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## Miracle on Kildare Street: What Ireland's Economic Revival Means for Arizona

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### EXECUTIVE SUMMARY

An official from India, explaining his country's long embrace of socialism but more recent move toward free-market capitalism, provided a rather frank explanation for the change of heart: "The fact is that one of the lessons you learn from history is that history sometimes teaches you the wrong lessons."<sup>1</sup>

Recently, there has been a great deal of effort to draw historical lessons for Arizona from the remarkable economic success of Ireland. Irish economic history over the past couple of decades has been extraordinary. Beginning in the mid-1980s, Ireland transformed its economy from a European backwater into the "Celtic Tiger" by achieving impressive rates of economic growth. Government non-interest spending declined, from a high of about 55 percent of gross national product (GNP) in 1985 to about 41 percent of GNP by 1990. The top Irish tax rate dropped from 65 percent in 1985 to 44 percent in 2001. The standard income tax rate dropped from 35 percent in 1989 to 22 percent in 2001. Ireland's sound fiscal policy fueled an economic boom that both increased wealth and reduced poverty.

Unfortunately, some in Arizona have been drawing the wrong lessons from Ireland's economic success. In particular, various Arizona commentators have made a concerted effort to attribute the Irish economic miracle to government investment in biotechnology. This narrative represents revisionist history at its worst. Ireland's boom began *many years before* substantial biotechnology investments were made. In fact, Irish economic growth slowed substantially after the formation of Science Foundation Ireland in 2000. The most significant policy changes during Ireland's transformation were the slashing of government spending and tax decreases that dramatically increased the economic freedom of Irish workers, entrepreneurs, and investors. Arizona would do well to follow the real Irish path to economic growth, rather than an imaginary one.

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### ***Introduction***

In the 1980s, Ireland was a relatively poor nation, a European economic backwater with a per capita gross domestic product (GDP) that was only 63 percent that of the United Kingdom.<sup>2</sup> But a succession of cuts in government spending and tax rates drove per capita income to \$25,500 (US) by the end of the 1990s, higher than both that of the United Kingdom at \$22,300 and that of Germany at \$23,500.<sup>3</sup> From 1990 through 1995, Ireland's GDP increased at an average rate of 5.14 percent per year.<sup>4</sup> From 1996 through 2000, GDP increased even more rapidly at an average rate of 9.9 percent.<sup>5</sup>

*If Arizona is to emulate Ireland's success, it is crucial that policymakers understand the true origins of Irish growth.*

Ireland's success commands attention from other regions looking to develop, including Arizona. In particular, Gov. Janet Napolitano and Arizona State University president Michael Crow have singled out the Irish recipe as a model for development in Arizona.<sup>6</sup> The Arizona Science Foundation hired Science Foundation Ireland's chief executive, William C. Harris, in March 2006, promising to emulate Ireland's economic success in Arizona. The *Arizona Republic* reported that "Arizona has snared one of the leading players in Ireland's storied economic revival to head a new Valley foundation designed to boost and attract scientific research and talent."<sup>7</sup> Once on board, Harris testified to the Arizona Senate that a similar government-backed bioscience push "boosted Ireland's economy and, in less than five years, made it the envy of Europe."<sup>8</sup> The Arizona

Legislature eventually appropriated \$35 million for the bioscience effort, and Governor Napolitano signaled that she would seek further public funds in the future.<sup>9</sup>

If Arizona is to emulate Ireland's success, it is crucial that policymakers understand the true origins of Irish growth. The following section briefly explains the reforms that allowed for Ireland's dramatic growth. Next, this paper examines Arizona's current situation in light of the Irish experience, highlighting those reforms that can be productively adopted and those policies that advocates have mistakenly attributed to Ireland's success.

