

“Reboot” Venture Capital Investing in the 21st Century

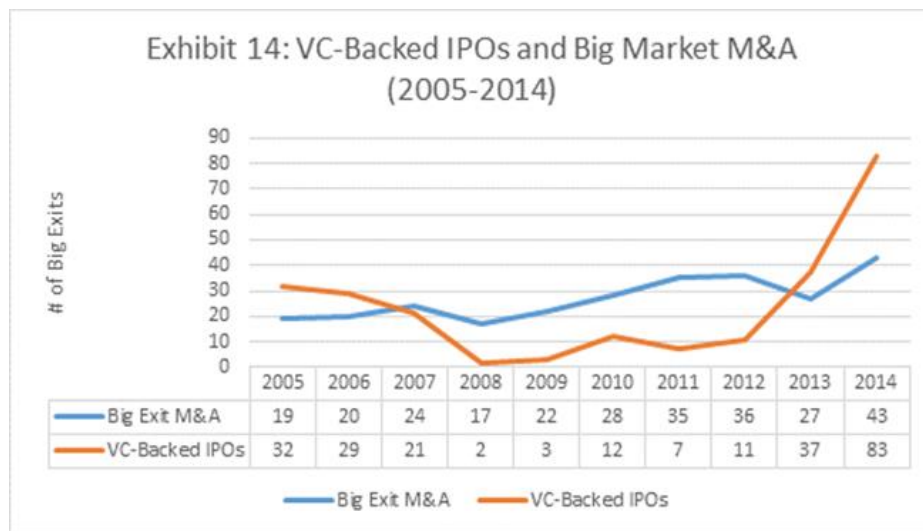
“Reboot” Venture Capital Investing in the 21st Century

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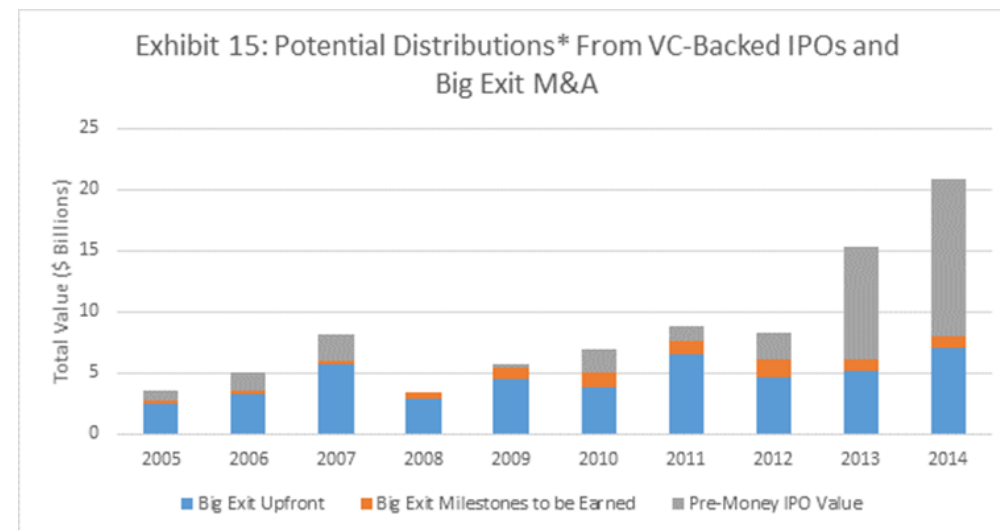
“State-of-the-Union” – Venture Capital (2014)

IPO’S AND DISTRIBUTIONS

“The number of IPOs doubled and big exit M&A soared 50%.”

