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ARE U.S. COMPANIES TOO SHORT-TERM ORIENTED? SOME THOUGHTS

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ABSTRACT

U.S. companies are often criticized for being overly short-term oriented. This paper documents that those criticisms have a long history, going back at least thirty-five years. The paper then considers the implications of sustained short-termism for corporate profits, venture capital investments and returns, private equity investments and returns, and corporate valuations. The paper finds little long-term evidence that is consistent with the predictions of the short-term critics.

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> "I have observed that not the man who hopes, when others despair, but the man who despairs when others hope, is admired by a large class of persons as a sage." John Stuart Mill

U.S. companies are frequently criticized for focusing too much on the short run and not enough on the long run. For example, Laurence Fink, the CEO of BlackRock, one of the largest money managers, wrote that "the effects of the short-termist phenomenon are troubling . . . more and more corporate leaders have responded with actions that can deliver immediate returns to shareholders, such as buybacks or dividend increases, while underinvesting in innovation, skilled workforces or essential capital expenditures necessary to sustain long-term growth."[1] The Report of the Commission on Inclusive Prosperity (co-chaired by Larry Summers) similarly weighed in, "An additional reason for the absence of inclusive prosperity is the changing nature of corporate behavior. Business leaders, government officials and academics have pointed out that corporations have shifted their traditional focus on long-term profit maximization to maximizing short-term stock-market valuations. One reason that economists have advanced for this transition to corporate short- termism is the overwhelming shift to stock-market-based compensation for CEOs and other highly compensated executives at publicly traded corporations."[2]

In other words, these critics argue that US companies as a group destroy value by not investing for the long run. More formally, the short-term argument can be summarized as follows. U.S companies as a group underinvest in capital expenditures as well as research and development. According to the argument, this benefits the companies in the short- term, but harms the companies in the long run where the short-term is usually defined as the current quarter or, perhaps, current year or two, while the long-term would be more than five years out.

[1] Fink (2015).
[2] See Summers and Ball (2015).

Poor corporate governance and overly generous pay plans for CEOs that reward short-term behavior are often cited as accomplices to short-termism.[3]

The critics also point to empirical evidence to support their positions. For example, Graham et al. (2005) survey 401 financial executives and find that 78 percent would sacrifice long-term value to smooth earnings. Others point to corporate dividends and buybacks. Lazonick (2014) shows that S&P 500 companies paid out over 90% of their net income in dividends and share repurchases, leaving little available for investment in the long-term. Lazonick and others contend that companies buy back their own stock to boost their share prices in the short run, regardless of the long-term impact.

These criticisms, however, are not new. They have been raised, prominently, in some form or another since the late 1970s. In this paper, I present those historical criticisms. I then consider the implications of sustained short-termism for corporate profits, venture capital investment and returns, private equity investment and returns, and corporate valuations. In fact, there is very little long-term evidence that is consistent with the predictions of the short-term critics.[4]

1. Some Short-termist History

The criticism that US companies are plagued by short-termism and poor governance has a long history. In 1980, Harvard Business School's Robert H. Hayes and William J. Abernathy wrote an influential article criticizing American companies for being too short-term oriented:

> "By their preference for servicing existing markets rather than creating new ones and by their devotion to short-term returns and management by the numbers, many of them have

[3] See also Martin (2015) and Center for American Progress (2016).

[4] Also see Roe (2013) who presents some historical criticisms and empirical evidence, and reaches a similar conclusion.

effectively forsworn long-term technological superiority as a competitive weapon. In consequence, they have abdicated their strategic responsibilities."

Similarly, Marty Lipton wrote in 1979:

"It would not be unfair to pose the policy issue as: Whether the long-term interests of the nation's corporate system and economy should be jeopardized in order to benefit speculators interested . . . only in a quick profit . . . ?"

In 1992, Harvard's Michael E. Porter repeated the argument:

"The U.S. system of allocating investment capital is failing, putting American companies at a serious disadvantage and threatening the long-term growth of the nation's economy… Many American companies invest too little, particularly in those intangible assets and capabilities required for competitiveness – R&D, employee training and skills development … The U.S. system, first and foremost advances the goals of shareholders at the expense of the long-term performance of American companies. In global competition, where investment increasingly determines a company's capacity to upgrade and innovate, the U.S. system does not measure up."

