



# Where America Stands: Entrepreneurship

Competitiveness Index

Council on  
Competitiveness

*The Competitiveness Index: Where America Stands* is the flagship publication of the Council on Competitiveness – a thought-provoking and visually compelling benchmark of America's and the world's economic performance over the past two decades. The latest *Index* paints a high-level picture of the robust ecosystem underpinning productivity and prosperity in the United States – and can be found at [www.compete.org](http://www.compete.org).

Building on the findings of the *Competitiveness Index: Where America Stands*, the Council is creating in 2007 a new series of deeply focused analyses of the high-impact drivers of U.S. innovation capacity and competitiveness. The first “deeper dive” in this new suite of publications focuses on entrepreneurship – one of the most critical advantages for U.S. competitiveness. While U.S. entrepreneurial performance continues to lead the world by almost any measure, this analysis demonstrates that other nations are catching up to the United States in a variety of ways – and highlights that the U.S. environment for entrepreneurial activity faces its own challenges and opportunities in the 21st century.

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# Entrepreneurship and U.S. Competitiveness

Over the past two decades, America's economic engine not only outperformed the world, but supported wealth creation worldwide. As the Council's *Competitiveness Index: Where America Stands* documents, the United States has led all major developed economies in terms of long-term growth rates and standards of living, and has also been responsible for one-third of economic growth around the globe.

One of the critical drivers of America's economic dynamism and flexibility has been the strength of its entrepreneurial economy. The United States created an early lead in entrepreneurial activity through three key attributes: ready access to capital and state-of-the-art research; a culture that encourages experimentation and risk; and a regulatory structure that enables firms to start-up and enter new markets while enabling less productive firms to exit. And in turn, its entrepreneurial strength generated a high proportion of the new jobs, productivity gains and innovations in the marketplace.

Going forward, however, its early advantages are likely to become less singular given trends in the global economy, including:

- Most of the growth in consumer demand that will drive innovation will come from emerging

markets. Indeed, by 2020, it is estimated that 80 percent of middle-class consumers will live outside industrialized countries, forcing entrepreneurs to look globally for growth markets.<sup>1</sup>

- Large firms are increasingly outsourcing a wide range of business activities, creating opportunities for entrepreneurs around the world to create new ventures and spin-offs that will serve emerging markets and global enterprises.
- Countries around the world are striving to become world-class innovators. While most research still takes place in the developed world, emerging markets are making gains. By some measures, China now ranks as the most attractive destination for new offshore R&D facilities.<sup>2</sup>

With large and fast-growing populations and innovation-friendly

policy environments, emerging economies now increasingly offer launch pads for globally competitive and innovative products, processes and services. As Carl Schramm, President of the Kauffman Foundation, contends, "For the United States to survive and continue its economic and political leadership in the world, we must see entrepreneurship as our central comparative advantage. Nothing else can give us the necessary leverage to remain an economic superpower."<sup>3</sup>

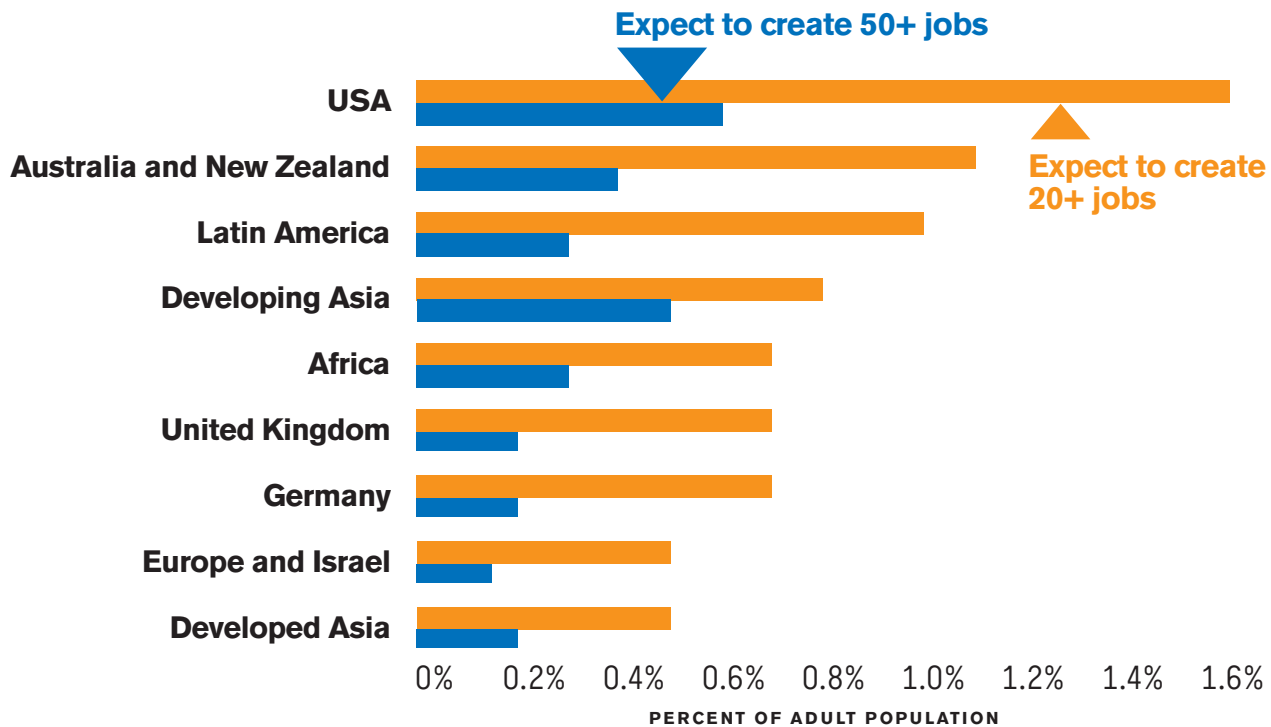
Competing successfully in global markets will demand even more speed, flexibility, specialization and innovation. All firms — large and small — must identify ways to become more innovative and more entrepreneurial. In the same way, regions will have to focus on creating the kind of fertile environment for entrepreneurial investment that will attract risk capital out of a global capital stream.

