





The Economics of Migration

Demography and Migration

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Lesson 3







Economic drivers

Demographic drivers









The effect on the population

















What do you want to measure?

Which question are you trying to answer?









	Births 2001**	Deaths 2001**	NATURAL CHANGE	Immigrants 2001**	Emigrants 2001**	NET MIGRATION
TALIA	544,550	544,094	456	1,582,707	1,417,184	165,523

$$P_{31.12.2001} = P_{1.1.2001} + NC_{2001} + NM_{2001}$$

 $P_{31.12.2001} = 57.844.017 + 456 + 165.523$
 $P_{31.12.2001} = 58.009.996$









But net migration is not appropriate if you want to understand the outflows from a country of origin,

The migration pressure **Gross migration**







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Migration

Europear

Studie

Migration rates for total populations are usually defined as the **number of events** divided by the **mid-period population**

Rate of inward migration = $\frac{\text{arrivals}}{\text{mid-period population}} \times 1000$

Rate of outward migration = $\frac{\text{departures}}{\text{mid-period population}} \times 1000$

Rate of net migration = $\frac{\text{arrivals} - \text{departures}}{\text{mid-period population}} \times 1000$

Rate of gross migration = $\frac{\text{arrivals} + \text{departures}}{\text{mid-period population}} \times 1000$









An example of estimating net migration (from vital statistics)

Region	Births 1995–2000	Deaths 1995–2000	Natural Increase 1995–2000	Total Population Change 1995–2000	Net Migration 1995–2000
A	B	С	(B – C) D	E	(E – D) F
North	252344	126941	125403	265621	140218
South	9440	8317	1123	26211	25088
East	37750	19510	18240	26820	25000
West	23059	8682	14377	27 520	13142
Total	322 593	163450	159143	346172	187029





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Aree geografiche	1950-60	1960-70	1970-80	1980-90	1990-2000
Europa settentrionale"	-103	-12	6	19	157
Regno Unito	-54	-2	-18	10	96
Svezia	8	21	10	16	21
Europa occidentale	207	430	230	312	550
Francia	96	198	66	53	64
Germania	99	170	122	184	383
Europa orientale ^b	-315	-170	2	134	99
Russia	-133	-134	32	208	416
Ucraina	-36	59	25	22	-11
Europa meridionale ^c	-268	-315	63	10	330
Italia	-101	-83	-3	-14	118
Spagna	-78	-60	15	19	118
Europad	-480	-64	304	479	1.139

TAB. 1.7. Saldi migratori medi annui nelle principali aree geografiche e in alcuni paesi europei, 1950-2000 (valori assoluti in migliaia)





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Net
$$M'_{x+n} = P_{x+n}^n - S \times P_x^0$$

vhere

Net M'_{x+n} is the estimated net migration for the end-of-period population aged x- n, obtained by forward survival n is the interval in years between the two dates P_x^0 is the initial population aged x P_{x+n}^n is the end-of-period population aged x + nS is the survival ratio from age x to age x + n.



The numbers in a cohort at the start are multiplied by their survival ratio, then the resulting estimate of survivors is subtracted from the cohort's numbers at the end of the period

The outcome is the net migration estimate

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Remember the limitation of the data that you use.





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Figura 1 – Stranieri e immigrati residenti. Censimento 2001









Demographic Driver of migration in the **DESTINATION COUNTRIES**







Replacement migration is a solution for declining population?

➢ Replacement migration refers to the international migration that would be needed to offset declines in the size of a population,

declines in the population of **working age**

as well as to offset the overall ageing of a population







Europe's demographic situation

Demographic projections show that Europe's population is diminishing in size as well as becoming older.

- While on average around 2.1 children per woman of childbearing age are required to replace the population, the EU average is 1.53.
- Life expectancy is increasing.
- The proportion of those aged 65 and over is projected to rise to 22% by 2025.
- Within this, the relative number of people of 80 and older is rising faster still.
- This means that a growing number of people above retirement age will need to be supported by those in employment.



On present trends, the EU working age population will fall by approximately 40 million people from 2000 until 2050 and the old age dependency ratio will double from 24% to 49%.





Europe's demographic situation

Regional differences are significant for all the measures examined

- whereas a number of regions including the south of France and Greece will not face population decline for decades, population is already declining in some regions of Spain, of Italy, of Germany and of the Nordic countries,
- With regard to the old-age dependency ratio the number aged 65 and over relative to those of working-age (15 to 64) - the most marked increases are expected to take place in Italy, Sweden, Finland and Germany and the smallest in Ireland, Portugal and Luxembourg.