And the short-term argument is being repeated today by the likes of Laurence Fink and Larry Summers. While some, like Fink, focus on public companies, the arguments of Abernathy and Hayes, Porter, Summers refer to the overall U.S. economy.

2. U.S. Corporate Profits

It is clear from the previous section that critiques of U.S. businesses as overly short-term oriented have been with us for at least 35 years. And the criticisms have not changed much, if at all, in their basic tenor.

But, this has very strong implications for the short-term argument. It's been more than 35 years since the publication of the Hayes and Abernathy article, and 25 years since the

appearance of Porter's. By any measure, today is the long-term that U.S. companies supposedly have underinvested in since the 1980s. Accordingly, the short-term logic implies that U.S. business should be performing poorly today.

But that is unequivocally not the case. Figure 1 reports U.S. corporate profits before tax as a fraction of GDP since 1951. Today, corporate profits are near all-time highs (over that post-war period). The uptrend began just around the time of the Hayes and Abernathy article, and has continued since.

The early 1980s is precisely the time that many observers believe finance and the goal of shareholder value maximization became ascendant. It is also the time that Wall Street and the financial sector began to grow substantially—both in the US and internationally. The early 1980s also coincided with the rise of management consultants who spread techniques across US firms and across the world.[5] In 1980, consulting firms were relatively new and relatively small. Today, McKinsey & Company has offices in more than 60 countries; the Boston Consulting Group has offices in more than 40. And the early 1980s also coincided with an explosion in information technology and globalization.

Consistent with the increase in corporate profits, both Autor et al. (2017) and Burkai (2016) explore explanations for the strong corporate profitability and, concomitant, weak labor share of GDP.

Whatever its source, the strong profitability of U.S. corporations is difficult for the short-termists to explain. It is obviously not consistent with poor corporate performance over the long-term. Nevertheless, short-termists continue to repeat the criticisms of the 1980s and 1990s.

It is worth adding that the strong corporate performance also is inconsistent with poor corporate governance overall, suggesting that criticisms of U.S. corporate governance also are

[5] See Kiechel (2010) for a detailed description of this spread.

overstated. This is arguably the type of example that the quote by John Stuart Mill that begins this paper had in mind.

3. Venture Capital Investments and Returns.

If U.S. companies as a group underinvest in innovation and the long-term, there should be substantial opportunities for others to make those investments. The type of organization potentially best suited to do so is the venture capital (VC) firm.

VC firms raise VC funds in which investors (the limited partners or LPs) commit to provide a certain amount of money to pay for investments in companies as well as management fees to the VC firm. The LPs typically include institutional investors, such as corporate and public pension funds, endowments, and insurance companies, as well as wealthy individuals. The VC fund typically has a fixed life, usually ten years, but can be extended for up to three (and often more) additional years. The VC firm normally has five years to invest the fund's committed capital into companies (and then has an additional five to eight years to return the capital to its investors). After committing capital, the LPs have little say in how the VC firm deploys the funds.[6]

VC firms, therefore, can make long-term investments in innovative companies with time horizons of five to ten years or more. If U.S. companies are overly short-term oriented, one might expect to see increased opportunities for profitable VC investment over time.

Figure 2 plots the annual capital committed to VC funds as a fraction of the value of the total stock market. I deflate by the value of the stock market under the assumption that innovative opportunities should increase with some measure of the value of the economy. And

[6] Sahlman (1990) and Axelson et al. (2009) discuss the economic rationale for these fund structures.

the values of the economy and stock market have increased markedly over time as real interest rates have declined and as the economy has grown larger.

Figure 2 shows that capital committed to VC funds as a fraction of the total stock market has fluctuated in a relatively narrow band of roughly 0.10% to 0.20% over the last 35 years with the notable exception of the Internet Boom and an early 1990s bust. Since 2001, the ratio has exceeded 0.20% in only one year. This pattern does not suggest that there are huge untapped opportunities to invest in innovation. If there were, one might have expected a larger increase over time. Instead, innovation opportunities, while cyclical, seem to have been roughly constant over longer periods with the exception, perhaps, of the Internet Boom.

