Executive Summary
Backgrounder
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How Ireland Became the Celtic Tiger

Sean Dorgan

In just over a generation, Ireland has evolved from one of the poorest countries in Western Europe to one of the most successful. It has reversed the persistent emigration of its best and brightest and achieved an enviable reputation as a thriving, knowledge-driven economy.

As a result of sustained efforts over many years, the past of declining population, poor living standards, and economic stagnation has been left behind. Ireland now has the second highest gross domestic product (GDP) per capita within the European Union (after Luxembourg), one-third higher than the EU-25 average, and has achieved exceptional growth.

One of the biggest successes of the Irish economy has been new job creation. From 1990 to 2005, employment soared from 1.1 million to 1.9 million. Economic growth, more jobs, and rising living standards meant the resolution of the emigration problem, which had bedeviled Ireland for generations.

The population increased by almost 15 percent from 1996 to 2005 in a striking reversal of previous trends. In one year alone (July 2004–June 2005), employment increased by 5 percent. Ireland is now seen as the land of opportunity by many workers from the 10 newest EU member states. Its unemployment rate of 4.4 percent is less than half the EU average. Public budgets are in balance, and foreign investment was equivalent to 17 percent of GDP in 2003.

Good Sense and Pragmatism. Ireland achieved success through a combination of sensible policies and pragmatism. At the heart of these policies was a belief in economic openness to global markets, low tax rates, and investment in education. While economic success over the past 15 years can be ascribed to a range of domestic and international factors, it was not a fluke. Ireland has long had, and intends to sustain, low tax rates to attract investment. Its current 12.5 percent corporate tax rate evolved from the zero rate on export sales in the 1950s and the 10 percent rate on manufacturing and some internationally traded services introduced in 1980.

Investment in education has held a central position since the 1960s and has produced a high output of graduates, particularly in science, engineering, and business studies. The creation of an international financial services center in Dublin involved the cooperation between business interests and all parts of the state system that is so characteristic of Ireland. The promotion of competition and good economic management have also been features of public policy in the past two decades. Foreign investment has been universally

This paper, in its entirety, can be found at:
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welcomed and supported by benign policy. Intangible factors, such as creativity and agility, also play a positive role.

Ireland's transformation was national in scope, with individuals, businesses, institutions, and government sharing the same ambition. It involved parents deciding that their children would have choices that they did not have and would not be forced to leave their home communities because of economic necessity. Political decisions were driven and sustained by the public will for success. There were some deviations from sensible policies at times, but through the many difficult years, the threads of consistent development can be seen.

Future Challenges. Recent success gives no assurance for the future, and Ireland does not intend to rest on its laurels. The global forces that Ireland has tamed and turned to its advantage in the past decade continue to drive changes in global businesses. Business models and structures are changing. Ireland has experienced these changes through the leading-edge companies with which it has worked, but each year new companies—some of them virtual—threaten to undermine established activities. As businesses have to reinvent themselves at an accelerating rate, so do countries.

Ireland faces the future with considerable confidence, based on its recent success and the coherence and responsiveness that it has displayed in meeting the needs of international business. It remains ambitious, and it wants to move to ever-higher levels of expertise and performance; hence its rapidly growing and focused investments in research activities.

Conclusion. According to the Organisation for Economic Co-operation and Development (OECD), Ireland has outperformed all other industrialized economies over the past decade, with an average annual growth two to three times that of EU and OECD countries. Independent commentators project that this growth over the next few years will continue to exceed that of other OECD countries, maintaining Ireland's position as one of the world's growth leaders.

Ireland is a trading nation with a global perspective. The Globalization Index study, compiled by international consultants from A. T. Kearney, named Ireland as the most globalized country in the world from 2002 to 2004 and commented that it has the highest degree of economic integration among the developed economies.

This economic openness, combined with low taxes, pragmatism and ambition, further investment in education, and a continuing eye to the future, will be critical to maintaining the momentum for success. Ireland's experience shows that hard work and good policy can bring rewards.

—Sean Dorgan has been Chief Executive of IDA Ireland since January 1999. Before joining the IDA, he was Secretary General of Ireland's Department of Industry and Commerce and Department of Tourism and Trade, as well as Chief Executive of the Institute of Chartered Accountants in Ireland. He is also Chairman of the Governing Body of Dublin Institute of Technology and a member of several other government-appointed boards.

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As a result of sustained efforts over many years, the past of declining population, poor living standards, and economic stagnation has been left behind. Ireland now has the second highest gross domestic product (GDP) per capita within the European Union (after Luxembourg), one-third higher than the EU-25[1] average, and has achieved exceptional growth. (See Chart 1.)

One of the biggest successes of the Irish economy has been new job creation. From 1990 to 2005, employment soared from 1.1 million to 1.9 million. (See Chart 2.) Economic growth, more jobs, and rising living standards meant the resolution of the emigration problem, which had bedeviled Ireland for generations.

The population increased by almost 15 percent from 1996 to 2005 in a striking reversal of previous trends. In one year alone (July 2004–June 2005), employment increased by 5 percent. Ireland is now seen as the land of opportunity by many workers from the 10 newest EU member states. Its unemployment rate of 4.4 percent is less than half the EU average. Public budgets are in balance, and foreign investment was equivalent to 17 percent of GDP in 2003.

Ireland achieved this success through a combination of sensible policies and pragmatism. At the heart

Talking Points

- Ireland has become one of Europe's most remarkable success stories, evolving from one of the poorest countries in Western Europe to one of the most successful.
- By the mid-1950s, Ireland's policy of economic nationalism was clearly failing, producing economic stagnation and emigration that were in stark contrast to other, fast-recovering economies of postwar Europe.
- Over the past decade, Ireland has outperformed all industrialized economies with an average annual growth two to three times that of the EU and OECD, has solved its emigration problem, has reduced unemployment to 4.4 percent, and has balanced the budget.
- Ireland achieved this success through sensible policies and pragmatism. At the heart of these policies was a belief in economic openness to global markets, low tax rates, and investment in education.