### **Ireland's Real Story**

Since Ireland's independence in 1921, the Irish government had played a relatively large role in the economy. During the 1960s and early 1970s, Ireland moved to a freer trade regime, lowering tariff barriers with Britain, its main trading partner, and the rest of the world. However, there was no sustained movement toward a more free-market economy. In reaction to oil shocks in the 1970s, the government actively engaged in Keynesian-style fiscal policy remedies. Particularly, after 1977, the government initiated an unsustainable fiscal expansion, causing public-sector borrowing to rise from 10 to 17 percent of GNP, despite increased taxation.<sup>10</sup> Many categories of

government spending increased between 1977 and 1981: National pay agreements brought about wage and salary growth, public bodies took on more staff to try to reduce unemployment, transfer payments increased, and an ambitious program of public infrastructure expansion caused capital spending to rise.<sup>11</sup>

In the early 1980s, the Irish government introduced tax increases to try to solve its budget problems. Through these increased tax rates on labor and consumption, the government was able to cut the primary deficit in half. However, with high real interest rates and slow growth, the debt-to-GDP ratio continued to climb, and by 1984, further tax increases were not considered a viable solution to Ireland's fiscal situation.<sup>12</sup> By 1986, the level of accumulated debt was 116 percent of GDP.<sup>13</sup> These high levels of government debt, interest payments, and expenditures put the Irish government in a dire fiscal position.

A radical policy shift was needed to solve Ireland's fiscal crises. The newly elected prime minister, Charles Haughey, had not followed a policy of limited government while previously in office from 1979 to 1982. In fact, his policies played a part in creating the crisis.<sup>14</sup> Prior to the 1987 reforms, Prime Minister Haughey and the incoming Fianna Fail government had campaigned on a populist platform against cutting public spending. It was the urgency of the fiscal crisis, not an ideological shift, that led to a changed policy. As Lane notes, "The fiscal adjustment program was broadly based and non-ideological. Rather, there was a wide consensus that

drastic action was the only option, with the alternative being a full-scale debt crisis requiring external intervention from the IMF [International Monetary Fund] or EU [European Union]."<sup>15</sup> Prime Minister Haughey himself said, "The policies which we have adopted are dictated entirely by the fiscal and economic realities. I wish to state categorically that they are not being undertaken for any ideological reason or political motives [but because they are] dictated by the sheer necessity of economic survival."<sup>16</sup>

Ireland was a member of the European Monetary System (EMS) and had just successfully cut its rate of inflation from 19.6 percent in 1981 to 4.6 percent in 1986, and, therefore, monetizing the debt through inflation was not a viable option.<sup>17</sup> Tax increases had already failed to resolve the crisis in the early 1980s. With both inflation and tax increases ruled out, reducing government expenditures was Ireland's only option.

To bring Ireland's budget under control, a variety of spending programs were cut. Health expenditures were cut by 6 percent; education, 7 percent; agriculture, 18 percent; and roads and housing, 11 percent. Allocations to the Industrial Development Authority, Marketing Board, and Tourist Board were also reduced. The military budget was also cut by 7 percent. Foras Forbatha, an environmental watchdog, was abolished, as were the National Social Services Board, the Health Education Bureau, and the Regional Development Organizations. Through early retirement and other incentives, public-sector employment was voluntarily cut by 8,000

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to 10,000 jobs.<sup>18</sup>

After cutting government spending in 1987, a budget was set for 1988, which had the biggest spending cuts Ireland had seen in 30 years. According to the *Economist*, “In cash terms, current spending in 1988 will be 3 percent down on 1987 and capital spending 16 percent.”<sup>19</sup> The reductions in government spending rescued Ireland from its fiscal crisis. The primary deficit was eliminated in 1987 and the debt-to-GDP ratio fell sharply from its 1986 peak. By the end of 1990, government debt was less than 100 percent of GDP.<sup>20</sup>

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Although the reductions in government spending were made to solve the fiscal crisis, over the course of a few years, they reduced the size of the government’s role in the economy. Government non-interest spending declined from a high of about 55 percent of GNP in 1985 to about 41 percent of GNP by 1990.<sup>21</sup>

With the government reducing its role in the economy, the macroeconomic environment stabilized, and with the free-trade policies that had existed for decades, Ireland’s economy began to grow. GDP was growing at a rate of 4 percent by 1989,<sup>22</sup> which was more than double the 1.9 percent growth that Ireland had averaged between 1973 and 1986, when the government had been pursuing activist fiscal policies. However, the 4 percent growth is not nearly as remarkable as the “Tiger” growth experienced in the late 1990s. The government made further policy changes between 1990 and 1995 that helped to bring about an even higher rate of growth.

