Financial and Economic Review, Vol. 23 Issue 1, March 2024, 167–181.

"Respect the past so that you can understand the present and work on the future."

István Széchenyi

Using Stones to Build Stairs – The Story of the Irish Economic Miracle*

Bence Horák

This paper sets out to demonstrate how the poor, famine-stricken Irish economy evolved into a global model economy. The reasons behind that dynamic development and growth are still the subject of professional debate. It stands to reason that the opening of the market with solid foundations, an intense inflow of foreign working capital due to exceptional tax breaks, an English-speaking population, the efficient use of additional resources offered by EU accession, the country's unique geographical location, a highly educated workforce and the solidary inclination of the Irish people have all had a beneficial effect. As a result, what once used to be one of Europe's poorest countries in the 19th century has become one of the world's most productive economies since the turn of the millennium.

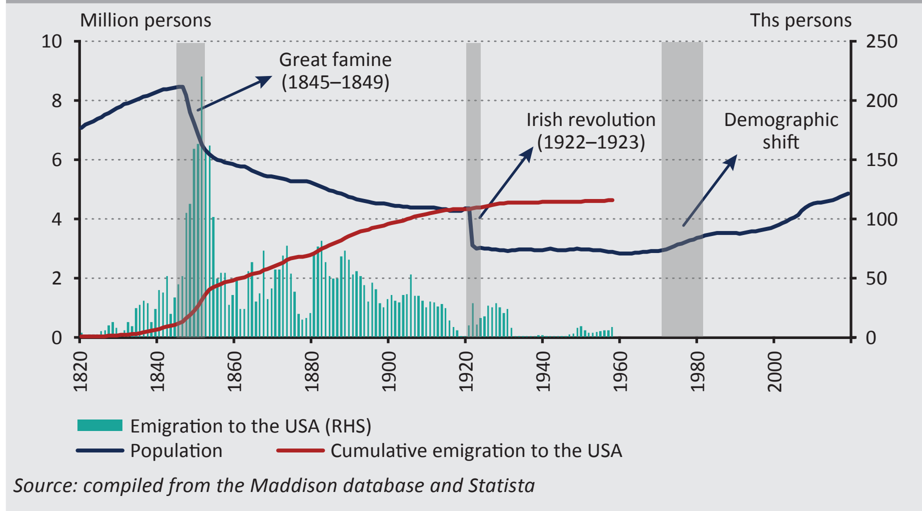
1. Historical background

As a typical Malthusian trap state, throughout the 18th and 19th centuries, Ireland struggled with the dilemma of a growing population and a resulting drop in standards of living. The population of Ireland, a mere 1.9 million in 1700, rose to nearly 8.5 million by the early 1840s. However, the supply of food and raw materials was unable to keep pace with such rapid population growth, which meant that the country was periodically exposed to famines and various epidemics (*Ó Gráda 1993*). The most serious of these was the crisis known as the 'potato famine' or the 'Great Famine' of 1845–1849, which led to a massive wave of emigration, mainly to Anglo-Saxon countries (the United States, the United Kingdom and Australia). Somewhat moderated, the westward migration continued throughout the second half of the 19th century and the first half of the 20th century, which was reflected in a decreasing population trend over those decades (*Figure 1*).

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

Bence Horák: Magyar Nemzeti Bank, Economic Analyst. E-mail: horakb@mnb.hu

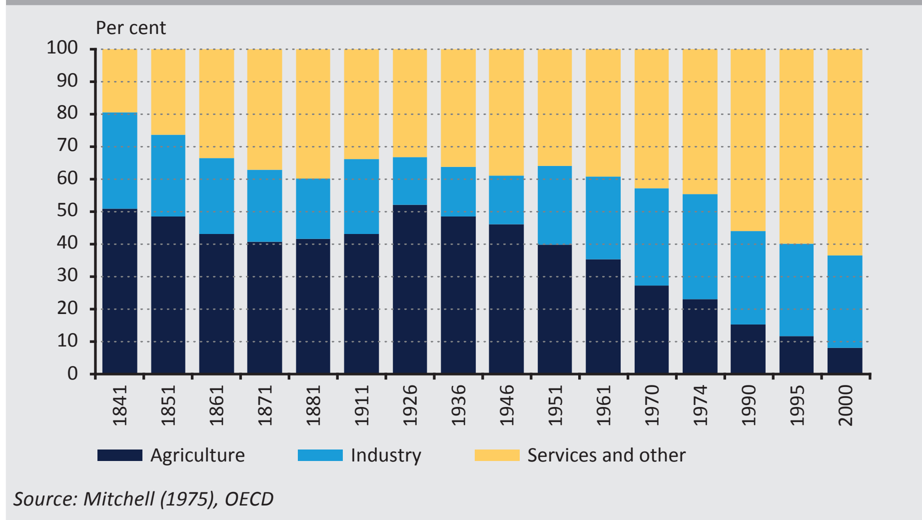
Figure 1
Population trends in Ireland (1820–2018) and the volume of emigration to the United States (1820–1957)



Source: compiled from the Maddison database and Statista

The early 20th century was characterised by a desire for independence from Great Britain, culminating in the foundation of the Irish Free State by the Anglo-Irish Treaty of 1921 and the Irish Civil War of 1922–1923. At the time of the foundation of the modern Irish state, it was essentially a poor agricultural country in comparison to the countries of Western Europe. In addition to agricultural production in this peripheral country, food and textile businesses, owned by small local Irish companies, also emerged (*Figure 2*).

