Gresham's Views on Chinese Venture Capital

Background

For more than a decade, Gresham has allocated significant capital to Chinese venture capital investments and our clients have been well rewarded, as these investments have been a powerful driver of their investment performance. Many investors have eschewed this area as too risky or too esoteric, but in the last ten years China has arguably become the second most important venture capital market in the world. Chinese VC investments have soared during the most recent decade and now rival those of the U.S., as shown in **Chart 1**. Some now believe that it is just a matter of time before China becomes the largest and possibly the most important venture market in the world.

We continue to believe that Chinese VC will be a productive investment, but lofty valuations similar to what we are seeing in the U.S., will make it more difficult to generate performance than in the past. As in the U.S., manager selection will become an increasingly important factor in driving differentiated returns. In this conversation we will discuss the following questions:

- What has driven Chinese VC growth?
- How is the Chinese economy structured?
- How has China VC performance compared to the United States?
- What do we expect going forward?

China Denominator Effect

At a very basic level, a powerful denominator effect is driving Chinese venture capital with the emergence of an enormous middle class as GDP-per-capital and discretionary spending has inflected sharply upward. According to the IMF, China's GDP is expected to top $15.5 trillion in 2020, second only to U.S. GDP. Further, China's 1.4 billion consumers form a population base that is roughly three times larger than the U.S., creating a foundation for incredible consumption potential. This potential is being realized as GDP per capita and the associated number of middle-class consumers in China have grown dramatically over the last few decades. Several studies have shown that when a growing nation's GDP per capita increases from $5,000 to over $10,000, consumption patterns change dramatically. Spending begins to shift from basic needs, such as food, shelter and clothing, toward education, banking, healthcare and travel.

As shown in **Chart 2**, China's GDP per capita began to inflect strongly upward in the early 2000s. By 2010, it surpassed the $5,000 per capita level and only a decade later it doubled yet again. Relatedly, Chinese middle-class and high-net-worth consumers comprised only 10% (~140 million people) of the population in 2010, and only a decade later that number exceeds 60%, as shown in **Chart 3**. For context, this is roughly double the size of the entire U.S. population.

Chinese Technology Leadership

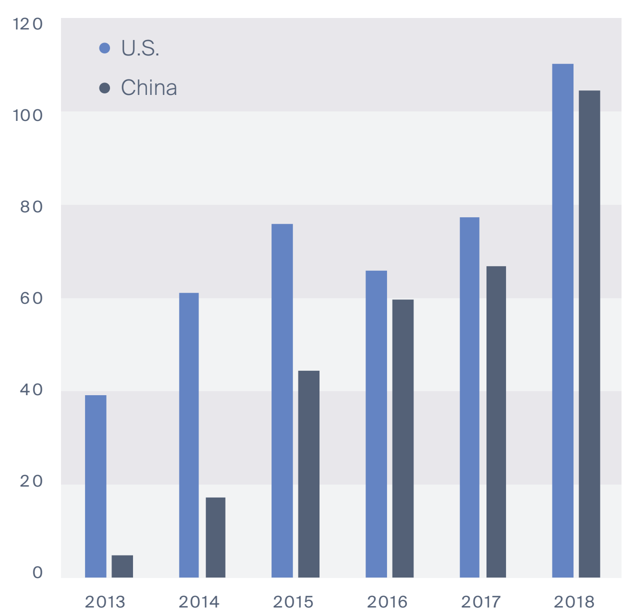
Given most readers' western view of China's communist history, many will be surprised to learn that the Chinese government has actively fostered over the last few decades an environment of entrepreneurialism and a robust venture capital ecosystem. The Chinese government, indirectly through government agencies and regional entities, has created many Science And Technology Industrial Parks and Technology Business Incubators, and it has launched numerous other programs to support this venture environment. These programs have been quite successful and have spawned the Chinese free-market technology leaders of today, such as Baidu, Alibaba, Tencent and Huawei.

China's goal of becoming a global superpower requires that it also become a technology superpower. In many ways, China has already arrived. Currently, China is well ahead of the western world in some technologies and that lead will likely grow in the coming years. For example, China largely bypassed the era of desktop computers and went straight to mobile computing. The China Internet Network Information Center estimates that 99% of China's internet users, or roughly 850 million people, use a smartphone to get online. Similarly, China skipped credit cards and moved directly to mobile payments and it is well ahead of the U.S. and the rest of the developed world in this area. China is also a clear leader in mobile shopping, gaming and social media.