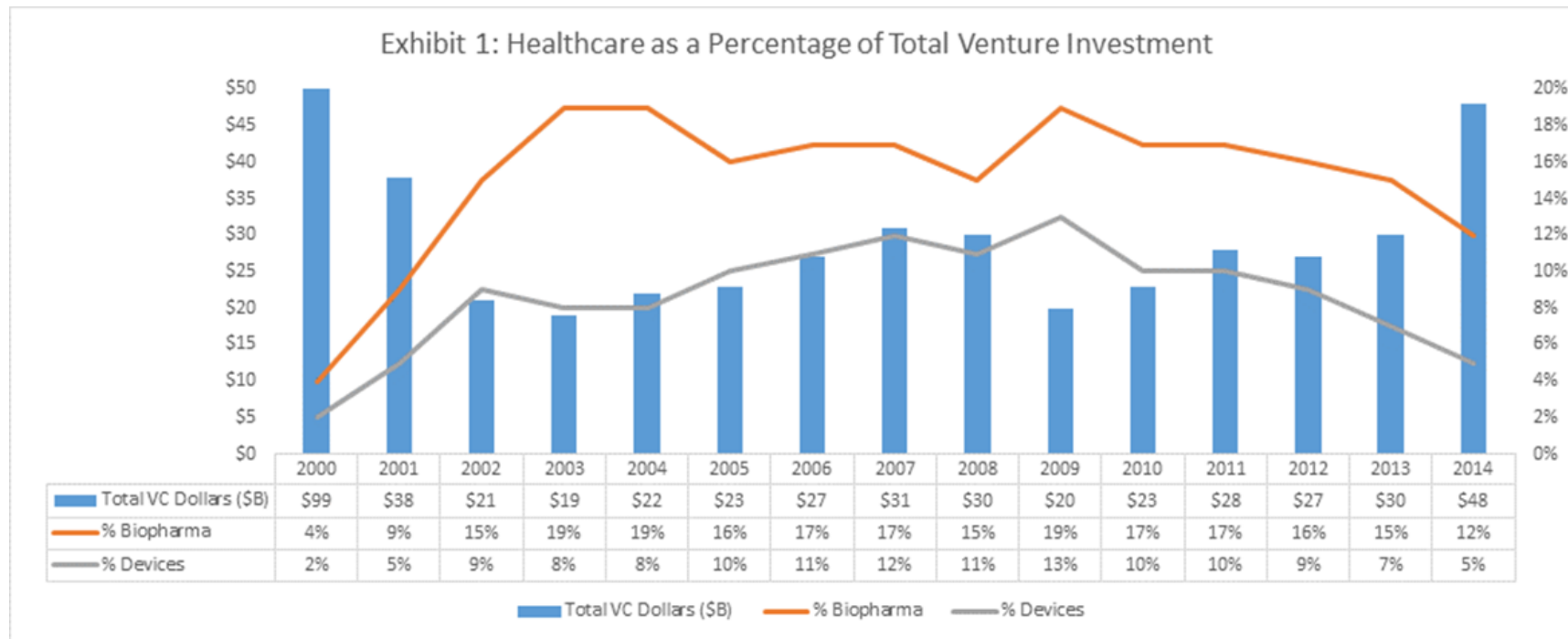


“This environment led to record high potential distributions in 2014, topping \$20 billion. This is the largest return on investment measured since SVB began tracking the information a decade ago.”



VENTURE CAPITAL FUNDING

“Healthcare investment into companies grew significantly, reaching \$8.6 billion in 2014. Biopharma companies had the major share of that total, at \$6 billion – the highest level since SVB started tracking the data in 2005.”

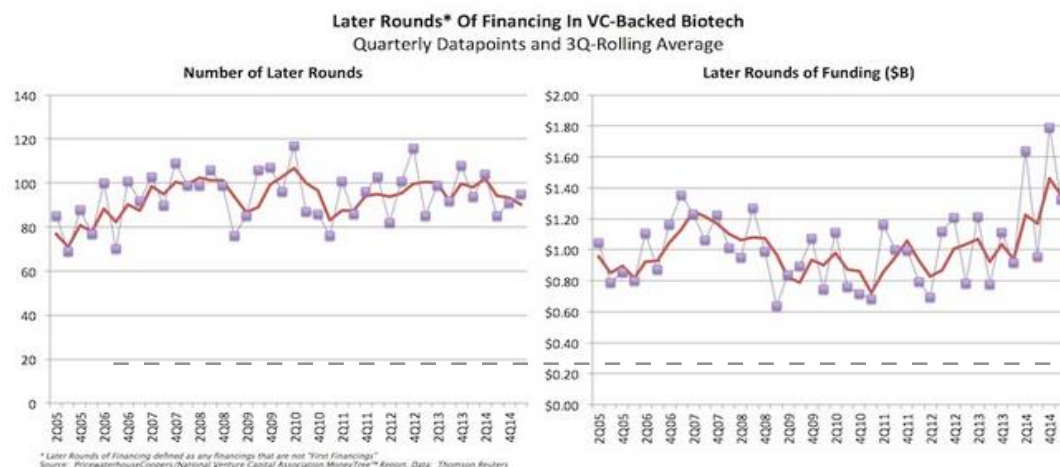


Jonathan Norris, Kristina Peralta, “Trends in Healthcare Investments and Exits 2015,” Silicon Valley Bank (SVB)

