Homeownership of Immigrants in France: Selection Effects Related to International Migration Flows

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Motivation

For immigrants, the evolution of their average outcomes in a receiving country can reflect:

- a change of individual outcomes ("behavior change")
- a change of individuals themselves through selective in and out-migration ("composition change")

This renewal of the immigrant population is:

- continual
- massive
- selective

Limits of repeated cross sectional approach: Need for longitudinal panel data analysis to follow individual trajectories of immigrants

Homeownership of immigrants

Homeownership: sign and factor of economic and social success

The literature:

- Papers on the evolution of homeownership rate for immigrants over long time periods: **but** repeated cross-section data extracted from censuses

  Myers and Lee, 1998; Borjas, 2002; Gabriel and Rosenthal, 2005; Coulson and Dalton, 2010; Painter and Yu, 2008,2010; Sinning, 2010; Collins and Margo, 2011

- Papers on individual decisions based on panel data that track individuals: **but** sample sizes rather small compared to censuses extractions (not aggregate homeownership)

  Charles and Hurst, 2002; Dawkins, 2005

What we do

- Study the evolution of the gap in homeownership rate between natives and immigrants (1975-1999)
  - use of exhaustive census-linked data
    INSEE's Permanent Demographic Sample (EDP)
  - nearly 1 million individuals tracked over 30 years

- Assess if different patterns of international migration explain differences of homeownership rates

- Decomposition of the gap (Fairlie, 2005) between into:
  - composition effects
  - returns of characteristics

Preview on the results

1. **Difference in homeownership rates between natives and immigrants; its evolution between 1975 and 1999**:

   - For the whole sample: 15 pts in 1975, - 1.4 pts over the period

   - For people at least 18 y.o. in 1975: + 5.8 pts
     - For cohort of stayers: + 3.5 pts
       $\implies$ ▶ important selection effects , mostly due to entrants
     - More important increase for North African stayers (+10.1 pts), decrease for South European stayers (- 0.8 pts)

2. **Returns of characteristics have evolved in favor of immigrant stayers** (possibly because of assimilation). Especially true for South European stayers

Context

- 30 point differences between natives and North African immigrants in France *(Pan Ke Shon, Scodellaro 2013)*

- No legal restriction preventing immigrants to become homeowner

- Review of the potential factors:
  - different financial resources and access to markets: slower wealth accumulation, less access to housing and credit markets
  - location, needs may be different, time spent in host country

The dataset

- *INSEE's Permanent Demographic Sample* (EDP) since 1968

- Data constructed from **census-linked data** and **civil registers**

- **Large longitudinal panel data** that remain representative of the population in metropolitan France over time:
    - all individuals born the first four days of October
    - 900,000 individuals tracked over 30 years
    - we limit the analysis to those aged above 18

- Immigrant status = place of birth ∩ nationality at birth

- Homeownership
    couple-level: property of the household head and his partner (if any)

Control variables

Demographic characteristics: sex, age

Employment variables: diploma (5 levels), employment status, socio-professional category (7 categories)

Family structure: family status, status in the household (head or his partner), partner (presence, immigration status), number of children

Contextual variables: local unemployment rate, local proportion of homeowners, proportions of immigrants and their respective local proportion of homeowners

Additional information about the dwelling: type, number of rooms, sanitary equipment

No information on income and wealth in the original data

Composition of the immigrant population and its change

Immigrants, by country of origin			
1975		1999	
Country	Proportion (%)	Country	Proportion (%)
Italy	19.4	Portugal	14.7
Portugal	19.0	Algeria	10.9
Spain	15.4	Italy	9.9
Algeria	10.6	Morocco	8.2
Poland	4.5	Spain	7.4
Tunisia	3.6	Turkey	5.2
Belgium	2.5	Tunisia	4.4
Morocco	2.1	Poland	2.2
Yugoslavia	2.0	Germany	2.2
Germany	2.0	Belgium	2.0
N	38,345		43,344