As a result, China's online retail market has become the largest in the world. The McKinsey Global Institute estimates that in 2019 the value of Chinese online transactions exceeded $1.5 trillion. For comparison, the U.S. online retail market is estimated

Chart 1. China's VC Boom Rivals the U.S.

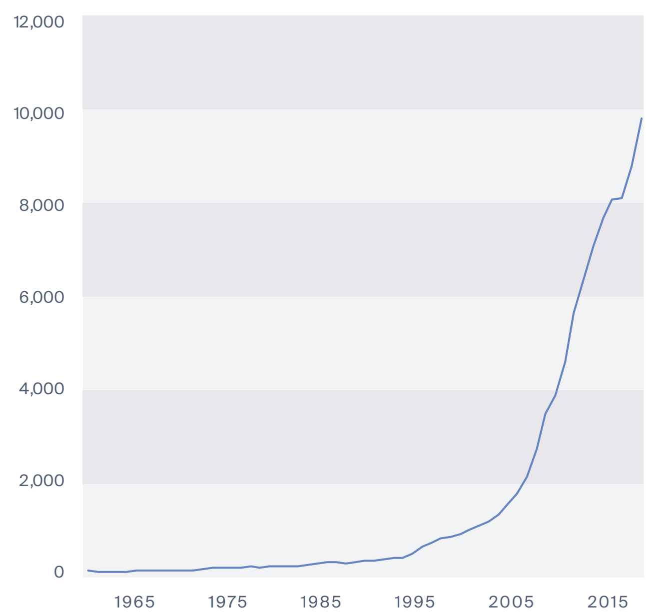
Venture Capital Deals ($ Billion)



Source: Preqin

Chart 2. Chinese Consumer Demand Rockets Upward

China GDP Per Capita in Current $



Source: The World Bank

to be only $600 billion. In fact, China's online market is larger than the next ten markets combined, as shown in **Chart 4**. Further, with a compound annual growth rate over the last three years of 24%, nearly double that of the U.S., China's online retail market is larger and getting even larger at a faster rate. Already, 25% of retail Chinese purchases occur online, compared with only 11% of U.S. transactions, and many of these transactions are mobile.

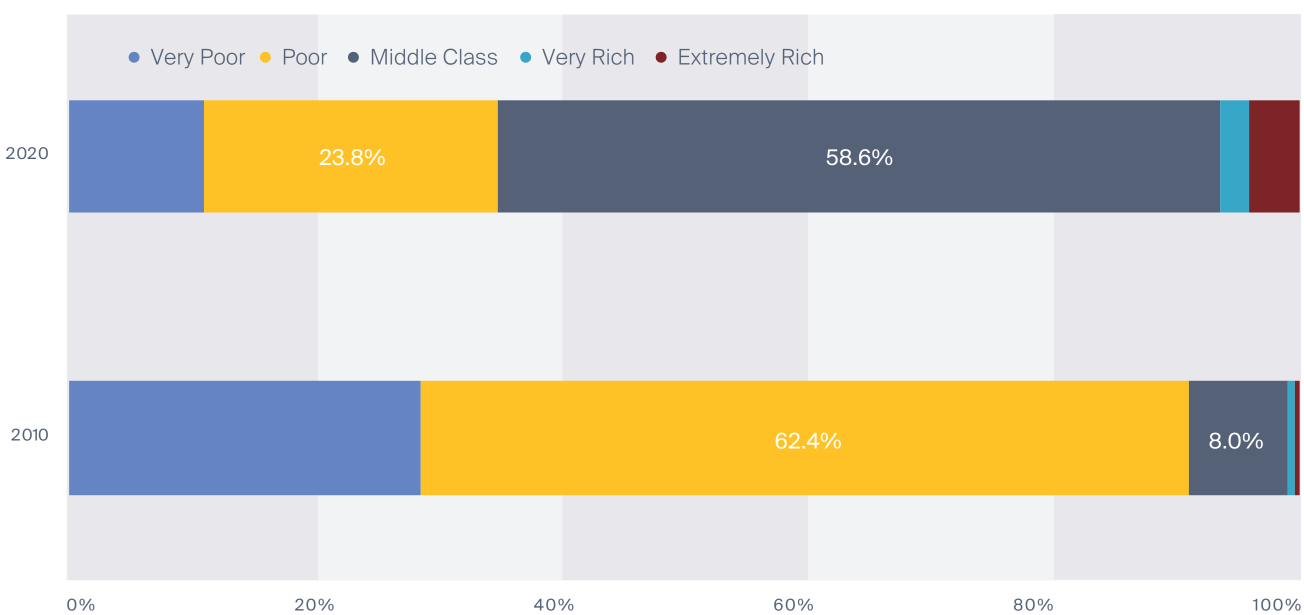
In addition to government technological support driving these developments, China is home to the largest education system in the world. The number of college graduates in China is expected to exceed eight million in 2019, which is roughly twice the number in the U.S. Additionally, China continues to produce more STEM graduates than all western countries combined. While China was once a copy-cat country, "borrowing" technology from other nations, it is beginning to join the ranks of the global technology leaders.

