensions: rights, duties, political and other forms of participation in society, and a sense of belonging or identity (Bloemraad et al., 2008; Delanty, 1997; Van Bochove & Rusinovic, 2008). Citizenship as a right means that a citizen is a bearer of rights which are held against the state, and that the state is

obligated to protect those rights. Citizenship as a duty means that a citizen is a law-abiding and responsible citizen. Citizenship as participation is an oppositional concept which emphasizes politically motivated action against the state. Citizenship as belonging is an affective dimension referring to a sense of shared solidarity with others.

Literatures have emerged exploring several context-specific forms of citizenship, such as multicultural citizenship and ecological citizenship, in which these four dimensions are applied selectively for use in the specific context (Isin & Turner, 2002). Fiscal citizenship is another context-specific form of citizenship referring to the role of taxes in the social contract between the state and its citizens (Freund, 2019; Mehrotra, 2008, 2015; Zelenak, 2013). A tax is an obligation to contribute money to the state that is imposed on citizens by the state. Freund (2019, p. 126) defines fiscal citizenship as, "a social contract between the state and a class of actors whereby rights are exchanged for obligation in the form of tax liabilities."

There are several ways in which taxation is central to this social contract between citizens and the state. One is that tax is one of the most universal and persistent manifestations of the relationship that individuals have with their government. Second, there is always the possibility of tension between taxpayers and their government. The potential for conflict means that the citizen-state relationship will always be somewhat precarious. Third, taxation is the source of financial resources for the state. As such, it differs from other sacrifices that the state demands from its citizens, such as compliance with traffic laws (Martin et al., 2009). Since social order depends on the state, and since the taxpayer's decision to evade or resist taxation may challenge the existing social order, the notion of fiscal citizenship may help explain how this dynamic between citizens and the state can be balanced.

Previous research on fiscal citizenship has been normative rather than empirical (e.g., Freund, 2019; Guano, 2010; Makovicky & Smith, 2020; Morgen & Erickson, 2017; Roitman, 2007; Sparrow, 2008). In contrast, we use the concept and measures of fiscal citizenship empirically to compare the tax compliance attitudes of immigrants and native-born citizens. We set out below how we developed a survey that included a comprehensive list of items related to the four underlying dimensions of citizenship for use in the tax compliance context. We then outline how we administered our survey to a sample of immigrant and native-born taxpayers and analyzed the results for reliability and construct validity. Each of these steps is described in turn.

2.1 Development and administration of the survey

In developing our survey, we began by describing elements of each of the four dimensions of citizenship that could be applicable in a fiscal context, drawing on established research (Bloemraad et al., 2008; Delanty, 1997; Van Bochove & Rusinovic, 2008). We then developed a list of scale items used to measure each of the four dimensions in a fiscal context. This adaptive approach has been followed in other empirical citizenship research (e.g., Wu et al., 2022) as well as other empirical tax research (e.g., Bobek et al., 2013; Farrar et al., 2020).

We surveyed a taxpayer population with the 61-item scale (see Appendix A). We employed a market research firm (Dynata) and requested a representative sample of adults from three countries: Canada, Germany, and the United Kingdom.[4] Using samples from these three countries allow us to examine tax compliance across contexts with a significant number of immigrants from around the world. Sampling from three countries with different political structures and histories

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[4] Respondents in any of the three countries could choose to respond to the survey in English, French, or German. The survey was originally written in English; pairs of two academics whose native languages were French and German each translated the survey into French and German, respectively. Canada has two official languages (English and French), so we included a French version.

increases the generalizability of our results. The adults in the sample had to be older than age 18 and there was no upper age limit. We received 4,666 complete responses (1,547 from Canada; 1,578 from Germany; 1,541 from the United Kingdom). Respondents were incentivized by the firm and were sent an invitation email asking them to complete an online survey about their opinions on taxes.[5] Interested respondents clicked on a link and were taken to the online survey. The survey consisted of demographic questions followed by the 61 items pertaining to fiscal citizenship. These items were presented in random order.

Demographic questions pertained to gender, age, whether respondents were born in Canada/Germany/UK, ethnicity, socioeconomic status, education, current employment status, political orientation, tax preparer, and knowledge that there was a tax authority in Canada/Germany/UK. For any respondent not born in Canada/Germany/UK (i.e., immigrants), we asked when they moved to Canada/Germany/UK, their country of birth, and their reason(s) for immigration. These demographic questions are contained in Appendix B.

Table 1 reports demographic characteristics for the sample. Overall, the sample has an average age of 50.5 years and 50.1% of the sample is female. 10.5% of the sample consists of immigrants, representing 92 countries of birth. Given differences in national currencies, we asked a scale-based question to gauge respondents' socioeconomic status. We also collected data about respondents' employment status and education. Using age and socioeconomic status as demographic indicators, our sample of taxpayers in each country appears reasonably representative of the broader population in each country.[6]

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[5] The payment to participants was approximately $6 Cdn each. Some participants received a cash payment from Dynata whereas others are part of a loyalty program and received points specific to the firm for completing a survey. These points can be redeemed for prizes.

[6] The median ages in Canada, Germany, and the United Kingdom in our sample are 52 years, 53 years, and 49 years, respectively (see Table 1). The actual median ages in Canada, Germany, and the United Kingdom are 41.8 years, 47.8 years, and 40.6 years (https://www.worlddata.info/average-age.php). Our sample is slightly older than the population in each of these countries, perhaps because survey participants had to be at least 18 years old. Each of the

[insert Table 1 about here]

2.2 Analysis of reliability and construct validity

Our statistical analysis required three steps. First, we use exploratory factor analysis to identify the unique dimensions of fiscal citizenship. Second, we determine the corresponding measures of fiscal citizenship and assess their validity and reliability. Third, we check whether the model of fiscal citizenship is similarly robust for immigrants versus native-born citizens. We describe each step in the following subsections.

2.2.1 Identifying the dimensions of fiscal citizenship

We use exploratory factor analysis to identify the underlying dimensions of fiscal citizenship. Following Hair et al. (2013), we use a common factor approach to identify the number of dimensions comprising the fiscal citizenship construct. We identify four factors with eigenvalues greater than 1. We also visually examine a scree plot to verify that the line connecting the eigenvalues (on a y-axis) and the number of factors (on an x-axis) begins to flatten after the fourth factor, which supports a quadratic factor structure. The scree plot is presented below in Figure 1. These four dimensions are fiscal citizen *voice* (measured with 7 items), fiscal citizen *contribution* (measured with 6 items), fiscal citizen *social exclusion* (measured with 4 items), and fiscal citizen *tax compliance* (measured with 2 items).

