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Some considerations about the link between economic development and migration

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More than forty years after the publication of Zelinsky's article in the *Geographical Review*, the hypothesis of the mobility transition is still very much alive.[1] As it is frequently cited in migration related publications and is still an important part of the curriculum in geography departments all over the world, it is likely that the theory will be around for a while. Perhaps the greatest appeal of Zelinsky's theory of the mobility transition in past and present lies in the fact that it seems to fit well with an image of the nineteenth century that is still predominant: a century of rapid and large social and economic change. Many of these ideas stem from the work of Friedrich Engels and Karl Marx, but later scholars have also supported this notion, explicitly or implicitly. The idea of an economic take-off, as proposed in Walt Rostow seminal book, was adopted by many others after him, for instance in the important work of Dean and Cole.[2] In this particular view or paradigm, industrialization could be regarded as a 'dramatic culmination to a long-gathering process of change, rather as the cylinder may be charged with a head of steam quite quickly but only if the water has long been heating'.[3] The notion of a sudden societal transformation supports the still prevalent idea of the nineteenth century as a hinge point in social and economic change, and so indeed does Zelinsky's theory to a great extent.

However, research in the last couple of decades on the industrialization of Britain, in particular by Crafts and Wrigley, has shown that this picture is largely incorrect, and that change, in terms of both its social and its economic character, was much more gradual and was therefore stretched over a much longer period than people previously believed.[4] The article discussed here, with its careful analysis of migration ratios over five centuries, fits in with this 'new' orthodoxy of gradual change and adds an important new aspect to the debate, that of migration.

1 W. Zelinsky, 'The hypothesis of the mobility transition', *Geographical Review*, 61, 1971, pp. 219–49.

2 Walt W. Rostow, *The stages to economic growth: a non-communist manifesto*, Cambridge: Cambridge University Press, 1960; P. Deane and W. A. Cole, *British economic growth*, Cambridge: Cambridge University Press, 1967.

3 E. A. Wrigley, 'The process of modernization and the Industrial Revolution', *Journal of Interdisciplinary History*, 3, 2, 1972, pp. 225–59.

4 N. F. R. Crafts, *British economic growth during the Industrial Revolution*, Oxford: Clarendon Press, 1985; E. A. Wrigley, *Continuity, chance and change: the character of the Industrial Revolution*, Cambridge: Cambridge University Press, 1988. See also the new evidence presented in: L. Shaw-Taylor and E. A. Wrigley, 'The occupational structure of England *c.*1750–1871: a preliminary report', forthcoming.

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This aspect is important because a reassessment of the mobility transition is an essential step in fully understanding migration as a factor in the promotion of early economic development, something about which we still know relatively little. This is largely the result of the relatively poor quality (or availability) of pre-1850 migration data, which makes analysing such a connection far from straightforward. In contrast, late nineteenth- and twentieth-century data are of much higher quality, and more suitable for the adoption of quantitative methods.[5]

The article and the dataset provided by Jan and Leo Lucassen provide an important step in understanding migration's role in early economic development. However, there are a few remaining problems that need to be overcome before one really can take the next step and integrate their model into the historical explanation of social and economic change. The main difficulty is that the link between economic performance and geographical mobility is highly ambiguous, and the way in which the migration is perceived in the article (and as a result is categorized) is perhaps not the most effective means of achieving the ambitious goals that the authors set themselves.

Different variants of economic theory provide suggestions for the way in which geographical mobility can influence an economy. One can, for example, regard migration as a way of increasing an essential factor of production, by spreading innovation, or, following new growth theory, by increasing the human capital stock in an economic core region. This means that it is not always evident how migration supports economic development, and there are indeed various trajectories possible in which this can take place – as well as those in which migration can have the opposite effect. The argument of this contribution is therefore that if migration history wants to contribute to the debate on the 'Great Divergence' between Asia and Europe, which is after all one of the explicit goals of the Lucassens' article, it is crucial to specify how, where, and when migration contributes to economic development. The Great Divergence debate is predominantly a debate over the roots and extent of economic performance in the East and West. This means that one needs to look for a framework that distinguishes between the *contexts* wherein migration flows take place, and it is doubtful whether the typology used in the article is able to do just that.