2 study groups: South Europeans, North Africans

Homeownership rates of natives and immigrants: all
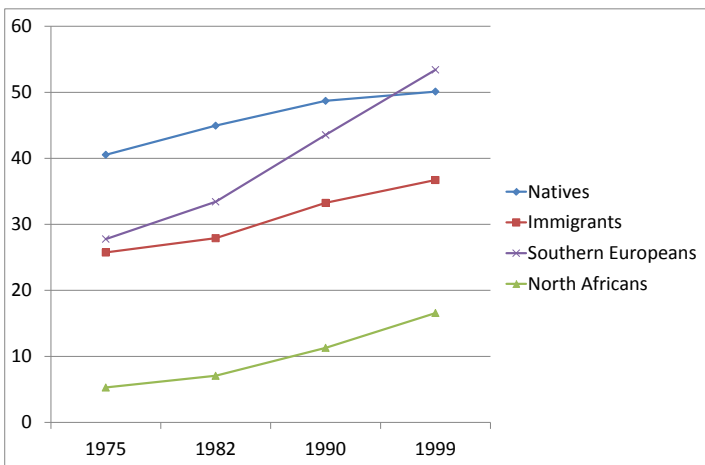
Homeownership rates of immigrants: stayers, entrants, leavers
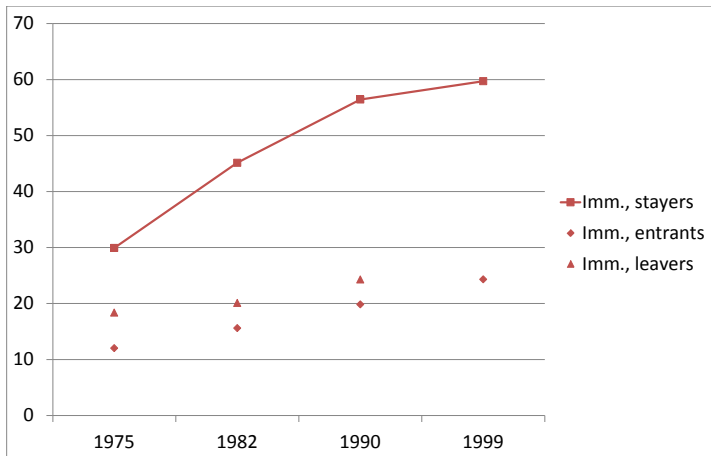
Assessing the impact of international migration flows

▸ Decomposition of the evolution of the homeownership rates
btw 1975 and 1999

$$P\left(H_{it+1} = 1 \,|\, i \in t+1\right) - P\left(H_{it} = 1 \,|\, i \in t\right)$$

$$= \quad P\left(H_{it+1} = 1 \,|\, i \in t, i \in t+1\right) - P\left(H_{it} = 1 \,|\, i \in t, i \in t+1\right)$$

$$+ \quad (1 - \omega_{t+1})\left[P\left(H_{it+1} = 1 \,|\, i \notin t, i \in t+1\right) - P\left(H_{it+1} = 1 \,|\, i \in t, i \in t+1\right)\right]$$

$$+ \quad (1 - \omega_t)\left[P\left(H_{it} = 1 \,|\, i \in t, i \in t+1\right) - P\left(H_{it} = 1 \,|\, i \in t, i \notin t+1\right)\right]$$

with:
$H_{it} = 1$ *if individual i is homeowner at date t*
$i \in t$ *if individual i is in the sample at date t*
Probability of being:
a stayer: $\omega_t = P\left(i \in t+1 \,|\, i \in t\right)$
a leaver: $1 - \omega_t$
an entrant: $1 - \omega_{t+1}$ with $\omega_{t+1} = P\left(i \in t \,|\, i \in t+1\right)$

Quantifying the influence of individual characteristics

Decomposition based on logit models (Fairlie 1999, 2005)

Gap btw immigrant stayers (m) and leavers (l) at date t

$$R\left(m, \beta_{mt}, t\right) - R\left(l, \beta_{lt}, t\right) = \left[R\left(m, \beta_{mt}, t\right) - R\left(l, \beta_{mt}, t\right)\right] + \left[R\left(l, \beta_{mt}, t\right) - R\left(l, \beta_{lt}, t\right)\right]$$

with $R\left(g, \beta, t\right)$ homeownership rate predicted by a logit model for group g at time t if returns of characteristics are β:

$$R\left(g, \beta, t\right) = \frac{1}{N_g} \sum\nolimits_{i \in (g, t)} F\left(X_{it}\beta\right)$$

with $F\left(\bullet\right)$ the cumulative of the logistic function.