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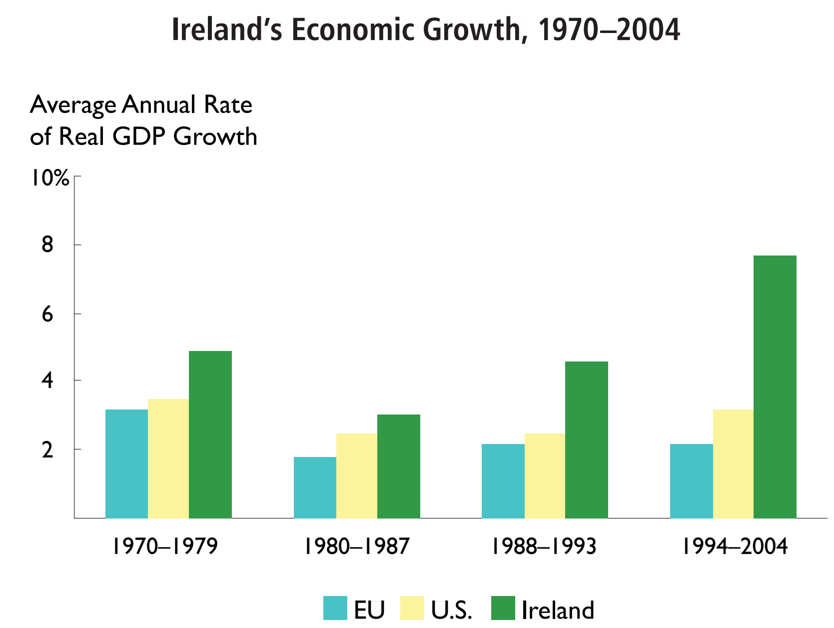
Chart 1 B 1945



Source: Ireland Central Statistics Office and Organisation for Economic Co-operation and Development, Economic Outlook.

Ireland's transformation was national in scope, with individuals, businesses, institutions, and government sharing the same ambition. It involved parents deciding that their children would have choices that they did not have and would not be forced to leave their home communities because of economic necessity. Political decisions were driven and sustained by the public will for success. There were some deviations from sensible policies at times, but through the many difficult years, the threads of consistent development can be seen. This paper explains how the transformation occurred.

Economic Nationalism

For a generation after achieving independence from the United Kingdom in 1922, Ireland sought to be economically self-sufficient. It relied on small-scale agriculture, exporting primary produce to the U.K. market and manufacturing mainly for the home market of less than 3 million people. Trade barriers such as high tariffs and a policy of import substitution sought to make this reliance on economic nationalism successful. Inevitably, it failed.

Ireland's population was just short of 3 million people when the new state was established in 1922. It fell marginally each decade thereafter until the 1950s, when 400,000 people (one-seventh of the population) emigrated in a single decade. (See Chart 3.) There could be no clearer evidence of the failure of economic policies and opportunities and of the inadequate fulfillment of national aspirations.

By the mid-1950s, it was clear that economic nationalism was not sustainable. The stagnation and emigration, and the despondency they caused, were in stark contrast to other, fast-recovering economies of postwar Europe. As a result, radical policy change was introduced, and the previous protectionism was abandoned in favor of openness, driven by the need for progress from an intolerable position that offered few prospects for economic success.

The policy changes were drawn together in *Economic Development*, an official paper published in 1958 that overturned much previous policy thinking by advocating free trade, foreign investment, productive (rather than mainly social) investment, and growth rather than fiscal restraint as the prime objective of economic management.[2] In 1956, to

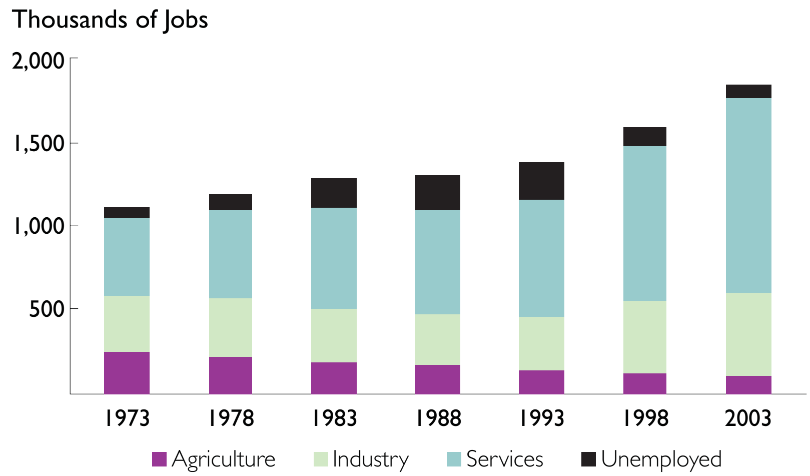
1. The current 25 member states of the European Union.

spur business development, tax relief on profits from export sales from Ireland was offered for the first time. In 1958, all controls on foreign ownership of businesses were lifted.

In the early 1960s, Ireland unilaterally lowered its import tariffs and started to negotiate a free trade agreement with the U.K. This agreement was concluded in 1965, and Ireland joined the General Agreement on Tariffs and Trade in 1967. In 1961, Ireland expressed its ambition to join the European Economic Community (EEC), which had been founded by the six member states in the previous decade. The U.K. had the same ambition, but this was thwarted by a French veto for some years, and Ireland's application did not proceed. The U.K., Ireland, and Denmark finally joined the EEC in 1973.

Chart 2 B 1945

Employment by Sector and Unemployment, 1973–2003



Source: Ireland Central Statistics Office.

These policy changes were facilitated by a transition from the generation that had won independence (although Sean Lemass, the political leader who made the most changes in a few years, was himself part of that generation) and by Ken Whitaker, the young and forward-looking head of the civil service, who led the Department of Finance from 1956 to 1969. Whitaker was the primary author of *Economic Development*.

The Transition to Openness

More open markets spurred improved economic performance in the 1960s, compared to the previous decade. Annual average growth in national income—both GDP and gross national product (GNP)—was 4.2 percent. The Industrial Development Authority (IDA) sought out new modern industry overseas, which benefited from the attractions of abundant English-speaking and low-cost labor and the exemption from corporation tax of all profits from exports. Pfizer, which established its first plant in 1969, was one of over 350 overseas companies that set up in Ireland by 1970.

