

## **Venture Capital and Economic Growth.....A Perspective**

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### **The Entrepreneurial Spirit: The Key to Success**

Linking sustained economic growth in the future to research and entrepreneurial activity today is one of the biggest challenges facing the U.S. (and states like Wisconsin). This linkage has been the competitive advantage of the U.S. in the past as developments in chemistry and physics powered the conversion of the U.S. from an agricultural- and natural resource-based economy to become the world leader in manufacturing and technology. The post-World War II strategy of investing public funds in research was a crucial step and laid the foundation for the private sector investment that has fueled the economic growth we enjoy today. The linkage of university research to the formation of new companies has been critical to the success of this strategy and will continue to be in the future.

### **The Role of Entrepreneurship: Past, Present, and Future**

Over the last 20 years, many large companies have consolidated and restructured, costing the U.S. and Europe between an estimated 7 and 8 million jobs in each of the last two decades. In the U.S., entrepreneurs formed companies that created over 10 million jobs in each decade. Europe, lacking a similar entrepreneurial culture, was unable to fill the void left by the loss of these jobs, resulting in an unemployment rate three times that of the U.S. It's clear that an entrepreneurial environment fosters dramatic job growth and economic prosperity.

Looking ahead, the entrepreneurial culture and basic research in universities will be even more critical as the quickening pace of technology changes the way we live, work, play and treat disease. The Internet alone has had an enormous impact of how people communicate, access information, and conduct commerce. Wireless communication now links people wherever they are throughout the world. Advances in understanding life processes is rapidly changing how new drugs are developed and will provide individuals with the genetic information they need to enhance their own health and wellness. Indeed, the intersection of information technology and genomic information is revolutionizing healthcare.

### **Biotechnology: A Successful Example**

One excellent example of an industry that thrives on entrepreneurship and has been successful at transforming good research into good business is the biotechnology industry. Biotechnology applied to agriculture is speeding up the development of new crops and improved livestock that increase productivity, meet the demands of consumers, and reduce the impact on the environment. In the very near future, biotechnology will enable the increased use of renewable resources as a source of biobased chemicals and materials. These changes plus the efficient conversion of biomass to energy will reduce dependence on foreign oil and reduce carbon dioxide emissions.

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These innovations, however, did not and will not come from large corporations; rather, they come from the transfer of discoveries in basic research at universities to the private sector through the creation of new companies. This trend has already proven itself to be a viable method of company creation and technology commercialization in the human healthcare and agricultural industries. As breakthroughs in our understanding of genomics has enabled new approaches to drug discovery and crop production, traditional pharmaceutical and agricultural chemical companies have partnered with or acquired these new technologies from small, innovative start-up companies. Technology development and economic growth in the future will depend heavily on the efficient transfer of scientific discovery from university scientists through new company creation to major corporations.

### Not All Regions Are The Same

Although the U.S. economy has enjoyed the benefits of this new economic engine not all states and regions have benefited equally. It is not as simple or easy as it may appear, and this supportive atmosphere can only be encouraged, not legislated. Taking a look at some of the more entrepreneurial-rich regions of the U.S. further highlights the necessity of developing and maintaining a supportive environment for entrepreneurs:

- Silicon Valley: Often cited never duplicated. Built by the private sector on access to capital, great universities and the California culture that supports experimentation and the ability to fail without recrimination.
- Boston: Great universities were key
- Research Triangle Park: Great universities, common vision and great image building, attracted anchor corporate research institutes. An instant success...over twenty years in the making.
- Austin: A state science and technology commission set the vision but nothing like a huge corporate success (Dell) to bring it to fruition.
- San Diego: Strong universities and research institutes, University lead CONNECT program built the culture and a great climate brought the entrepreneurs.
- Washington, DC area: Strong science in universities and government laboratories coupled with some major success stories in biotechnology, the Internet and telecommunication make this a hot new area for new companies.

Almost every state is now trying to use biotechnology and the Internet as a basis for entrepreneurial growth.

- St. Louis is forming AgBio Valley
- Michigan converted the tobacco settlement to funding for biotechnology research and development.
- Likewise Texas, Minnesota, Illinois, Iowa and Georgia have made biotechnology the focus for economic development.

Even so, few of these areas possess *all* the elements need for success.

