

THE AGE OF MASS MIGRATION: WHAT WE CAN AND CAN'T EXPLAIN

by

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Introduction

International migration has been a fact of life throughout the ages. But it is *mass* migrations that have changed the course of history and that hold a special fascination for social scientists and historians. None more so than the migration from Europe to the land-abundant, labour-scarce regions of the New World during the nineteenth century. In the century after 1820 some 55 million Europeans sought a new life in another continent and this experience has spawned a large literature. This rich literature spans a wide range of different approaches to the fundamental questions of who migrated, when, and above all, why and with what effect. Studies vary in scope, period, time and place but they have increasingly become focused on specific streams of migrants, the communities they left behind and those they entered. These studies have greatly enriched our understanding of the characteristics of migrants and their specific circumstances.¹ But the economic forces underlying mass migration has often taken a back seat to social, cultural and even political aspects. Research at the micro-level on the particular, and sometimes the peculiar, group or community has been purchased at the cost of the economic and demographic fundamentals that more anonymously, but just as surely, drove the migrant flow.

In a recent book, *The Age of Mass Migration: Causes and Economic Impact*, Jeffrey Williamson and I have reasserted the importance of these economic and demographic forces in driving European emigration in the period from 1850 to 1913. By utilising new data sources and methods, we attempt to shed new light on the economic fundamentals driving mass migration. This chapter draws heavily on material from the first half of the book, the part that deals with the causes of mass migration.² Our approach is quantitative and comparative. By analysing emigration rates we compare migrants with non-migrants; by looking across countries and regions we can isolate the systematic forces common to all; and by looking over time we can assess the effects of changing economic and demographic conditions. What follows highlights some of the main findings of our study. The results confirm some

¹ The most useful and readily accessible short survey is that of Baines (1991). The volume edited by Vecoli and Sinke (1991) contains a number of valuable country studies in the social history tradition.

² Specifically, this chapter summarises the findings of chapters 2 -6 of the book. The economic impact of mass migration on source and destination economies, the other major focus of our research, deserves separate treatment and is reserved for another occasion.

of the existing findings and challenge others; in some cases we have only partial answers and in others new questions are raised. Such questions call for further analysis with better data and more sophisticated methods.

Who were the migrants?

In the early part of the nineteenth century migration from Europe to the New World was a mere trickle compared with what came later. It was not until after mid-century that mass migration really took hold and not until the 1880s that it became a flood. The only comparable intercontinental migration had been that of black slaves from Africa to the Americas and the Caribbean. Indeed, it was not until the 1840s that annual (free) European migration to the Americas exceeded the (coerced) African migration, and it was not until the 1880s that the cumulative European migration exceeded the African (Eltis, 1983). Some of the early migrants went as indentured servants as one way to secure a passage. Other forced migrants were transported in convict chains, particularly to Australia. Until well into the nineteenth century, the costs were too high relative to the perceived gains for many “free” migrants. Declining costs of passage, increasing family resources, and the growing attractiveness of the destinations, would change these conditions as the century progressed.

European intercontinental emigration is plotted in Figure 1. In the first three decades after 1846, the figures averaged about 300,000 per annum; in the next two decades the figures more than doubled; and after the turn of the century, they rose to over a million per annum. The European sources also changed dramatically. In the first half of the century, the dominant emigration stream had its source in the British Isles, followed by Germany, and joined after 1870, by a rising tide of emigrants from Scandinavia and elsewhere in north-western Europe. European emigration took a sharp upward trend from the 1880s as emigration surged from southern and eastern Europe.--indeed these new streams accounted for most of the surge in the total. It came first from Italy and parts of Austria-Hungary, but after the 1890s, it swelled to include Poland Russia, Spain and Portugal.

The emigrants in 1900 were certainly different from those in 1800. Early nineteenth century migrant streams were often led by farmers and artisans from rural areas travelling in family groups, intending to acquire land and settle permanently at

the new world's frontier. In the late nineteenth century, while many still had rural roots, the emigrants from any given country were increasingly drawn from urban areas and non-agricultural occupations. By mid-century emigrants from Britain, a country that had already undergone a half century of industrialisation, were mainly from non-farm occupations (Erickson, 1990, p. 25; Cohn, 1992, p. 385). This trend within countries was overwhelmed by the shift from old emigrant regions, the industrial leaders, to new emigrant regions, the industrial followers. Emigrants were also typically unskilled, reflecting skill levels in origin countries but also because they were young and had limited schooling and training.