However, this progress did not initially spur employment or stop emigration. In fact it came at a price: Many companies that had been set up in earlier years to serve the small closed national market were uncompetitive in the face of free trade. Moreover, Ireland still depended heavily on agriculture, which had low output and income levels, and the migration of people from the land was greater than job creation in new businesses. As a result, there was no net increase in employment in the 1960s, and net emigration from the country continued, although at a lower rate than in the 1950s.

The role of the state also increased during the 1960s. Public expenditure grew from 32 percent of GNP in 1960 to 42 percent in 1973. Social services and education, in particular, expanded with the state. The Organisation for Economic Co-operation and Development (OECD) sponsored an influential

2. T. K. Whitaker, *Economic Development* (Dublin: Stationery Office, 1958).

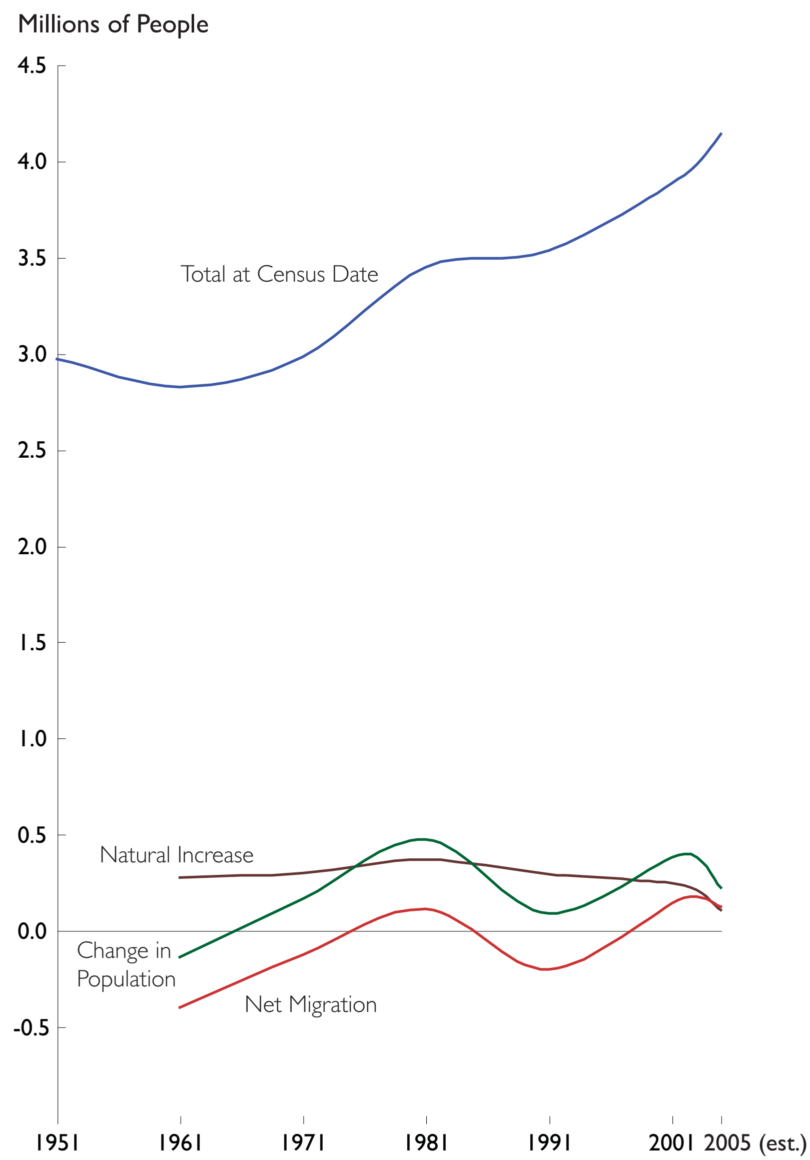
report on education in Ireland, *Investment in Education*, which was published in 1965. This report emphasized that education was key to the future of Ireland's society and economy. Although not directly recommended in the report, beginning in 1967, the state paid for all secondary schooling and transportation to school. This measure resulted in a rapid rise in the level of education attained by the younger population.

Attempts were made to adjust to the new openness. The National Industrial and Economic Council, comprising government, business, and other interests, discussed the challenges of restructuring industry now faced with free-trade competition. Underlying the extensive processes of consultation and engagement was a clear commitment to change, even if that change had inevitable problems and costs.

With hindsight, the path to openness was irreversible, although it may not always have seemed so at the time. The establishment of the first (state-owned) television service in 1960 quickly facilitated debate on, and sometimes a questioning of, long-established societal norms and values. The country, which had been introspective and highly sensitized by its history, now began to see the possibilities that others enjoyed.