Evolution of the gap btw natives and immigrant stayers

$$
\begin{aligned}
\Delta R\left(n, \beta_{nt}, t\right) - \Delta R\left(m, \beta_{mt}, t\right) &= \left[\Delta R\left(n, \beta_{nt}, t\right) - \Delta R\left(m, \beta_{nt}, t\right)\right] \\
&+ \left[\Delta R\left(m, \beta_{nt}, t\right) - \Delta R\left(m, \beta_{mt}, t\right)\right]
\end{aligned}
$$

with $\Delta R\left(g, \beta, t\right) = R\left(g, \beta, t+1\right) - R\left(g, \beta, t\right)$

Contribution of entrants and leavers, 1975-1999 ▸ Full Table

	Evolution (pts)	Contribution (pts)		
		Stayers	Leavers	Entrants
Immigrants				
All	22.6	28.8	2.6	-8.8
North Africans	18.2	22.4	2.1	-6.3
South Europeans	31.3	33.1	2.4	-4.2
Natives				
All	28.4	32.3	-3.3	-0.6

Note: we consider only individuals aged 18 and above in 1975. All results are significant at the 1% level.

Strong negative contribution of entrants:
on average better educated but younger and located more often in Paris
$\implies$ much lower homeownership rate than stayers at $t+1$

Positive contribution of leavers: older generation with less access to homeownership
$\implies$ lower homeownership rate than stayers in t

Decomposition of evolution of homeownership gap for stayers, 1975–1999 ▸ Full Table ▸ For entrants and leavers

Difference in homeownership rate	Raw difference	Contribution of	
(compared to natives)	(% points)	Characteristics	Returns
All immigrants			
1975	8.9	1.3	7.6
1999	12.4	5.9	6.5
1975–1999 difference	3.5	4.6	-1.1
South Europeans			
1975	7.4	1.5	5.9
1999	6.6	4.2	2.4
1975–1999 difference	-0.8	2.8	-3.6
North Africans			
1975	30.0	14.1	15.9
1999	39.9	11.6	28.3
1975–1999 difference	9.9	-2.5	12.4

Note: we consider only individuals aged 18 and above in 1975. All results (except those in brown) are significant at the 1% level.

## Summary of results (1/2)

- Study of the change in homeownership gap between natives and immigrants

- Use of a longitudinal dataset over a thirty-year period

- Immigrant entrants and leavers contribute to the evolution of the gap (-8.8 pts; +2.6 pts)

  For stayers, the gap increases by 3.5 pts

- Change in characteristics of natives and immigrants would predict an even bigger increase

- ... but returns of characteristics have evolved in favor of immigrants (because of integration?)

Summary of results (2/2)

- Entries have a negative effect on the homeownership rate of immigrants

- Immigrant entrants, more educated, are younger and settle in areas with low homeownership rate, in particular the Paris urban unit

- The returns of their characteristics are lower than those of stayers

- Working Paper: *CEPR Discussion Paper n.10975*; *Penn PSC WP series* http://repository.upenn.edu/psc_working_papers/65