What about the returns to these funds? Have VC funds earned abnormally high returns? The short-term argument implies that VC investments should be extremely profitable. To measure VC performance, Kaplan and Schoar (2005) introduced the public market equivalent methodology that today is known as the KS PME. The PME compares an investment in venture capital to an investment in public equities at the same amount and at the same time. This makes the PME essentially a market-adjusted multiple. Sorensen and Jagannathan (2015) provide a theoretical justification for this as an appropriate measure of venture capital performance.

Kaplan and Schoar use the S&P 500 (including dividends) as the market benchmark. More formally, the PME is calculated as:

$$\text{PME} = \frac{\Sigma_t \text{ (value of cash distributions to investors discounted at the S\&P 500)}_t}{\Sigma_t \text{ (value of invested capital discounted at the S\&P 500)}_t}$$

If the PME exceeds one, then investors in venture capital funds have outperformed the S&P 500.

Harris, Jenkinson, Kaplan (2014a and 2016) and Harris, Jenkinson, Kaplan, Stucke (2014b) study the performance of VC and private equity (PE) funds. Those papers rely on data from Burgiss that they argue provides the most accurate information on VC and PE performance.

Burgiss data set "is sourced exclusively from LPs and includes their complete transactional and valuation history between themselves and their primary fund investments." In essence, Burgiss uses the cash flow data from institutional clients who use Burgiss' tools for record-keeping and performance monitoring to create "checkbook" data on cash flows.

Figure 3 presents the average (KS) PMEs of VC funds by year from 1981 to 2013 from the most recent Burgiss data. I do not include funds raised after 2013 because they are too recent to have reliable performance information. The patterns are similar to those in the Harris et al. (2014a and 2016).

The PMEs until 1988 are below 1.12. They are well above 1.3 from 1988 through 1998; well below 1.0 from 1999 to 2002; modestly above 1.0 from 2003 to 2008, and roughly 1.20 from 2009 to 2013. Like the patterns of VC funding, the performance patterns suggest an ebb and flow in VC success. Returns were particularly high in the mid-1990s around the Internet Boom, which appears to have led to a flood of capital and poor returns around the Internet Bust. Since the early 2000s and despite the historically average amounts of capital, VC returns have not been unusually high.

And, these performance results may overstate opportunities for two reasons.

First, Korteweg and Nagel (2015) introduce a generalized PME that provides conditions under which it is appropriate to make a different risk adjustment. In practice, the Korteweg and Nagel adjustment leads to somewhat lower estimates of VC performance.

Second, and more importantly, it is not clear that VC investing and performance is scalable. Kaplan and Schoar (2005), Harris et al. (2014b) and others consistently find that the performance of the better VC firms persists, particularly when they do not increase the size of their funds. This means that the stronger VC performance tends to be concentrated in the higher

performing funds. Figure 4 illustrates this by plotting median PMEs against average PMEs by vintage year. The medians are always well below the averages indicating that the top performing funds in any one year skew the overall average performance. This is not the case for other private equity / buyout funds. This also suggests that it is not possible to scale the VC industry and returns simply by adding more VC funding. There is likely some specialized skill or ability that is required.

In sum, the patterns of VC funding and performance do not appear consistent with systematically too little venture capital and a persistent opportunity for large excess returns. If U.S. companies were consistently short-term oriented, we should have seen larger increases in VC investment and more periods of supra-normal returns. Ironically, as Kaplan and Lerner (2010) pointed out, from time to time, there have been criticisms that there is too much venture capital rather than too little.

The one possible exception to this conclusion is the period of the Internet Boom from the early 1990s to 1998 when VCs did earn very high returns. But this exception is arguably not really an exception as money flooded into VC funds in 1999 and 2000 leading to below market returns. In other words, the one period where there may have been an opportunity for unusual profits appears to have been driven by the exogenous shock of the Internet. In that case, the market responded very quickly (and, likely overshot).