Chart 3 B 1945

Population of Ireland, 1951–2005

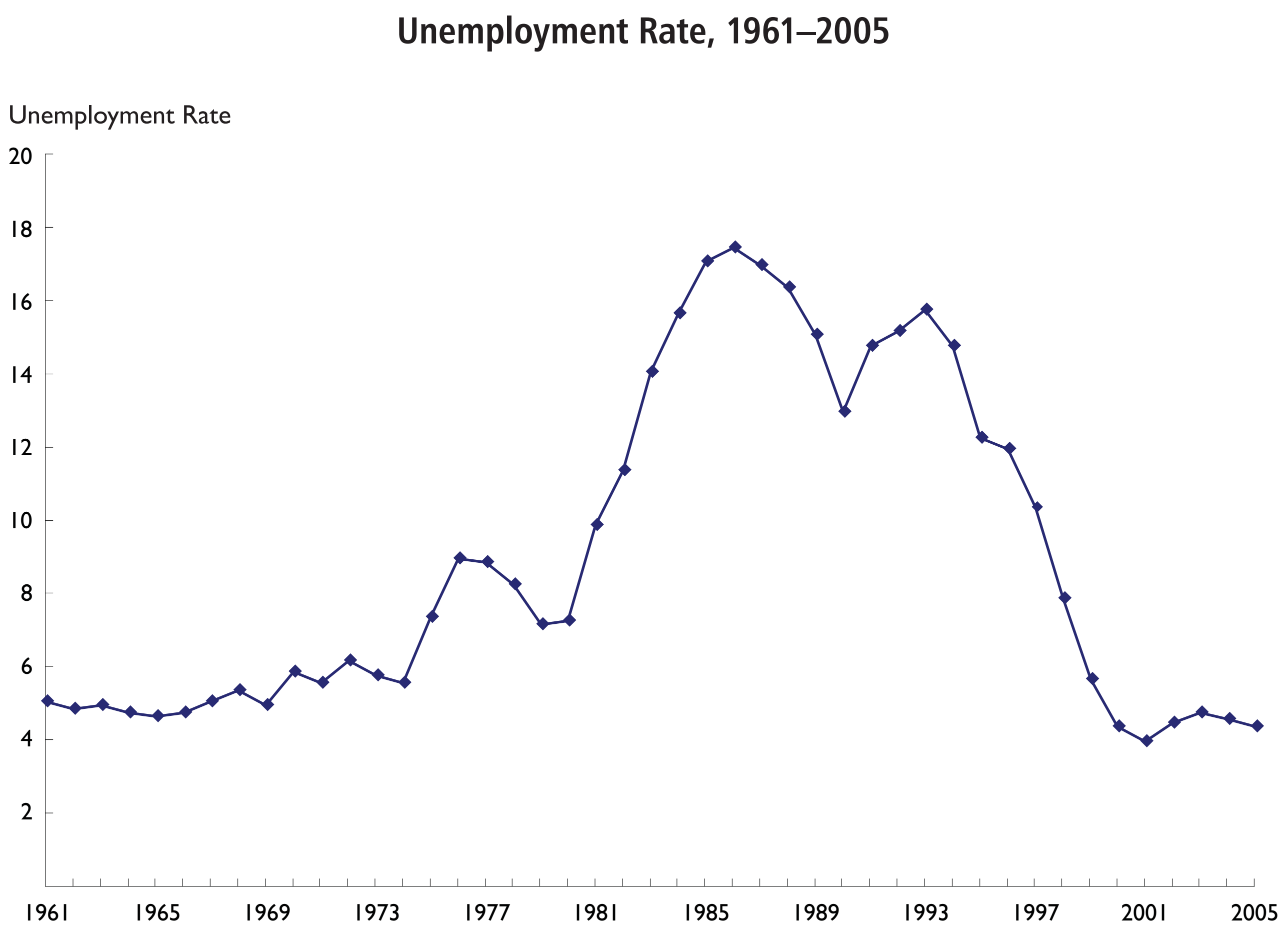


Source: Ireland Central Statistics Office.

Joining Europe and Going Forward

When Ireland joined the EEC in 1973, its confidence and sense of its own status grew. Now it could deal with large and successful states as a partner, no longer burdened by its colonial history. Business now had free access to a much larger market, and exports could be diversified away from dependence on the U.K. Moreover, through the EEC's Common Agricultural Policy, agriculture gained from access to wider markets at good prices. An improvement in Ireland's living standards and prospects lifted spirits.

Chart 4 B 1945



Source: Ireland Central Statistics Office and U.N. International Labour Organization.

The 1970s reversed past trends. For the first time since independence, the population increased, rising by 15 percent for the decade. National income increased at a sustained annual rate of about 4 percent. Unlike previous decades, employment increased by about 1 percent per year, although a large part of this increase was in the state sector, contributing to financing problems in subsequent years.

The IDA played a central role in the new drive for success. While still funded by the state, the IDA was established in 1970 with its own board, staff, and operating freedoms, separate from the Department of Industry and Commerce of which it had been a part. It was the first dedicated state agency in the world to undertake a massive and sustained campaign to establish a modern manufacturing base by attracting large-scale foreign investment.

The IDA adopted pragmatic, business-like, focused marketing methods. The key decision was to focus on companies that represented the future—high technology, high output, and high skills. The main targets included the computer industry, pharmaceuticals, and medical technology, followed by international services. Soon investments were won from leading companies, including Amdahl, Baxter Travenol, Digital, Merck Sharpe, Wang, and Warner Lambert. All of these companies were persuaded of the value of using

Ireland as an export platform to serve Europe and other markets. By 1975, more than 450 foreign-owned industrial projects, covering a wide range of manufacturing sectors, accounted for two-thirds of Ireland's total industrial output.

While the new multinational companies brought success, many older indigenous businesses had considerable difficulty in adjusting to the new open trading conditions. An apparent dichotomy in the performance of new and old, foreign and Irish companies would be the subject of debate and some policy reassessment in the following years.

The 1970s also saw a rapid expansion in public (state) expenditure on social welfare, health and education, housing, telecommunications and other infrastructure, and administrative services. Public-sector employment represented a third of the total workforce by 1980, partly because jobs were created to deal with rising unemployment, which stood at 9 percent of the workforce in 1977.

All of this happened against a backdrop of high inflation, which averaged 13.6 percent per year from 1971 to 1980 and was driven partly by international factors such as oil crises and partly by domestic demand and an expansionary fiscal policy. Public budget deficits and high public borrowing were features of the latter years of the decade, creating the basis for the crises that erupted in the 1980s.

Crises Accumulate

Unsolved, the underlying economic problems of the 1970s rolled over into the 1980s, producing disappointment. The causes were the return of high unemployment, emigration, steady worsening of the public finances, and the seeming inability of any government to manage the nation's affairs and find a solution to the worsening situation. The atmosphere of the 1980s was more redolent of the dark years of the 1950s than of the optimism that had permeated the two decades in between.

The feeling of failure was exacerbated by the waves of emigration of young people, just as in a generation earlier. Whole classes of university graduates would frequently leave the country. There was a disheartening drain of human capital. A net 200,000 people left from 1981 to 1990. In the worst years, more than 1 percent of the country's population fled. This was not what the policies of the previous 25 years had been designed to achieve. What had gone wrong?

A number of internal and external factors were conspiring to slow down progress and undermine confidence. Global conditions were weaker after the oil shocks of the 1970s. The momentum from EEC entry had faded. Persistent inflation averaged close to 11 percent per year between 1981 and 1986. Jobs created by new foreign investment, while substantial, were inadequate to employ the growing workforce and counter the failure rate of older businesses.

Attempts at government intervention proved to be no better. Continued increases in public spending, tax increases, and deficit financing through borrowing soured the investment climate and failed to raise employment while increasing the drag on the underperforming economy.

