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The Financial Decisions of Immigrant and Native Households: Evidence from Italy*

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November 2018

Abstract

Using rich Italian data for the period 2006-2014, we document sizeable gaps between native and immigrant households with respect to wealth holdings and financial decisions. Immigrant household heads hold less net wealth than native, but only above the median of the wealth distribution, with housing as the main driver. Immigrant status reduces the likelihood of holding risky assets, housing, mortgages, businesses, and valuables, while it increases the likelihood of financial fragility. Years since migration, countries of origin, and the pattern of intermarriage also matter. The Great Recession has worsened the condition of immigrants in terms of wealth holdings, home ownership, and financial fragility.

Keywords: immigrants, household finance, wealth, financial portfolios, Great Recession.

JEL Codes: F22, G11, D14, E21, J15.

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1. Introduction

In today's world the issue of increasing immigration has reached center stage on policy makers' agenda and is also widely analyzed in academia. There is a large literature on earnings and employment gaps and assimilation between natives and immigrants, and more recent studies on the ethnic differences in well-being.¹ The literature on the nativity differences in wealth, and financial behavior more generally, is still thinner despite wealth holdings and portfolio allocation are important components of households' economic well-being. Since wealth tends to be distributed more unequally than income, any disadvantage in the asset position of immigrants is likely to exert a persistent influence across generations, with implications for the chances of immigrants to assimilate. Wealth accumulation is determined not only by saving behavior but also by the allocation of financial portfolios. A nativity gap in the latter can therefore exacerbate the above processes. The ability to own a house is another crucial vehicle towards assimilation, which in turn depends on the availability of credit. Relative to natives, immigrants may have a harder time to achieve access to credit through traditional channels, even though informal networks may alleviate this disadvantage. Cultural differences may play a role as important as that of economic differences in determining a gap in financial behavior of immigrants and natives. Accumulated wealth, together with the financial diversification to minimize risks, becomes even more important in times of recessions, when immigrants often find themselves in a more vulnerable position vis-à-vis natives, since they are more likely to lose their jobs.

In this paper, we investigate native-immigrant differences in financial behavior, in particular in wealth holdings and the allocation of assets, employing data for Italy over the period 2006-2014. To this aim, we use the Bank of Italy Survey of Household Income and Wealth (SHIW) dataset. Our rich dataset allows us to present a more comprehensive picture of financial portfolios by incorporating a wide range of components, including informal debts and foreign assets, which are highly important when analyzing immigrants' wealth, but due to data limitations were omitted from previous studies. Moreover, our data include a large set of information specifically on immigrants, including their immigration histories, their countries of origin, and the patterns of intermarriage, which allows us to explore potential heterogeneities along these dimensions. Furthermore, due to the length of the time period covered by our data, we can study the effect on nativity gaps of a large financial shock, such as the Great Recession, to identify differences in the financial response with respect to wealth and asset holdings. Finally, our data allow us to control for risk aversion, which is usually unobserved and yet crucial for this type of analysis. While parts of this information have been employed by others, it has rarely been available in its entirety.

Immigrants are undoubtedly a selected group. Relative to natives (and to individuals in their countries of origin) they may differ in such unobserved characteristics as ability, motivation, or risk preferences. Unfortunately, the panel component of our data leads to a negligible sample size for the immigrants, so that we cannot fully account for these unobservables. However, including a proxy for risk aversion in financial decisions among our controls, together with a rich set of observable

¹ The economic well-being and the social integration of the immigrant population is equally important from a society's perspective, especially in the face of the population aging phenomenon and related fiscal burdens (for a discussion on the interaction between aging and migration and a review of related studies see, e.g., Zaiceva and Zimmermann, 2016).

characteristics (demographic and labor market variables as well as household composition and income), should help to diminish the bias due to such unobservables.

Italy represents a particularly suitable country to study these questions. First, it has turned from an emigration country into an immigration country and has faced significant immigrant inflows following EU Eastern enlargements and the unrests in Africa. With its share of foreign-born amounting to 9.9% in 2015 (OECD, 2017), it is now comparable to such traditional immigration countries as Denmark or the Netherlands, and is approaching the levels of Germany, the UK and the US. Second, it is one of the most aged countries in the world. With the old age dependency ratio of 30.4 in 2010 it ranks third among the OECD countries, after Japan and Germany, and is predicted to age even more rapidly in the future. Third, Italy has experienced a severe recession post 2008, with GDP growth falling by 6% in 2009 only, and with an unemployment rate jumping from 6.7% in 2008 to 12.9% in 2014. Fourth, due to the rigidities in the country's financial markets, the reliance on informal credit channels involving relative, friends or the reference community may be even more relevant.

Our main results can be summarized as follows. There is a sizeable gap between natives and immigrants with respect to wealth holdings, but only at and above the median of the wealth distribution. The median net wealth of a foreign-born household head is over €29,000 lower than that of a native. We capture asset allocation decisions using nine variables: the decision to invest in risky assets and the corresponding portfolio share, the decision to invest in foreign assets and the corresponding portfolio share, home ownership, holding a mortgage, holding informal debts, owning a business, and owning valuables. We find a negative correlation between the immigrant status of the household head and each of these outcomes, with the only exception of informal debts. Moreover, immigrant status increases the likelihood of financial fragility.

We proceed with the analysis by dissecting the results along several dimensions, for both wealth holdings and portfolio decisions. We find evidence that years in Italy, countries of origin, and patterns of intermarriage do matter. Finally, we show that the Great Recession of 2008 has worsened the financial status of immigrants in several dimensions.

The paper is organized as follows. Section 2 contains a literature review. Section 3 documents immigration trends in Italy. Section 4 describes the data. Section 5 presents our main results on the immigrant-native gap in wealth holdings and asset allocation. Section 6 extends the analysis to account for cohorts of arrival, countries of origin, the influence of spouses, and citizenship status. Section 7 analyzes the effects of the financial crisis. Section 8 concludes.

2. Literature review

Immigrants and immigrant households are likely to differ from natives with respect to their financial choices, including wealth and asset allocation, due to several reasons. Apart for differences in employment status and earnings, migrants' self-selection, selective immigration policies, different cultural norms and risk preferences, as well as access to benefits and to credit and financial markets, are all important channels. Indeed, existing studies document gaps in wealth, asset portfolios and their

components between immigrants and natives in the US (Carroll, Rhee and Rhee, 1999; Borjas, 2002; Osili and Paulson, 2004; Cobb-Clark and Hildebrand, 2006a,b; Bauer et al., 2011; Seto and Bogan, 2013; Chatterjee and Zahirovic-Herbert, 2014), Canada (Carroll, Rhee and Rhee, 1994; Shamsuddin and DeVoretz, 1998; Zhang, 2003), Germany (Sinning, 2007; Bauer et al., 2011; Mathä, Porpiglia and Sierminska, 2011), Australia (Cobb-Clark and Hildebrand, 2009; Doiron and Guttmann, 2009; Bauer et al., 2011; Islam, Parasnis and Fausten, 2013), Luxembourg (Mathä, Porpiglia and Sierminska, 2011), and Sweden (Haliassos, Jansson and Karabulut, 2016).

Most studies find a negative wealth nativity gap, that is, immigrants tend to hold less wealth than natives. However, there is considerable heterogeneity between different immigrant groups and across arrival cohorts. For example, focusing on married households in the US, while immigrants are generally found to have lower net worth relative to natives *ceteris paribus*, wealth is found to be higher for immigrants from Europe and Asia (Cobb-Clark and Hildebrand, 2006a),² and significantly lower for those in the latest arrival cohorts (i.e., post-1985, as found by Cobb-Clark and Hildebrand, 2006a and Bauer et al., 2011). Moreover, there is a large variation by ethnicity. For example, relative to US white couples, Hispanic couples have significantly less wealth overall, but within Hispanic couples Mexican American have significantly more wealth, while Puerto Rican and foreign-born other Hispanic couples have less wealth (Cobb-Clark and Hildebrand, 2006b). Using the 2010 Survey of Consumer Finances, Shin and Hanna (2015) document that black and Hispanic households are less likely to hold high return investments while Asian/Other households are not different from white households, and a decomposition analysis suggests that some of this gap is attributable to differences in characteristics and risk tolerance. Regarding speed of assimilation, Shamsuddin and DeVoretz (1998) report that immigrants who had been in Canada less than eight years hold a wealth level that was half that of the natives, but that this gap tend to disappear about 15 years after arrival. Using a matching approach, Ferrari (2017) confirms the presence of a nativity gap for wealth for older immigrants in Europe.

Regarding differences in asset portfolio allocation, relative to natives, immigrant households in the US allocate their wealth less to housing and real estate, business and vehicles equity but more to financial wealth (Cobb-Clark and Hildebrand, 2006a), while in contrast immigrant households in Australia allocate more of their wealth to real estate and less to vehicles and financial assets (Cobb-Clark and Hildebrand, 2009). However, there is a great diversity among immigrants from different origin and across migration cohorts in their portfolio choices, with more recent immigrants holding less real estate equity and more financial wealth both in Australia and the US (Cobb-Clark and Hildebrand, 2006a, 2009). Immigrant households in the US are also less likely than natives to own financial assets such as stocks, mutual funds, bonds, or other fixed income securities; however, again, considerable heterogeneity is found across countries of origin and arrival cohorts, with immigrants from, e.g., Eastern Europe and Hong Kong having rates of asset holding that are even higher than natives (Seto and Bogan, 2013).

² Bauer et al. (2011) find an insignificant overall effect for couple-headed immigrant households in the US. However, the data were drawn only from the 2001 SIPP cross section (while in the above study the authors employ the 1987, 1990, 1991, 1992, 1993 and 1996 SIPP waves), the effect was estimated for the median and the estimation method was different.

Previous literature also suggests that much of the wealth and financial market participation gaps is due to education, demographic composition, geographic location and sometimes income of households in the US, but not in Australia, and mainly due to education in Germany (Bauer et al., 2011; Cobb-Clark and Hildebrand, 2006c; Osili and Paulson, 2004; Sinning, 2007). Interestingly, the wealth gap between natives and immigrants is found to be larger than the home equity gap, suggesting that immigrants may prefer real assets to financial assets (Osili and Paulson, 2008; Cobb-Clark and Hildebrand, 2009).

