Determinants of international migration in Argentina: differences between european and latin american inflows

Determinantes de la migración internacional en Argentina: diferencias entre las entradas europeas y latinoamericanas

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Abstract

This paper studies, from a long-term perspective, the determinants of immigrant flows to Argentina from Europe and South America. Different econometric models are estimated for both the European waves —during the period from 1870 to 1950— and the Latin American waves —during the period from 1945 to 1976—. Results indicate a shift in the order of importance of the determinants of the entry rates, where the income gap, more than opportunities of employment differentials, appears to be the variable that generates the greatest reaction in the regional migratory flows. On the contrary, European flows seem to have been triggered by the second factor.

Keywords: Argentina, international migration, determinants of migration, income gaps.

Resumen

Este artículo estudia, desde una perspectiva de largo plazo, los determinantes de los movimientos migratorios a Argentina desde Europa y América del Sur. Se estiman diferentes modelos econométricos tanto de las llegadas desde Europa —de 1870 a 1950— como desde América Latina —de 1945 a 1976—. Los resultados indican un cambio en el orden de importancia de los factores determinantes en las tasas de entrada, donde la diferencia salarial, más que en las oportunidades de empleos diferenciales, parece ser la variable que genera la mayor reacción en los movimientos migratorios regionales. Por el contrario, los movimientos europeos parecen haberse desencadenado más por el segundo factor.

Palabras clave: Argentina, migración internacional, determinantes de la migración, diferencias salariales.

1
Introduction

International migration is a phenomenon of growing importance worldwide, given that movements of people produce significant economic, social, demographic and cultural effects in both sending and receiving countries. Sharp disparities in levels of economic development and unequal employment opportunities between countries, political instability and social violence are the most important expulsion and attraction factors influencing migration throughout the world.

In the analysis of international movements of people, Argentina is a relevant case, not only because international migration has been a central component of Argentine nation-building and development, but also because the country switched from being a net recipient of migratory flows from the late 19th Century until the mid-1950s to becoming an expeller in the last quarter of the 20th Century. This flow reversal was associated with the downturn in the Argentine economy following World War II —which set Argentina back in relation to other, better-performing economies— jointly with strong political instability.

This paper studies the dynamics of migratory inflows to Argentina since the end of the 19th Century. Its main contribution is the estimate of the quantitative importance of diverse factors —GDP level, labor market and social conditions, political influence, among others— in the entry flows to Argentina in a long-term perspective. For this, different econometric models are performed separately for both the European waves —during the period from 1870 to 1950— and the Latin American waves —during the period from 1945 to 1976— in order to evaluate if there were changes in the relevance of those factors affecting the inflows of people to Argentina.

The document follows with a description of the long-term evolution of international migratory flows to Argentina. Section 3 presents the theoretical framework and discusses the results obtained from different econometric models. Section 4 concludes.

2
The long-term evolution of international migration to and from Argentina

Since the mid-19th Century, international migration flows have occurred in well-differentiated phases. The «First Wave of Globalization,» from 1870 to 1913, was characterized by a growing volume of international trade facilitated by the development of transportation and communication technologies, lowered tariffs and the gold standard system (Eichengreen 1996).

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During this «Age of Mass Migration» (Hatton and Williamson 1998), the international mobility of goods, as well as production factors, both capital and labor, was significant. There were large international movements of people, especially from countries in Europe to countries in the Americas, such as Argentina, the United States, Canada and Brazil, and to other countries, such as New Zealand and Australia. The situation in these receiving countries, characterized by an abundance of natural resources and a scarcity of workers, was the inverse of the situation in some of the Old World countries, where there was an abundant supply of labor but limited opportunities for employment.

This dynamic period of global integration was followed by another period, from 1914 to 1945, which was characterized by the two world wars, the economic crisis of the 1930s and major political instability. As a consequence of these factors, the process of globalization and the mobility of factors ceased, and migration policies became more restrictive. Contrary to the positive relationship between globalization and migratory flows observed between 1880 and 1913, the «Second Wave of Globalization,» which took place during the last quarter of the 20th Century, was accompanied by restrictive immigration policies, especially in developed countries.[1] Although the international mobility of highly educated people and/or people who own a large stock of financial capital is high and relatively unrestricted, the same cannot be said for poor, less educated workers, who frequently face situations of exclusion and marginalization, resulting in highly segmented international labor markets.

As mentioned, in this context, Argentina is an interesting case from the perspective of the international migratory movements. The great migratory inflows from Europe occurred between 1870 and 1929.[2] The crisis of the 1930s and World War II had a negative impact on the volume of these flows. After the war ended, there was a second —and last— wave of European migration, but not as intense as the first. Lattes and Recchini de Lattes (1995) estimate that about 5.3 million people arrived in Argentina between the end of the 19th Century and 1970, representing almost 40 % of the net total migration of Latin America and the Caribbean during that period.

Since the mid-20th Century, along with the decline in flows from abroad, the composition of the foreign resident population in Argentina also changed, with natives of neighboring countries becoming the majority. Despite the long tradition of these migratory flows in Argentina[3] —fundamentally in the border zones—, they became more visible in the 1960s as they headed toward the large urban centers, particularly the Buenos Aires Metropolitan Area.[4]

While this process was turning Argentina into the «nucleus of a regional subsystem of Southern Cone migration» (INDEC 1997), the flow of Argentines leaving the country —especially skilled workers— was also growing, the majority going to the United States, Spain, Italy and Canada.

1 Baldwin and Martin (1999), Sutcliffe (1998), Wellish and Walz (1997).

2 According to the National Population and Housing Censuses, in 1914 the percentage of foreign-born residents in relation to the total population reached its highest value, when it represented almost one third of the total Argentine population. Around 90 % of these foreign-born people were Spanish or Italian.

3 Benencia (2007), Marshall and Orlansky (1983), Maurizio (2008), OIM (2012).

4 Includes the City of Buenos Aires and surrounding municipalities in Buenos Aires Province.

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These migratory outflows were associated with the downturn in the Argentine economy following World War II, which implied a setback in relation to other better-performing economies. These different stages of development were also accompanied by severe political instability under alternating military and democratic governments, which also made a significant impact on the direction and intensity of the migratory flows. According to della Paolera and Taylor (2003) «At the beginning of the twentieth century, Argentina was an affluent society, the most dynamic country in the global system attracting an unprecedented volume of foreign investment and massive flows immigrants. By the end of the century, the former bread basket of the world had become a basket case».

These migratory trends can be separated into five distinct stages, as described below.

1870 to 1913

The period that begins with the consolidation of the Argentine Nation-State was characterized by a great influx of financial capital and immigrants from Europe. During those years, Argentina enjoyed a vigorous cycle of economic growth based on the agro-export model. GDP growth rates rose, reaching an annual average of 6 % —one of the highest in the world— and 3 % per capita (table 1).

During the «Belle Époque» (Díaz Alejandro 1975) Argentina received large amounts of foreign capital, mainly from England, and a massive influx of European immigrants, primarily from Mediterranean Europe —Italy and Spain—, which together in 1914 represented 92 % of the total foreign resident stock in Argentina (INDEC 1997).

The richness of land, the scarcity of workers, and the vigorous growth of agricultural production and commodity exports contrasted sharply with the situation in Spain, Italy and other European economies, which offered scarce economic opportunities.[5] As a consequence, the greatest positive net migration flows in the history of Argentina were registered throughout this period (figure 1).

The average net entry rate in relation to residents was 15 ‰, reaching as high as 20 ‰ between 1900 and 1913, which corresponds to an average annual net entry rate of approximately 67,000 people, reaching a maximum of 200,000 in the final years of this period (table 2).

As mentioned above, the rapid expansion of agricultural and livestock production, as well as urban-support activities, was made possible by the rise of the agro-export model. Given the relative scarcity of local workers, large volumes of foreign workers were required. Thus, rapid economic growth brought major employment growth in both rural and urban areas, along with a rapid evolution of earnings, in real terms as well as in relation to the European countries.

