

BOOKREVIEW

Venture Capital Grows Up

VC: AN AMERICAN HISTORY

BY TOM NICHOLAS, CAMBRIDGE, MASS: HARVARD UNIVERSITY PRESS, 2019, 320 PAGES

REVIEWED BY DAVID A. PRICE

n 2018, more than 8,300 U.S. companies received venture capital, or VC, investments. Those investments totaled \$131 billion — an all-time record, perhaps driven in part by a low interest rate environment. Over the past half century, VC has had an outsized effect on the landscape of the American economy: Of the U.S. companies that went public between 1974 and 2015, according to a Stanford Business School study, two out of five had been VC-backed. Among technology companies, the VC share is of course much higher. Indeed, the four largest companies in the world by market capitalization — Microsoft, Apple, Amazon.com, and Google's parent, Alphabet — are all VC-funded tech companies.

The development of this powerhouse is the subject of Harvard Business School professor Tom Nicholas' careful and readable *VC: An American History*. While Nicholas retells the stories of famous VC deals, such as Intel in 1969, Apple Computer in 1978, and Netscape in 1994, he is mainly concerned with the evolution of VC institutions themselves. (To borrow from the television show "Silicon Valley," he is interested less in Hooli or Pied Piper than in Raviga Capital Management and Bream-Hall.)

For Nicholas, VC is marked by a number of distinctive characteristics that shape the behavior of VC firms. First, venture capitalists, as intermediaries, play a central role. They raise funds from institutions and wealthy individuals, screen investments (often as many as 100 opportunities for every one in which the firm invests), and play an active role in the governance of the enterprises they back. Second, returns do not follow a normal bell-shaped distribution but rather are skewed; most of the return to a VC portfolio comes from a few exceptional winners. Finally, unlike in public equity markets, the performance of a VC firm tends to be a strong predictor of future performance: VC firms that outperform tend to keep doing so, whether by virtue of superior access to high-potential opportunities, superior acumen in screening, superior advising and governance of portfolio companies, or probably — a combination of all three.

In conventional tellings, VC originated in 1946 with the Boston-based American Research and Development Corp., or ARD. While Nicholas views ARD as significant — its 1957 investment in pioneering minicomputer maker Digital

Equipment Corp. was a milestone moment in the history of computers — he finds the roots of VC much farther back, in 19th-century American whaling voyages. Whaling agents intermediated between wealthy investors on one hand and captains and crews on the other. "Like a general partner in a VC firm," he notes, "the agent typically received a fee for his organizing services plus a share of the voyage's profits." And like modern VC funds, whaling investments had skewed returns, with 1.7 percent achieving returns of 100 percent or more while, at the other extreme, one-third came up dry with returns of zero or less.

Later predecessors of VC were wealthy individuals investing in early-stage technology ventures, such as Andrew Mellon in the late 19th century, and institutions created to make such investments for members of wealthy families, such as Rockefeller Brothers, founded by Laurance Rockefeller in 1946 to invest for the Rockefeller family. The decade after World War II, Nicholas writes, finally saw the emergence of a version of the VC industry as we know it, though it was still "embryonic" — around a dozen firms in all — each one investing in perhaps five to 10 companies.

The industry's dramatic takeoff came in the 1980s, with annual commitments to VC funds growing twentyfold. It was a result, Nicholas relates, of two policy developments. First, the late 1970s and early 1980s brought cuts in capital gains tax rates. Second, a change in 1979 to the federal law governing pension investments, known as ERISA, allowed pension fund managers greater leeway to invest in VC funds, vastly increasing those investments. In addition, although Nicholas does not indicate whether he believes the success of Apple Computer played a major role in the 1980s VC explosion, the mammoth return to VC firm Venrock's 1978 investment in Apple surely helped to validate the model of skewed or long-tailed returns in investors' minds. (As Nicholas observes, the further escalation of VC activity during the late 1990s internet boom had a less happy ending.)

But how did the VC industry in California pull so far ahead? By 2018, VC firms in California had \$228.2 billion in assets under management, swamping runners-up Massachusetts and New York at \$59.5 billion and \$56 billion, respectively. The changes in tax and pension policies were national, after all. While multiple factors were involved, Nicholas astutely highlights California's policy against enforcement of noncompete clauses, a policy that promotes free movement of labor and formation of spinoffs.

VC is an accessible business history of the industry, one that policymakers nationwide and, indeed, worldwide can learn from in thinking about how to encourage investment in startup innovation.