By the late nineteenth century, emigrants were typically young adults. More than three quarters of the immigrants entering the United States between 1868 and 1910 were aged 16 to 40--at a time when 42 percent of the US population was in this age group. The mover-stayer comparison was even more dramatic for the Old World: those aged 15-34 were only 35 percent of the Irish population but over 80 percent of the Irish emigrants. The migrant flow was also dominated by men: they accounted for nearly two thirds of immigrants to the United States and for more than three quarters of the emigrants from southern European countries such as Spain and Italy. The "mass" migrants tended to be single and emigrated as individuals rather than as family groups, although a significant minority were young couples with small children. In short, the migrants carried very low dependency burdens to the New World.

These emigrant characteristics also reflect a deeper economic calculus. While the young and single might be more adventurous and enterprising, they also had most to gain from the move. By emigrating as young adults they were able to reap the gains over most of their working lives while minimising the cost of earnings foregone during passage and job search. And by moving as single adults, they were also able to minimise the direct costs of the move. Since emigrants were typically unskilled, they also had little technology- or country-specific human capital invested and hence stood to lose few of the rents from such acquired skills (except language). This characterisation reinforces the premise that labour market conditions at home and abroad were paramount to the migration decision and that most emigrants moved in expectation of a more prosperous future for themselves and their (future) children. While some moved to escape political or religious persecution, and others were

driven by revolution or famine, most moved simply in the expectation of improving their economic status in the New World.

What accounts for cross-country differences in emigration?

Various theories have been offered to explain patterns of emigration in the late-nineteenth century. They draw on perspectives from economics, sociology, demography and geography. One typology divides these theories into four groups (Lowell, 1987, Ch. 2): structural change and response, which stresses economic modernisation and the demographic transition; economic, stressing the relative income incentive to migrate; innovation and diffusion, which stresses the spread of information through social networks; and rural ecology, which stresses change in the structure of landholding and in farming methods. Despite the contrary assumption often made in the literature, these “theories” are not mutually exclusive: accepting one theory does not imply rejecting the others. One important stylised fact that such theories must explain is this: during the onset of modern economic growth in Europe, national emigration rates often rose, steeply at first from very low levels, rising more gradually to a peak and then gradually falling. This evolution, often seen as a multi-stage process, has sometimes been called the “mobility transition” (Zelinsky, 1971). Such patterns have been identified in studies of aggregate emigration rates from a number of countries (Akerman, 1976, Hatton and Williamson, 1998, Ch 3).

There was certainly a wide variety of emigration rates from European countries in the late-nineteenth century. Table 1 presents decade-average emigration rates for twelve European countries. The highest overall was from Ireland with an emigration rate of 12 per thousand population between 1850 and 1913. Countries such as Sweden and Norway had rates approaching five per thousand over the period from 1870 to 1913; the rates from Germany and Belgium were under two per thousand while for France it was close to zero. Furthermore, the long run trends in emigration differed widely: from the 1860s rates of emigration declined in Ireland, and from the 1880s they declined in Germany and Norway. But almost at the same time emigration rates from Italy and Spain began a steep ascent which was halted only by the outbreak of war in Europe. There have been spasmodic attempts to explain these inter-country differences. Easterlin’s (1961) pioneering study stressed the effects of population growth spilling over into emigration while Tomaske (1971) found little effect of per

capita income on cross country emigration rates. But the further study of comparative emigration rates has been limited by lack of comparative data on some of the key explanatory variables, particularly wage rates, which are often thought to have influenced emigration.

Our study of decade average emigration rates for twelve western European countries over the period 1860 to 1913 takes advantage of a new database of internationally comparable real wage rates for unskilled workers (Williamson, 1995). The database includes the major emigrant receiving countries and thus it allows us to construct the wage *ratios* between source and destination countries that are relevant to the migration decision. But these alone cannot explain much of the variation across countries and over time: they must be considered jointly with other variables.³ Only then can the separate influences of each be identified. The other source country variables are: the rate of natural increase lagged 20 years; the share of the labour force in agriculture; the stock of previous emigrants living in destination countries; and the emigration rate lagged one decade. Although this is a limited set of fairly crude aggregate indicators, together they explain about two thirds of the total variation between countries and across decades.