[insert Figure 1 about here]

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three countries are ranked as 'high income' countries by the World Bank (https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html), which is the highest of four possible categories (the others being 'low income', 'lower middle income', and 'upper middle income'). Our mean scores of at least 6.0/10 for each country are consistent with a population with generally higher incomes.

We use oblique rotation (direct oblimin) to allow all factors to correlate. All items comprising the four dimensions have factor loadings of at least 0.35, which is the minimum factor loading required for statistical significance at the 0.05 level in a sample size of at least 250 (Hair et al. 2013). All but two of the items in the model have factor loadings of at least 0.60, which is strong (Osborne & Costello, 2005).

As suggested by Kline (2023), we examine goodness-of-fit of the model using the model chi-square, the root mean square error of approximation (RMSEA), and the Bentler comparative fit index (CFI), supplemented by the Tucker-Lewis Index (TLI).[7] If the model is a good fit to the data, the chi-square statistic should be significant ($p < 0.05$), the RMSEA should be at or below 0.06, and the CFI and TLI should be at least 0.90 (Kline, 2023). In our initial model, the chi-square statistic ($\chi^2 = 2867$, df = 146) is significant ($p<0.01$), the RMSEA is 0.063, and the CFI and TLI are 0.924 and 0.902, respectively. Thus, the initial model appears to be well-fitting.

We also check if there are second-order factors by examining the items that load on each construct. For fiscal citizen *voice*, we observe that three items were specific to voting whereas four items were specific to non-democratic voice. Thus, it is possible that there are two subdimensions of *voice* (*voting* and *say*; see James & John, 2021). For fiscal citizen *contribution*, we observe that three items pertained to whether someone should pay taxes and three items pertained to a desire to want to pay taxes (*obligation* and *willingness*). When we model fiscal citizenship using these pairs of subdimensions, the model fit is significantly improved using a chi-square difference test ($p < 0.01$). The overall model fit statistics also improve, as the chi-square statistic ($\chi^2 = 2657$, df = 142) is significant ($p<0.01$), the RMSEA is 0.062, and the CFI and TLI are 0.930 and 0.906,

[7] Per Hu & Bentler (1999), the TLI as a supplemental index is preferable for large sample sizes. Kline (2023) also recommends the SRMR (standardized root mean square residual). However, we used AMOS software which does not report the SRMR.

respectively. Thus, we conclude that fiscal citizenship is better represented as four primary dimensions, with two of these containing pairs of secondary dimensions.[8]

Our theoretical model is presented in Figure 2. The items capturing each dimension are presented in Table 2.

[insert Figure 2 about here]

[insert Table 2 about here]

2.2.2 Assessment of reliability and validity

To establish the robustness of our measures, we assess reliability, convergent validity, and discriminant validity. Each is discussed in turn.

Reliability refers to the internal consistency of the scale items and is most commonly assessed using the Cronbach's alpha coefficient. Cronbach's alpha coefficients of 0.7 are considered minimally acceptable and Cronbach's alpha coefficients of 0.8 are considered excellent (Nunnally, 1978). Table 2 shows all Cronbach's alpha coefficients for each of our scales. All measures and sub-scales for the overall sample exceed the minimum threshold for reliability (Nunnally, 1978), and all primary dimensions have Cronbach's alpha coefficients of greater than 0.8. Thus, we conclude that our scales and subscales are sufficiently reliable.

Convergent validity refers to whether similar constructs with dissimilar measures are nonetheless alike. To assess convergent validity, researchers should examine the correlations among the underlying items (Hair et al., 2013). If convergent validity is established, there should

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[8] For the tax compliance construct, we considered a three-item scale with the third item, "I like the idea of cryptocurrency because it is difficult to trace". The Cronbach alpha of this three-item scale is 0.84. When we perform the same analyses as presented with this three-item scale, the results do not change significantly from what is presented. We use a two-item scale because the item about cryptocurrency does not clearly link to tax return reporting.

be a statistically significant correlation among the items for each primary and secondary dimension. As shown in Table 3, we checked the inter-item correlations for each primary and secondary dimension and find that all are positive and significant at the 0.01 level. Therefore, convergent validity is established for the items for both primary and secondary dimensions.

[insert Table 3 about here]

Discriminant validity refers to whether sub-constructs are distinct from each other despite being part of the same overall construct. To assess discriminant validity, researchers can use chi-square difference tests in which they constrain the covariance among each pair of dimensions to 1.0, and then compare the χ^2 statistic from the constrained model to the comparable statistic from the unconstrained model (Garver & Mentzer, 1999). If the constrained and unconstrained models differ significantly, discriminant validity is established. There are statistically significant differences – at the 0.05 level – for all chi-square differences for all pairs of primary and secondary dimensions (untabulated). Thus, discriminant validity is established for our measures of fiscal citizenship.

Overall, these results provide evidence to support the reliability and validity of the 19 items underlying the dimensions of fiscal citizenship. As such, they establish the robustness of the measures.

2.2.3 Comparison of fiscal citizenship model between immigrants and native-born citizens

As we apply the model of fiscal citizenship to compare immigrants and native-born citizens, it is important to check that the model is robust for both subsamples. To this end, we split the sample between immigrants (n=492) and native-born citizens (n=4,174) and compare the resulting model fit statistics with the full sample. As shown in Table 4, Panel A, regardless of whether the split sample contains native-born citizens or immigrants, the model fit statistics

continue to show well-fitting models, as there are significant chi-square statistics (p < .01), an RMSEA of close to 0.06, and CFI and TLI indices above or almost above 0.9. Thus, the initial fiscal citizenship model is robust when the sample is split.

[insert Table 4 about here]

As shown on Table 2, we also conduct reliability analysis for the internal consistency of the scales for both subsamples. The Cronbach's alpha coefficients for each of the scales or sub-scales are at least 0.7, which indicates sufficient reliability (Nunnally, 1978).

For both subsamples we assessed convergent validity by examining the correlations among the items for each primary and secondary dimension. All inter-item correlations for both samples were positive and significant at the 0.01 level (not tabulated). Therefore, convergent validity is established for the items for both primary and secondary dimensions across the native and immigrant samples. Further, for both subsamples we assessed discriminant validity using a chi-square difference test after constraining the covariance to 1.0 between each pair of primary and secondary dimensions. As before, we find significant chi-square difference tests (at the 0.05 level) for all pairs of dimensions for both native-born citizens and immigrants (not tabulated). Thus, discriminant validity is established for both subsamples.

2.2.4   Additional model robustness tests

As shown in Table 4, Panel B, we also check the model fit statistics when we segment the sample by respondent country (Canada, Germany, and the United Kingdom). The model fit statistics by respondent country are all well-fitting, which provides further evidence of the model's robustness.

