INNOVATION ANALYSIS

2020 Expectations

This material was completed in early April 2020 to reflect the broad economic effects of the COVID-19 pandemic at that point and to include information about how startups are adapting.

EXECUTIVE SUMMARY

In the first quarter of 2020, the U.S. set a new record—126 months—for the longest economic expansion in history. The DJIA achieved record highs; unemployment reached record lows.

Based on trailing key economic indicators in 2019 and early 2020, the U.S. economy appeared to be healthy. However, even before the current crisis, many economists would describe the economy as "fragile" and were cautious about the underlying fundamentals, such as increasing levels of personal debt, rising income inequality, concern over global trade disputes, and weakening manufacturing indicators.

Then in March, the coronavirus pandemic struck with full force. Around 15 million U.S. workers have lost their jobs so far. Economists are projecting the biggest decline in consumption since the sixties. The numbers are changing so rapidly statisticians can't keep up.

Startups, venture capital investors, the economy, and society, must adapt to what could be a new normal for months to come. Historically, we can look back to other pandemics like MERS, SARS, and Swine Flu for reference. Yet, none had such a widespread geographic and economic impact as we are currently seeing.

We are in a spiral of uncertainty that leaves virtually no person, business, or industry untouched. Individually and collectively, we must adapt to a crisis never seen at this scale in our modern world. There will most certainly be another side, but when and how we get there is unknown.

Startups must act decisively to prepare for the comings months. Stress testing and expense cuts have to happen immediately.

This brief report offers a snapshot of the economy with a focus on insights and implications for entrepreneurs and how we are seeing startups in Ohio adapt.

THE CURRENT OPINION: "PREPARE FOR THE WORST"

The economic disruption of this pandemic is extremely difficult to assess and impossible to predict. As economist Paul Krugman underscores, not only is this economic crisis "quantitatively off the charts" but it is "qualitatively different from anything we've seen before." *New York Times, April 7, 2020*

Although it hasn't been called officially, are we heading into a recession (in the last crisis the economy shrank about 6 percent and unemployment reached 5 percent), or we already there and on our way to worse?

The National Bureau of Economic Research (NBER) refers to a recession as: **"Any significant decline in economic activity spread across the economy, lasting more than a few months."**

Since the first days of this pandemic, leading venture capital investors advised their portfolio companies to prepare for the worst. Now, after weeks of this new reality, we are beginning to gain greater understanding of just how bad the worst may be.

"Our first piece on the virus shock was titled 'bad or worse'; now we amend that to 'really bad or much worse.' We now expect COVID-19 to cause a global recession in 2020, of similar magnitude to the recessions of 1982 and 2009."

- Ethan Harris, head of global economics at Bank of America, March 19

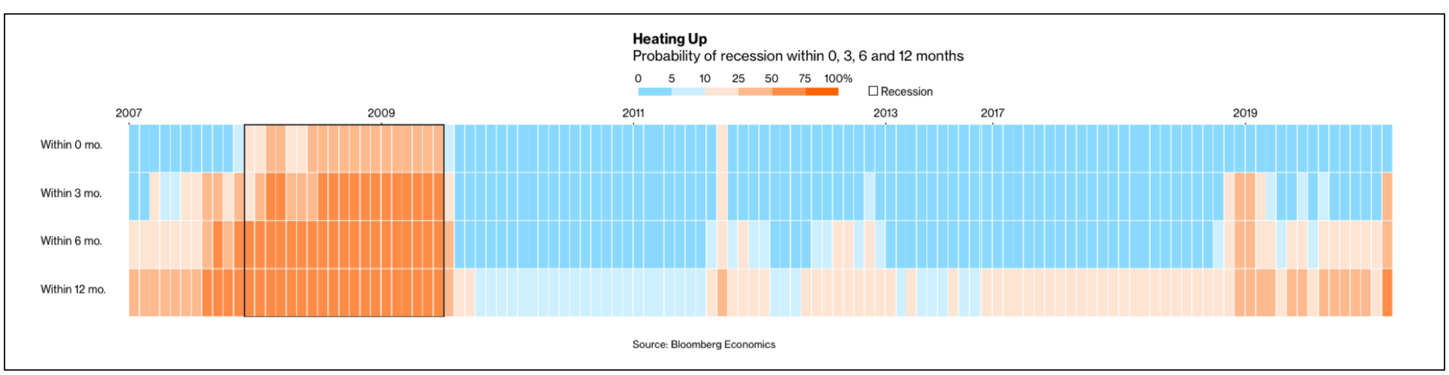
"Last week we concluded that the COVID-19 shock would produce a global recession as nearly all of the world contracts over the three months between February and April."