Figure 2
Sectoral distribution of employment in Ireland (1841–2000)



Source: Mitchell (1975), OECD

Despite having achieved national sovereignty, Ireland was still economically largely dependent on the British economy, with the vast majority (90 per cent) of its exports going to the neighbouring country, while four fifths of its imports originated from there (*Daly 2011*). For the first ten years after gaining independence, the Irish banking system and trade relations were still closely linked to London, and the Irish pound, introduced in 1927, was pegged to the British pound sterling (*Murphy 2000*). However, from the 1930s onwards, protectionist measures, including tariffs, quotas and import bans, were used to strengthen domestic industry (*Ryan 1954*). One of the cornerstones was the *Control of Manufactures Act of* 1932, which declared that domestic companies must be under majority Irish ownership. The Act had a negative impact on foreign capital inflows, and domestic capital also continued to flow outwards without restriction through the investment of Irish banks' deposits abroad and the purchase of British government securities (*Murphy 2000*). The Irish manufacturing industry suffered from a severe shortage of resources, resulting in lower productivity and lower growth in the 1940s and 1950s.

2. The first economic policy shift and its initial effects

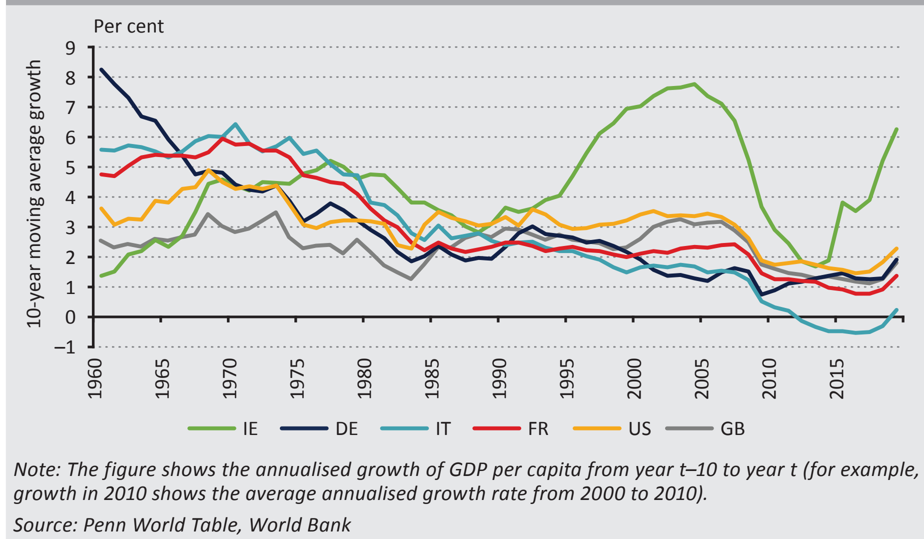
The combined impact of the weight of an agricultural sector generating low added value, the lack of foreign investment and the outflow of domestic capital called for a change in government policies and targeted industrialisation. This process started in 1949 with the establishment of the *Industrial Development Authority* (*IDA*) to boost domestic industry and attract foreign funds, followed by the establishment of the Irish Export Board in 1952. The next step was the abolition of the *Control of Manufactures Act* in 1957 (*Murphy 2000*), which removed restrictions on foreign investors acquiring ownership of companies in Ireland. In the 1960s and 1970s, with the reform of the corporate tax system, the signing of the 1965 Anglo-Irish Free Trade Area Agreement and Ireland's accession to the European Economic Community (EEC) in 1973, Ireland became effectively integrated into global trade, opening the door to foreign working capital. Ireland joined the European Monetary System (*EMS*) in 1979.

During the first phase, a system of export sales relief (*ESR*) was introduced in 1956. Under a decree, industrial companies selling their goods abroad were first exempted from half of the corporate income tax and, from 1960, they were granted full tax relief (*Walsh* – *Sanger 2015*). This regime of subsidies remained in place for nearly two decades, laying the foundations for building fast-growing export-oriented sectors in Ireland, particularly in computer software and equipment manufacturing and international financial services. The first modern corporate tax system was introduced in 1976. It included a favourable corporate tax rate of 10 per cent for companies engaged in industrial manufacturing, as opposed to companies specialising in other activities and in particular to the tax burden in Western European economies, where the general tax rate was as high as 50 per cent (*Walsh* – *Sanger 2015*).

In addition to the establishment of a system of export promotion, the first modern *Special Economic Zone* (*SEZ*) was set up in 1959 near Shannon airport. The special zone operated on the principle that businesses were granted concessions and exemptions from sales tax on imported goods and goods used for the production of export goods. Corporate taxes were also reduced within the special zone. Moreover, businesses were offered grants to support research and development within the zone (*Kennard – Provost 2016*).

