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INCOME DIFFERENTIALS AND MIGRATIONS \*

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## 6 Income Differentials and Migrations

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Those who distrust historical statistics are right in doing so, but they would be wrong in rejecting them. In fact, any understanding of statistical information is founded on distrust, and the classical problem of statistics is that of making valid inferences from observations that are known to be poor. To abandon the scraps of quantitative insight into the past merely on the grounds of general suspicion would be as foolish as to regard them as wholly accurate.<sup>1</sup>

In this paper I shall endeavour to examine the existence of certain factors which may influence the decision to emigrate. I shall deal with the case of the outward migration of Italians between 1880 to 1914 approximately, and in particular toward Argentina, covering the whole or part of this period according to available data. In the first place the purpose is to establish whether there was a relationship between income (wages) differentials and the attraction of migrants (pull) as measured by the variations of migratory flows. The idea is that, besides other non-economic factors, the expectation of better wages must have been an important incentive to migrate. Hicks wrote that 'differences in net economic advantages, chiefly differences in wages are the main causes of migration'.<sup>2</sup> In Larry Sjaastad's words,

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The hypothesis is that there exists a specific functional relationship between the income received for an individual and his determination to search for superior opportunities in the countries to which he migrates.<sup>3</sup>

It is thus necessary to determine if such differences existed as far as Italian and Argentine wages were concerned, then, if there is a relationship between that differential and the migratory flows from Italy to Argentina. Furthermore, other substitute indicators are sought which may point to such a wage differential, as well as attempting to establish the existence of other factors that could explain the movements in migration. I worked with remittances sent by Italian emigrants to their country (of origin) - total remittances and remittances per emigrant. The focus is on all Italian emigrants abroad, and not just on those living in Argentina, since for this country the available data refer only to remittances made through 'postal giros' and the *Banco di Napoli*, and for a smaller number of years, starting in 1901 and 1902 respectively. It is assumed that the remittances not only indicate the existence of income differential between the country where the remittances were sent from and the country where the remittances were received, but that they had a more complex effect on migration. On the one hand they provided information on better economic opportunities, but on the other they also provided assistance in moving. Since *total* remittances were also the consequence of the volume of emigrants abroad, they reflected the level of individual wealth as well as the effect of the emigrant stock. Therefore the effect on the emigrant flow of the existence of an emigrant stock abroad, which would be reflected in the assistance to the new migrant provided by relatives and friends living abroad, has to be analysed. This assistance reduced the pecuniary and nonpecuniary expenses of moving and furthermore, it helped as an informal employment network in the labour market of the new country.

It is the aim of this paper to establish the existence of a relationship between migratory flows, income differentials and some of the other factors already mentioned.

### MIGRATION - WAGE DIFFERENTIALS: ARGENTINA- ITALY, 1880-1903

There are various problems in comparing purchasing power to find out the wage differentials between workers in the country of emigration and in the country of immigration.<sup>4</sup> To compare the purchasing power of wages as expressed in the currency of both countries, the relative version of the doctrine of 'purchasing-power parity' shall be followed. Bela Balassa wrote in this respect,

The purchasing-power parity doctrine means different things to different people. In the following, I shall deal with two versions of this theory that can be appropriately called the 'absolute' and the 'relative' interpretation of the doctrine. According to the first version, purchasing-power parities calculated as a ratio of consumer goods prices for any pair of countries would tend to approximate the equilibrium rates of exchange. In turn, the relative interpretation of the doctrine asserts that, in comparison to a period when equilibrium rates prevailed, changes in relative prices would indicate the necessary adjustments in exchange rates.

... If we compare two equilibrium positions which differ only in regard to the absolute price levels prevailing in the two countries under consideration, the change in the equilibrium exchange rate will equal the change in the ratio of price levels between the two positions.<sup>5</sup>

Among other reasons, this version has been adopted in the present work because it was necessary to take into account strong monetary disturbances in Argentina - in 1885 it chose the inconvertibility of the *peso* - which had an effect on changes in relative prices. Instead, the *lira/gold parity* was maintained in Italy.