5   Hatton and Williamson (1998).

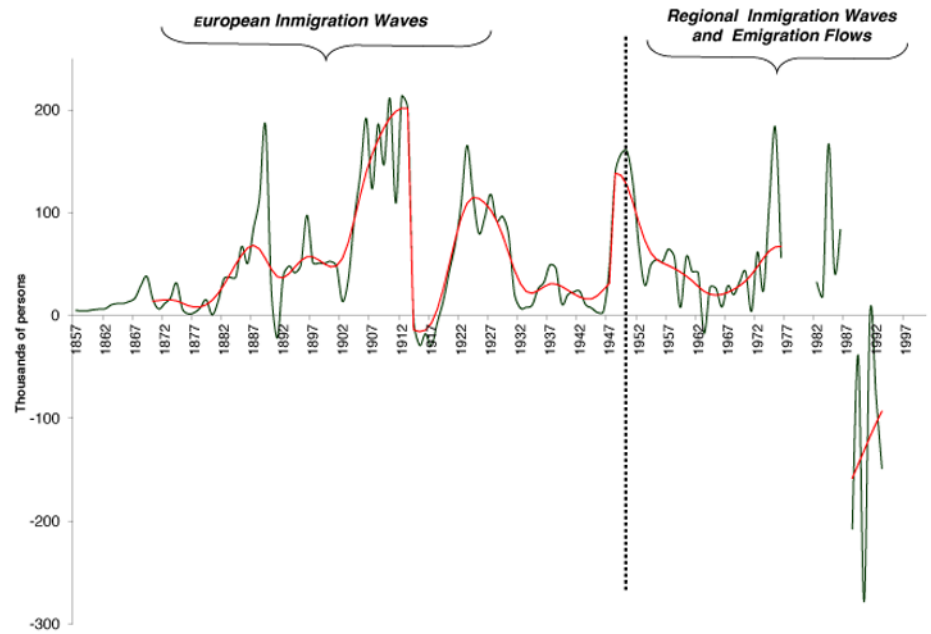**DETERMINANTS OF INTERNATIONAL MIGRATION IN ARGENTINA. Roxana Maurizio**
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Year	GNP *	Annual growth rate	Per capita GNP*	Annual growth rate
1870	2 326	…	1 236	…
1871	2 456	5.6%	1 269	2.6%
1872	2 461	0.2%	1 237	-2.5%
1873	2 677	8.8%	1 309	5.8%
1874	2 824	5.5%	1 344	2.6%
1875	2 812	-0.4%	1 301	-3.2%
1876	2 988	6.3%	1 344	3.3%
1877	3 052	2.1%	1 335	-0.7%
1878	3 367	10.3%	1 431	7.2%
1879	3 198	-5.0%	1 321	-7.7%
1880	3 338	4.4%	1 339	1.4%
1881	3 274	-1.9%	1 276	-4.7%
1882	3 326	1.6%	1 260	-1.2%
1883	4 188	25.9%	1 542	22.3%
1884	4 695	12.1%	1 679	8.9%
1885	5 027	7.1%	1 746	4.0%
1886	5 895	17.3%	1 988	13.9%
1887	5 918	0.4%	1 937	-2.6%
1888	6 320	6.8%	2 001	3.3%
1889	7 334	16.0%	2 246	12.2%
1890	8 045	9.7%	2 382	6.1%
1891	7 381	-8.3%	2 115	-11.2%
1892	6 984	-5.4%	1 936	-8.4%
1893	8 342	19.4%	2 237	15.5%
1894	8 837	5.9%	2 292	2.4%
1895	10 188	15.3%	2 575	12.4%
1896	11 295	10.9%	2 775	7.7%
1897	12 495	10.6%	2 952	6.4%
1898	10 136	-18.9%	2 326	-21.2%
1899	10 992	8.4%	2 455	5.5%
1900	12 932	17.6%	2 756	12.2%
1901	14 036	8.5%	2 880	4.5%
1902	13 746	-2.1%	2 717	-5.7%
1903	15 722	14.4%	2 992	10.2%
1904	17 407	10.7%	3 191	6.6%
1905	19 703	13.2%	3 479	9.0%
1906	20 691	5.0%	3 518	1.1%
1907	21 127	2.1%	3 459	-1.7%
1908	23 190	9.8%	3 657	5.7%
1909	24 353	5.0%	3 699	1.1%
1910	26 125	7.3%	3 822	3.3%
1911	26 590	1.8%	3 746	-2.0%
1912	28 770	8.2%	3 904	4.2%
1913	29 060	1.0%	3 797	-2.7%
1914	26 038	-10.4%	3 302	-13.0%
1915	26 183	0.6%	3 244	-1.8%
1916	25 428	-2.9%	3 091	-4.7%
1917	23 364	-8.1%	2 790	-9.7%
1918	27 665	18.4%	3 248	16.4%
1919	28 683	3.7%	3 308	1.8%
1920	30 775	7.3%	3 473	5.0%
1921	31 559	2.5%	3 471	-0.1%
1922	34 059	7.9%	3 636	4.7%
1923	37 837	11.1%	3 898	7.2%
1924	40 772	7.8%	4 055	4.0%
1925	40 597	-0.4%	3 919	-3.4%
1926	42 544	4.8%	3 994	1.9%
1927	45 567	7.1%	4 156	4.0%
1928	48 414	6.2%	4 291	3.3%
1929	50 623	4.6%	4 367	1.8%
1930	48 531	-4.1%	4 080	-6.6%
1931	45 160	-6.9%	3 712	-9.0%
1932	43 678	-3.3%	3 522	-5.1%
1933	45 712	4.7%	3 621	2.8%
1934	49 344	7.9%	3 845	6.2%
1935	51 524	4.4%	3 950	2.7%
1936	51 873	0.7%	3 912	-1.0%
1937	55 650	7.3%	4 125	5.5%
1938	55 883	0.4%	4 072	-1.3%
1939	58 004	3.8%	4 148	1.9%
1940	58 963	1.7%	4 161	0.3%
1941	61 986	5.1%	4 304	3.4%
1942	62 712	1.2%	4 284	-0.5%
1943	62 218	-0.8%	4 182	-2.4%
1944	69 280	11.4%	4 579	9.5%
1945	67 042	-3.2%	4 356	-4.9%
1946	73 029	8.9%	4 665	7.1%
1947	81 136	11.1%	5 089	9.1%
1948	85 641	5.6%	5 252	3.2%
1949	84 478	-1.4%	5 047	-3.9%
1950	85 524	1.2%	4 987	-1.2%
1951	88 866	3.9%	5 073	1.7%
1952	84 333	-5.1%	4 717	-7.0%
1953	88 866	5.4%	4 874	3.3%
1954	92 528	4.1%	4 980	2.2%
1955	99 125	7.1%	5 237	5.2%
1956	101 856	2.8%	5 285	0.9%
1957	107 087	5.1%	5 461	3.3%
1958	113 655	6.1%	5 698	4.3%
1959	106 303	-6.5%	5 242	-8.0%
1960	114 614	7.8%	5 559	6.1%
1961	122 809	7.2%	5 862	5.4%
1962	120 833	-1.6%	5 677	-3.1%

Year	GNP *	Annual growth rate	Per capita GNP*	Annual growth rate
1963	117 927	-2.4%	5 456	-3.9%
1964	130 074	10.3%	5 926	8.6%
1965	141 960	9.1%	6 371	7.5%
1966	142 919	0.7%	6 320	-0.8%
1967	146 755	2.7%	6 399	1.2%
1968	153 002	4.3%	6 578	2.8%
1969	166 080	8.5%	7 037	7.0%
1970	174 972	5.4%	7 302	3.8%
1971	183 458	4.8%	7 530	3.1%
1972	189 183	3.1%	7 635	1.4%
1973	200 720	6.1%	7 962	4.3%
1974	213 739	6.5%	8 334	4.7%
1975	211 850	-0.9%	8 122	-2.5%
1976	211 327	-0.2%	7 965	-1.9%
1977	224 084	6.0%	8 304	4.3%
1978	214 233	-4.4%	7 807	-6.0%
1979	229 547	7.1%	8 227	5.4%
1980	232 802	1.4%	8 206	-0.3%
1981	219 434	-5.7%	7 603	-7.4%
1982	212 518	-3.2%	7 243	-4.7%
1983	220 016	3.5%	7 383	1.9%
1984	224 491	2.0%	7 425	0.6%
1985	209 641	-6.6%	6 834	-8.0%
1986	224 985	7.3%	7 224	5.7%
1987	230 797	2.6%	7 299	1.0%
1988	226 438	-1.9%	7 056	-3.3%
1989	212 373	-6.2%	6 523	-7.6%
1990	212 518	0.1%	6 436	-1.3%
1991	233 770	10.0%	6 980	8.5%
1992	254 575	8.9%	7 497	7.4%
1993	269 341	5.8%	7 827	4.4%
1994	291 696	8.3%	8 367	6.9%
1995	282 653	-3.1%	8 005	-4.3%
1996	295 090	4.4%	8 253	3.1%
1997	318 698	8.0%	8 803	6.7%
1998	334 314	4.9%	9 123	3.6%
1999	322 947	-3.4%	8 711	-4.5%
2000	320 364	-0.8%	8 543	-1.9%
2001	308 510	-3.7%	8 136	-4.8%
…	…	…	…	…

Source: Own elaboration based on Maddison (2003).