4. Private Equity Investments and Returns

Private equity (PE) firms are another type of organization that might be able to take advantage of short-termism or underinvestment in innovation. PE firms, like VC firms, raise funds in which investors (the limited partners or LPs) commit to provide a certain amount of

money to pay for investments in companies as well as management fees. And like VC funds, the PE funds have fixed lives of ten years, but can be extended for up to three (and often more) additional years. More recently, some PE firms have experimented with even longer-lived funds.

PE firms, like VC firms, therefore, can make long-term investments in innovative companies with time horizons of five to ten years or more. If U.S. companies have been and still are overly short-term oriented, one might expect to see increased opportunities for profitable PE investment over time.

Figure 5 plots the annual capital committed to PE funds as a fraction of the value of the total stock market. Capital commitments to PE funds have increased markedly over time. From almost no investment in the early 1980s, PE fund commitments increased to 0.60% of the total stock market in 1987. Those commitments declined to below 0.20% in 1990, only to increase back to 0.60% in 1998. After a decline to 0.26% in 2003, commitments have increased markedly to the point where they have averaged just under 0.80% in the 12 years since 2005.

These patterns suggest that there may have been an unusual opportunity to invest to offset short-termism and invest in innovation, particularly in the 1980s and the 2000s when the commitments increased markedly.

It seems unlikely, however, that much of the increase in PE investing in the 1980s was focused on increased investment. While Kaplan (1989) finds that PE-funded companies or buyouts increased their operating margins, cash flows and value (relative to companies in the same industry), he also finds that those companies did not invest more, but, instead, significantly reduced their capital expenditures / investment.

That leaves the early 2000s as a possibility. Since 2005, however, the opportunity appears to have stabilized as the amount of money committed to PE has stabilized. If, in fact, there was an opportunity, market forces, again, responded to that opportunity relatively quickly.

Figure 6 presents the average (KS) PMEs of PE funds by vintage year from 1986 to 2013 from the most recent Burgiss data.[7] The patterns are similar to those in the Harris et al. (2014 and 2016). The PMEs were consistently above 1.0 through 2005 vintages. Since 2006, PMEs have been only slightly above 1.0. As with the increase in commitments to PE funds in the early 2000s, this pattern suggests that there was an opportunity for PE funds to increase value, possibly through innovation and undoing short-termism, through 2005. Since then, however, market forces appear to have responded to that opportunity to the point where today much of that opportunity likely has been competed away.

And, these performance results may overstate PE performance since 2006 because they do not adjust for leverage. If one adjusts for leverage, PE performance since 2006 is at 1.0 or slightly below.

5. Corporate Valuations

One last observation is to consider what price-earnings or P/E ratios tell us. Recall that:

$$P = E / (R - g)$$

$$P / E = 1 / (R - g)$$

Where R is the firm's or market's discount rate and g is the nominal long-term growth rate.

Now, let's decompose R – g:

$$R = R_f + RP;$$

[7] The figure begins with 1986 because that is the first vintage year with more than five PE funds.

$$g = \pi + g_r;$$

$$R - g = R_f + RP - \pi - g_r$$

$$= (R_f - \pi) + (RP - g_r)$$

where R_f is the risk free rate, generally considered the long-term Treasury Bond rate; π is the expected inflation rate; RP is the equity market risk premium; and g_r is the expected real growth rate.

The short-term argument that U.S. companies are underinvesting in the future implies that future expected growth, g_r, should be lower today than in the past. Other things equal, the short-term argument strongly implies that R – g should be historically high, and, therefore, P/E ratios should be historically low.

Figure 7 presents a historical time series of the Shiller cyclically-adjusted price-to-earnings ratio (CAPE). Rather than being historically low, P/E ratios today are historically high. The CAPE is currently 28.7 versus a historical median of 16.1. Similarly, the P/E ratio of the S&P 500 is roughly 25 versus a historical median of 15.

If P/E ratios are historically high, then it must follow that R – g is historically low. The current P/E ratios versus the historical medians imply that R – g has declined by almost 3%. But, short-termists argue that g_r, too, is historically low. For R – g to be low, some combination of the following must occur and dominate: either real risk-free rates are low: $(R_f - \pi)$; the risk premium is low; or the expected real growth rate is high. For the short-termists to be correct, a historically low g_r needs to be offset by historically even lower real risk-free rates or equity risk premiums.

