

Some Perspectives on Startup Financing in a Downturn

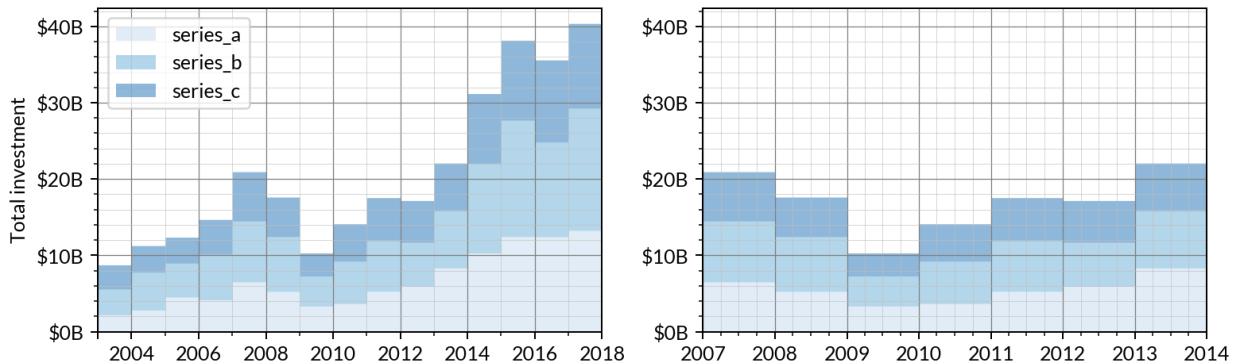
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Given the events of the last week, we decided to spend some time exploring any implications of a change in economic climate for VC overall by digging into the last drawdown during the great financial crisis. We learned that ...

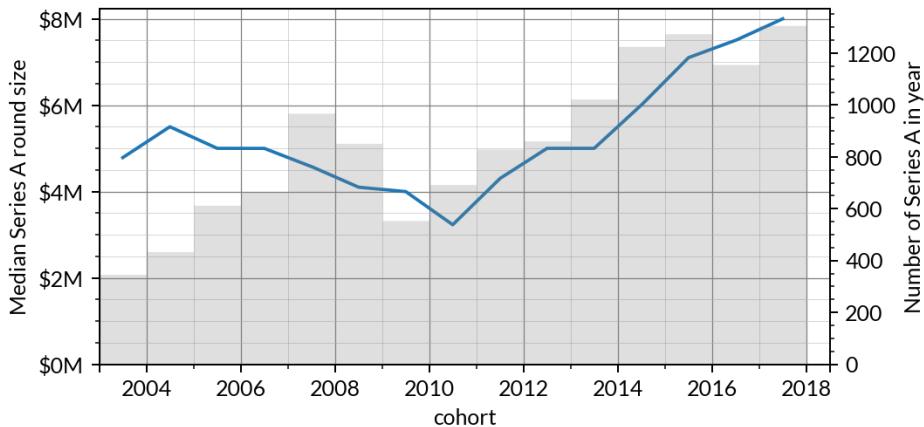
- (a) Total fundraising meaningfully dropped due to both fewer and smaller rounds
- (b) For every 10 companies that would have raised a Series B in normal times, 8-9 managed to raise the subsequent round in tough times
- (c) Long-term investment results (subsequent fundraising and exit rates) appear at most moderately affected

While the focus of this analysis is on companies at their Series A, the story is similar for Series B and C, as shown in the appendix. Our calculations are based mostly on data from Crunchbase.

We begin with total investment dollars, wherein the left chart below we show total funding to Series A/B/C for 2003 to 2017 and on the right a zoom-in of 2007 to 2013. There was a drop from \$21.0B invested in 2007 to a trough of \$10.3B in 2009 across these 3 round types. You might think that the drawdown was in specific stages of investment, however, it turns out that the dollar volume in each stage reduced by 50% independently. **We wouldn't be surprised if a downturn, which is possible in the years to come, produced a similar magnitude drop, with 25-50% less total dollars deployed to the early stage as compared to today.** This is an indication that the crisis had a clear effect on the amount of capital deployed across all stages, but, as we'll see shortly, the implications dampened for vintage specific startups as time passed.



The Series A contraction was driven by both lower valuations and fewer rounds. Looking closely, it could be that the number of rounds swelled prior to the recession than there being fewer rounds during the recession per-se.



