

The Importance of Venture Capital to the Texas Economy

By Bob Boldt and Trey Thompson

Abstract: Texas is facing a shortage of startup capital. Capital has not flowed to Texas as freely as possible because the state's major institutional investors, including UTIMCO, have not adequately supported our state's venture community by committing large amounts of capital to the state's venture capital funds.

Texas is known for its entrepreneurial spirit. In the past century, our citizens have employed that spirit to develop Texas' prominence in the energy and aerospace industries and, more recently, in the semiconductor and information technology industries. Entrepreneurs built successful companies like Dell Computer, Compaq Computer, Brinker International (Chili's Restaurants), and Whole Foods Markets. In each of these instances, the visionary founders achieved success because they had more than great ideas. They also used risk capital to turn their dreams into reality. As we advance well into the 21st century, Texas faces a challenge that could have repercussions on our economy and our workforce for decades to come. Despite our entrepreneurial culture, our vast research and development capabilities, and our wealth of talented human capital, we have a woefully inadequate amount of start-up capital to take advantage of the investment opportunities that exist within our state's borders. In this brief article, we will attempt to summarize why this predicament exists and recommend a solution that will hopefully facilitate risk-taking and new company development for decades to come.

Texas began developing a strong venture capital infrastructure and ecosystem in the late 80s and early 90s. During that period, the state's information technology and telecommunications industries emerged with the formation of companies like Dell Computer, Tivoli, and others. The industry leveraged the existing strengths of stalwarts like Texas Instruments and Tracor and employed risk capital to create new bellwether companies that attracted technical and management talent from across the country. Austin went from a sleepy college town and government seat to the "Silicon Hills" in about a decade's time. Success beget success and capital flowed to the region and allowed start-ups to emerge from the larger, existing successful companies. By the end of the 1990s, Texas ranked number two behind California in the number of jobs created by venture-backed companies. In the late 1990s, venture capital firms from around the country were establishing investment offices throughout the state and new firms were attracting capital from institutional investors in Texas and beyond our borders. The momentum was palpable. Then, the bottom fell out.

The rapid decline in the NASDAQ index in 2000-2001 caused venture capital portfolios to suffer immensely and companies that were dependent upon additional capital struggled to survive; many went out of business. Venture capitalists ran out of money to invest and the appetites to invest in new companies. Almost overnight, Texas' venture capital infrastructure nearly vanished. In 2002 and 2003, new venture investing was at a standstill. By 2003, the majority of the firms that set up offices in Texas during the 90s had left the state. The local funds that raised capital in the late 90s were out of new capital and were unable to tap their existing investors for fresh dollars. While several

larger funds remained and were able to raise new dollars from investors, their presence alone has not been enough to provide Texas' entrepreneurs with the capital necessary to take advantage of opportunities to commercialize new ideas and new technologies. To be certain, the excesses of the 90s (rapid company formation, sky-high valuations, and less-than-sound business plans) caught up to the industry. Some of the venture firms that formed in the 90s should have gone out of business and along with them, the companies they helped form. However, we believe that the pendulum then swung too far to the other side such that very little capital is now available for new businesses. In fact, Texas now has to import a significant amount of capital to fund new enterprises and, in some instances, those suppliers of capital are requiring the new companies to re-locate out of the state. Thus, we believe Texas is now at a competitive disadvantage to states like California, New York, and Massachusetts in its ability to create and fund the companies that will drive our economy for the next several decades.

To understand why the current situation has become so dire, we offer the following facts to demonstrate how venture capital dollars and the companies built on those dollars have contributed to the vibrancy of the Texas economy. From 1970 to 2003, venture capitalists invested \$20.5 billion into 1,438 companies in Texas. This figure accounted for 6.0% of the total U.S. venture capital investment in that time period. Furthermore, every \$22,700 invested in Texas-based companies created a new job, making Texas venture capital significantly more efficient in creating jobs than either California (\$56,000 per job) or Massachusetts (\$49,000 per job). By the end of 2003, 899,173 Texans held jobs that venture-capital-backed firms had created. Only California (2.5 million) created more jobs from venture-backed businesses.¹ In addition to employing our citizens, Texas' venture-backed companies generated \$188.1 billion in sales which, in turn, generated multi-billions in tax revenues for the state.

¹ Global Insight and MoneyTree Survey, 2004.

National Jobs and Revenues by Venture-Backed Companies
Top 15 States

State	2003 Jobs / National Rank	2003 Revenues / National Rank	Cumulative VC Investment	VC Job Efficiency/ Top 15 Rank
California	2,470,942 /1	\$437.8 BN / 1	\$140.1 BN /1	\$56,699 / 15
Texas	899,173 /2	\$188.1 BN / 2	\$ 20.5 BN /3	\$22,798 / 6
Massachusetts	712,329 /3	\$107.4 BN / 3	\$ 35.5 BN /2	\$49,837 / 14
Pennsylvania	603,972 /4	\$ 94.4 BN / 5	\$ 9.5 BN /8	\$15,729 / 4
Georgia	551,439 /5	\$ 91.5 BN / 6	\$ 7.2 BN /12	\$13,057 / 3
Tennessee	543,018 /6	\$ 60.3 BN /10	\$ 2.3 BN /21	\$4,236 / 1
New York	470,527 /7	\$ 80.2 BN / 7	\$ 18.4 BN /4	\$39,105 / 13
Washington	399,863 /8	\$101.5 BN / 4	\$ 9.6 BN /7	\$24,008 / 7
Virginia	310,925 /9	\$ 63.9 BN / 8	\$ 8.6 BN /9	\$27,659 / 8
New Jersey	309,717 /10	\$ 49.6 BN /12	\$ 10.1 BN /6	\$32,610 / 12
Florida	287,984 /11	\$ 60.6 BN / 9	\$ 8.2 BN /10	\$28,474 / 9
Minnesota	333,199 /12	\$ 56.9 BN /11	\$ 4.3 BN /16	\$12,905 / 2
Illinois	235,941 /13	\$ 34.4 BN /15	\$ 7.4 BN /11	\$31,364 / 11
Ohio	195,180 /14	\$ 22.8 BN /17	\$ 3.2 BN /17	\$16,395 / 5
Connecticut	189,692 /15	\$ 48.9 BN /13	\$ 5.5 BN /15	\$28,994 / 10