Between 1980 and 1986, total government expenditure grew from 54 percent to 62 percent of GNP, and public debt increased from 87 percent to 120 percent of GNP while annual budget deficits exceeded 10 percent of GNP. Over one-third of all tax revenue (over 90 percent of income tax revenue) was being used to service this debt. Meanwhile, the economic dependency ratio rose to 2.3 persons per person employed in 1985, and unemployment stood at 15 percent.

While the IDA continued to attract foreign investors (IBM, Lotus, Microsoft, and Bausch & Lomb, among many others) into the 1980s, some high-profile failures of recent investments raised questions about this strategy. In particular, a specially commissioned investigation by Telesis on behalf of the National Economic and Social Council (NESC) raised some troubling issues.[3]

Telesis found that the value of inward investments tended to be overstated—employment prospects were too often exaggerated at a time of high unemployment—and that promised linkages to the

3. National Economic and Social Council (Dublin), *Telesis: A Review of Industrial Policy*, 1982.

domestic economy were frequently weak. It also criticized what it saw as an excessive attention to overseas companies relative to indigenous businesses. While initially stung, the IDA responded well to the report and increased its attention to Irish-owned industry.

The political parties were not successfully addressing the gathering gloom. Fianna Fail, the opposition party since 1982, won the general election in 1987. When in government in the late 1970s, Fianna Fail had been largely responsible for the excessive and misguided public spending. This time, however, the party tried a different path. On election to government in 1987, they surprised many, including their own supporters, with a program of severe cuts in expenditure accompanied by some novel consensus-building and developmental measures. Within a few years, these steps began to show dividends, helped by a coincidence of other factors.[4]

Recovery and Success

Smaller government became part of the road to success. There was surprise with the first moves to cut spending severely across a range of programs and abolish a number of government agencies. These steps were strongly criticized initially, especially when they seemed to affect (state-provided) health and social services, but the depth of the budgetary crisis allowed the momentum to be sustained. The government was assisted by a consensus that had been built in the NESC, comprising business, farming, trade union, and social interest groups. The main opposition party, whose leader had been minister for finance before the election, also supported any measures that restored fiscal discipline.

A second element of the new government's action plan was moderate wage increases in return for modest reductions in direct income taxes, in effect allowing take-home pay to increase more than the pay raise granted by employers. This three-year Program for National Recovery involved government itself, employers, unions, and farmers. This helped to break the spiral of inflationary wage increases and ensured industrial peace. The program also served to create agreement on the nature of the crisis facing the state and on steps needed to deal with it. The wider benefits of consensus on development priorities and the shared efforts involved to achieve national goals proved to be of lasting value, and similar national partnership agreements have been put in place repeatedly up to 2005.

While cutting back on spending, the government took steps to promote business investment. A notable example was the adoption of a proposal to create the International Financial Services Centre (IFSC) in the old Docklands area of Dublin. The successful development of the IFSC shows the strength of cooperation between business interests and all parts of the state system that is such a strong characteristic of Ireland.

Development steps in financial services and other sectors were assisted by a series of investments in telecommunications from the 1980s onward, although the sector remained largely state-owned until the late 1990s. Late entry to heavy investment in this sector ultimately served Ireland well in that it provided the most advanced and comprehensive digital network in Europe (much as the relevance of the education system was also greater as a result of its late expansion).

The promotion of competition also gave an impetus to development. Ryanair, a low-cost airline similar to Southwest Airlines in the United States, gained access in 1985 to the Dublin–London air route, which had been controlled by the duopoly of Aer Lingus and British Airways, both of them state-owned airlines. The new competitor drastically cut fares and expanded the market by 65 percent in two years. Within a few years, tourist numbers and revenue grew, and the obvious benefits of competition were extended to other previously regulated activities and sectors. Ryanair today is still run from Ireland and continues its rapid growth throughout Europe. Using the low-

4. For a detailed account, see Ray MacSharry and Padraic White, *The Making of the Celtic Tiger: The Inside Story of Ireland's Boom Economy* (Dublin: Mercier Press, 2000).

cost, low-fares model, it has the largest passenger numbers of all European airlines.

Improved economic management and the more favorable economic conditions generally created a suitable backdrop for attracting further foreign investment to Ireland. In 1989, Intel Corporation decided to build its first European manufacturing center in Ireland after years of courtship by the IDA. The available strong cadre of Irish engineering talent, most of them dispersed globally among leading electronics companies but traced by the IDA, was a key factor in winning the decision. The investment was notable for its size, the leading-edge technology involved, and the credibility that it gave Ireland in advanced manufacturing.

When the 1990s dawned, Ireland had created an environment for growth and benefited from a number of external factors. Globalization and rapid technological advances spurred the industries in which Ireland was strong and could offer further competitive advantages. The U.S. economy surged, and U.S. businesses in high-growth sectors—including Microsoft, Dell, Hewlett-Packard, and IBM—saw Ireland as an attractive location for serving the increasingly integrated European market.

These developments and others were assisted by a holistic view of industrial policy proposed by an official review entitled *A Time for Change* (known as "Culliton" after the name of the review chairman) that was published in 1992.[5] This review stressed the importance of education, technical skills, infrastructure, and the general business environment—rather than direct agency interventions alone—to business success and economic development. Culliton also proposed establishing a new agency, separate from the IDA, to support the development of indigenous Irish business.

Success in the 1990s highlighted another ingredient: the management skills, ambition, and global orientation of Irish managers in multinational corporations. Their performance in fulfilling their mandates gave them opportunities to win new strategic responsibilities. This strategic deepening was especially valuable when many information technology businesses stalled in 2001, sparing many Irish subsidiaries from retrenchment because of their performance and strategic importance.

Some external observers are inclined to ascribe a large part of Ireland's success in the 1990s to EU economic transfers, but their role can be overstated. EU membership has been very positive for Ireland, providing market access, enhancing Ireland's national status, and contributing to the budget. While net receipts from the EU averaged 4 percent of GDP over an extended period, studies have shown that these contributions added about 0.5 percent per year to the growth rate, while the growth has averaged over 6.5 percent per year since 1987.[6] Comparable transfers were made to other poorer EU states, such as Greece, Portugal, and Spain, but none of these countries achieved similar growth.