As another model robustness assessment, we segment the sample by older and younger respondents. The median age of the overall sample is 52 years. As shown in Table 4, Panel C, the

model fit statistics are nearly identical for the younger sample (anyone below the median age) and the older sample (anyone at or above the median age). These results further emphasize the robustness of the theoretical model.

3. Structural equations analysis

Recall that we set out to investigate if and why immigrants are willing to be tax compliant and how their willingness to be tax compliant may differ from native-born citizens. We use the concept of fiscal citizenship to address these issues and, in our scale development process outlined in the previous section, discovered that tax compliance is part of the fiscal citizenship construct. As our model shows second-order factors of voting and say (related to voice), second-order factors of obligation and willingness (related to fiscal contribution), and the first-order factor of social exclusion (related to government benefits recipients) could each be antecedents of tax compliance. It is also possible that there could be different relationships and additional relationships amongst these factors, but our purpose is to investigate tax compliance intentions.

To investigate if the other constructs in the model are antecedents of tax compliance intentions is an exploratory undertaking as we do not have *a priori* theory or empirical evidence to predict associations and why they may be similar or different for immigrants vis-à-vis native-born citizens.

To determine if the other constructs in the model are antecedents of tax compliance intentions, and whether the associations are similar or different for both subsamples, we conduct structural equations analysis and model paths from each of the *voting, say, obligation, willingness,* and *social exclusion* factors to the *tax compliance* factor on two subsamples, one with immigrants (n=492) and the other with native-born citizens (n=4,174). We reverse-coded the compliance items to make the interpretation of our results easier. The items were originally worded in such a way

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that higher scores indicated a greater willingness to be non-compliant. Reverse-scoring these items means that higher scores indicate a greater willingness to be compliant.

As shown in Figure 3, we report the path coefficients, and the significance of the path coefficient for each of the hypothesized paths for both subsamples. To streamline the reporting of the structural paths, in Figure 3 we show simplified constructs without the underlying items.

[insert Figure 3 about here]

For both subsamples, all paths are significant, except for the *obligation* and *willingness* paths for immigrants. However, these paths are directionally the same as those for native-born citizens. The only other difference across subsamples is that the *voting* path is positively associated with tax compliance for immigrants, but negatively associated with tax compliance for native-born citizens. Overall, there are convergent results across both subsamples except for the direction of the voting-tax compliance association and the strength of the obligation-tax compliance and willingness-tax compliance associations. Both groups will increase their compliance if individuals in their host country are not excluded from welfare benefits and if individuals are not given a non-voting voice in tax policy. Both groups have a moral obligation to be tax compliant but still do not want to pay taxes; yet these associations are significant for native-born citizens only, suggesting that obligation and willingness attitudes amongst immigrants are not as strong.

Together, these results suggest that there are some differences in why immigrants may be willing to be tax compliant compared to native-born citizens. These differences relate to the potential to vote for tax policy changes as well as the extent of moral obligation and willingness to pay taxes.

Supplemental analysis

To provide additional insight into the tax compliance intentions of migrants versus native-born citizens, we refer to the immigrant ethics literature about acculturation. As DeBacker et al. (2015) found that owner-shareholders from high corruption countries were more likely to engage in corporate tax evasion than their counterparts from low corruption countries, it is possible that corruption levels in home countries could impact immigrants' tax compliance intentions more broadly. As Jaffe et al. (2018) and Swaidan et al. (2006) found that ethical attitudes of immigrants in host countries can be acculturated over time, it is possible that the length of time immigrants have resided in a host country could influence their tax compliance intentions.

Before investigating these possibilities, we first compare the mean tax compliance intentions of immigrants and native-born citizens. The mean tax compliance intentions for the immigrant subsample is 3.73 out of 5, and for the native-born subsample is 3.89 out of 5. The compliance mean is significantly greater for the native-born subsample than for the immigrant subsample (t=3.00, p<0.01, one-tailed).

When we do the same analysis by country, we find a similar pattern of means. The mean tax compliance intentions for the immigrant subsample in Canada, Germany, and the United Kingdom is 3.79/5, 3.63/5, and 3.68/5, respectively. For the native-born subsample, the compliance means are 3.94/5, 3.93/5, and 3.81/5. Using one-tailed t-tests, these differences in means are significant (at the 0.01 level) for the Canada and Germany sample. The difference in means approaches significance for the United Kingdom sample (p=0.13). Thus, the difference in compliance intentions across both subsamples is unlikely to be attributable to country-specific differences.

Next, we investigate whether compliance intentions for immigrants are correlated with the corruption levels in their country of origin. We measure corruption using the Corruption Perception Index (CPI) for each country, similar to DeBacker et al. (2015). The Corruption Perception Index assigns a score of 0 to 100 to each country, where lower scores indicate higher levels of corruption. Thus, a negative correlation between CPI and tax compliance intentions would indicate that higher tax compliance intentions are correlated with lower country-level corruption, as might be expected from DeBacker et al.'s (2015) results.

We use 2009 CPI indices for our analysis as the immigrants in our sample have lived in their current country for a median period of 20 years. Moreover, choosing an older CPI score better matches the extent of corruption when the immigrant left their country of origin than a CPI score from today would.[9] Canada, Germany, and the United Kingdom have 2009 CPIs of 87, 80, and 77, respectively, indicating relatively low levels of corruption. We assign a CPI score to each country of origin of each immigrant in our sample.[10] For the sample of immigrants (n=492), the Pearson correlation coefficient is negative and significant (-0.19, $p<0.01$). This finding is generally consistent across the three countries in our sample, as the correlation coefficient is negative and significant ($p<0.01$) in each country, except for Germany, where the coefficient has a p-value of 0.14. Thus, the corruption level of immigrants' country of origin may have an influence on immigrants' tax compliance intentions, such that their tax compliance is higher (lower) if they come from a country with relatively low (high) levels of corruption.

Finally, we investigate whether immigrants' length of stay in their host country is correlated with their tax compliance intentions. In our survey, we asked "In which year did you

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[9] Corruption scores are available at https://www.transparency.org/en/cpi/2022. The corruption scores for all countries have generally remained stable from 2009 through 2023.

[10] 7 immigrant respondents did not provide a country of origin. Our analysis is conducted on the 485 immigrants who provided their country of origin, which represent 92 countries.

move to [Canada / Germany / the United Kingdom]?" We subtracted the year in which the survey was administered (2023) from this answer to determine the length of residency. For the sample of immigrants (n=492), the Pearson correlation coefficient between length of residency and tax compliance intentions is positive and significant (+0.29, $p<0.01$). When we do the same analysis at the country level, all coefficients remain positive and significant ($p<0.01$). These results suggest the possibility of "tax acculturation", that is, that the favourable tax norms in each of the three countries may have a positive influence on immigrants' tax compliance intentions (cf. Bobek et al., 2013).