The year 1882 is taken as a base year. In that year there was also free convertibility, being a relatively normal year as far as the stability of prices was concerned. It is assumed that during that year the rate of exchange had reflected the price relationship between both countries. The composition of expenditure (*the family basket*) was similar because to a great extent it was affected by the weight of foodstuffs in consumption. The prices of agricultural goods, which accounted for nearly 50 per cent of the family basket, were set by the

international markets and, in respect of other goods, both countries were price-takers. For the subsequent years the rate of exchange was adjusted in accordance with the relative variation in prices.

Thus

$$Kl_{(ia)} = K0_{(ia)} \frac{P_u/P_w}{P_{ai}/P_{aw}}$$

where

- $K0$  = rate of exchange of the base year
- $Kl_{(ia)}$  = rate of exchange of parity *lira/peso* in the year  $t$
- $K0_{(ia)}$  = rate of exchange of parity *lira/peso* in the base year
- $P_u/P_w$  = Italian index prices in respect of base year
- $P_{ai}/P_{aw}$  = Argentine index prices in respect of base year

The following are the results obtained by comparing the purchasing power of the Italian wages and Argentine wages, in *pesos*, and the proportion of the Argentine wages with respect of Italian wages.

The tables show that in the period of immigration there was, in the course of several years, an important differential between wages earned by workers in Italy and in Argentina, with the exception of the 1890s when there was also a substantial fall in migration toward Argentina. Finally, once the wage differentials were obtained, an attempt was made to learn whether there was a relationship between the variations in these wage differentials and the variations in Italian immigrant flows to Argentina. With this purpose a regression was carried out which did not yield satisfactory results.

Nevertheless, it seemed in principle quite clear that there were periods of high differentials – the 1880s and 1900s – associated with those of high immigration flows, and periods of low differentials associated with those of low flows – for instance, the 1890s. Then, as the failure to establish satisfactory statistical relationships could be due to a weakness in the data and not to the non-existence of such an association, an attempt was made to find another variable that could be used as an indicator of the existence of that differential, and for which there was continuous and reliable information.

TABLE 6.1. *Wages: Argentina-Italy and differentials (in percentages)*

	Argentina (1)	Italy (2)	Percentage differentials $\left(\frac{1-2}{1}\right) \times 100$
1882	19.85	11.90	76
1883	23.14	11.22	106
1884	20.10	12.21	65
1885	23.37	10.44	114
1886	27.20	10.49	159
1887	19.40	14.89	30
1888	22.09	15.13	46
1889	21.63	15.25	12
1890	18.10	18.97	-5
1891	17.97	21.47	-16
1892	20.94	19.04	10
1893	20.57	17.66	16
1894	19.32	21.55	-10
1895	17.55	23.62	-26
1896	19.00	23.64	-20
1897	26.27	23.40	12
1898	36.07	19.55	85
1899	42.82	16.41	161
1900	37.38	18.34	104
1901	37.54	20.79	81
1902	38.45	20.82	85
1903	41.09	19.98	106

For Argentina, the wages considered are those of the industrial workers at the Bagley plant in Buenos Aires (see source for an explanation of the information included, methods used and representativity). They have been compared with other information on wages in the public and private sectors. The Bagley wages and those of unqualified workers in the public administration were similar throughout this period. The coefficient of correlation between both for the period 1880-1910 is:

$$R^2 = 0.91$$

Source: R. Cortés Conde, *El Progreso Argentino* (Buenos Aires: Sudamericana, 1979)