There is evidence that real risk-free rates have declined since the early 1980s, possibly on the order of 3%. But, there is no evidence that g_r has declined.

Furthermore, Arnott et al. (2015) find that P/E ratios typically decline historically when real interest rates are particularly low or high. "When inflation or real interest rates deviate from their 'sweet spot'—in either direction—valuations tend to fall." Given the low levels of inflation and real interest rates today, the Arnott et al. (2015) model implies that P/E ratios should not be historically high. The fact that they are historically high suggests that expected g_r is also unusually high or that equity risk premiums are unusually low.

In other words, the current high levels of U.S. P/E ratios are not obviously consistent with the predictions of the short-term proponents. Anyone who wished to make the short-term argument, therefore, needs to also explain the high U.S. P/E ratios.

6. Other Observations

There are at least five other general observations that are hard to square with the short-termism argument.

First, the late 1990s saw an unusual, if not stunning rise in the value of Internet-related stocks. Investors in the stock market over this period were willing to put extremely high values on cash flows that were expected to occur far in the future. This was consistent with very large and very long-term expected cash flows. Ex post, of course, those cash flows never occurred for many of the Internet companies, leading to the Internet bust.

Second, Ritter (2016) confirms the findings of Fama and French (2004) that U.S. companies are increasingly less likely to be profitable when they go public. Companies like Amazon and Tesla have been rewarded by the stock market with very high valuations despite going through long periods of negative cash flow. The Ritter results hold not only for tech IPOs, but for all IPOs. Again, this is not consistent with the arguments of the short-term proponents.

Third and related, more recently, there has been a resurgence in biotech stocks. Ritter (2016) reports that over 180 biotech companies went public from 2013 to 2016, more than 25% of the total number of biotech companies that want public between 1980 and 2016. Only 4% of those 180 companies were profitable. In other words, public biotech investors are willing to put up with negative cash flows, often for long periods.

Fourth, the energy sector has benefited from, if not been transformed by the fracking revolution. Golden and Wiseman (2015) and Zuckerman (2013) describe how U.S. companies and entrepreneurs invested in new fracking technologies. Developing these technologies required significant periods of negative cash flows. If the U.S. system had been truly short-term oriented, it does not seem likely that fracking would have developed.

Finally, shareholders of U.S. companies have not been the only beneficiaries. Recall that the arguments for the short-term behavior of U.S. companies began around 1980. Rather than decline, U.S. corporate profitability has increased substantially since then. The global outcomes also have been impressive. According to the World Bank, in 1980 the number of people living in extreme poverty globally was around 2 billion, some 44 percent of the world's population, which then numbered about 4.5 billion. By 2012, that figure had fallen to less than 900 million, or about 13 percent of the global population of 7 billion. The World Bank projected last year that for the first time, the number of people living in extreme poverty around the globe was expected to have fallen below 10 percent. While causality is hard to prove and many factors have contributed to this result, US companies – through international outsourcing and globalization – have played an important role in these outcomes. If corporate short-termism were so pernicious, it would be very difficult to explain the investments U.S. companies have made and the positive global outcomes that have ensued.

7. Why is there so much criticism that U.S. companies are short-term?

So why is there criticism for success and short-termism? While the success and efficiency of US corporations have been good for the people at the top and for people in developing countries such as China and India, they have not been so good for the people in the middle in developed economies. That has fueled frustration and anger, which may help explain the Donald Trump and Bernie Sanders phenomena, Brexit, and the rise of populist politics more generally.

Other pieces of evidence encourage the short-termers. For example, Graham et al (2005) survey 401 financial executives and find that 78 percent would sacrifice long-term value to smooth earnings. I have no reason to doubt that result. Corporate leaders face strong pressures, some of which may lead them to take actions that flatter the short run at the expense of the longer run. However, it is also clear that some of the same short-term pressures can actually prompt companies to become more efficient. It is not at all clear which of these effects dominates. Again, the trend line suggests that even if some companies obsess over the short run, the long run takes care of itself.