Cultural norms may also matter. Carroll, Rhee and Rhee (1994, 1999) investigate the role of culture of the origin country on immigrants' saving behavior and find that while in Canada savings are not significantly different across origin, in the US there are statistically significant differences in immigrants' saving behavior by country of origin. However, the authors cannot reconcile the direction of this effect with the one in the countries of origin as, for example, immigrants from countries with high saving rates (such as Asian) do not save more than other immigrants. Immigrants in the US from countries with more effective institutions are also found to participate more in formal financial markets, suggesting that a country's institutional environment shapes beliefs (Osili and Paulson, 2008). For Sweden, Haliassos, Jansson and Karabulut (2016) uncover differences across cultural groups within the immigrant population in how holdings of stock, debt and housing relate to household characteristics, and show that differences diminish with exposure to host country institutions. Huber and Schmidt (2016) isolate the effect of cultural preferences regarding home ownership for immigrants in the US. Finally, social interactions and social capital are important, as immigrant participation in financial markets (i.e., the likelihood of having savings and interest-bearing checking accounts) decreases with higher levels of ethnic concentration (Osili and Paulson, 2004).³

A recent study examining the differential impact of the Great Recession on wealth of immigrant and native households is particularly relevant for our study: Amuedo-Dorantes and Pozo (2015) investigate the impact of the 2008-2009 crisis on wealth, asset ownership and retirement plans of older households (aged 50 and above) in the US employing the 2006 and 2010 waves of the Health and Retirement Study and find that immigrant households in the middle and top wealth quartiles prior to the crisis experienced larger wealth losses due mainly to losses in housing ownership and housing values. In addition, both native and immigrant households delayed their planned retirement. The authors, however, analyze only households aged 50 and older and do not account for migration histories.⁴

³ A related stream of the literature also has focused on savings, with mixed results. For instance, Bauer and Sinning (2011) find a significant savings gap between immigrants and natives in Germany which, however, disappears once the remittances of temporary migrants are accounted for. Furthermore, potential return migration has a significant positive impact on migrants' savings/remittances (Sinning, 2011). For Australia, Islam, Parasnis and Fausten (2013) find that after controlling for income immigrants save more than natives. Contrary to Carroll, Rhee and Rhee (1994, 1999), who for the US find no evidence that saving behavior can be driven by cultural factors, Fuchs-Schundeln, Masella and Paule-Paludkiewicz (2017) show that second-generation immigrants from countries that put strong emphasis on wealth accumulation do save more, both in Germany and in the UK.

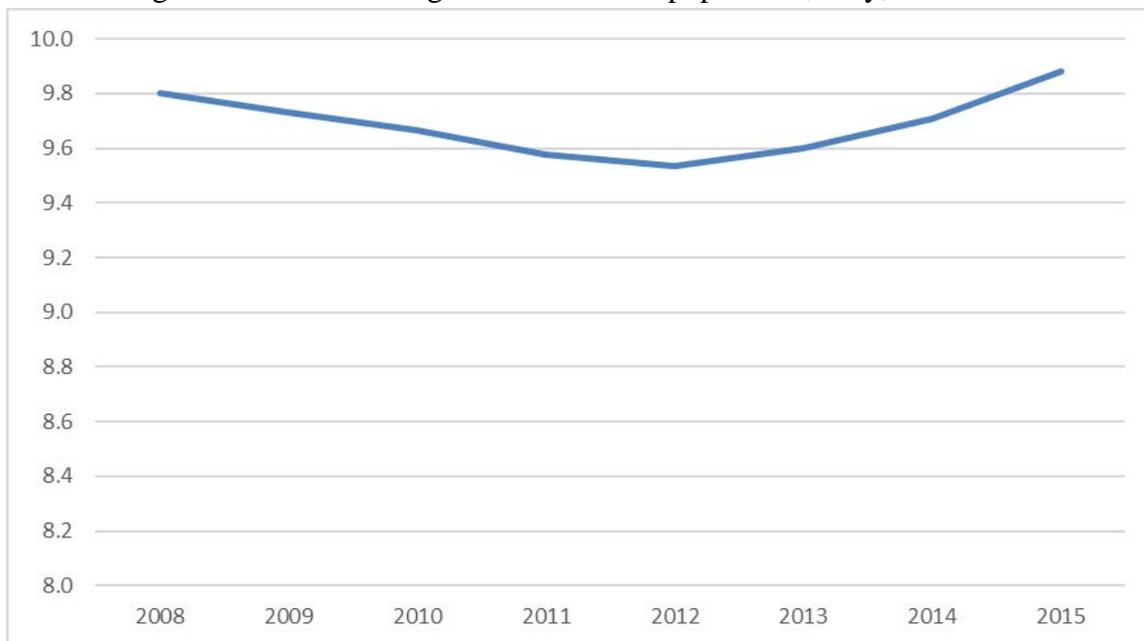
⁴ Gassoumis (2012) examines the impact of the crisis by age, race and ethnicity in the US and finds that older Hispanic households experienced the largest wealth losses, attributable to the reduction in housing value. Wolff (2013) documents increased racial and ethnic gap in wealth in the US due to the recession. Related to this, Osili and Paulson (2014) show that financial crises have a significant detrimental effect on investors' confidence by studying immigrants in the US. They

To conclude, to the best of our knowledge, this is the first study that analyzes extensively the nativity gap in financial decisions for immigrants in Italy, taking into account the time dimension of the phenomenon, the role of different source countries, and the impact of the financial crisis. The only other contributions with Italian data, both based on the 2008 wave of the Survey of Household Income and Wealth, are Mathä, Porphiglia and Sierminska (2011), who compare the nativity wealth gap in Germany, Luxembourg and Italy and find a sizeable nativity wealth gap in all three countries, and Abdul-Razzak, Osili and Paulson (2015), who compare Italy with the US, to find higher financial participation in Italy. Both contributions, however, are not able – as we do – to extend the analysis to other years, to distinguish among the components of wealth, and to account for risk aversion, source countries, and intermarriages.

3. Immigration in Italy

A rapid increase in immigration flows in recent years represents a common tendency in European countries. Within this broader picture, Italy has experienced particularly fast dynamics, with an almost threefold increase in the stock of foreign-born legal residents during the past fifteen years or so. According to the OECD (2017), the foreign-born population in Italy in 2015, the latest available year, was around 5.9 million, corresponding to 9.9% of the population (see Figure 1).⁵ While between 2008 and 2015 the share has remained relatively stable, in 2001 (not depicted in the figure due to gaps in data availability) the corresponding share was less than 4%.

Figure 1: Share of foreign-born over total population, Italy, 2008-2015



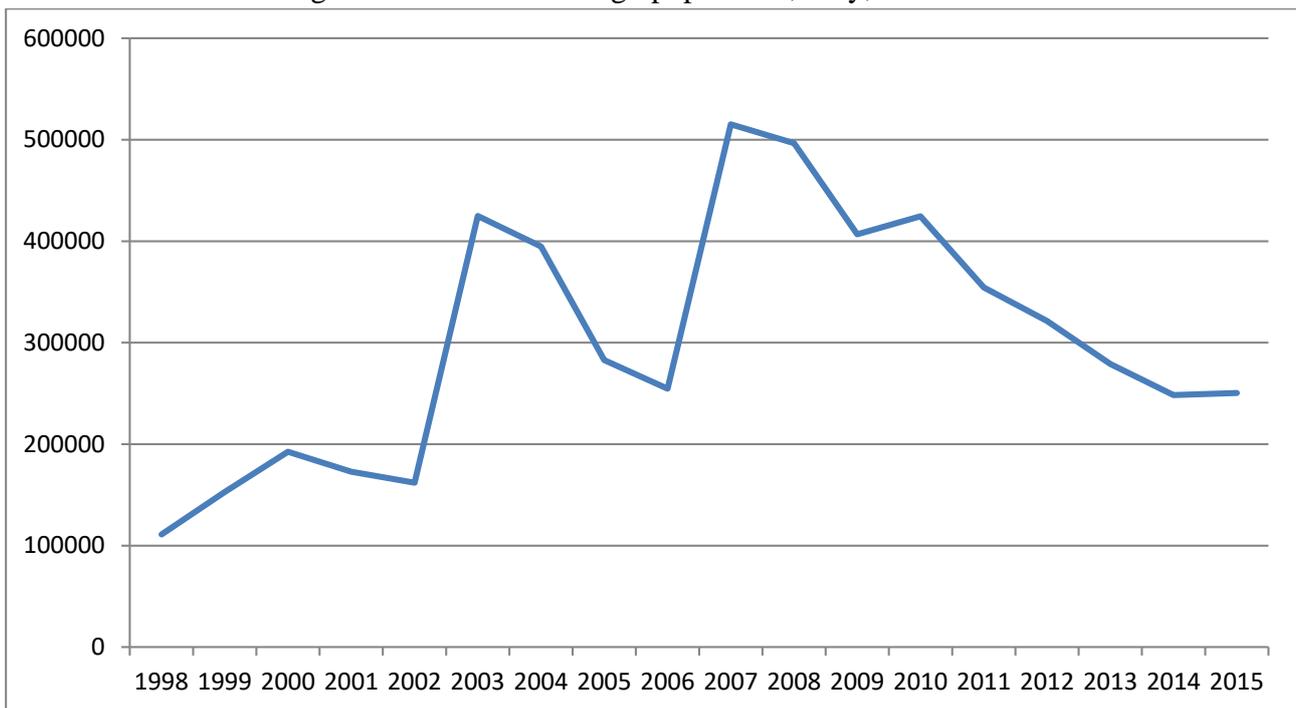
Source: OECD.

find that immigrants who have experienced a banking crisis in their country of origin are significantly less likely to have bank accounts in the US, and the effect is robust to controlling for home country characteristics.

⁵ See OECD (2017), available at <http://www.oecd.org/migration/international-migration-outlook-1999124x.htm>.

In Figure 2 we show inflows of non-nationals, from 2000 until 2015. In 2015 the inflows consisted of about 250.000 units, with a huge decline with respect to the double figure of 2007, the peak year.⁶ Before 2007, immigration had been substantially increasing since the 1980s, initially in the form of managed labor migration (often recognized de jure only after it had de facto occurred), and subsequently as family migration. The financial crisis exerted a large impact on migration flows to Italy, with a substantial reduction both of labor and family migration starting after 2008. Migration flows in 2015 remained stable compared to 2014 only because of the explosion of humanitarian migration in the second half of 2015.

Figure 2: Inflows of foreign population, Italy, 1998-2015



Source: OECD.

In 2015, about one third of the foreign-born came from the European Union (EU), with Romania and Albania being the most represented countries, followed by extra EU countries such as Morocco, Ukraine, and China. The composition of the source countries has also been evolving, with sub-Saharan countries representing an increasing fraction. The largest shares of immigrants settled in Lombardy (a region in the North-West of the country), Latium (in the Center, where the capital is located), and Emilia Romagna (in the North-East). The unemployment rate is higher for foreign-born and, relative to natives, they tend to be more frequently employed in jobs for which they were overqualified.

4. Data

Our dataset draws from the Historical Archive of the Bank of Italy Survey of Household Income and Wealth, which has been surveying household financial decisions since 1982.⁷ However, information

⁶ See the OECD International Migration Database, available at <https://stats.oecd.org/Index.aspx?DataSetCode=MIG>.