TABLE 6.2. Prices and nominal and parity rates of exchange

	Prices Argentina (1)	Prices Italy (2)	(2) ÷ (1)	Parity rate of exchange (3)	Official rate of exchange (4)	Market rate of exchange lira/peso* (5)
1882	100.0	100	100	5.00	5.00	-
1883	95.2	97	102	5.10	5.00	-
1884	100.0	95	95	4.75	5.00	5
1885	85.7	97	113	5.65	5.00	3.64
1886	85.7	97	113	5.65	5.00	3.59
1887	122.2	97	80	4.00	5.00	3.20
1888	122.2	98	80	4.00	5.00	3.37
1889	122.2	99	81	4.05	5.00	2.77
1890	158.7	103	65	3.25	5.00	1.93
1891	181.0	103	57	2.85	5.00	1.33
1892	158.7	102	64	3.20	5.00	1.51
1893	144.4	100	64	3.45	5.00	1.54
1894	173.0	99	57	2.85	5.00	1.40
1895	190.5	99	52	2.60	5.00	1.45
1896	207.9	98	47	2.35	5.00	1.69
1897	185.7	98	52	2.60	5.00	1.72
1898	154.0	98	64	3.20	5.00	1.95
1899	127.0	97	76	3.80	2.20	2.22
1900	144.4	98	68	3.40	2.20	2.20
1901	163.5	98	60	3.00	2.20	2.20
1902	163.5	97	60	3.00	2.20	2.20
1903	158.73	100	63	3.15	2.20	2.20
1904	50.6	101	62	3.10	2.20	2.20
1905	51.74	101	59	2.95	2.20	2.20
1906	57.46	103	56	2.80	2.20	2.20
1907	56.07	108	58	2.90	2.20	2.20
1908	56.49	107	56	2.80	2.20	2.20
1909	58.76	104	54	2.95	2.20	2.20
1910	59.09	107	52	2.60	2.20	2.20
1911	-	109	53	2.65	2.20	2.20
1912	74.73	114	55	2.75	2.20	2.20

\* The market rate of exchange for the period in which there was no convertibility for the *peso* was established *vis-à-vis* the price of gold in Argentine pesos. In Italy the *lira* was maintained united with gold to a fixed rate of exchange.

SOURCE 'Sommario de Statistiche Storiche Italiane 1861-1955', p. 172 (for Italy).  
R. Cortés Conde, *El Progreso Argentino* (Buenos Aires: Sudamericana, 1979)  
(for Argentina).

**IMMIGRATION FLOWS AND INCOME DIFFERENTIALS**

It was stated that the main interest of this work centred on finding out whether migrations were a result of the response of individuals seeking to improve their economic situation, a fact which would be reflected in the existence of income differentials between the country of emigration (Supply country) and that of immigration (Receiver country). It must be pointed out that such differentials should be greater than the pecuniary and nonpecuniary expenses of moving.

In a study carried out on British migration to Australia, Allen C. Kelly remarked,

Income differentials can be obtained only at a cost. The latter includes, among other things, transportation expenses, foregone earnings during the transition from one job to another, and certain nonpecuniary elements, such as risks and discomfort of travel, severing friendships, and so forth. The rate of emigration is, therefore, supposed to be associated positively with the expected long-term economic benefits and negatively with the expense of moving, both as evaluated by the migrant.<sup>6</sup>

Among the pecuniary expenses the most outstanding were fares, the loss of wages during the period between the departure and the finding of a new job in the country of immigration and, among the nonpecuniary expenses, the risks and discomfort of travel and, above all else, the absence of known places, family and friends. Thus it was necessary not only to consider income differentials, but also the other elements that could considerably reduce those benefits, the pecuniary and nonpecuniary expense of moving.