As a result of trade liberalisation and structural transformation of the economy, the dynamics of real GDP growth accelerated from the late 1950s (*Figure 3*). By 1961, the share of agricultural employment had fallen to 35 per cent from 46 per cent recorded fifteen years earlier. A shift began, initially towards manufacturing and later towards services (*Figure 2*). FDI inflows reached outstanding levels as a percentage of GDP. Similarly to other developed economies, however, Ireland was adversely affected by the global economic conditions of the 1970s, i.e. the first and second oil price shocks (1973 and 1979). While growth in output slowed down moderately at first, it then fell substantially by the early 1980s. The recession of 1974–1975 called for anti-inflationary economic policies (*Simon 2005*). While the average annual inflation rate in Ireland was close to 14 per cent during the period 1971–1980, the annual increase in consumer prices was more than 10 per cent even including the following decade (*Figure 4*).

Figure 3
Real GDP growth dynamics of some advanced European economies and the US, 1960–2019

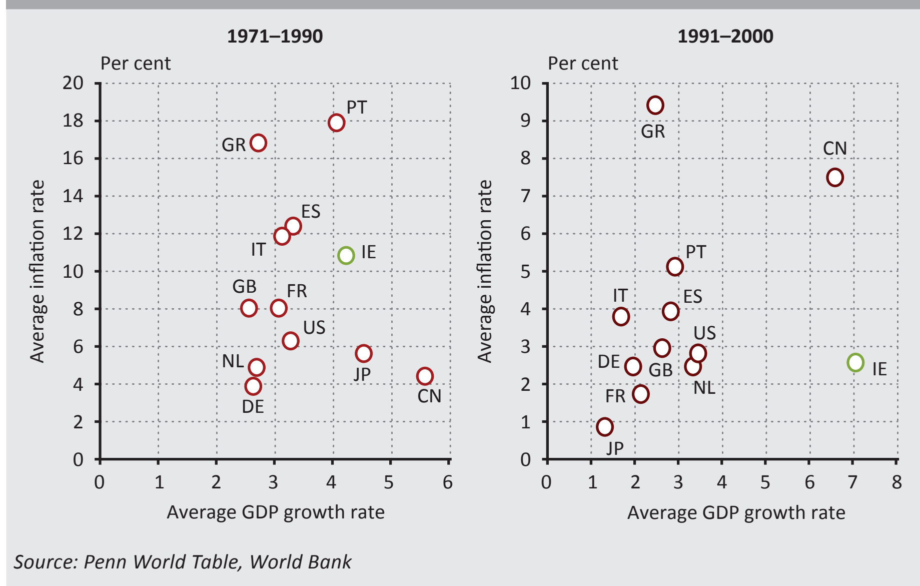


Note: The figure shows the annualised growth of GDP per capita from year t–10 to year t (for example, growth in 2010 shows the average annualised growth rate from 2000 to 2010).

Source: Penn World Table, World Bank

In the first half of the 1960s, the country's improving economic situation and the demographic turnaround led to an increase in the population due to a net positive migration balance, a trend that continued until the late 1970s (*Figure 1*). The surplus of immigrants over the period also increased the proportion of working-age people[1] from 57.7 per cent of the total population in 1967 to 59 per cent in 1982 (*UN 2022*). By contrast, however, rising unemployment due to national wage agreements and deteriorating economic stability from the mid-1970s onwards led to very slow growth in employment. By the 1980s, unemployment remained stagnant at a level in excess of 10 per cent (*Aldcroft – Penelis 1993*), which was one of the highest rates compared to developed economies.