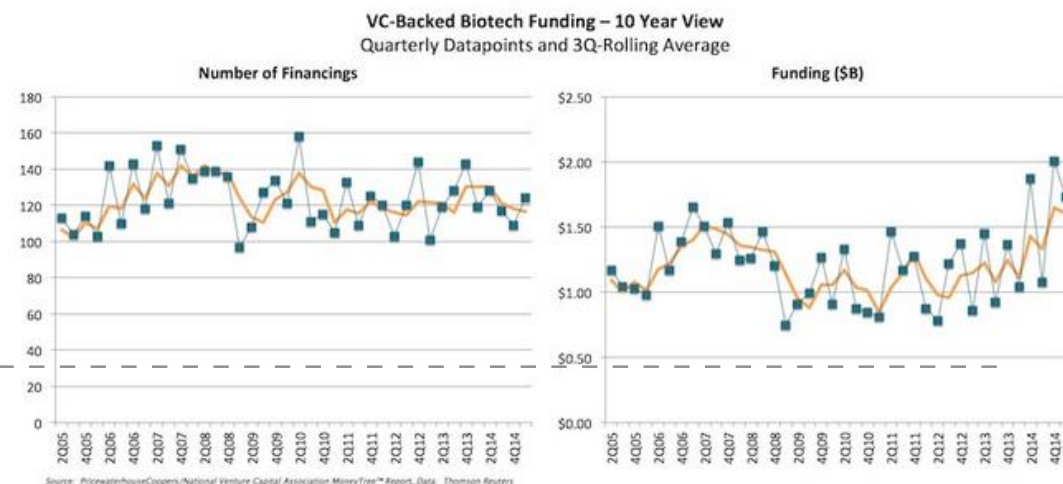
CROSSOVER INVESTORS

“In the past two years, we have seen the emergence of non-VC investors, particularly hedge funds, providing “top-up” financing to IPO-ready companies prior to entering the market.”

— Jonathan Norris, Kristina Peralta, “Trends in Healthcare Investments and Exits 2015,” Silicon Valley Bank (SVB)



- “The later-stage financings driving up the aggregate numbers are almost without exception driven by crossover investors (hedge funds and mutual funds who typically invest in public companies) or non-traditional partners like financial institutions.
- For example, The Alaska Permanent Fund put nearly \$300M into Juno Therapeutics during their private round.”



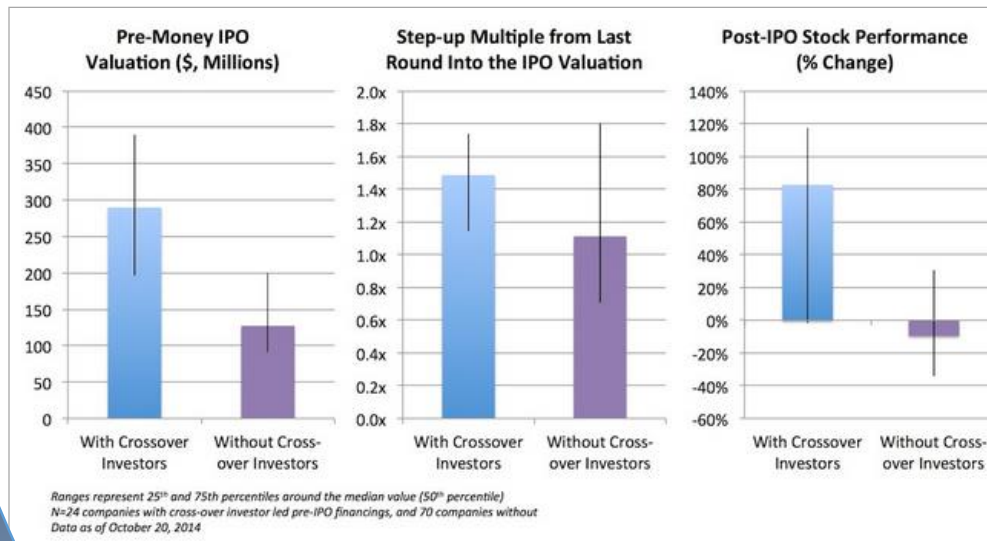
“...based on discussions with a few bankers who track crossover activity, and an appreciation of Corporate Venture Capital (CVC) contributions, only around 50% of the \$6B invested in private biotech's came from “conventional” venture investors (meaning independent venture firms backed by groups of LPs).”

