<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>You take the high road and I'll take the low road: economic success and wellbeing in the longer run</th>
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The focus of this chapter is not on explaining growth but on the consumption and welfare implications of the different routes taken by two pairs of economies in the past. The case studies considered are (1) the Dutch and British economies between the sixteenth and nineteenth centuries, and (2) the Irish and Italian economies during the second half of the twentieth century. In each case, both economies begin and end with roughly equal levels of output and consumption per head, but the different routes taken involve initial divergence, or forging ahead by one country followed by the other’s catching up. In the Anglo-Dutch case, it was the Netherlands that opened up a lead during the Dutch Golden Age (c. 1580–1670) only to be tagged by industrializing Britain more than a century later. In the case of Ireland and Italy, both economies set out at roughly the same point in terms of productivity and consumption in mid-century. Between the 1950s and the 1980s, Italy forged ahead, only to be caught up by a late surge from Ireland in the 1990s. Both Italy and the Netherlands enjoyed higher consumption and living standards between start and end points. Other things being equal, growing fast and then slowly would seem preferable to growing slowly first, and then fast. The chapter is about the measurement and some welfare implications of the different paths traveled.

The Dutch Republic and Great Britain

For much of the seventeenth century the Dutch Republic was Britain’s main economic rival in Europe. Although Britain’s beggar-my-neighbor commercial policies prevailed over the Dutch in the long run, for decades travelers to Holland and leaders of British public opinion marveled at Dutch ingenuity and success. Gregory King’s national accounts imply that by the end of the Golden Age the Dutch Republic was the richest
economy in Europe (de Vries 1974, 242–243). The population of Amsterdam surged from 30,000 in 1550 to 175,000 by 1650, making it the fourth city in Europe by 1650 (after London, Paris, and Naples) (de Vries 1984, 271). Historians have celebrated Dutch "preocity" and "primacy in world trade" during the Golden Age. The ability of a small nation—the Netherlands contained only 1.5 million people in 1600, compared to Britain's six million and France's 18.5 million—to thrive on a thin natural resource base was the envy of its rivals (Schama 1987; Israel 1989).

Three decades ago, de Vries (1976, 251, 252) described the economy of the Golden Age era as "high-level traditionalist," which by the eighteenth century had sunk "into a complacent stagnation." Soltow and van Zanden (2001, 31) support this assessment; they dubbed the growth of the Golden Age era "premodern" because it failed to generate significant gains in living standards and could not sustain itself in the long run. Others, however, have stressed Dutch breakthroughs in agriculture, financial institutions, shipping, and public finance. De Vries and van der Woude (1997) have described the early modern Dutch economy as the first to experience "modern economic growth."

Either way, for all its earlier successes, the Dutch economy was widely deemed a failure by the early nineteenth century. Some historians link "the non-event of [Dutch] economic stagnation" (Mokyr 1976, 84) relative to industrializing Britain—or, indeed, to Belgium—to its own earlier success. They blame the institutional sclerosis of a high-wage economy encumbered by a generous social welfare regime, unable to cope with competition from the latecomers Belgium and Great Britain (de Vries 1974; Mokyr 1976; de Vries and van der Woude 1997; van Zanden 2002a, 2002b; van Zanden and van Riel 2004). The historiography of the post–Golden Age economy is somber in tone. And according to Maddison's estimates, Dutch GDP rose only by 7 percent between 1700 and 1820, whereas Belgium's doubled and the United Kingdom's more than trebled. Over the same period, Dutch GDP per head fell.

In the late seventeenth century Gregory King reckoned that Dutch national income exceeded that of England by 10 to 15 percent. This gap is much less than that allowed by Maddison, who implies that for over three centuries the Dutch enjoyed higher output per head than anyone else and that in 1700 Dutch GDP per head was 1.7 times the U.K. level (de Vries 1974, 242–243; Maddison 2001, table B21). Maddison implies that the Dutch and British economies had roughly the same GDP per head c. 1500. The Netherlands then forged ahead, only to lose ground from the late seventeenth century on, and be overtaken c. 1800. This,
and the sense that the Netherlands paid a price for being an "early starter," suggests the case for taking a longer perspective in assessing the performance of the early modern Dutch economy and for focusing on the period 1500–1800 as a whole.

Here I rely on an amended version of Maddison's estimates, which imply that GDP per head in the Netherlands and the United Kingdom were roughly equal c. 1500 and again c. 1835. In between, the Dutch built up a lead that reached its peak in proportional terms in the 1690s; from then on, the lead was slowly whittled away. However, since the historiography is really about Anglo-Dutch rivalry, Maddison's GDP per head data must be adjusted to exclude Ireland. The adjustment matters because Irish GDP per head was much less than the British in this period, and Irish population was a significant proportion of the U.K. total, rising from about one-fifth c. 1500 to one-third c. 1820 (Ó Gráda 1997b). I assume, arbitrarily, that Irish GDP per head was half the British throughout. Figure 14.1 plots the trends in Dutch, U.K., and British GDP per head between 1500 and 1900, as inferred from Maddison's data.