Figure 4
Average inflation and average GDP growth in some developed countries



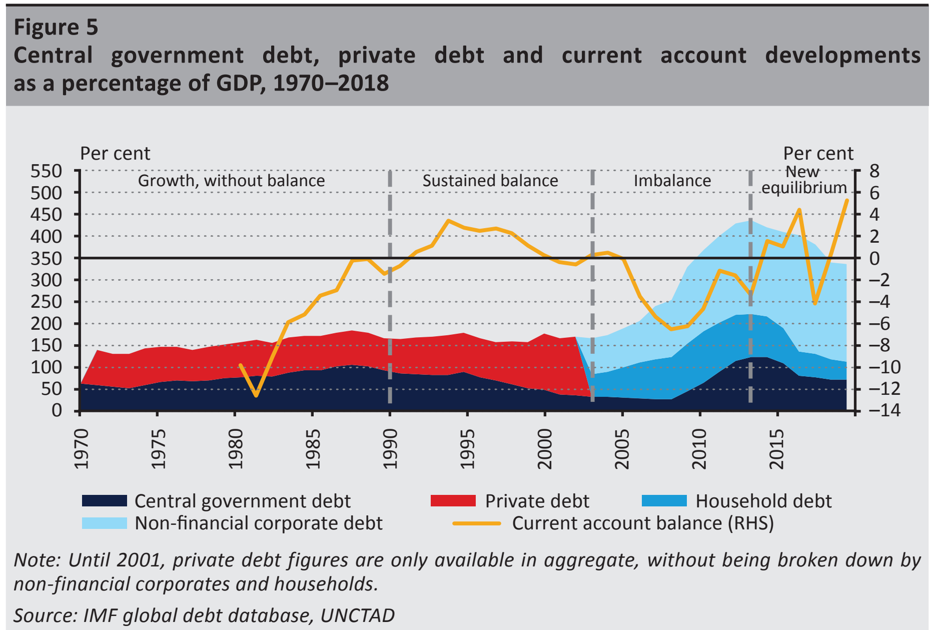
Source: Penn World Table, World Bank

Despite a rising inflow of foreign funds, the economy was still very much reliant on imports. Public spending increased in the first half of the 1980s, with the public deficit amounting to 10.2 per cent of GDP by 1986. The current account deficit averaged more than 10 per cent of GDP between 1980 and 1982, only reaching a balanced position by the middle of the decade. The evolution of the Irish current account can be broken down to several phases during the period under review (*Figure 5*). Adjustments were carried out by the central government at the expense of debt financing, which resulted in central government debt jumping from 52.1 per cent of GDP in 1973 to 104.7 per cent in 1987 (*Figure 5*). The Irish coalition

[1] People aged 15–64

government was unable to respond to the problem with sufficient speed and effectiveness, and the impact of deficit reduction measures only began to be felt from 1987 (*Murphy 2000*). There was a need for economic stabilisation and a new strategic direction, which the government started to develop in 1987.

Figure 5
Central government debt, private debt and current account developments as a percentage of GDP, 1970–2018



Note: Until 2001, private debt figures are only available in aggregate, without being broken down by non-financial corporates and households.

Source: IMF global debt database, UNCTAD

3. The Irish stabilisation programme and a decade of economic miracle

The 1990s and the first years of the following decade ushered in the period of the 'Irish economic miracle' on the island. Economists studying the conditions of intense economic growth and development were divided into two major camps. Some contended that the pivotal factors were the stabilisation programme launched by the Irish government between 1987 and 1993, the symbiotic attitude of the society as a whole and the geographical location of the country, while others emphasised the outstanding significance of Expansionary Fiscal Contraction (*EFC*) as a textbook example of good government policy. In fact, both of the above factors probably had a significant effect.

According to those supporting the EFC view, the fiscal consolidation of the 1980s triggered significant economic activity in the private sector. This implies that the impact of credible fiscal tightening measures was embedded in the private sector's future expectations of taxes and government spending, ultimately inducing much stronger aggregate consumption and investment in the present and leading to

higher economic growth. The economists who subscribe to this theory look to the EFC as the main indicator of development, and have used the failed stabilisation period of 1982–1984 and the positive economic turnaround of 1987–1990 to support their argument. In their analysis, they pointed out that both periods featured similar external conditions due to strong export activity and a downward interest rate bias stemming from a commitment to exchange rate stability, but the outcomes were diametrically opposed (*Giavazzi – Pagano 1990*).

In addition to the fiscal adjustment to boost growth, however, a number of other factors may have contributed to the surge. These include the economic stabilisation programme launched between 1987 and 1993 and the liberalisation efforts (such as the abolition of internal tariff barriers) undertaken in previous decades, which led to an inflow of working capital from the US and, following accession to the EEC, from Western Europe. Another important milestone was the creation of the *International Financial Services Centre* (*IFSC*) in Dublin in 1987, which, as a centre for the financial and insurance sector within the European Union (*Bourke – Kinsella 2001*), has played a key role in financing technological investment by Irish firms and attracting capital from offshore financial companies to Ireland.

Moreover, the overall social consensus among the Irish and the institutions of the central subsystem may also have played a major role in that dynamic convergence. Two social partnership programmes were launched during the period to improve the international perception of the Irish economy, reduce internal inequalities and strengthen social consensus. The *Programme for National Recovery* (*1987–1990*) and the *Programme for Economic and Social Progress (1991–1993*) focused primarily on wage agreements, tax reforms and sectoral objectives (*Simon 2005*). The combined effect of social initiatives and economic policy restructuring was at least as important as the opening up of trade during the 1960s.

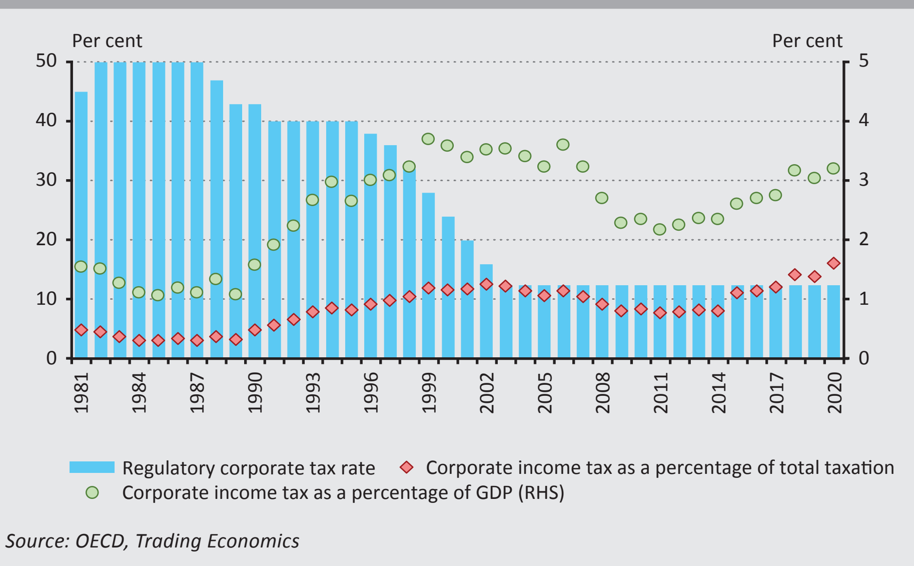
Since the late 1980s, the recapitalisation of the private sector and efficient privatisation have replaced the subsidising of state-owned enterprises among the government's chief priorities. As a result, the share of public sector employment has fallen from 8 per cent to below 3 per cent over two decades. Market liberalisation has been achieved through highly conscious government measures, the cornerstone of which has been the further improvement of investment conditions, as well as a comprehensive education reform resulting in the modernisation of all levels of education from primary to adult education. The increase in capital intensity in both areas has largely been the result of the efficient use of EU funds (*Simon 2005*).