Remittances sent by Italians abroad were chosen as an indicator of the variations in income differentials. Series of data were available, of an adequate continuity and reliability. The flow of remittances from one place to another was an indicator of higher wages (income) in the country where the remittances were originated. If it is assumed that income was made up of consumption plus savings, and that remittances were part of those savings, the existence of remittances indicates that it was possible to save. Furthermore, if it is assumed that consumption remained more or less constant in the short term, variations in remittances can be taken as an indication of variations in income. Therefore the

remittances indicate the existence of a labour income differential, and their variations indicate variations in the latter. Also they had a wider effect, and as a result this indicator became more ambiguous. On the one hand, they supplied information on the existence of a savings capacity and on the other they allowed to pay for the immigrants' moving expenses, that is to say, they were an indicator of expected income, but they were moreover a definite factor in reducing the expense of moving.

This occurred with remittances *per emigrant*. Total remittances reflected as well the effect of the number of immigrants in the country of immigration, that is the effect of the assistance derived from the existence of that migrant stock. In their study on old and new migrations to the United States, Dunlevy and Gemery dealt with the effect of the migrant stock:

Migrants stock is included as an explanatory variable to allow for the so-called 'family and friends' effect. It is believed that a larger number of persons born in a foreign nation and currently residing in a given state will result in a greater flow of information back to the home country about opportunities in that state. Further, the presence of family and friends is likely to ease the transition for the migrant who settles in their locale. For both of these reasons, the recent migrant is expected to be more attracted to those destinations in which a larger migrant stock of his countrymen currently resides.<sup>7</sup>

The 'family and friends' effect which arises from the existence of a migrant stock is revealed in the remittances, but it does not end here. The stock of fellow countrymen in a foreign country has other effects: very often on lodging but especially on the setting up of an employment information network making the labour market more fluid and effective, as a result of which it is possible to find quickly an occupation for the newcomers. This is a central issue in the formation of the labour market in the new countries. Other nonpecuniary effects should not be dismissed, since they help emigration when relatives and friends can be found in the new countries. In this respect, Philip Nelson found that

1. People prefer to live near present relatives and friends.
2. The distribution of information is important in determining the distribution of migration.<sup>8</sup>

It follows that:

1. Variations in remittances *per emigrant* are an indicator of variations in the savings capacity *per emigrant* in the new country and thus of income differentials – assuming that consumption is more or less constant in the short term and that savings in the country of residence do not replace remittances (something which will occur later on). They therefore have an information effect *vis-à-vis* the expectation of a larger income in the new world, as well as assisting in the reduction of the moving expenses. Philip Nelson has written in this respect:

Relatives and friends are the most important source of job information at a distance only because they are the most important source of job information in the local labor market, for they are not very efficient carriers of information to distant places. We expect the distance elasticity of information distributed by relatives and friends to be greater than the average distance elasticity of information.<sup>9</sup>

2. In *total* remittances the effect of remittances *per emigrant* and the volume of emigrants abroad or in the receiver country – in this case, Argentina – are gathered. The stock effect is gathered here: this is the 'family and friends' effect, translated in the fact that help reaches a greater number of people who will be the eventual immigrants, help which is not limited only to information and remittances, but it also has a crucial effect since it sets up a resource-allocation network in the labour market.

The next step will be to find out whether there is any statistical relationship between flows of Italian emigrants

- (a) to the rest of the world and
- (b) to Argentina

and remittances *per immigrant*, total remittances and migrant stock as explanatory variables.

The analysis has been extended to include the case of Italian emigration to the rest of the world and emigrant remittances to Italy

during the period 1880-1913, since this is the period for which the best information is available given that in the Argentine case the only data on remittances refer to those made through the *Banco di Napoli* and postal giros from 1902 onwards. The data always refers to Italian emigrants, since the aim is to learn which Italians left their country and which Italians received the remittances.

### ITALIAN EMIGRATION ABROAD

Three regressions will be tried out, corresponding to emigrants from Italy and remittances made by them to Italy. The next one will refer exclusively to emigration from Italy to Argentina, and to the stock and remittances of Italians in Argentina.