4. Discussion and Conclusion

We sought to understand why immigrants are tax compliant and whether their attitudes in this context differ from those of native-born citizens. This issue is motivated by political science research on anti-immigration attitudes, which suggests that fiscal misperceptions about immigrants may exist, which could include their tax compliance attitudes. To provide empirical clarity around potential misperceptions about immigrants' tax compliance attitudes, we conduct a survey in three countries with high levels of immigration. We develop a model of fiscal citizenship, which views taxation as a social contract between the state and its citizens, including immigrants (Delanty, 1997; Freund, 2019; Mehrotra, 2008, 2015; Zelenak, 2013).

Empirical tests reveal a four-factor model of fiscal citizenship. One of these factors is tax compliance intentions. Accordingly, we explore whether the other three factors in the model (*voice, contribution, social exclusion*) may be antecedents of tax compliance intentions. As the voice and contribution factors are second-order factors, each with two subfactors (*voting* and *say* for *voice*; *obligation* and *willingness* for *contribution*), our model has five possible antecedents of

tax compliance intentions. Thus, we model paths between each possible antecedent and tax compliance intentions.

We find that all antecedents are significant predictors of tax compliance for native-born citizens. For immigrants, all antecedents except obligation and willingness are significant predictors of tax compliance, although these paths are directionally the same for immigrants as for native-born citizens. Moreover, the voting path has a positive (negative) association with tax compliance for immigrants (native-born citizens). The remaining paths are similar (directionally, and in terms of statistical significance) for both immigrants and native-born citizens. Thus, using a fiscal citizenship perspective, we find that tax compliance intentions are not influenced identically for immigrants as for native-born citizens.

In supplemental analysis, we find that immigrants are generally tax compliant, as they have a mean compliance score of 3.73 out of 5, where higher scores indicate higher compliance. This result should clarify potential misperceptions about immigrants' tax compliance intentions. Nevertheless, this score is significantly less than the mean compliance score for our native-born sample, which has a mean compliance score of 3.89 out of 5 and suggests that immigrants may be less tax compliant than the native-born population. Possible reasons for the lower tax compliance of immigrants may be due to high corruption levels in their home countries and a comparatively shorter length of residency in host countries, since corruption levels and length of residency are significantly correlated with immigrants' tax compliance intentions. As immigrants reside longer in their host countries, favorable social norms around taxation may have a positive influence on their tax compliance intentions.

A practical implication of these findings for immigration authorities could be to provide tax education for immigrants. In particular, immigrants who enter a low-corruption country from

a high-corruption country may need to be educated about taxes, although a tax education effort should be applied universally to all immigrants for consistency. Increasing immigrants' tax literacy could narrow the compliance gap between immigrants and native-born citizens. Increasing immigrants' tax literacy could also strengthen their moral obligation to be tax compliant.

For tax authorities, our findings suggest that increasing taxpayers' voices in the creation of its tax policy will be generally ineffective in increasing tax compliance, notwithstanding the favourable path between voting and tax compliance for native-born citizens. Furthermore, research shows that immigrants tend not to vote to the same extent as native-born citizens, perhaps because of language barriers, having experienced anti-democratic structures in their home countries, or because of unwarranted optimism towards "the west" (Adamson, 2007). Thus, even if immigrants were given a vote on tax policy, the likelihood that they would vote at a high rate is questionable. Tax authorities are concerned with procedural fairness as part of tax administration (Alm & Torgler, 2011), but our results suggest that voice around tax policy and the process of selecting tax administrators are not important to taxpayers and may actually reduce tax compliance. Instead, procedural fairness around tax reassessments seems to matter more to taxpayers (Farrar et al. 2020; Niesiobedzka & Kolodziej, 2019).

As with all behavioural research, our study has limitations. It was tested using taxpayers from Canada, Germany, and the United Kingdom. Given the relatively small sample size of immigrants, we caution that these results are preliminary. We encourage future research using taxpayers from other developed countries with sizeable immigrant populations. To the extent that taxpayers in other countries differ in meaningful ways from taxpayers in these three countries, or to the extent that there were other taxpayers in the countries we sampled from who did not participate because of a language barrier, further research can extend our understanding of our

theoretical model. Second, participants in our study provided tax compliance intentions rather than actual compliance behavior. While it is important to distinguish intentions from behavior, there is strong empirical support (Sheeran, 2002) for psychological models holding that an individual's intention is the strongest predictor of an individual behavior.

Our model of tax compliance, grounded in political science literature, differs from other models of tax compliance, such as the slippery slope framework (Kirchler et al., 2008), because our model does not include any interactions with tax authorities (as would be found with an audit or information-seeking behaviour model) or attitudes towards tax authorities (such as trust). Our model suggests that tax compliance is a complex issue that cannot be entirely explained by one model. Nevertheless, we encourage extensions of this research, such as by synthesizing our model and other models of tax compliance. We also encourage tax ethics researchers to consider other relevant population clusters to determine if tax compliance attitudes may differ from those we uncovered among our sample.

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Table 1 – Demographic statistics of full sample

	Full sample	Canada	Germany	United Kingdom
Gender	Male = 2,314 Female = 2,340 Other = 10 Missing = 2 n=4,666	Male = 767 Female = 774 Other = 5 Missing = 1 n=1,547	Male = 786 Female = 789 Other = 3 Missing = 0 n=1,578	Male = 761 Female = 777 Other = 2 Missing = 1 n=1,541
Age in years	50.5 years (mean) 52.0 years (median)	50.8 years (mean) 52.0 years (median)	51.2 years (mean) 53.0 years (median)	49.5 years (mean) 49.0 years (median)
Immigrants[11]	n=492	n=296 (19.1%)	n=89 (5.6%)	n=107 (6.9%)
Socio-economic status (mean)[12]	6.2 / 10	6.1 / 10	6.4 / 10	6.0 / 10
Employment status	Full-time = 2,011 Part-time = 538 Self-employed = 203 Retired = 1,228 Unpaid worker = 165 Student = 128 Unemployed = 215 Other = 167 Missing = 11	Full-time = 654 Part-time = 139 Self-employed = 80 Retired = 430 Unpaid worker = 41 Student = 45 Unemployed = 88 Other = 66 Missing = 4	Full-time = 669 Part-time = 200 Self-employed = 61 Retired = 445 Unpaid worker = 61 Student = 49 Unemployed = 53 Other = 34 Missing = 6	Full-time = 688 Part-time = 199 Self-employed = 62 Retired = 353 Unpaid worker = 63 Student = 34 Unemployed = 74 Other = 67 Missing = 1
Education[13]	level 1 = 46 level 2 = 71 level 3 = 646 level 4 = 1,050 level 5 = 755 level 6 = 349 level 7 = 1,081 level 8 = 576 level 9 = 83 missing = 9	level 1 = 16 level 2 = 38 level 3 = 38 level 4 = 347 level 5 = 268 level 6 = 192 level 7 = 458 level 8 = 154 level 9 = 34 missing = 2	level 1 = 16 level 2 = 22 level 3 = 555 level 4 = 314 level 5 = 184 level 6 = 31 level 7 = 214 level 8 = 217 level 9 = 18 missing =7	level 1 = 14 level 2 = 11 level 3 = 53 level 4 = 389 level 5 = 303 level 6 = 126 level 7 = 409 level 8 = 205 level 9 = 31 missing =0