- Bruce Kasman, head of global economic research at JP Morgan, March 20

"It may be difficult for many Americans to appreciate the depth of the COVID-19 economic disruption early on, as the rapid crash will outpace traditional statistics. But, even at the outset of the COVID-19 crisis, it is already clear that when economic historians parse through the economic data in the years ahead, they will label March 2020 the beginning of a recession, marking the end of an economic expansion that began over a decade ago."

- Jay Shambaugh, Senior Fellow – Economic Studies, Brookings, April 3

Regardless of the uncertainty, one thing we do know, this economic downturn is already unlike anything we have experienced. Interest rates are virtually at zero. The $2 trillion stimulus package passed last month is already seen as not enough. The demand for the SBA loan program has exploded. Plus, unless terms are modified, companies with venture capital investment may not qualify.



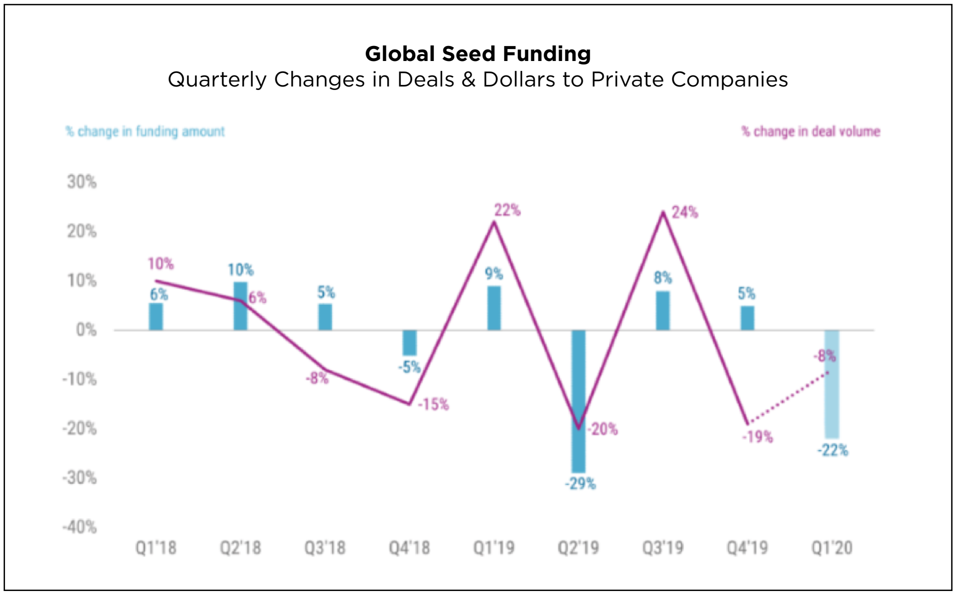
Sources: MarketWatch – Bloomberg – Forbes - WOSU

IMPACT ON AVAILABILITY OF VENTURE CAPITAL

CBInsights projects a 22 percent decline in global seed funding in Q1 2020, while the true ripple effects of a tumbling economy, restricted travel, fewer meetings, and heightened uncertainty and volatility likely won't be fully realized in the data until April or May.