Source: Philippe Fargues, 2011, Author's calculation based on UN Population Data Online







percent of GDP per capita 25 Finland - Austria --- Belgium -- Denmark ---- Ireland - France - Germany Greece 20 ·····Luxembourg --- Netherlands --- Portugal Italy Spain Sweden -UK Australia 15 United States 10 5 Ö 15-19 55-59 60-64 64-54 90-94 3 22 10-14 50-54 62-69 10-74 30-34 35-39 42-49 80-84 85-89 20-24 25-29 954 7

Public Health Care Expenditure by Age Groups*

* Expenditure per capita in each age group divided GDP per capita. Source: ENPRI-AGIR, national authorities and Secretariat calculations.







Migration

- Migration is the most volatile of the components determining population size and structure
 - While fertility and mortality rates change gradually, <u>the number of</u> people entering or leaving a country can vary significantly from one year to the next.
 - The past 10 years have witnessed great fluctuations in European migration levels, as well as significant regional variations.
 - Future migration trends largely turn on <u>policy decisions</u> about migration needs in Europe. However, the 'supply' side in the form of continuing migration pressure from outside the EU is also a much-discussed aspect.
 - Researchers have added a demographic perspective to this theme by pointing out that <u>the 'stagnating entity' Europe is 'surrounded by</u> <u>populations with run-away growth'.</u>
 - Projections suggest that while in the post-world war II era, the population of Spain was three times larger than Morocco's; in about 2050 Morocco's population might be 50 per cent larger than Spain's. A similar picture emerges when comparing France and Algeria or Germany and Turkey.









ESA/P/WP.160 21 March 2000

ENGLISH ONLY

Population Division Department of Economic and Social Affairs United Nations Secretariat



Replacement Migration: Is it A Solution to Declining and Ageing Populations?







Figure I.1. Per cent change in total population for selected countries and regions, 2000-2050



















POPULATION OF THE MEMBER COUNTRIES OF THE EUROPEAN UNION, 1995 AND 2050, SCENARIO I

Populatio	n (thousands)	Projected change 1995-2050		
1995	2050 (Scenario I)	(thousands)	(per cent)	
8 001	7 094	- 907	- 11.3	
10 088	8 918	-1170	- 11.6	
5 2 2 5	4 793	- 567	- 10.9	
5 108	4 898	- 210	- 4.1	
58 020	59 883	1 863	+ 3.2	
81 661	73 303	- 8 358	- 10.2	
10 489	8 233	- 2 256	-21.5	
3 609	4 710	1 101	+ 30.5	
57 338	41 197	- 16 141	- 28.2	
407	430	23	(+5.7)	
15 459	14 156	- 1 303	- 8.4	
9 856	8 137	- 1 719	- 17.4	
39 568	30 226	9 342	-23.6	
8 800	8 661	- 139	- 1.6	
58 308	56 667	- 1 641	- 2.8	
371 937	331 307	- 40 630	- 10.9	
	Populatio 1995 8 001 10 088 5 225 5 108 58 020 81 661 10 489 3 609 57 338 407 15 459 9 856 39 568 8 800 58 308 371 937	Population (thousands) 1995 2050 (Scenario I) 8 001 7 094 10 088 8 918 5 225 4 793 5 108 4 898 58 020 59 883 81 661 73 303 10 489 8 233 3 609 4 710 57 338 41 197 407 430 15 459 14 156 9 856 8 137 39 568 30 226 8 800 8 661 58 308 56 667 371 937 331 307	$\begin{tabular}{ c c c c c c } \hline Population (thousands) & Projected char \\\hline 1995 & 2050 (Scenario I) & (thousands) \\\hline 8 001 & 7 094 & -907 \\\hline 10 088 & 8 918 & -1 170 \\\hline 5 225 & 4 793 & -567 \\\hline 5 108 & 4 898 & -210 \\\hline 58 020 & 59 883 & 1 863 \\\hline 81 661 & 73 303 & -8 358 \\\hline 10 489 & 8 233 & -2 256 \\\hline 3 609 & 4 710 & 1 101 \\\hline 57 338 & 41 197 & -16 141 \\\hline 407 & 430 & 23 \\\hline 15 459 & 14 156 & -1 303 \\\hline 9 856 & 8 137 & -1 719 \\\hline 39 568 & 30 226 & 9 342 \\\hline 8 800 & 8 661 & -139 \\\hline 58 308 & 56 667 & -1 641 \\\hline 371 937 & 331 307 & -40 630 \\\hline \end{tabular}$	





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Population of the European Union (15) in 2050, indicating those who are post-1995 migrants and their descendants, by scenario







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Population of <u>Italy</u> in 2050, indicating those who are post-1995 migrants and their descendants, by scenario





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Age-sex structures by scenario -**Europe 15**

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Age-sex structures by scenario -Italy

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Constant ratio 15-64/65 years or older

Females













UN Report

- This comprehensive analysis, the first to be made on a common methodology on a fully international basis has attracted unusual attention and provoked much comment in the media.
- Because of this systematic approach, and because of the prestige attaching to the UN Population Division, the report has been widely read and cited.
- Its statistics will be a definitive benchmark for years to come.
- A) Critics of too much 'optimism' on immigration as solution



- B) Critics of having underestimated other positive consequences of immigration
- C) Migration replacement is already here!