Our results strongly support the hypothesis that relative wage rates were a key influence on emigration. They indicate that, on average, a rise in the relative real wage (destination to source country) raised the emigration rate in the long run by 1.27 per thousand--a significant effect. However our (inverse) measure of industrialisation, the share in agriculture exhibits only a weak negative effect--suggesting that, on balance, agricultural populations were less mobile than urban/industrial populations. The effect of lagged natural increase strongly supports Easterlin's view that the demographic transition drove emigration. Our estimate suggests that half of excess births were manifested in emigration twenty years later--a large effect indeed and one deserving further investigation. In particular, it is important to recognise that this was not the result of a labour force boom pushing down wage rates, since any such effects would be captured indirectly by the wage rate variable. Rather it was a direct demographic spillover into emigration.

³ The correlation coefficient between the emigration rates in Table 1 and the relevant decade average real wage ratio is -0.20. The correlation with net emigration rates (where these can be calculated) is somewhat higher, at -0.39.

Both the stock of previous migrants and the lagged migration rate had a positive impact on the current decade's emigration rate and these effects testify to the persistence in emigration streams that many observers have noted. The migration literature has often highlighted chain migration, sometimes called the "friends and relatives effect" as an important influence. Once established, channels of migration perpetuated themselves through earlier migrants providing pre-paid tickets for the passage, providing food and shelter to newly arrived friends and relatives and using social networks to gain access to job opportunities. Evidence from the United States suggests that as many as 90 percent of immigrant arrivals at the turn of the century were travelling to meet a friend or relative who had previously emigrated. The migrant stock captures this effect and our estimate suggests that for each thousand previous emigrants a further 20 were "pulled" abroad each year. Thus the larger the stock of previous emigrants, the greater would be the flow and that flow would lead to further flows in a cumulative process.

Can such estimates help us understand the "life cycle" in emigration which was evident for a number of European countries? By aligning the decades of upswing and downswing for each country we can assess the forces at work in the stylised European emigration transition. Our simulation indicates that, in the upswing, the demographic effect made a growing contribution which, at its peak, contributed a rise of two per thousand to the emigration rate. Similarly, at the peak of the emigration life cycle, the falling share of the population in agriculture and the rising emigrant stock each contributed about 1 per thousand to the rise in emigration. But as real wages in Europe converged on those in the New World, the narrowing wage gap had a countervailing effect, offsetting the positive effects of the other variables by about two per thousand at the peak. Once the peak was passed, continuing real wage convergence overcame the declining effect of natural increase and the slackening influence of industrialisation and the migrant stock, producing a decline in the typical European emigration rate.

The life cycle of emigration can largely be explained by the variables in our model, variables which capture relative wage effects, industrialisation, demographic forces, and chain migration. It has sometimes been argued however that, at least in the early stages, potential emigrants were constrained by poverty from investing in

emigration.⁴ As real incomes rose with economic development, more of those with the greatest incentives to escape poverty could actually afford the move. We found only limited evidence in favour of the poverty constraint. The real wage in the source country (as distinct from the real wage ratio) had only a weak positive effect. There are two possible reasons for this. First, our sample of (relatively affluent) western European countries includes those where the poverty trap was least likely to be binding. The inclusion of more countries from eastern Europe, the latecomers to mass migration, might produce stronger evidence of the poverty constraint.

Second, emigration was well established in many of these countries so that the friends and relatives effect, by lowering the costs of emigration, served to attenuate the poverty trap. Thus the effect of the migrant stock may, in part, reflect the easing of the poverty trap. This helps explain why emigration could be so high from a country like Ireland and so low (at least until the end of the nineteenth century) from, say, the south of Italy, an equally poor region. In the Irish case, the great famine of the 1840s effectively ejected a million Irish migrants who formed a substantial migrant stock, particularly in the United States. Thus even the poorest Irish migrant would have benefited from the release of the poverty constraint, and Irish emigration declined as conditions in Ireland gradually improved relative to those in destination countries. By contrast, in Italy the migrant stock was a powerful effect on the upswing of the emigration life cycle. Separate time series analysis for Ireland and Italy confirms that the wage gap effect was stronger in the former and the emigrant stock effect was stronger in the latter (see further below).