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[11] For comparison, approximately 21% of Canada's population are immigrants.
(https://www.statista.com/topics/2917/immigration-in-canada/#topicOverview); approximately 18% of Germany's population are immigrants (https://www.dw.com/en/germany-imimmigrants-made-up-over-18-of-2022-population/a-65383249); and approximately 14% of the United Kingdom's population are immigrants
(https://migrationobservatory.ox.ac.uk/resources/briefings/immigrants-in-the-uk-an-overview/).

[12] Socio-economic status was measured on a 10-point scale with endpoints of 1 (low) and 10 (high).

[13] Level 1 = early childhood or no education; level 2 = primary education; level 3 = lower secondary education (junior high school, middle school); level 4 = upper secondary education (high school, secondary school, Formation Professionelle); level 5 = post-secondary non-tertiary (upgrading program, trade certificate, technical or professional training program); level 6 = short-cycle tertiary education (undergraduate diploma, certificate program, college diploma program); level 7 = bachelor degree or equivalent; level 8 = Master's degree or equivalent; level 9 = doctorate or equivalent

Table 2 – Factor loadings: primary and secondary factors of fiscal citizenship

Primary Factor	Secondary Factor	Item [statement # from survey][14]	Item label in Table 2 / Fig. 2	Factor loading			Cronbach alpha[15]		
				Full sample	Native-born	immigrants	Full sample	Native-born	immigrants
Fiscal Citizen Voice	Voting	I should be able to vote on proposed changes to tax rates (e.g., an increase or decrease). [#14]	FCV_V1	0.81	0.66	0.80	0.76	0.76	0.70
		I should be able to vote on proposed changes to the tax administration system. [#15]	FCV_V2	0.76	0.77	0.71			
		I should be able to vote for the individuals who decide on tax rates. [#27]	FCV_V3	0.65	0.81	0.61			
	Say	The CRA should be responsive to my views about taxes. [#1]	FCV_S1	0.69	0.69	0.70	0.77	0.77	0.77
		I should have the right to protest paying taxes. [#11]	FCV_S2	0.61	0.61	0.63			
		I should have a say in the amount of tax the government spends on programs and services. [#12]	FCV_S3	0.80	0.80	0.80			
		I should have a say in what programs and services the government	FCV_S4	0.78	0.79	0.74			

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[14] See Appendix.

[15] The Cronbach alpha for the primary factor Fiscal Citizenship Voice (7 items) is 0.86 (full sample), 0.86 (natives), and 0.84 (immigrants), respectively. The Cronbach alpha for the primary factor Fiscal Citizenship Contribution (6 items) is 0.86 (full sample), 0.86 (natives), and 0.88 (immigrants), respectively.

		pays for (e.g., education, defense spending). [#13]							
Fiscal Citizen Contribution	Obligation	I have a moral obligation to pay taxes. [#10]	FCC_O1	0.72	0.72	0.72	0.74	0.73	0.75
		I should pay taxes to support services provided by the government even if I don't personally use all of them. [#30]	FCC_O2	0.76	0.76	0.76			
		I should pay taxes to enable future generations to have a sustainable future. [#42]	FCC_O3	0.74	0.74	0.76			
	Willingness	I am willing to pay my taxes if the government uses my tax dollars to help someone else. [#32]	FCC_W1	0.72	0.71	0.76	0.81	0.80	0.84
		I want to pay taxes to support services provided by my local government. [#35]	FCC_W2	0.83	0.83	0.85			
		I want to pay taxes to support services provided by the national government. [#36]	FCC_W3	0.84	0.83	0.84			
Fiscal Citizen Tax Compliance	n/a	Occasionally, I am tempted to exclude part of my income on my tax return. [#45]	FCTC1	0.89	0.89	0.87	0.83	0.84	0.82
		In the past, I have thought about overstating deductions on my tax return. [#47]	FCTC2	0.89	0.89	0.90			
Fiscal Citizen	n/a	People must live in Canada for a minimum number of years to	FCSEI1	0.73	0.74	0.63	0.82	0.82	0.76

Social Exclusion		qualify for government welfare. [#34]							
		Only people who pay taxes should have access to government services. [#37]	FCSEI2	0.83	0.82	0.85			
		Only Canadian citizens should have access to government services. [#38]	FCSE3	0.78	0.79	0.71			
		Only people who have paid taxes should be able to receive welfare. [#39]	FCSE4	0.84	0.84	0.84			

Table 3 – Pearson correlations for fiscal citizenship factors (full sample)

Note: all correlation coefficients are positive and significant at the 0.01 level.

Panel A: Fiscal Citizenship Voice							
Item	FCV_V1	FCV_V2	FCV_V3	FCV_S1	FCV_S2	FCV_S3	FCV_S4
Second-order factor	VOTING			SAY			
FCV_V1	1.00	0.59	0.46	0.43	0.35	0.58	0.67
FCV_V2		1.00	0.44	0.47	0.37	0.50	0.51
FCV_V3			1.00	0.35	0.32	0.43	0.42
FCV_S1				1.00	0.43	0.46	0.32
FCV_S2					1.00	0.46	0.59
FCV_S3						1.00	0.59
FCV_S4							1.00

Panel B: Fiscal Citizenship Contribution						
Item	FCC_O1	FCC_O2	FCC_O3	FCC_W1	FCC_W2	FCC_W3
Second-order factor	OBLIGATION			WILLINGNESS		
FCC_O1	1.00	0.45	0.45	0.42	0.51	0.49
FCC_O2		1.00	0.50	0.48	0.52	0.55
FCC_O3			1.00	0.45	0.51	0.51
FCC_W1				1.00	0.49	0.49
FCC_W2					1.00	0.74
FCC_W3						1.00

Panel C: Fiscal Citizenship Tax Compliance		
Item	FCTC1	FCTC2
FCTC1	1.00	0.72
FCTC2		1.00