Table 1
Evolution of the GNP and per capita GNP of Argentina, 1870-2001.

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Source: Own elaboration based on Ferreres (2005).

Figure 1
Net migration flows: level and trend in the long term, 1857-1993.
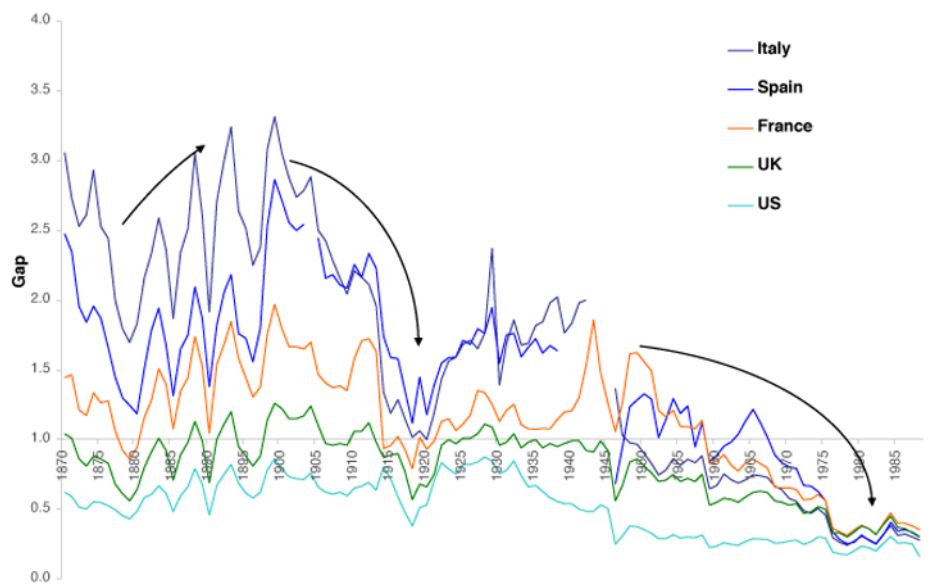
Source: Own elaboration based on Williamson (1995).

Figure 2
Wage gaps
Argentina in relation to selected countries, 1870-1988.

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Year	Entries	Exits	Balance	Net migration rate	Year	Entries	Exits	Balance	Net migration rate	Year	Entries	Exits	Balance	Net migration rate
1870	45.2	29.3	15.9	8.4	1901	160.6	112.7	47.9	9.8	1932	329.0	321.6	7.4	0.6
1871	26.1	19.6	6.5	3.4	1902	135.2	121.4	13.8	2.7	1933	286.0	278.0	8.0	0.6
1872	43.0	31.3	11.7	5.9	1903	155.2	119.4	35.8	6.8	1934	326.1	315.9	10.2	0.8
1873	72.4	55.0	17.4	8.5	1904	200.0	105.4	94.6	17.3	1935	359.5	333.7	25.8	2.0
1874	71.0	39.4	31.6	15.0	1905	276.7	139.5	137.2	24.2	1936	404.5	371.9	32.6	2.5
1875	45.9	39.5	6.4	3.0	1906	366.3	174.5	191.8	32.6	1937	406.2	356.9	49.3	3.7
1876	37.5	35.8	1.7	0.8	1907	329.1	205.7	123.4	20.2	1938	414.1	368.3	45.8	3.3
1877	42.8	39.9	2.9	1.3	1908	379.6	193.5	186.1	29.3	1939	404.9	393.5	11.4	0.8
1878	52.6	45.1	7.5	3.2	1909	357.6	210.8	146.8	22.3	1940	431.9	411.8	20.1	1.4
1879	62.6	47.3	15.3	6.3	1910	421.6	210.4	211.2	30.9	1941	445.2	422.3	22.9	1.6
1880	49.6	48.7	0.9	0.4	1911	374.1	264.6	109.5	15.4	1942	328.4	304.7	23.7	1.6
1881	59.3	45.9	13.4	5.2	1912	478.1	264.9	213.2	28.9	1943	308.8	298.0	10.8	0.7
1882	64.1	28.4	35.7	13.5	1913	469.3	267.9	201.4	26.3	1944	293.4	286.0	7.4	0.5
1883	78.3	41.1	37.2	13.7	1914	282.0	286.7	-4.7	-0.6	1945	300.1	297.1	3.0	0.2
1884	96.1	58.6	37.5	13.4	1915	139.6	168.6	-29.0	-3.6	1946	351.4	347.7	3.8	0.2
1885	126.5	59.3	67.2	23.3	1916	164.2	182.0	-17.8	-2.2	1947	452.3	406.2	46.1	2.9
1886	114.5	63.7	50.8	17.1	1917	110.5	140.0	-29.5	-3.5	1948	611.2	473.0	138.2	8.5
1887	141.7	56.9	84.8	27.7	1918	116.6	123.4	-6.8	-0.8	1949	641.9	484.7	157.2	9.4
1888	177.2	62.8	114.4	36.2	1919	150.8	136.6	14.2	1.6	1950	692.5	532.6	159.9	9.3
1889	288.9	103.9	185.0	56.7	1920	191.2	148.9	42.3	4.8	1951	594.9	466.6	128.3	7.3
1890	138.3	113.9	24.4	7.2	1921	213.4	144.5	68.9	7.6	1952	405.1	337.9	67.2	3.8
1891	73.6	95.4	-21.8	-6.2	1922	303.5	195.8	107.7	11.5	1953	242.9	213.3	29.6	1.6
1892	93.5	55.2	38.3	10.6	1923	349.3	183.9	165.4	17.0	1954	328.3	279.3	49.0	2.6
1893	110.2	62.1	48.1	12.9	1924	277.2	159.4	117.8	11.7	1955	426.0	371.6	54.4	2.9
1894	107.1	65.5	41.6	10.8	1925	299.8	219.7	80.1	7.7	1956	638.4	585.7	52.7	2.7
1895	100.6	50.7	49.9	12.6	1926	344.9	249.5	95.4	9.0	1957	726.7	662.0	64.7	3.3
1896	164.2	66.6	97.6	24.0	1927	397.2	279.2	118.0	10.8	1958	767.8	711.4	56.4	2.8
1897	130.6	78.9	51.7	12.2	1928	383.1	290.9	92.2	8.2	1959	849.3	841.3	8.0	0.4
1898	128.1	77.1	51.0	11.7	1929	447.7	351.3	96.4	8.3	1960	926.4	869.3	57.1	2.8
1899	145.7	94.7	51.0	11.4	1930	363.2	283.6	79.6	6.7	1961	910.6	868.0	42.7	2.0
1900	133.5	80.9	52.6	11.2	1931	358.7	337.2	21.5	1.8	1962	821.0	779.7	41.3	1.9

Year	Entries	Exits	Balance	Net migration rate	Year	Entries	Exits	Balance	Net migration rate
1963	743.5	760.6	-17.1	-0.8	1979	n.a.	n.a.	n.a.	n.a.
1964	905.6	878.4	27.3	1.2	1980	n.a.	n.a.	n.a.	n.a.
1965	966.1	939.6	26.5	1.2	1981	n.a.	n.a.	n.a.	n.a.
1966	967.7	959.2	8.5	0.4	1982	8 270.7	8 238.3	32.4	1.1
1967	1 038.0	1 008.9	29.0	1.3	1983	8 836.7	8 817.4	19.3	0.6
1968	1 136.9	1 116.4	20.5	0.9	1984	11 415.9	11 249.0	166.9	5.5
1969	1 292.7	1 259.8	32.8	1.4	1985	9 641.6	9 599.0	42.6	1.4
1970	1 414.6	1 372.0	42.6	1.8	1986	10 142.2	10 058.5	83.7	2.7
1971	1 343.1	1 338.9	4.2	0.2	1987	n.a.	n.a.	n.a.	n.a.
1972	1 376.1	1 314.4	61.7	2.5	1988	n.a.	n.a.	-207.7	-6.5
1973	1 418.3	1 394.0	24.3	1.0	1989	n.a.	n.a.	-39.1	-1.2
1974	1 859.8	1 750.7	109.1	4.3	1990	n.a.	n.a.	-278.1	-8.4
1975	2 089.8	1 906.7	183.2	7.0	1991	n.a.	n.a.	2.1	0.1
1976	2 044.8	1 988.4	56.4	2.1	1992	n.a.	n.a.	-77.6	-2.3
1977	n.a.	n.a.	n.a.	n.a.	1993	n.a.	n.a.	-148.8	-4.3
1978	n.a.	n.a.	n.a.	n.a.	...	…	…	…	…

Source: Own elaboration based on Maddison (2003).