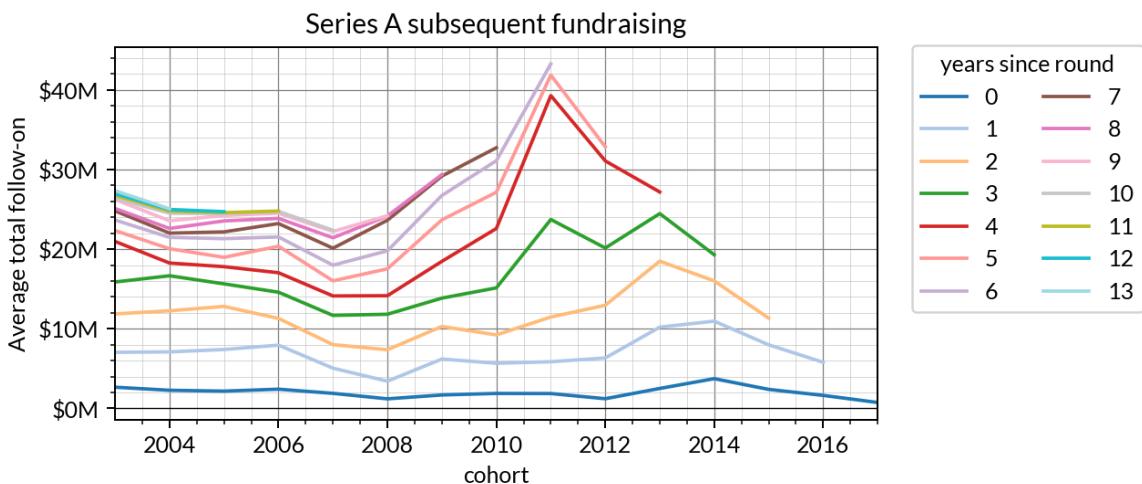
We can directly ask the question “how many Series A’s made it to the next milestone or exited favorably?” which is equivalent in the publicly available data to asking the inverse of “how many startups go stale?” Here, if a startup doesn’t have any financing activity for 6 years, we deem it “stale,” and off the main path desired by venture investors. “Acquired beyond preference” simply means acquisition value was greater than 2x the previous fundraising, and is a proxy for a favorable acquisition. Given all of the above, we’ll focus on the stale rate as opposed to the other indicators.

We see a jump in the stale rate from ~23% to 38%, but since then the stale rate has settled at ~34% in around 2013. For the question of “do I make it to the next milestone during a downturn?” we view 2012-13 as an appropriate neutral-climate reference (especially considering the reference years prior to the recession were in the fallout of the dotcom bubble). **The implication is that during 2007-9, when the financial crisis was rocking the infrastructure that provided funding to startups, 80-90% of startups that were on track to either raise or exit in good times were still able to do so in tough times.** Note that the data does not suggest forced acquisitions in place of fundraising, as the acquisition rate only increased after the crisis. It’s not even correct to say that “the best companies will continue to raise”. **The data below suggests that only the bottom 20% are at risk of not raising - even the median company that would have raised still managed to.**

		next_fundraise	stale	acq_other	acq_beyond_pref	ipo
round	cohort					
series_a	2003	75%	18%	5%	1%	1%
	2004	77%	16%	5%	1%	1%
	2005	68%	23%	6%	2%	1%
	2006	65%	24%	9%	2%	0%
	2007	53%	36%	9%	1%	1%
	2008	50%	38%	10%	1%	0%
	2009	55%	32%	11%	1%	0%
	2010	56%	31%	12%	1%	0%
	2011	52%	33%	12%	2%	1%
	2012	50%	36%	12%	2%	0%
	2013	48%	35%	13%	3%	1%

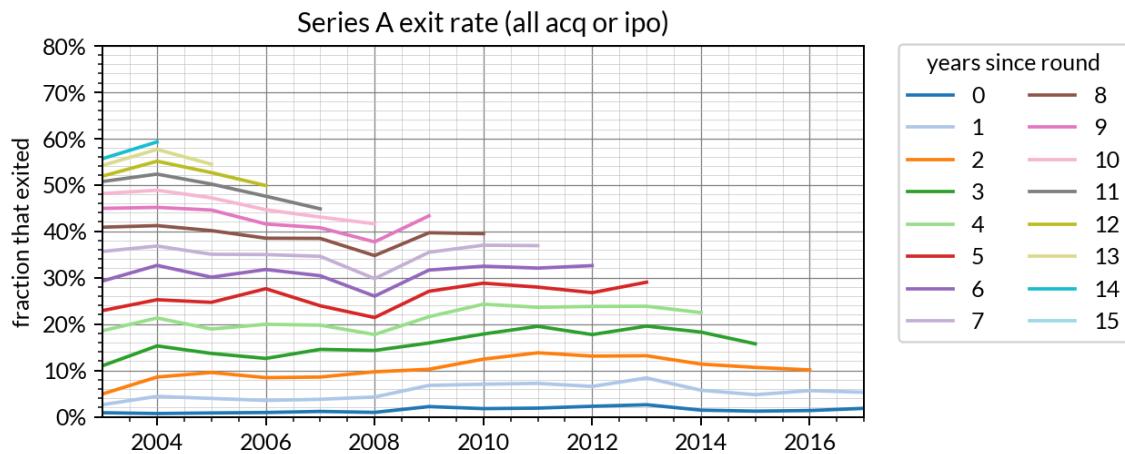
The cohort year refers to the year the business raised their Series A

When we look at total subsequent fundraising, it seems like from just before to just after the crisis, aka 2005-2010, there was not much change 3-4 years out from Series A. The big divergence comes 5+ years after Series A, where we see the effects of the 2015+ Series B round size expansion boosting average fundraising for the 2011-12 cohorts, a development we view as largely separate from the impact of the recession.