### What *Are* the Keys To Success?

*World-Class Research Institutions*

Probably the most important key to developing an entrepreneurial-rich region is the presence of world-class research institutions. The formation of innovative new companies depends on access to highly productive research institutions. Both quantity and quality are essential. Only a small proportion of research discoveries are patentable and even fewer will support the formation of a new company. Therefore, the quantity of research is very important, and by logical progression, those regions with multiple world-class universities tend to be among the most successful: the San Francisco Bay Area, Boston, Research Triangle, and San Diego.

*An Entrepreneurial Culture*

A successful region must have a critical mass of individuals with the passion for an idea and are willing to risk all to create a new company. These individuals must be supported by a community that will allow the entrepreneurs to fail without recrimination and likewise to be successful and create great wealth without recrimination as well. This culture can best be built on a basis of successful examples. Watching a company go from an idea to a successful IPO creates an environment where others will dare to follow.

*Risk Capital*

Access to risk capital is critical. Companies require access to capital from sources that can help them grow and increase their chances of success. Seed capital is generally in short supply and venture capitalists have generally been located on the East and West Coasts. Recently, however, several successful entrepreneurs have turned venture capitalist and have recognized the wealth of technology located throughout the interior of the country. In general, risk capital will find good science and good business plans. However, risk capital likes to see a critical mass of new companies and associated services and a climate of success.

**An Overall Strategy: The Entrepreneurial Mall Concept**

As Wisconsin considers how to enhance the entrepreneurial climate within the state and to build the capacity for company creation, a “mall” analogy is helpful. The retail mall concept is a strategy whereby stores work together to create an environment where small individual stores have a greater chance for success. The successful mall usually has a large anchor tenant that draws consumers, provides a variety of facilities, offers convenient access to services, and conducts collective marketing and advertising.

Likewise, while governmental units can't legislate company creation, they *can* create an environment that will attract risk capital and encourage the private sector to build an entrepreneurial culture. Analogous to anchor tenants in the retail mall concept are the presence of major corporations or their research units. For example, Research Triangle Park is home to the research centers for several major pharmaceutical and agricultural companies, and San Diego recently attracted the Novartis Agricultural Development Institute and the Novartis Genome Center. If the state of Wisconsin can make operating in the state attractive to R&D intensive businesses, “anchor tenants” will setup operations and can become the nucleus for a richer entrepreneurial environment.

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Success stories of companies that have gone from idea to IPO are also important components of an entrepreneurial culture. It helps to create an “I can do that attitude, too” among other entrepreneurs. To date, unfortunately, Madison has not had many success stories:

- Promega has been a great success but is still privately held
- Third Wave Technologies has an IPO pending.
- Sonic Foundry completed a successful IPO.
- Lunar successfully transitioned to a public company.

### **What Can Wisconsin Do Specifically?**

One of the ways to create an environment of entrepreneurial success is by easing the process of company creation, and this means the correct combination of capital and services. Support services for developing strong business plans, availability of seed capital and access to a network of angel investors, VCs, potential CEOs and small business services are also critical. Building a culture that rewards and, indeed, tolerates success and sees failure as a learning experience is vital and sorely needed in the Midwest.

Developing a critical mass of technology and new companies is another important element for success. Wisconsin is home to a world-class university that has been the source of several successful start-up companies. At the same time, the surrounding states also have well respected universities. A combined effort between Wisconsin and these surrounding states might be considered. Sharing technologies through the technology transfer offices would enhance the opportunity to bundle technologies to create companies with a higher probability for success. Holding joint events to showcase companies to outside venture capitalists would greatly increase the chances of attracting more venture capital into the Midwest.

The role of government must be both subtle and prominent: subtle in building an economic climate that will facilitate success of small business (i.e., offering a favorable tax structures, access to state funding, and office and laboratory facilities.)and the state must prominently promote the state and region as a superior place to create new businesses.

Another important aspect of a successful effort to build a rich entrepreneurial atmosphere is to build a well-networked community, one that is truly connected. One of the best examples of a successful community effort is the CONNECT program in San Diego. Led by the Chancellor of UC San Diego, CONNECT links the various research institutions with the private sector. It is the major vehicle by which the community built an entrepreneurial environment and projects the region as a highly successful business climate.

### **Long-Term Growth, Success, and Prosperity**

Whatever is done, patience and perseverance are the keys to establishing a successful entrepreneurial environment that will attract venture capital investment. No region has built a successful, entrepreneurial environment overnight. It takes time to build the

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perception and even longer to create successful companies. But if a state or region can gather together the resources necessary and proceed with a coordinated effort, it can be assured of long-term success and prosperity.

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