National Champions

In the U.S., we have witnessed the emergence of a few technology behemoths, such as Google, Apple, Amazon and Facebook. A decade ago, Google dominated search, Apple developed a new phone, Amazon solved e-commerce logistics and pricing, and Facebook was emerging as the dominant social media platform. Today, these four companies own monopolies or duopolies in their core markets and are using the power of those market positions to extend their reach into adjacent markets, albeit with somewhat mixed results. They dominate data collection about our online activity and control many of our important access channels to the online world. They capture nearly 70% of the existing online ad revenue and it is estimated they will collect over 100% of the net online revenue growth in the coming years. They have become so powerful that the conversation in the U.S. has shifted away from growth and consumer

Chart 3. Middle Class has Grown Dramatically

Wealth Segments in China



Source: The Economist
Estimate for 2020

benefits to regulatory containment. What society does about this situation stands as possibly the most important issue facing western-world technology.

China has its own family of technology giants that includes Baidu, Alibaba and Tencent ("BATs"). Baidu started as a popular search engine in China, Alibaba as a B2B e-commerce marketplace and Tencent as a gaming and messaging platform. Many in the west who don't follow China or technology developments may not have heard of these companies, but they are global-sized giants, even if they do not have fully global footprints yet. While Apple and Google still have larger market capitalization, the market caps of Alibaba and Tencent are now at or above that of Facebook. Further, strong revenue and earnings growth will continue to close the gap. For example, Alibaba's revenue growth has doubled that of Google over the last year and is nearly three times larger over the last three years. The net incomes of Alibaba and Tencent both exceed Amazon's net income and are approaching the levels of Apple, Google and Facebook. While Facebook and Google are blocked in China, Amazon simply gave up in August of last year owing to an environment that favors local champions and is fiercely competitive.

Importantly, the BAT companies have developed pervasive platforms, with tacit or even explicit government support, which extend into every sector of the internet. These companies dominate Chinese screen time and e-commerce spending to the same degree as their U.S. counterparts and combined have over $1 trillion in market cap. So explicit is the government support, that these national champions have been charged with developing their country's efforts in autonomous driving, smart cities and computer vision in a truly powerful public/private partnership.

Chart 4. China Dominates Online Retail

Online Retail Transactions

	Transaction Value ($ Billion)	Percent of Total Retail (%)
China	1500	25%
U.S.	600	11%
U.K.	135	22%
Japan	115	9%
Korea	90	22%
Germany	80	9%
France	65	10%
Canada	55	11%
India	40	3%
Russia	30	5%
Brazil	30	4%
Indonesia	15	4%
Argentina	7	3%

Source: McKinsey Global Institute

> "China e-commerce dwarfs the rest of the world – with most of it coming from mobile transactions."

The importance of the role these national champions play in the Chinese venture capital ecosystem cannot be overstated. Many analysts focus on the organic growth of these businesses, but their future growth may also rely importantly on their inorganic activity – through investment and acquisition – that doesn't appear in their current revenue and profitability metrics. These companies are creating platforms of services that provide a one-stop experience for their customers' entertainment, shopping, finance and other needs. According to the Financial Times, the BATs have made over 1,000 combined VC investments and have backed or control more than 25% of the Chinese unicorns.