## The United States leads the world in high-impact entrepreneurship

### 1. U.S. Entrepreneurs Aim to Create More Jobs

Source: Global Entrepreneurship Monitor, *High-Expectation Entrepreneurship 2005*

#### America leads in high-expectation entrepreneurship



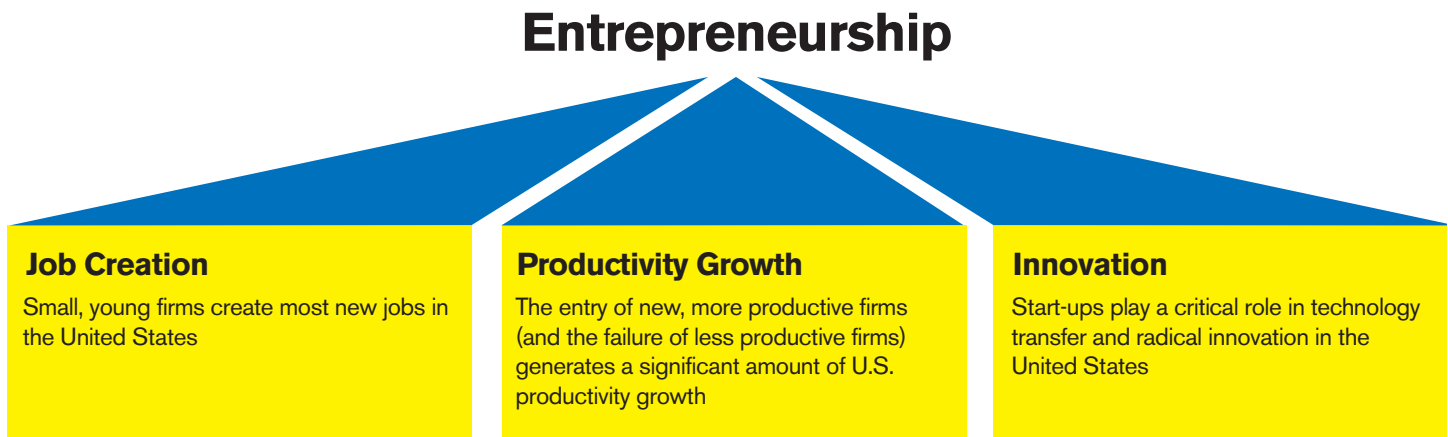
The United States leads all major industrial economies in the percent of the adult population engaged in entrepreneurial activity. According to the Global Entrepreneurship Monitor (GEM) survey, in 2005 there were nearly 23 million Americans who were active as owner-managers of a firm or had taken steps toward creating a new business in the previous year (12.4 percent of the adult population).<sup>4</sup>

Entrepreneurs can be divided into two broad types: lifestyle and high-expectation. By far the most common type is a “lifestyle” entrepreneur who opens a business to employ themselves and perhaps a small number of others. “High-growth” or “high-expectation” entrepreneurs launch firms with the intent of significantly growing their companies. These firms, less than 15 percent of all start-ups, usually pursue the commercialization of an innovative new process, product or service. GEM estimates that 2.9 million of America’s 23 million entrepreneurs were high-expectation entrepreneurs.<sup>5</sup> In 2005, 1.6 percent of Americans started companies that they expected would create more than 20 jobs — a significantly higher share of the population than any other country and more than twice the level of Europe and Japan.

## Entrepreneurship is a major driver of U.S. competitiveness

### 2. Entrepreneurship Drives Job Creation, Productivity Growth and Innovation – Which, In Turn, Are the Key Determinants of U.S. Competitiveness

Source: Council on Competitiveness



**Job Creation** New companies create most of the new jobs in the United States. From 1980-2001, the entire growth in net U.S. jobs was attributable to young firms (less than five years old). Mature firms (older than five years) actually lost jobs over the period.<sup>6</sup> But only a fraction of all new firms create jobs. Research indicates that the small percentage of high-growth entrepreneurial firms were responsible for approximately 80 percent of the total net new jobs created by entrepreneurs over the last two decades.<sup>7</sup>

**Productivity Growth** Economic growth is not an orderly process of incremental improvements – it happens because new firms are created and older firms are destroyed. The economist Joseph Schumpeter introduced the term “creative destruction” to describe this process of transformation and radical innovation. And entrepreneurs are the moving force behind this churn that underpins the dynamism of the U.S. economy.

Productivity growth occurs as much through this entry and exit of new busi-

nesses as through performance improvements in existing businesses.<sup>8</sup> And the level of churn in the U.S. economy is stunning. In any given quarter, about one in twenty establishments opens or goes out of business.<sup>9</sup>

This churn helps to explain the U.S. lead in productivity growth. The top 25 percent of best-performing companies in the United States (the most productive) grow at a faster rate than other less-productive companies. By contrast, in the EU, the opposite is true. The least productive grow the fastest. U.S. laws covering bankruptcy, labor flexibility and competition allow the least productive companies to fail, raising the overall level of national productivity.<sup>10</sup>

**Innovation** Entrepreneurial companies are increasingly important drivers of innovation, an area traditionally dominated by large companies and their substantial R&D budgets. Small firms are an essential mechanism for commercializing breakthrough discoveries and new technologies. Companies like Hewlett-Packard, Google, Genentech and Amgen all started as spin-offs from university-