Table 2
Evolution of the GNP and per capita GNP of Argentina, 1870-2001

Cortés Conde (1979) estimates that the real wages of unskilled urban and rural workers rose at an annual rate of 2.5 % between 1883 and 1899, accompanied by a sharp increase in the productivity of workers in the agricultural and livestock sectors. In a relatively integrated labor market, this also resulted in higher pay for urban jobs (Beccaria 2006). As a result, wages paid in Argentina were higher in relation to wages paid in European countries, especially in Italy, Spain and, to a lesser extent, France. figure 2 shows the wage gap favorable to Argentina that lasted

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until the mid-1950s. During the period 1880-1899, average Argentine wages were around 2.5 times higher than wages in Italy and 2 times higher than wages in Spain.

Argentina's favorable economic situation during this period is also reflected in GDP per capita differentials with respect to Europe. An initial phase of income gap growth can be observed from the mid-1880s until approximately 1910, period in which Argentina's GDP per capita was about 47 % higher than Italy's and about 54 % higher than Spain's (figure 3).

The economic incentives offered by Argentina were reinforced by migration policies favorable toward foreigners entering the country. In 1876, National Law N.º 817 for the Promotion of Immigration, known as the «Avellaneda Law», was passed. The central feature of this law was the promotion of European immigration to Argentina, in harmony with the prevailing spirit of the first National Argentine Constitution of 1853. The State even went so far as to set up immigration agencies in Europe with the objective of advertising Argentina's comparative advantages and attracting workers to continue the development process already underway (Vázquez Presedo 1971).[6]
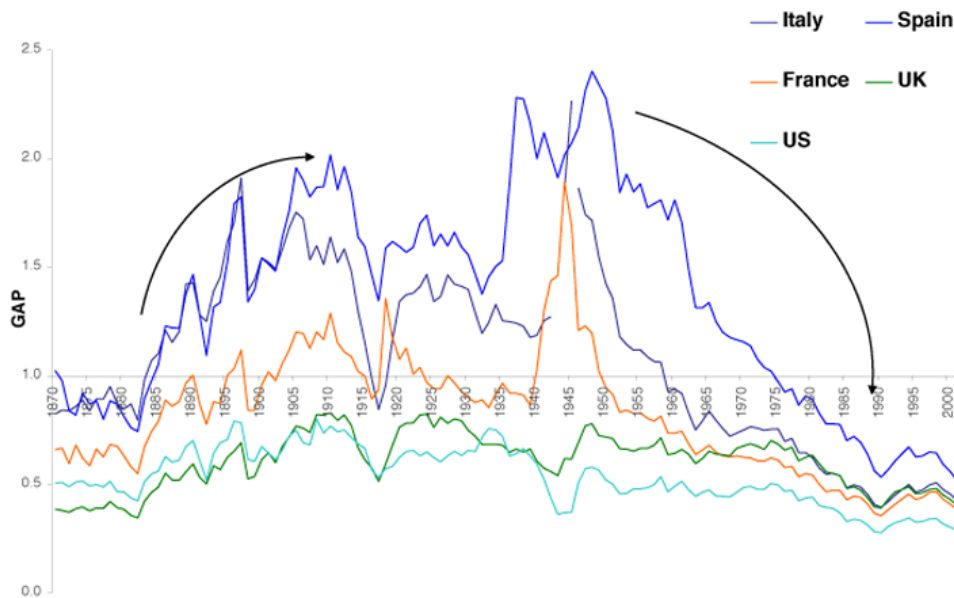
1914 to 1918

The outbreak of World War I interrupted the process of globalization and integration that had been developing worldwide during the previous period. The war made a strong impact on Argentina, where net migration rates were negative during all these years, at an average of about 2 ‰ annually. Both inflows and outflows of migrants dropped sharply, but especially the former. In 1918, the gross flow of immigrants was only 25 % of that observed in 1913, while emigration was reduced by half (table 2).

The collapse of the global capital market also had a negative effect on Argentina, given the decline in flows of capital, labor and manufactured goods coming from Europe. The total value of Argentine imports declined between 40 % and 50 % with respect to pre-1914 levels due to the redeployment of resources in Europe to the production of military equipment and also to difficulties in transport caused by the war.[7] World War I also had a negative affect on the grain trade, owing particularly to the scarcity of warehouses for transoceanic transport, a situation that was compounded by recurring poor harvests, primarily of corn, due to unfavorable climactic conditions.

All of these factors combined to greatly deepen the economic crisis in Argentina. Domestic product declined by about 10 % in 1914 and reached stagnation the next year, followed by new downturns in 1916 and 1917 of about 3 % and 8 %, respectively (table 1). This unfavorable economic performance also brought about a reduction in the income gap with respect to European countries (figure 3). Wages evolved in a similar fashion, with phases of stagnation and even sharp declines, such as oc-

6   It is important to note that almost all immigration countries (except the US) established immigration agencies in Europe before World War I.

7   For more detail, see Della Paolera and Taylor (1997).

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Source: Own elaboration based on Maddison (2003).

Figure 3
 GDP per capita gaps *
Argentina in relation to selected countries, 1970-2001
*Measured in constant 1990 Geary-Khamis international dollars.

curred in 1917 and 1918, years in which nominal values remained constant while domestic prices rose on a par with the evolution of international prices. Other indicators also appear to reflect labor difficulties in Argentine during this period. In particular, Bunge (1929) estimated that during those years the unemployment rate rose to 19 % in the city of Buenos Aires.

1919 to 1923

After the war, Argentina's average annual growth rates rose again to about 8 %, and the income and wage gaps relative to Italy and Spain recovered, but remained below their pre-war values (figure 2). Average wages, in particular, were about 25 % higher than in Italy and about 43 % higher than in Spain, while the GDP per capita differential was 33 % and 62 %, respectively.

The establishment of immigration quotas in the United States in 1921 and 1924 further encouraged migratory flows to Argentina. Throughout these years, an average of approximately 80,000 people entered the country per year, representing a net rate of almost 8 ‰ (table 2). However, this sub-period was very short and lasted until 1923, when the net migration rate was very high, around 17 ‰. From that year onward Argentina did not record such high rates of net migration.

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1924 to 1946

The economic decline suffered by Argentina throughout most of this period, along with the international armed conflict unleashed in 1939, provoked a sharp contraction in the European migratory flows, which, nevertheless, continued to be positive. The average net immigration rate during these years was about 4‰, but above a clearly decreasing trend (table 2).

During the early 1930s, Argentina's poor economic performance is demonstrated by the negative average annual GDP per capita growth rate of about 7% during the first three years of the decade. This meant that the wage and income gaps shrunk in relation to both Italy and Spain (figures 2 and 3).

In general terms, the lack of jobs and the decline in wage levels characterized the labor market during these years. The cost of living, in particular, rose while nominal earnings remained constant or even declined. The National Labor Department estimated that the budget for a typical family in 1933 was 10% higher than the average wage which, along with the lack of jobs, indicated the difficult social situation affecting the population as a whole. In this context, the decree known as the «Defense of Argentine Workers» was proclaimed, ordering Argentine consuls abroad to suspend disembarkation permits for immigrants who did not have a guaranteed occupation (Rapoport 2003).

During World War II, Argentina experienced again low and fluctuating growth rates, which led to stagnation and even drops in the GDP per capita. Additionally, the war severely restricted the mobility of both goods and production factors, including workers. As a result, net entry rates dropped to 0.88‰ during those years.

1947 to 2000

The devastating effects of the war in Europe created conditions for a sizeable group of Europeans to decide to leave their countries in search of better opportunities. Argentina then became a natural destination for those people, given what was known about the country through networks established by earlier migratory waves. In this way, Argentina received a new (and last) wave of overseas immigrants between the mid-1940s and early 1950's with a net annual entry rate of about 7.5‰ between 1947 and 1951.

However, rapid economic reconversion in Europe at the end of the 1940s, along with the incipient setback in the Argentine economy, resulted in a process of diminishing incentives to migrate to Argentina. By the second half of the 20th Century, Argentina's advantage over Spain and Italy in terms of per capita income had begun to systematically reverse (figures 2 and 3), while European immigration practically halted toward the end of the 1950s. In 1960, average Italian wages were 50%

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higher than average wages in Argentina, whereas the gap in favor of Spain was about 13 %. These differentials were further heightened in the periods that followed, becoming somewhat stabilized in the 1990s. In 1988, in particular, average wages in Italy and Spain were almost 4 and 3 times higher than in Argentina.[8]

Macroeconomic instability, economic setback, military regimes, political persecution and the deteriorating social situation in Argentina throughout this period led to the disappearance of the old attraction factors that had been in effect during the first half of the 20th Century and the appearance of elements that drove natives to leave the country.