Once Ireland resolved its fiscal problems, there was the possibility that it could again begin to engage in reckless expansionary fiscal policies. The signing of the Maastricht Treaty in 1992 helped to make Ireland’s commitment to sound fiscal policies more credible. The treaty required members to maintain fiscal deficits below 3 percent of GDP and to set a target of a 60 percent debt-to-GDP ratio by the start of the European Economic and Monetary Union in 1999. This agreement constrained Ireland’s ability to issue debt for the expansion of government spending.

Another way to finance an increase in government spending is through inflation. Ireland has been a member of the EMS since its establishment in 1979. Membership to the EMS has fixed the exchange rate between the Irish currency and that of the other EMS members, limiting Ireland’s ability to pursue an expansionary monetary policy. Although there have been several changes in the fixed rates, since 1979 Ireland has typically pursued low rates of monetary growth.

With commitments limiting the government’s ability to fund increased spending through inflation or debt issue, increased taxation is the only other available method. Traditionally, it has been harder to increase government spending through taxation because it is a more obvious burden to voters. Therefore, such limitations have helped to assure investors that the government is not likely to engage in another dramatic increase in spending.

Ireland had a top marginal tax rate of 65 percent in 1985. During the 1990s, both

personal and corporate tax rates decreased dramatically, and tariff rates continued to decline. In 1989, the standard income tax rate was lowered from 35 percent to 32 percent, and the top marginal rate was cut from 58 percent to 56 percent.<sup>23</sup> By 2000, the standard rate had been reduced to 24 percent, and the top rate to 46 percent. These rates were further reduced in 2001 to 22 percent and 44 percent, respectively (see Figure 1).<sup>24</sup>

The standard corporate tax rate fell from 40 percent in 1996 to 24 percent by 2000.<sup>25</sup> Ireland also created a special 10 percent corporate tax rate for manufacturing companies and companies involved in internationally traded services or located in Dublin's International Financial Services Centre or in the Shannon duty-free zone.<sup>26</sup> Ireland came under pressure from the European Commission to eliminate the special 10 percent corporate tax. In an agreement with the European Commission, Ireland promised to raise the special 10 percent rate but also to lower the standard rate. In 2003, the standard rate was lowered to 12.5 percent, and the 10 percent rate was no longer offered to new firms. Firms already receiving the 10 percent rate will keep the 10 percent rate until they are phased into the new tax rate between 2005 and 2010 (see Figure 2). Overall, the elimination of the special rate should be beneficial to Ireland's economy because it will cut the standard corporate tax rate nearly in half and will eliminate the bias to particular industries and areas that the special 10 percent rate created.

Because of the many decreases in tax rates and the growth of the Irish

economy, Ireland now enjoys a lower tax burden than any other EU country, except Luxembourg. Ireland's total tax revenue in 1999 (including social security receipts) was 31 percent of GDP, much lower than the EU average of 46 percent.<sup>27</sup>

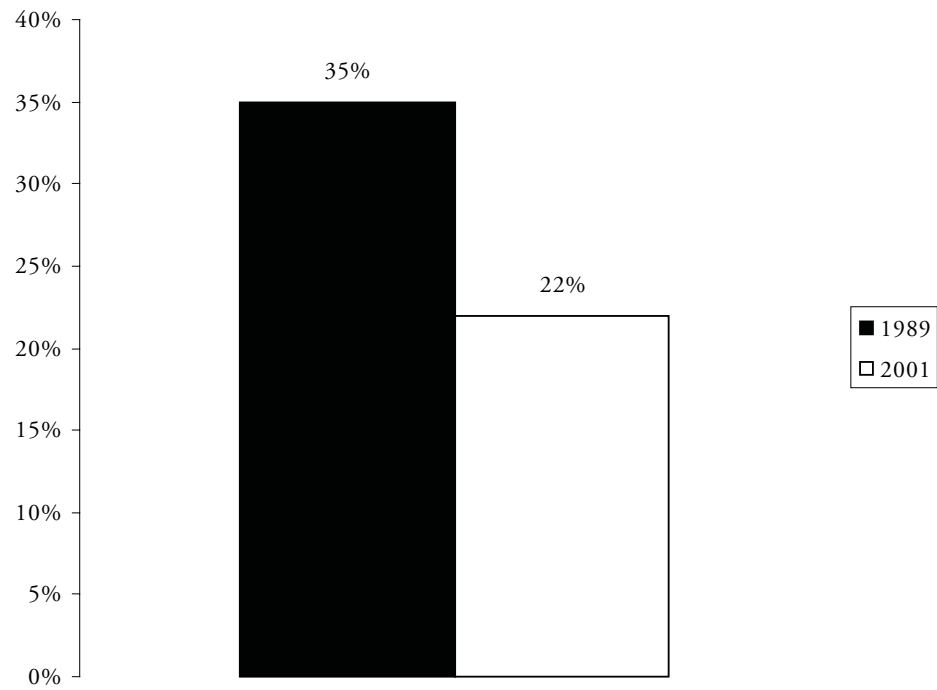
From 1987 through 2000, Ireland closed and surpassed its living standard differential with the rest of Europe. There was strong growth in the early part of the 1990s and remarkable "Tiger" growth in the late 1990s when GDP growth averaged 9.9 percent. The policies undertaken during this period were not the sole cause of the growth that has taken place but rather are better viewed as the final missing piece, which when put in place, allowed the broader cause of economic growth to take hold.