In addition to improving the skills of the domestic workforce, they have been relying on the incubator concept to strengthen economic restructuring. Incubators were initially set up around universities to promote technology transfer and innovative

research, as well as to encourage entrepreneurship (*McAdam – McAdam 2006*). EU funds have been used to support processes of change. Moreover, the government has implemented an intensive investment drive to improve the profitability of production by foreign companies in Ireland. One key to that change has been the flow of resources from low productivity and high labour-intensive sectors to higher productivity and low labour-intensive sectors. The share of agriculture and domestic industrial production in the national economy has declined, despite the fact that foreign ownership of industrial enterprises was a mere 15 per cent in 1993 (*Nagy 2000)*. At the same time, the contribution to the national economy of non-domestic companies has been rising steadily, especially in the more productive sub-sectors of manufacturing. In 1983, foreign firms accounted for nearly 60 per cent of output and nearly 40 per cent of employment, which rose to 82 per cent and 47 per cent respectively by 1998. The two leading sectors were chemicals and machinery, between them accounting for nearly two thirds of value added in the sector and more than half of employment at the turn of the millennium (*Simon 2005)*.

Alongside manufacturing, the IT sector, which is one of the most productive industries, had become Ireland's other leading sector by the second half of the 1990s. During that decade, a number of US high-tech companies (e.g. Intel, Google and Microsoft) opened branch offices in Ireland. In addition to the Irish government reducing corporate tax rates (*Figure 6*) and recapitalising and upgrading the technology of Irish subcontractors working with foreign companies, the presence of a well-educated, English-speaking workforce and an influx of skilled human capital from English-speaking countries and continental Europe helped attract those companies to Ireland (*Figure 8*). Moreover, the country's R&D investment increased from 0.7 per cent of GDP in 1981 to 1.3 per cent in 1994, jumping from two fifths to three fifths of the EU average. This was achieved in the face of a trend of foreign technology companies keeping a significant part of their research activities in their home countries. In 1999, approximately three quarters of R&D resources were spent on innovation in the business sector, while one fifth was received by higher education institutions (*Simon 2005*).

Figure 6
Corporate tax rate and tax on the net profit of companies, 1981–2020



Source: OECD, Trading Economics

The export-oriented economic policies started in previous years have been maintained. Foreign direct investment (FDI) as a share of GDP reached increasingly high levels by the late 1990s. Coupled with dynamic output growth, this resulted in an almost unprecedented inflow of foreign capital. In less than two decades, a massive influx of FDI transformed Ireland into a modern, high-tech economy. Foreign trade was mostly conducted with industrialised and developed countries. While exports to the United States more than tripled, the share of Japan and developing Asian countries also increased severalfold, resulting in a gradual shift in foreign trade away from the United Kingdom.[2] The country reinforced its position as a net exporter. Considering goods and services combined, each calendar year in the 1990s ended with an export surplus, by more than an annual 10 per cent of GDP on average. As the pound sterling depreciated significantly during the British 'Black Wednesday', i.e. the ERM crisis in September 1992, Ireland temporarily lost its favourable export position vis-à-vis the UK economy. As a consequence, the Irish pound was devalued by 10.5 per cent in February 1993 (*Barcza 2001*), which had an additional multiplier effect on the country's advantageous global trading position.

[2] *Direction of Trade Statistics (DOTS), Exports and Imports by Areas and Countries*. IMF. https://data.imf.org/?sk=9d6028d4f14a464ca2f259b2cd424b85

The Irish government recognised the evolving needs of the market for education and specialised human capital development very early on, in the late 1980s. From the mid-1990s, higher education was made free across the board. In academic institutions, engineering and IT courses have been heavily supported through the Industrial Development Agency of Ireland (*Burnham 2003*). By 1996, the share of science and technology graduates among people aged 25–34 was the highest in the OECD countries. The share of people with a secondary school or vocational qualification in the same age group was 66 per cent, as opposed to 30 per cent of those aged 55–64. Of the total workforce, 20 per cent held a university degree in 1991, which grew to over 30 per cent by 2001. Today, Ireland has one of the highest proportions of people with a higher-education degree within the total population aged 25–34 and 55–64, which represent nearly two thirds of the population.[3] The PISA test database, which has been available since 2000, shows that Irish students' reading scores were above the OECD average in every year and that, out of the seven tests, the maths scores of 15-year-old students were also above the OECD average in all but one year.[4]