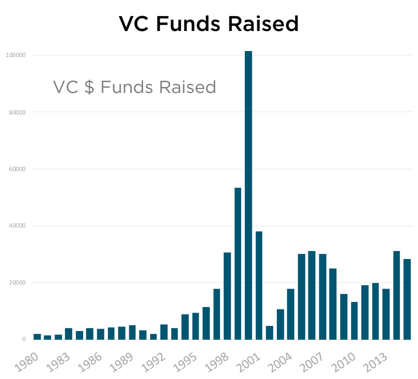
Venture capital investors will inevitably pull back. Fundraising from VCs and corporate VCs is expected to decline over the next 12 to 18 months. Sell-offs in public equities reduce the overall asset pool available for investment and will cause a decrease in the available capital for limited partners to contribute to venture capital funds.

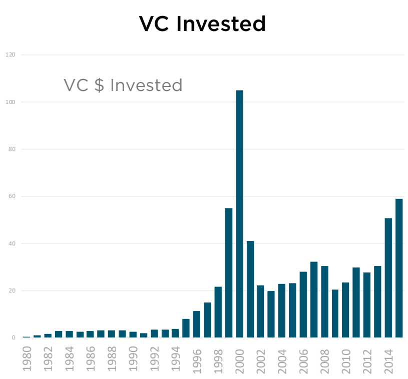
Even as the recession subsides, depending on the length of the trough and the slope of the recovery, there could be lingering impact on fundraising and investments affecting capital for 24 to 36 months or more.