Accounting for shocks and cycles in emigration

Much of the quantitative literature on pre-first World War emigration concentrates on explaining the year to year fluctuations in emigration rates. Following the pioneering studies of Jerome (1926) and Thomas (1941), the literature has focused on whether “push” or “pull” forces were the most important determinants of the short term fluctuations in emigration from a variety of countries. This debate has often been conducted in terms of the size and significance of regression coefficients on variables representing economic conditions in the source country versus those representing conditions in the destination. Using these criteria, the literature has reached no

⁴ See for example Faini and Venturini (1994) for evidence for Italy.

consensus: pull from abroad mattered in some studies while push at home mattered in others. A further issue has been whether it was variations in real wage rates or job opportunities (as represented by indices of production or employment) which mattered most. When both types of variable are included, the job opportunities variables often dominate--and especially job opportunities in the destination country. Much of this analysis was conducted in the 1970s and was critically reviewed by Gould (1979) who pointed to the lack of consistency in the results of different studies. Despite, or perhaps because of, this inconsistency the interest in modelling fluctuations in emigration subsequently waned.

One problem with the existing studies of emigration is that they often lack a coherent economic model of the emigration decision--making the results difficult to interpret and evaluate. It is difficult to believe that migration decisions were made with reference only to conditions at home, or only to conditions abroad. Emigration decisions must have been based on some comparison, however approximate, between the two. Similarly, while cyclical conditions clearly mattered in the timing of migration, it is difficult to believe that wage rates did not matter, especially in the long run. For our analysis of variations in emigration we developed a model of the migration decision using a simple microeconomic framework. In this framework, potential migrants base their decision on the comparison of future expected income streams at home and abroad (based on past observations). Following Todaro (1969) expected income is the wage multiplied by the probability of employment. Because migrants are risk-averse, and because greater uncertainty attaches to the probability of employment than to the wage rate, the latter takes a larger 'weight' in the migration function.⁵

⁵ The model is derived from a logarithmic utility function and assumes that future expected values of the wage and of employment probabilities are related with geometric lags to past values in an adaptive process. This gives the following model for migration (see Hatton and Williamson, 1998, pp. 61-63 for the full derivation):

$$M_t = (1-\lambda)\beta \ln(w_f/w_h)_t + (1-\lambda)\beta^{3/2} \ln(e_f)_t - (1-\lambda)\beta \gamma^{3/2} \ln(e_h)_t \\ + (1-\lambda)\beta \epsilon_0 + (1-\lambda)\beta \epsilon_1 \text{MST}_t + (1-\lambda)\beta \epsilon_2 t + \lambda M_{t-1}$$

where M is the emigration rate, w denotes wage rates and, e , employment rates abroad (f) and at home (h). The terms in the lower line of the equation (with parameters ϵ) are the costs of migration as reflected by the migrant stock (MST) and a time trend for falling transport costs. The last term is the lagged dependent variable arising from the adaptive expectations process with parameter λ . In the upper line of the equation, the fraction $3/2$ reflects the greater weight given to the employment terms as a result of employment uncertainty (arising from the concavity of the utility function). The coefficient γ allows for lower uncertainty to attach to home employment as compared with abroad. Thus it could range between 1 (equal uncertainty with abroad) and $2/3$ (no uncertainty). Further dynamics are added to the estimating equation to reflect the option value of waiting--see Hatton (1995).

Our model provides a benchmark for the evaluation of the relationship among coefficients attached to different variables in an econometric model of emigration. Rather than test whether each is significantly different from zero as the earlier studies did, we test the restrictions on their relative magnitudes suggested by the theory. Estimates on annual time series for gross emigration for the UK between 1870 and 1813 strongly support our theoretical priors. We find that wage rates *and* unemployment rates, both at home *and* abroad all matter in the manner predicted. Thus a permanent ten percent rise in the foreign to home wage ratio had the effect of raising the emigration rate by 1.9 to 2.4 per thousand population--a result reassuringly similar to that obtained in the cross-country analysis. The effect of a 10 percent rise in the foreign employment rate (e.g. a fall in the unemployment rate from 10 percent to 1 percent) raised the emigration rate in the long run by between 3.7 to 4.4 per thousand--larger than the effect of an equivalent wage increase and reflecting migrant risk aversion. Changes in the home employment rate had an effect similar that of the home wage rate--a 10 percent rise reduced emigration by about 2 per thousand. Finally, the migrant stock, which is also included in the model, had an even more powerful effects than in the cross-country analysis.⁶

Can the results from time series be reconciled with the long run forces identified across countries? Although unemployment or employment rates have powerful short run effects, they are not trended in the long run and therefore do not drive long run trends in emigration. However, wage ratios and the migrant stock do have important trend influences. Thus, for Ireland, using a similar model for emigration to that just described, we found that the 17 percent fall in the (foreign to home) wage ratio between 1876/80 and 1909/13 accounted for 4 per thousand of the decline in the emigration rate. Over the same period, the decline in the migrant stock contributed a similar amount to the overall decline in the emigration rate.⁷ It is more difficult to identify the direct demographic influences on emigration in annual time series because the effects are likely to be diffuse and easily obscured by the short-run

⁶ The long run effect of an increase of 1000 in the migrant stock is to draw a further 80-90 migrants abroad each year. This is much larger than the effect obtained from cross country estimation and is probably the result of using annual rather than decade average data.