Government actions that hinder citizens' ability to engage in mutually beneficial exchanges limit the standard of living that the people are able to achieve. Restrictions on international trade and domestic regulations interfere with mutually beneficial trades. Taxes and inflation take wealth away from citizens that could have been used to increase their well-being. Legal security and the rule of law give people the confidence that when they undertake long-term projects for mutual benefit, the government or other citizens will not be able to arbitrarily seize their increased wealth. As the Irish government interfered less with the economic freedom of its citizens, the nation's per capita GDP increased rapidly.

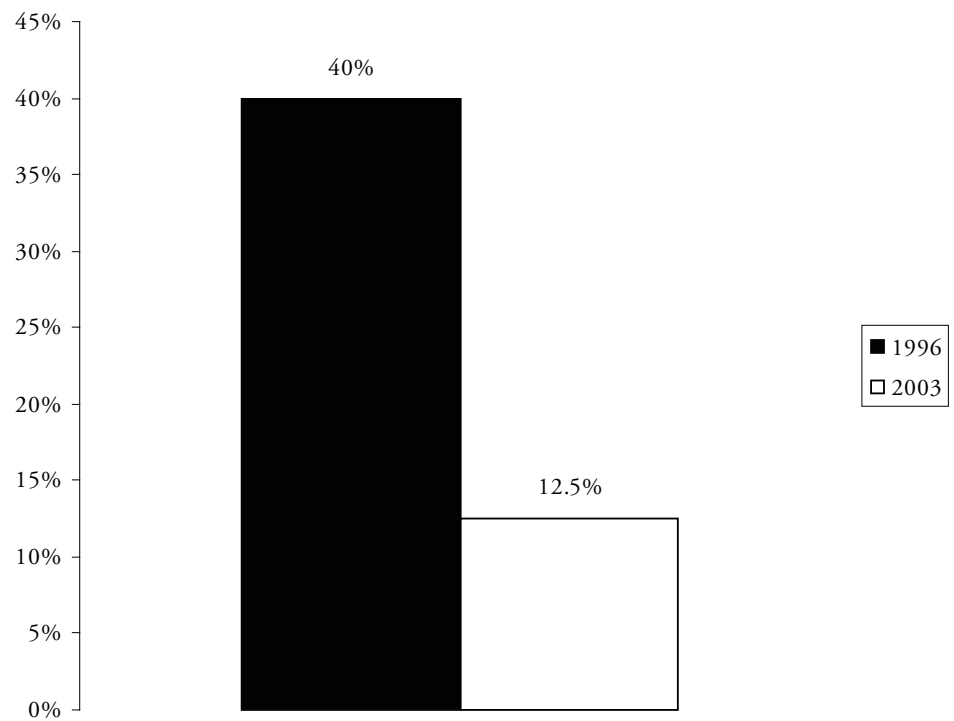
Some aspects of economic freedom have been present in Ireland for a long

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**Figure 1: Irish Tax Cuts—Standard Personal Income Tax Rates**