While these statistics seem to point to the current contributions of the Texas venture capital market to the Texas economy, in reality, it was the venture community of the 1990s and early 2000s that fostered this economic development. Thus, while the state currently benefits from the venture investments of the past decade, it will need to foster additional venture investment activity if we are to sustain, let alone grow, our venture-backed industries going into the next decade.

R&D at Top Universities and Institutions in Texas	
Texas A&M University System	\$511 million
Baylor College of Medicine	\$462 million
University of Texas – Austin	\$344 million
University of Texas – Southwestern	\$277 million
M.D. Anderson Cancer Center	\$315 million
University of Texas Health Science Centers (Houston & San Antonio)	\$282 million
University of Texas Medical Branch	\$153 million
University of Houston	\$ 64 million
Texas Tech University	\$93 million
Rice University	\$52 million
TOTAL:	\$2.5 billion
Source: National Science Foundation (2006)	

In addition to supporting the state's strong information technology sector, we need to begin to harness the economic opportunities that are emanating from our state's scientific research institutions. As the table above highlights, Texas' top research institutions spend more than \$2.5 billion per year on primarily life sciences research and development. Despite this enormous research effort, Texas continues to lag its peers in California, New York, and Massachusetts in committing capital to life sciences-based start-ups, as the graphic below suggests. In 2004, Texas' life sciences-based startups received less than \$100 million in funding. By contrast, life sciences-based startups in each of San Jose and Boston received more than \$1 billion in new funding.²

One could argue that these disparities exist for a reason. That is, the capital markets may not agree with us that there are significant untapped investment opportunities in our State. After all, capital typically flows freely to exploit underserved markets and reap the economic benefits of such scarcity. However, in our case, capital has not flowed to the state as freely as possible because the state's major institutional investors, including UTIMCO, have not adequately supported our state's venture community by committing large amounts of capital to the state's venture capital funds. By our estimate, the state's largest pension funds and endowments have over \$150 billion in assets, but in the past four years have invested less than \$200 million into venture capital funds that focus on start-up opportunities in Texas. By contrast, California's two largest funds, CalPERS and CalSTRS, have collectively committed more than \$1.5 billion (by our estimate) to venture capital funds that focus on investing in that state. Without support from the state's local pension funds and endowments, local venture firms have a difficult, if not impossible, task raising capital from institutional investors outside the state. These outside investors reason, rightly or wrongly, that if Texas' own funds do not support these firms, why should they?

In recent years, UTIMCO and its Board have made a conscious effort to support the investing activities of the state's venture capital community while maintaining a primary focus on generating the best returns for our client, the University of Texas System. Despite committing more than \$120 million to Texas-based venture capital funds in the past few years, we cannot provide the capital that Texas' entrepreneurs need all by ourselves. We hope to work with our Texas peers to generate interest in the Texas venture capital opportunity. We believe the talented investment professionals responsible for investing the State's funds understand the significance of the investment opportunity and its far-reaching benefits to the Texas economy. In summary, we hope we can play an important role in ensuring that Texas' legacy of entrepreneurship continues well into the 21st century.

Bob L. Boldt was appointed President, Chief Executive Officer and Chief Investment Officer of UTIMCO in February 2002 and resigned from that position September 1, 2006. He continues as a consultant to UTIMCO through the fall. Prior to joining UTIMCO, he was managing director of Pivotal Asset Management, a San Francisco firm

² PricewaterhouseCoopers MoneyTree Survey, 2005.

managing approximately \$500 million. Prior to Pivotal, he was the Senior Investment Officer for Global Public Markets Investments at the California Public Employees' Retirement System (CalPERS), with responsibilities for the management of CalPERS' \$160 billion in public markets investments. He was also responsible for the Corporate Governance program at CalPERS. Mr. Boldt has also worked for several other firms in the investment field during his 30 year career, including Scudder, Stevens & Clark; Concord Capital Management; American National Bank; and the Northern Trust Co. Mr. Boldt, a native of San Antonio, Texas, holds two degrees from U.T. Austin - a bachelor of science in engineering and a master's of business administration, with a major in finance and investments. He is a Chartered Financial Analyst, and was the winner of the Graham and Dodd Award from the Financial Analysts' Federation in 1984.

Trey Thompson *is Managing Director – Private Markets, and is responsible for the management of UTIMCO's private markets portfolio. He oversees the endowment's \$1.6 billion portfolio of private investments and manages UTIMCO's interests in 150 buyout, venture capital, and direct private equity investments. Mr. Thompson came to UTIMCO from Security Broadband Corporation, where he was a Financial Analyst from 2000-2002. From 1998-2000 he was an Associate at Prudential Capital Group. From 1995-1996 he was a Business Analyst at A.T. Kearney, and from 1993-1994, a Credit Analyst at Goldman Sachs. He received his BA in History at Princeton University and an MBA in Finance from The University of Texas at Austin. He is a Chartered Financial Analyst.*