Making Connections

Ireland's success over the past two decades is not the result of any one factor, but of many. It invested in education, adopted sensible tax and fiscal policies, was open to and encouraged foreign investment, and achieved and sustained a national consensus. It made connections between all these aspects and used the unique and intangible creative assets that are part of its culture to enhance the virtuous circle. It is worth reviewing the key aspects in a little more detail.

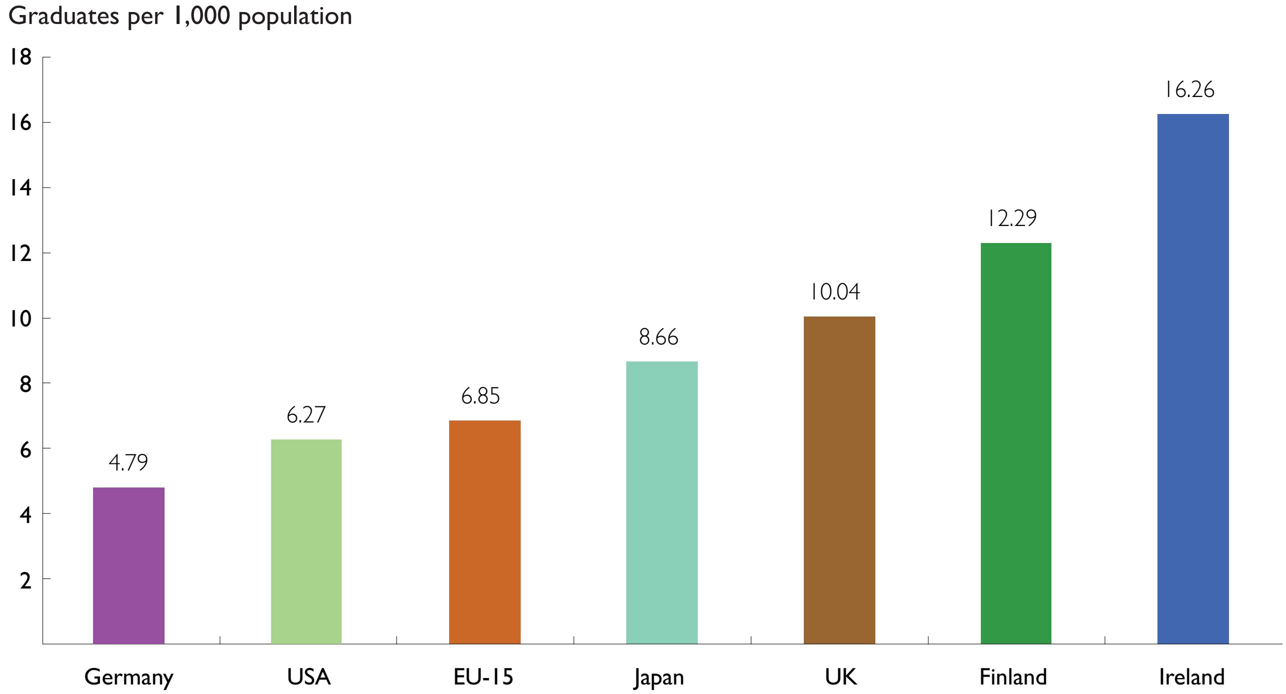
Education. The people of Ireland have assiduously invested in human capital over the past 40 years. Ever since the OECD published *Investment in Education* in 1966, education has had a central position in Ireland's development policies. How-ever, even before that, edu-cation had a high societal value. Parents sought to give their children the best education available, regardless of their own circumstances. The advent of free secondary (high school) education in 1968 and higher-level technical training in Regional Technical Colleges,

5. Industrial Policy Review Group, *A Time for Change: Industrial Policy for the 1990s* (Dublin: Stationery Office, 1992).

6. Frank Barry, John Bradley, and Aoife Hannan, "The Single Market, The Structural Funds and Ireland's Recent Economic Growth," *Journal of Common Market Studies,* Vol. 39, No. 3 (2001), pp. 537–552.

Chart 5 B 1945

Science and Engineering Graduates Age 20–34 in 2000



Source: European Commission, *Third European Report on Science & Technology Indicators, 2003*, March 2003, at *europa.eu.int/comm/research/press/2003/pdf/indicators2003/reist_2003.pdf* (February 15, 2006).

beginning about the same time, significantly boosted participation rates and was very powerful in meeting the demands of the developing economy.

Ireland has an unusual demographic pattern in European terms: Almost 40 percent of its population is age 25 or under compared to 30 percent in almost every other country in Europe. This pattern developed as a result of the years of emigration and a late baby boom. The number of births peaked in 1980, about 20 years after other developed countries. The later start in national education worked through the 1970s and 1980s to turn out a good number of well-educated young people in the 1990s.

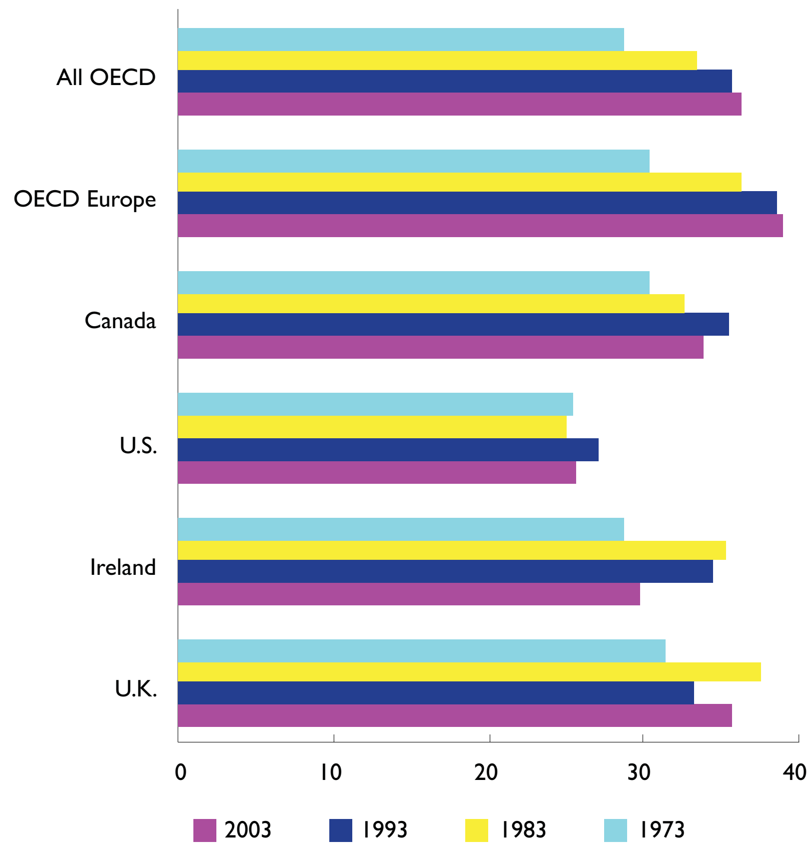
In the 15 years from 1965–1966 to 1980–1981, the numbers of students in both secondary and third-level (university or equivalent) education doubled. The number in third-level trebled again in the following 20 years (to 2000–2001), a more than six-fold increase in 35 years. As important as the numbers involved was the quality of the learning and its relevance to economic and social development and to business. The greatest increases in higher-level education were in technical and vocational subjects, largely in Regional Technical Colleges (which later became Institutes of Technology), and in science, engineering, and business studies in universities. During the high-emigration years of the 1980s, concern was expressed that Ireland was educating its young people for the benefit of other countries, but as internal policies improved, the rewards became clear during the following decade when many migrants returned with relevant expertise.