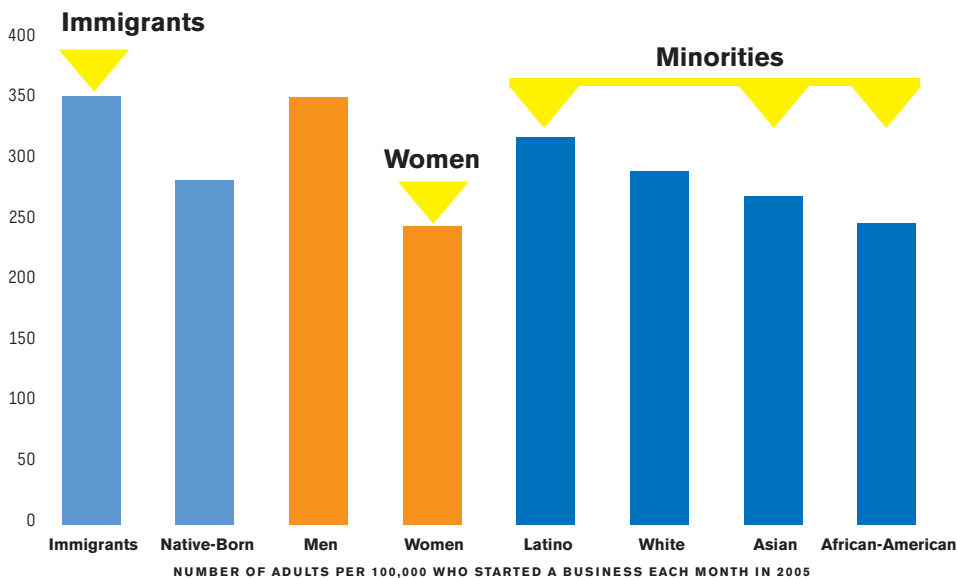
based research. Small firms have been the source of a range of world-changing innovations – from the integrated circuit to biosynthetic insulin.<sup>11</sup>

Larger firms often depend on small firms for new ideas and technologies. They invest in startups, acquire small companies with promising technologies, and partner with small firms to develop new products. Cisco, for example, acquired 75 smaller firms between 1993 and 2002 in order to build out its technological capabilities.<sup>12</sup> Procter & Gamble now gets about 35 percent of its ideas from outside the company, and its goal is to reach 50 percent.<sup>13</sup> These companies – and many more – recognize that as the pace of innovation increases, tapping into the creativity of entrepreneurs is the only way to keep up.

## Diversity plays a critical role in America's entrepreneurial strength

### 3. Immigrants, Women and Minorities Help Drive U.S. Entrepreneurship

Source: Global Robert W. Fairlie, "Kauffman Index of Entrepreneurial Activity: National Report, 1996-2005" (2005)



America's workforce diversity is increasingly recognized as a competitive asset for entrepreneurial activity. Immigrants have higher rates of entrepreneurship than non-immigrants, and American women, while they have lower rates of entrepreneurship than American men, have higher rates of entrepreneurship than men in any other country except for Canada.<sup>14</sup>

Since the founding of the United States, immigrants have played a crucial role in U.S. entrepreneurship. In 2005, approximately 350 out of 100,000 immigrants started a business per month, compared to 280 out of 100,000 native-born Americans.<sup>15</sup> Immigrants play particularly significant roles in venture-backed and technology-based startups. Although less than 12 percent of the U.S. population is foreign born, over the past 15 years immigrants have started 25 percent of all U.S. public venture-backed companies (including Intel, Sun Microsystems, eBay, Yahoo! and Google) as well as 47 percent of private venture-backed firms.<sup>16</sup> In California, immigrants started 39 percent of all engineering and technology companies between 1995 and 2005 and more than half of all Silicon Valley startups.<sup>17</sup>

And women are becoming an increasingly important part of the entrepreneurial picture. Overall, there are 7.7 million majority women-owned businesses in the United States, generating \$1.1 trillion in annual sales. For the past two decades, majority women-owned firms have continued to grow at around two times the rate of all firms.<sup>18</sup> About 20 percent of majority women-owned businesses are owned by women of color, and minority women have particularly high rates of entrepreneurship. While 28 percent of non-Hispanic white business owners are women, 31 percent of Asian American business owners and 46 percent of African American business owners are women.<sup>19</sup>

### Large Firm Entrepreneurs

Large firms clearly play an essential role in the U.S. economy and the U.S. innovation system. But a range of factors make it increasingly challenging for large firms to maintain market leadership over the long term. The average turnover rate in the S&P 500 has risen sharply over the past few decades. In the 1920s and 1930s, firms stayed on the list an average of 65 years, but by the late 1990s the average S&P 500 lifetime had fallen to just 10 years.<sup>20</sup> Of the Fortune 100 companies in the United States in 2005, three quarters did not exist in their current capacity in the 1980 list.<sup>21</sup>

The firms that do manage to survive and thrive over the long term (GE, DuPont, IBM, Boeing, Procter & Gamble, 3M, for example, have all been in the Fortune 500 for more than 50 years) do it both by fostering entrepreneurship within the firm and by linking to entrepreneurs outside the firm. Jack Welch at GE famously challenged his managers to "destroy your business" by creating radical new internet-based businesses even when they threatened existing product and service lines. Procter & Gamble focuses on "open innovation," encouraging managers to seek new business ideas outside as well as inside the company. And Boeing's Chairman's Innovation Initiative — a \$200-million in-house venture capital fund — provides employees an opportunity to develop new business ideas from company developed technologies and processes.

## Wm. Rees Instruments: A Snapshot of Small Business Innovation and Entrepreneurship

“Harps have been around for 4,000 years. Who would have thought there would be an innovation in harps?” asks Pamela Rees. Pamela and her husband William are the owners of Wm. Rees Instruments, a small business in Rising Sun, Indiana that happens to be one of the global leaders in the harp business.