Against..

- the almost universal *impression* conveyed to the public is that the UN has stated the following:
 - (a) that population, workforce numbers and support ratios must be kept at their present levels and therefore
 - (b) that the projected levels of immigration must be encouraged by the countries concerned.



The idea is that "This interpretation of the report has provoked comprehensive public misinformation"







Demographers critique

Alternatives (pensions, retirement and workforce reform, productivity, more substantial changes in fertility) were noted but not evaluated

The political, social and economic costs of large-scale immigration received no mention.

The Report's concentration on the demographic abstraction of the 'potential support ratio' without considering equally or more important non demographic components of real dependency levels in real societies, has been criticised as 'demographism' (Tarmann 2000).




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(A) Coleman's conclusions on UK example

- The answers to the two questions posed in the UN Report can immigration solve problems of :
 - 1. population decline
 - 2. population ageing

They are respectively:

- 1. "yes, if you really think you want to"
- "no, except at rates of immigration so high that they would generate economically and environmentally unsustainable population growth rates and permanently and radically change the cultural and ethnic composition of the host population: 'replacement migration', indeed"







[Incidentally about 1) Reconstructions of the population effects of past immigration]

- Reconstruction of French population history over the last century (to 1986)
 - showed that the direct and indirect effects of immigration over that time had added 10.2 million people to the French population, of whom 3.9 million were immigrants born outside France
 - Without it, France would have lacked one in five of its births and its 1986 population would have been 45.1 million instead of 55.3
 - In particular, immigration accounted for about 40 % of population increase since the Second World War.
- Substantial growth in the UK population between 1951 and 1995



- as a result of the direct and indirect effects of migration by 2.89 million according to the 'modified fertility' scenario
- Migration accounted for 30 percent of total population growth over the period



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At EU level consensus on:

Well-managed migration inflows could provide a positive contribution to employment and economic growth if we manage to successfully promote the integration of immigrants in our societies.

However, even doubling present levels of immigration flows could not offset the implications of ageing in the labour market and pensions.

Pension systems are not very sensitive to immigration increases. Simulations confirm that even doubling or tripling the levels of annual immigration flows provided by the baseline demographic scenario for the next 40 years could not compensate for the growth of the economic dependency ratio.

We will still need to focus our efforts on employment policies and pensions reforms, if we are to achieve sustainable labour markets and pensions systems.

 "immigration can contribute to filling certain specific gaps on the European labour market, but it can in no way stop or reverse the process of significant population ageing in Europe" 2002 Social Situation report



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- The hesitancy of policy makers with regard to immigration as an answer to demographic challenges is connected to three main aspects:

- The composition of the immigrant flows involved

To maximise the positive effects of immigration for pension and health care systems, the desired immigrants would be <u>as young</u> <u>as possible</u>

- The social sustainability of large scale immigration
- The durability of immigration's effect on ageing



On this view, replacement migration is not a long-term solution to population ageing, because migrants also age. While increased immigration would certainly have an **immediate impact** on the working-age population, the long-term effects are less certain







Large consensus

□ Forecasting international migration is a very difficult task, due to the high level of uncertainty associated with this phenomenon.

The results of the forecasts are in many cases uncertain, as migration is highly sensitive to two unpredictable factors:

- migration policies
- political developments,

Usually: quantification of the knowledge-based scenarios, applying a methodology widely used in demographic forecasting, in order to accommodate the possible impact of economic factors and migration policies.



- not consideration the consequences of possible future political disruptions







Forecast of Letizia Mencarini



Fonte: Previsioni dell'autore su dati Istat (2003) e Caritas (2003).



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Italian population 65+ /20-64 years old in the next 70 years





Fonte: Previsioni dell'autore su dati Istat (2003) e Caritas (2003).



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Demographic driver of migration in the origin countries









Demographic transition model





- a = beginning of the transition
- b = greatest difference between birth and death rates
- c = end of the transition







DEMOGRAPHIC TRANSITION MODEL





DTM shows population change over time,

how birth rate and death rate affect the total population of a country







Beginning, end, duration, and "multiplier" of the demographic transition



Country	Beginning and end of the transition	Duration in years	Multiplier
Sweden	1810-1960	150	3.83
Germany	1876-1965	90	2.11
Italy	1876-1965	90	2.26
USSR	1896-1965	70	2.05
France	1785-1970	185	1.62
China	1930-2000	70	2.46
Taiwan	1920-1990	70	4.35
Mexico	1920-2000	80	7.02

Source: J.-C. Chesnais, La transition démographique (PUF, Paris, 1986), pp. 294, 301.