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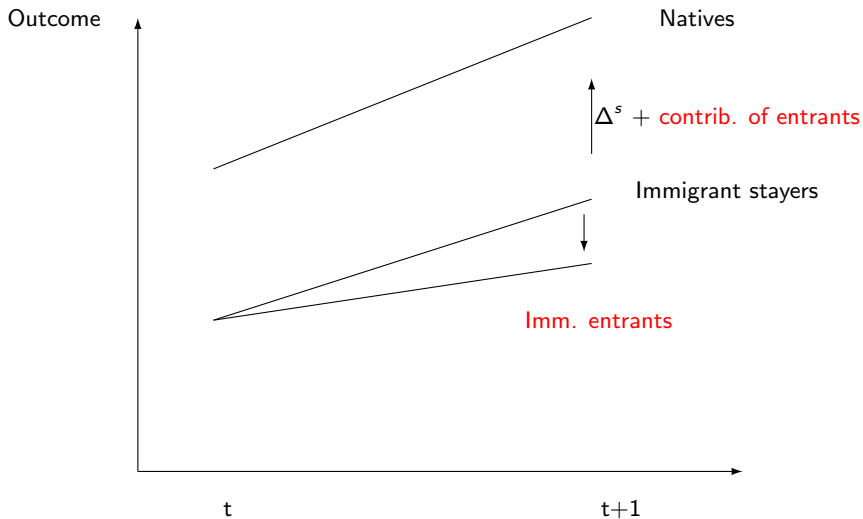
Evolution of the gap: contribution of stayers
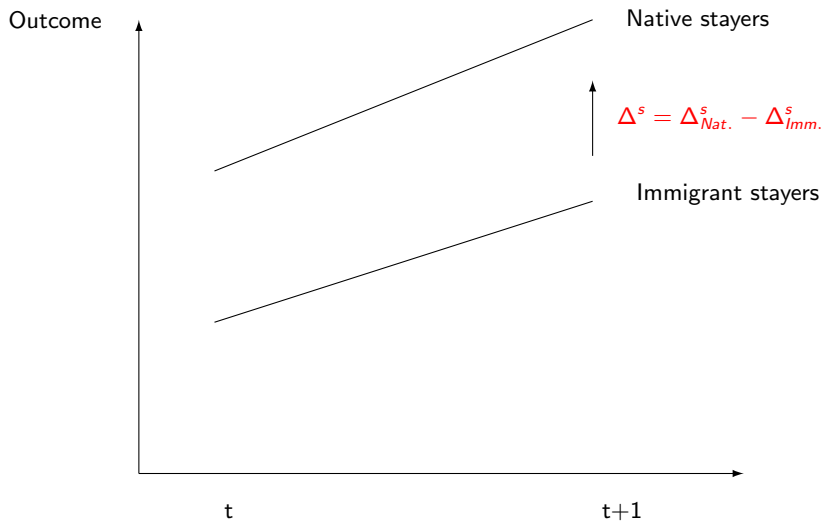
Evolution of the gap: immigrant leavers tend to decrease the evolution of the gap by lowering the initial rate
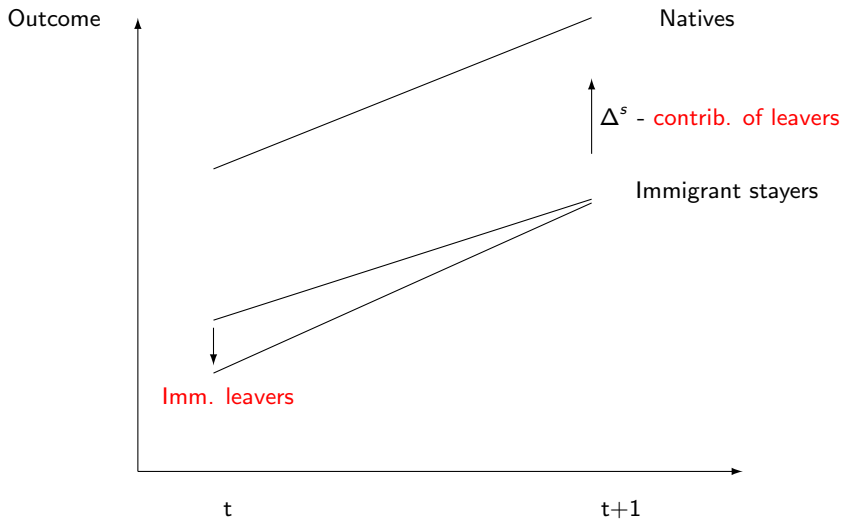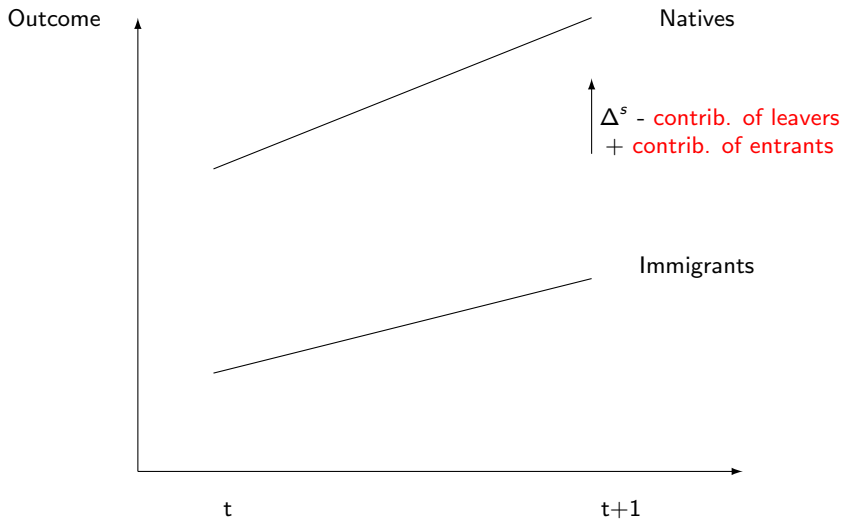
Evolution of the gap: immigrant entrants tend to increase the evolution of the gap by lowering the final rate