Let us take a more modest divergence than the one between Europe and Asia as an example, namely that between England and the Dutch Republic in the early modern period.[6] In the historiography of early modern Europe, England is commonly regarded as the successor in terms of economic dominance in Europe. The Dutch Republic is taken as the dominant economic power in the region from about the 1580s, to be succeeded by England during the last decades of the seventeenth century, although in many respects (depending on the definition) the real divergence took place after the second half of the

5 See, for instance, the approach adopted in Timothy J. Hatton and Jeffrey G. Williamson, *The age of mass migration: causes and economic impact*, Oxford, Oxford University Press, 1998.

6 See J. L. van Zanden, 'The ''revolt of the early modernist'' and the ''first modern economy'': an assessment', *Economic History Review*, *55*, 4, 2002, pp. 619–41; Robert. C. Allen, 'The great divergence in European wages and prices from the middle ages to the First World War', *Explorations in Economic History*, 38, 2001, pp. 411–47. For a broader perspective on comparative Anglo-Dutch history, see Karel Davids and Jan Lucassen, *A miracle mirrored: the Dutch Republic in European perspective*, Cambridge: Cambridge University Press, 1995.

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eighteenth century.[7] To understand the role migration played in this divergence, it is essential to distinguish between modernization and industrialization.

In their article the two authors state that the surge in migration levels in the Dutch Republic during the seventeenth century was a precursor of more general high European mobility levels in the nineteenth century. I would argue that this is questionable. A key argument against what may intuitively feel like a correct notion is that we are dealing with two distinct phenomena here: a surge in migration that is in large part the result of modernization, and one induced mainly by industrialization. Of course, the distinction between the two is far from clear – very few would question the notion that modernization and industrialization are not in some way interlinked – but nevertheless it is important to distinguish between the two. Industrialization is commonly defined as sustained increases in per capita incomes, whereas the modernization process (applying Wrigley's wide-ranging definition) can be characterized by a process of rationalization of government, society, and markets, involving the reduction of the incalculable and the maximization of economic returns. Modernization stimulates the growth of towns, makes rights more easily enforceable, promotes social and occupational mobility, and tends to increase the spread of numeracy and literacy.[8] As Wrigley has argued, although modernization may be a *necessary* condition for the Industrial Revolution, it is not a *sufficient* condition; economies can become modernized without becoming industrialized at the same time.[9] Equally, although a country needs to undergo a process of modernization to achieve industrialization, certainly not every industrialized country reached the same level of modernization. This is important, not only in terms of social aspects but also in terms of economic development.

Why is this important in the discussion about the mobility transition or, more generally, in discussing the broader correlation between migration and economic performance? The main argument that I put forward is that modernization and industrialization are linked to different types of migration flows. The latter is important if we think about the link between migration and economic development, which is in turn is crucial if one wants to link in with the Great Divergence debate.

To illustrate the foregoing argument it is instructive to look at England, the first *industrializing* country, and compare its development with that of the Dutch Republic, dubbed the first *modern* economy by de Vries and van der Woude.[10] To start with the former, the large urban cores that came into existence in the north-west of England at the end of the eighteenth century might be described as industrial but *not* modern. This is for instance shown by the fact that literacy levels were very low here, even comparable to backward rural areas.[11] Moreover, recent research has shown that numeracy levels of migrants into the new industrial cores were lower there than those who travelled to the metropolis.[12]

7 Van Zanden, 'Revolt of the early modernist'; Allen, 'Great divergence'.

8 Wrigley, 'Modernization', pp. 227, 229–30.

9 *Ibid*., p. 237.

10 Jan de Vries and Ad van der Woude, *The first modern economy: success, failure, and perseverance of the Dutch economy, 1500–1815*, Cambridge: Cambridge University Press, 1997.