**Figure 2: Irish Tax Cuts: Standard Irish Corporate Tax Rate—1996-2003**



time. After the protectionist decade of the 1950s, when economic growth averaged only 2 percent a year, the 1960s saw the liberalization of trade policy, which increased economic freedom and growth, averaging 4.2 percent over the course of the decade. The 1970s saw further advances in the liberalization of international trade, but at the same time the government began to engage in Keynesian interventionist fiscal policies that interfered with citizens' economic freedom, and growth stagnated. During the early 1980s, high inflation, fiscal instability, a high level of government spending, and high taxation all limited economic freedom, resulting in an average growth rate of only 1.9 percent from 1973 to 1986. The contraction in the level of government spending in response to the fiscal crises increased economic freedom, and growth resumed. The further tax reductions of the 1990s, and credible commitments not to engage in a reckless expansion of government spending, have continued to increase economic freedom today. Never before had all of the components of economic freedom been present simultaneously in Ireland, and never before had such great improvements in economic freedom occurred simultaneously in Ireland.

The above description of economic policies that increased economic freedom is reflected in the Fraser Institute's *Economic Freedom of the World* annual report.<sup>28</sup> This report is the most comprehensive index measuring economic freedom. It looks at 37 distinct pieces of data in five major categories: government size; legal structure and security of property rights; sound money; free international trade; and

regulation of credit, labor, and business. The index ranks countries, beginning in 1970, over five-year intervals with scores ranging from 1 (least freedom) to 10 (most freedom). In 1970, Ireland had an overall summary rating of 6.7. The rating fell to 5.8 in 1975, and by 1985, it had increased slightly to 6.3. During the initial reforms after the fiscal crisis, Ireland's freedom score began to improve. By 1990, when Ireland's economic growth also began to pick up, Ireland's score had increased to 6.7. When Ireland was experiencing its rapid "Tiger" growth in 1995, it was the world's fifth freest economy, and in 2000, it was the seventh freest economy, achieving scores of 8.2 and 8.1, respectively. Ireland improved its scores in all five of the freedom index's broad categories between 1985 and 2000, the period during which Ireland achieved its rapid growth. Since 2000, both reforms and growth have stalled. From its high of 8.2 and rank of fifth freest economy, Ireland's economic freedom score has slid back slightly to 7.9, and its rank has dropped to eighth. Ireland's relatively high level of economic freedom allows it to continue to grow, although at a more modest pace than its rapid growth in the 1990s.

Ireland's experience is consistent with much research showing the importance of economic freedom for development. Countries with higher freedom scores tend to have higher standards of living and higher growth rates than those countries with lower scores. Most of the dramatic development success stories over the past 50 years have embraced policies that granted higher levels of freedom, including those of Hong Kong, Singapore, Taiwan,

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Japan, and South Korea.<sup>29</sup> Even the more recent success of China and India is consistent with Ireland's experience.<sup>30</sup> Although neither China nor India scores as highly in economic freedom as Ireland, the two countries have improved their freedom scores more than any other country in Asia. Absolute levels of freedom are important, but large improvements regardless of the starting point can generate growth, too. Ireland succeeded so dramatically because it achieved such a high level of freedom while simultaneously making such large improvements.

*However, Science Foundation Ireland played no role in Ireland's dramatic economic growth. The fund was only created in 2000, and by then, most of Ireland's dramatic growth had already occurred.*

Other factors, such as an educated English-speaking population and access to the European market, undoubtedly had a positive impact on Ireland's growth. But Ireland had been educated and English speaking for a long time with little growth. Plenty of other countries increase education and do not achieve significant growth improvements. The key lesson for Arizona and other regions to learn from Ireland is to embrace markets by making improvements in economic freedom so that private enterprise can drive the engine of economic growth.