The binary or dual system of higher education—with universities fulfilling a primarily academic mission and with colleges and institutes providing technical and vocational skills—has served economic and business needs very well. Institutes of Technology in particular have been highly responsive to local business and regional development needs. The combined efforts of both types of institutions have given Ireland the world's highest endowment of young science and engineering graduates: 16 graduates per thousand population in the 20–34 year age group, compared with less than seven per thousand in the U.S. and EU-15[7] and less than five per thousand in Germany. (See Chart 5.)

Since the late 1990s, with the transformation in Ireland's relative competitiveness, a new emphasis has been placed on deepening science and research expertise. A national Technology Foresight exercise identified information and communications tech-nology and biotechnology as key enabling technologies of the future. Based on this, the government established Science Foundation Ireland (SFI), modeled on the National Science Foundation (NSF) in the U.S., to attract world-class research in these areas to Ireland. With considerable public funding, great progress and a welcome new reputation for research have been achieved. There is a wide public understanding of the value of this development.

Chart 6 B 1945

Total Tax as a Percentage of GDP, 1973–2003



Source: Organisation for Economic Co-operation and Development, Revenue Statistics of OECD Member Countries, 1965–2004.

Taxation. Today, Ireland is known for having the lowest standard corporate tax rate in Europe. For 50 years, Ireland has benefited from low taxation, both in absolute levels of tax and particularly in the rates applied to business profits. OECD statistics show that Ireland now has by far the lowest tax burden relative to GDP of all Western European countries and is below the OECD average. (See Chart 6.) This burden reflects in large part the rapid growth of the tax base that the low tax rates have made possible.

Ireland has a history of using its tax system innovatively to attract and develop international businesses.[8] The first duty-free zone in the world was set up in Shannon in 1947.

Interestingly, the current low corporate tax rate is Ireland's response to EEC/EU efforts to undo earlier

7. The 15 member states of the EU before the 2004 expansion.

8. See Frank Barry, "Tax Policy, FDI and the Irish Economic Boom of the 1990s," *Economic Analysis and Policy* (Queensland, Australia), Vol. 33, No. 2 (2003), pp. 221–236.

beneficial tax advantages. In 1956, relief was offered on all profits on exports from Ireland. When this approach was questioned under EEC rules, Ireland introduced in 1980 a 10 percent tax rate on profits from manufacturing and a defined range of international service activities. A further challenge from the EU regarding the differential nature of this low rate (non-qualifying profits were taxed at a rate as high as 50 percent) led to an announcement in 1997 that a maximum rate of 12.5 percent would apply to all corporate trading profits beginning in 2003.

In every case in which companies moved from a lower preferential rate to a higher rate, a long transition period was allowed. Those who benefited from zero tax on export sales prior to 1980 were able to continue the benefit until 1990. Those who had the 10 percent manufacturing tax prior to 1998 will not move to the higher 12.5 percent rate until 2011. The long-run certainty attached to these low rates has been a fundamental feature of Irish policy, which has been implemented consistently by all governments. The advantage for business of the low tax rate is enhanced by a wide network of double-taxation agreements, favorable treatment of foreign dividends, and supportive administrative rules.

The effect of low rates is evident in the relatively high proportion of all tax revenue that is received from corporate profits. Corporate income taxes account for 13 percent of all tax revenue in Ireland as compared to 6 percent in the U.S., 8 percent in the U.K., 7 percent in France, 3 percent in Germany, and 9 percent in the OECD as a whole.[9]

The advantages of low taxes were not as clearly understood in relation to personal taxation until the 1990s. In the 1980s, governments seeking more revenue to achieve fiscal balance pushed personal tax rates higher. The results were perverse: Higher rates caused more evasion and avoidance of tax and drove some activity offshore or into the black economy, thus reducing tax revenue even further.

One of the actions of the government elected in 1987 was to grant an amnesty to tax defaulters, which brought in a windfall boost in revenue and broadened the tax base. Since then, personal tax rates have been reduced progressively from a base rate of 35 percent to 20 percent and from a top rate of 58 percent to 42 percent. Tax bands (brackets) have also been broadened so that the higher rate now applies to higher income levels than before. The power of low rates was also shown when the 40 percent capital gains tax rate was halved in 1999 to 20 percent and revenue increased by 50 percent in one year and by 270 percent over three years.

Foreign Investment. Through the IDA, Ireland was a first global mover to seek foreign direct investment and to create the open, liberal, supportive business context to nurture it.[10]

U.S. Department of Commerce figures show that, over decades, U.S. companies in Ireland have achieved the highest after-tax returns on their investments in Europe—between 20 percent and 30 percent per year on average, well ahead of the return rates in all other locations.[11] This is driven by competitive costs combined with high productivity and supported by low corporation tax. The U.S. has been the main source of foreign investment, accounting for about two-thirds of all investment projects and over 80 percent of capital invested. Other investment sources have been Germany, the U.K. and other European states, and Japan.