Van Zanden's reconstructions of Dutch GDP imply a very different trajectory before c. 1820. Whereas Maddison implies only a small Dutch advantage over the United Kingdom c. 1500, van Zanden implies an advantage of nearly three-fifths. And while Maddison reckons that real GDP per head in the Netherlands rose by 140 percent between 1500 and

![Figure 14.1](image)

GDP per head in the United Kingdom, the Netherlands, and Great Britain, 1500–1900. nl traces Dutch GDP per head; nl(*) Dutch GDP per head after adjusting for lower Dutch population growth; uk GDP per head for United Kingdom; gb omits Ireland. The exclusion of Ireland allows gb to overtake nl half a century earlier (A versus D). Slower Dutch population growth entails closing the gap even earlier (C versus A).
Table 14.1
Estimates of Dutch GDP per Head, 1500–1820

<table>
<thead>
<tr>
<th>Year</th>
<th>(1) Maddison</th>
<th>(2) van Zanden</th>
<th>(2)/(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. 1500</td>
<td>761</td>
<td>1,252</td>
<td>1.65</td>
</tr>
<tr>
<td>c. 1650</td>
<td>1,700</td>
<td>2,411</td>
<td>1.42</td>
</tr>
<tr>
<td>c. 1700</td>
<td>2,100</td>
<td>2,386</td>
<td>1.14</td>
</tr>
<tr>
<td>c. 1750</td>
<td>1,985</td>
<td>2,337</td>
<td>1.28</td>
</tr>
<tr>
<td>1820</td>
<td>1,838</td>
<td>1,838</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Sources: Maddison (2001), 1500, 1700, and 1820; van Zanden (2001, table 4.3); Maddison (2005, 25); my interpolations for Maddison, c. 1650 and c. 1750.

By 1820, van Zanden’s best guess is that the rise was about one-third of that (Maddison 2001, table B21; van Zanden 2001; compare Federico 2002). The contrasting Maddison and van Zanden trajectories are summarized in table 14.1. Meanwhile de Vries and van der Woude (1997, 709–710) refuse to “venture an estimate” of the growth rate of the Dutch economy before the 1660s, but nonetheless they are confident that income per capita rose, pointing to significant productivity increases in agriculture, services, and shipping, and the big rise in energy consumption in the previous two centuries or so. It is enough to point out here that if van Zanden’s estimate for 1500 is correct, then the Anglo-Dutch gap would have opened up earlier and all the following calculations will underestimate the gap.

By Maddison’s reckoning Dutch GDP per head overtook British GDP per head in the mid-1510s and maintained its edge until mid-1790s. How much was the extra Dutch output worth? Between 1514–1515 and 1794–1795, the average gap was one-fifth of Dutch GDP per head. Alternatively, adding together the annual gaps yields a sum equivalent to 52 times 1795 GDP per head! Assuming that the ratio of consumption to GDP did not differ greatly between the two economies in this period, the average gap is a measure of the premium in living standards enjoyed by the Dutch. It would be nice to know the relevant ratios of household consumption and GNI to GDP; in the absence of such data, it bears noting that the ratios of external wealth to GDP in both economies at the end of the period were still very small, and both investment and government expenditure were relatively small percentages of GDP in both economies c. 1800.¹ Henceforth, I use GDP as a proxy for consumption.²

It would take a long time before faster British growth “recouped” the accumulated Dutch advantage. By 1850 only about 12 percent of the accumulated gap in annual GDPs per head had been “recouped.” Six
### Table 14.2
Population and GDP per Head, the Netherlands and Great Britain, 1500–1820

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (thousands)</th>
<th>GDP per Head (1990 international $)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Netherlands</td>
<td>Great Britain</td>
</tr>
<tr>
<td>1500</td>
<td>950</td>
<td>3,142</td>
</tr>
<tr>
<td>1600</td>
<td>1,500</td>
<td>5,700</td>
</tr>
<tr>
<td>1700</td>
<td>1,900</td>
<td>6,640</td>
</tr>
<tr>
<td>1820</td>
<td>2,355</td>
<td>14,139</td>
</tr>
</tbody>
</table>


decades or so later, only three-fifths of the gap had been made up. These calculations take no account of any major differences in the rates of population growth. In assessing economic performance, however, account should also be taken of extensive growth. In what follows, when comparing economic welfare and performance, I simply add the rate of population growth to that in GDP per head. An economy in which GDP per head doubles over a given period while population remains the same is deemed to perform as well as an economy where GDP per head fails to grow but population doubles. In other words, this means comparing growth rates in real GDP. Since Britain’s population grew faster than the Dutch over the period (table 14.2), allowing for differences in population growth attenuates the Dutch advantage somewhat, to 39 times 1795 GDP per head. In figure 14.1, the nt(∗) schedule tracks Dutch GDP per head, weighted by an index that sets Dutch population relative to British in 1500 at unity. Here the British subsequently “recoup” more quickly, by 1858.