⁷ See www.bancaditalia.it/statistiche/tematiche/indagini-famiglie-imprese/bilanci-famiglie.

about the immigrant status of the respondents, as well as years since migration and countries of origin, is only available since 2006.⁸ We can therefore comprise five waves, up until 2014 (that is, 2006, 2008, 2010, 2012, and 2014). Each wave includes about 8,000 households.⁹

The SHIW basic sample unit is the household, defined as “a group of cohabiting people who, regardless for their relationships, satisfy their needs by pooling all or part of their incomes”. The head of the household is identified as the person who is responsible for the financial and economic choices of the household, as declared by the survey respondents.¹⁰ For each household, the SHIW provides plenty of demographic information, of which we use the number of household members and, for the household head, age, gender, marital status, education, and employment status. In our sample period, information about risk aversion is also available, as the response to a subjective question in which the respondent is asked to indicate the characteristics of his/her preferred financial investments. On the basis of this information, we construct the dummy variable Risk Aversion, that takes value 1 if the respondent answers with the most risk-averse choice (i.e., he/she is willing to take no risk and receive low returns), 0 otherwise.¹¹

Beside demographic information, the SHIW also provides economic and financial information about the households, including income, net wealth, as well as the amounts invested in a variety of assets.¹² The survey collects information on financial portfolios at the household level, not at the individual one, and attributes financial decisions to the “declared” head of the household, as defined above.

In the following analysis we investigate the determinants of net wealth, defined as the sum of the household’s real and financial assets, net of liabilities. We also investigate the determinants of the two most relevant wealth components, namely, Housing and Other Real Estate and Valuables. Taken together, they represent about 78% of net wealth (namely, 99% for immigrants against 76% for natives). Moreover, we focus on the following nine financial decisions: (i) Holding Risky Assets, defined as a dummy which takes value 1 if the household holds risky assets (whereby risky assets are defined following Bertocchi, Brunetti and Torricelli, 2011); (ii) Share of Risky Assets, defined by a continuous variable ranging between 0 and 1 and representing the share of financial assets held in risky ones; (iii) Holding Foreign Assets, defined as a dummy which takes value 1 if the household holds foreign assets; (iv) Share of Foreign Assets, defined by a continuous variable ranging between 0 and 1 and representing the share of financial assets held in foreign ones; (v) Home Ownership, defined by a dummy which takes value 1 if the household owns its primary residence; (vi) Holding Mortgage, defined by a dummy which takes value 1 if the household has mortgages; (vii) Holding Informal Debts, defined by a dummy which takes value 1 if the household has debts with relatives or

⁸ Information on immigrant status alone is available since 1998.

⁹ The SHIW is organized as a rotating panel, since within each wave half of the sample is refreshed with new, i.e., non-panel, households. This implies that the number of immigrant households we could follow all along the period 2006-2014 is very limited (only 30).

¹⁰ In contrast with household surveys for other countries, where the household head is defined on the basis of different attributes (e.g., highest income, or male gender), a distinctive feature of the Italian survey is that, by introducing the “declared” definition, it also provides specific information relative to the person making financial decisions, independently of her/him being, for instance, the main income earner.

¹¹ In addition to financial risks, migrants are of course bearing other forms of risks. Bonin et al. (2009) show that in Germany first-generation migrants have lower risk attitudes than natives, while Jaeger et al. (2010) find that individuals who are more willing to take risks are more likely to migrate between labor markets.

¹² In all the analysis, monetary amounts are expressed in Euro at 2010 constant prices.

friends; (viii) Owning a Business; and (ix) Owning Valuables. We also investigate the determinants of the potential financially fragile status for the household and (using the definition proposed by Brunetti, Giarda and Torricelli, 2016) we define a Financial Fragility dummy which takes value 1 if the household is able to afford expected expenses, but does not have a sufficient liquidity buffer to face unexpected ones.

In order to investigate the nativity gap along the above dimensions, our variable of interest is a dummy capturing the (legal) immigrant status of the household head: namely, a household head is defined as an immigrant when he/she is foreign-born.¹³ In addition to immigrant status, we can also exploit information about years since migration by organizing them into a set of dummies capturing cohorts of arrival (before 1980, in the 80s, in the 90s, and after 2000). Moreover, for each immigrant household head, we also trace his/her place of origin. However, for privacy reasons, data are available only at the aggregated level for the following, not overlapping, seven groups of countries: EU15 & North America, New EU, Other Europe, North Africa, Sub-Saharan Africa, Central & South America, Asia & Oceania. This information is only available until 2012.¹⁴

To further investigate how the household head's decisions are affected by the status of his/her partner, within the full sample including all the households we also define a sub-sample including only households that contain a couple (either married, or in an informal relationship). Over this sub-sample, we investigate issues related to intermarriage, in particular whether the nativity gap in financial decisions differs in couples where both partners are immigrant if compared to those where a native is married to an immigrant. To this end, we define four dummy variables: Both Natives, which takes value 1 if both the head and the spouse are natives; Mixed with Immigrant Head, which takes value 1 if the only immigrant within the couple is the household head; Mixed with Immigrant Spouse, which takes value 1 if the only immigrant within the couple is the spouse; and Both Immigrants, which takes value 1 if both the household head and the spouse are immigrants.

Table A1 in the Appendix provides a more detailed description of all the data and variables we use. Table A2 presents summary statistics, separately for households with an immigrant and a native head, as well as t statistics for differences in mean. The sample contains 38,665 households, of which 1,837 (4.8%) are immigrant, i.e., headed by a foreign-born.¹⁵ For most outcomes of interest, immigrant households display substantially different mean values if compared to the natives. Mean net wealth is only €45,704 against €256,449, with significant gaps for each component. Moreover, on average, fewer immigrants own risky assets (1.4% against 11.6%) and they choose them in lower shares (0.9% against 6.1%). A smaller share of the immigrants owns a house (19.4% against 72.7%) and holds a mortgage (10.9% against 11.3%). More are indebted with friends and relatives (7.4% against 2.7%) and fewer hold businesses (6.3% against 13.8%). The proportion of financially fragile households is larger for immigrants (10% against 8.8%).

¹³ Naturalized household heads born abroad are therefore classified as immigrants, while second-generation immigrants are not classified as immigrants since they were born in Italy.

¹⁴ Aggregated data on country of origin, otherwise not available for external users, were provided by the Bank of Italy.

¹⁵ The share of households with a foreign-born head increases from 2.4% in 2006 to 6.5% in 2014.

Turning to the covariates, in terms of demographic characteristics, immigrant households are slightly more likely than native ones to be headed by a male, while immigrant heads are much younger than native (41-year-old against 57). The proportion of household heads who are married (or in a stable union) is similar among immigrants and natives. The number of household members is slightly higher for immigrants. The education profile of the household heads differs significantly: for instance, 7.7% of the immigrants hold a low level of education against 27.5% of the natives, while 81.1% and 11.2% of the immigrants hold a medium and high level, respectively, against 61% and 11.5% of the natives. Labor market characteristics reveal that 77% of immigrant household heads are employees against 36.1% of the natives, while 7.7% against 3.3% are unemployed, and 3.1% against 42.17% are retired. Mean annual income is lower for immigrants (€13,497 against €22,703).¹⁶ Immigrant heads are financially more risk averse than natives. On average, immigrant heads have been in Italy for almost 14 years. The North East attracts the largest share (37.7%), followed by the North West and the Center. 54% of the immigrant households come from Europe and North America, with Other UE being the most represented area.

5. The immigrant-native gap: Main results

In this section, we investigate how the immigrant status of the household head affects wealth accumulation and portfolio decisions.

5.1. Net wealth

In order to investigate how net wealth holdings are affected by immigrant status, we estimate the following simultaneous quantile regression model of household net wealth, W_h . This approach accounts for both the observed skewness in wealth distribution and the presence of zero or negative wealth levels.¹⁷ It also offers the advantage of analyzing the nativity gap along the entire distribution of wealth rather than only for its mean. The model can be written as follows:

$$W_{ht}^q = \alpha^q + \beta^q I_h + X_{ht} \delta^q + \tau + \rho + e_{ht}^q \quad (1)$$

Where h denotes the household, t denotes the year, and q denotes a specific quantile of the wealth distribution. I_h is a dummy variable capturing the immigrant status of the head of household h , X_{ht} is a vector of households and household heads' characteristics (family size and, with reference to the household head, gender, age and its square, education, labor force status, risk aversion, income quantile dummies, and years since migration), τ and ρ are year and macro-region fixed effects, respectively, and e_{ht}^q is the error term. Relative to natives (and to individuals in their countries of origin), immigrants may differ in unobserved characteristics such as ability, motivation, or risk preferences, which our empirical strategy is not fully able to control for. However, including a rich set of controls as well as a specific proxy for risk aversion (in financial decisions) helps in containing the bias potentially induced by such unobservables.

¹⁶ Income is net of tax, therefore it can take negative values when the household represents an individual firm. Negative values are reported in 73 cases in 2006-2014.

¹⁷ To account for skewness, a variable is often entered in terms of logarithmic terms, but a logarithmic transformation is not appropriate for variables with zero or negative values, as is the case for net wealth.

In Table 1 we present estimates of model (1) for the 10th, 25th, 50th, 75th, and 90th quantiles. Our variable of interest, Immigrant HH, a dummy capturing the immigrant status of the household head, shows a statistically insignificant coefficient for the 10th and 25th quantiles, while it turns negative at the median and above, signaling a weaker position of immigrant households only in the upper part of the wealth distribution. In particular, the median net wealth of immigrant household heads is estimated to be over €9,000 lower than the median net wealth of natives, with an increasing gap moving upward in the wealth distribution. Thus, immigrant household heads are accumulating less than natives only when they are relatively wealthy. In other words, there is no evidence of wealth inequality between immigrants and natives at the lower end of the wealth distribution. Risk aversion exerts an unambiguously negative effect on wealth, with a coefficient which is increasing in the quantiles. Years since migration, which can help in spotting the speed of a potential assimilation process, exhibit negative coefficients, but they are significant only below the median. This suggests that, among relatively poor migrants, those who have migrated earlier are actually in a worse position.

The results in this sub-section are consistent with those previously found by Mathä, Porgiglia and Sierminska (2011) on the basis of the 2008 wave of the SHIW. In particular, they show for Italy a significant wealth gap only at and above the median of wealth. Our results are also broadly consistent with those found for other countries. For instance, Cobb-Clark and Hildebrand (2006a) show that foreign-born households are less wealthy than US-born households and that the gap becomes larger as one moves up the wealth distribution. Regarding immigration histories, they find that the year of immigration is unrelated to wealth positions. Similar results for Germany are found by Sinning (2007) who, for the year 2002, shows that immigrants hold significantly less net worth than natives.

In Table 2 we present estimates for the two most important components of wealth. For Housing and Other Real Estate, the pattern emerging for aggregate wealth is confirmed, since immigrants are holding significantly less than natives only above the median. The gap is now even larger, at about €34,000 at the median. Our results for housing are consistent with those found by Cobb-Clark and Hildebrand (2006a) for the US and Sinning (2007) for Germany. For Valuables, instead, a gap for immigrants is present along the entire distribution, even though its size is relatively modest (only about €700 at the median).

5.2. Asset holdings

In this sub-section we explore how the immigrant status of the household head affects his/her financial decisions, along the ten dimensions previously described. For each household portfolio decision D_{ht} , we estimate the following model:

$$D_{ht} = k + \beta I_h + X_{ht} \delta + \tau + \rho + e_{ht} \quad (2)$$

where the variables are defined as in model (1).¹⁸ We estimate model (2) over pooled data using probit or OLS regressions when the dependent variable is binary or continuous, respectively. For probit, tables report marginal effects.