#### **Regression 1: Remittances per emigrant ( $t-1$ ) and emigration (flow)**

It is assumed in the first one that variations in emigration flows abroad are dependent on variations in remittances during the previous period, in accordance with the following function:

$$m_t = B_0 + B_1 r_{t-1}$$

$$\text{and } r = \frac{R_{t-1}}{M_{t-1}}$$

$$\text{thus } m_t = B_0 + B_1 \frac{R_{t-1}}{M_{t-1}}$$

where

$R$  = total remittances

$r$  = average remittance per emigrant

$M$  = emigrant stock

$m$  = emigrant flow

The result is such that:

$$m_t = -170.28 = 0.51 \frac{R_{t-1}}{M_{t-1}}$$

(\*)  $(-1.41) \quad (4.61)$

$R^2 = 0.43$

$R^{-2} = 0.41$

(\*\*)  $d_f = 28$

$F = 21.30$

$DW = 0.095$

(\*) the numbers in brackets correspond to Student's test ( $t$ )

(\*\*) degrees of freedom

The independent variable explains the variation of 43 per cent in the dependent one, and test  $t$  of the parameter of the independent variable permits the rejection of the null hypothesis.

Thus, although the signs are correct, the explicit power of the average remittance variable is not too high, a fact that does not allow one to reach a more precise conclusion. Alternatively, it is possible to deal with variations in total remittances instead of average remittances, which include, totally or in part, past migration, that is the Emigrant stock ( $M$ ).

In this regression the two variables have been separated, emigrant stock ( $M$ ) and average remittance ( $r$ ).

### Regression 2

$$m_t = B_0 M_{t-1} + B_1 r_{t-1}$$

where

$$\text{average remittance} = r_{t-1} = \frac{R_{t-1}}{M_{t-1}}$$

and the following results are obtained:

$$m_t = -115.08 + 0.05 M_{t-1} + 3.04 r_{t-1}$$

$(-1.29) \quad (10.27) \quad (2.31)$

$R^2 = 0.81$

$d_f = 27$

$F = 60.92$

$R^{-2} = 0.81$

$DW = 1.37$

The results are satisfactory since the regression explains 81 per cent of the variations in migratory flows. The parameter signs are those expected, and *t* tests give values that result in the rejection of the null hypothesis, the value of *t* being much higher for the stock variable (*M*). There is no multicollinearity between the independent variables and the *DW* falls in the indeterminate area. It can be said then that variations in stocks and in average remittances explain to a very high percentage variations in flows of emigrants leaving Italy to settle abroad.

### ITALIAN EMIGRATION TO ARGENTINA

Data are more scarce and for shorter periods regarding remittances sent by Italians living in Argentina to their country of origin. Taking into consideration that the present study ends in 1914—since from this moment the circumstances impinging on migration were altered owing to the war—and that the series of data on remittances made by means of postal giros and the *Banco di Napoli* begin in 1901 and 1902, the observations that can be made are few and refer to incomplete data.

The tests carried out with Remittances did not yield satisfactory results. For this reason an exclusive relationship was postulated in its place between the flow of Italians who emigrated each year and the stock of Italians living in Argentina (included in the variable Total Remittances in the previous regressions). The purpose was to check the existence of the 'family and friends' effect partly revealed in the remittances. In this case, longer series (32 years) are available.

#### Regression 3

$$m_t = B_0 + B_1 M$$

where

*M* = stock of Italians who travelled to Argentina and were not repatriated in the years 1876–1903

obtaining the following results:

$$m_t = 21.78 + 0.04M$$

(3.81) (6.13)

$$R^2 = 0.54$$

$$F = 37.67$$

$$d_f = 32$$

$$R^{-2} = 0.53$$

$$DW = 1.36$$

In this instance the percentage explained rose to 53 per cent. *t* values permit the rejection of the null hypothesis that there is no association between the flows variable and the explanatory variable.