Figure 2.1 Total Population Sizes, and China and India, 2000-2035





SOURCE: U.S. Census Bureau, 2010.

RAND MG1009-2.1





Figure 2.3 Total Fertility Rates, China and India, 2000–2035





SOURCE: U.S. Census Bureau, 2010. RAND MG1009-2.3



The

massive

European

emigration

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- At the end of 18th century more than 8 million people of Europe extraction about equally divided inhabited the 2 halves of the American continent
 - Over 3 centuries Europe had by means of Iberian and British imperialism established the political, economic, and demographic foundations for coming mass migration

Causes of migration:

- Economic:
 - The Industrial revolution and technological progress increased the productivity and so rendered masses of workers superfluous, especially in rural areas
- Demographic
 - The transition entailed a <u>large demographic "multiplier"</u> speeding up population growth and worsening the problems created by economic change

The **availability of land and space** in North and South America (and Oceania) combined with **labour demand** created conditions for massive migration





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Estimates for European transoceanic migration between 1846-1932

From the major countries of Departure:

- 18 million UK/Ireland
- 11.1 Italy
- 6.5 Spain/Portugal
- 5.2 Austria/Hungary
- 5 Germany
- 3 Poland/Russia
- 2 Sweden/Norway

Destinations:

- 34.2 million US
 - (US restrictive laws 1921-4)
- 7.1 Argentina/Uruguay
- 5.2 Canada
- 4.4 Brazil
- 3.5 Australia/New Zeland
- 1 Cuba



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= 1/3 pop growth







Importance of emigration for European demographic system

Italian example:

Between 1861-1961,
8 million of net Italian population loss due to emigration

- •If that emigrants had remained in Italy and had grown at the same rate as that of the Italian population
- It would in 1981 have numbered 14 million
 - = about 25 percent of the national population at that time





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Emigration and natural growth for continental Europe







Increase of agricultural employment (1870-1910) and emigration (1900-10)







Hypotheses about migration and the demographic

Friedlander (1969)

• Examined the interrelationships between migration, fertility and population growth

•HP: timing of fertility decline depended on whether there were opportunities for internal/external migration

= The amount of growth from natural increase occurring in European countries during the transition is related to opportunities for migration

Zelinsky (1971)

• There are patterned changes through time in rats of different type of population movement



•HP: These changes are paralleling the stages of the demographic transition (no causal links)

 Mobility transition: migration and mobility are mechanism and symptoms of changes taking place in societies







Direction of world migration 1945-73











Direction of world migration post 1973





Hints for a Bibliography



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The Relationship between Economic Development and Population Growth Rate for Developing Nations











Urban and rural population growth



Source: WUP 2014, authors' calculations

Africa's population growth: 2015 to 2050



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From 6 billion to 7 billion people



Data: UN World Population Prospects 2010 Rev. | Infographic: Bitsofscience.org







Trends in the Total Fertility Rate, UN Projections





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Factors influencing Population growth









Women with more than secondary education tend to have fertility rates that are closer to replacement levels





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Figure () 1 Population age structure diagrams for countries with rapid, slow, zero, and negative population growth rates. (Data from Population Reference Bureau)















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FIGURE 6. MIGRATION ON BALANCE – AFRICA'S MAIN COUNTRIES OF ORIGIN AND DESTINATION

Stock of immigrants and emigrants for selected African countries, 2017.



Measure Names Stock of immigrants Stock of emigrants

Note 'immigrant' refers to foreign-born migrants residing in the listed country. 'Emigrant' refers to people born in the listed country currently residing outside their country of birth. Showing the top 15 African

countries of destination and origin.

Source: UN Population Division, International Organisation for Migration; visualisation: Knowledge Centre on Migration and Demography (KCMD).




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FIGURE 7. FORCED MIGRATION ON BALANCE IN AFRICA'S MAIN REFUGEE-PRODUCING AND REFUGEE-RECEIVING COUNTRIES

Stock of refugees, stock of IDPs, 2016, absolute numbers, in millions.



- Stock of internally displaced persons (IDPs)
- Stock of refugees from other countries hosted
- Stock of refugees from this country living abroad

Note: the figure shows the top African countries based on the stock of international refugees and internally displaced persons.

Source: United Nations High Commissioner for Refugees (UNHCR) and International Displacement Monitoring Centre, International Organisation for Migration; visualisation: Knowledge Centre on Migration and Demography (KCMD).



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