Capital formation in the United States is currently in the midst of a significant transition with largely unexplored consequences for the ownership and control of American business, as well as significant implications for the future of the public equity markets. Although public equity markets remain vast and important, they are no longer the primary source of capital for business formation and growth. Increasingly, capital for business formation and growth is being raised—and held—privately from a relatively new set of institutional investors (most importantly, venture capital and private equity funds). As a result, ownership and control over significant swaths of American business has shifted from participants in public markets to participants in the private markets.

Some of this shift towards greater private ownership is no doubt an artifact of cyclical developments and attitudes towards concentration. Indeed, the historically low cost of debt prevailing in the post Financial Crisis period has strongly encouraged public corporations to use leverage to buy back shares, and in a deregulatory climate that has tolerated greater levels of market concentration promoted a wave of intra-sector consolidation of formerly public companies. But an under-appreciated, longer-term development has played an important role as well: the emergence of huge pools of private and public pension capital operating along or outside the regulatory perimeter. These sources have fueled the growth of private investment vehicles (i.e., venture capital and private equity funds) that focus on business start-up and growth capital requirements. Forty-six years after the founding of Kleiner Perkins in Silicon Valley and thirty-three years after the founding of Blackstone, the venture capital and private equity investment management sectors now provide sources of capital at a scale that rivals the public capital channels intermediated through regulated banks, investment banks and the public debt and equity capital markets. As a result, emerging and fast-growing businesses find that they can attract investment capital from angel investors, private family offices and venture capital firms and to tap these private markets through successive financing rounds. Similarly, established businesses
increasingly turn to private equity sources for their “growth equity.” VC and PE firms are, in turn, funded by diverse institutional investors—endowments, foundations, insurance companies, public and corporate pension funds, wealthy individuals, sovereign wealth funds and funds of funds.

Previously, public equity markets dominated business capital formation. An IPO was a sought-after on-ramp for the financing of emerging companies at scale. And, in the early years of the venture capital and private equity businesses, IPOs also functioned as an exit off-ramp from an illiquid investment, an IPO being a primary means by which early and growth stage investors obtained liquidity for their otherwise illiquid investments. (Alternatively, a privately-held company might enter the public market indirectly through a sale to a public company.) Today, as liquidity options in the private markets have become more diversified and deeper, an IPO or sale of a privately-held company is by no means inevitable: Long term, sustained private ownership has emerged as a viable model for many firms, even those that are significant in economic scale.

The Millstein Center at Columbia Law School is launching a new initiative that concentrates on the systematic study of (a) the private capital markets, (b) the institutional and governance arrangements which govern the businesses funded there and (c) the implications of (a) and (b) for law and regulation. Our aspiration is that this initiative will unfold through a multiyear process, starting with a series of initial “round-table” discussions, with the aim of developing a comprehensive agenda for follow-on research. This document helped frame (and then emerged from) the first of those discussions.

Public Market Reshaping

To get a sense of the sea change now confronting business ownership and governance structures in the United States, consider Figure 1 below. The number of public companies traded on U.S. stock exchanges (excluding OTC issues) peaked in the late 1990s and has been in steady decline ever since. By the end of 2017, the number of domestically-listed public companies had dwindled to roughly half its size at its peak.
Initial public offerings into the public markets, which slowed to barely a trickle subsequent to the dot-com bust of the early 2000s, have since regained at least some of their buoyancy (see Figure 2 below), yet they continue to contribute at best a dampening force on the steady wave of business consolidation and going private transactions which have reduced the number of publicly traded companies over the last twenty years.

One should take care not to over-interpret these numbers as a sign of the irrelevance of public markets. To the contrary, public equity markets still play a vitally critical role in capital formation and economic activity in the United States and will likely continue to do so. Indeed, even as the total number of public companies has dwindled, the headcount trend masks a significant growth trend in the market capitalization of public companies. As noted earlier, many of the public companies that “disappeared” were merged into other public companies. In fact, as measured as a
percentage of GDP, the market value of public companies has returned to turn-of-the (twenty-first) century levels, as reflected in the Figure below:

![Figure 3](image)

Even so, a fair conclusion, then, about the last few decades of public equity capital markets in the United States is that they have become increasingly dominated by larger firms: The market value of listed companies has grown significantly, even as head count has been shrinking dramatically.

**Private Ownership Market Trends**

As the aforementioned trends have unfolded in public equity markets, alternative conduits of ownership—particularly private equity (PE) and venture capital (VC)—have been running at full throttle. Indeed, as Figure 4 below demonstrates, PE investments have grown significantly since the beginning of the financial crisis—with the number of private equity deals being consummated annually tripling and the aggregate annual investment value of such deals almost quadrupling. Although some of these investments were made in public companies, the vast majority were made in companies operating outside of the public securities markets.