### **Applying Ireland's Lessons to Arizona**

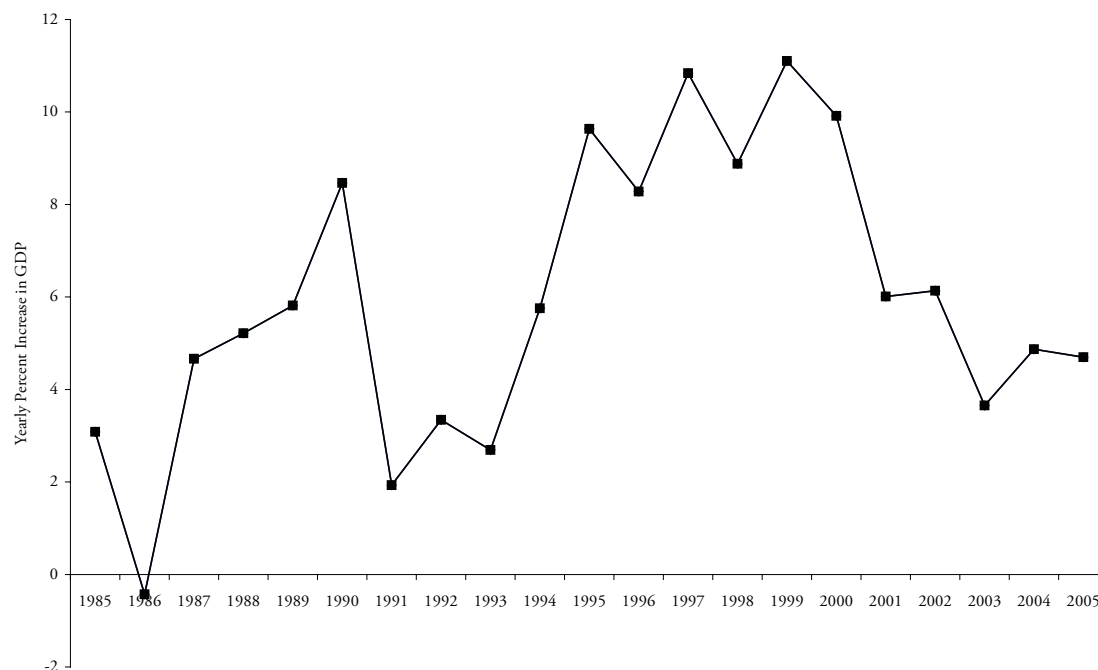
Because Arizona is not a sovereign nation, it does not have full control over all of the policies that Ireland did. However, the United States overall ranks highly in economic freedom, and in those areas where state government policies have little or no influence, such as international trade

policy and national monetary policy, the United States does quite well. Because the national government scores fairly well in these areas, Arizona and other states should be able to achieve strong growth results by mirroring those aspects of Irish policy they can control.

Unfortunately, some Arizona lawmakers have not learned the correct lessons from the Irish transformation. Governor Napolitano and Arizona State University President Crow are both advocates of an industrial policy for Arizona with a focus on education and technology.<sup>31</sup> Science Foundation Ireland is cited as an example for Arizona development policy to follow.

However, Science Foundation Ireland played no role in Ireland's dramatic economic growth. The fund was only created in 2000, and by then, most of Ireland's dramatic growth had already occurred. As Figure 3 demonstrates, Ireland's initial growth began when the reform process started in the mid-1980s. Growth slowed for a few years during the early 1990s when Ireland's economy was affected by the U.S. recession. As the United States recovered and Ireland continued slashing taxes and improving economic freedom, rapid growth occurred throughout the late 1990s. Compared with the boom in the late 1990s, Ireland's growth rates were approximately cut in half during the 2001 to 2005 period. If Science Foundation Ireland was a major cause of Irish growth, it would have needed to exist a decade earlier.

The slowdown in growth does not prove that Science Foundation Ireland

**Figure 3: Irish Economic Growth, 1985-2005**

caused the decline, only that it did not contribute to growth. A much better explanation of the slowdown is the path of institutional reform in Ireland. The major growth occurred during and immediately following the biggest increases in economic freedom. Once the reform process stalled, and freedom scores and rankings actually declined slightly, the dramatic growth decreased. Today, Ireland still has a high level of freedom and respectable growth rates, but its major flurry of business activity took place when reforms first made opportunities available that were previously limited by institutional barriers. Ireland's experience is consistent with the increasing economics literature on the importance of increases in economic freedom and the level of economic freedom in explaining economic growth rates.<sup>32</sup>