Panel D: Fiscal Citizenship Social Exclusion				
Item	FCSE1	FCSE2	FCSE3	FCSE4
FCSE1	1.00	0.41	0.50	0.47
FCSE2		1.00	0.51	0.68
FCSE3			1.00	0.49
FCSE4				1.00

Table 4 - Goodness-of-fit statistics

PANEL A: NATIVES VERSUS IMMIGRANTS			
	Overall sample	**Native-born**	**Immigrants**
Sample size	n = 4,666	n = 4,174	n = 492
Chi-square	χ^2 = 2664, df=142 p < .01	χ^2 = 2488, df=142 p < .01	χ^2 = 426, df=142 p < .01
RMSEA	0.062	0.063	0.064
CFI	0.930	0.928	0.921
TLI	0.906	0.903	0.894

PANEL B: BY COUNTRY				
	Overall sample	**Canada**	**Germany**	**United Kingdom**
Sample size	n = 4,666	n = 1,547	n = 1,578	n = 1,541
Chi-square	χ^2 = 2664, df=142 p < .01	χ^2 = 1045, df=142 p < .01	χ^2 = 993, df=142 p < .01	χ^2 = 1130, df=142 p < .01
RMSEA	0.062	0.064	0.062	0.067
CFI	0.930	0.923	0.930	0.923
TLI	0.906	0.896	0.906	0.897

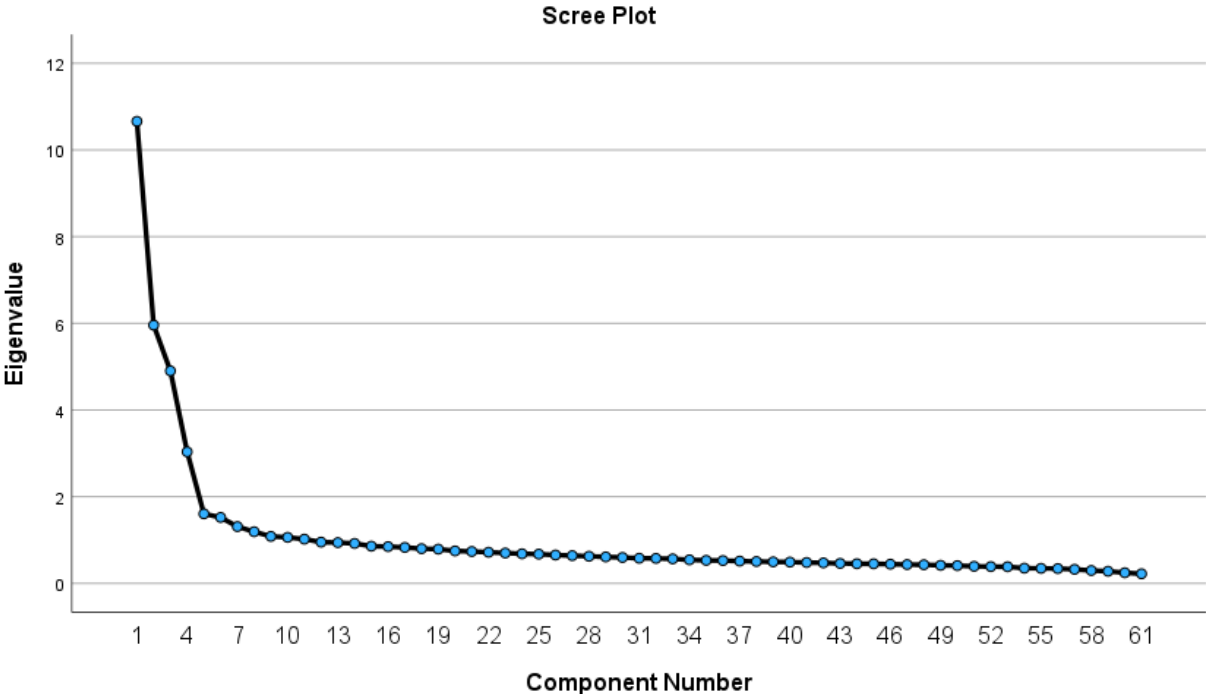| PANEL C: BY MEDIAN AGE (52 YEARS)			
	Overall sample	**Below median age**	**At or above median age**
Sample size	n = 4,646 *	n = 2,320	n = 2,326
Chi-square	χ^2 = 2658, df=142 p < .01	χ^2 = 1436, df=142 p < .01	χ^2 = 1414, df=160 p < .01
RMSEA	0.062	0.063	0.062
CFI	0.930	0.928	0.929
TLI	0.906	0.903	0.904
* 20 respondents did not provide their age			

Figure 1 – Scree plot

Scree Plot

Figure 2 – Measures and Dimensions of fiscal citizenship
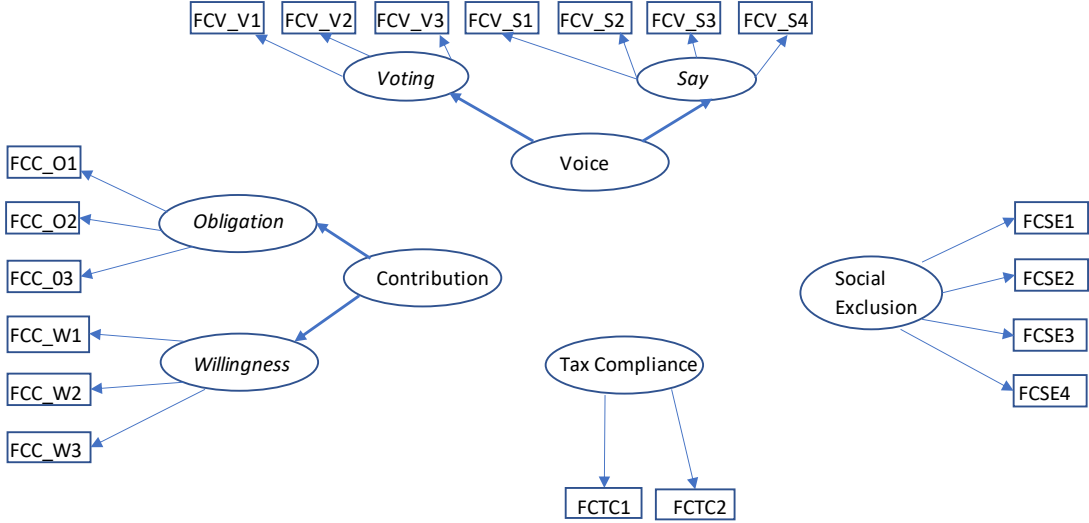
Figure 3 – Paths to tax compliance from other fiscal citizenship dimensions