¹⁸ For a discussion of the overall determinants of household portfolios in Italy we refer to Guiso and Jappelli (2002).

Results are presented in Table 3. For each portfolio decision, a negative correlation emerges between immigrant status and the dependent variable of interest, with the only exception of holdings of informal debts, which displays an insignificant coefficient. This lack of significance may be due to lack of power of the estimates, since for the immigrants sub-sample the number of households holding informal debts is extremely limited (only 136). The size of the coefficients can be interpreted as follows. For instance, for the participation decision with respect to risky assets, after controlling for all covariates immigrants are on average 9.36 percentage points less likely to hold risky assets (with an overall gap of 1.02 percentage points given the sample mean of 10.94%). Consistently, the likelihood of financial fragility is positively correlated with immigrant status. Risk aversion exerts a negative effect on the participation decision and the share for all cases, except home ownership and mortgages. The variable capturing years since migration shows a positive sign for risky and foreign assets, holdings of housing, mortgages, and valuables, while the sign is opposite for financial fragility. This points to occurrence of assimilation, which tends to reduce the gaps as immigrants get settled.

In comparison with the literature, we find consistent results with respect to Cobb-Clark and Hildebrand (2006a) and Borjas (2002), who also find that asset ownership rates, including housing, are relatively lower within the immigrant US population. For them, the timing of the migration decision matters, with more established immigrants holding significantly less and recent immigrants holding significantly more financial wealth, while an opposite pattern emerges with respect to real estate equity, possibly because of a migration cohort effect. Again for immigrants in the US, Chatterjee and Zahirovic-Herbert (2014) show that the probability of owning financial assets increases with risk tolerance. For Germany, Sinning (2007) shows that the migrants' degree of portfolio diversification is significantly lower than that of comparable natives.

6. Further results

6.1. Heterogeneity by cohort of arrival

Italy has been subject to several waves of immigration, that displayed several differences in terms of economic motivation and family consideration. To capture these differences, we replace the dummy for the immigrant status of the household head with a set of dummies capturing cohorts of arrival.¹⁹ We assign four dummies, for household head who migrated before 1980, in the 80s, in the 90s, and in 2000 or after.²⁰

In Table 4 we present results for the distribution of net wealth.²¹ As before, the omitted binary variable identifies households with a native head. The table reveals three patterns. First, as it was the case in

¹⁹ Starting with Borjas (1985), it has been documented that cohorts of arrival matter for immigrants' earnings assimilation, with the most recent cohorts often being of in a worse position than the earlier ones. Unfortunately, we are not able to exploit a panel component of our data due to the negligible size of the sample of immigrants. Nevertheless, disaggregating by cohorts in our case should help to shed more light on the history of immigration to Italy with respect to immigrants' financial decisions.

²⁰ The rest of the model specification remains the same. In particular, years since migration is still included among the covariates, so as to capture their potentially different effect for immigrants belonging to separate cohorts.

²¹ In all the following extensions, risk aversion and years since migration are still included among our regressors, but in the tables only the coefficients of the main variables of interest are reported.

Table 1, there is always a gap for immigrants, for all quintiles and cohorts. Second, within each cohort, the gap widens the richer are the households, even though some discrepancies do appear with respect to Table 1. For instance, for all cohorts except the one arriving in the 90s, the gap emerges from the 25th quintile. Third, if we compare across cohorts, the gap tends to decline, with the pre-1980 cohort displaying larger gaps for almost all quintiles. These results are broadly consistent for those in Mathä, Porpiglia and Sierminska (2011) for the 2008 wave only of the SHIW.²²

Table 5 applies the same disaggregation to portfolio decisions, showing a more variegated picture. For the decision to hold risky assets, the gap is determined by the behavior of the two cohorts that arrived after 1990. This is consistent with the results for the corresponding share. For foreign assets, by contrast, the negative effect of immigrant status is to be attributed to the pre-1990 cohort. Home ownership reveals a gap for all cohorts, with a size of the (negative) coefficient again larger for the pre-1990 cohort. For mortgages, the first and last cohorts are driving the average negative result. Interestingly, while informal debt holdings were not significantly lower for immigrants when using the single immigrant dummy, now we can identify a significant gap for the two oldest cohorts. Owning a business, on the other hand, is less likely for immigrants that arrived in the 90s. For valuables and financial fragility, the pre-1980 cohort does not display a significant disadvantage if compared to natives.

Overall, heterogeneities across cohorts appear substantial, reflecting the distinct stages of the recent immigration history of the country.

6.2. Heterogeneity by country of origin

In order to dig further on the effect of immigrant status, we shall now also estimate variants of models (1) and (2) where, in place of the immigrant dummy, we insert a set of dummy variables reflecting an immigrant household head's country of origin, grouped into seven aggregations (EU15 & North America, New EU, Other Europe, North Africa, Sub-Saharan Africa, Central & South America, Asia & Oceania). Immigrants from different countries may in fact accumulate and allocate their portfolios differently, possibly to account for shocks in the source countries, or in response to different cultural backgrounds.

We start by considering the determinants of net wealth. Since disaggregated data are only available for the period 2006-2012, for the sake of comparison in Table 6, Panel A we first report a specification involving once again the household head's immigrant status dummy, but now over the shorter time period. The results are in line with Table 1, even though dropping the last year results in an increase in the gap, that remains significant only at the median and above. Next, in Panel B, we present results by groups of countries, where again the omitted binary variable identifies households with a native head. Despite the fact that the low number of observations for each group tends to decrease the significance of the coefficients, we do observe some interesting heterogeneities. For instance, immigrants from EU15 & North America are not significantly poorer than natives, while for

²² We cannot perform an analysis by cohort for the wealth components since, due to the small number of observations, they do not converge. The same applies to the other extensions to follow.

immigrants from European countries that recently joined the EU the average pattern is replicated, with significant gaps at and above the median, and for other European countries gaps are generalized across the entire distribution. For the remaining countries, the average pattern is once again replicated, even though the coefficients are not significant for sub-Saharan Africa due to the small number of observations.

In Table 7 we repeat the above analysis for asset holdings. Panel A replicates the specification with the immigrant status dummy over the period 2006-2012 and confirms the results in Table 3. In Panel B we replace the immigrant status dummy with the seven dummies for country groups. The emerging picture is variegated. For instance, the lower probability of holding risky assets for immigrants appears to be equally present in all groups of countries. Similarly, holding valuables is less likely, and financial fragility more so, for most country groups if compared to natives. By contrast, some results are driven by specific source countries. For instance, the lowest probability of being a home owner, if compared to natives, is observed for households with a head born in a EU new member country, possibly since many of them come as domestic helpers, followed by Sub-Saharan Africa and Asia & Oceania.

To sum up, the above results on wealth and asset portfolios do shed some light on the financial choices of people coming from different source countries and, even though their interpretation is sometimes difficult due to the very small number of observations, they testify substantial heterogeneities by source country, with variegated consequences across different kinds of assets.

A comparison with the literature is complicated by the fact that other countries have very different compositions of the immigrant population, if compared to Italy. In the US, for instance, European and Asian households are often found to behave differently from those from Mexico and Central and South America. Overall, however, a great deal of diversity by source country is always present within the immigrant population.²³

6.3. The influence of spouses and the role of intermarriage

The results from the previous sub-sections focus on the immigrant status of the household head, consistently with his/her responsibility for the financial choices of the household. However, within a household, the primary decision maker may well be influenced by other family members, and especially by the partner within a couple. In particular, a couple can involve two immigrants, or else an immigrant and a native, or two natives. In case of a mixed couple, it may also matter whether the household head, as opposed to the partner, is the immigrant. To account for all the possible combinations and assess their influence on the financial decisions, we focus first on a sub-sample of households including a couple. As explained in Section 4, over this sample we then define four dummy variables denoting households including a couple of natives (Both Natives), a couple of

²³ The application to our dataset of an epidemiological approach (Fernandez and Fogli, 2006; Giuliano, 2007) is prevented by the lack of information on individual countries of origin and on second-generation immigrants.

immigrants (Both Immigrants) or a mixed couple, where in turn within a mixed couple the immigrant can either be the head (Mixed Immigrant Head) or the spouse (Mixed Immigrant Spouse).²⁴

In Table 8 we present results for the distribution of net wealth. Preliminarily, in Panel A we still present the immigrant status dummy alone as in Table 1, but now, for the sake of comparison with the second specification including the alternative set of dummies, the regression is run over the sub-sample of households including a couple. If compared to Table 1, where all households are included, some differences do emerge. The gap in wealth with respect to natives is larger in size and starts to be significant from the 25th quantile. Since in this specification we cannot distinguish whether the immigrant household head has a native or an immigrant spouse, the observed effect is a weighted average of the effect of Mixed Immigrant Head and Both Immigrants.

In Panel B we can verify if the composition of a couple by immigration status does matter. The reference is a couple involving two natives. We show that, for couples where both partners are immigrants, the gaps in wealth captured by the immigrant status dummy are largely confirmed. However, when we look at mixed couples, we find that those with an immigrant head are not significantly different from natives, while those with a native head are poorer than natives along the entire wealth distribution. In Panel C we further distinguish whether, within a mixed couple, the gender of the head also matters, to reveal that the weaker position of mixed couples with a native head and an immigrant spouse is confirmed independently of gender considerations, even though the gap with respect to natives is larger in size for couples with a female head. Likewise, when the immigrant is the head, gender does not modify previous conclusions (except for a modest reversal of the gap for the lowest quintiles when the head is a male).

In Table 9 we repeat the above analysis for asset allocation decisions. Panel A replicates Table 3 over the sub-sample of couples, yielding very similar results with the exception of the decision to hold a mortgage and the likelihood of financial fragility, where immigrant status no longer reaches a significant impact. The latter discrepancy may be due to the definition of financial fragility, which requires not having sufficient liquidity, a more unlikely occurrence within a household including a couple rather than a single individual. In Panel B we replace the immigrant status dummy with the set of dummies capturing pure vs mixed couples, where a pure native couple is the omitted category. For couples including two immigrants, the results mirror those in Panel A. However, for mixed couples, the coefficients are never significant, with the only exception of the decision to hold risky assets. In other words, the financial decisions of mixed household are largely indistinguishable from those of a native household, independent of the immigrant status of the head vs the spouse. One possible explanation for these findings is that, through intermarriage, immigrants might have gone through an assimilation process, prior and/or during marriage, that makes them more similar to natives even with respect to financial choices. The distribution of household heads by gender, with a prevalence of males, may also be part of the explanation, as addressed in Panel C, where we observe different patterns across each investment decision. For instance, the lower participation in risky assets is explained, within mixed couples with an immigrant head, by those couple where the immigrant

²⁴ This classification is done independently of the immigrant status of other household members, which amounts to implicitly attribute a stronger influence on the household head's decisions of his/her spouse, if compared to other household members.

head is a male. With regard to home ownership, on the other hand, mixed couples where the immigrant spouse is a male actually outperform natives. Informal debts are significantly lower for mixed couples with a female immigrant head. Financial fragility is more likely for mixed couples with a male spouse.