Whether the consumption streams should be discounted is rather a moot point. Discounting is equivalent to treating all those who lived in the country for part or whole of the period in question as if they were represented by a lone individual with no thought for the next generation and with “no family or friends interested in his (her) survival” (Williamson 1984, 158). Whatever the validity of such an analogy for periods of a few decades, the Anglo-Dutch case refers to a period necessarily involving successive cohorts of individuals. There is no reason why the average individual living in 1620–1650 should be valued more than the average individual living in 1720–1750. A second reason for not discounting is time inconsistency: those same young people who tend to heavily discount the future regret in retrospect what seems like careless overspending (van den Berg 2002).³
Allowing for Urbanization

Dutch economic precocity was founded on a highly productive agricultural sector, a strong commercial sector, and precocious urbanization. As Wrigley et al. (1997, 204) warn, however, “the severity of the urban penalty should not be underestimated.” Figure 14.2 describes urbanization rates (where “urban” includes towns and cities of ten thousand or more) in the Netherlands and Great Britain, 1500–1900. Dutch urbanization rates, unparalleled in early modern Europe, imposed a toll in terms of morbidity and life expectancy. Williamson’s (1981) research on British cities during the Industrial Revolution is eloquent on this score. Although it remains unclear whether the nutritional status of urban populations generally was inferior to that of rural populations, they certainly suffered from congestion, poor sanitation, adulterated food, and endemic diseases (Riley 2001, 161–163). Urbanites everywhere were also smaller in stature. Many rich citizens, aware of the increased mortality risk, left the cities for their rural retreats during the summer. The poor did not have that choice.

In 1673 England’s former ambassador at the Hague described the Dutch “as generally not so long-liv’d as in better Airs; and begin to decay early, both men and women, especially in Amsterdam,” singling out “Diseases of the Climate [which] all hot and dry Summers bring... that are infectious among them, especially into Amsterdam and Leyden” (Temple
1673, 161). Alas, the data to test these claims are lacking. Pre-1800 Dutch demographic data are poor, and how Amsterdam achieved its remarkable population growth in the century or so after 1580 remains somewhat of a mystery. The high proportions of widowed household heads in Dutch towns and cities, and the Dutch obsession with cleanliness in the Golden Age era, are consistent with the presumption that mortality was high in a congested, damp environment (van Strien 1993, 212–213, 231 n. 95; van der Woude 1972, 311–313; Schama 1987, 375–384).\(^4\) However, hard evidence on immigration, mortality, and the main causes of death is lacking, prompting some “controlled conjectures” (de Vries 1985, 664; van der Woude 1983, 197–209; de Vries and van der Woude 1997; van Leeuwen and Oeppen 1993).

An important contribution by Alter (1983, 33) reports life expectancy, \(e_0 = 25.3\) years for the lives of nominees in the Amsterdam life annuities of 1586–1590, and \(e_0 = 30.0\) years for those of 1672–1674.\(^5\) Plainly, the social rank of the annuitants and their residence in Amsterdam are factors: these were prosperous people living in a port city. Although some claim that because infectious disease did not discriminate between rich and poor, mortality differed less by class in early modern Europe than later,\(^6\) evidence suggests that Alter’s estimates should be taken very much as an upper bound of life expectancy in the Netherlands at the time. The low life expectancies yielded by the trickle of evidence from local studies are corroborative. Life expectancy in the Maasland (south Netherlands) in 1730–1759 was strikingly low (26.5 years), and in a cluster of five Catholic communities living in the northern clay lands around Groningen in 1731–1770, it was just over 30 years (Noordam 1986; Paping 1988).

The paucity of Dutch data means that the evidence from urban communities in neighboring countries is also worth considering. English data (tables 14.3 and 14.4) imply a very substantial urban penalty in terms of life expectancy before 1800 (Woods 2000; Szreter and Mooney 1998).\(^7\) The impact of class may be gauged from comparing the life expectancy of Londoners in general with that of London Quakers, a largely middle-class group. Quaker life expectancy was 28.8 years in 1650–1699, 24 years in 1700–1749, 29.8 years in 1750–1799, and 35.5 years in 1800–1849 (Landers 1993, 158). This implies a gap of six to seven years between London Quakers and other Londoners in the eighteenth century, although London Quakers still died younger than rural Englishmen and Englishwomen. In seventeenth-century Geneva the class gradient was just as steep as in London. In 1650–1684 the life expectancy of Genevan workers, male and female together, was 20.5 years, that of the middle
Table 14.3
Life Expectancy in England and Wales (years), 1750s–1900s