![Figure 4](image)
Moreover, although PE exits initially kept pace with new investments, the last few years bear witness to a discernible slackening in the pace and value of exits (Compare Figures 4 and 5).

One particularly notable trend is the increased size of companies held within private ownership markets for longer periods. Deals exceeding $1 billion used to be a small sliver of total PE investment flow; today, they are nearly a third of it (see Figure 6). The trend towards larger deal size reflects in part the proliferation of PE-led “going private transactions” for large publicly traded companies. Of equal note, holding periods for PE investments have become discernibly longer in recent years, now hovering in the neighborhood of five years (and often in concert with buy-and-build or add-on strategies carried out by the PE investor).
PRIVATE OWNERSHIP AT A PUBLIC CROSSROADS

Venture Capital investments, which predominantly back startups and other early-stage companies (usually in the technology sector), have similarly grown in both number and magnitude over the last decade. Since 2009, the total number of VC deals (in all rounds) has more than doubled, while aggregate capital invested has more than quintupled.

![Figure 7](image)

Traditionally, a sustained upswing in venture-backed investment was a harbinger of a significant number of follow-on exit events into the public market—either through an IPO or an acquisition by a public company. In recent years, however, this nearly inevitable presumption has been unwound considerably, as venture-backed firms have increasingly chosen to maintain their private ownership status long after they have become revenue and cash flow positive, when in earlier periods they were traditionally ripe for sale into the public markets.

One of the most telling recent trends related to private ownership in this space is the emergence of the VC-backed “unicorn” with a market value in excess of $1 billion as determined by its most recent investment round. While unicorns were virtually nonexistent a decade ago (and thus their name), they have since proliferated considerably, both in aggregate number and total size (see Figure 8).
Much like the PE space, then, the venture capital-backed sector has increasingly grabbed a larger share of the total equity capital markets pie. Together, PE and venture capital investment managers now constitute a sizable and growing piece of the equity ownership landscape in the United States. To help scale things: the market value of the “unicorns” alone is approximately $500 billion, as against the approximately $30 trillion in the market capitalization of all U.S. public companies.

The conclusion is difficult to resist: While public equity markets no doubt remain important, they are no longer the only game in town. What are the implications? And will these trends continue?

Who Cares?

The aforementioned trends raise critical issues for legal and regulatory policy consideration. A non-exhaustive collection of potential issues includes:

- **Investor segmentation.** Not all investors are free to migrate their investments across the private/public divide. “Non-qualified” investors, for example, are largely constrained to investing in public companies by dint of securities law restrictions. Although these restrictions were largely put in place to protect the retail investor, they have also precluded her from reaping the significant potential gains available to “qualified institutional” and “accredited” investors through investments in PE and venture investment vehicles (except indirectly as a beneficiary of a private or public employee pension plan).

- **Diversification.** The shrinkage and greater concentration of public market issuers, moreover, has left fewer pieces on the board within public capital markets, leaving public market investors (qualified or not) with reduced ability to diversify their investment portfolios. The ability to diversify widely is not only “lesson one” to prudent investing, but the widespread availability of “public market” company comparisons is one of the key inputs to business valuation generally. The declining number of public companies and the greater concentration of public companies operating in a given sector has left the public...
market investor with fewer diversification options and, in the absence of greater transparency on business valuation in the private markets, more limited information by which to value public companies.

- **Heterogeneity.** Almost by definition, private and public companies operate under different governance, investor protection and investment liquidity regimes. Drawing out the differences between private and public companies in each of these areas may require reconsideration of the fundamental goals of securities regulation, particularly to the extent that the more comprehensive body of rules and regulations applicable to public companies may itself be partly responsible for the growth of the private markets and the decline in the number of companies going or remaining public.

- **Principal/Agent Issues.** The difference in investor demographics between public and private companies also has implications for how the basic principal/agent problem in corporate governance is regulated. Having sacrificed liquidity for greater transparency and influence over corporate management and strategy, governance arrangements in the private markets may have important implications for the governance norms and rules applicable to public companies.

- **Competition Policy.** A recent surge of scholarship has explored the extent to which the concentration of public company ownership in the hands of a limited number of large institutional investment managers may serve to dampen competition in the economy as a whole or in particular sectors. Although the academic study of the implications of the emergence of large institutional investment managers with significant shareholdings across the entire cohort of publicly traded companies is still in its infancy, a similar level of concentration among institutional investment managers in the private company sector may also be occurring (and yet is even less visible given the lack of comprehensive data on private company ownership).