William Rees has been crafting harps for decades, but the business took off a few years ago when the couple introduced a smaller, more affordable harp, playfully called a “harpsicle.” They come in bright colors with names such as cherry, grape, lemon and lime.

Historically, their business focused on larger lever harps, and six of the top ten touring professionals in the world play Wm. Rees harps. But a few years ago manufacturers in Pakistan introduced a small harp that sold for under \$300 and started selling tens of thousands per year. The quality was poor, however, and the Rees’ knew they could do better.

Luckily, Pamela Rees had a background in physics, and,

working together with her husband, they designed a high quality harp that could be produced cheaply in Indiana. Pamela explains, “A luthier [harp maker] married a high-end physicist, and we figured out what it takes to make it work, cheaply...In order to make it work you have to understand it at the level that we do, and none of my competitors do. None of my competitors will for a long time because they don’t know the math.” Wm. Rees can sell it for under \$300 and still make higher profit margins than their Pakistani and Taiwanese competitors.

### Pamela draws a number of lessons from their experience:

- Small businesses can be highly innovative, even outside of “high-tech” sectors.
- American manufacturing can compete against lower-wage foreign competition by leveraging their expertise and creativity to develop dramatically superior designs.

Small business plays a critical but under-appreciated role in the American innovation ecosystem. As Pamela puts it, “It

is the dark matter from which innovation comes.”

Pamela credits the state of Indiana for recognizing the importance of small business. The state of Indiana realized that getting small businesses to relocate is much easier than convincing large or mid-sized businesses to move. Indiana’s innovative support services were crucial to convincing Wm. Rees to set up there and have played an important role in their success—training them on how to export to Europe, translating their sales literature, even providing translators at their booth for foreign trade shows: in essence turbocharging their entrepreneurial drive.

Of course, regions around the world are beginning to appreciate the important role that small, entrepreneurial businesses can play in a healthy economy, and they are implementing programs and policies—like those of Indiana as well as other innovative practices—to support them.

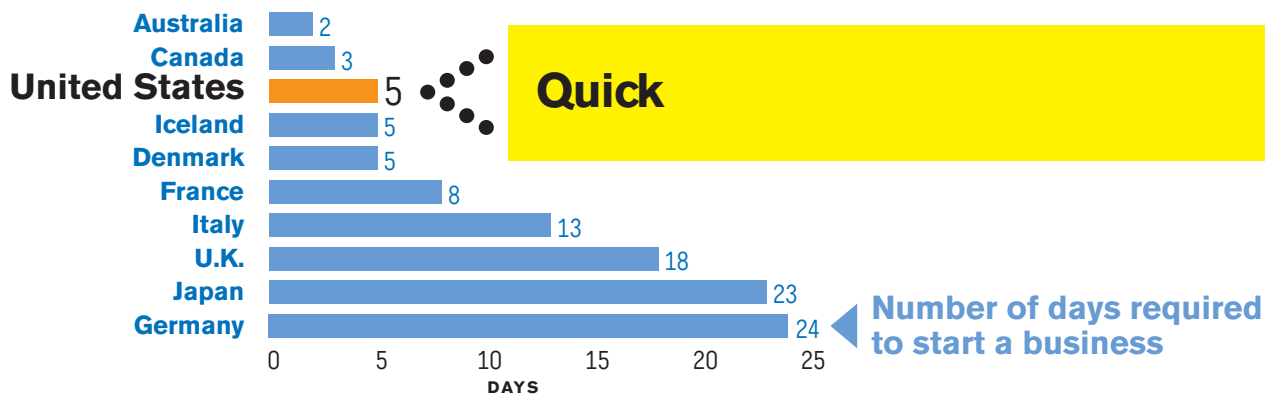
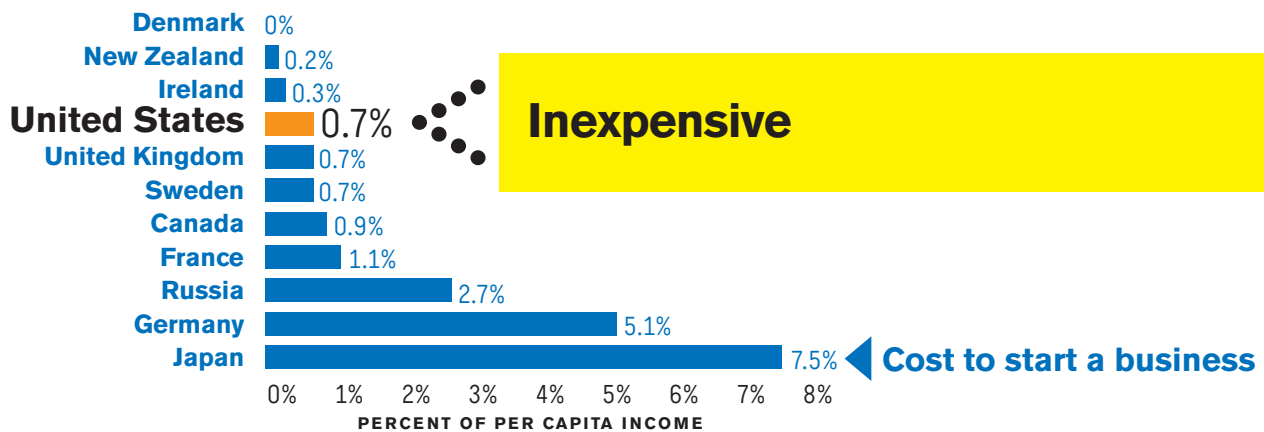
*Based on the comments of Pamela Rees at the July 25, 2006 meeting of the Council on Competitiveness National Innovation Initiative Strategy Council.*



## The U.S. regulatory structure supports new business creation

### 4. The United States Is One of the Easiest Places to Start a Business

Source: World Bank, Doing Business 2007



While the passion of individuals to create a new business is the spark for entrepreneurship, its ultimate success depends on a supportive business environment and access to risk capital. The U.S. regulatory and legal environment, including policies related to technology transfer, patent protection and contract enforcement are models for the world. The United States ranks third in the world in the overall ease of doing business, according to the World Bank's "Doing Business" Index.<sup>22</sup> The United States is among the world leaders in terms of both the cost and time it takes to start a new business.