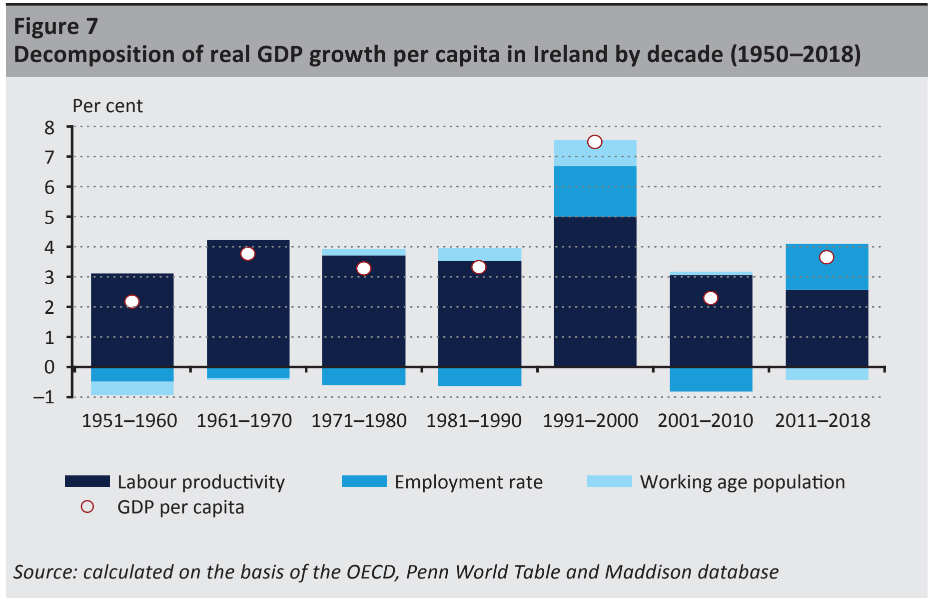
In the 1990s, Ireland achieved unique growth, at a rate previously only observed in East Asia. While average GDP growth in developed countries was decelerating immediately before the turn of the millennium, the Irish growth rate continued to increase rapidly (*Figure 3*). Annual average GDP per capita growth exceeded 7.5 per cent over the decade. During this period, central government debt declined from 86.3 per cent in 1990 to 32.6 per cent in 2002 and the current account balance was in surplus from 1991 to 1999 (*Figure 5*), while the average level of inflation dropped to 2.6 per cent between 1991 and 2000 (*Figure 4*). Moreover, with a permanent reduction in the corporate tax rate, budgetary revenues from corporate income tax continued to increase with each year, both as a share of GDP and as a share of total taxation (*Figure 6*).

A number of factors contributed to the surge in GDP per capita growth in the 1990s, but it is worth noting that Ireland benefited greatly from the demographic dividend of the period. The period was characterised by higher real wage growth compared to advanced economies, accompanied by an improvement in infrastructure and living standards. Labour productivity rose sharply, driven by a large inflow of physical capital and high levels of productivity following the structural transformation of the economy. Net positive migration increased the share of the working-age population and the employment rate rose with the gradual decline in unemployment (*Figure 7*). In a '*growth accounting'* framework based on *Solow* (*1956*) and his model extended by *Mankiw – Romer – Weil* (*1992*), Ireland's dynamic growth over the decade could

[3] *Population with tertiary education (indicator)*. OECD. https://doi.org/10.1787/0b8f90e9-en. Downloaded: 28 December 2023.
[4] For detailed data and results of the PISA tests issued in a given year, visit https://www.oecd.org/pisa/test/.

hypothetically be interpreted as the combined result of quantitative factors (growth in employment and the share of working age population) and qualitative factors (education) of human capital, strong capital inflows and the productivity boom, in contrast to earlier periods.

Figure 7
Decomposition of real GDP growth per capita in Ireland by decade (1950–2018)



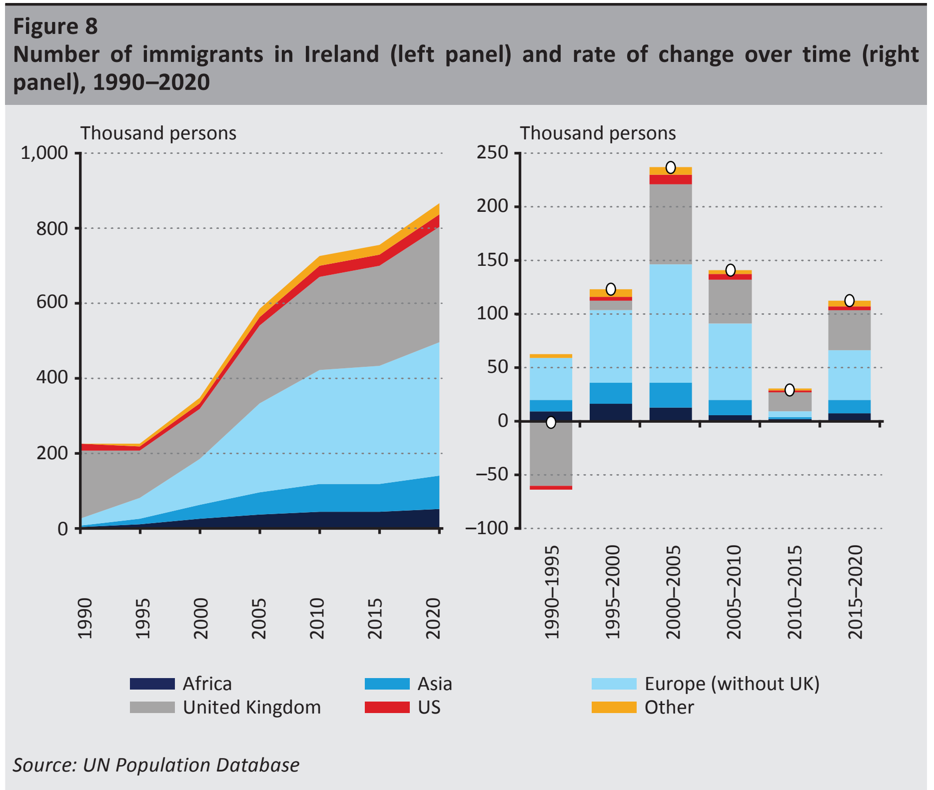
Source: calculated on the basis of the OECD, Penn World Table and Maddison database