Evolution of the gap: the contribution of immigrant entrants and leavers ▸ back to the presentation

Decomposition of the evolution of homeownership rates

Total variation of homeownership rate

$=$ Variation for stayers

$+$ contribution of difference between entrants and stayers

Entrants' contribution < 0 *when lower homeownership rate than stayers in 1999*

$+$ contribution of difference between stayers and exiters

Exiters' contribution > 0 *when lower homeownership rate than stayers in 1975*

Elements of proof

Probability of being an homeowner at the initial date:

$$P\left(H_{it}=1\,|\,i\in t\right)=\omega_{t}P\left(H_{it}=1\,|\,i\in t, i\in t+1\right)+\left(1-\omega_{t}\right)P\left(H_{it}=1\,|\,i\in t, i\notin t+1\right)$$

Probability of being an homeowner at the final date:

$$P\left(H_{it+1}=1\,|\,i\in t+1\right)=\omega_{t+1}P\left(H_{it+1}=1\,|\,i\in t, i\in t+1\right)+\left(1-\omega_{t+1}\right)P\left(H_{it+1}=1\,|\,i\notin t, i\in t+1\right)$$

Decomposition of evolution of homeownership rate, 1975-1999 ▸ back to the presentation

| | Evolution (pts) | Contribution to evolution (pts) | | | Decomposition of contribution | | | |
| | | | | | Proportion (%) | | Gap with stayers | |
		Stayers	Leavers	Entrants	Leavers	Entrants	Leavers	Entrants
Immigrants								
All	22.6***	28.8***	2.6***	-8.8***	61.2***	51.2***	4.2***	-17.2***
	(0.4)	(0.5)	(0.3)	(0.3)	(0.3)	(0.3)	(0.5)	(0.7)
North Africans	18.2***	22.4***	2.1***	-6.3***	62.7***	64.3***	3.3***	-9.8***
	(0.7)	(1.2)	(0.5)	(0.8)	(0.8)	(0.7)	(1.2)	(1.4)
Southern Europeans	31.3***	33.1***	2.4***	-4.2***	59.4***	33.2***	4.1***	-12.5***
	(0.6)	(0.7)	(0.5)	(0.3)	(0.4)	(0.5)	(0.8)	(1.1)
Natives								
All	28.4***	32.3***	-3.3***	-0.6***	34.7***	8.7***	-9.5***	-7.3***
	(0.1)	(0.1)	(0.1)	(0.03)	(0.1)	(0.1)	(0.2)	(0.4)

*Note: computed from the Permanent Demographic Sample on the population of individuals located in mainland France and who are at least 18 years old in 1975. When a household owns a dwelling, it is considered to be the property of the household head and his partner (if any), but not the property of the other members of the household (if any). Columns 3-5 give the results of decomposition (3). Column 6 (resp. 7) gives the proportion of leavers (resp. entrants) in the sample at the initial (resp. final) date. "Gap with stayers" corresponds to the differences in homeownership rates between stayers and leavers (column 8), or between entrants and stayers (column 9). Significance levels: * p < 0.1, ** p < 0.05, *** p < 0.01.*