Another argument that is regularly used by those who lament short-termism relates to corporate dividends and buybacks. Lazonick (2014) shows that S&P 500 companies paid out over 90% of their net income in dividends and share repurchases, leaving little available for investment in the long-term. Lazonick and others contend that companies buy back their own stock to boost their share prices in the short run, regardless of the long-term impact.

This argument is something of a non sequitur. It suggests that in a buyback or dividend, the money simply disappears rather than going to investors who spend it or use it to make other

investments. It also suggests that companies that don't need money should invest it anyway, rather than give it back to shareholders.

Fried and Wang (2017) also show that the argument in Lazonick (2014) is overstated. When they consider equity issuance as well as equity payouts, Fried and Wang find that S&P 500 companies pay out on net only about 44% of their net income, not 90+%. When they consider all public companies, they find only 33% of net income is paid out on net. And when they also consider net debt issuance, the ratio declines to 22% of net income. That hardly seems a cause for concern.

For observers such as my colleague Luigi Zingales at Chicago Booth, part of the explanation for high corporate profits is crony capitalism, in which incumbent corporate giants use their political connections to shape the system in their favor. There may be industries that fit that description—telecoms being a possible example—but I suspect they are the exception rather than the rule. The US's biggest, most valuable companies are Apple, Google, Amazon, Facebook, and the like. They have used market forces to their advantage, are profitable as a result, and certainly now enjoy some market power. But they didn't attain that position through crony capitalism. They have gotten to where they are because they operate in sectors where there are network effects.

As noted earlier, at the same time, the short-termers ignore a lot of evidence that goes against their position. Amazon has been highly valued for many years despite the fact that it was losing money for much of that time. Amazon invested for the long run and has been richly rewarded for doing so. Similarly, US biotechnology companies, which have made huge progress in innovation and push the boundaries of science, are routinely valued in the billions of dollars

often before they actually have any drugs for sale. If the market were really as short-termist as critics claim, that industry would not exist.

8. Conclusion

There continues today to be much criticism of U.S. companies as too short-term oriented and not oriented enough towards innovation. Those criticisms are not new. They have a long history that goes back at least thirty-five years. If the short-term orientation were true and such a bad thing, its effects should have shown up by now.

But none of those effects have appeared. A short-term orientation has not showed up in lower corporate profits. It has not shown up in higher VC investments and returns. It may have shown up in higher PE investments and returns in the mid-2000s, but it does not appear to have been an issue in the last ten years. Finally, if short-termism is such a problem today, it should show up in low current P/E Ratios. Instead, the opposite is true. Current P/E ratios are historically high.

Overall, then, the criticism of U.S. companies (and their managers) seems overstated if not unwarranted.

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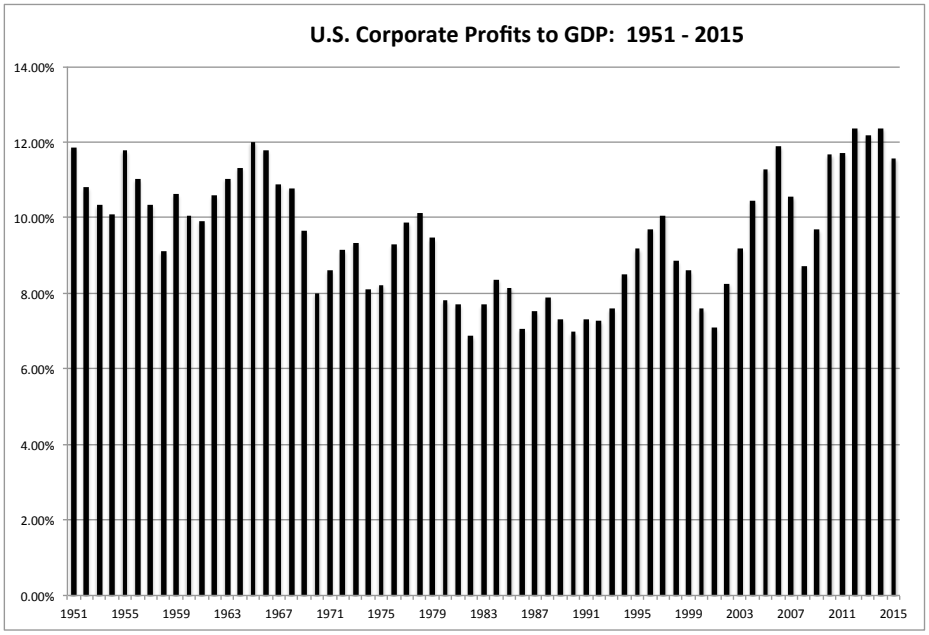
Figure 1