It would seem then that the variable that has a higher explanatory power over variations in flows of emigrants to Argentina, is the *stock* variable of Italians living in Argentina, a fact that reflects the 'family and friends' effect as well as the effect of 'remittances'.

## CONCLUSION

1. The differential effect of *incomes*, measured by the changes in average remittances (assuming consumption remains constant) seems to explain a part, albeit not a very considerable one, of the response of Italian immigrants: 41 per cent in the case of emigration to the rest of the world.
2. Total remittances ( a variable in which the immigrant stock is included) explain a very high percentage, 95 per cent of emigration to the rest of the world.
3. The immigrant stock, both in the rest of the world and in Argentina, is the variable explaining with a greater degree of satisfaction the response of emigrants from Italy.<sup>10</sup> As far as emigration to the rest of the world is concerned, remittances and stock explain 82 per cent; and to Argentina, the stock explains 53 per cent. It must be pointed out that the 'family and friends' effect is expressed in the stock, revealed in the existence of a volume of fellow countrymen in the receiver country. This in turn is translated in the remittances operating as an information factor as well as providing assistance toward the payment of

moving expenses: fares, period without employment, etc. Although there is no increase in the average remittance ( $r$ ), the increase in total remittances ( $R$ ) implies that a greater number of remittances reached a greater number of people – those who will subsequently emigrate.

It is important to point out that what apparently took place was the opposite of what was expected. The assumption is that the movement of the labour factor from low-wage situations to high-wage ones, should have tended towards their equalisation and therefore, to check the labour flow from one to the other.<sup>11</sup> If this had been so, the increase in the stock would be inversely correlated with the increase in immigration flows, instead the exact opposite occurs. Nonetheless this is explained by the fact that the existence of an emigrant stock ( $M$ ) in the receiver country involves a reduction in the pecuniary expenses – owing to remittances, lodging, employment networks, etc. – besides other nonpecuniary expenses. Especially in employment the migrant stock has played the role of an efficient adjustment mechanism in the labour market. Consequently, even though the increase in migration could contribute towards lowering the price of wages, and thus reducing the benefits of migration, the existence of a greater volume of fellow countrymen (a greater stock) reduced the cost of moving. This was reflected in a chain-reaction resulting in the existence of greater flows, with the consequent greater stock, which in turn gave rise to greater flows, delaying the return to equilibrium positions. This could be maintained while there was a high marginal labour productivity in the new world.

## NOTES AND REFERENCES

1. G. Ohlin, 'No safety in numbers – Some pitfalls of Historical Statistics', in R. Floud, *Essays in Quantitative Economic History* (Oxford: Clarendon Press, 1979) p. 60.
2. J. R. Hicks, *The Theory of Wages* (Gloucester, Mass.: Peter Smith, 1957) p. 56. In relation to the 'push and pull effect' see J. G. Williamson's more recent work, *Late Nineteenth Century American Development* (Cambridge University Press, 1974).
3. L. Sjaastad, 'The Relationship Between Migration and Income in the United States', in *Papers Proceedings, Regional Science Association*, vol. vi, 1960, pp. 37 *et seq.*
4. The problem of the international comparison of purchasing power has been