Dollar and RMB Funding

Some investors express concern about getting their capital out of China following a company sale. While it may seem complicated to those unfamiliar with Chinese investments and structures, in reality there have been very few issues. Early private equity and venture capital investors making dollar-based investments in China were limited by the government as to what sectors were allowable for investment. These restrictions have been slowly relaxed and offshore capital now flows strongly into the important technology and healthcare sectors. Companies backed by offshore investments are not allowed to list on mainland Chinese exchanges, typically opting instead for Hong Kong or the U.S. Historically, this wasn't a problem, as most founders preferred to list in Hong Kong, given its better reputation and regulatory environment, while remaining close to home and allowing them to move their wealth offshore.

Alternatively, local renminbi ("RMB") VC funding allows founders to exit through an IPO on a local stock exchange, which some might view as a benefit because local markets can often trade at premiums to the offshore markets. However, much of the RMB capital comes indirectly from the government and a small number of legitimate local investors, both of whom tend to have short investment horizons. As a result, RMB funds have adopted shorter structural investment horizons of five to eight years or less, compared to U.S. funds that typically span more than a decade. As a result, RMB funding has been viewed as a less stable and less desirable capital base for founders. Today, the RMB market is maturing and founders are more willing to take capital from both offshore and onshore sources. Further, the fungibility of companies listed on different exchanges is increasing as China's Exchange Connect programs, which give investors easy access to publicly listed stocks across the Chinese border in both directions, continue to gather momentum. However, RMB funding, which dominated fundraising over the last few years, appears to be declining and contributing to the current "winter" in Chinese VC that we discuss below.

Chinese Venture Performance

By every measure, Chinese VC results over the last decade have been very strong. Return data for Chinese VC is not nearly as extensive as that of the U.S., but we can draw some conclusions from the data that are available, and Gresham's own investment results tell a similar positive story.

In a general sense, Chinese VC returns have far surpassed those of U.S. VC investments with similar vintage years. During the 2000s, in the years for which robust data from Cambridge Associates exist, the capital-weighted average return was 18.9% for Chinese VC versus 10.3% for U.S. VC. Some would argue that the U.S. was suffering a dotcom bubble-bursting hangover during that decade, but the decade of the 2010s tells a similarly impressive relative return story for Chinese VC. For vintage years from 2011 – 2016, although the investments are early and still developing, average Chinese VC returns are 27%, while average U.S. VC returns are just a bit over 21%.

Perhaps even more impressive is the fact that the bottom quartile of Chinese VC managers has produced average returns of over 13% during this period. As an investor, simply owning the Chinese VC asset class was likely to generate a positive outcome regardless of one's ability to select a top-quartile manager. After two decades of pervasively strong performance, many of the world's largest private companies are Chinese VC-backed businesses, as shown in **Chart 5**.

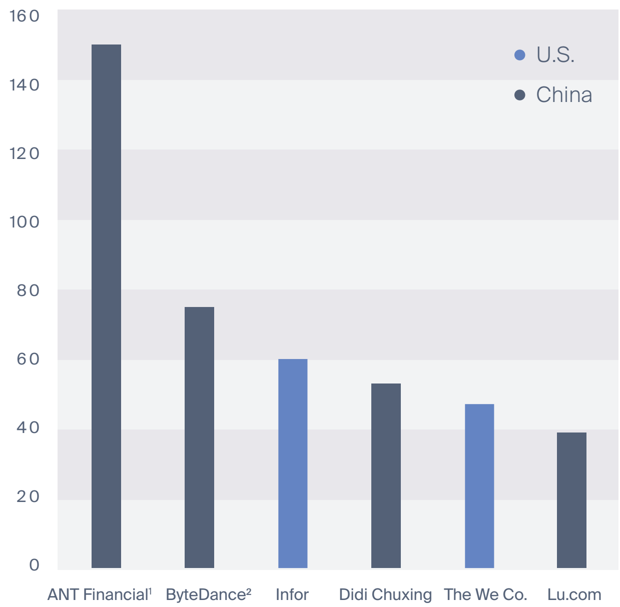
Chinese VC "Winter"

Unlike in the U.S., the Chinese government has explicitly supported investment activity through various channels. These state-sponsored programs have almost ensured that tech startups would receive follow-on funding during their early days. Many of these programs continued for decades and over 70% of program-sponsored companies in the 1990s received follow-on funding rounds for expansion. While many of these businesses eventually failed, leaving many banks with bad debts (a story for a different time), some of these companies – by the sheer force of successive capital raises that created their own moats – turned into the leaders of today. This state-sponsored support created relatively low failure rates – in stark contrast to the higher failure rate of U.S. VC-backed companies – and helps explain why even the lowest-quartile Chinese VC funds still generated strong returns for investors.