The government also capitalised on the potential of the Irish diaspora that had developed organically in developed economies, particularly by revitalising links with communities in the United States. According to some surveys, more than 30 million people in the US, several times the population of Ireland, are of Irish descent. Prior to the 1990s, government support for young Irish people to go overseas to gain experience was seen as a bad thing. After the economic policy shift, however, a boomerang effect developed (*Smith 2023*), in which Irish companies and foreign companies, mainly from English-speaking countries, operating in Ireland were benefiting from a more highly qualified workforce. Irish expatriates induced a buoyant inflow of capital, concentrated in the engineering, tourism and financial services sectors, and particularly in the computing and technology industries, where Ireland has been something of a bridge between Europe and Silicon Valley, as *Stensrud* (*2016*) put it.

Moreover, net population movements exceeded 200,000 between 1992 and 2003. The majority of immigrants were qualified working-age people, mainly from English-speaking countries and continental Europe (*Figure 8*). Population growth was also greatly influenced by the number of Irish citizens returning home from the UK and the US. Between 1990 and 2005, the Irish population decreased by 150,000 in the

UK and by nearly 25,000 in the US. Population growth was therefore driven by people of Irish nationality and with Irish roots returning from developed, mainly English-speaking countries, and the arrival of skilled, working-age immigrants from continental Europe (mainly from Eastern and East-Central Europe) (*UN 2022*).

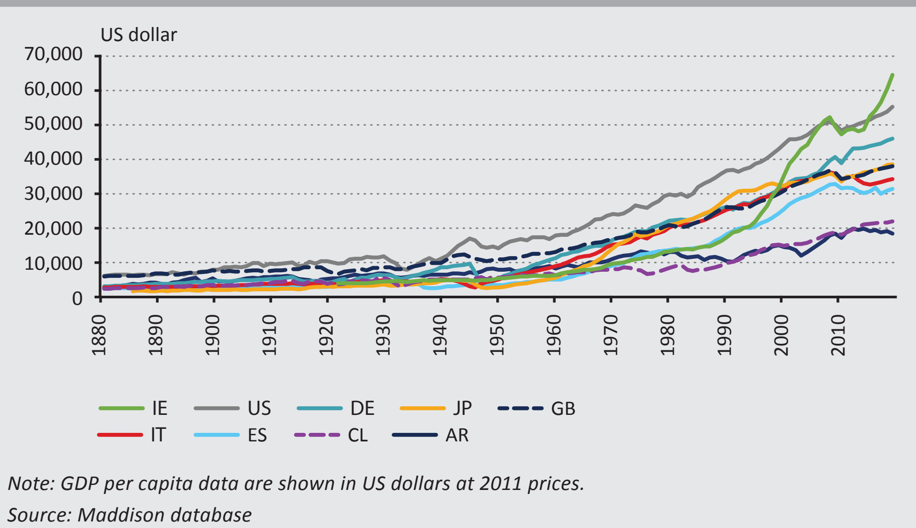
Figure 8
Number of immigrants in Ireland (left panel) and rate of change over time (right panel), 1990–2020



Source: UN Population Database

As a result of the trends that occurred in the 1990s, Ireland's real GDP per capita outstripped per capital real GDP in other Western European economies after the turn of the millennium and, 15 years later, it surpassed that of the United States (*Figure 9*), becoming a benchmark economy for catching up for (semi-)peripheral EU member states.

Figure 9
Trends in real GDP per capita in some countries, 1880–2018



Note: GDP per capita data are shown in US dollars at 2011 prices.
Source: Maddison database

4. Conclusion

Today, Ireland is a global leader in several innovative industries. Its population is growing year after year, and it is among the world's elite in terms of a significant number of key economic and development indicators. This is a highly unique phenomenon for a small and open economy, which could serve as an interesting model for economic policy-makers to adapt in their home countries.