The Industrial Development Authority, charged with attracting companies to Ireland, also mistakenly receives credit for Ireland's economic boom. Unlike Science Foundation Ireland, the Industrial Development Authority did exist during Ireland's boom. However, it had the mandate of drawing companies to Ireland since it was created in 1949, long before the economic boom. In the 1960s, the Industrial Development Authority was given an expanded role in reform and industrialization of the Irish economy. If this agency was the main driver of growth in the Irish economy, the growth should have come long before the 1990s. Instead, it was actually among the agencies that had its budget cut to resolve the fiscal crisis.<sup>33</sup>

Lawmakers in Arizona are also concerned about the availability of venture

capital to start new high-tech businesses in the state. Arizona State University President Crow, in his address to the Arizona Public Service Company (APS) Quarterly Leadership Forum in 2004, said:

Where are we less competitive? In our technology sector, and that is not the sector in which to be less competitive. Arizona does not have a high birthrate of new technology oriented firms, and the survival rate for those that are birthed is poor. We do not have a high venture capital investment rate or a high venture capital pool.<sup>34</sup>

Creating state-subsidized research and development and venture capital, however, will not speed economic development in Arizona. Recent research on U.S. states by economists Russell Sobel and Steven Krefl finds that increased availability of venture capital does not increase entrepreneurial activity.<sup>35</sup> Instead, the economists discover that higher levels of entrepreneurial activity attract more venture capital. State efforts to subsidize venture capital funds put the cart before the horse. Innovation and new technology ideas attract venture capital, but venture capital does not attract technology. States should instead focus on policies that increase entrepreneurial activity, which will automatically attract the needed venture capital. Sobel and Krefl find that states with greater levels of economic freedom have higher rates of entrepreneurial activity and, therefore, attract more venture capital.<sup>36</sup>

Evidence drawn from the Irish experience indicates that the best path for Arizona is to increase its economic freedom. In *The Economic Freedom of North*

*America 2005 Report*, Arizona tied for the ranking of 10th freest state in the United States with a score of 7.1.<sup>37</sup> Nearby states outscoring Arizona included Colorado (second), Texas (fourth), and Nevada (seventh). California ranked 26th, and New Mexico came in an abysmal 49th. Much like international economic freedom rankings, the North American Index finds that states with more economic freedom are more prosperous. The index found that the seven states with the most consistently high scores in economic freedom from 1981 to 2002 had incomes \$4,400 higher than the average U.S. state and grew by 20 percentage points more than the average state during this time. Similarly, the seven states with the most consistently low economic freedom scores had incomes \$4,700 below the average state and grew by 13 percentage points less than the U.S. average of 39 percent during this time frame.

## Conclusion

Ireland's main lesson for other regions looking to grow rapidly is the tremendous importance of increasing economic freedom. Increasing freedom attracts entrepreneurs and investment and generates economic growth. Other factors, such as a well-educated, English-speaking population in close proximity to the European market, contributed to the magnitude of the Irish growth, but they were of secondary importance. Most of these other factors had been in place for years. It was only when a fiscal crisis forced the government to dramatically shrink

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its relative role in the Irish economy that Ireland's potential was unleashed. Initial reforms were followed up with decreases in tax rates throughout the 1990s while the boom developed. It was only once all the major pieces of freedom were in place and working simultaneously, and when large changes in freedom occurred, that Ireland grew rapidly.

Arizona could emulate some of Ireland's success. Arizona already scores reasonably well in economic freedom compared with other U.S. states. Its flexible labor market scores particularly well. Rather than searching for one magic bullet government agency or program, state lawmakers need to look at the larger picture to see what drove Ireland's growth. State planning and subsidization were not the driving force of Ireland's growth. The most significant policy changes underpinning Ireland's transformation were the slashing of government expenditures and decreases in tax rates. These policies were responsible for giving workers, entrepreneurs, and investors a dramatic increase in economic freedom.

Arizona and other states would do well to follow the Irish example in reducing taxes and spending, rather than in subsidizing biosciences. In 2006, Arizona lawmakers took the positive step of cutting income tax rates by 10 percent. They should not become complacent, however. Further tax and spending reforms will help secure Arizona's regional and global competitiveness. Although economic growth gave Ireland money to spend on biosciences, Irish economic growth did not occur because of bioscience. The strategy

that worked for Ireland, and will work for Arizona, is to improve the business and economic climate.

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NOTES

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