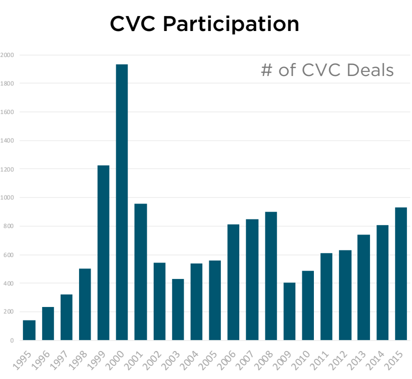


Sources: PitchBook – CBInsights

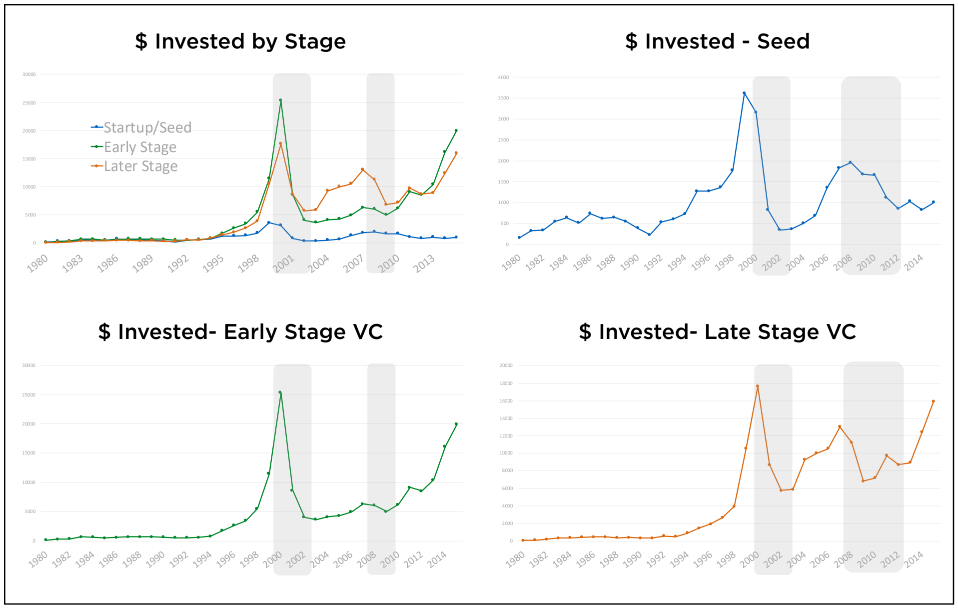
IF HISTORY IS ANY INDICATOR







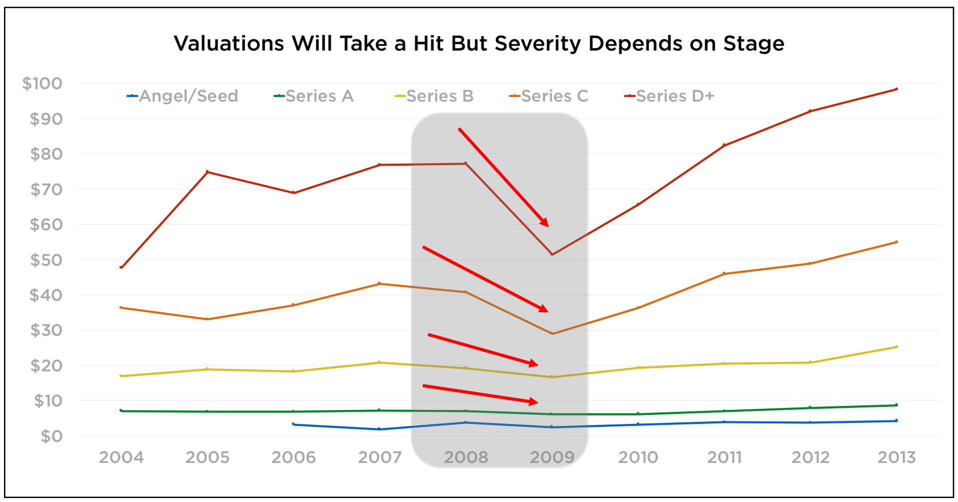
Sources: NVCA 2011 & 2018 Yearbook, Reuters and PitchBook



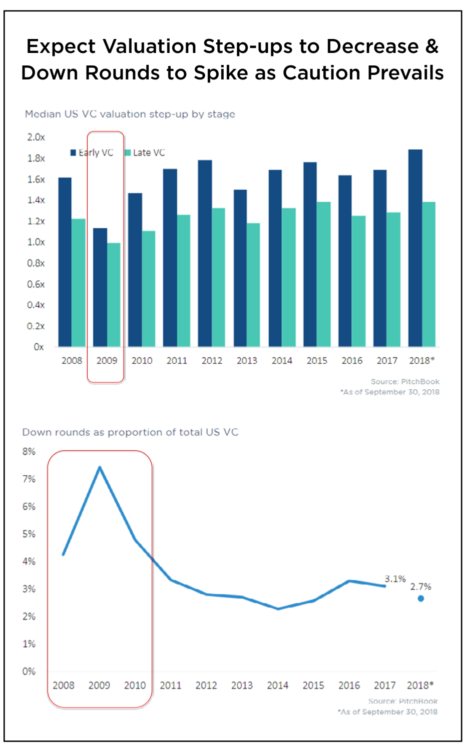
Sources: NVCA 2011 & 2018 Yearbook, Reuters and PitchBook

Valuations, down-rounds, and the average time between first and second rounds will increase. Terms will become more stringent. Consider terms just reported for Airbnb which was one of the most anticipated and hottest tech IPOs of 2020. According to *The Wall Street Journal*, the company is paying more than 10 percent interest on the new funding.

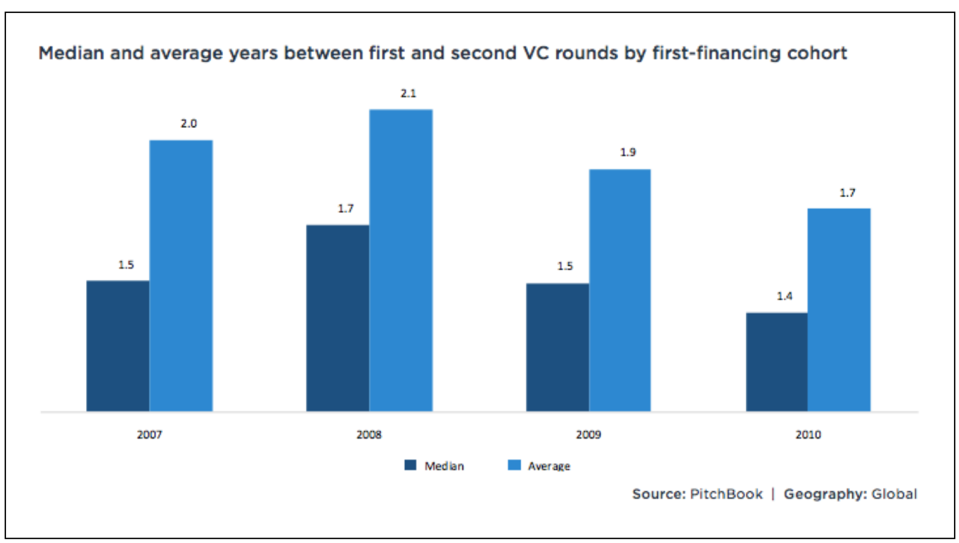
The runway will be longer for every fund-raising cycle. During the Great Recession, it took startups 20 to 25 months on average to raise a second round of capital.