The operating environment is highly supportive of international businesses. Because of the country's relatively small size, its government is open, accessible, and responsive. Ireland's economic dependence on trade—exports are equivalent to over 85 percent of GDP—drives the public policy agenda to a considerable extent. It favors trade-enhancing measures globally, unrestricted capital flows, and an extensive range of double-taxation

9. Organisation for Economic Co-operation and Development, Revenue Statistics, 2004.

10. See Frank Barry, "Export Platform FDI: The Irish Experience," European Investment Bank *EIB Papers*, Vol. 9, No. 2 (May 28, 2004), pp. 8–37, at *www.eib.eu.int/Attachments/efs/eibpapers_v09n02_en.pdf* (March 14, 2006).

11. U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. Direct Investment Abroad: Balance of Payments and Direct Investment Position Data," updated March 15, 2006, at *bea.gov/bea/di/di1usdbal.htm* (March 21, 2006).

agreements, which facilitate foreign earnings by protecting income from being taxed twice. Both corporate and employment legislation are liberal in their approach and flexible in operation, supporting business development.

Ireland has tended to specialize in a few high-growth and high-productivity sectors that the IDA identified in the 1970s as having considerable potential. The IDA set out to build relationships with the leading companies in these areas, to understand their needs, and to match Ireland's capabilities to them. As a result, the leading companies in information and communications technology—Intel, IBM, Hewlett-Packard, and Dell—all have major activities, employing 4,000 to 5,000 people each in Ireland. Intel has invested over $6 billion in four wafer fabrication plants on its largest site outside the U.S., which is also a launch site for its most advanced microprocessors.

Nine of the world's top 10 pharmaceutical companies and 12 of the world's top 15 medical products companies have substantial operations in Ireland serving global markets. Satisfaction is proven by continual reinvestment. Abbott Laboratories, Johnson & Johnson, Pfizer, and Wyeth each have multiple locations in Ireland. Boston Scientific and Medtronic are part of a rapidly growing cluster of cardiac and vascular device companies.

In the 1980s, the IDA was early to understand the significance and value of internationally traded services. It sought out software companies like Microsoft and Oracle with the result that Ireland has become in recent years the world's largest software exporter. Leading banks, insurers, and fund managers were persuaded of the advantages of Dublin for financial services. The IDA also showed international companies how pan-European shared service centers could be operated from Ireland, taking advantage of the availability of bright multilingual young people, agile business conditions, and the favorable tax rate. Ireland moved quickly to become a leading European hub for e-business. In recent years Google, Yahoo, eBay, and Amazon have set up significant and growing centers in Ireland to serve Europe and beyond.

Michael Dell has summed up the relationship between Ireland and the multinationals in these words:

> I don't think it's coincidence that Ireland and Dell share the same character and connection. Every success we've achieved around the world has been due to the old Irish recipe of big dreams, hard work and strong relationships.[12]

Some Intangible Advantages. Ireland's outstanding performance can be explained in quantitative economic terms, but intangible factors have undoubtedly also contributed to recent success. Ireland has an innate creativity, which has been manifested in literature and music, and a curiosity that is interested in others and seeks to build relationships. Ireland is now open to the world, not only in trade terms, but also in thought and attitudes. The old, enclosed, inward-looking, conservative Ireland is dead and gone. Today's younger generation has a well-grounded confidence created by the country's new role in Europe since 1973 and by the high-quality education that they have received.

There has been consensus on development policies among all political parties—left, center, and right—all of which have been in government in recent years. The Irish are a pragmatic people who are intensely political, but they have little or no ideology. They are solution seekers who have an innate ability to empathize and to influence. International research has shown that they have a greater tolerance of ambiguity and a greater ability to handle it than most other peoples. This, combined with the noted Irish creativity, may be of special value in the modern, fast-moving world in which quick, instinctive solutions are needed for new problems when imperfect information is available.

Future Challenges

Recent success gives no assurance for the future, and Ireland does not intend to rest on its laurels. The global forces that Ireland has tamed and turned to its advantage in the past decade continue to drive

12. Michael Dell, remarks at the University of Limerick, Ireland, May 29, 2002, p. 1, at *www.dell.com/downloads/global/corporate/speeches/msd/2002_05_29_limerick.pdf* (March 9, 2006).

changes in global businesses. Business models and structures are changing. Ireland has experienced these changes through the leading-edge companies with which it has worked, but each year new companies—some of them virtual—threaten to undermine established activities. As businesses have to reinvent themselves at an accelerating rate, so do countries.

Developed countries will depend on increasingly sophisticated knowledge-based activities to facilitate the businesses of the future and sustain high-value and high-income jobs. The economic transformation inherent in these changes will represent considerable challenges for all advanced countries and give new opportunities to newly developing states that can move quickly to offer the skills needed by the new global economy.

Ireland faces the challenge of anticipating and adjusting promptly to these global changes. It does so with considerable confidence, based on its recent success and the coherence and responsiveness that it has displayed in meeting the needs of international business. It remains ambitious, and it wants to move to ever-higher levels of expertise and performance; hence its rapidly growing and focused investments in research activities.

Conclusion

According to the OECD, Ireland has outperformed all industrialized economies over the past decade, with an average annual growth two to three times that of EU and OECD countries. Independent commentators project that this growth over the next few years will continue to exceed that of other OECD countries, maintaining Ireland's position as one of the world's growth leaders.

Ireland is a trading nation with a global perspective. The Globalization Index study, compiled by international consultants from A. T. Kearney, named Ireland as the most globalized country in the world from 2002 to 2004 and commented that it has the highest degree of economic integration among the developed economies.[13]

This economic openness, combined with low taxes, pragmatism and ambition, further investment in education, and a continuing eye to the future, will be critical to maintaining the momentum for success. Ireland's experience shows that hard work and good policy *can* bring rewards.

—Sean Dorgan has been Chief Executive of IDA Ireland since January 1999. Before joining the IDA, he was Secretary General of Ireland's Department of Industry and Commerce and Department of Tourism and Trade, as well as Chief Executive of the Institute of Chartered Accountants in Ireland. He is also Chairman of the Governing Body of Dublin Institute of Technology and a member of several other government-appointed boards.

13. A. T. Kearney and Foreign Policy, Globalization Index, 2002–2004.