Panel A: Immigrants

voting	0.35 *	
say	-0.23 *	
obligation	0.11	tax compliance
willingness	-0.02	
social exclusion	-0.28 *	
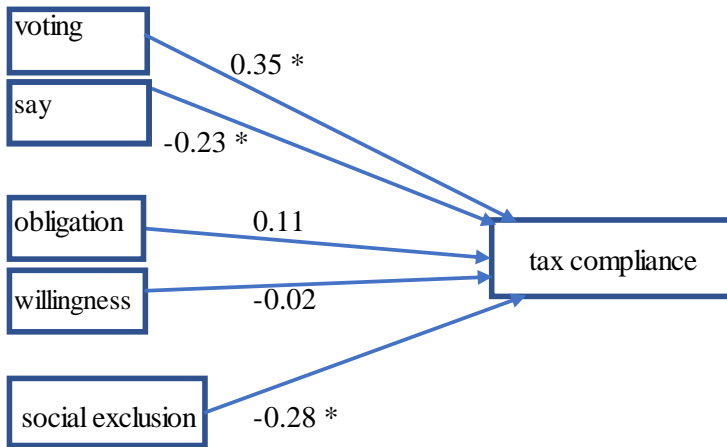
Panel B: Native-born citizens

voting	-0.10 *	
say	-0.06 *	
obligation	0.22 *	tax compliance
willingness	-0.36 *	
social exclusion	-0.23 *	
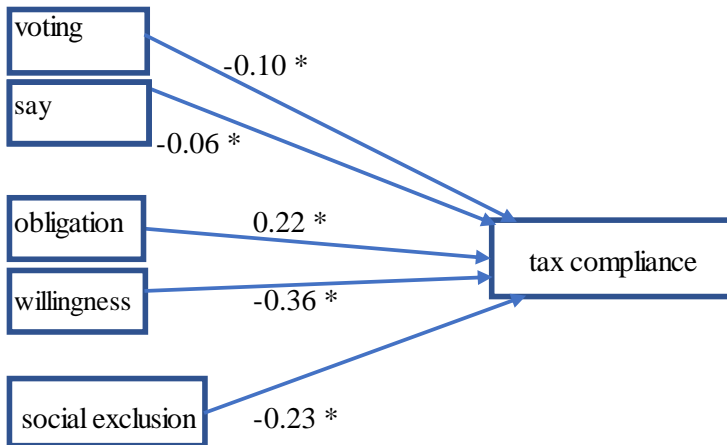
Appendix A – Fiscal Citizenship Survey Items

Note: the following statements were shown to Canadian respondents. Respondents from Germany and the United Kingdom saw identical statements except that country-specific language about the name of the country or the country's tax authority was changed. In the statements below, "CRA" refers to "Canada Revenue Agency."

Respondents were asked to rate their level of agreement with the following statements by clicking on the appropriate response, where 1=strongly disagree and 7=strongly agree. Items in italics are used in the final analysis, with their respective item indicators.

1. *The CRA should be responsive to my views about taxes. [FCV_S1]*
2. The government should support me financially even when I can't pay taxes.
3. The CRA should treat me as a customer.
4. The CRA should treat me the same as any other taxpayer.
5. It is reasonable for the CRA to ask financial institutions (e.g., banks, insurance, investment) for my personal information.
6. The CRA should be allowed to share my tax information with other government agencies.
7. The CRA does a good job at catching tax offenders.
8. The tax authority should be very strict with all tax offenders.
9. High-income tax cheaters should be punished more harshly than low-income tax cheaters.
10. *I have a moral obligation to pay taxes. [FCC_O1]*
11. *I should have the right to protest paying taxes.* [*FCV_S2*]
12. *I should have a say in the amount of tax the government spends on programs and services. [FCV_S3]*
13. *I should have a say in what programs and services the government pays for (e.g., education, defense spending).* [*FCV_S4*]
14. *I should be able to vote on proposed changes to tax rates (e.g., an increase or decrease). [FCV_V1]*
15. *I should be able to vote on proposed changes to the tax administration system. [FCV_V2]*
16. My elected representative should participate in hiring decisions at the CRA.
17. The Commissioner (head) of the CRA should be an elected position.
18. Tax administrators should be representative of taxpayers reflecting the balance of gender and ethnicity in society.
19. CRA should be publicly accountable for their official decisions.
20. There should be a Taxpayer Bill of Rights, including expected standards of CRA employees' behaviour, to protect us from the CRA.
21. The CRA should face consequences of it makes a mistake processing your tax return.
22. CRA tax auditors should be rewarded for catching tax cheaters.
23. The CRA should justify how it spends its money to administer the tax system.
24. The CRA should be held to account by an independent oversight committee (watchdog).
25. Even if I don't pay taxes, I should be given a say in how the government spends tax dollars.
26. Non-citizens of Canada residing in Canada should be given a say in how Canadian taxpayers are taxed.
27. *I should be able to vote for the individuals who decide on tax rates. [FCV_V3]*
28. My elected representative should be able to vote for the individuals who decide on tax rates.
29. All taxpayers should receive equal access to government services regardless of their immigration status.

30. *I should pay taxes to support services provided by the government even if I don't personally use all of them. [FCC_O2]*
31. Only people who fall below the poverty line should receive government welfare.
32. *I am willing to pay my taxes if the government uses my tax dollars to help someone else. [FCC_W1]*
33. People should have the same access to government services regardless of how much they pay in taxes.
34. *People must live in Canada for a minimum number of years to qualify for government welfare. [FCSE1]*
35. *I want to pay taxes to support services provided by my local government. [FCC_W2]*
36. *I want to pay taxes to support services provided by the national government. [FCC_W3]*
37. *Only people who pay taxes should have access to government services. [FCSE2]*
38. *Only Canadian citizens should have access to government services. [FCSE3]*
39. New immigrants to Canada should have the same access to government services as everyone else.
40. *Only people who have paid taxes should be able to receive welfare. [FCSE4]*
41. Taxes on fossil fuels, such as gas, oil and coal, should be increased in Canada to reduce climate change.
42. *I should pay taxes to enable future generations to have a sustainable future. [FCC_O3]*
43. People who pay more in taxes should have priority access to government services.
44. I should receive government services and benefits because I pay taxes.
45. *Occasionally, I am tempted to exclude part of my income on my tax return. [FCTC1]*
46. I am willing to pay cash for goods and services to get a lower price.
47. *In the past, I have thought about overstating deductions on my tax return. [FCTC2]*
48. I like the idea of cryptocurrency because it is difficult to trace.
49. I try to reduce my taxes in any way possible unless it is obviously illegal.
50. I enjoy disagreeing with the CRA.
51. I would view a tax audit as a battle with the CRA.
52. I am willing to report known or suspected tax fraud to the tax authority.
53. I often debate tax issues with my friends and family.
54. I support political parties which promise to reduce my tax rates.
55. When talking about Canadian taxpayers I tend to say 'we' instead of 'they'.
56. I often think of myself as a taxpayer.
57. I am proud that I'm a taxpayer.
58. If someone said something bad about Canadian taxpayers I feel as if they said something bad about me.
59. If someone said something bad about Canada I feel as if they said something bad about me.
60. I feel angry whenever there is a change in tax laws that I don't like.
61. If the CRA selects my tax return for an audit, it is probably because I made a mistake.