Sources: NVCA 2018 Yearbook, PitchBook



Sources: PitchBook Q3 2018 Valuations Report

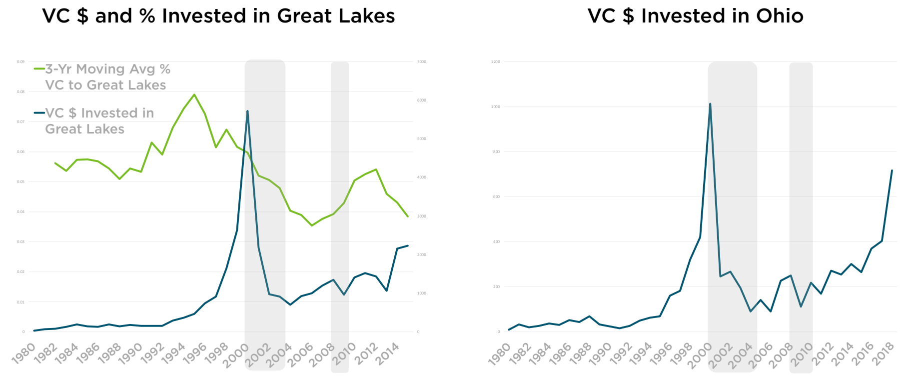


Sources: PitchBook 2Q 2019 VC in the Great Recession Report

In terms of VC investment, it took Ohio, for example, almost 10 years to recover from the dot com bubble. In the decade since, a great deal of very intentional work has been done in Ohio to expand access to capital and to build a robust infrastructure of support for innovators and entrepreneurs.

Ohio is an acknowledged hub of innovation in the Midwest. We know our model works when the economy is favorable. Over the coming months, as we adapt and muscle through the negative economic impacts of this pandemic, we will put our continuum of capital and support of high-growth startups to the test.

IMPACT ON VC INVESTMENT IN OHIO AND GREAT LAKES REGION IN PREVIOUS RECESSIONS



Sources: NVCA 2011 & 2018 Yearbook, Reuters and PitchBook

STARTUP ACTIONS TO ADAPT

As challenging as the next few quarters are apt to be, there will be startups succeeding and investors looking to invest. Those investors will be seeking technologies that will endure and be successful beyond this environment.

Committed entrepreneurs and startups are already taking these urgent actions to change their business plans.

Stress Test: Use a mindset that may feel like overreacting. Underestimating a recession is too risky when it comes to the future of your business. Some recommendations include cutting revenue expectations by one-third and cutting expenses for at least 18 months. Forecast the effect on your business plan if this is a six-month, 12-month, or 18-month problem.

Communicate: Speak directly with every stakeholder you have including employees, contractors, business partners, customers, investors, and your board. Set up a regular communications plan that includes phone calls, emails—personal and to broader audiences, letters to home, and social media tweets and posts. Be open. Match your tone to the times and the audience. The more you openly communicate, the better you can harness the power of your network to survive.

Business Model Innovation: With a pivot, can you apply your products, solutions, processes, or expertise to solve the new problems that everyone is dealing with today. How can your company change to apply new business models?