Booth, “Venture-Backed Biotech Today, Reflections on Exits, Funding, and Startup Formation,” Forbes, 1/22/15 and “Data Snapshot: Venture-Backed Biotech Financing Riding High,” Forbes, 4/21/15

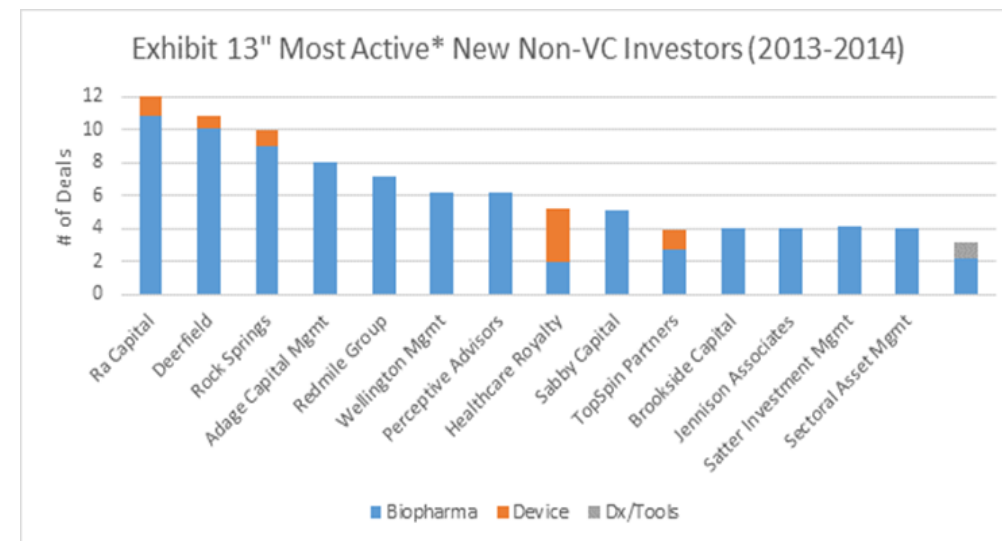
CROSSOVER INVESTORS

Companies with cross-over led pre-IPO financing rounds have:

- Significantly higher pre-money valuations at IPO (128% higher valuation - \$290M vs. 127M).
- Cross-over support IPOs at bigger step-ups in price at IPO (multiple over the last private round valuation is 34% higher).
- Post-IPO stock appreciation vastly outperforms for companies with cross-overs in their pre-IPO round (83% stock appreciation, at the median, versus trading down by 10% without cross-overs).



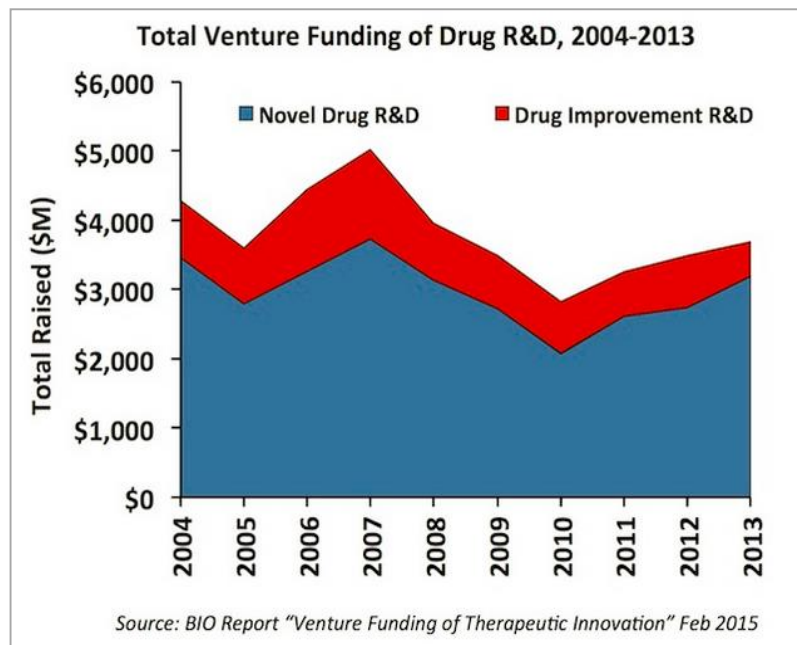
- “Everyone in venture-backed emerging companies acknowledges that going into the public markets with a solid list of blue chip cross-over investors in the capital structure is a good idea conceptually.
- It makes sense to line up big future owners of the stock early to help support the book-building process in the offering.”



