

FINANCING SCIENCE



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Supporting Venture Innovation

Venture Capital Drives U.S. Competitiveness

By Joseph W. Bartlett

THERE IS ONE SAFE CORE ASSUMPTION about the future of U.S. economic prosperity: Without our nation's robust venture capital-backed, entrepreneur-driven, tech-flavored industries and services, which are today still largely unique to the United States, our country is an also ran, its global influence, power, and leadership fated to diminish over the course of the 21st century.

That said, monopolies never last forever. Our clear lead in what I call the EVITA economy—Entrepreneurial, Venture-backed, Information-dependent, Technology-flavored Activity—now faces rising competitive challenges from global competitors—a natural, inevitable, and, of course, healthy phenomenon. Indeed, the good news is that an innovation-led global economy is certain to prosper exponentially, in this country and globally, given the tsunami of explosive advances

in science and technology the world is currently experiencing.

Unfortunately, serious (and unhealthy) challenges to the bedrock of our nation's entrepreneurial, innovation-led economy—start-up technology companies of all stripes—threaten to limit our economy's ability to remain hyper-competitive across a range of existing and emerging high-technology industries and services. The reasons are manifold but largely stem from unintended consequences resulting from the insufficient allocation of financial and human capital and misguided policymaking. This essay will first define our EVITA economy and then suggest a blueprint for future U.S. economic policy designed to grow innovative new tech companies intelligently and productively, yielding benefits that are socially positive, widely distributed, and fairly allocated.

THE EVITA ECONOMY

The United States is unusual in that many of its strategically vital corporations are young and competitive, contributing enormously to our national prosperity. In 1990, Microsoft Corp., Dell Computer Co., and Cisco Systems Inc. had combined sales of \$2 billion. By 2000, their combined sales hit \$80 billion before leveling out at around \$90 billion in this decade as they gained blue chip status. Such growth exemplifies why companies backed by venture capital generate twice the sales, pay three times the federal tax and invest far more heavily in research and development than their traditionally financed counterparts.¹

“Entrepreneurship is what enables American-style capitalism to be generative and self-renewing,” observes Carl Schramm, head of the primary U.S. research institute on venture capital, the Kauffman Foundation. Schramm, however, then adds a cautionary note: “The system that generates and supports entrepreneurship in the United States is surprisingly unappreciated.”²

My take on the subject: Schramm is putting it mildly. For three decades, venture capital-backed startup companies have been the job-creating engine of the U.S. economy. According to a study by the consulting firm Global Insight released by the National Venture Capital Association recently, startups backed by venture capital since 1970 today employ 10 million Americans, and in 2005 generated sales of \$2.1 trillion. These companies employ over 9 percent of the U.S. private-sector work force and account for an astounding 16.6 percent of GDP.

This is amazing when you consider that the \$23 billion invested by venture capitalists in 2005 represented only 0.2 percent of GDP. Talk about a bang for your buck. These companies—from Apple Computer Co., Intel Corp., Cisco, Amgen Inc., FedEx Corp., and Google Inc. to the up-and-coming mobile technology and lifesaving drug and device companies of today—have generated far higher than average wage growth, have accounted for a significant and growing proportion of U.S. civilian

research and development, and have spawned some of the most innovative products, services, and business models of our era.

But we ain’t seen nothing yet. Giant technological leaps are in their infancy. If all we do is develop biotechnology innovations currently under development, then an average (and active) life span of 100 years is a cinch. Fossil fuels will be, in fact, fossils. Management information systems will revolutionize health care as computer-driven artificial intelligence facilitates diagnoses. Across our economy, one “pipe” will carry interactive video, audio, and the Internet into every home. Global Positioning System-driven satellite systems will drive (literally) every terrestrial vehicle, air, and sea vessel. And this is only the low hanging fruit. According to world class physicist Freeman Dyson:

Two facts about the coming century are agreed on by almost everyone. Biology is now bigger than physics, as measured by the size of budgets, by the size of the workforce, or by the output of major discoveries; and biology is likely to remain the biggest part of science through the twenty-first century. Biology is also more important than physics, as measured by its economic consequences, by its ethical implications, or by its effects on human welfare.