⁷ Between 1876/80 and 1909/13 the migrant stock abroad relative to home population fell from 59 percent to 49 percent. This may seem surprising in light of the high rates of emigration and falling home population. It reflects the diminishing contribution to the migrant stock of the famine and post-famine cohorts of emigrants as well as the subsequent decline in emigration due to improvements in Irish living standards--see O'Rourke (1995).

volatility in emigration. However, we were able to identify the effect of natural increase lagged 25 years for the three Scandinavian countries.⁸ Thus for example between 1895 and 1905, natural increase added to the emigration rate 1 per thousand in Sweden, 1.3 per thousand in Norway and 0.3 per thousand in Denmark. Hence the deeper-seated, longer run forces can be identified, even in annual time series.

Given the influence of trend forces in emigration, it is something of a puzzle that annual migration rates were so volatile. Emigration rates often increased or fell by a quarter or even a half in a year or two, only to recover again a few years later. In the time series models much of the volatility is explained by the cyclical employment variables and the equation dynamics. When these effects are excluded the profiles of emigration over time (predicted from simulation) are much smoother. For the Scandinavian countries, volatility is reduced by up to half when we abstract from these short run influences. But this is itself a puzzle. Given that migration decisions were based on comparing future expected lifetime earning profiles, one might expect that short run changes, quickly reversed, would have little effect. One reason for the surprising short run volatility is the option value of waiting. While it might be worth emigrating today even though unemployment was high in the destination, it would be better still to wait a year or two if conditions were expected to improve. Hence emigrants timed their moves in order to maximise the life cycle benefits overall.

Explaining local variations in emigration

An important challenge to any theory of European emigration is whether it can explain differences in emigration rates between regions and localities within the same country. Since national emigration rates are simply an aggregation of local or regional rates, a convincing theory of emigration should be able to account for some of this variation. These differences were large--often larger than between countries. Table 2 illustrates the variations among the 16 Italian compartimenti for 1882 and 1912. In 1882 emigration rates varied from close to zero in Lazio to nearly 15 per thousand in Basilicata. These regional statistics hide even greater variations among the 69 provinces: emigration from the province of Belluno was as high as 46 per thousand in 1882. Similar variations can be found in other countries. For example in 1900/1

⁸ The studies of Quigley (1972) and Larsen (1982) also find some evidence of a demographic "push" in the context of time series analysis for Sweden and Denmark respectively.

emigration from Portugal ranged from 0.1 per thousand in Evora to 19.3 per thousand for Ponta Delgada in the Azores. Despite such clear and obvious differences, there is little consensus about how they should be explained (Baines, 1994).

A number of studies have emphasised differences in the pattern of rural landholding as the key to such variations. For Norway and Sweden, Lowell (1987, pp. 212-16) found that emigration were negatively related to local wage rates, but also positively related to the number of landless labourers and the share of land occupied by large estates. Similarly for the East Elbian region of Germany in mid-century, it has been argued that the rise of large estates reduced the opportunities for small-holding, converted peasants to wage labourers, and boosted emigration (Walker, 1964, p. 64). A number of studies have suggested that access to land, the availability of other rural employment opportunities and population growth all interacted to determine emigration. In Northwest Germany, proto-industrial areas where cottage industry was interlocked with agriculture (especially seasonally), had higher rates of natural increase than did other rural areas. They were also vulnerable to factory competition and thus had increasing difficulties absorbing young workers generated by booming birth rates two decades earlier. Thus “emigration was highest where there were many agriculturalists but little agriculture (Kamphoefner, 1976, p. 182).