<table>
<thead>
<tr>
<th>Period</th>
<th>London</th>
<th>Large Towns</th>
<th>Small Towns</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1751–1760</td>
<td>20.1</td>
<td></td>
<td>27.5</td>
<td>41.3</td>
</tr>
<tr>
<td>1801–1810</td>
<td>35.0</td>
<td>32.0</td>
<td>34.2</td>
<td>42.2</td>
</tr>
<tr>
<td>1821–1830</td>
<td>36.9</td>
<td>32.7</td>
<td>36.2</td>
<td>43.3</td>
</tr>
<tr>
<td>1841–1850</td>
<td>36.7</td>
<td>32.0</td>
<td>36.0</td>
<td>43.5</td>
</tr>
<tr>
<td>1861–1870</td>
<td>37.7</td>
<td>33.0</td>
<td>38.0</td>
<td>46.5</td>
</tr>
<tr>
<td>1881–1890</td>
<td>42.6</td>
<td>39.0</td>
<td>44.0</td>
<td>51.0</td>
</tr>
<tr>
<td>1901–1910</td>
<td>49.4</td>
<td>46.3</td>
<td>50.5</td>
<td>56.5</td>
</tr>
</tbody>
</table>


Table 14.4
Life Expectancy in London and in England and Wales, 1700s–1860s

<table>
<thead>
<tr>
<th>Period</th>
<th>(1) England and Wales</th>
<th>(2) London</th>
<th>(1) – (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1700s</td>
<td>38.5</td>
<td>18.5</td>
<td>20.0</td>
</tr>
<tr>
<td>1730s</td>
<td>31.8</td>
<td>18.2</td>
<td>13.6</td>
</tr>
<tr>
<td>1740s</td>
<td>33.5</td>
<td>17.6</td>
<td>15.9</td>
</tr>
<tr>
<td>1750s</td>
<td>37.0</td>
<td>20.1</td>
<td>16.9</td>
</tr>
<tr>
<td>1760s</td>
<td>34.6</td>
<td>20.5</td>
<td>13.9</td>
</tr>
<tr>
<td>1770s</td>
<td>36.9</td>
<td>21.6</td>
<td>15.3</td>
</tr>
<tr>
<td>1780s</td>
<td>35.3</td>
<td>25.5</td>
<td>9.8</td>
</tr>
<tr>
<td>1790s</td>
<td>37.1</td>
<td>27.5</td>
<td>9.6</td>
</tr>
<tr>
<td>1800s</td>
<td>37.2</td>
<td>28.0</td>
<td>9.2</td>
</tr>
<tr>
<td>1810s</td>
<td>37.8</td>
<td>32.4</td>
<td>5.4</td>
</tr>
<tr>
<td>1820s</td>
<td>39.6</td>
<td>34.4</td>
<td>5.2</td>
</tr>
<tr>
<td>1830s</td>
<td>40.5</td>
<td>36.9</td>
<td>3.6</td>
</tr>
<tr>
<td>1840s</td>
<td>40.0</td>
<td>36.7</td>
<td>3.3</td>
</tr>
<tr>
<td>1850s</td>
<td>40.0</td>
<td>38.0</td>
<td>2.0</td>
</tr>
<tr>
<td>1860s</td>
<td>40.8</td>
<td>37.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>


class 26.0 years, and that of the elite 36.8 years (de Vries 1984, 184; Perrenoud 1975). In the light of such data, Alter’s estimates for Amsterdam annuitants’ middle-class nominees reveal very short lives indeed for Amsterdamers. A six-year gap between the middle class and the population as a whole would indicate life expectancies in the cities of less than 20 years in the 1580s and 23–25 years in the 1670s.

Given the high rate of Dutch urbanization at a time when the urban mortality disadvantage was so high, it is surely not far-fetched to assume
Table 14.5
The Gap in "true" Living Standards (multiples of 1795 British GDP per head)

<table>
<thead>
<tr>
<th></th>
<th>GDP per Head</th>
<th>&quot;True&quot; Measure $\beta = 1$</th>
<th>&quot;True&quot; Measure $\beta = 0.45$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap relative to 1795 GDP per head</td>
<td>52</td>
<td>34</td>
<td>10</td>
</tr>
<tr>
<td>Allowing for extensive growth</td>
<td>39</td>
<td>21</td>
<td>-3</td>
</tr>
</tbody>
</table>

that urbanization reduced the average life span in the Netherlands by an average of three years below British levels during the longue durée analyzed here.