These facts raise an interesting question. Will the domestication of high technology, which we have seen marching from triumph to triumph with the advent of personal computers and GPS receivers and digital cameras, soon be extended from physical technology to biotechnology? I believe that the answer to this question is yes. Here I am bold enough to make a definite prediction. I predict that the domestication of biotechnology will dominate our lives during the next fifty years at least as much as the domestication of computers has dominated our lives during the previous fifty years.

Yet serious impediments exist in our capital markets today which could well inhibit venture capital-

backed startups from commercializing these existing and future technologies, among them: too many notional “public” companies whose shares are too small to trade unless promoted by unscrupulous crooks; too few opportunities for young high-tech companies to go public through an initial public offering without sharing a stock market listing with these crooks; not enough equity-flavored compensation—options—for gifted managers;³ and not enough sensible tax incentives.⁴

ENHANCING THE EVITA ECONOMY

The first challenge, then, is for public policymakers to examine federal regulations so that our economic and financial policies foster entrepreneurialism, not only to preserve the EVITA economy in its present form—by attacking bureaucratic micromanagement that violates the *primum non nocere* (first do no harm) principle—but also to unshackle capital-raising opportunities for young tech startups so that they can grow exponentially by matching the growth in scientific and technological innovations which loom ahead of us and, in the process, spread the benefits to all willing to put in the necessary elbow grease.

Policymaking opportunities to boost innovative companies would facilitate the flow of more private capital into early-stage startups so as to mini-

mize a palpable financing gap between available capital and promising proposals. And good policies would reform the irrational blockage in the pipeline between university research labs and venture investors, an aberration which has minimized the ability of universities and medical schools to commercialize technology through spin outs in which the lab owns a meaningful equity interest.

It’s also important to enable investors below the level of multimillionaire angels to diversify a prudent portion of their investment portfolios into well managed venture funds through 401(k) and IRA pension plans by tweaking the Business Development Company amendments to the Investment Company Act. And we need to spread venture capital-driven entrepreneurialism beyond the East and West Coasts into communities across the United States by promoting regional innovation centers of excellence.

Each of these policy-reform measures will require careful analysis before implementation. But none of them is difficult to envision as part of a concerted effort to create more venture capital-backed opportunities for entrepreneurs across our country. sp

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NOTES

- 1 Companies backed by venture capital generate \$643 in sales for every \$1,000 in assets, compared with traditional companies, which have only \$391 in sales. Venture-backed firms also spend considerably more money on research and development costs: \$44 per \$1,000 in assets compared with \$15 for others. In 2003, approximately 11 of every 100 working adults in the United States were engaged in entrepreneurial activity, either starting a business or playing a lead role in one less than three and a half years old. That rate is higher than any in Europe and roughly twice that of Germany or the United Kingdom.
- 2 Schramm, “Building Entrepreneurial Economies,” *Foreign Affairs*, Jul/Aug. 2004.
- 3 Bartlett & Lundberg, “New Executive Compensation Model,” available at <http://www.fr.com/news/articledetail.cfm?articleid=723>.
- 4 As William Megginson observers concerning the influence of European governments on private equity: European governments have long taken an activist approach to the promotion of VC investment. Unfortunately, both academic research and anecdotal evidence indicates that government efforts to promote a robust entrepreneurial sector would probably be better focused on eliminating regulatory roadblocks, lowering taxes, and providing a more favorable overall business climate than on attempting to directly identify and fund ‘sunrise’ industries. ...
- 5 See www.vcexperts.com, Book 19, *The Encyclopedia of Private Equity and Venture Capital*, “New Trading Platforms: Alternative Investment Market (“AIM”); NYSE Arca; The Pink Sheets.”