Another critical factor in America's entrepreneurship edge is the strength of the nation's risk capital infrastructure. American innovators have access to more money and more potential investors than innovators anywhere else. The U.S. venture capital industry is, by far, the largest in the world. The United States has over 1,800 VC and private equity partnerships that manage over \$650 billion in funds.<sup>23</sup>

The United States is also well ahead in funding offered by angel investors. Angel investors are high net worth individuals or "accredited investors" that typically invest in start-up companies in their initial stages of growth. They represent a particularly important funding source because angels are more likely to invest in the risky stages of company development than are venture capital funds. In 2005, angel capitalists invested approximately \$23 billion in the United States, slightly more than venture capitalists.<sup>24</sup> Over the last thirty years, the cumulative investments made by angels have been double that of investments made by venture capitalists.<sup>25</sup>

## Micro-multinationals

When most people hear the phrase “multinational corporation,” they think of large, established firms with subsidiaries in major markets around the world. But a new breed of entrepreneurs is now creating “micro-multinationals” that are global from day one. Vast.com, for example, has 25 employees across five time zones, four nations and two continents.<sup>26</sup> Its executive team is in San Francisco, its CTO is a Serbian who lives in the Dominican Republic, and its development team is in Belgrade. According to the CEO of Vast, “We are building a company in a way that wouldn’t have been possible even two years ago.”

The platforms created by companies such as Amazon, eBay, Google and Fedex allow even small companies to reach global markets affordably. And broadband communications, voice over IP, instant messaging, wikis and other collaboration tools let small companies tap into global talent pools.<sup>27</sup> Turning an idea into a global product or service has never been easier.

Particularly since the bursting of the IT bubble, venture capitalists have encouraged start-ups to implement global strategies to reduce costs and get to market faster. According to a *USA Today* survey of venture-backed software startups created since 1999, nearly 40 percent have employees outside the United States.<sup>28</sup> And the global firms received more than twice as much funding from venture capitalists as firms with U.S.-only operations.

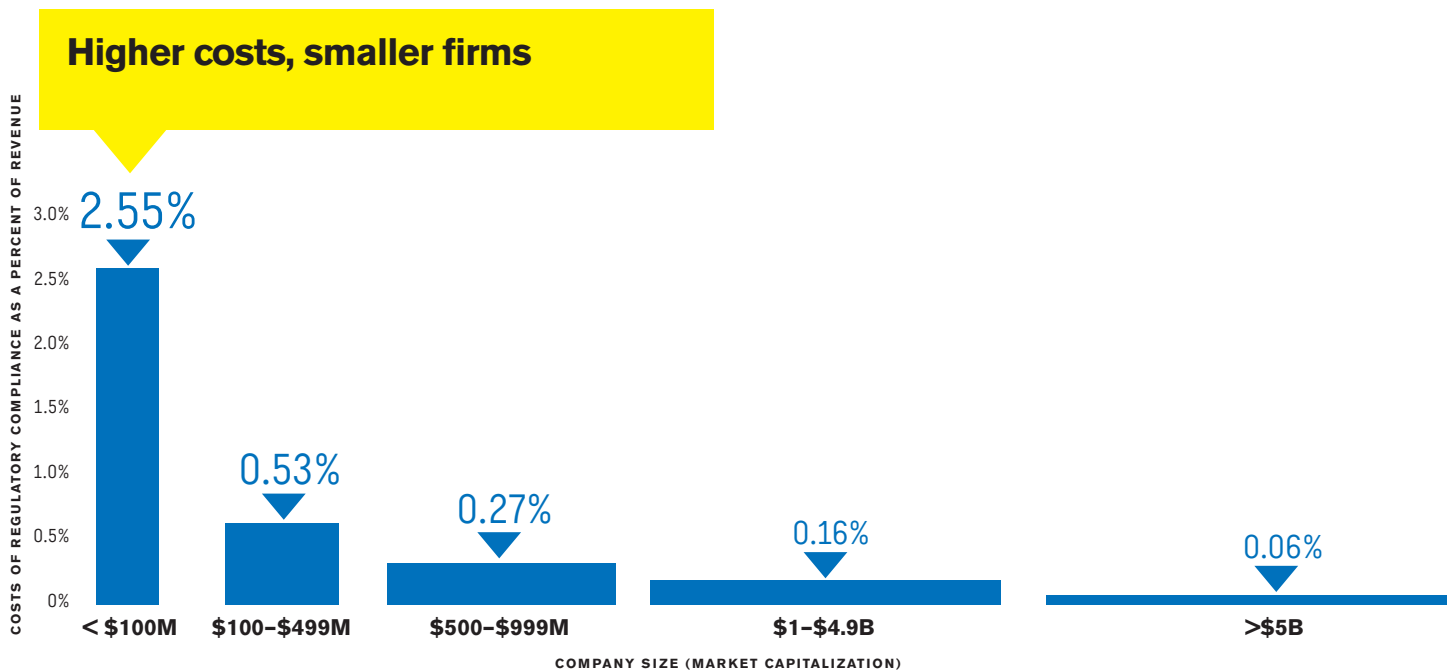
Entrepreneurs could not have created many of these companies if they had been unable to leverage global talent. And as these companies grow, they create more jobs in the United States. Among the software startups studied by *USA Today*, more than 80 percent of the jobs created are located in the United States, and many are for the highly paid CEOs, senior software developers and other professionals at the corporate headquarters.