Some observers have argued that other forces were paramount. In an important article John Gould (1980) argued for what he called the “innovation and diffusion” approach. This suggests that emigration was often constrained in the early years by lack of information and knowledge about the opportunities for emigration. In the innovating areas (often on the coast), contacts with travellers and traders got a stream of emigration started. As knowledge of conditions in destination countries grew, emigration increased and began to spill over into neighbouring localities and regions. This process of diffusion gradually permeated all areas as information spread, so that emigration rates began to converge. The comparison for Italian *compartimenti* between 1882 and 1912 certainly demonstrates convergence in relative, if not in absolute, terms. At a more disaggregated level, the coefficient of variation in emigration rates among the 69 provinces fell from 1.57 in 1882 to 0.63 in 1912.⁹ One

⁹ Baines (1994, p. 532) has argued that convergence was not universal among regional emigration rates in different continental European countries. Clearly, in some countries where emigration was relatively well established, the information diffusion hypothesis would have less force.

difficulty with such a theory is that it is not easy to test since information is not easy to measure. Furthermore, convergence and persistence in emigration rates could be the result of convergence and persistence in underlying forces (other than information diffusion) which influenced emigration.

In our study we analysed local emigration rates for two countries: Ireland and Italy (Hatton and Williamson, 1998, chs. 5, 6). Looking at regions within a country allows a much richer set of explanatory variables to be used, chiefly from census sources, than is possible between countries. In our study of Ireland we analysed emigration rates from the 32 counties pooled across the four census years 1881, 1891, 1901 and 1911. Natural increase (as reflected in family size) and foreign to local wage rates had effects qualitatively similar to those emerging from the cross-country analysis. But other, more subtle, influences also emerged. First, measures of poverty were strongly related to emigration rates: clearly the Irish were escaping poverty and were not constrained by the poverty trap.¹⁰ Second, the proportion of the labour force in agriculture was positively related to emigration as previous writers have suggested but the proportion of landholdings less than five acres had a strong negative effect. This suggests that where there were opportunities to inherit (or acquire, through marriage or other means) small plots of land, there was much less emigration. Thirdly, we found that, contrary to some suggestions, the proportion of Catholics did not raise the emigration rates, but in fact had a small negative effect. While some have seen the oppression of Catholics and an important determinant of emigration, the high emigration rates from regions with the highest density of Catholics was a result of poverty and disadvantage, not of Catholicism *per se*.

Italy represents a tougher test than Ireland for it is here that the innovation and diffusion effects might be expected to matter more. Our database for Italy consists of 69 provinces for the two years 1902 and 1912. Here too the effects of lagged natural increase and the foreign to local wage had the expected effects although the latter was rather weak. But the wage index fails to capture the chronic underemployment in agriculture, particularly in the south. This is reflected in the fact that the share of the labour force in agriculture had a negative effect in the north of Italy but a positive

Thus, across the 32 Irish counties, the coefficient of variation in emigration rates rose from 0.31 in 1881 to 0.71 in 1901, falling back to 0.41 in 1911.

¹⁰ The measures of poverty used are the proportion of the county population in receipt of poor relief and the proportion of houses classified as third and fourth class (generally one-roomed cabins).

effect on emigration from the south. Urbanisation and economic development both tended to reduce emigration, adding to the push from the south as compared to the north of Italy. The structure of landholding also proved to be important. The greater the proportion of owner-occupiers and sharecroppers among the agricultural labour force the greater the emigration rate. This differs somewhat from the finding for Ireland where small holdings seemed to induce potential migrants to stay (a point discussed further below).

Finally, what of the spread of information and the innovation diffusion hypothesis? The fact that one can explain two thirds of the (considerable) variation in local Italian emigration rates suggests that it was of marginal importance, at least by the turn of the century. Unfortunately it has not been possible to construct a comparable dataset for earlier years when the diffusion approach might be somewhat more compelling. Although the effects of information are not directly measurable, one corollary would seem to be that education and literacy, by mediating the flow of information, would influence emigration. Our results indicate that the proportion of adults who were literate (only 50 percent in the south) had no significant effect on provincial emigration rates.¹¹ Overall, the variations in provincial emigration rates can be explained fairly well by economic and demographic variables; it is the *interpretation* of those effects which is most open to debate.

Some awkward questions: Destination choice and return migration

Emigration streams from a given country were often dominated by one destination, for example, Scandinavian emigrants went almost exclusively to the United States.¹² What determined the choice among alternative destinations is a relatively neglected topic. For emigrants from some regions, moving to another European country was one alternative. Emigrants from Belgium, Poland and Northern Italy, often took the option to move to a more prosperous neighbouring country. Emigration from Italy within Europe, principally to southern France, Germany and Austria-Hungary declined with distance from the industrial centres of these countries, as is illustrated by the

¹¹ It might be argued that literacy would also have another effect in the opposite direction: those with more country-specific human capital would be less likely to emigrate. In fact no positive effect of literacy on emigration emerged in our study of Ireland--a country where information effects were unimportant.