By the later part of the 2010s, RMB fundraising declined significantly, as shown in **Chart 6**. An earlier wall of fundraising contributed to the accelerating deal activity

Chart 5. Dominant VC-Backed Private Companies

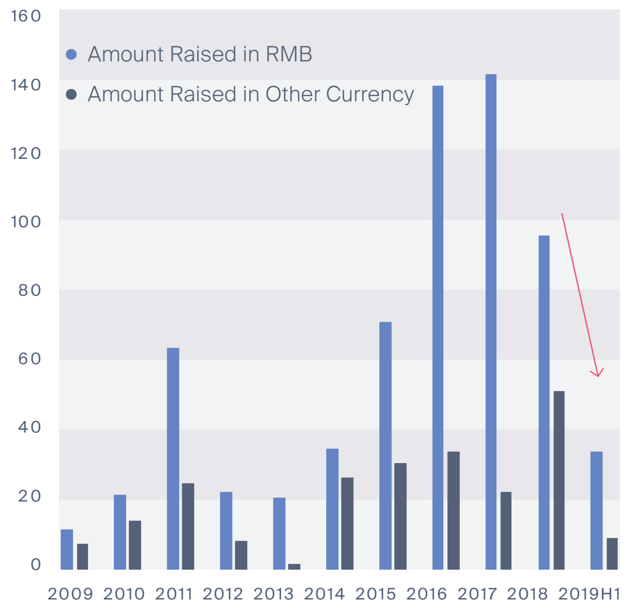
Post-Money Valuations ($ Billion)



Source: Crunchbase. Valuation as of Dec. 2019. (1) ANT Financial is set to IPO in the near term at estimated valuation of $310 billion. (2) ByteDance is exploring options at monetizing TikTok

Chart 6. China RMB VC Fundraising has Collapsed

China VC Fundraising ($ Billion)



Source: McKinsey Global Institute

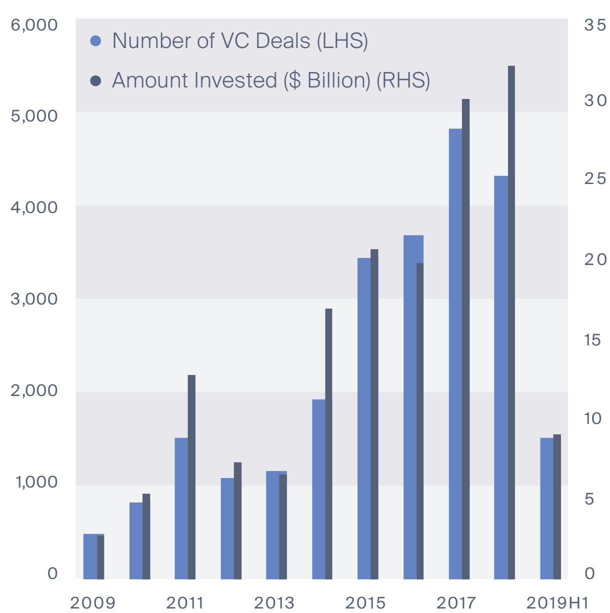
shown earlier. However, as this massive store of investment dry powder has been spent without further support, investment activity appears to have slowed significantly during the early part of 2019, as shown in **Chart 7**. While it is dangerous to extrapolate from a small sample size in the second quarter of 2019 the value of venture deals in China declined 77% and the number of deals roughly halved, leading to the current Chinese VC "winter." For comparison, venture deals in the second quarter rose 15% in the U.S. and over 30% in Europe.

As part of this Chinese VC winter, we are also seeing declining exits for VC-backed companies, as shown in **Chart 8**. While the data are a bit opaque, there is a clear connection between the end of the RMB investment surge, as shown in **Chart 6**, and the reduction in exits with an expected lag. While both IPO and acquisition exit avenues appear to have declined, we expect support for both types of exits to exist in the future. First, IPO exits have historically been cyclical. Both the recent trade-war rhetoric and a mid-cycle economic slowdown likely contributed to reduced IPO support. On the acquisition front, reduced funding to later-stage investors likely contributed to a decline in exits. However, the BATs will likely continue to be active investors and acquirors in the venture space and they have reached sufficient size such that we feel confident that domestic activity will reach a supportive floor level. While the slowing of exits has had a notable chilling effect on VC investing as companies' exit paths seem less certain, we are seeing more attractive pricing in early- and mid-stage investment rounds, producing a realistic belief that future returns could be even stronger over the next few years.