Appendix B – Demographic questions in survey

Note: the following questions were asked of Canadian respondents. Respondents from Germany and the United Kingdom were asked identical questions except that the name of the country and acronym of tax authority were changed.

1)   Do you identity as
-       man
-       woman
-       in another way
-       prefer not to say

2)   In which year were you born?

3a) Were you born in Canada? Yes No
[note: anyone answering 'no' responded to questions 3b through 3d]
3b) In which year did you move to Canada?
3c) In which country were you born?

1 Afghanistan	66 Ghana	133 Panama
2 Albania	67 Gibraltar	134 Paraguay
3 Algeria	68 Greece	135 Peru
4 Andorra	69 Grenada	136 Philippines
5 Angola	70 Guatemala	137 Poland
6 Antigua and Barbuda	71 Guinea	138 Portugal
7 Argentina	72 Guinea-Bissau	139 Qatar
8 Armenia	73 Guyana	140 Reunion
9 Austria	74 Haiti	141 Romania
10 Azerbaijan	75 Holy See	142 Russia
11 Bahrain	76 Honduras	143 Rwanda
12 Bangladesh	77 Hong Kong	144 Saint Helena
13 Barbados	78 Hungary	145 Saint Kitts and Nevis
14 Belarus	79 Iceland	146 Saint Lucia
15 Belgium	80 India	147 Saint Vincent and the Grenadines
16 Belize	81 Indonesia	148 San Marino
17 Benin	82 Iran	149 Sao Tome and Principe
18 Bhutan	83 Iraq	150 Saudi Arabia
19 Bolivia	84 Ireland	151 Senegal
20 Bosnia and Herzegovina	86 Israel	152 Serbia
21 Botswana	87 Italy	153 Seychelles

22 Brazil	88 Jamaica	154 Sierra Leon
23 Brunei	89 Japan	155 Singapore
24 Bulgaria	90 Jordan	156 Slovakia
25 Burkina Faso	91 Kazakhstan	157 Slovenia
26 Barundi	92 Kenya	158 Somalia
27 Cabo Verdi	93 Kuwait	159 South Africa
28 Cambodia	94 Kyrgyzstan	160 South Korea
29 Cameroon	95 Laos	161 South Sudan
30 Canada	96 Latvia	162 Spain
31 Central African Republic	97 Lebanon	163 Sri Lanka
32 Chad	98 Lesotho	164 State of Palestine
33 Channel Islands	99 Liberia	165 Sudan
34 Chile	100 Libya	166 Suriname
35 China	101 Liechtenstein	167 Sweden
36 Colombia	102 Lithuania	168 Switzerland
37 Comoros	103 Luxembourg	169 Syria
38 Congo	104 Macao	170 Taiwan
39 Costa Rica	105 Madagascar	171 Tajikistan
40 Cote d'Ivoire	106 Malawi	172 Tanzania
41 Croatia	107 Malaysia	173 Thailand
42 Cuba	108 Maldives	174 The Bahamas
43 Cyprus	109 Mali	175 Timor-Leste
44 Czech Republic	110 Malta	176 Togo
45 Denmark	111 Mauritania	177 Trinidad and Tobago
46 Djibouti	112 Mauritius	178 Tunisia
47 Dominica	113 Mayotte	179 Turkey
48 Dominican Republic	114 Mexico	180 Turkmenistan
49 DR Congo	115 Moldova	181 Uganda
50 Ecuador	116 Monaco	182 Ukraine
51 Egypt	117 Mongolia	183 United Arab Emirates
52 El Salvador	118 Montenegro	184 United Kingdom
53 Equatorial Guinea	119 Morocco	185 United States
54 Eritrea	120 Mozambique	186 Uruguay
55 Estonia	121 Myanmar	187 Uzbekistan
56 Eswatini	122 Namibia	188 Venezuela

57 Ethiopia	123 Nepal	189 Vietnam
58 Faeroe Islands	124 Netherlands	190 Western Sahara
59 Finland	125 Nicaragua	191 Yemin
60 France	126 Niger	192 Zambia
61 French Guiana	127 Nigeria	193 Zimbabwe
62 Gabon	128 North Korea	
63 Gambia	129 North Macedonia	
64 Georgia	131 Oman	
65 Germany	132 Pakistan	

3d) Why did you migrate to Canada? Please select all that apply.
- Economic reasons
- Social reasons
- Political reasons
- Environmental reasons
- Other (please describe)
- Prefer not to say
- Because my parents migrated

4) What racial or ethnic group describes you best?
- Caucasian (white)
- Aboriginal/First Nations
- Latin American (Mexican, Chilean, Costa Rican, etc.)
- Arabic (Middle East, North Africa)
- Black (African, African-American etc)
- South Asian (Indian, Bangladeshi, Pakistani, Sri Lankan, etc.)
- Southeast Asian (Vietnamese, Cambodian, Malaysian, etc.)
- West Asian (Iranian, Afghan, etc)
- Pacific Islander
- East Asian (Chinese, Korean, Japanese)
- Other
- Prefer not to say

5) What is your socio-economic status? (1=low; 10=high)

6) What is the highest educational level that you have attained?
- early childhood/no education
- primary education
- lower secondary education (Junior High, Middle School)
- upper secondary education (High School, Secondary School, Technical High School, Formation Professionelle)

- post-secondary non-tertiary education (Upgrading Program, Trade Certificate, technical or professional training program)
- short-cycle tertiary education (undergraduate diploma, certificate program, college diploma program)
- Bachelor or equivalent
- Masters or equivalent
- Doctorate or equivalent

7) What is your current employment status?
- Full-time employee
- Part-time employee
- self-employed
- Retired
- Unpaid family worker
- Student
- Unemployed
- Economically inactive
- Other

8) In political matters people talk of the "left" and the "right". How would you place your views on this scale, with values closer to 1 indicating left and values closer to 9 indicating right?

9) Who has prepared your tax return in the last 10 years? Check all that apply.
- Me
- Paid tax preparer
- Friends or family
- Tax clinic
- I don't prepare an individual return
- Other
- Don't know
- Prefer not to say

10) Have you heard of the CRA? Yes No