However, it is also clear that the formula is extremely complex, as only a few economies in the world are at the starting point or possess the endowments Ireland had in the first place: a history of Anglo-Saxon industrialisation and infrastructure development, English as the country's native language, a disciplined society with traditions, demographic dividends and relatively early integration into the European economy. Nevertheless, some of the pillars of the Irish economic policy strategy include elements that can be adapted in other countries to generate both intensive and extensive growth in a given period of economic development.

References

Aldcroft, D. – Penelis, G. (1993): *The European Economy 1914–1990*. Third Edition, Routledge, London. https://doi.org/10.4324/9780203450819

Barcza, Gy. (2001*): Írország és a Gazdasági és Pénzügyi Unió* (*Ireland and the Economic and Financial Union*). Külgazdaság (External Economic Bulletin), 45(September): 66–78. https://kulgazdasag.eu/api/uploads/06_barcza_gyorgy_9d372b70a6.pdf

Bourke, P. – Kinsella, R. (2001): *Globalisation, Cross-Border Trade in Financial Services and Offshore Banking: the Case of Ireland*. In: Gardener, E.P.M. – Versluijs, P.C. (eds.): Bank Strategies and Challenges in the New Europe. Palgrave Macmillan, London. https://doi.org/10.1057/9780333992760_11

Burnham, J. (2003): *Why Ireland Boomed.* The Independent Review, 7(4): 537–556. https://www.independent.org/pdf/tir/tir_07_4_burnham.pdf

Daly, M.E. (2011): *The Irish Free State and the Great Depression of the 1930s: the interaction of the global and the local.* Irish Economic and Social History, 38: 19–36. https://www.jstor.org/stable/24338903

UN (2022): *Population Division*. United Nations, Department of Economic and Social Affairs. https://population.un.org/dataportal/data/indicators/46/locations/372/start/1950/end/2022/table/pivotbylocation?df=72583472-84d9-4b4f-80c7-dae96e8727ac

Giavazzi, F. – Pagano, M. (1990): *Can Severe Fiscal Contractions Be Expansionary? Tales of Two Small European Countries*. NBER Macroeconomics Annual, 5, 75–111. https://doi.org/10.1086/654131

Kennard, M. – Provost, C. (2016): *Story of cities #25: Shannon – a tiny Irish town inspires China's economic boom.* The Guardian, 19 April. https://www.theguardian.com/cities/2016/apr/19/story-of-cities-25-shannon-ireland-china-economic-boom. Downloaded: 3 January 2024.

Mankiw, N.G. – Romer, D. – Weil, D.N. (1992): *A contribution to the empirics of economic growth*. Quarterly Journal of Economics. 107(2): 407–437. https://doi.org/10.2307/2118477

McAdam, M. – McAdam, R. (2006): *The Networked Incubator: The Role and Operation of Entrepreneurial Networking with the University Science Park Incubator (USI).* The International Journal of Entrepreneurship and Innovation, 7(2): 87–97. https://doi.org/10.5367/000000006776928663

Mitchell, B.R. (1975): *European historical statistics, 1750–1970.* Palgrave Macmillan London. https://doi.org/10.1007/978-1-349-01088-2

Murphy, A.E. (2000): *The 'Celtic Tiger': An analysis of Ireland's Economic Growth Performance.* EUI Working Paper 2000/16, European University Institute. https://cadmus.eui.eu/handle/1814/1656

Nagy, A. (2000): *Az Európai Unióhoz való csatlakozás hatása Írország külkereskedelmére* (*The impact of accession to the European Union on Ireland's foreign trade*). Külgazdaság (External Economic Bulletin), 44(3): 37–55. https://adt.arcanum.com/hu/view/Kulgazdasag_2000/?pg=234&layout=s

Ó Gráda, C. (1993): *Ireland Before and After the Famine: Explorations in Economic History, 1800–1925.* Second Edition, Manchester University Press.

Ryan, L. (1954): *Protection and the Efficiency of Irish Industry.* Studies: An Irish Quarterly Review, 43(171): 317–326. https://www.jstor.org/stable/30098584

Simon, Gy. (2005): *Az ír "gazdasági csoda"* (*The Irish 'economic miracle'*). Statisztikai Szemle (Hungarian Statistical Review), 83(3): 205–237. https://www.ksh.hu/statszemle_archive/2005/2005_03/2005_03_001.pdf

Smith, N. (2023): *How Ireland got so rich*. Noahopinion Blog, 6 November. https://www.noahpinion.blog/p/how-ireland-got-so-rich. Downloaded: 19 December 2023.

Solow, R.M. (1956): *A Contribution to the Theory of Economic Growth.* Quarterly Journal of Economics, 70(1): 65–94. https://doi.org/10.2307/1884513

Stensrud, C. (2016): *Industrial policy in the Republic of Ireland.* Briefing note, Civitas, October. https://www.civitas.org.uk/content/files/industrialpolicyintherepublicofireland.pdf. Downloaded: 28 December 2023.

Walsh, A. – Sanger, C. (2015): *The historical development and international context of the Irish corporate tax system.* A report commissioned by the Irish Department of Finance Ernst&Young. https://eyfinancialservicesthoughtgallery.ie/wp-content/uploads/2014/11/Historical-Development-and-International-Context-of-the-Irish-corporate-tax-system-2.pdf Downloaded: 10 July 2023.