Technologies and trends that existed before the pandemic are being accelerated. Zoom is a great example. From online education platforms to remote collaboration and work tools, as the need and demand for virtual meetings, videos, and webinars has exploded, Zoom scaled up—not without problems, certainly, but the company has been incredibly responsive to the market. Two of our portfolio companies, Updox and ScriptDrop, are advancing their solutions of telemedicine and prescription delivery to meet escalating market needs.

Scenario Planning: Map out several high-level scenarios. Assess the actions you would take no matter which of those scenarios comes about.

- **Tools:** Invest in the tools that your team needs to continue to operate as close to normal as possible, starting with their ability to collaborate while working from home.
- **Hiring:** Halt all non-essential hiring. If you must make employee cuts, do it all at once in order to minimize uncertainty on your team. Be honest and transparent. Designate someone in your company to help terminated employees access unemployment and other safety-net services.
- **SBA Program and Lines of Credit:** Pull from whatever debt access and relationships you already have. Apply for the SBA Coronavirus funding options.

Act Swiftly: Consider how much has changed in just the last two weeks. Entrepreneurs do not have the time for in-depth analysis and forecasts. The greatest risk is delay.

EVERY CRISIS OFFERS OPPORTUNITIES

Society has the tools, technology, and mindset to solve problems now more quickly than ever before. As brutal as this pandemic is, these next months will be the impetus for unimagined positive improvements.

Long before this crisis, we have been progressing through the transition to a knowledge and digital economy. Today's circumstances will speed that up.

Companies in every industry will be rethinking how they do everything. Things will not go back to the way they were. Companies large to small will want to be more efficient. They will understand that teams can work 100 percent remotely and still achieve their goals. In normal slower times, there is the luxury for departments and divisions to take six months or more to make decisions. Not now.

Potential customers or strategic partners who were too busy to meet with you before may be willing to talk now. Firms may be looking for strategic acquisitions. With so many people being laid off or furloughed, there is terrific talent available. If you have the resources or can be creative with compensation, you might be able to attract talent you couldn't before.

By focusing on essentials, moving quickly to preserve capital, and learning to succeed in a less-than-hospitable environment, startups that survive difficult funding periods can become more creative, gritty, and thrifty.

- **Customers:** Focus on the needs of your core customers and on growing sales with a targeted customer base.
- **Partnerships:** Explore potential partnerships with incumbents or others who play a part in your industry now. Everyone is looking for ways to be more efficient. If you can offer value partners may move quicker than before.
- **Talent:** As skilled people are laid off or furloughed, clearly understand your hiring needs to gain benefits from a larger, available talent pool.
- **Fundamentals:** Put unit economics before growth. Companies focused on a profitable business model rather than just user or revenue growth will make it through and be stronger as a result.
- **Unique Projects:** Are there any one-off initiatives that you could support during the current situation?
- **Acquisitions:** If you have the resources, look for smaller teams as potential acquisitions.

Sources: Rev1 Ventures and Golden Gate Ventures

Uber raised its seed round in August 2009 at the height of the economic crisis, and raised again in October 2010, showing that good ideas get funding despite the economy.

In 2009, Intel quickly cut headcount, closed some facilities, doubled down on 32-nm processors, and cut consumer prices to drive sales and increase its lead over rival AMD.

Airbnb raised seed rounds in January and April 2009. Later that year, Airbnb, desperate for traction, sold election-themed collector cereal boxes (Obama O's and Cap'n McCain's) to raise cash. Even with today's enormous challenges to the travel industry, Airbnb raised another $1 billion funding round—albeit at stringent terms.

Patagonia CEO Yvon Chouinard says, "Well, I think the key to surviving a conservative economy is quality. The No. 1 reason is that in a recession, consumers stop being silly. Instead of buying fashion, they'll pay more for a multifunctional product that will last a long time. They'll buy one jacket from us that works for skiing and on top of a suit in a rainstorm."

Source: Revenge of the Roaches: 17 Startups Hatched In The Crisis Of 2008 and 2009 That Are Now Unicorns (CBInsights, Apr 1, 2016) – Wired