The Financial Decisions of Immigrant Households: Evidence from Italy

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# Focus on immigration: why?

• Focal in policy makers' agenda



# Focus on immigration: why?

- Widely analysed also in academia, even if focus is typically on labour market outcomes, rather than financial decisions
- Yet, wealth and portfolio allocation are:
  - major determinants of economic well-being
  - especially important to face recession times
  - instrumental for integration (e.g. via access to credit, homeownership, etc..)

## Literature on financial choices

Country under analysis	Authors
US	Carroll et al. (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) Amuedo-Dorantes and Pozo (2015)
Canada	Carroll et al (1994) Shamsuddin and DeVoretz (1998) Zhang (2002)
Germany	Bauer et al. (2011), Sinning (2007)
Australia	Cobb-Clark and Hildebrand (2009) Doiron and Guttmann (2009) Bauer et al. (2011), Islam et al. (2013)
Luxembourg, Germany, Italy	Mathä et al. (2011)
Sweden	Haliassos et al. (2016)

#### Literature – main results

- General agreement on a negative wealth gap, more heterogenous results for assets holding and portfolio choices
- 2. Risk preferences are often not taken into account
- 3. There is heterogeneity by origin, maybe driven by cultural issues (Carroll et al, 1994, 1999, Osili and Paulson, 2008, Fuchs-Schundeln et al, 2017)
- Amuedo-Dorantes and Pozo (2015) only on studying the impact of the 2008 crisis (albeit on aged 50+)

# This paper

Assessment of immigrant-native gaps in financial choices:

- 1. Focusing on both:
  - Wealth (and its components)
  - Portfolio allocation
- 2. Controlling for risk aversion (helps in controlling for unobserved heterogeneity)
- 3. Dissecting the evidence based on a large set of immigrants information (immigration history, country of origin, intermarriages...)
- 4. Isolating the impact of the Great Recession

# Italy as a suitable case study

Is experiencing one of the fastest dynamics of immigrant, fostered by EU enlargements and refugees inflows

#### % of foreign-born over total population



Source: OECD, various datasets

## Data

- Rich dataset from Bank of Italy SHIW (Survey of Household Income and Wealth), over the 2006-2014 period
- Allows to control for a variety of observables:
  - Traditional: gender, age (linear and quadratic), marital status, education, labor market status, family size, income quantiles (all monetary amounts at 2010 constant values)
  - Risk preferences: via preference in financial investments (1 if preferred profile is "no risk, low or no returns")
  - Years in Italy
  - Countries/Regions of origin

# Data: dependent variables

- Net wealth: household's real and financial assets, net of liabilities
- Financial choices
  - Risky Assets: holding and Share
  - Foreign Assets: holding and share
  - Homeownership, owning a business, valuables holdings
  - Indebtedness: holding a mortgage, holding informal debts
  - Financial fragility

Wealth - Empirical specification  $W_{ht}^{q} = k^{q} + b_{1}^{q} I_{h} + X_{ht} b_{2}^{q} t + r + e_{ht}^{q}$ 

where:

- $W_{ht}^{q}$ : wealth of household *h*, at time *t*, at *q*th quantile
- $I_h$ : takes value 1 for household with immigrant head
- $X_{ht}$ : vector of controls, including: family size, gender, age and its square, education, labor force status, income quintile, risk aversion, and years in Italy
- *t* and *r* are time and macro-region fixed effects
- $e_{ht}^{q}$  error term

## Wealth – Main results

	q10	q25	q50	q75	q90
Immigrant	-2.0258	-4.5409	-29.2792***	-43.5734***	-52.2975***
minigrant	(1.936)	(3.143)	(4.276)	(6.366)	(8.428)
Risk	-2.1303***	-8.3878***	-19.7165***	-26.1947***	-33.2662***
Aversion	(0.298)	(1.358)	(2.126)	(1.713)	(3.090)
Years in	-0.1956**	-0.5942***	-0.3682	-0.0922	-0.0553
Italy	(0.083)	(0.154)	(0.262)	(0.376)	(0.268)
Obs	39,100	39,100	39,100	39,100	39,100

Notes: bootstrapped standard errors in parenthesis. All regressions include the full set of controls and are weighted by population weights. \*, \*\*, \*\*\* significant at 10%, 5% and 1% respectively

Financial choices - Empirical model

$$D_{ht} = c + b_1 I_h + X_{ht} b_2 + t + r + u_{ht}$$

where:

- *D<sub>ht</sub>*: binary or continuous dependent variable for household *h*, at time *t*
- $I_h$ : takes value 1 for household with immigrant head
- $X_{ht}$ : vector of controls, including: family size, gender, age and its square, education, labor force status, income quintile, risk aversion, and years in Italy
- *t* and *r* are time and macro-region fixed effects
- $u_{ht}$  error term