One of the characteristic features of the post-war period in Argentina has been severe political instability, which has influenced both the gross immigrant entry rates and the rates of Argentine emigration abroad. The imposition of military regimes, with the suppression of civil liberties and academic freedoms, were a major cause of the emigration of professionals and scientists from the 1950s through the early 1980s.

As noted by Oteiza (1969), although certain emigration flows of researchers, scientists and high skilled people (such as doctors or engineers) were registered in the 1940s and 1950s, these flows increased significantly as a result of political repression under the Onganía dictatorship (1966-1970).[9] Throughout the period beginning then and lasting until the return to democracy in 1983, the so-called brain drain grew at an unprecedented rate. This situation became even more dramatic, however, under the last military dictatorship, which took over in 1976[10] and unleashed a massive persecution of intellectuals, professionals and students as part of a process of wholesale repression. As persecution and repression ceased with the return to democracy in 1983, fewer scientists and intellectuals left the country and some returned.[11]

Therefore, throughout this post-war period, political and economic performance combined in such a way as to create conditions for both the expulsion of natives and the attraction of new flows of immigrants, no longer Europeans but from neighboring countries. Since the mid-1950s, and parallel to the developments mentioned above, a new process began in Argentina characterized by an increase in the entry rates of immigrants from neighboring countries, especially Paraguay, Chile and Bolivia. These flows, however, were not new; historically, contingents of these immigrants had settled in rural areas of the Argentine provinces bordering on their home countries and taken up many of the jobs left by natives of these provinces who moved to the cities as part of the process of import substitution industrialization. In a second phase, these immigrants began to reorient their destination within Argentina, moving toward urban areas, especially toward the City of Buenos Aires and its metropolitan area. As Grimson (2005) points out, the first cross-border migratory waves were fundamentally rural-rural in nature, later becoming urban-rural and, finally, urban-urban. As a result, throughout this period, immi-

8 Latest comparable available data.
9 See, also, Houssay (1966), Oteiza (1965) Oszlak and Caputo (1973).
10 On March 24, 1976, a *Junta Militar* formed by the Commanders of the Armed Forces, Lieutenant General Jorge Rafael Videla, Admiral Emilio Eduardo Massera and Air Force Brigadier Orlando Agosti, took over the government.
11 Accurate information about the number of scientists who returned to Argentina during this period is not available.

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gration from neighboring countries became gradually more «visible,» partly due to its greater weight in proportion to the total number of foreigners living in Argentina, but due also to this movement from the border provinces to the urban centers.

The migratory dynamic of these groups has also been directly linked to the different stages of economic development and changing political situations in their countries of origin.

Rates of Bolivian immigration in Argentina have been high since the beginning of the 20th Century, especially among sugar cane harvesters working in northern Argentina. According to OIM (2011a):
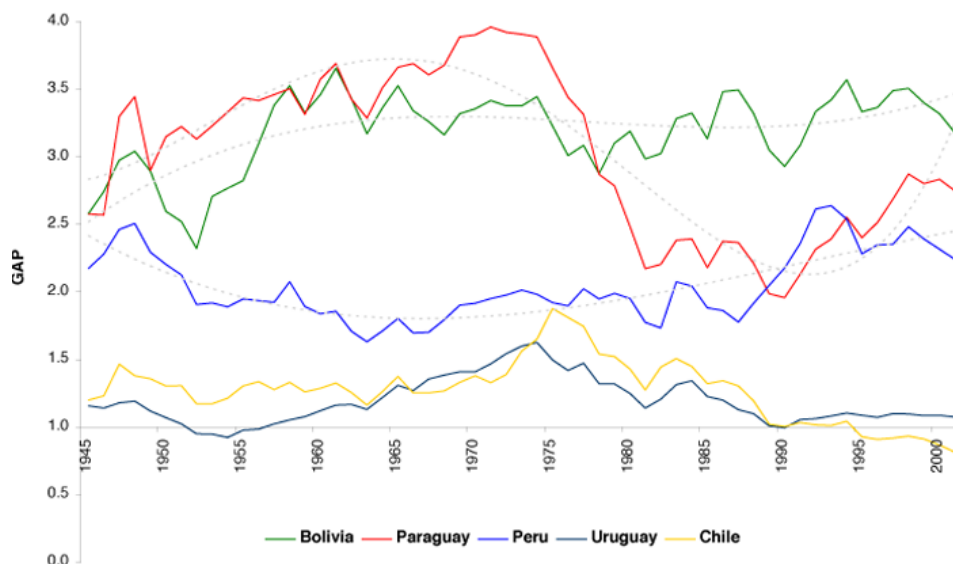
> «Bolivia is a country with negative net migration where around 706 thousand Bolivians reside outside the country, 6.8 per cent of the total population. Argentina is the primary country of destination, followed by Spain and the United States. Structural factors contributing to low levels of human development explain in large part emigration from Bolivia, together with recruitment systems operating within the country designed to attract the young and relatively inexpensive workforce to destination countries, particularly for employment in the textile industry. Migrant social networks which connect communities of origin and destination also facilitate the emigration of Bolivians».

The civil war in Paraguay between 1945 and 1949, along with the 1954 military coup, created conditions for emigration, which were reflected in the sharp increase in flows to Argentina, especially of political exiles, some of whom later returned to Paraguay.[12]

The political crisis in Uruguay that led to the 1973 military coup and ensuing economic difficulties resulted in a significant increase in emigration, a high percentage of which went to Argentina. Filgueira (1990) points out that the general worsening of living conditions throughout the 1970s produced growing dissatisfaction in the population that, along with the deteriorating political situation, led to a sizeable exit flow of natives going abroad. During those years, the economic situation in Argentina was favorable, with low unemployment rates and GDP growth rates of between 5 % and 6 %, which, along with its geographic proximity, made it one of the most important destinations for these flows, which continued —at a slower rate— through the 1980s, despite Argentina's worsening macroeconomic situation (Pellegrino 2000, 2003).

The case of Peru contrasts with this general overview, as Peruvian immigration to Argentina has increased noticeably since the 1980s, part of the more global process characterized by a large emigration of Peruvians, especially to the United States, certain European countries, Argentina and Chile. Altamirano (2003) suggests that the political and economic situations in Peru are the most important factors driving emigration. In particular, the 1980s initiated a period of heavy political violence in Peru, followed by Fujimori's rise to power and the virtual disappearance of the rule of law. This process, combined with the deteriorating economic context, created an overall situation favoring emigration. According to Cer-

12 For further details about Paraguayan emigration see OIM (2011b).

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Source: Own elaboration based on Maddison (2003).

Figure 4
GDP per capita gaps*
Argentina in relation to selected Latin American countries, 1945-2001
* Measured in constant 1990 Geary-Khamis international dollars.

rutti (2005), within the economic determinants, very low income would appear to be more important than the lack of jobs.

These flows could have also been affected by migration policy in Argentina. Under the military government (1976-1983) major modifications were made restricting the entry of foreigners. The Migration Law of 1981 discouraged migration from non-European countries, prohibited neighboring country immigrants from engaging in economic activity and restricted their access to public social services. Since then, and even after the return to democracy in December 1983, the orientation of legislation has not been well-defined: amnesties were declared (in 1984, for example) but so were new restrictive instruments (as in 1985 and 1987); another amnesty was decreed in 1992-1993, and bilateral agreements were signed with Peru and Bolivia. Along with these measures, control policies were implemented, including decrees deporting illegal immigrants (Novick 2001).

However, beyond certain socio-economic junctures that may favor or retract the flows entering Argentina, for some countries in the region, emigration to Argentina has been a recurring phenomenon at higher or lower rates depending on different phases of political, social and economic development, as already mentioned. Income gaps between Argentina and other countries in the region have created structural conditions that explain the persistence of migrant flows from within the region, fundamentally from Bolivia and Paraguay, even during recessive phase of the cycle, such as

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the second half of the 1990s. The consolidation of a regional labor market, the existence of networks set up during previous flows, and development differentials favoring Argentina seem to be the most important attraction factors that have made Argentina —along with Venezuela— one of the major migrant receiving countries in Latin America (CELADE 1998).