- discussed in several works. See, for example, C. Clark, *The Conditions of Economic Progress* (London: Macmillan, 1940); the study undertaken by ECLA (Economic Commission for Latin America) in 1960-2, and those done for ECIEL (Joint Studies of Latin American Economic Integration) carried out by J. Grunwald and J. Carrillo in 'Integración Económica y Comparaciones de Precios y Valores en la América Latina' in *Estudios Eciel*, pp. 65-134, and M. Vega Centeno, 'Tipos de Cambio, Paridades y Poder Adquisitivo en el Grupo Andino', pp. 155-234.
5. B. Balassa, 'The Purchasing-Power Parity Doctrine: A Reappraisal', in *The Journal of Political Economy*, LXXII (Feb./Dec. 1964) 584 and 591.
  6. A. C. Kelly, 'International Migration and Economic Growth: Australia, 1865-1935', *The Journal of Economic History*, 25 (1965) 333.
  7. J. A. Dunlevy and H. A. Gemery, 'Economic Opportunity and the Responses of the "Old" and "New" Migrants to the United States', *The Journal of Economic History*, 38, no. 4 (December 1978) 907. Also M. Levy and W. Wadycki, 'The Influence of Family and Friends on Geographical Labour Mobility: An International Comparison', *Revue of Economics and Statistics*, 55 (1973) 198-203.
  8. P. Nelson, 'Migration, Real Income and Information', *Journal of Regional Science*, 1, no. 2 (1959) 44.
  9. P. Nelson, *ibid.*
  10. P. Nelson, *ibid.*, postulates a positive relationship between migratory flows and past migrations. He states that these are a function of the variables determining the settlement of migrants in the past. He attributes this to information provided by friends and relatives, information that increases the propensity to emigrate.
  11. On this subject, see G. Laber, 'Lagged response in the decision to migrate - A comment' and M. Greenwood, 'Lagged response in the decision to migrate - A reply', *Journal of Regional Science*, 12, no. 2 (1972) 3, 7 *et seq.*

## APPENDIX

TABLE 6.3. Italian emigrant stock abroad—flows and remittances per emigrant

	<i>m</i> (migratory flows) thousands ( $M_t - t$ )	<i>M</i> (emigrant stock) thousands	$r$ (Remittances per emigrant) $\frac{R_t}{M_t}$
1881	135.8	1417	85.0
1882	161.6	1553	80.0
1883	169.1	1715	79.9
1884	147.0	1884	75.9
1885	157.2	2031	69.4
1886	167.8	2188	63.1
1887	215.7	2356	62.4
1888	290.7	2572	66.5
1889	218.4	2863	63.9
1890	215.8	3081	59.0
1891	293.6	3297	62.0
1892	223.7	3547	72.0
1893	246.7	3815	66.0
1894	225.3	4062	54.4
1895	293.2	4287	45.3
1896	307.5	4580	47.2
1897	299.8	4887	50.3
1898	283.7	5187	51.1
1899	308.3	5471	65.8
1900	352.8	5774	61.6
1901	533.2	6134	64.3
1902	531.5	6665	89.4
1903	508.0	7196	82.5
1904	471.2	7606	74.5
1905	726.3	7946	66.2
1906	788.0	8477	95.7
1907	704.7	9145	96.2
1908	486.7	9692	79.9
1909	625.6	9931	67.6
1910	651.5	10256	64.4

SOURCE: Istituto Centrale di Statistica, *Sommario di Statistiche Storiche Italiane* (Rome, 1958).

TABLE 6.4. *Italy: emigrants' remittances in the balance of payments*

<i>Millions of lire</i>	
1881	125
1882	137
1883	143
1884	141
1885	138
1886	147
1887	171
1888	183
1889	181
1890	203
1891	257
1892	251
1893	221
1894	194
1895	216
1896	246
1897	265
1898	300
1899	356
1900	394
1901	596
1902	594
1903	567
1904	526
1905	811
1906	880
1907	774
1908	671
1909	660
1910	805

SOURCE: As Table 6.3.

TABLE 6.5. *Italian emigrants to Argentina*

<i>Total to Argentina</i>	
1881	15 899
1882	22 997
1883	24 127
1884	31 927
1885	37 710
1886	36 534
1887	52 383
1888	64 223
1889	69 008
1890	36 695
1891	24 125
1892	25 331
1893	32 541
1894	32 557
1895	41 029
1896	56 426
1897	36 712
1898	33 938
1899	44 168
1900	40 393
1901	59 881
1902	36 778
1903	43 915
1904	51 779
1905	86 158
1906	107 227
1907	78 493
1908	80 699
1909	84 949
1910	104 718

SOURCE: As Table 6.3.