## Financial choices – Main results

	Risky	Risky	Foreign	Foreign	Uamaau
Variables	Assets	Assets	Assets	Assets	nomehin
	Holding	Share	Holding	Share	nersnip
Immigrant	-0.0936***	-0.0193***	-0.0054***	-0.0012*	-0.0971***
	(0.006)	(0.005)	(0.002)	(0.001)	(0.026)
Risk Averse	-0.0481***	-0.0252***	-0.0089***	-0.0028***	0.0163***
	(0.004)	(0.003)	(0.001)	(0.001)	(0.004)
Years in Italy	0.0027***	0.0002	0.0002*	-0.0000	0.0025***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)
Observations	38,665	32,492	38,665	32,492	38,665

Notes: robuts standard errors in parenthesis, average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions include the full set of controls and are weighted by population weights. \*, \*\*, \*\*\* significant at 10%, 5% and 1% respectively

## Financial choices – Main results

Variables	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
	-0.0349***	0.0112	-0.0266**	-0.1737***	0.0854***
Immigrant	(0.011)	(0.008)	(0.012)	(0.022)	(0.021)
Risk	0.0111**	-0.0053**	-0.0079**	-0.0466***	0.0080*
Averse	(0.005)	(0.003)	(0.004)	(0.005)	(0.004)
Years in	0.0020***	-0.0003	0.0002	0.0014**	-0.0013*
Italy	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)
Obs	38,665	38,665	38,665	38,665	38,665

Notes: robuts standard errors in parenthesis, average marginal effects from probit models for the binary dependent variables and OLS coefficients for the continuous dependent variables. All regressions include the full set of controls and are weighted by population weights. \*, \*\*, \*\*\* significant at 10%, 5% and 1% respectively

# **Exploring heterogeneity**

Main results have been dissected based on

- 1. Country of origin
- 2. Intermarriages
- 3. Time, to isolate the impact of the Great Recession

# Wealth – by country of origin

	q10	q25	q50	q75	q90
EU15 & North	-4.9821	-5.2165	14.1376	24.6681	-32.5201
America	(5.490)	(14.093)	(14.318)	(22.924)	(43.945)
Now EII	0.2542	0.5650	-17.5981**	-28.2343***	-49.5198***
New EU	(1.490)	(3.760)	(7.466)	(9.665)	(15.152)
Othor Europo	-5.0059*	-7.8299*	-28.1393***	-35.9040***	-48.4023***
Other Europe	(2.986)	(4.627)	(6.174)	(7.309)	(9.779)
North Africa	-3.8324	-8.9167	-26.9514**	-19.0227*	-25.5024*
NOI UI AITICa	(4.298)	(7.505)	(10.645)	(10.494)	(14.575)
Sub S Africa	4.2451	8.5875	-1.1589	-7.8180	-15.2563
Sub-S.Allica	(4.181)	(6.745)	(9.663)	(9.059)	(18.748)
Deat of Amorica	-2.1138	-3.9270	-24.6048***	-31.5271**	-34.5082**
Rest of America	(4.973)	(7.863)	(7.712)	(13.951)	(17.261)
	-0.9636	-7.6964	-24.6538**	-41.8779***	-60.9392***
Asia & Uceania	(3.681)	(8.197)	(12.144)	(10.394)	(11.050)
Obs	31,056	31,056	31,056	31,056	31,056

# Financial choices – by country of origin

	Risky Assets Holding	Risky Assets Share	Foreign Assets Holding	Foreign Assets Share	Homeownership
EU15 & North	-0.0951***	-0.0317	0.0052	0.0003	-0.0130
America	(0.016)	(0.022)	(0.016)	(0.005)	(0.070)
Now EII	-0.1065***	-0.0130*		-0.0022*	-0.2657***
New EU	(0.007)	(0.007)		(0.001)	(0.066)
Other Europe	-0.0928***	-0.0318***	-0.0017	0.0008	-0.0606
Other Europe	(0.010)	(0.009)	(0.004)	(0.002)	(0.040)
North Africa	-0.1045***	-0.0313***		-0.0024*	0.0090
North Africa	(0.008)	(0.010)		(0.001)	(0.037)
Cub C Africa		-0.0391***		-0.0027*	-0.0745*
Sub-S.Africa		(0.011)		(0.001)	(0.042)
Dest of America	-0.0873***	-0.0278**		-0.0031**	0.0044
Kest of America	(0.021)	(0.012)		(0.001)	(0.025)
Asia & Oceania	-0.1058***	-0.0213*	-0.0066**	-0.0012	-0.0739*
	(0.008)	(0.011)	(0.003)	(0.002)	(0.041)
Obs	30,591	25,769	30,041	25,769	30,742