The ability of even small start-ups to go global offers unprecedented opportunities to U.S.-based entrepreneurs. But it also means that having a supportive environment for entrepreneurship will become even more important. Entrepreneurs can increasingly choose to develop and finance their new ideas anywhere in the world. Regions whose regulatory systems do not support the creation and growth of new businesses will find entrepreneurial activity (and the jobs that it creates) moving elsewhere.

## But the unintended consequences and costs of regulation and health care create a drag on America's entrepreneurial agility

### 5. Sarbanes-Oxley Imposes a Significantly Higher Burden on Smaller Firms

Source: American Electronics Association, "Sarbanes-Oxley Section 404: The 'Section' of Unintended Consequences and Its Impact on Small Business" (Feb 2005)



While the overall environment for entrepreneurship in the United States is strong, several factors combine to increase the risks and costs of entrepreneurial activity and decrease access to talent.

**Increasing Regulatory Controls** In general, government regulation imposes a larger relative burden on smaller, entrepreneurial businesses that lack the legal and administrative resources of larger companies. On a per-employee basis, it costs about \$2,400 – or 45 percent – more for small firms to comply with the full range of federal regulations than their larger counterparts.<sup>29</sup> In particular, the Sarbanes-Oxley Act of 2002 imposes significant new financial disclosure requirements for public companies. On average, small firms spend more than 42 times as much as the largest firms as a percent of their revenue to comply.<sup>30</sup> While transparency and accountability are critical for strong capital markets, there is evidence that the increased requirements for small firms are discouraging many from going public, removing a crucial means for high-growth companies to raise capital.

**Rising Health Care Costs** According to the National Federation of Independent Business, rising health care costs are by far the most important problem that small businesses face.<sup>31</sup> More than 65 percent of small business owners ranked it as critical, up from 47 percent in 2000. Small businesses, which lack the buying power of big employers, often pay more for employee health benefits. As a result, less than half of all firms with 3-9 workers offer health benefits compared to 98 percent of firms with 200 or more employees.<sup>32</sup> Those that do offer benefits have seen rapidly rising premiums.

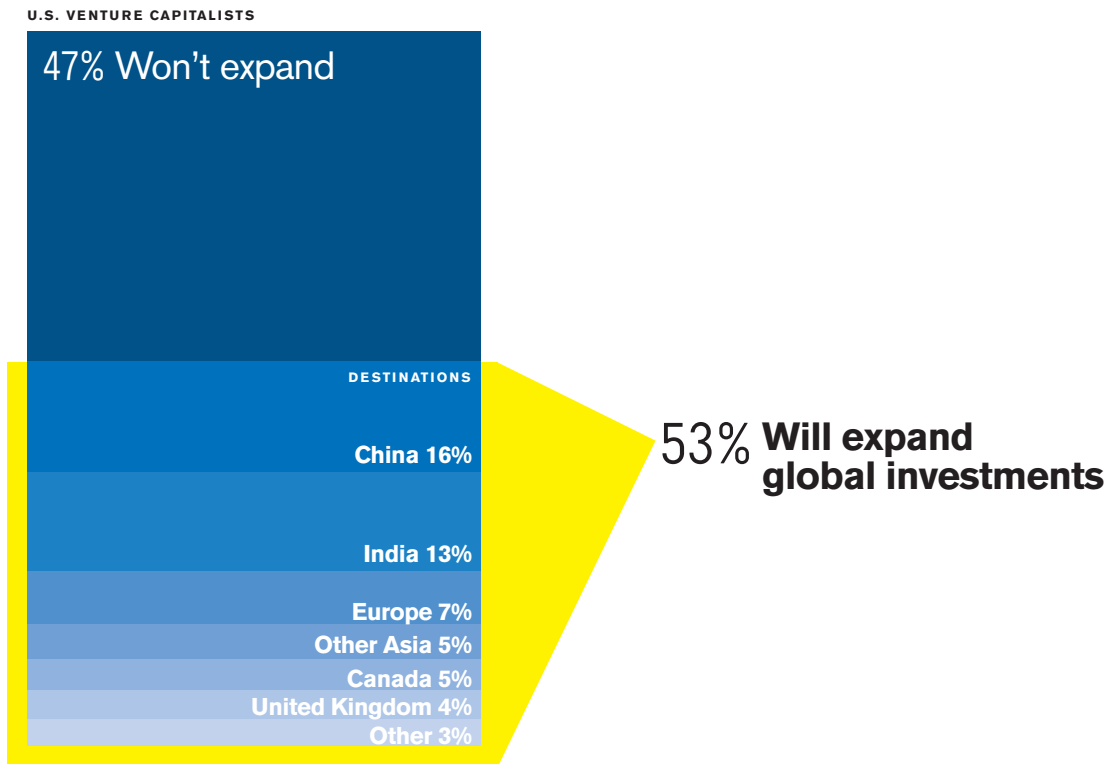
**The Looming Threat of Litigation** Small business owners ranked the cost and availability of liability insurance as their second most important problem.<sup>33</sup> America's tort litigation system is by far the most expensive in the world. Tort costs equaled 2.2 percent of GDP in 2003, compared to 1.1 percent in Germany, 0.8 percent in Japan and 0.7 percent in the UK.<sup>34</sup> Simply the threat of litigation leads to additional costs for insurance and in some cases steers entrepreneurs away from potentially innovative areas.