In this regard, Solimano (2003b) arguments that income differentials between countries in Latin America seem to be directly responsible for the large movements of people observed in the region. During the period from 1950 to 2000, Argentina's GDP per capita more than doubled the GDPs of Bolivia, Paraguay and Peru, source countries for the largest flows of immigrants entering Argentina in these years. Although the gap is positive in most cases, it has been smaller in relation to Chile, Uruguay and Brazil (figure 4).

3
Determinants of international migration

3.1. Theoretical aspects of the determination of international migration

From the analysis of the migratory dynamic examined in the preceding section, this section identifies a set of factors associated with the decision to migrate and the destination of the migratory flows described above.

One of these determinants of international movement of people is the expectation of a higher income in the receiving country compared to the country of origin. It is assumed that net migration is positively associated with income gaps between both countries: the higher the income earned in the receiving country compared to the source country, the higher the inflows and the lower the outflows to and from the destination country. These income differentials, in general, are estimated by the real income per capita and/or wage gap between countries.

Another factor directly linked to the foregoing is the general labor market context in the receiving country compared to the source country in terms of the likelihood of obtaining employment and cashing in on the wage differential. In particular, as mentioned above, high unemployment contexts, low economic growth rates and sluggish job creation in the destination country discourage immigration. Therefore, at a specific moment in time, not only income gaps seem to be relevant but also the phase of the economic cycle in which the source country and the receiving country find themselves. According to Solimano (2003b), seen from a dynamic perspective, the relevant variable should be the actual value of the differential between expected income flows in the receiving country and the source country.

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Another aspect —of a non-economic nature— which influences the dynamic of these flows is migration policy in the receiving countries. In principle, the most restrictive contexts are expected to slow the entry rate of foreigners. It is also argued that these policies usually affect not only numbers of entries but also, and mainly, the labor market situation faced by immigrants. In particular, illegal workers are forced to accept precarious, low-paying and more intensive working conditions.

Migratory flows, especially the direction of these flows, are also associated with the existence of networks of family and friends in the destination country. The presence of these networks not only helps potential migrants obtain information about the economic and labor situation in the receiving country, but also function as an important support system upon their arrival and as they are settle in. The second wave of European immigrants arriving in Argentina after World War II seems to have been influenced not only by economic factors but also by the existence of networks of compatriots resulting from earlier migratory flows. These processes generate certain persistence even after the favorable economic conditions that attracted the first waves of immigrants have changed.

As also noted in the preceding section, political factors are also important determinants of the decision to migrate. In Latin America, these seem to have been particularly relevant, at least during the second half of the 20th Century.

Finally, other factors that probably have more influence on the election of a destination country than the decision to migrate itself are the different customs, language and general culture, geographic distance and migration costs. At the international level, migratory flows are higher between neighboring countries than between more distant countries. Also, the weight that the migrant assigns to each of these factors may change, depending on the geographic distance between the source country and the destination country.

3.2. Econometric models

Taking into account the economic and non-economic determinants just analyzed, a set of econometric estimates were made using different specifications of both the dependent variable and the covariates.

The general analytical framework is based on Hatton and Williamson (1998) and Taylor (1994) which propose an extension of traditional models. In particular, the first econometric models used to explain this phenomenon were Todaro's (1969) and Harris and Todaro's (1970), in which it was argued that migration is related to wage differentials and expectations of obtaining better employment in the receiving country compared to the country of origin. For this reason, the model we will call «traditional» can be expressed in the following way:

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$$\frac{M}{P}_t = \beta_0 + \beta_1 \log\left(\frac{E^*_t}{E_t}\right) + \beta_2 \log\left(\frac{W^*_t}{W_t}\right) + \varepsilon_t \qquad [1]$$

where:
P: total population of the receiving country
M/P: gross immigrant entry rate in the receiving country
W*/W: wage gap between the receiving country (W*) and the country of origin (W)
E*/E: employment opportunities in the receiving country (E*) compared to the country of origin (E)

This specification is derived from a set of assumptions about the decision to migrate. The first of these suggests that the potential migrant compares expected income in the country of origin and the country chosen as a possible destination based on real differentials in earnings and the possibilities of bridging these differentials by getting a job. The inclusion of these probabilities in the model acknowledges the uncertainty component associated with the decision to migrate, since the individual must take into account which is the probability that he or she will be employed in the destination country compared to the possibility of employment in the country of origin.

According to Taylor (1994), it is assumed that the individual has a convex utility function which depends on income. Therefore, migration will be a function of the expected utility differential based on income in each of the two scenarios: to migrate or not to migrate. A logarithmic function for utility is suggested, so that the individual decision to migrate is expressed in the following way:

$$d_i = E[\log(y_{id})] - E[\log(y_{io})] + z_i \qquad [2]$$

where:
d_i is the expected utility differential
z_i is a term of specific individual preference
y_{io} is the individual's income in the country of origin, and is income in the destination country

A more attractive expression from an analytical perspective results from substituting expected income for the variables on which it depends, that is, actual wages (w) and the probability of getting a job (e). Therefore, we can incorporate this information in (3.2) disaggregating expected income in the country of origin and in the receiving country in both components. By reordering terms, we can express d_{it} as:

$$d_{it} = \alpha_1 + \alpha_2 \log\left(\frac{w_{dt}}{w_{ot}}\right) + \alpha_3 \log\left(\frac{e_{dt}}{e_{ot}}\right) + z_i \qquad [3]$$

where:
w_{dt}: wage in the destination country
w_{ot}: wage in the country of origin
e_{dt}: probability of obtaining employment in the destination country
e_{ot}: probability of obtaining employment in the country of origin

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As expressed in [3], the individual will decide to migrate if d_{it} is positive. The d_{it} variable could be interpreted as a «latent» variable, unknown to the researcher but, depending on the value it acquires, results in the decision to migrate or not to migrate (in this case the minimum threshold would be zero), which as an aggregate decision would be reflected in emigration rates from the source country and in gross entry rates in the receiving countries.

Using this general framework, Hatton and Williamson (1998) extend the traditional model in three directions:

1. Given the assumption that the potential migrant is adverse to risk and that the probabilities of getting a job may be different between the destination country and the country of origin, they propose incorporating separately the terms reflecting job opportunities in each place, instead of jointly estimating the relationship between both variables.

2. It is assumed that migrants evaluate the entire path of expected future income in their own country as well as abroad. To make this expectation, they use the only information available to them, which is what has happened in the past. This justifies the incorporation of lag variables in the model as proxies for the past.

3. Finally, it is assumed that migrations may be influenced by short-term variations in the explanatory variables, speeding up or slowing down the migratory flow in response to change. Therefore, covariates in first differences are incorporated as a means of capturing these reactions.

In order to incorporate all these effects, a more complex lag structure than that utilized in the traditional model is required. One of the methods that satisfies these requirements is the FOEC *(first order error correction)* type method.

The latter method is also compatible with Taylor's (1994) interpretation, which assumes that the individual not only evaluates the possibility of migrating but also, and simultaneously, the best moment to migrate. In this way, the decision to migrate could be delayed even with positive d_{it} if potential migrant consider that waiting will accrue benefits in the future (for example, if he/she assume that there will be favorable changes in migration policy in the receiving country). Therefore, the FOEC type model can capture all of these effects. In our particular case, the model would be:

$$
\frac{M}{P}_{(t)} = \beta_0 + \beta_1 \Delta \log(E^*_{(t)}) + \beta_2 \Delta \log(E_{(t)}) + \beta_3 \Delta \log\left(\frac{W^*}{W}_{(t)}\right) +
$$
$$
+ \beta_4 \log(E^*_{(t-1)}) + \beta_5 \log(E_{(t-1)}) + \beta_6 \log\left(\frac{W^*}{W}_{(t-1)}\right) + \quad [4]
$$
$$
+ \beta_7 \frac{M}{P}_{(t-1)} + \varepsilon_{(t)}
$$

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Short-term behavior is quantified by estimating the coefficients β_1, β_2 and β_3 corresponding to the variables in first differences, while equilibrium relationship can be evaluated by the long-term elasticity of the variables in levels.