We can compare our results with those derived for other countries. For instance, for the US, Cobb-Clark and Hildebrand (2006a) focus exclusively on households including a couple and do not include mixed households among immigrant ones, since they expect them to behave like native-born households. Thus, they do not distinguish, as we do, between mixed households headed by an immigrant rather than a native. For Germany, Sinning (2007) adopts a classification similar to ours and finds that, in terms of portfolio diversification, pure immigrant households perform at the bottom, followed by mixed households with an immigrant head and mixed households with a native head.

To sum up, the results in this sub-section document complex interactions between the pattern of intermarriage, the responsibility of making financial decisions, and the gendered division of roles within the household. Moreover, these interactions are likely influenced by the cultural background associated with different source countries, as highlighted in the previous sub-section.

6.4. Citizenship status

So far we have adopted a definition of immigrant based on the country of birth. However, it is also possible to focus instead on nationality, thus defining an immigrant as a non-Italian citizen. This alternative definition, on the one hand, accounts for the increasing presence of second-generation immigrants who, being born in Italy but with no automatic access to citizenship due to the *jus sanguinis* regime, now enter the sample as immigrants. On the other hand, this definition excludes the increasing number of long-term immigrants born abroad and later naturalized. In principle, the gap for non-citizens may be even higher if compared to that for non-natives. In practice, however, as shown in Tables 10 and 11, the results concerning wealth and asset holdings are largely confirmed for the non-citizens, with a loss of significance for foreign assets and mortgages, which may be partly due to the reduced number of units classified as immigrant (1,133 rather than 1,837).

7. The impact of the Great Recession

We now investigate whether the financial crisis has had an impact on how immigrant households behave if compared to native ones. To this end, the sample is split into two sub-samples, where 2006 and 2008 are interpreted as pre-crisis waves, while 2010, 2012, and 2014 are interpreted as post-crisis waves. The choice to assign 2008 to the pre-crisis sub-sample can of course be questioned. However, it can be defended on several grounds. First of all, responses for each survey wave is collected at the very beginning of the following year, that is, for 2008, in early 2009. Since the real effect of the crisis on GDP manifested itself, for the case of Italy, only in 2009, with a dramatic drop of 6%, it is reasonable to assume that survey respondents, at the beginning of 2009, had not yet perceived it. In other words, even though 2008 witnessed a turmoil in financial markets, culminating in September with the bankruptcy of Lehman Brothers, 2008 was not yet, at least for Italy, a recession year. The relative stability of the real economy as of 2008 is also confirmed by data on the rate of

unemployment, which was still at 6.7%, increased to 7.8% in 2009, and then continued its growth until 2014, when it reached 12.9%. Moreover, in Italy the banking sector showed a remarkable resilience, at least in the immediate aftermath of 2008, while the decline in house prices manifested itself only after the initial financial shock and developed very gradually.

In Table 12 we present quantile regressions for wealth, separately for the pre- and post-crisis sub-samples (the relevant term of comparison is the full sample in Table 1). While before the crisis the immigrant status is associated with a non-significant gap, after the crisis wealth gaps are consistently larger, so that the effect in Table 1 is fully attributable to the after-crisis sub-sample. These results point to a worsening of the economic conditions of immigrant households after the crisis, relative to natives.

Turning to asset allocation, in Table 13 again we present separate regressions, for each outcome of interest, for the pre- and post-crisis sub-samples (with Table 3 as term of comparison). The results reveals that for some financial decisions the gaps for immigrants, if compared to natives, are relatively stable before and after the crisis. This is the case, for instance, for the decisions concerning risky assets, which show similar coefficients over the two time periods. The same applies to the likelihood of holding a mortgage and valuables. However, the gap in home ownership becomes larger and more significant after the crisis, while the opposite occurs for the holding of valuables. The higher likelihood of financial fragility for immigrants is also attributable to the post-crisis period. Informal debt holdings, on the other hand, become more likely for immigrants after the crisis.

To sum up, the financial crisis worsened the conditions of immigrant households, relative to native ones, in several dimensions, including wealth holdings, home ownership, and financial fragility. Immigrants also appear to rely more on informal debt channels after the crisis.

It is useful to relate our results to those obtained by Amuedo-Dorantes and Pozo (2015) by comparing 2006 and 2010 for US households. They find that post-crisis wealth losses for immigrants were particularly large for the middle and top wealth quartiles, with is broadly consistent with our findings. Moreover, they show that this outcome was driven by differences across assets, with greater losses in primary housing ownership and primary housing values which, *ceteris paribus*, mirrors our results. However, it should be highlighted that, while the housing market crash, in the US, led the recession, as previously mentioned in Italy the decline in house prices manifested itself quite gradually after the initial financial shock.

8. Conclusion

Using rich household survey data for Italy over the period 2006-2014, we have documented the presence of sizeable gaps between natives and immigrants, both with respect to wealth and asset holdings. Controlling for households' and household heads' characteristics, including risk aversion and years since migration, and time and macro-region fixed effects, we find that immigrants do hold less net wealth than natives, but only when they are relatively wealthy, i.e., above the median of the wealth distribution. Housing wealth is the main driver of this pattern. Moreover, immigrant status

negatively affects the chances of holding risky assets, housing, and mortgages, and it increases the likelihood of financial fragility.

The interaction between immigrant status and immigration histories, source countries, and patterns of intermarriage also matter, in a variegated fashion, for accumulation and investment decisions. Namely, the nativity gap in net wealth tends to decline for more recent cohorts. Moreover, immigrants from EU15 and North America are not significantly poorer than natives. Accounting for intermarriage, the gap in wealth is confirmed when both partners are immigrants and for mixed couples where the immigrant is the spouse. For decisions about asset holdings, the results are largely driven by couples including two immigrants. The Great Recession is a major driver of the relatively worse conditions of immigrants in terms of wealth holdings, home ownership, and financial fragility, and also induces for them a greater reliance on informal debt.

While the above results offer novel and thorough descriptive evidence on how the financial decisions of immigrant households differ from native, further work is needed in order to identify the channels that drive the observed nativity gaps. Further attention should be given to saving behavior and the associated decision about remittances. Furthermore, in addition to financial choices, investigating broader differences between immigrants and natives in term of family structure and gender culture is also a potential way for future research.

REFERENCES

- Abdul-Razzak, N., U. O. Osili, and A. Paulson (2015). Chapter 8 - Immigrants' Access to Financial Services and Asset Accumulation. In B. R. Chiswick and P. W. Miller (eds.), *Handbook of the Economics of International Migration*, Volume 1, 387-442. MIT Press, Cambridge, MA.
- Amuedo-Dorantes, C. and S. Pozo (2015). The Impact of the Recession on Wealth of Older Immigrant and Native Households in the United States. *IZA Journal of Labor Policy* 4:6.
- Bauer, T. K. and M. Sinning (2011). The Savings Behavior of Temporary and Permanent Migrants in Germany. *Journal of Population Economics*, 24 (2), 421-449.
- Bauer, T. K., D. A. Cobb-Clark, V. A. Hildebrand, and M. Sinning (2011). A Comparative Analysis of the Nativity Wealth Gap. *Economic Inquiry*, 11 (4), 989-1007.
- Bertocchi, G., M. Brunetti, and C. Torricelli (2011). Marriage and Other Risky Assets: A Portfolio Approach. *Journal of Banking and Finance*, 35 (11), 2902-2915.
- Bonin, H., A. Constant, K. Tatsiramos, and K. Zimmermann (2009). Native-Migrant Differences in Risk Attitudes. *Applied Economics Letters*, 16 (15), 1581-1586.
- Borjas, G. (1985). Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants. *Journal of Labor Economics*, 3 (4), 463-489.
- Borjas, G.J. (2002). Homeownership in the Immigrant Population. *Journal of Urban Economics*, 2002, 52 (3), 448-476.
- Brunetti, M., E. Giarda, and C. Torricelli (2016). Is Financial Fragility a Matter of Illiquidity? An Appraisal for Italian Households. *Review of Income and Wealth*, 62 (4), 628-649.
- Carroll, C. D., B.-K. Rhee, and C. Rhee (1994). Are There Cultural Effects on Saving? Some Cross-Sectional Evidence. *Quarterly Journal of Economics*, 109 (3), 685-699.

- Carroll, C. D., B.-K. Rhee, and C. Rhee (1999). Does Cultural Origin Affect Saving Behavior? Evidence from Immigrants. *Economic Development and Cultural Change*, 48 (1), 33-50.
- Chatterjee, S. and V. Zahirovic-Herbert (2014). A Road to Assimilation: Immigrants and Financial Markets. *Journal of Economics and Finance*, 38 (2), 345-358.
- Cobb-Clark, D. A. and V. A. Hildebrand (2006a). The Wealth and Asset Holdings of U.S.- Born and Foreign-Born Households: Evidence from SIPP Data. *Review of Income and Wealth*, 51 (1), 17-42.
- Cobb-Clark, D. A. and V. A. Hildebrand (2006b). The Portfolio Choices of Hispanic Couples. *Social Science Quarterly*, 87 (5), 1344-1363.
- Cobb-Clark, D. A. and V. A. Hildebrand (2006c). The Wealth of Mexican Americans. *Journal of Human Resources*, 41 (4), 841-868.
- Cobb-Clark, D. A. and V. A. Hildebrand (2009). The Asset Portfolios of Native-Born and Foreign-Born Households. *Economic Record*, 85 (268), 46-59.
- Doiron, D. and R. Guttmann (2009). Wealth Distributions of Migrant and Australian-Born Households. *Economic Record*, 85 (268), 32-45.
- Fernández, R. and A. Fogli (2006). Fertility: The Role of Culture and Family Experience. *Journal of the European Economic Association*, 4 (2), 552-561.
- Ferrari, I., 2017. The Nativity Wealth Gap in Europe: A Matching Approach. MEA Discussion Paper No. 08-2017.
- Fuchs-Schundeln, N., P. Masella, and H. Paule-Paludkiewicz (2017). Cultural Determinants of Household Saving Behavior. Mimeo.
- Gassoumis, Z. D. (2012). The Recession's Impact on Racial and Ethnic Minority Elders: Wealth Loss Differences by Age, Race and Ethnicity. USC Edward R. Roybal Institute on Aging, Los Angeles, CA.
- Giuliano, P. (2007). On the Determinants of Living Arrangements in Western Europe: Does Cultural Origin Matter? *Journal of the European Economic Association*, 5 (5), 927-952.
- Guiso, L. and T. Jappelli (2002). Household Portfolios in Italy. In L. Guiso, M. Haliassos, and T. Jappelli (eds.), *Household Portfolios*, 251-289. MIT Press, Cambridge, MA.
- Haliassos, M., T. Jansson, and Y. Karabulut (2016). Incompatible European Partners? Cultural Predispositions and Household Financial Behavior. *Management Science*, 63 (11), 3780-3808.
- Huber, S.J. and T. Schmidt (2016). Cross-Country Differences in Homeownership: A Cultural Phenomenon. Mimeo.
- Islam, A., J. Parasnis, and D. Fausten (2013). Do Immigrants Save Less than Natives? Immigrant and Native Saving Behaviour in Australia. *Economic Record*, 89 (284), 52-71.
- Jaeger, D. A., T. Domen, A. Falk, D. Huffman, U. Sunde, and H. Bonin (2010). Direct Evidence on Risk Attitudes and Migration. *Review of Economics and Statistics*, 92 (3), 684-689.
- Mathä, T. Y., A. Porpiglia, and E. Sierminska (2011). The Immigrant/Native Wealth Gap in Germany, Italy and Luxembourg. *European Central Bank Working Paper No. 1302*.
- OECD (2017), *International Migration Outlook 2017*, OECD Publishing, Paris.
- Osili, U. O. and A. Paulson (2004). Prospects for Immigrant-Native Wealth Assimilation: Evidence from Financial Market Participation. *Federal Reserve Bank of Chicago Working Paper 04-18*.