Corporate profits are before tax with inventory valuation and capital consumption adjustments
Source: Bureau of Economic Analysis

Figure 2:

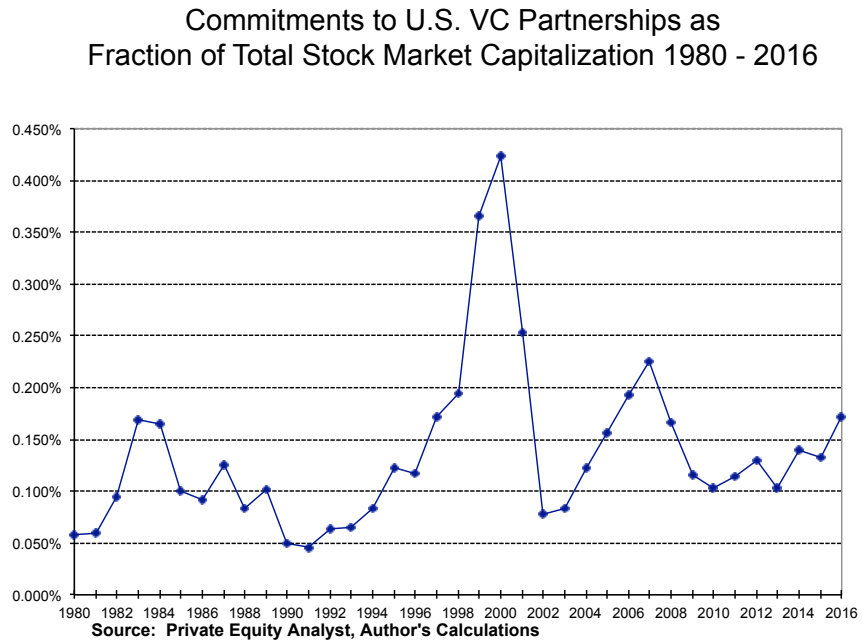
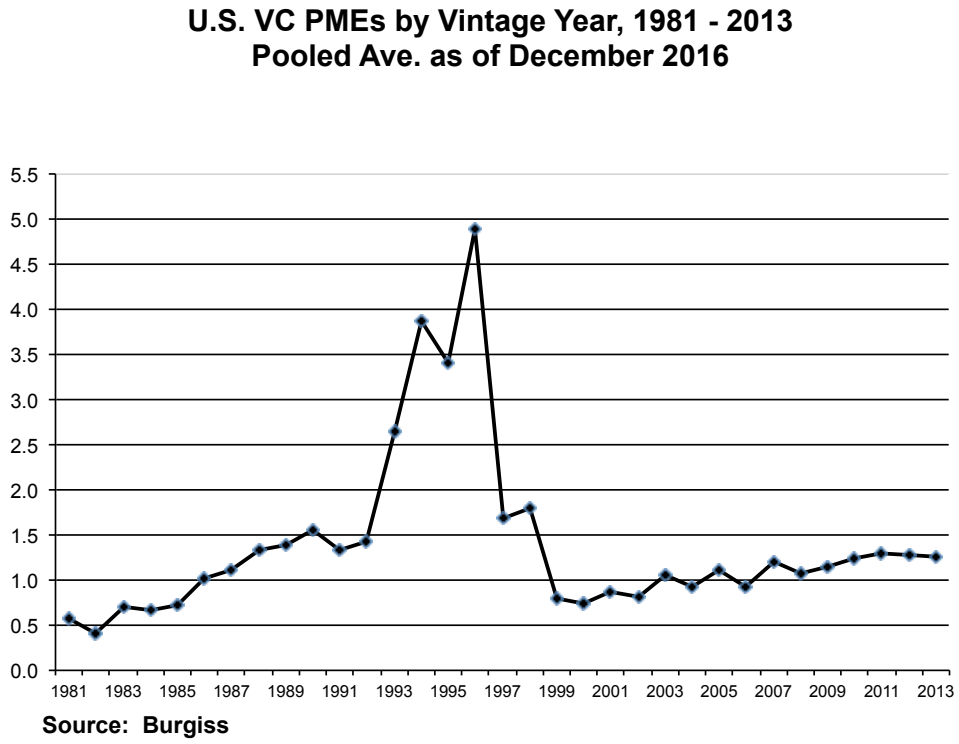