A final alternative for approaching the migration model is adopting an intermediate model between the traditional and the FOEC models, in cases where the latter does not obtain a good fit. This alternative model can be expressed as:

$$\frac{M}{P}_t = \beta_0 + \beta_1 \log(E^*_t) + \beta_2 \log(E_t) + \beta_3 \log\left(\frac{W^*}{W}_t\right) + \beta_4 \frac{M}{P}_{t-1} + \varepsilon_t \quad [5]$$

It is important to note that there is a direct relationship between the FOEC model, the traditional model and the intermediate model, because the last two are specific cases of the first. For example, the traditional model is equivalent to the FOEC under the following restrictions:

$$\beta_1 = \beta_4 \; ; \beta_2 = \beta_5 \; ; \beta_3 = \beta_6 \, and \; \beta_7 = 0$$

From expression [4] different estimates were done in order to estimate inflows of European (from Spain and Italy)[13] and South American migrants (from Bolivia, Chile, Paraguay and Uruguay). Specifically, models were estimated separately for:

- the first wave of migration during the period from 1870 to 1950, and the subperiod from 1870 to 1930 (the period with the highest entry rates), and

- the second wave of migration during the period from 1945 to 1976[14]

Two alternative specifications were used to explain the income differentials between countries: the wage gap and the product per capita gap. Given the lack of information about the evolution of employment in Argentina and in the countries of origin throughout the period under consideration, employment perspectives were proxied by business cycle.[15]

3.3. Results

Table 3 presents estimates for the periods 1870-1950 and 1870-1930, with both specifications for the income variable.[16] The estimates of the four FOEC models indicate significant coefficient of short-term variables (although not in all cases) with the expected signs; however, the same is not true for the variables in levels, for which not even the sign is the one expected in all cases.[17]

13 We decided to consider only these two countries in these estimates because they represent the most important portion of European inflows to Argentina and they showed similar trends during this period.

14 Due to the lack of complete information for subsequent years, economic estimates could only be made for this particular period of time.

15 Taylor (1994) makes this estimate assuming compliance with the Okun Law.

16 Before making these estimates, a Johansen test was performed to determine the existence of cointegration of first order. Results are not included in this paper but they are available upon request.

17 Other dependent variable specifications were used, for example, the logarithm of the gross and net entry rate, but the model did not obtain a good fit.

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Variables / Periods	1870-1950		1870-1930	
	Model 1	Model 2	Model 3	Model 4
Constant	7.571	5.502	8.723	3.155
	(2.62)	(1.66)	(2.5)	-0.77
$\Delta \log employment_{arg}$	292.87	389.049	293.075	395.439
	(2.36)	(3.58)	(1.86)	(3.09)
$\Delta \log employment_{Europa}$	-100.154	-275.15	-151.455	-306.844
	(-0.49)	(-1.34)	(-0.57)	(-1.33)
$\Delta \log product\ gap_{pc}$	5.822	-	9.206	-
	(0.35)	-	(0.41)	-
$\Delta \log wage\ gap$	-	23.878	-	24.579
	-	(2.81)	-	(2.65)
$\log employment_{arg(-1)}$	-13.81	24.419	-79.852	-24.708
	(-0.12)	(0.2)	(-0.54)	(-0.17)
$\log employment_{Europe(-1)}$	32.976	20.293	-21.925	-22.515
	(0.2)	(0.11)	(-0.09)	(-0.10)
$\log product\ gap_{(-1)}$	3.984	-	7.1002	-
	(0.97)	-	(1.22)	-
$\log wage\ gap_{(-1)}$	-	6.007	-	9.932
	-	(1.43)	-	(1.87)
GIER(-1)	0.732	0.733	0.691	0.719
	(8.69)	(1.43)	(6.39)	(7.32)
R-squared adjusted	0.593	0.622	0.582	0.631
Durbin-h	0.034	-0.163	0.034	-0.042
F-statistical	17.419	17.657	12.74	15.418
Prob (F-statistical)	0.0000	0.0000	0.0000	0.0000

Source: Own elaboration based on Sánchez Alonso (1995), Willcox (1929), Ferreres (2005), Maddison (2003) and Williamson (1995).

Table 3
First Order Error Correction Model
Dependent variable: Gross immigrant entry rate (GIER)
Periods: 1870-1950 and 1870-1930*
*Absolute value of t statistic in parentheses.

These results suggest that the traditional model would be a better option than the FOEC model. Therefore, we next tested the following simultaneous restriction hypothesis:

$$Ho: \beta_1 = \beta_4; \beta_2 = \beta_5; \beta_3 = \beta_6 \text{ and } \beta_7 = 0$$

where
β_1 : $\Delta \log employment_{arg}$
β_2: $\Delta \log employment_{europe}$
β_3: $\Delta \log product\ per\ capita\ gap$
β_4 : $\log employment_{arg(-1)}$
β_5 : $\log employment_{europe(-1)}$
β_6 : $product\ per\ capita\ gap_{(-1)}$
β_7: $gross\ entry\ rate_{t-1}$

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Variables / Periods	1870-1950		1870-1930	
	Model 1	Model 2	Model 3	Model 4
Constant	9.4249	7.3919	11.0388	4.3858
	(3.22)	(2.18)	(3.09)	(1)
log employment $_{Arg}$	163.1309	225.2749	144.9841	219.7974
	(1.63)	(2.15)	(1.13)	(1.73)
log employment $_{Europe}$	23.9147	-51.5863	-3.1088	-73.2142
	(0.15)	(-0.29)	(-0.01)	(-0.35)
log product gap $_{pc}$	5.237	-	10.1733	-
	(1.24)	-	(1.7)	-
log wage gap	-	8.9901	-	13.6011
	-	(2.14)	-	(2.52)
GIER(-1)	0.6612	0.6159	0.5962	0.6029
	(7.89)	(6.96)	(5.51)	(6.07)
R-squared adjusted	0.56	0.566	0.54	0.566
Durbin-h	0.132	0.179	0.198	0.189
F-statistical	26.086	24.477	18.296	20.21
Prob (F-statistical)	0.000	0.000	0.000	0.000

Source: Own elaboration based on Sánchez Alonso (1995), Willcox (1929), Ferreres (2005), Maddison (2003) and Williamson (1995).

Table 4
Traditional model with autoregressive term
Dependent variable: Gross immigrant entry rate (GIER)
Periods: 1870-1950 and 1870-1930*
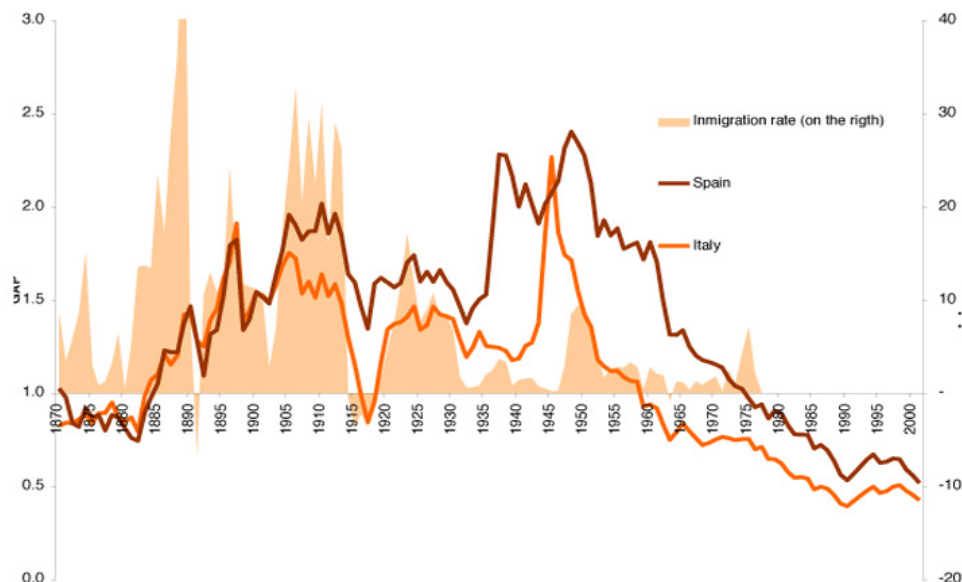*Absolute value of t statistic in parentheses.

The test results indicate the non-significance of the traditional model. However, the traditional model was significant when an autoregressive term was added.[18] This result could be interpreted as a factor that controls for unobserved or unmeasured variables, for example, the existence of previous social networks that could influence the direction of migratory flows, as discussed above.

Table 4 shows the results of estimates using this specification. As expected, the traditional model with the autoregressive term performs better than the previous models, with expected signs in all the model coefficients, with the exception of the variable associated with the likelihood of employment in Europe (Spain and Italy) in Model 1, although this variable was not significant in any of the cases.[19] Model 2 appears to obtain the best fit which provides a stronger basis than the others for deducing that the path of employment growth, estimated by business cycle, seems to be the principal determinant of the migratory flow toward Argentina between 1870 and 1950, having a greater effect than the wage gap. The asymmetry in the weight of employment opportunities in the source and destination countries in determining migratory flows should also be noted: the results show that an increase in employment opportunities in Argentina was more important than a reduction of the same magnitude in the country of origin.[20]

18 The restriction tests were estimated using a Wald test, rejecting the null hypothesis of validity of traditional model. For this reason, the FOEC was selected as the most appropriate model. Results are not included in this paper but they are available upon request.