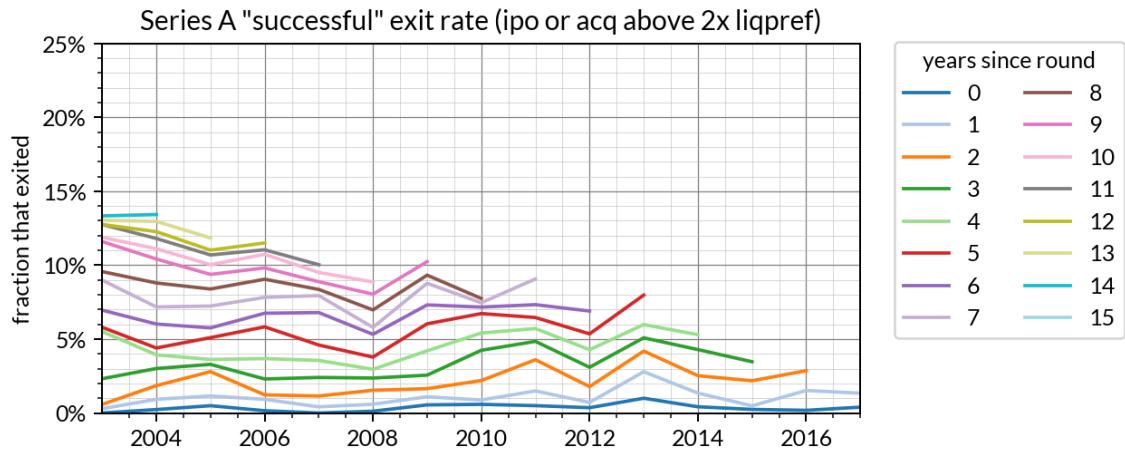


Exit rates are shown below. These are surprisingly insensitive to conditions. If we look at companies that raised their Series A in the boom times of 2006, their exit rates 8 years out is 38% whereas for those founded as those founded in 2008 in the midst of the crisis the rate of exit at 8 years falls to 35%. Said another way, the odds of eventually exiting moves only by ~9 percent (300 basis points). Said yet another way, this suggests that for every 10 companies that would have exited had they raised their Series A in boom times, 9 of them would still be able to do so in tough times. **What mattered more for these companies was their execution over time**

(i.e. not being the marginal one in ten), not when they were funded. If these exit rates seem high, they actually tie out to Ian Hathaway's findings ([link](#)).

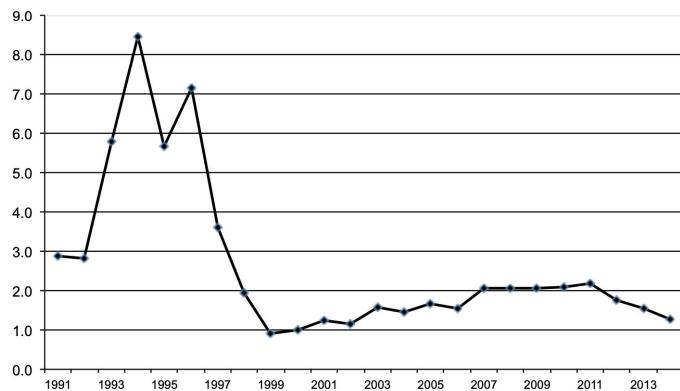


We can also proxy the “successful” exits as all acquisitions beyond 2x liquidation preference (i.e. acquisitions where everyone involved gets decent distributions) and IPOs. This yields the same story as above with only modest differences between boom times and tough times.



Note that the above figures are consistent with analyses of VC returns by Kaplan *et al*. For example, see one of his graphs below displaying US VC MOIC by fund vintage from Burgiss data. Kaplan's analysis of Burgiss data suggests a broad secular increasing trend in returns that were only modestly impacted by the financial crisis.

U.S. VC MOICs by Vintage Year, 1991 - 2014
Pooled Ave. as of September 2017



During the years before, during and after the financial crisis analyzed above, we see that what mattered was longer-term execution and product innovations and not temporary funding disruptions. Looking across the various fundraising and exit metrics by vintage as we have done here gives us confidence that, while macro conditions may affect fundraising for marginal companies, great companies continue to succeed regardless of when they were founded.