- **Opacity.** One of the great positive “externalities” of public markets is that the disclosure requirements applicable to public issuers have created a treasure trove of data about financial performance, corporate organization and governance structures. The data available for private companies—assembled by private data providers—pales in comparison to public company disclosures. In business arenas in which public and private companies compete, this may put public companies at a significant competitive disadvantage. Moreover, as public companies have grown larger, “segment” reporting may be at such a high level that the business activities included in a given segment remain relatively obscure. The opacity may make it harder for an informed public debate to occur about possible externalities from the activity in question and or about the scope for appropriate regulation of those externalities.
What’s Next?

After convening an initial “round-table” discussion with 30 participants from academia, regulatory agencies and private equity and venture capital firms to discuss these issues and identify the questions which are most urgent and can be most robustly studied, the Millstein Center will be moving forward with research reports, policy briefings and other projects on the following topics in order to address this complex and important subject matter:

- **Tracing ownership chains in the private markets**: What do the chains of ownership look like in the private company sector? Do they resemble institutional ownership chains in the public company sector? Using a variety of public databases (and drawing on existing literature), the Millstein Center will track ownership structures and chains among privately held companies, concentrating on a few discrete sectors (such as oil and gas or specific sectors within the technology industry).

- **Data access and collection**: It is well known that data on the private markets is severely lacking both in quantity and quality. To close at least some of this gap, the Millstein Center will:
  - **Produce a meta-summary of data sources** that are currently available that will be updated over time.
  - **Design a collaborative data network** that will include input from public pension funds, private equity funds, family offices and endowments (as well as potentially from insurance companies that sell representation and warranty insurance). The data collected will then be aggregated and anonymized, and then distributed back to those who provided data for the network. Fields collected will likely include key financial metrics related to cash flow and distributions on capital invested, governance- and voting-related rights, provisions related to exit strategies/timing and attributes related to board expertise and experience.

- **Factors driving the public/private decision**: A threshold question in the exploration of the rise of the private markets and the declining number of companies in the public equity markets is whether there is a problem to solve, and if so, what that problem is. Is it necessarily “good” or “bad” to have more public companies? Are there barriers preventing or discouraging issuers from accessing the public markets, and if so, what are they? What factors are driving whether a company stays private or goes public, and how does the lifecycle of a company started with seed funding and moving forward with the need for successive funding rounds affect that decision?

- **Private vs. public company governance structures**: More inquiry is needed into the structures underpinning ownership in public companies vs. private companies to determine whether, and to what extent, the private governance model lends itself to deeper investor engagement with company management and strategy, and whether that deeper engagement produces superior value creation for private company investors versus the performance of
comparable public companies. Among the issues that need to be addressed are: How do institutional investors in private companies structure their governance arrangements? Who sits on the board—investor representatives, founders, other employees, independents? Who controls board composition? How is firm control structured—through board control, shareholder agreements, debt covenants, other arrangements? How does governance (particularly board composition, ownership structure and voting rights) evolve as a private company moves from early stage to late stage to growth equity? What relative weight does managerial oversight play in the private capital space relative to investors’ oversight of one another? Are there governance “norms” at each stage? Are private company directors able to make higher quality contributions than the typical public company director as a result of the availability of greater resources to support them as directors? Do they have greater access to management and devote more time to their jobs? If so, is there a way to replicate those support structures for public company directors?

- **Changes in the structure of private equity and VC financing:** There is now further specialization within categories of “seed” and “venture” funding—what is different about each specialization? How much does such specialization improve efficiency and the prospects for both the investors and the recipients of investment? There have also been major changes within private equity that have led to more liquid private markets (e.g., fund-to-fund transfers). Are there others? How have they affected companies’ decision to stay private or go public?

- **Regulatory and policy issues, including access and disclosure:** With reduced abilities to diversify portfolios in the public sphere, and significant returns for eligible investors in the private sector, we are sure to see continued calls to open up private capital markets to retail investors. Do any likely benefits from such changes outweigh the costs? Are they needed for the effective functioning of capital markets (given the significant involvement of public and private pension funds already)? Even if access is not expanded to a broader array of investors, should there be or should we expect greater calls for disclosure, transparency and liquidity to protect private capital investors? And would such reforms ultimately stifle private markets by replicating the very public-capital market shortcomings that catalyzed the growth of private capital in the first instance?

The continuing migration of capital markets to the private sphere will continue to raise significant legal, regulatory, policy and financial issues that are of first-order importance for the coming decades. The Millstein Center aims to be at the forefront of thought leadership in this area, providing rigorous, objective research relating to questions that are indispensable in informing sound legal policy.