Building on Usher (1973), Williamson (1984) explained how to factor in increasing life expectancy in assessments of the economic performance of industrializing Britain. Usher's widely used measure reduces to the expression

$$G_{\hat{C}} = G_C + \frac{1}{\beta} G_L$$

where $G_{\hat{C}}$ represents growth rate of $\hat{C}$, the "true" standard of living after taking the change in life expectancy into account, $G_C$ the growth rate of GDP per head, $\beta$ the elasticity of utility with respect to GDP per head, and $G_L$ the change in life expectancy. In this simple model the role of $\beta$ is pivotal; in his study of Britain c. 1780–1930, Williamson worked with values of $\beta = 0.25$ to 0.45. An even simpler but serviceable way of dealing with the issue is that proposed by Lichtenberg (2003). He defines expected individual lifetime well-being (EILW) as $Y_A \cdot e_A$, where $Y_A$ is average income and $e_A$ is expectation of life at birth in economy $A$. Relative EILW at a point in time then is measured as $[Y_A \cdot e_A]/[Y_B \cdot e_B]$. This amounts to assuming that the marginal utility from additions to $Y$ and $e$ is constant. In effect, Lichtenberg's measure of "true" change implies $\beta = 1$.

In table 14.5 I report the implications of factoring in the cost of lower Dutch life expectancy for values of $\beta = 0.45$ and $\beta = 1$. Even $\beta = 1$ reduces the cumulative gains built up between 1515 and 1795 considerably; assuming $\beta = 0.45$ erodes all the Dutch advantage, once differential population growth is also allowed for.

**Ireland and Italy**

In the year of il sorpasso, 1987, Italian GDP briefly overtook that of Great Britain (Maddison 2001, tables C1b and C1c). For Ireland, 1999,
when GDP per head overtook that of the United Kingdom, marked a similar defining moment. In 1998 Irish GDP per head also overtook that of Italy. By the mid-2000s Ireland was well ahead of the United Kingdom in terms of GDP per head.

During the 1990s much was made of the dynamism of the Irish economy. It seemed as if the Irish had just unlocked the secret to fast, sustained economic growth. The celebratory commentary on that era from far and near (e.g., Gray 1997), and the eagerness elsewhere to learn from Ireland, might seem to imply that the Celtic Tiger’s growth compensated for the earlier delay; the main thing is that Ireland got there eventually. The Anglo-Dutch example suggests otherwise: it suggests that Ireland’s route of underachievement followed by convergence and even overshooting may have exacted a heavy price in economic welfare.

If a shift in economic policy was a precondition for the economic boom that began in the late 1980s and made Ireland “Europe’s star-performing economy,” by the same token earlier underperformance can be blamed largely on policy failure. Inward-looking economic policies, including tariff protection and restrictions on capital imports, were mainly responsible for the stagnation of the 1950s. The opening up of the economy in the late 1950s yielded results in the following decade, but the gains were negated by the disastrous policy response to the second oil crisis of the late 1970s. That response sought to match the impact of the price shock through fiscal expansion, with the result that public expenditure rose to levels that by the early 1980s threatened national bankruptcy. There followed a period of fiscal rectitude and high unemployment. The public debt/GDP ratio peaked at 129 percent in 1986; in that same year the unemployment rate was 18 percent, and it would remain above 10 percent for another decade.

Between 1987 and 2000 the economy grew at an annual rate of 7 percent, faster than any other OECD economy. Even today Irish economic growth continues to exceed OECD and EU averages. This suggests that there is more to the achievement of the Irish economy than catch-up or belated convergence. However, compensation for underperformance since mid-century is a crucial part of the story. Two features of economic growth in this period support this view. First, when adjusted for the effects of transfer pricing, productivity growth in the 1990s was by no means spectacular (Honohan and Walsh 2002, 45–46). Second, when the spare capacity accumulated since the early 1980s had been mopped up, the rate of economic growth slowed down, although it still remained considerably above the EU average.
The course of the Irish economy since 1950—initial underperformance, mitigated by rapid advance from the late 1980s on—prompts an analysis of the last half century or so of Irish economic history as a unit.\textsuperscript{11} Although dwarfing Ireland in terms of both population and output,\textsuperscript{12} Italy offers a useful comparative perspective because both economies were backward by west European standards in mid-century, with GDPs per head barely half those of the United Kingdom, Sweden, or Denmark.\textsuperscript{13} Of course, the two economies differed in obvious ways that conditioned their very different trajectories. In geographic terms, Italy is located in the heart of Europe, whereas Ireland is on the periphery. At the outset Italy benefited from generous doses of Marshall Plan aid and from the stimulus of European economic integration. Ireland’s gains from European integration and foreign largesse would come toward the end of the century, at a time when the tyranny of distance mattered much less than in mid-century.