# Financial choices – by country of origin

	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
EU15 & North	-0.0673*	-0.0045	0.0036	-0.1476*	0.2701**
America	(0.040)	(0.035)	(0.051)	(0.085)	(0.119)
Now EU	-0.0832***	0.0199	-0.0165	-0.1099***	0.0581*
New EU	(0.012)	(0.016)	(0.023)	(0.035)	(0.031)
Oth or Europa	-0.0156	-0.0048	-0.0215	-0.1561***	0.0875***
Other Europe	(0.022)	(0.009)	(0.022)	(0.034)	(0.032)
	-0.0082	0.0200	-0.0339	-0.1976***	0.1837***
North Africa	(0.031)	(0.019)	(0.022)	(0.048)	(0.067)
Cub C Africa	-0.0252	-0.0084	-0.0881***	-0.2798***	0.0961**
Sub-S.Africa	(0.022)	(0.011)	(0.017)	(0.055)	(0.048)
Deat of America	0.0154	-0.0196***	-0.0500**	-0.1951***	0.0451
Kest of America	(0.031)	(0.007)	(0.023)	(0.060)	(0.047)
Asia & Oceania	-0.0542***	0.0041	0.0045	-0.2651***	0.0922*
	(0.017)	(0.015)	(0.023)	(0.054)	(0.055)
Obs	30,742	30,742	30,742	30,742	30,742

# Wealth – by intermarriage

	q10	q25	q50	q75	q90
Mixed Immigrant head	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)
Obs	31,056	31,056	31,056	31,056	31,056

## Financial choices – by intermarriage

	Risky Assets Holding	Risky Assets Share	Foreign Assets Holding	Foreign Assets Share	Home ownership
Mixed	-0.0634*	-0.0295	0.0203	0.0068	-0.0841
Immigrant head	(0.038)	(0.022)	(0.024)	(0.007)	(0.068)
Mixed	-0.0198	-0.0052	0.0023	0.0008	-0.0025
Immigrant					
spouse	(0.013)	(0.009)	(0.004)	(0.002)	(0.016)
Both	-0.1148***	-0.0257***		-0.0010	-0.0539*
immigrants	(0.008)	(0.008)		(0.001)	(0.028)
Obs	24,134	21,071	23,325	21,071	24,134

## Financial choices – by intermarriage

	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
Mixed	-0.0262	-0.0108	0.0401	-0.0449	-0.0130
Immigrant					
head	(0.043)	(0.018)	(0.052)	(0.044)	(0.027)
Mixed	0.0073	0.0055	0.0152	-0 0098	0.0158
Immigrant		010033	0.0152	0.0070	0.0100
spouse	(0.016)	(0.008)	(0.017)	(0.013)	(0.011)
Both	-0.0245	-0.0005	-0.0359**	-0.1632***	0.0164
immigrants	(0.019)	(0.009)	(0.017)	(0.030)	(0.019)
Obs	24,134	24,134	24,134	24,134	24,134

#### Wealth – the Great Recession

	q10	q25	q50	q75	q90
Immigrant (pre-crisis) Obs = 15,275	-3.2559 (4.599)	-3.8840 (5.385)	-7.2658 (10.999)	-12.0819 (11.494)	-21.9470 (17.439)
Immigrant (post-crisis) Obs = 23,825	-1.0737 (1.818)	-5.0255 (3.088)	-34.3974*** (4.496)	-54.0710*** (6.527)	-58.5488*** (11.427)

#### Financial choices – the Great Recession

Variables	Risky Assets Holding	Risky Assets Share	Foreign Assets Holding	Foreign Assets Share	Homeown ership
Immigrant (pre-crisis) Obs = 15,152	-0.1001*** (0.009)	-0.0155** (0.007)	-0.0846*** (0.009)	-0.0006 (0.001)	-0.0052* (0.003)
Immigrant (post-crisis) Obs = 23,513	-0.1001*** (0.008)	-0.0130** (0.006)	-0.0046* (0.003)	-0.0011 (0.001)	-0.1848** (0.076)

#### Financial choices – the Great Recession

Variables	Holding Mortgage	Holding Informal Debts	Owning Business	Owning Valuables	Financially Fragile
Immigrant (pre-crisis) Obs = 15,152	-0.0697*** (0.025)	-0.0048 (0.014)	-0.0291 (0.029)	-0.1960*** (0.049)	0.0281 (0.042)
Immigrant (post-crisis) Obs = 23,513	-0.0763*** (0.015)	0.0213** (0.011)	-0.0246* (0.014)	-0.1521*** (0.026)	0.1064*** (0.026)

# To sum up

- 1. Sizeable gaps:
- wealth-gap: at the median, net wealth of immigrant is around €29,000 lower than native's
- financial choices: immigrants are less likely to hold risky assets, to own a house, to have mortgage, more likely financially fragile
- 2. Risk aversion always plays a role
- 3. Country of origin and couple composition (whether married with a native or not) do matter
- 4. Great Recession largely explains some of the gaps (net wealth, homeownership, and financial fragility)