Figure 3:



PMEs are Kaplan-Schoar Public Market Equivalents calculated using the S&P 500 as the benchmark.

Figure 4:

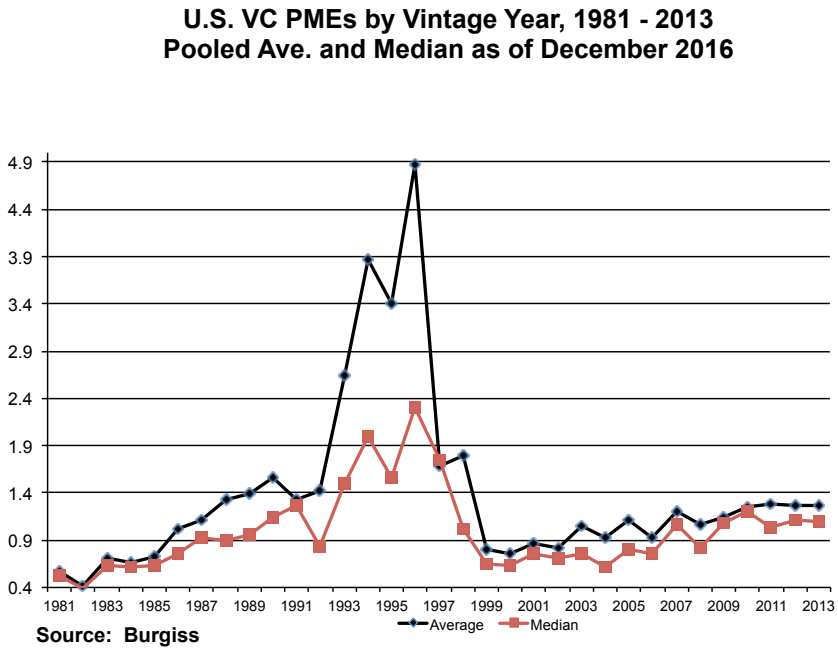
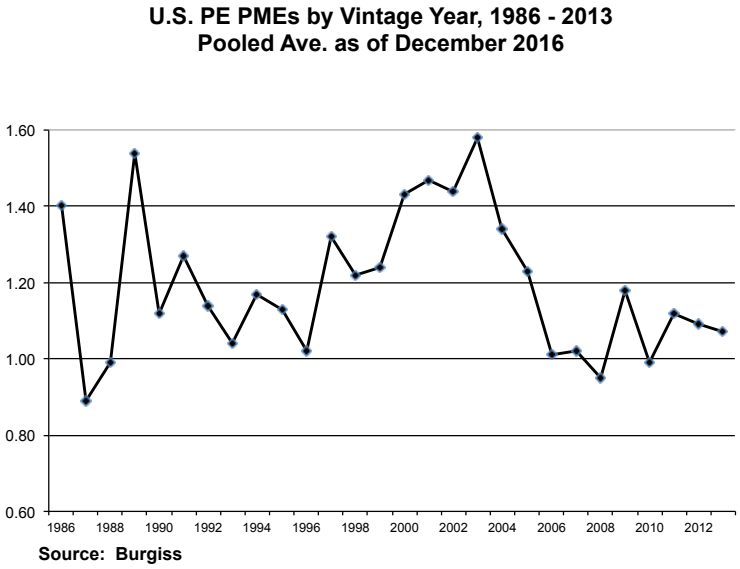


Figure 5:

Figure 6:



PMEs are Kaplan-Schoar Public Market Equivalents calculated using the S&P 500 as the benchmark.

Figure 7:
Shiller's CAPE Ratio