19 Possible autoregressive structures were tested using the Durbin Watson H Statistic. No evidence of structures of a higher order over the residuals was found. Results are available upon request.

20 These results are compatible with those obtained by Taylor (1994).

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Source: Own elaboration based on Ferreres (2005) and Maddison (2003).

Figure 5
GDP Gaps (Argentina versus Spain and Italy*) and net migration rate, 1870-2001
*Measured in constant 1990 Geary-Khamis international dollars.

The long-term relationship between the wage gap and the gross entry rate is stronger in the shorter time period. Whereas the gross rate rose by 3.42 per thousand residents between 1870 and 1930 because a 1 % increase in the wage gap, that value drops to 2.34 when the period is extended to 1950. This pattern is repeated in the model that incorporates product per capita gaps where this value drops from 2.51 to 1.55, respectively. This is an expected result observing the evolution of these variables throughout this period (figure 5). As the previous analysis showed, after 1930 the gross entry rate drops significantly compared to the previous period, even though income gaps remained high, which would be reflecting a weakening in the relationship between these variables.

The same analysis was applied to regional migration during the period between 1945 and 1976.[21] Given the period under study, a dummy variable was incorporated into the models as a proxy for the political situation in Argentina, assigning the value 1 for democratic regimes and 0 for authoritarian regimes.

Table 5 shows the results of these estimates. All the coefficients have the expected signs, although the product per capita gap is not statistical significant in any of the estimated models. Dummy variable for political regime neither was significant which represent an important difference with respect to the results obtained by Solimano (2003a) for net migratory flows between 1929 and 1960, a period during which authoritarian regimes appear to have exerted a negative influence on immigration to Argentina.

21 Only product per capita estimates could be made, since comparable wage series for all the countries considered for the whole period were unavailable.

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Variable	Model 1	Model 2
Constant	-40.18	-33.48
	(-1.24)	(-1.00)
$\Delta \log \text{product gap}_{pc}$	-14.36	-14.72
	(-0.50)	(-0.51)
$\Delta \log \text{employment}_{Reg}$	-5.18	-5.75
	(-2.28)	(-2.43)
$\Delta \log \text{employment}_{Arg}$	12.82	12.18
	(92.7)	(2.53)
$\log \text{product gap}_{pc}(-1)$	33.24	31.66
	(2.63)	(2.47)
$\log \text{employment}_{Reg}(-1)$	-4.11	-5
	(-1.55)	(-1.76)
$\log \text{employment}_{Arg}(-1)$	5.42	5.41
	(1.35)	(1.34)
Political regimen	-	1.78
	-	(0.89)
GIER(-1)	0.74	0.73
	(7.13)	(6.96)
R-squared adjusted	0.91	0.91
Durbin-h	0.041	-0.094
F-statistical	46.94	40.81
Prob(F-statistical)	0.000	0.000

Source: Own elaboration based on Ferreres (2005), Maddison (2003) and Williamson (1995).

Table 5
First Order Error Correction Model
Dependent variable: Gross immigrant entry rate (GIER)
Period: 1946-1976*
*Absolute value of t statistic in parentheses.

However, that variable is no longer statistically significant (and has the opposite of the expected sign) during the period from 1960 to 1999.[22]

A comparison between this model and the model corresponding to the first migration wave highlights the better performance of the FOEC model for regional inflows in terms of the statistical significance of the explanatory variables and their signs. However, the variables associated with expectations of employment measured in levels were not significant, nor was the effect of wage gap growth. As in the previous case, the possibility of a better fit using the traditional model was tested, with unfavorable results.

Therefore, continuing with the estimation strategy adopted for the first migratory wave, the model was estimated using the traditional model with the autoregressive component. The results are shown in table 6. Once again, the signs are those expected and the model obtained better overall fit; the political regime variable remained non-significant.

22 Solimano (2003a) arguments that this strange result might be influenced by two factors: on the one hand, lack of information about emigration from Argentina under the military regime during the second half of the 1960s, and on the other, the fact that the percent of years with authoritarian governments during the period 1960-1999 is too low to have an influence on the entire period under consideration.

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Variable	Model 1	Model 2
Constant	-50.03	-40.63
	(-1.94)	(-1.49)
log product gap $_{pc}$	28.46	26
	(2.57)	(2.3)
log employment$_{Reg}$	-3.94	-4.76
	(-1.95)	(-2.20)
log employment$_{Arg}$	7.22	6.85
	(2.22)	(2.1)
Political regime	-	2.04
	-	(1.06)
GIER(-1)	0.8	0.79
	(10.27)	(10.2)
R-squared adjusted	0.92	0.92
Durbin-h	0.1176	0.0287
F-statistical	82.42	66.48
Prob(F-statistical)	0.000	0.000

Source: Own elaboration based on Ferreres (2005), Maddison (2003) and Williamson (1995).

Table 6
Traditional model with autoregressive term
Dependent variable: Gross immigrant entry rate (GIER)
Period: 1946-1976*
*Absolute value of t statistic in parentheses.

An initial result of comparing the estimates using this model with the estimates obtained using the same model for the first migratory wave would indicate a shift in the order of importance of the determinants of the entry rate. The income gap, more than opportunities of employment differentials, appears to be the variable that generates the greatest reaction in the regional migratory flows. Once again, the response of these flows to an increase in employment in Argentina and reduced employment in the country of origin was asymmetrical, being higher in the former case. Finally, the long-term relationships estimate that a 1 % increase in the product gap implies an increase of 14.25 immigrants for every 1000 inhabitants, a clearly higher reaction than that found for the European waves.

Before concluding this section, it must be noted that due to the absence of more detailed information, it was not possible to conduct an analysis of the short- and long-term determinants distinguishing the country of origin of migrants entering Argentina. It seem to be more important in the case of Latin American migratory flows, since the evolution of the total volume of entries averages dissimilar situations, depending upon country of origin.

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4
Conclusions

The international movement of people is an increasingly relevant phenomenon that makes a social, demographic and economic impact in the country of origin as well as in the destination countries. Growing inequality in the degree of development achieved by countries and in the level of well-being of their population, together with political and social conflicts, generate expulsion and attraction factors leading to a sharp increase in migration worldwide.

This paper has studied, from a long-term perspective, the determinants of immigrant flows to Argentina from Europe and South America. Different econometric models were estimated for both the European waves —during the period from 1870 to 1950— and the Latin American waves —during the period from 1945 to 1976.

Results show that in the period 1870-1950, the path of employment growth seems to be the principal determinant of the movements of Europeans to Argentina, having a greater effect than the wage gap. An asymmetrical response to shifts in employment opportunities in the sending and receiving countries is also confirmed, showing that an increase in employment opportunities in Argentina was more important than a reduction of the same magnitude in the country of origin.

When a similar econometric analysis is applied to flows from other South American countries, some of the results change significantly. In regional migration, the wage gap, more than employment differentials, seems to be the variable that produces the greatest reaction in the migratory flows. An asymmetrical response of these flows to an increase in employment in Argentina and a decrease in the country of origin is also confirmed once again, the response being higher in the former than in the latter.

However, beyond certain socio-economic junctures that favor or constrain immigration to Argentina, economic and social gaps with respect to other South American countries have created structural conditions that explain the persistence of migrant flows coming from countries in the region, fundamentally Bolivia and Paraguay, even during recessions such as that experienced by Argentina in the mid-1990s. The consolidation of a regional labor market, the existence of networks created during earlier flows and development differentials favorable to Argentina seem to be the most important attraction factors that have made the country one of the most important receiving countries for regional migrants in Latin America.

This relatively better situation compared to the migrants' countries of origin does not imply, however, that the workers from other South American countries, as a whole, do not face serious difficulties in terms of insertion in the Argentine labor market. On the contrary, occupational

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segregation and wage discrimination can be observed, where most of migrant people work in a narrow set of productive sectors (Marshall 1977; Marshall and Orlansky 1983; Cortés y Groisman 2004; Cerrutti 2005; Maurizio 2013).

The situation of illegality in which a percentage of them find themselves favors acceptance of unprotected working conditions and earnings below the legal established minimums. The structural conditions that determine the non-native population's more precarious insertion in the labor market also explain the high levels of hardship experienced by that group as a whole. Of course, the degree of well-being achieved by these contingents differs somewhat by nationality and region of settlement within Argentina, but that analysis is outside the scope of this document.

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