- Osili, U. O. and A. Paulson (2008). What Can We Learn about Financial Access from U.S. Immigrants? The Role of Country of Origin Institutions and Immigrant Beliefs. *World Bank Economic Review*, 22 (3), 431-455.
- Osili, U. O. and A. Paulson (2014). Crises and Confidence: Systemic Banking Crises and Depositor Behavior. *Journal of Financial Economics*, 111 (3), 646-660.
- Seto, S. and V. L. Bogan (2013). Immigrant Household Investment Behavior and Country of Origin: A Study of Immigrants to the United States. *International Journal of Finance and Economics*, 18 (2), 128-258.
- Shamsuddin, A. F. M. and D. J. DeVoretz (1998). Wealth of Canadian and Foreign-Born Households in Canada, *Review of Income and Wealth*, 44 (4), 515-533.
- Shin, S. H. and S. D. Hanna (2015). Decomposition Analyses of Racial/Ethnic Differences in High Return Investment Ownership after the Great Recession. *Journal of Financial Counseling and Planning*, 26 (1), 1-21.
- Sinning, M. (2007). Wealth and Asset Holdings of Immigrants in Germany. IZA Discussion Paper No. 3089.
- Sinning, M. (2011). Determinants of Savings and Remittances: Empirical Evidence from Immigrants to Germany. *Review of Economics of the Household*, 9 (1), 45-67.
- Wolff, E. N. (2013). The Asset Price Meltdown and the Wealth of the Middle Class. US2010 Project Report, Russell Sage Foundation, New York, NY.
- Zaiceva, A. and K. F. Zimmermann (2016). Migration and the Demographic Shift. In J. Piggott and A. Woodland (eds.), *Handbook of the Economics of Population Aging*, Vol. 1, Ch. 3, 119-177. North Holland, Amsterdam.
- Zhang, X. (2003). The Wealth Position of Immigrant Families in Canada, Statistics Canada Analytical Studies Branch Research Paper No. 197.

TABLES

Table 1: Net Wealth, 2006-2014

	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q
Immigrant HH	-2.0258 (1.936)	-4.5409 (3.143)	-29.2792*** (4.276)	-43.5734*** (6.366)	-52.2975*** (8.428)
Risk Aversion	-2.1303*** (0.298)	-8.3878*** (1.358)	-19.7165*** (2.126)	-26.1947*** (1.713)	-33.2662*** (3.090)
Years since Migration	-0.1956** (0.083)	-0.5942*** (0.154)	-0.3682 (0.262)	-0.0922 (0.376)	-0.0553 (0.268)
N	39,100				

Notes: The table reports coefficient from simultaneous quantile regressions with bootstrapped standard errors weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, income quantiles, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 2: Net Wealth Components, 2006-2014

	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q
	Housing and Other Real Estate					Valuables				
Immigrant HH	0.0000 (0.000)	-0.7861 (1.786)	-34.0012*** (3.797)	-49.7763*** (3.966)	-60.2149*** (7.483)	-0.1016*** (0.018)	-0.4099*** (0.042)	-0.7199*** (0.073)	-1.1903*** (0.103)	-1.2995*** (0.197)
Risk Aversion	-0.0000 (0.000)	-3.3432*** (0.860)	-12.9063*** (1.632)	-19.1131*** (1.670)	-23.2037*** (2.458)	-0.0753*** (0.006)	-0.2693*** (0.016)	-0.6348*** (0.029)	-0.9224*** (0.037)	-1.2015*** (0.116)
Years since Migration	-0.0000*** (0.000)	-0.2597* (0.135)	0.0658 (0.179)	0.1559 (0.204)	0.1770 (0.456)	0.0002 (0.001)	0.0044** (0.002)	0.0069** (0.003)	0.0140** (0.006)	0.0213 (0.017)
N	39,100					39,100				

Notes: The table reports coefficient from simultaneous quantile regressions with bootstrapped standard errors weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, income quantiles, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 3: Asset Holdings, 2006-2014

	Holding Risky Assets	Share Risky Assets	Holding Foreign Assets	Share Foreign Assets	Home Ownership	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
Immigrant HH	-0.0936*** (0.006)	-0.0193*** (0.005)	-0.0054*** (0.002)	-0.0012* (0.001)	-0.0971*** (0.026)	-0.0349*** (0.011)	0.0112 (0.008)	-0.0266** (0.012)	-0.1737*** (0.022)	0.0854*** (0.021)
Risk Aversion	-0.0481*** (0.004)	-0.0252*** (0.003)	-0.0089*** (0.001)	-0.0028*** (0.001)	0.0163*** (0.004)	0.0111** (0.005)	-0.0053** (0.003)	-0.0079** (0.004)	-0.0466*** (0.005)	0.0080* (0.004)
Years since Migration	0.0027*** (0.001)	0.0002 (0.000)	0.0002* (0.000)	-0.0000 (0.000)	0.0025*** (0.001)	0.0020*** (0.001)	-0.0003 (0.000)	0.0002 (0.001)	0.0014** (0.001)	-0.0013* (0.001)
N	38,665	32,492	38,665	32,492	38,665	38,665	38,665	38,665	38,665	38,665

Notes: The table reports average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions have robust standard errors and are weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, income and wealth quantiles, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 4: Net Wealth by Cohort of Arrival of Immigrant Household Head, 2006-2014

	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q
Cohort pre-1980	-14.2208 (10.219)	-42.1202** (19.724)	-59.6899* (31.290)	-73.6559* (40.600)	-131.3074** (66.630)
Cohort 1980s	-8.7736 (6.625)	-22.5790** (9.615)	-60.7231*** (16.463)	-61.8364*** (20.409)	-121.9352*** (32.889)
Cohort 1990s	-8.9446*** (3.375)	-21.8134*** (6.364)	-56.7348*** (9.155)	-73.2014*** (11.850)	-95.6010*** (19.070)
Cohort post-2000	-2.2097 (1.841)	-8.0539* (4.262)	-26.3019*** (5.710)	-39.9834*** (7.108)	-56.8579*** (12.556)
N	39,100				

Notes: The table reports coefficient from simultaneous quantile regressions with bootstrapped standard errors weighted by population weights. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 5: Asset Holdings by Cohort of Arrival of Immigrant Household Head, 2006-2014

	Holding Risky Assets	Share Risky Assets	Holding Foreign Assets	Share Foreign Assets	Home Ownership	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
Cohort pre-1980	-0.0235 (0.085)	-0.0021 (0.032)	0.7627** (0.352)	0.0117 (0.008)	-0.4922*** (0.170)	-0.1043*** (0.018)	-0.0245* (0.013)	-0.0352 (0.046)	-0.0901 (0.115)	0.1461 (0.148)
Cohort 1980s	-0.0409 (0.042)	-0.0210 (0.021)	0.3251 (0.229)	0.0116 (0.010)	-0.2191* (0.119)	-0.0475 (0.035)	-0.0228** (0.010)	-0.0179 (0.040)	-0.1950** (0.086)	0.1773* (0.103)
Cohort 1990s	-0.0854*** (0.013)	-0.0232** (0.012)	0.0237 (0.028)	0.0022 (0.002)	-0.1224* (0.069)	-0.0219 (0.028)	0.0055 (0.018)	-0.0517*** (0.017)	-0.1943*** (0.048)	0.0932** (0.046)
Cohort post-2000	-0.0904*** (0.010)	-0.0147** (0.006)	-0.0019 (0.005)	0.0005 (0.001)	-0.1848*** (0.043)	-0.0674*** (0.011)	0.0017 (0.009)	-0.0183 (0.015)	-0.1549*** (0.027)	0.0939*** (0.028)
N	38,665	32,492	38,665	32,492	38,665	38,665	38,665	38,665	38,665	38,665

Notes: The table reports average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions have robust standard errors and are weighted by population weights. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income and wealth quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 6: Net Wealth by Country of Origin of Immigrant Household Head, 2006-2012

	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q
Panel A					
Immigrant HH	-1.5118 (1.557)	-2.7095 (4.266)	-22.8463*** (5.407)	-32.0372*** (7.391)	-44.7379*** (8.716)
N	31,056				
Panel B					
EU15 & N. America	-4.9821 (5.490)	-5.2165 (14.093)	14.1376 (14.318)	24.6681 (22.924)	-32.5201 (43.945)
New EU	0.2542 (1.490)	0.5650 (3.760)	-17.5981** (7.466)	-28.2343*** (9.665)	-49.5198*** (15.152)
Other EU	-5.0059* (2.986)	-7.8299* (4.627)	-28.1393*** (6.174)	-35.9040*** (7.309)	-48.4023*** (9.779)
North Africa	-3.8324 (4.298)	-8.9167 (7.505)	-26.9514** (10.645)	-19.0227* (10.494)	-25.5024* (14.575)
Sub-S. Africa	4.2451 (4.181)	8.5875 (6.745)	-1.1589 (9.663)	-7.8180 (9.059)	-15.2563 (18.748)
Central & S. America	-2.1138 (4.973)	-3.9270 (7.863)	-24.6048*** (7.712)	-31.5271** (13.951)	-34.5082** (17.261)
Asia & Oceania	-0.9636 (3.681)	-7.6964 (8.197)	-24.6538** (12.144)	-41.8779*** (10.394)	-60.9392*** (11.050)
N	31,056				

Notes: The table reports coefficient from simultaneous quantile regressions with bootstrapped standard errors and weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 7: Asset Holdings by Country of Origin of Immigrant Household Head, 2006-2012