¹² Between 1870 and 1913, 90 percent of Danish, 97 percent of Swedish, and 98 percent of Norwegian intercontinental emigrants went to the United States.

emigration rates by *compartimento* in Table 2. We estimated this gradient in our model of Italian provincial emigration and the result indicates that proximity to European industrial centres was important. For this reason alone, the region around Naples would have had an emigration rate 8 per thousand lower than the area around Milan. To some degree this was paralleled by a rising north-south gradient of intercontinental emigration, but it is far from clear to what degree these destinations were substitutes.

More difficult still is explaining the choice between different overseas destinations. Given the economic calculus revealed in other aspects of emigrants' decisions, it is difficult to believe that different destinations were not compared and treated as alternatives. Choice of destination *within* a receiving country, such as the United States, is associated with measures of regional income, as might have been expected, and especially with the stock of previous migrants to that state/region.¹³ But choice among countries involves additional factors such as cultural and linguistic affinity with the country of origin. Thus emigrants from Britain and Ireland chose from among the English-speaking British Dominions and the United States. Emigrants from Italy, Spain and Portugal revealed much stronger preferences for south American countries such as Argentina and Brazil than did other emigrants from continental Europe. These preferences were sometimes reinforced by policy and/or prejudice towards immigrants in the receiving country--subsidies to some emigrants, restrictions on others.¹⁴

In our analysis of Italian provincial data, we estimated the determinants of choice among three destinations: Argentina, Brazil and the United States. Relative wages across destination had the expected effects, (favouring the high wage destination) but this substitution effect was relatively small. Choice among these destinations seems to be influenced more by "emigration traditions" favouring one destination over another.¹⁵ As emigration from Italy grew so the prominence of the United States as a destination increased. But this shift occurred only gradually despite the substantial wage gaps favouring North America over South America. Much of the

¹³ The most useful study, which analyses the intended destinations of immigrants arriving at Ellis Island at the turn of the century, remains that of Dunleavy and Gemery (1978).

¹⁴ Thus, for example, subsidised passages were offered to British immigrants to Australia and to (northern) Italian immigrants to the state of Sao Paulo (Brazil). Non-British emigrants to Australia were discouraged until after 1945 under the so-called "white Australia policy."

¹⁵ This term has been used by Kero (1991) in the context of emigration from Finland.

growth of emigration to the United States came from the southern part of Italy where emigration traditions to South America were weakest. Thus when new streams of emigration arose such as those from southern Italy at the turn of the century, economic advantage carried more weight. This effect overwhelmed what might seem to be the more obvious logic of destination choices by region. Thus migrants from the north of Italy continued to favour South America over North America despite their urban backgrounds, while the rural southern Italians migrated in increasing numbers to the urban United States.¹⁶

While most European emigrants were permanent settlers, there were mounting flows of return migrants. By the end of the century about a third of European migrants to the United States were returning, usually after a few years. Increasing destination wages relative to transport costs and falling transport costs contributed to the trend. But the upward trend in return migration owes most to the changing country composition of emigrants--particularly the growing share from Southern Europe.¹⁷ Many of these emigrants intended to return to their country of origin and to use their accumulated savings to marry and set up home, and often to start farms and businesses. In such cases the outward flows were more male dominated than where permanent settlement was the goal. While return migration strategies are not well understood, one thing is clear: differences in rates of return migration are associated more with the country of origin than with the country of destination. Thus high rates of return migration among Southern Europeans at the turn of the century applied equally to those emigrating to North and South America.

Cultural differences may account for some of the cross-country differences in return migration. There may also have been vintage effects: countries which entered mass migration early did not develop such strong traditions of return migration. But such differences between countries have been little studied. What evidence there is suggests that family and social structure and patterns of landholding lay at the heart of return migration. The comparison between Ireland where return migration was

¹⁶ This apparent anomaly has attracted the attention of historians--see Bailly (1983), and Klein (1983).