11 Wrigley, 'Modernization', pp. 258–9.

12 Jelle van Lottum and Peter Kitson, 'Migration, economic development and human capital in early Victorian England', unpublished paper for the Economic History Society conference, Durham, 2010.

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Indeed, it could be argue that the growth of London in the eighteenth and early nineteenth centuries was made possible by the economic and social changes of modernization, and the city thus deserves to be labelled as modernized but not industrialized. There was of course plenty of industry in London but on a comparatively modest scale – often even on an individual level. In contrast, London had comparatively high levels of human capital compared to the north-west, and indeed a relatively large service sector.[13]

Evidence available for the early modern Dutch labour market, and in particular for its important maritime labour market, supports the London case. It, too, relied to a great extent on a relatively skilled labour force (including male and female workers), stressing its modern character *before* industrialization.[14] At the same time, however, as is often stressed in the current migration debate, the early modern Dutch case shows that, with regard to what one could call 'modernization-led migration', it is not the size of the influx that matters but its quality. Up until the beginning of the eighteenth century in the Netherlands, a wage structure existed, in combination with an open institutional framework – both characteristics of a modernized society – that enabled the economy not only to attract migrants in bulk but also to attract those migrants with relatively high skills.[15] This ability to attract skilled workers did not last, however. As a result of increased competition in the rest of Europe the Netherlands lost its elastic labour supply.[16] This did not result in a collapse in overall immigration levels; in fact, the country kept attracting a large number of foreigners until after the Napoleonic period.[17] However, it did lose the ability to attract workers with the right skills, resulting in a deterioration in the quality of incoming migrants.[18] Neither London, nor the industrializing north-west suffered such supply constraints, and they were able to attract the 'right' workers in the right numbers throughout the nineteenth century. Although certainly not the sole determinant, the changing character of migration to the Dutch Republic contributed to the divergence between the two countries.

The example of England and the Dutch Republic shows us that, if one wants to compare migration over time and place, it is vital not just to look at the (relative) size or growth rates

13 Shaw-Taylor and Wrigley, 'Occupational structure'.

14 Tine de Moor and Jan Luiten van Zanden, '"Every woman counts": a gender-analysis of numeracy in the Low Countries during the early modern period', *Journal of Interdisciplinary History*, 41, 2, 2010, pp. 179–208; Jan Luiten van Zanden, *The long road to the Industrial Revolution: the European economy in a global perspective, 1000–1800*, Leiden and Boston: Brill, 2009, ch. 5; Jelle van Lottum and Bo Poulsen, 'Estimating levels of numeracy and literacy in the maritime sector of the north Atlantic in the late eighteenth century', *Scandinavian Economic History Review*, 59, 1, 2011, pp. 67–82; J. van Lottum and J. L. van Zanden, 'Labour productivity and human capital in the maritime sector of the north Atlantic, c. 1672–1815', unpublished paper for the Economic and Social History Seminar, Utrecht, 2011.

15 Jan Lucassen, 'Labour and early modern economic development', in Davids and Lucassen, *Miracle mirrored*, pp. 367–409; Jelle van Lottum, *Across the North Sea: the impact of the Dutch Republic on international labour migration, c. 1550–1850*, Amsterdam: Aksant, 2007.

16 Jelle van Lottum, 'Labour migration and economic performance: London and the Randstad, c. 1600–1800', *Economic History Review*, forthcoming, published online August 2010, http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0289.2010.00547.x/pdf (consulted 9 April 2011).

17 J. van Lottum, 'Migration to the Netherlands in the first half of the nineteenth century: an assessment using the Utrecht censuses of 1829 and 1839', *Annales de Démographie Historique*, 118, 2009, pp. 193–208.

18 Van Lottum, 'Labour migration'; van Lottum and van Zanden, 'Labour productivity'.

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of the labour supply, expressed in migration ratios as is done in the article under scrutiny, but also at its composition and/or characteristics. Problematically, this changes over time and place, but more importantly, and perhaps more worryingly, if one uses an indicator such as rising migration rates, composition is not necessarily correlated to size.