	Holding Risky Assets	Share Risky Assets	Holding Foreign Assets	Share Foreign Assets	Home Ownership	Has Mortgage	Has Informal Debts	Has Business	Has Valuables	Financially Fragile
Panel A										
Immigrant HH	-0.0985*** (0.006)	-0.0054*** (0.002)	-0.0857*** (0.031)	-0.0344*** (0.013)	0.0056 (0.009)	-0.0246* (0.014)	-0.1774*** (0.026)	0.0903*** (0.027)	-0.0247*** (0.007)	-0.0014 (0.001)
N	30,742	30,742	30,742	30,742	30,742	30,742	30,742	30,742	25,769	25,769
Panel B										
EU15 & N.America	-0.0951*** (0.016)	-0.0317 (0.022)	0.0052 (0.016)	0.0003 (0.005)	-0.0130 (0.070)	-0.0673* (0.040)	-0.0045 (0.035)	0.0036 (0.051)	-0.1476* (0.085)	0.2701** (0.119)
New EU	-0.1065*** (0.007)	-0.0130* (0.007)		-0.0022* (0.001)	-0.2657*** (0.066)	-0.0832*** (0.012)	0.0199 (0.016)	-0.0165 (0.023)	-0.1099*** (0.035)	0.0581* (0.031)
Other EU	-0.0928*** (0.010)	-0.0318*** (0.009)	-0.0017 (0.004)	0.0008 (0.002)	-0.0606 (0.040)	-0.0156 (0.022)	-0.0048 (0.009)	-0.0215 (0.022)	-0.1561*** (0.034)	0.0875*** (0.032)
North Africa	-0.1045*** (0.008)	-0.0313*** (0.010)		-0.0024* (0.001)	0.0090 (0.037)	-0.0082 (0.031)	0.0200 (0.019)	-0.0339 (0.022)	-0.1976*** (0.048)	0.1837*** (0.067)
Sub-S.Africa		-0.0391*** (0.011)		-0.0027* (0.001)	-0.0745* (0.042)	-0.0252 (0.022)	-0.0084 (0.011)	-0.0881*** (0.017)	-0.2798*** (0.055)	0.0961** (0.048)
Central & S.America	-0.0873*** (0.021)	-0.0278** (0.012)		-0.0031** (0.001)	0.0044 (0.025)	0.0154 (0.031)	-0.0196*** (0.007)	-0.0500** (0.023)	-0.1951*** (0.060)	0.0451 (0.047)
Asia & Oceania	-0.1058*** (0.008)	-0.0213* (0.011)	-0.0066** (0.003)	-0.0012 (0.002)	-0.0739* (0.041)	-0.0542*** (0.017)	0.0041 (0.015)	0.0045 (0.023)	-0.2651*** (0.054)	0.0922* (0.055)
N	30,591	25,769	30,041	25,769	30,742	30,742	30,742	30,742	30,742	30,742

Notes: The table reports average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions have robust standard errors and are weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income and wealth quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 8: Net Wealth and Intermarriage (Couples Sub-Sample), 2006-2014

	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q
Panel A					
Immigrant HH	-2.3894 (3.411)	-10.1998* (5.234)	-38.4799*** (5.104)	-53.5942*** (9.160)	-62.1563*** (16.219)
N	24,277				
Panel B					
Mixed Immigrant HH	8.0237 (6.095)	0.3170 (10.072)	1.7842 (14.884)	13.5532 (28.822)	22.9778 (75.455)
Mixed Immigrant Spouse	-8.7700*** (2.760)	-26.7095*** (5.733)	-36.0309*** (7.392)	-43.9384*** (9.935)	-51.5002*** (13.818)
Both Immigrants	-3.0669 (2.609)	-12.2554** (5.046)	-39.2841*** (3.512)	-47.7053*** (9.051)	-55.6306*** (19.998)
N	24,277				
Panel C					
Mixed Imm. HH Male	13.9731* (8.091)	12.7510 (12.755)	17.9145 (21.377)	1.0686 (33.954)	2.4753 (100.198)
Mixed Imm. HH Female	5.2298 (9.488)	1.5614 (8.906)	2.4520 (22.817)	16.5261 (31.290)	25.7793 (69.033)
Mixed Imm. Spouse Male	-16.7508** (7.060)	-40.6275*** (14.719)	-59.1525*** (11.270)	-82.4003*** (10.131)	-77.7102** (34.536)
Mixed Imm. Spouse Female	-6.3384 (3.862)	-24.6770*** (5.457)	-31.4817*** (9.163)	-37.9821*** (9.616)	-38.9448*** (11.691)
Both Immigrants	-3.5605 (2.880)	-10.0287*** (3.850)	-38.3480*** (5.569)	-48.5198*** (8.558)	-59.4687*** (16.521)
N	24,277				

Notes: All models are estimated on the subsample of households with a couple. The table reports coefficient from simultaneous quantile regressions with bootstrapped standard errors and weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 9: Asset Holdings and Intermarriage (Couples Sub-Sample), 2006-2014.

	Holding Risky Assets	Share Risky Assets	Holding Foreign Assets	Share Foreign Assets	Home Ownership	Has Mortgage	Has Informal Debts	Has Business	Has Valuables	Financially Fragile
Panel A										
Immigrant HH	-0.1100*** (0.009)	-0.0250*** (0.008)	-0.0066*** (0.003)	-0.0017** (0.001)	-0.0510* (0.028)	-0.0248 (0.019)	0.0003 (0.008)	-0.0362** (0.018)	-0.1755*** (0.030)	0.0205 (0.019)
N	24,134	21,071	24,134	21,071	24,134	24,134	24,134	24,134	24,134	24,134
Panel B										
Mixed Immigrant HH	-0.0634* (0.038)	-0.0295 (0.022)	0.0203 (0.024)	0.0068 (0.007)	-0.0841 (0.068)	-0.0262 (0.043)	-0.0108 (0.018)	0.0401 (0.052)	-0.0449 (0.044)	-0.0130 (0.027)
Mixed Immigrant Spouse	-0.0198 (0.013)	-0.0052 (0.009)	0.0023 (0.004)	0.0008 (0.002)	-0.0025 (0.016)	0.0073 (0.016)	0.0055 (0.008)	0.0152 (0.017)	-0.0098 (0.013)	0.0158 (0.011)
Both Immigrants	-0.1148*** (0.008)	-0.0257*** (0.008)		-0.0010 (0.001)	-0.0539* (0.028)	-0.0245 (0.019)	-0.0005 (0.009)	-0.0359** (0.017)	-0.1632*** (0.030)	0.0164 (0.019)
N	24,134	21,071	23,325	21,071	24,134	24,134	24,134	24,134	24,134	24,134
Panel C										
Mixed Imm. HH Male	-0.0946*** (0.031)	-0.0361 (0.032)	0.0074 (0.031)	0.0123 (0.016)	-0.0827 (0.116)	-0.0103 (0.075)	0.0205 (0.050)	0.0230 (0.044)	-0.0899 (0.069)	-0.0199 (0.024)
Mixed Imm. HH Female	-0.0506 (0.040)	-0.0266 (0.021)	0.0284 (0.028)	0.0050 (0.005)	-0.0848 (0.067)	-0.0320 (0.041)	-0.0270*** (0.003)	0.0457 (0.057)	-0.0280 (0.045)	-0.0037 (0.035)
Mixed Imm. Spouse Male	-0.0275 (0.031)	-0.0191 (0.019)	0.0211 (0.019)	0.0038 (0.005)	0.0574** (0.026)	0.0184 (0.041)	-0.0080 (0.014)	0.0049 (0.047)	-0.0670 (0.041)	0.1009* (0.053)
Mixed Imm. Spouse Female	-0.0189 (0.014)	-0.0035 (0.009)	-0.0002 (0.004)	0.0005 (0.002)	-0.0125 (0.017)	0.0059 (0.017)	0.0075 (0.009)	0.0182 (0.019)	-0.0023 (0.013)	0.0107 (0.011)
Both Immigrants	-0.1174*** (0.008)	-0.0259*** (0.008)		-0.0001 (0.002)	-0.0546* (0.028)	-0.0226 (0.020)	0.0003 (0.009)	-0.0372** (0.017)	-0.1700*** (0.031)	0.0151 (0.018)
N	23,948	20,904	23,139	20,904	23,948	23,948	23,948	23,948	23,948	23,948

Notes: All models are estimated on the subsample of households with a couple. The table reports average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions have robust standard errors and are weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, employment status, income and wealth quantiles, risk aversion, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 10: Net Wealth for Immigrant Household Head as Foreign Citizen, 2006-2014

	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q
Immigrant HH	-2.6969 (1.699)	-5.4705** (2.340)	-25.6597*** (4.016)	-39.3033*** (4.487)	-49.2484*** (7.383)
N	39,100				

Notes: The table reports coefficient from simultaneous quantile regressions with bootstrapped standard errors weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 11: Asset Holdings for Immigrant Household Head as Foreign Citizen, 2006-2014

	Holding Risky Assets	Share Risky Assets	Holding Foreign Assets	Share Foreign Assets	Home Ownership	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
Immigrant HH	-0.0829*** (0.008)	-0.0160*** (0.004)	-0.0038 (0.003)	0.0002 (0.001)	-0.0507** (0.021)	-0.0191 (0.012)	0.0052 (0.006)	-0.0333*** (0.010)	-0.1276*** (0.018)	0.0346** (0.016)
N	38,665	32,492	38,665	32,492	38,665	38,665	38,665	38,665	38,665	38,665

Notes: The table reports average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions have robust standard errors and are weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income and wealth quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 12: Net Wealth and the Great Recession: Pre- and Post-Crises, 2006-2014

	10 th Q	25 th Q	50 th Q	75 th Q	90 th Q
Pre-Crisis (2006-2008)					
Immigrant HH	-3.2559 (4.599)	-3.8840 (5.385)	-7.2658 (10.999)	-12.0819 (11.494)	-21.9470 (17.439)
N	15,275				
Post-Crisis (2010-2014)					
Immigrant HH	-1.0737 (1.818)	-5.0255 (3.088)	-34.3974*** (4.496)	-54.0710*** (6.527)	-58.5488*** (11.427)
N	23,825				

Notes: The table reports coefficient from simultaneous quantile regressions with bootstrapped standard errors and weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 13: Asset Holdings and the Great Recession: Pre- and Post-Crises, 2006-2014

	Holding Risky Assets	Share Risky Assets	Holding Foreign Assets	Share Foreign Assets	Home Ownership	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
Pre-Crisis (2006-2008)										
Immigrant HH	-0.1001*** (0.009)	-0.0155** (0.007)	-0.0846*** (0.009)	-0.0006 (0.001)	-0.0052* (0.003)	-0.0697*** (0.025)	-0.0048 (0.014)	-0.0291 (0.029)	-0.1960*** (0.049)	0.0281 (0.042)
N	15,152	12,810	15,152	12,810	15,152	15,152	15,152	15,152	15,152	15,152
Post-Crisis (2010-2014)										
Immigrant HH	-0.0846*** (0.009)	-0.0130** (0.006)	-0.0046* (0.003)	-0.0011 (0.001)	-0.1848** (0.076)	-0.0763*** (0.015)	0.0213** (0.011)	-0.0246* (0.014)	-0.1521*** (0.026)	0.1064*** (0.026)
N	23,513	19,682	23,513	19,682	23,513	23,513	23,513	23,513	23,513	23,513

Notes: The table reports average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions have robust standard errors and are weighted by population weights. Immigrant HH stands for immigrant household head. All regressions also include: family size, gender, age, age squared, marital status, education, labor force status, risk aversion, income and wealth quantiles, years since migration, and year and macro-region fixed effects. * significant at 10%; ** significant at 5%; *** significant at 1%.

