Research Briefs
IN ECONOMIC POLICY
CATO INSTITUTE
August 12, 2020 | Number 227

Government Incentives for Entrepreneurship

By Josh Lerner, Harvard Business School

In the dozen years since the global financial crisis of 2007–2008, there has been a surge of interest on the part of governments in promoting entrepreneurial activity, largely by providing financing. I explore these policies, focusing on financial incentives to entrepreneurs and the intermediaries who fund them. The motivation for these efforts is clear: there are well-documented relationships between economic growth, innovation, entrepreneurship, and venture capital. Yet despite good intentions, many of these public initiatives have ended in disappointment.

For example, the U.S. Department of Energy's clean energy initiative was intended to provide loan guarantees and direct grants to risky but potentially rewarding energy projects that may have otherwise been too risky to attract private investment. Starting in 2009, more than $34 billion was spent in less than four years, which was almost $2 billion more than the total private venture capitalist investment in the field. The enormous scale of the public investment appears to have crowded out and replaced most private spending in this area, as venture capitalists waited on the sideline to see where the public funds would go. Rather than being stimulated, cleantech has fallen from 14.9 percent of venture investments in 2009 to 1.5 percent of capital deployed in the first nine months of 2019.

The Saudi government has also spent many tens of billions of dollars seeking to promote venture capital activity in the kingdom. These efforts have included a wide variety of regulatory reforms, the establishment of venture funds and regional hubs, and global venture capital investments. In the last regard, the most notable was a commitment of $45 billion by the Saudi Public Investment Fund—a Saudi sovereign wealth fund whose stated mission is to be "the engine behind economic diversity in the KSA"—to the SoftBank Vision Fund. Yet the level of venture capital in the Kingdom of Saudi Arabia has remained very modest. Only $50 million of venture capital was raised in 2018 by Saudi firms and in 2019 it was on a similar pace. The 2018 value represented 0.006 percent of gross domestic product, a level one-sixtieth of that of Israel and equal to that of the lowest nations tracked on this measure by the Organisation for Economic Co-operation and Development.

Finally, the Chinese government, after a series of adept moves to promote venture capital over two decades, also made a major commitment in the middle part of the 2010s to continue promoting venture capital. Under the government guidance fund program, more than $231 billion was invested in government-sponsored venture funds in 2015 alone, largely by Chinese government bodies and state-owned enterprises. By way of context, this amount was more than five times the total amount committed to venture funds worldwide by all other investors in 2015. The government claimed it had raised $1.8 trillion for these funds by the end of 2018. The result appears to have been a massive bubble, followed by a quick collapse and slowdown. Between the fourth quarter of 2016 and the fourth quarter of 2018, fundraising dropped by nearly 90 percent, a trend that has continued into 2019. As a result, Chinese companies have fallen from a peak of 45 percent of venture capital invested worldwide to 15 percent in the second quarter of 2019.

Editor, Jeffrey Miron, Harvard University and Cato Institute

I argue that these failures have not simply been a matter of bad luck. Instead, the unfortunate outcomes have reflected the fundamental structural issues that make it difficult for governments to launch sustained, successful efforts to promote entrepreneurship over sustained periods. In particular, I propose two solutions to address geographic, timing, and human challenges to government promotion of entrepreneurship.

The first challenge is the tight geographic focus of entrepreneurial businesses. Economists Richard Florida and Ian Hathaway conclude that, between 2015 and 2017, the top ten urban areas for venture financing (six in the United States, two in China, one in London, and one in Bangalore) accounted for 62 percent of venture disbursements worldwide, while the top twenty-five urban areas accounted for 75 percent of all disbursements. This distribution is not accidental but rather reflects the nature of investment performance. For example, there is a substantial discrepancy of the gross returns from venture capital investments between Silicon Valley and other U.S. regions. Between 1980 and 2019, northern California transactions reported an annualized return of 25.6 percent, substantially more than other regions including New England (14.3 percent), the mid-Atlantic (15.4 percent), and Pacific states outside California (13.5 percent).

Yet many efforts to boost high-potential entrepreneurship end up directing far too much funding to unpromising areas in an effort to "share the wealth." Much of the impact is diluted, as funds that could be very helpful in a core area end up where they are not useful.

An additional challenge stems from the boom-bust cycles that frequently characterize entrepreneurial markets. In some periods, far too many firms can get access to financing, while in others worthy companies languish unfunded. Funds operating in periods with little competition eventually experience very good returns, a pattern that may reflect the fact that the funds operating during these years can invest in the most promising firms at relatively modest valuations. Over time, however, these high returns attract the interest of institutional investors. What starts as a trickle of funds ends as a torrent. The competition for deals rises, as does the pricing of these transactions. Ultimately, the expansion proves to be unsustainable and returns fall. Then the cycle repeats itself all over again.

In many cases, however, political leaders interpret these surges in activity as signals that it is appropriate to intervene with new subsidies, even as the marginal returns from public money declines. The public funds can have the effect of adding fuel to the fire in an overheated market.

The final disengagement reflects the nature of people who are often associated with the greatest entrepreneurial success. Government officials may have many valuable talents and play incredibly important roles; but the skill sets associated with successfully identifying and funding entrepreneurial businesses are very different from those encountered in their typical daily work.