¹⁷ Baines (1994, p. 535) has argued that the differences between "old" and "new" emigrant countries is not as sharp as sometimes believed. To some extent the rates of return migration depend on the methods of measurement. But the evidence from the United States in the few years before 1913 suggests that there was still a higher propensity to return among recent immigrants from Southern Europe than among those from the countries of Northwest Europe. The same does not apply to the "new" emigrants from Eastern Europe who were more likely to settle permanently.

relatively unusual and Italy, where it was common, is instructive. In our analysis of county emigration rates from Ireland, we found that where smallholdings predominated there was less emigration. By contrast, in Italy, small ownership and sharecropping was associated with high emigration--particularly to the United States. This is consistent with the view that for Italians, emigration was more often seen as a means of acquiring or accumulating land or property (see Cinel, 1991). This emigration, particularly to the United States, can be seen as part of a strategy which involved migration and remigration, often by several family members, rather than as the product of overoptimistic expectations followed by disillusionment with life in the New World. But why these strategies differed across time and place is still not fully understood.

Conclusion

International migration was one aspect of the growing globalisation of the world economy in the late nineteenth century. Its contours and characteristics have been widely studied and it has given rise to a large literature. In *The Age of Mass Migration* we elaborate on the economic and demographic causes of this surge of migrants to the New World. The results of our analysis demonstrate that rational economic decision-making lay at the heart of mass migration and can explain many of its features. Variations over time and between countries can be explained, at least to a first approximation, by the economic environment in which such decisions were taken. Within individual countries, regional variations can be linked both with indicators of economic development and with patterns of landholding and agricultural tenure. But there remain questions about precisely how and why these translated in to different emigration intensities within and between countries. Patterns of destination choice and return migration remain the least well understood aspects of the global integration of labour markets. Deeper insight awaits further study of life cycle decision-making in the context of different patterns of demographic change, family and social structure, and asset accumulation.

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Table 1
Gross Emigration Rates from European Countries, 1950-1913
(emigrants per 1000 population per annum, decade averages)

	1850-59	1860-69	1870-79	1880-89	1890-99	1900-13
Belgium	1.90	2.22	2.03	2.18	1.96	2.32
Denmark	--	--	1.97	3.74	2.60	2.80
France	--	0.12	0.16	0.29	0.18	0.15
Germany	1.80	1.61	1.35	2.91	1.18	0.43
Great Britain	4.83	2.47	3.87	5.71	3.92	7.08
Ireland	18.99	15.16	11.28	16.04	9.70	7.93
Italy	--	--	4.29	6.09	8.65	17.97
Netherlands	0.50	1.67	2.66	4.06	4.62	5.36
Norway	--	--	4.33	10.16	4.56	7.15
Portugal	--	--	2.91	3.79	5.04	5.67
Spain	--	--	--	3.91	4.63	6.70
Sweden	0.51	2.52	2.96	8.25	5.32	2.93

Source: Hatton and Williamson (1998), p. 33.

Notes: These figures are for gross emigration and were drawn largely from Ferenczi and Willcox (1929). Where possible the figures include emigration to other countries within Europe. Data on return migration is somewhat limited but it is possible to construct net emigration figures for a more limited set of country/decades.

Table 2
Italian Gross Emigration Rates by Compartimento, 1882 and 1912
(per thousand population)

	1882			1912		
	Total	Europe	Interconti nental	Total	Europe	Interconti nental
Piedmont	12.29	9.53	2.76	18.97	11.21	7.76
Liguria	6.75	1.99	4.76	7.34	2.52	4.82
Lombardy	6.09	3.77	2.32	15.54	12.17	3.37
Veneto	12.79	11.29	1.50	31.82	27.01	4.82
Emilia	3.19	2.97	0.22	13.15	9.99	3.17
Tuscany	4.21	3.48	0.73	15.06	10.11	4.95
Marches	0.77	0.17	0.60	29.40	12.76	16.64
Umbria	0.05	0.03	0.02	20.30	16.00	4.31
Lazio	0.01	0.00	0.01	13.49	2.03	11.46
Abruzzi- Molise	3.56	0.64	2.92	32.27	4.25	28.02
Campania	4.82	1.21	3.61	20.14	1.65	18.48
Apulia	0.49	0.39	0.10	13.54	2.02	11.53
Basilicata	14.72	0.86	13.86	31.09	1.14	29.95
Calabria	8.29	2.12	6.17	33.32	0.91	32.41
Sicily	1.08	0.52	0.56	25.06	1.49	23.57
Sardinia	0.30	0.29	0.01	10.63	5.67	4.96
Italy	5.62	3.54	2.08	20.31	8.80	11.51

Source: Hatton and Williamson (1998), p. 107.

Notes: The figures for 1912 are somewhat inflated relative to those for 1882 owing to changes in the passport regulations. We estimate that, for Italy as a whole, these changes in measurement added 5 per thousand to recorded emigration from 1902 onwards.