In the 1950s and 1960s real Irish consumption per head fell way behind the Italian; the gap narrowed thereafter, but it took the hectic growth of the Celtic Tiger era to bridge it once more. The contrasting paths taken by the two economies are described in figures 14.3 and 14.4. Figure 14.3 describes the gaps in consumption and GDP per head, and figure 14.4 outlines the contrasting demographic trajectories. In Italy, GDP and

![Figure 14.3](image)

consumption per head grew steadily until near the end of the period, while the rate of population growth fell from 0.6 percent in the 1950s and 1960s to close to zero today. In Ireland, the rate of consumption and GDP growth per head accelerated over the half century, even during the years of gloom and doom in the 1980s. Short-run movements in the two economies were poorly correlated: whereas the 1950s are deemed Ireland’s “lost decade,” in Italy they were years of the “economic miracle,” and while Italy was enjoying its “splendid eighties,” Ireland was finding its way out of a deep economic crisis. Short-term population movements differed, too. While Italian population growth decelerated over the half century, Irish population growth was subject to wide fluctuations. The half century included two stretches of decline when emigration was substantial and a time in the late 1960s and 1970s when population grew by over 1 percent annually.

Imagine for a moment that statistical artifact, the average citizen, faced with the choice of either the Italian or Irish route to affluence in 1950. Since our interest is in economic well-being, our primary focus would be on consumption (private plus public) rather than on GDP. The cumulative difference in consumption to 1998 is 33 times the Irish 1950 consumption per head, or six times 1998 consumption per head. Alternatively, had Ireland followed the Italian road, Irish consumption per head would have been over one-third higher on average in the interim. Discounting forward at 2 percent gives ratios of 20 times Irish 1950 con-
Figure 14.5
Life expectancy for males and females in Italy and Ireland, 1950–2000.

 Consumption per head and 3.8 times 1998 consumption per head, and discounting forward at 3 percent gives ratios of 16 and 3.0. Discounting or no discounting, the cost of slower growth in the early phases was clearly large.

Demographic Considerations

As figure 14.4 shows, although the population growth rates in Ireland and Italy over the period as a whole were similar, short-term trends were very different. In the 1950s and 1960s, in particular, the gaps in rates of population growth were considerable, with negative implications for Ireland’s relative economic performance. The wedge between population growth–augmented consumption per head was nearly eight times 1998 Irish consumption per head (as opposed to six times when population is not taken into account).

In assessing the two growth paths, the influence of improvements in life expectancy should also be factored in. In 1950 Irish males stood to live 1.4 years longer than their Italian peers, and Irish females 0.4 years longer. Half a century later the gap was reversed, with Italian males expected to outlive Irish males by 1.2 years, and Italian females to outlive Irish females by 1.9 years (figure 14.5). Thus, allowing for differences in the changes in the expectation of life at age zero, or \( e(0) \), between 1950 and 2000 would marginally increase Italy’s advantage. The timing of the
catch-up obviously matters. Italian women overtook Irish women in the mid-1950s, and Italian men overtook Irish men a decade or so later. Here we work with the average.

For Ireland-Italy, I compare $U = \sum Y_i \cdot \bar{e}_i$, where $Y_i$ is consumption per head in year $i$, and $\bar{e}_i$ is life expectancy in year $i$ relative to life expectancy in 1950. Combining the data summarized in figures 14.3 and 14.5 and adding up over the entire period implies a gap 17.9 percent greater than before. Here I follow Williamson (1984, 162–165) and others in assuming that the improvements in life expectancy in this period were mainly due to exogenous factors such as improvements in medical technology and public health. Taking into account demographic factors just reinforces the point that the extra consumption that Italy gained by being the early starter was considerable.

**Did Inequality Matter?**

In Ireland affluence has not brought a reduction in income inequality. To what extent might differences in income inequality trends in Ireland and Italy affect the preceding comparisons? International comparisons of income distribution are a minefield, and broadly comparable Irish and Italian data are available only from the early 1970s on (Atkinson and Brandolini 2001; Nolan and Smeeding 2005; Brandolini 2004). Table 14.6 suggests that income inequality in Italy was considerably greater than in Ireland in the 1970s but that the gap closed quickly thereafter, and that by turn of the century inequality in Ireland was marginally greater.