New growth theory postulates that human capital formation is an important determinant of long-term economic growth and can thus explain different economic trajectories.[19] Similarly, studies on contemporary labour mobility have pointed out the potential positive effect of labour migration on economic performance, for instance through the influx of skilled workers into an economic sector.[20] Still, in the case of the British industrial north-west, one could plausibly argue that human capital levels of incoming migrant flows were not essential, simply because early industrialization thrived on not particularly skilled labour.[21]

Of course, human capital formation mattered in the Industrial Revolution, as stressed in the work of Mokyr, for instance.[22] In his explanation as to why the Industrial Revolution happened in England, Mokyr put much emphasis on so-called *propositional knowledge* or Ω *knowledge* as the driving force behind industrialization, and thus much less on the skills acquired by 'common workmen', to use Adam Smith's terms (or what Mokyr styled λ *knowledge*).[23] Propositional knowledge does not come in bulk of course, nor does it need to; it does not necessarily require a large number of people to be effective. At the same time, as was argued earlier, skills of common workers of both sexes appeared to matter hugely for the Dutch Republic, whose economy suffered considerably when it could no longer attract them.[24]

In the discrepancy between the importance of size versus quality we can find a paradox in the approach of the Lucassens' article. On the one hand they choose Patrick Manning's definition of cross-cultural migration.[25] In essence, this is based on the exchange of ideas and innovations, and thus (albeit implicitly) stresses the importance of the transfer of Mokyr's propositional knowledge. As stressed above, however, such a transfer does not require a large number of people to have an effect on economic performance. At the same time, their article stresses the importance of the (relative) size of the migration flows, which does not necessarily say too much about quality. Indeed, nobody would say that high levels of geographical mobility of migrants in early modern or nineteenth-century Russia (a case highlighted in the article), who were likely to have been mainly unskilled (agricultural) workers, had the same effect on economic performance as it had in Britain. The same could be said of largely rural migration flows in nineteenth-century China.

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19 Robert E. Lucas Jr, 'On the mechanics of economic development', *Journal of Monetary Economics*, 22, 1988, pp. 3–42; *idem, Lectures on economic growth*, Cambridge: Cambridge University Press, 2002.

20 Robert E. B. Lucas, *International migration and economic development: lessons from low-income countries*, Cheltenham: Edward Elgar, 2005.

21 Crafts, *British economic growth*, p. 82.

22 Joel Mokyr, *The gifts of Athena*, Princeton, NJ: Princeton University Press, 2002; *idem, The enlightened economy: an economic history of Britain, 1700–1850*, Princeton, NJ: Princeton University Press, 2010.

23 See van Zanden, *Industrial Revolution*, ch. 5.

24 Van Lottum, 'Labour migration'.

25 Patrick Manning, *Migration in world history*, London: Routledge, 2005, p. 7.

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Finally, in economic studies, industrialization is not usually defined as increased output, for instance as a result of mechanization, but as a synonym for sustained economic growth, accompanied by long-term rises in real per capita incomes.[26] Simply increasing the labour supply, for instance through in-migration, is therefore not enough, because without significant advances in labour productivity this can even lead to a decline of real per capita incomes. Indeed, a whole range of other conditions must be met before migration can become effective in economic terms, varying from factors inducing Smithian growth in the early modern period to significant agricultural improvements making the primary sector able to sustain large urban cores.

In sum, what I wish to stress is that, when studying migration as a factor relevant to understanding economic and social change, context is key, or should be key. If one is interested in how geographical mobility relates to economic performance, which was after all one of the principle goals of Zelinsky's much acclaimed exercise, but also of the Lucassens' article, one cannot escape contextualizing and theorizing the link between migration and the different stages of economic development. The article has provided us with an indispensible first step by identifying and quantifying migration in Europe, and thereby for the first time has aligned migration history with the new orthodoxy in economic history, but this (understandably) largely two-dimensional approach has not yet the capacity to explain how migration is linked to economic change. Only by adding the 'explanatory dimension' can we take the next step and can migration really play a role in the debate on the Great Divergence.

26 Wrigley, 'Modernization and industrialization', p. 227.

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