**Barriers to Immigration** As noted above, immigrants have been active participants in America's entrepreneurial system, particularly in innovative high-tech companies. But changes in U.S. immigration policy following the terrorist attacks of 9/11 and limits on the availability of H-1B visas have made it more difficult for talented foreigners to come to the United States as students, workers or entrepreneurs. There is evidence that these factors are driving firms to establish operations offshore rather than in the United States in order to be able tap into these talent pools.

## Other countries are rapidly improving their entrepreneurial environment

### 6. More Than Half of All U.S. Venture Capitalists Plan to Expand Investment Overseas

Source: Deloitte, Global Trends in Venture Capital 2006 Survey Results



While the U.S. economy clearly leads its peers in entrepreneurial dynamism, this lead is not a birthright – and it is narrowing rapidly. Other countries have taken steps to learn from the U.S. experience and improve their climate for entrepreneurial activity. All of the Nordic countries, for example, have launched efforts to develop their local venture capital industries and have created a number of public risk capital funds for small and medium-sized companies.<sup>35</sup> The World Bank's analysis of rules and regulations for starting and running businesses identifies many countries that have tried to reduce bureaucracy and red tape to increase the attractiveness for entrepreneurs.<sup>36</sup> And taxation, especially capital gains taxes, has been the topic of reforms in many countries, with some moving to low "flat rate" tax systems with high-powered incentives.

The venture capital industry – a traditional U.S. strength – is globalizing rapidly, with more than half of U.S. venture capital firms planning to expand into foreign markets, particularly China and India. A range of factors are driving VCs to look outside the United States:

- Rapid diffusion of technology
- Increasing numbers of talented scientists, engineers and entrepreneurs in regions around the world
- Expanding global corporations fostering start-ups and spin-offs
- Rapidly expanding opportunities in emerging markets

Many countries, through both private and public sector entities, are increasing the amount of venture capital available to their firms. As a percent of GDP, U.S. venture capital investment has actually been surpassed in recent years.<sup>37</sup> Since 1998, venture capital spending has grown at an annualized rate of 2 percent in the U.S. compared to 18 percent in the UK and 40 percent in Japan.<sup>38</sup>

## Entrepreneurship in the EU: Ready for take off?

### Paul O'Donovan

To many American observers, the EU looks like a stagnant economy trapped within an outdated social model. Flexibility in labor laws and risk-taking in business appear to be lacking. It is true that Europe's competitive performance lags behind that of the United States. But there are signs of change in Europe. Policy reform is making it easier to start and grow a business, and the success of European companies such as Nokia (Finland), Ryanair (Ireland) and Skype (Estonia) is inspiring a new generation of entrepreneurs.

The EU is a patchwork of 27 countries, 23 official languages, 500 million people, different cultures of capitalism and wealth production, and different stages of economic development. Swedish corporatism is very different from the way business is done in the UK, which in turn differs from the Greek business culture. Some of the newer member states are former communist countries returning to free-market economies after many decades and showing very rapid rates of growth. These new members may be poor, but they bring dynamism to the EU and strong skill bases in math and engineering.

This heterogeneity is reflected in the levels of entrepreneurial activity.

Overall, the rate of entrepreneurial activity in the EU is about half that of the United States, but this masks regional variations and variations in the type of entrepreneurship. Poland and Ireland show levels of entrepreneurship similar to those in the United States. Despite very different social models, France and the UK have identical levels. Sweden, a technologically advanced and wealthy member state – often touted as having one of the world's most competitive economies – lies near the bottom of the European table.

The reasons behind these regional differences are at the heart of policy reform and a challenge for Europe's citizens. Low levels of risk taking and high levels of job security combine to make starting a business a less attractive proposition in countries like Sweden and Germany. A high proportion of Poland's entrepreneurial activity is motivated by lack of jobs rather than the exploitation of great business opportunities. The level of technology start-ups in the UK, Germany and Italy is broadly comparable to the United States, but other countries lag far behind in exploiting technology and intellectual property.

Small and medium-sized enterprises (SMEs) are responsible for three-quarters of EU employment, and politicians and policymakers are agreed on the areas which need improvement in order to boost Europe's competitiveness. The key policy areas are:

1. Fostering entrepreneurial mind-sets through school education

2. Encouraging more people to become entrepreneurs

3. Gearing entrepreneurs for growth and competitiveness

4. Improving the flow of finance, and;

5. Reducing regulatory burdens.

So is entrepreneurship in the EU ready for take off? There are some encouraging signs. In 2004, venture capital investment in the EU reached 65 percent of the U.S. level. There is an emergence of strong regional hotspots such as the M4 corridor and Cambridge in the UK, Leuven in Belgium, and the Baltic capitals. Economic recovery has taken hold in the Eurozone, including Germany, and jobs are being created. Consensus is breaking out in the debate over reform of Europe's social model. Cross-border mergers are up as are the levels of patent registrations. Levels of construction and occupation of incubators and science parks is soaring. The productivity gains seen in the United States from IT have yet to be fully realized in the EU. And there are lucrative opportunities in the further liberalization of the EU's single market.

Europe's challenge is to embed positive reforms and positive thinking across 27 countries.