Trends in the regional variation of incomes are also worth considering. In Italy the gap between richer and poorer regions was greater throughout than in Ireland. The long-standing backwardness of the Mezzogiorno

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**Table 14.6**

Gini Index for Ireland and Italy, 1973–2000

<table>
<thead>
<tr>
<th>Year</th>
<th>Italy</th>
<th>Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>42.0</td>
<td>36.7</td>
</tr>
<tr>
<td>1980</td>
<td>37.0</td>
<td>36.0</td>
</tr>
<tr>
<td>1987</td>
<td>34.4</td>
<td>35.2</td>
</tr>
<tr>
<td>1994–1995</td>
<td>36.3</td>
<td>36.2</td>
</tr>
<tr>
<td>2000</td>
<td>36.0</td>
<td>37.5</td>
</tr>
</tbody>
</table>

*Note: The data refer to gross value added (GVA) per head in Irish planning regions.*
is an important factor here. In both economies there is evidence of considerable convergence between provinces or regions during the 1960s and 1970s, and of marking time in the 1980s and 1990s. In Italy the coefficient of variation of regional GDP per head across Italy’s 20 provinces fell from 0.35 in the early 1960s to 0.27 in the late 1970s, but it was still 0.25 at the turn of the century. Data are available on gross value added per head in Irish regions since 1973 and on personal income or disposable income per head since 1960. Throughout, not surprisingly, the regional variation in disposable income was less than that in value added. Allowing for regional inequality makes Ireland look comparatively better throughout the period, but this outcome is the product of the different histories and geographies of the two economies. More to the point, regional inequality decreased slightly more in Italy than in Ireland.

Conclusions

Economic historians tend to have less time than their colleagues in political and military history for past heroics. They are used to entrepreneurs being replaceable, to social savings being “small,” and to economic growth during the Industrial Revolution being “modest.” Their answers to “How big is big?” are conditioned by a belief in Harberger triangles and a confidence that inputs, both animate and inanimate, are highly substitutable. Against such a historiographic tradition, the “savings” or “costs” of the alternative routes described in this chapter are very significant. When the Irish route to the present is evaluated against the Italian, the cost of policy “failures” in the 1950s and 1970s was indeed large, just as the benefits of Dutch economic precociousness in the sixteenth and seventeenth centuries, even when set against later retardation, were considerable.

Appendix: Dutch and English Wages

In the debate about incomes in the early modern Netherlands and Britain, wage data only muddy the waters further. Estimates by Allen (2001) suggest that building laborers (BL) and building craftsmen (BC) in London (L, representing England) were better paid than their counterparts in Amsterdam (A, representing the Netherlands) in the first half of the sixteenth century, but that they lost their lead thereafter and did not regain it for a century or more. Allen’s data also suggest that real wages in Amsterdam were about one-fifth higher in 1750–1799 than they had been
Table 14.7
Wages in Southern England and Belgium, c. 1500–1540

<table>
<thead>
<tr>
<th>Item (quantity per daily wage)</th>
<th>(1) England, 1501–1505</th>
<th>(2) Antwerp, 1501–1505</th>
<th>(1)/(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine (litres)</td>
<td>3.47</td>
<td>2.92</td>
<td>1.19</td>
</tr>
<tr>
<td>Herrings (no.)</td>
<td>43.32</td>
<td>48.45</td>
<td>0.89</td>
</tr>
<tr>
<td>Peas (litres)</td>
<td>40.27</td>
<td>19.70</td>
<td>2.05</td>
</tr>
<tr>
<td>Wheat (litres)</td>
<td>22.25</td>
<td>19.84</td>
<td>1.12</td>
</tr>
<tr>
<td>Sugar (kilos)</td>
<td>0.94</td>
<td>1.02</td>
<td>0.92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item (quantity per daily wage)</th>
<th>(3) England, 1536–1540</th>
<th>(4) Antwerp, 1536–1540</th>
<th>(3)/(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine (litres)</td>
<td>2.64</td>
<td>3.49</td>
<td>0.76</td>
</tr>
<tr>
<td>Herrings (no.)</td>
<td>38.17</td>
<td>45.48</td>
<td>0.84</td>
</tr>
<tr>
<td>Peas (litres)</td>
<td>30.50</td>
<td>21.38</td>
<td>1.43</td>
</tr>
<tr>
<td>Wheat (litres)</td>
<td>21.90</td>
<td>17.15</td>
<td>1.28</td>
</tr>
<tr>
<td>Sugar (kilos)</td>
<td>0.39</td>
<td>0.74</td>
<td>0.52</td>
</tr>
</tbody>
</table>


In 1550–1549, whereas in London they were about the same in both periods. Meticulous research by Munro (2001), from which table 14.7 is taken, corroborates Allen’s findings for the early sixteenth century. It reveals that wage earners in England c. 1500 had the edge over wage earners in the Antwerp region—generally conceded to be as economically advanced as Holland at this time—but that they lost it during the following few decades. Such data are not so readily squared with van Zanden’s claim that Dutch GDP per head was 1.58 times the British c. 1500, nor with the assertion that “real wages declined a lot between 1500 and 1800” (van Zanden 2001; 2002a, 154); but they are not so easily reconciled either with the almost threefold rise in GDP per head indicated by Maddison over the same period. Van Zanden (2001, 78–79) concedes that English GDP per head in 1650 was unlikely to be “only about half the Dutch level.”