But beyond public incompetence, much of economists' attention has been focused on a darker problem that affects these and similar programs: the theory of regulatory capture. This hypothesis suggests that entities, whether part of government or industry, will organize to capture the direct and indirect subsidies that the public sector hands out. Yet public subsidies are often prone to political-capture problems, where well-connected individuals end up with the bulk of the benefits, and those geared toward entrepreneurial firms are no exception.

How can these apparent disconnects be addressed? One way is for policymakers to emulate central bankers and seek to insulate entrepreneurial policymaking from day-to-day political pressures. Many economists have extolled the need to separate monetary policy from political pressures, lest the temptation to "do the wrong thing" prior to an election be too strong. Establishing an organization to implement new venture policies where the leadership has independence from day-to-day political pressures can similarly lead to longer-term decisions that can address some of the challenges delineated above. Such a step may also make it easier to terminate a program when it is no longer needed.

Similar independent governance has been successfully implemented in other investment arenas. For instance, the Canadian Pension Plan (CPP) was established in 1966 as a layer of retirement savings sitting between the Old Age Security system and individual savings. For the first 30 years of the CPP's existence, expenses rose as benefits like inflation indexing were added, funds were invested in nonnegotiable fixed-income bonds from the Canadian government and loaned to the provinces at submarket interest rates for projects such as building schools and roads, and the CPP faced an aging population. The government realized that the CPP faced either drastic cuts in benefits or sharp increases in contribution rates.

The CPP Investment Board (CPPIB) was established in 1997 in response to these challenges. One crucial part of the reforms adopted by the Canadian government was a dramatic restructuring of the plan's governance. In order to limit political influence, the CPPIB governance was set up as a 12-member board notionally appointed by the federal and

provincial governments, with appointments based entirely on business acumen, not political connections. The board of directors in turn appointed the CEO, with no right of veto from any government. The organization's mandate was set to invest "solely for the benefit of CPP members" to achieve the best long-term risk-weighted returns for the plan's beneficiaries, regardless of government policy objectives. To further insulate CPPIB from political influence, any changes to its charter required approval by an amending process more stringent than that of the Canadian constitution itself.

While independence does not necessarily guarantee effective policymaking, it can increase the likelihood that decisions avoid political fads, relying instead on rules-based approaches and experimental evidence. All too often, in the rush to boost entrepreneurship, policymakers make no provision for the evaluation of programs. In an ideal world, the future of initiatives should be determined by their success or failure in meeting their goals rather than considerations such as the vehemence with which supporters argue for their continuation. Independent governance can facilitate better decisions.

An additional solution attempts to address decisions about fund allocation that are distorted by a lack of understanding of how the market works or by political rather than economic considerations. By requiring that matching funds be raised from the private sector, the dangers of uninformed decisions and political interference can be reduced. If venture funds or entrepreneurial firms need to raise money from outside sources, organizations that will ultimately not be commercially viable will be kept off the playing field. To ensure that these matching funds send a powerful signal, the matching should involve a substantial amount of capital (ideally, half the funding or more should be from the private sector). These stipulations can limit the temptation to impose geographic diversity requirements that direct funds into nonviable areas.

The power of matching funds was clearly demonstrated in what has been considered the gold standard of public venture capital initiatives. In June 1992, the Israeli government established the Yozma Group, a $100 million fund wholly owned by the public sector. The key goal of Yozma was to bring foreign venture capitalists' investment expertise and contact networks to Israel. The need for this assistance was highlighted by the failure of the nation's earlier efforts to promote high-technology entrepreneurship. Foreign expertise was seen as key to overcoming this problem.

Accordingly, Yozma actively discouraged Israeli financiers from participating in its programs. Rather, the focus was on getting foreign venture investors to commit capital for Israeli entrepreneurs. The government provided matching funds to investors, typically $8 million of a $20 million fund. The venture fund was given the right to buy back the government stake within the first five years for the initial value plus a preset interest rate of roughly 5–7 percent. Thus the design of Yozma meant that the government provided an added incentive to the venture fund if the investments proved successful.

The Yozma program delivered beyond the wildest dreams of the founders. Ten groups took advantage of this offer, mostly from the United States, Western Europe, and Japan. Many of the original Yozma funds earned spectacular returns and served as precursors to larger follow-on funds. One decade after the program's inception, the 10 original Yozma groups were managing Israeli funds totaling $2.9 billion and the Israeli venture market had expanded to include 60 groups managing approximately $10 billion. The magnitude of this success is also demonstrated by the fact that the ratio of venture investment to gross domestic product is consistently higher in Israel than in any other nation.

Many of the same policies that have driven governments to promote innovation in general have led to a public policy focus on entrepreneurship. The bulk of these efforts have been well intentioned. But the substantial challenges associated with the promotion of entrepreneurial businesses have meant that the success rate is not as great as many policymakers had hoped or expected it would be. At the same time, the numerous efforts around the world suggest some guiding principles for maximizing the success of these funds. Rather than distributing the public funds willy-nilly, a requirement for matching funds can ensure market validation for the ideas. And placing the body tasked with this responsibility under the aegis of an independent entity can help buffet these long-term initiatives from the ebbs and flows of political fashion.

NOTE:

This research brief is based on Josh Lerner, "Government Incentives for Entrepreneurship," NBER Working Paper no. 26884, March 2020, http://www.nber.org/papers/w26884.