APPENDIX
Data description and summary statistics

Table A1: Data Description

VARIABLE	Description
Immigrant Household Head	Binary variable assuming value 1 for households whose household head is foreign-born, and 0 otherwise, i.e., for households whose household head is native.
Immigrant Household Head (Non-Citizen)	Binary variable assuming value 1 for households whose household head has non-Italian nationality, and 0 otherwise.
Both Natives, Mixed Immigrant Head, Mixed Immigrant Spouse, Both Immigrants	Set of binary variables locating who – within the couple – is a foreign-born, if any. These dummies are defined only for households including a couple (either married or in a stable union): Both Natives takes value 1 for households where both members of the couple are natives, and 0 otherwise Mixed Immigrant Head takes value 1 for couple households where the household head is foreign-born, while the spouse is not, and 0 otherwise Mixed Immigrant Spouse takes value 1 for couple households where the spouse is foreign-born, while the head of the household is not, and 0 otherwise Both Immigrants takes value 1 for couple households where both the household head and the spouse are foreign-born, and 0 otherwise.
Net Wealth	Sum of real and financial assets net of liabilities, in €
Housing and Other Real Estate	Value of housing and other real estate, held either in Italy or abroad. It thus includes also properties held by immigrants in their home countries.
Business	Value of owned business holdings.
Valuables	Value of jewellery, gold, art, antiques, furniture, etc.
Holding Risky Assets	Binary variable taking value 1 for households holding risky financial assets, and 0 otherwise. Risky assets include stocks and shares, corporate bonds, and foreign assets.
Share of Risky Assets	Continuous variable representing the share of financial assets held in risky ones.

Holding Foreign Assets	Binary variable taking value 1 for households holding foreign financial assets, and 0 otherwise. Foreign assets are financial assets issued by non-resident institutions.
Share of Foreign Assets	Continuous variable representing the share of financial assets held in foreign ones.
Home Ownership	Binary variable taking value 1 for households owning their primary residence, and 0 otherwise. Only primary residential properties located in Italy are considered.
Holding Mortgage	Binary variable taking value 1 for households having mortgages, and 0 otherwise.
Holding Informal Debts	Binary variable taking value 1 for households indebted with relatives or friends, and 0 otherwise.
Owning Business	Binary variable taking value 1 for households holding a business, and 0 otherwise.
Owning Valuables	Binary variable taking value 1 for households holding valuables, and 0 otherwise.
Financially Fragile	Binary variable taking value 1 for financially fragile households, and 0 otherwise. Financial fragility is defined as a condition in which the household earns sufficient income to at least cover all the expected expenses, but it does not hold enough liquidity to be unable to cope with unexpected expenses.
Family Size	Number of household members.
Male	Binary variable taking value 1 for households headed by a male, and 0 otherwise.
Age	Integer variable representing the age in years of the head of the household.
Couple	Binary variable taking value 1 for couple households, i.e. those including a married or partnered couple, 0 otherwise.
Low Education, Medium Education, High Education	Set of binary variables representing the highest education level achieved by the household head: Low Education takes value 1 for having completed only primary education or having no education at all Medium Education takes value 1 for having completed secondary school or college High Education takes value 1 for having completed university degrees at graduate or post-graduate level.
Risk Aversion	Binary variable taking value 1 if risk aversion level is 4, 0 otherwise. Risk-aversion is measured by a categorical variable representing the preferred risk profile of financial investments among the following: 1 = High risk, high returns 2 = Reasonable risk, good returns 3 = Low risk, reasonable returns

	4 = No risk, low returns.
Employee, Self Employed, Retired, Unemployed	Set of binary variables taking value 1 for household heads being in the relevant working status (i.e. employee, self-employed, retired, or not working), and 0 otherwise.
Net Wealth quartiles	Binary variables taking value 1 if the household net wealth falls within the relevant distribution quartile, and 0 otherwise.
Income quartiles	Binary variables taking value 1 if the household disposable income falls within the relevant distribution quartile, and 0 otherwise.
Years since Migration	Discrete variable representing the years since the first arrival in Italy of the head of the household. This variable is set to 0.5 for immigrants who are interviewed less than 12 months since arrival (so as to distinguish them from natives).
North-West, North-East, Center, South, Islands	Set of binary variables taking value 1 for households residing in the relevant macro-region within Italy (i.e., North West North East, Center, South, and Islands), and 0 otherwise.
Cohort of Arrival	Set of binary variables indicating the decade of arrival in Italy of the household head: Natives = Born in Italy Pre-1980 = arrived before 1980 1980s = arrived between 1980 and 1989 1990s = arrived between 1990 and 1999 Post-2000 = arrived in 2000 or afterwards.
Country of Origin	Set of binary variables representing the macro-area of the country of birth of the household head among the following: Natives = Born in Italy EU15 & North America = Born in one of the EU15 countries or in Canada or in the US New EU = Born in Bulgaria, Malta, Cyprus, Croatia, Estonia, Latvia, Poland, Romania, Slovakia, Slovenia, or Hungary Other EU = Born in any other European country not included in the lists above North Africa = Born in any country of North Africa Sub-Saharan Africa = Born in any country in sub-Saharan Africa Central & South America = Born in any country of Central or South America Asia & Oceania = Born in any country in Asia or Oceania.

Table A2. Descriptive Statistics, 2006-2014

Variable	Immigrant (Foreign-Born) Household Head					Native Household Head					t-stat	
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max		
Immigrant Household Head	1837	1	0	1	1	36828	0	0	0	0		
Immigrant H.Head (Non-Citizen)	1133	1	0	1	1	37532	0	0	0	0		
Mixed Immigrant HH	1004	0.160	0.366	0	1	23130	0	0	0	0		
Mixed Immigrant Spouse	1004	0	0	0	0	23130	0.036	0.186	0	1		
Mixed Imm. HH Male	1004	0	0	0	0	23130	0	0	0	0		
Mixed Imm. HH Female	1004	0.072	0.258	0	1	23130	0	0	0	0		
Mixed Imm. Spouse Male	1004	0.088	0.283	0	1	23130	0.004	0.066	0	1		
Mixed Imm. Spouse Female	1004	0	0	0	0	23130	0.032	0.176	0	1		
Both Immigrants	1004	0	0	0	0	23130	0	0	0	0		
Net Wealth (in thousand €)	1837	45.704	179.945	-47.75	4171.9	36828	256.449	496.511	-725.6	28861.3	43.43	***
Housing (in thousand €)	1837	42.929	124.604	0	2237.9	36828	213.820	326.200	0	11617.9	50.8	***
Business (in thousand €)	1837	5.592	60.551	0	1864.9	36828	22.666	265.392	0	27283.9	6.8	***
Valuables (in thousand €)	1837	1.005	2.536	0	50.5	36828	4.454	42.046	0	10659.34	11.7	***
Holding Risky Assets	1837	0.014	0.117	0	1	36828	0.116	0.321	0	1	26.3	***
Share of Risky Assets	1221	0.009	0.074	0	1	31271	0.061	0.183	0	1	15.3	***
Holding Foreign Assets	1837	0.003	0.050	0	1	36828	0.009	0.092	0	1	26.3	***
Share of Foreign Assets	1221	0.001	0.021	0	0.594	31271	0.003	0.039	0	1	2.8	***
Home Ownership	1837	0.194	0.396	0	1	36828	0.727	0.446	0	1	5.6	***
Holding Mortgage	1837	0.109	0.312	0	1	36828	0.113	0.317	0	1	50.1	***
Holding Informal Debts	1837	0.074	0.261	0	1	36828	0.027	0.163	0	1	-3.5	***
Owning Business	1837	0.063	0.243	0	1	36828	0.138	0.3452	0	1	-7.1	***
Owning Valuables	1837	0.605	0.489	0	1	36828	0.883	0.3209	0	1	21.9	***
Financially Fragile	1837	0.100	0.300	0	1	36828	0.088	0.283	0	1	-1.2	
Male	1837	0.621	0.485	0	1	36828	0.577	0.494	0	1	-1.4	
Age	1837	40.927	10.410	21	88	36828	57.105	16.128	20	90	57.8	***
Couple	1837	0.627	0.484	0	1	36828	0.603	0.489	0	1	-1.9	*
Family Size	1837	2.563	1.558	1	12	36828	2.481	1.254	1	9	-5.8	***
Low Education	1837	0.077	0.266	0	1	36828	0.275	0.447	0	1	30.0	***

Medium Education	1837	0.811	0.391	0	1	36828	0.610	0.488	0	1	-20.6	***
High Education	1837	0.112	0.315	0	1	36828	0.115	0.319	0	1	-1.1	
Risk Aversion	1837	0.690	0.463	0	1	36828	0.544	0.498	0	1	-14.2	***
Employee	1837	0.770	0.421	0	1	36828	0.361	0.480	0	1	-39.7	***
Self Employed	1837	0.076	0.265	0	1	36828	0.109	0.312	0	1	2.8	***
Retired	1837	0.031	0.174	0	1	36828	0.421	0.494	0	1	68.2	***
Unemployed	1837	0.077	0.266	0	1	36828	0.033	0.178	0	1	-7.1	***
Income (in thousand €)	1837	13.497	9.864	-6.063	167.184	36828	22.703	19.470	-18.649	863.578	33.4	***
Year since Migration	1837	13.793	11.668	0.5	87	36828	0	0	0	0		
Region of Residence												
North West	1837	0.314	0.464	0	1	36828	0.259	0.438	0	1	-3.8	***
North Est	1837	0.377	0.485	0	1	36828	0.211	0.408	0	1	-17.4	***
Center	1837	0.201	0.401	0	1	36828	0.198	0.399	0	1	1.3	
South	1837	0.073	0.260	0	1	36828	0.245	0.430	0	1	24.4	***
Islands	1837	0.034	0.183	0	1	36828	0.088	0.283	0	1	15.0	***
Cohort of arrival												
Cohort pre-1980	1837	0.069	0.254	0	1	36828	0	0	0	0		
Cohort 1980s	1837	0.063	0.243	0	1	36828	0	0	0	0		
Cohort 1990s	1837	0.305	0.460	0	1	36828	0	0	0	0		
Cohort post-2000	1837	0.563	0.496	0	1	36828	0	0	0	0		
Country of Origin												
Italy	1322	0	0	0	0	29420	1	0	1	1		
EU15 & North America	1322	0.063	0.243	0	1	29420	0	0	0	0		
New EU	1322	0.209	0.407	0	1	29420	0	0	0	0		
Other EU	1322	0.269	0.444	0	1	29420	0	0	0	0		
North Africa	1322	0.146	0.353	0	1	29420	0	0	0	0		
Other Africa	1322	0.108	0.311	0	1	29420	0	0	0	0		
Central & South America	1322	0.071	0.256	0	1	29420	0	0	0	0		
Asia & Oceania	1322	0.134	0.341	0	1	29706	0	0	0	0		

Note: Statistics computed using sampling weights (pesopop).