Notes

This chapter is a considerably revised version of the paper presented at the Harvard conference. Thanks to Bob Allen, Kevin Denny, Tim Guinnane, David Madden, Angus Maddison, Gunnar Persson, Brendan Walsh, the editors, and conference participants for comments on the earlier draft, and to Andrea Brandolini, Gianfranco di Vito, and Brian Nolan for income distribution and regional income data.

2. In comparing Italy and Ireland, I use consumption rather than GDP.

3. Discounting might seem appropriate in a scenario in which countries are running current account deficits in order to allow expenditure to exceed income.

4. De Vries (1985, 669) notes that, in the 1730s, Amsterdam parish registers recorded an annual average of 3,300 girls born; 25 years later, an annual average of 1,410 Amsterdam-born women were wed. The ratio seems to imply high mortality, but this makes no allowance for the relative importance of inward and outward migration, celibacy, and the likely under-registration of births.

5. The disappearance of plague was the main cause of the improvement between the two dates. These are Alter’s (1983) “non-select” estimates, which exclude the first years of each annuity in order to minimize selection bias. In Amsterdam in 1636 the plague killed over 17,000 people, or one-seventh of the population; in Leiden and in Haarlem, too, it killed significant proportions of the inhabitants.

6. The estimates of life expectancy yielded by van Leeuwen and Oeppen’s (1993) Generalized Inverse Projection modeling are generally higher than those derived from annuities between the 1670s and 1720s; I do not invoke them here for that reason.

7. Death-by-age data for London as a whole become available only in the early eighteenth century.

8. Life expectancy in Geneva grew roughly in tandem with London: from 23.9 years in 1625-1649 to 34.3 years a century later, and 39.9 years in 1800-1820 (Perrenoud 1978, 223).


10. The sorpasso emerged when the Italian statistical service revised its estimate of the black economy upward.

11. For an account of the Irish economy before the boom, see Ó Gráda (1997a). For an earlier attempt at an Ireland-Italy comparison, see Ó Gráda and O’Rourke (2000).

12. In mid-century the Italian economy was 16 times the size of Ireland’s.

13. Italy had been worse affected by World War II than neutral Ireland, and its recovery between 1945 and 1950, spurred by the Marshall Plan, was accordingly faster. However, by mid-century the rates of growth in both economies had declined to levels sustained in the following decade.

14. For an excellent overview of the Italian economy between 1945 and the mid-1990s, see Rossi and Toniolo (1996).

15. This also finesse the point that pairwise GDP comparisons are usually misleading when Ireland is involved, since they ignore the significant gap between Irish GDP and GNP, due to transfer pricing and the repatriation of royalties and profits by foreign multinationals. In mid-century this gap was insignificant, but by the mid-1980s Irish GDP was only 90 percent of GNP, and today it is only 85 percent. Thus while Irish GDP per head overtook the Italian in 1997-1998, the gap between Irish GNP per head and Italian GDP per head was not closed until 2001.

16. In partial mitigation, over the half century the number of hours worked per employee in Ireland dropped more than in Italy: by 25.8 percent versus 18.9 percent; compare Gordon (2004).

17. An earlier estimate for urban Ireland can be inferred from data on gross weekly household incomes in Irish cities and towns in 1965-1966 (as reported in Geary 1977, 172-175). It implies a G of 0.345 but is not readily comparable to my later estimates.

18. I owe the 2000 Irish estimate to Brian Nolan, who estimated it from the Household Budget Survey.

19. The problems of the Italian South, or Mezzogiorno, have been the focus of a huge literature from a variety of disciplines. For nuanced studies of the Mezzogiorno in the 1990s, with some background on earlier trends, see Barca (2001) and di Vaio (2004).
20. Calculations based on weighted standard deviations yield broadly similar results.

21. Both Irish measures involve splicing data and shifts in definition. The income data splices two series: (1) the 1960–1977 estimates refer to estimates of personal income (which includes transfers). These are mainly the work of Micheal Ross and were originally published by NESC (1980); (2) the 1980–1994 data are taken from Boyle, McCarthy, and Walsh (1999), and the 2000 figure derives from Irish Central Statistics Office (CSO) estimates of disposable income by county, <http://www.cso.ie/releasespublications/documents/economy/2001/regincome_2001.pdf>. The gross value added series combines that of O’Leary (2003) for 1960–1996 with CSO data for 2000, adjusted downward from 0.213 to 0.177 to allow for the effect of transfer pricing. This reflects the gap between O’Leary’s estimate for 1996 (0.156) and the uncorrected CSO data (0.188). I assume that the coefficients of variation changed at a constant rate in years between observations.

References


Harris, W. 1699. A Description of the King’s Royal Gardens at Loo. Together with a Short Account of Holland. London: Roberts.