Decomposition of the difference in homeownership rates btw stayers and: leavers in 1975 / entrants in 1999

‣ back to the presentation

Difference in homeownership rates (points in favor of stayers)	Raw difference	Reference: stayers Contribution of Characteristics	Returns
Leavers, 1975			
Natives	-9.5***	-14.4***	4.9***
	(0.2)	(0.4)	(0.4)
Immigrants	4.2***	-2.1***	6.3***
	(0.6)	(0.9)	(0.9)
North Africans	3.3***	1.7	1.6
	(0.8)	(1.4)	(1.4)
Southern Europeans	4.1***	-4.0***	8.1***
	(0.8)	(1.1)	(1.3)
Arrived before 1968	1.2**	-5.3***	6.5***
	(0.6)	(1.1)	(1.3)
Arrived in 1968-1975	-4.5***	-4.6**	0.1
	(0.6)	(1.9)	(1.9)
Entrants, 1999			
Natives	7.3***	4.2***	3.1***
	(0.3)	(0.2)	(0.3)
Immigrants	17.2***	6.3***	10.9***
	(0.6)	(0.6)	(0.8)
North Africans	9.8***	-0.2	10.0***
	(1.3)	(1.2)	(1.8)
Southern Europeans	12.5***	5.7***	6.8***
	(1.2)	(0.6)	(1.2)

Note: computed from the Permanent Demographic Sample on the population of individuals who are at least 18 years old in 1975. When a household owns a dwelling, it is considered to be the property of the household head and his or her partner (if any), but not the property of the other members of the household (if any). Contributions of characteristics and their returns are consistent with decomposition (5). Significance levels: * p < 0.1, ** p < 0.05, *** p < 0.01.

Decomposition of evolution of homeownership gap for stayers, 1975-1999 ‣ back to the presentation

Difference in homeownership rates (points in favor of natives)	Raw difference	Reference: natives Contribution of	
		Characteristics	Returns
All			
1975	8.9***	1.3***	7.6***
	(0.5)	(0.3)	(0.5)
1999	12.4***	5.9***	6.5***
	(0.5)	(0.3)	(0.6)
1975-1999 difference	3.5***	4.6***	-1.1
	(0.7)	(0.5)	(0.7)
Southern Europeans			
1975	7.4***	1.5***	5.9***
	(0.6)	(0.4)	(0.6)
1999	6.6***	4.2***	2.4***
	(0.6)	(0.4)	(0.7)
1975-1999 difference	-0.8	2.8***	-3.6***
	(0.8)	(0.6)	(0.8)
North Africans			
1975	30.0***	14.1***	15.9***
	(0.7)	(0.6)	(0.8)
1999	39.9***	11.6***	28.3***
	(1.2)	(0.7)	(1.4)
1975-1999 difference	9.9***	-2.5***	12.4***
	(1.3)	(0.9)	(1.6)
Arrival before 1968			
1975	2.2***	-3.5***	5.7***
	(0.5)	(0.4)	(0.6)
1999	9.3***	5.1***	4.2***
	(0.5)	(0.3)	(0.6)
1975-1999 difference	7.1***	8.5***	-1.4*
	(0.7)	(0.4)	(0.8)
Arrived during the 1968-1975 period			
1975	29.4***	16.0***	13.4***
	(0.6)	(0.4)	(0.6)
1999	22.1***	8.4***	13.7***
	(0.9)	(0.6)	(0.9)
1975-1999 difference	-7.4***	-7.6***	0.2
	(1.0)	(0.7)	(1.1)

Note: computed from the Permanent Demographic Sample on the population of individuals located in mainland France and who are at least 18 years old in 1975. When a household owns a dwelling, it is considered to be the property of the household head and his or her partner (if any), but not the property of the other members of the household (if any). Contributions of characteristics and their returns are consistent with decompositions (5) and (6). Significance levels: * p < 0.1, ** p < 0.05, *** p < 0.01.