*Paul O'Donovan is a board member of the European Association of Regional Development Agencies and an employee of the Welsh Assembly Government. He writes in a personal capacity.*

## Fostering entrepreneurship is becoming critical to regional economic development

Entrepreneurship is a key driver of regional economic growth. A recent study for the Small Business Administration found that the most entrepreneurial regions in the United States had 125 percent more employment growth, 58 percent more wage growth and 109 percent higher productivity than the least entrepreneurial regions. The most entrepreneurial regions also spent 54 percent more on R&D, had 67 percent more patents per labor force participant and had a 63 percent higher percentage of high-tech establishments. The study observed that, “Innovation without entrepreneurship generally yields minimal local economic impact...Innovations are highly portable, whereas entrepreneurship is place-based.” And it found that 75 percent of small, 59 percent of medium and 44 percent of large regions are not realizing the level of entrepreneurship activity that their existing innovation capacity will support.<sup>39</sup>

The challenge – and opportunity – for many regions around the country is the uneven distribution of entrepreneurial activity. High-growth entrepreneurs are concentrated in only a handful of regions. Using the distribution of venture capital investment as a proxy, over 66 percent of these ventures are located in only four regions: San Francisco/Silicon Valley, Greater Boston, New York Metro and Southern California.<sup>40</sup>

Yet, innovative ideas and talented people are significantly more dispersed than entrepreneurial funding – creating opportunities for public and private sector leaders around the country to promote actively and facilitate high-expectation entrepreneurship. Three best practices adopted by successful regions include: creating angel networks, leveraging knowledge assets, and catalyzing connectivity.

**Creating Angel Networks** Angel investor groups are sprouting up across the country, often assisted by local economic development organizations that help organize them into formal angel networks. In 1996, there were only about 10 formal angel groups; today, there are over 200.<sup>41</sup>

### Sierra Angels: Meeting the Need of Regional Entrepreneurship

One of the earliest official angel networks, founded in 1994, the Sierra Angels is the largest investment group in the Northern Sierra region (Northern California and Nevada). The group has placed \$110 million into more than 140 start-up companies. Its members, primarily former business owners and senior corporate executives, provide seed investments in promising local ventures and support entrepreneurs with mentoring (business strategy and implementation, team building and fundraising) and connections.<sup>42</sup>

**Leveraging Knowledge Assets** While linkages between universities and industry can happen on a national or global level, the benefits often occur disproportionately at the regional level. Universities have tremendous impact on cluster and regional economic development – notable examples include Stanford and Silicon Valley, University of Texas and Austin; University of North Carolina and Research Triangle. Universities are the wellspring for talent and ideas, and can function as economic magnets to attract investment, entrepreneurs and talent to a region. They also help to adapt knowledge to local needs and connect innovators across the region through their incubators and technology parks. Indeed, most academic entrepreneurs start up their companies at their universities precisely because they can have continued access to knowledge and talent. And many universities have restructured their research capabilities to be more responsive to local industries, setting up specialized research units, joint cooperative ventures or interdisciplinary projects.

## NJIT's Enterprise Development Center: A High Tech Business Incubator

The mission of the New Jersey Institute of Technology Enterprise Development Center, created in Newark in 1988, is to increase the rate of small business formation — and decrease the failure rate — by addressing problems that young technology-based businesses face in obtaining appropriate technology, market information, management assistance and access to capital. NJIT EDC currently has 45 companies in residence with combined annual sales of \$15 million and a total of 310 employees. The incubator has graduated 63 companies.<sup>43</sup>

**Catalyzing Connectivity** The combustion behind innovation often emerges from chance encounters, face-to-face communications, and close interactions among people, ideas and resources. To facilitate these connections, successful regions create bridges that bring together entrepreneurs, academics, labor leaders, company officials and public sector leaders. Some, such as the example below, have launched boundary-breaking initiatives that fuel entrepreneurship at the grass roots.

### Lancaster County Venture Communities

A series of focus groups in late 2004/05, revealed to Lancaster County, PA (population 500,000) economic developers both a supply-side and a demand-side problem. Entrepreneurs lacked financing while investors complained of a lack of strong management teams in candidate companies. Lancaster County found a solution through the Venture Communities program. Venture Communities is essentially a template to streamline the process for aligning capital, executive talent and industry expertise with entrepreneurs. In the words of Lancaster Prospers Entrepreneur Committee chairperson Ira Wolfe, “we realized our goal was not to fund these early and late stage growth companies... We are focused on creating a unified network of resources that makes Lancaster even more attractive to start and grow the next Apple or Intel!”<sup>44</sup>

### The Bottom Line

By almost any measure, the U.S. entrepreneurial economy leads the world — a critical advantage since as much as one-third of the difference in economic performance among countries is attributed to the difference in their levels of entrepreneurial activity.<sup>45</sup> Our entrepreneurial engine has clearly helped to power innovation, productivity and economic growth.

Demonstrably, there's nothing awry with the health of the U.S. entrepreneurial system. But we're still leaving ideas on the table. On average, only one in ten patents is ever commercialized.<sup>46</sup> Thousands of inventions lie dormant in the hands of universities, research centers and private companies. For those ideas that are pursued commercially, only seven out of every 1,000 business plans receive funding.<sup>47</sup> To pick up the pace, the nation needs to look to its regions. The combustion behind innovation is inherently regional — on the ground where research, business, risk capital and workers come together to turn ideas into products, processes and services.

Its early lead and risk-friendly culture created a comfortable, but probably unsustainable, margin of leadership for the United States. Other countries are catching up — and the globalization of business and the global diffusion of technology, talent and capital make their job relatively easier. Running in place is not an option for us. The United States will need to work to maintain its leadership position — focused on strengthening the fertile environment for innovation, sustaining strong public support for productive risk-taking and entrepreneurship, and reining in the costs of regulation and health care.

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- Identifying and understanding emerging challenges to competitiveness
- Generating new policy ideas and concepts to shape the competitiveness debate
- Forging public and private partnerships to drive consensus
- Galvanizing action to translate policy into action and change

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Debra van Opstal is the Council's Senior Vice President for Policy and Programs. She launched the National Innovation Program in 1996 and co-authored the 2001 *Competitiveness Index* with Michael Porter. Debbie holds a Master's Degree from the Fletcher School of Law and Diplomacy, with a concentration in international finance, and a B.A. from Pitzer College in history and Political Science. Prior to joining the Council, she was a Senior Fellow and Deputy Director for the Science and Technology Program at the Center for Strategic and International Studies.

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