China has never gone through a widespread bust like the U.S. experienced at the end of the dotcom-bubble era. Whether this period of Chinese winter becomes a

Chart 7. Chinese VC "Winter" Arrives

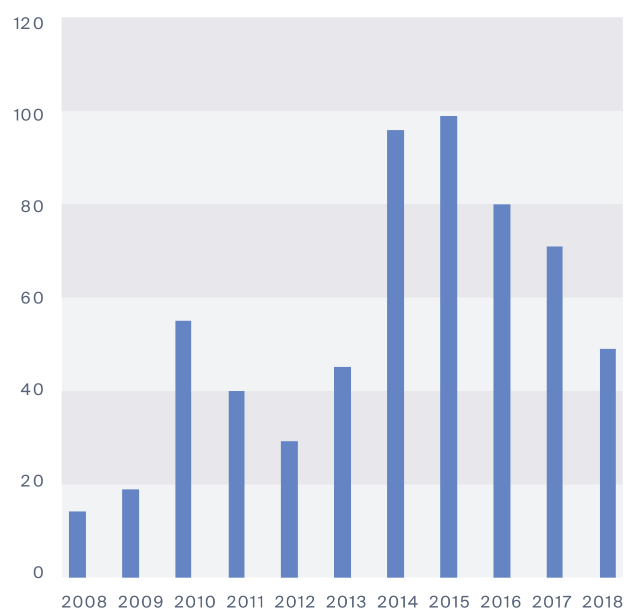
Venture Capital Deals and Funding Amounts



Source: Zero2IPO
Excludes deals from foreign investors

Chart 8. Chinese VC Exits Also Declining

Number of Chinese VC Exits



Source: PitchBook Data, Inc.

longer ice age or a relatively short cold snap will depend on how VCs, investors and regulators navigate this new terrain. While no one can predict the length or severity of this investment soft-patch, historically these periods have often been the best time to plant the seeds of future VC investments.

The Increasing Importance of Manager Selection

Gresham's VC managers on the ground in China corroborate this emerging winter environment. As a result, the performance of recent VC investments may suffer relative to the ebullient performance of the prior decade, as we are likely to witness delayed exits and reduced valuations of existing VC-backed companies. At the extreme, we may also see increasing company failure rates that could approach "normalized" U.S. failure rates. We believe this period will ultimately be healthy for the Chinese VC ecosystem by eliminating many weaker participants that pushed valuations higher. This positive development may be especially true for U.S. dollar-oriented managers, like those used by Gresham, whose companies tend to be higher quality and with funding sources that are considerably more stable. We can already see that strong Chinese VC managers remain in high demand from long-term, sophisticated investors like Gresham and select endowments and foundations.

We believe that the importance of manager selection will continue to increase in China, possibly approaching the importance of VC manager selection in the U.S. As we have seen in the U.S., VC managers in China tend to exhibit serial correlation, where the best performing managers tend to produce the best returns in the future. While this relationship has weakly existed in the past, we expect to see a clearer pattern emerge in China, which means maintaining access to existing top managers and obtaining access to emerging top managers will be critical to future success.

About Gresham

Gresham Partners is an independent investment and wealth management firm that has been serving select families and family offices as a multi-family office and an outsourced chief investment officer since 1997. Today, we manage or advise on approximately $6 billion for about 105 clients located nationally.

We are committed to providing superior investment performance by utilizing select, difficult-to-access managers that are located globally in a full range of asset classes and are not affiliated with Gresham. We make these managers available to our clients in a flexible format well suited to achieving a broad spectrum of investor goals. We integrate this investment approach with comprehensive wealth planning and management services to address the full range of each client's financial needs, often avoiding the need for them to maintain a family office.

Gresham is wholly owned by its senior professionals, client fees are its sole source of compensation, it avoids conflicts of interest that affect many other firms and it acts as a fiduciary dedicated to serving its clients' best interests.

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