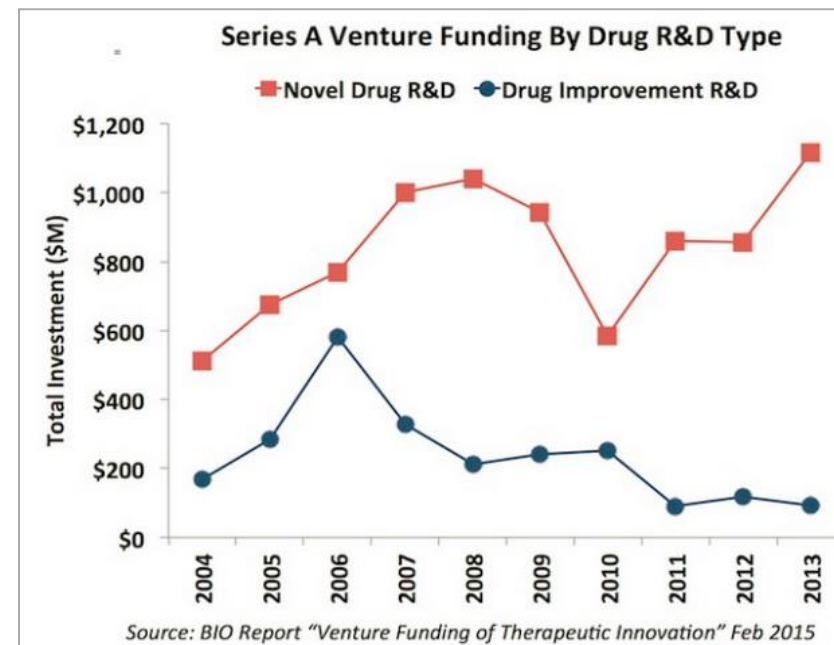
Bruce Booth, “The Biotech Cross-Over Phenom: Biomarker of Quality?” Forbes, 11/7/14

Jonathan Norris, Kristina Peralta, “Trends in Healthcare Investment and Exits 2015,” Silicon Valley Bank (SVB)

WHERE IS THE MONEY GOING? NOVEL DRUG TARGETS



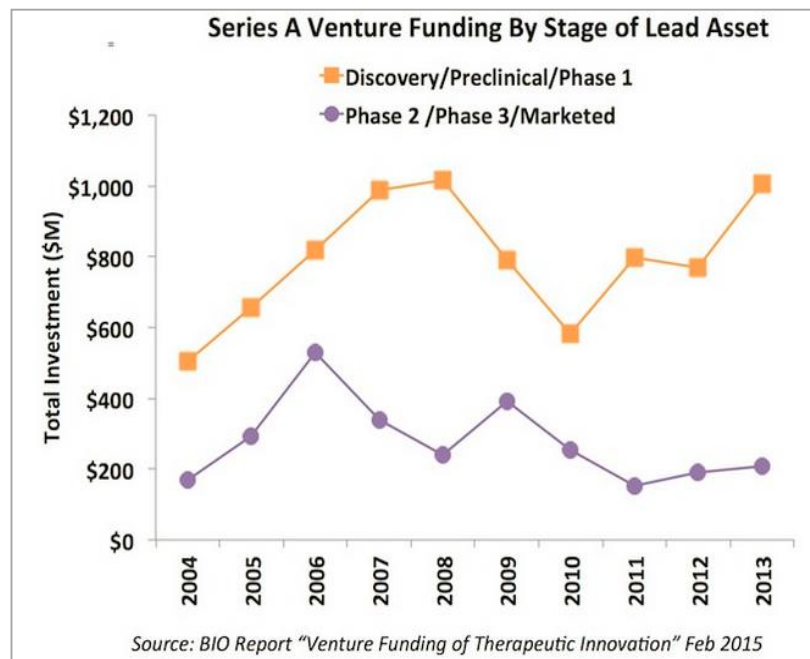
- “Over the past decade, nearly 80% of venture capital for therapeutics went toward 'novel drug R&D' rather than improvements on existing drugs.
- This trend is in contrast to the rise of 'low technical risk' spec pharma investment model of the 2001-2007 period.”



- “Initial rounds of funding (Series A’s) for novel drug R&D reached their highest levels in a decade in 2013.
- The importance of 'high innovation quotient' investment thesis to gather initial venture funding is clearly on the rise.”

Bruce Booth, “Where Does All That Biotech Venture Capital Go,” Forbes, 2/9/15 - Data Source: HBM; “Venture-Backed Biotech Today, Reflections on Exits, Funding, and Startup Formation,” 1/22/15

EARLY STAGE — CORPORATE VENTURE CAPITAL (CVC)



“Most of the Series A funding of new startups has gone toward early-stage assets (drug discovery, preclinical, and Phase 1), and this has increased over the past five years. Further, the majority of the early-stage financings went to discovery/preclinical (~75%) vs. Phase 1.”

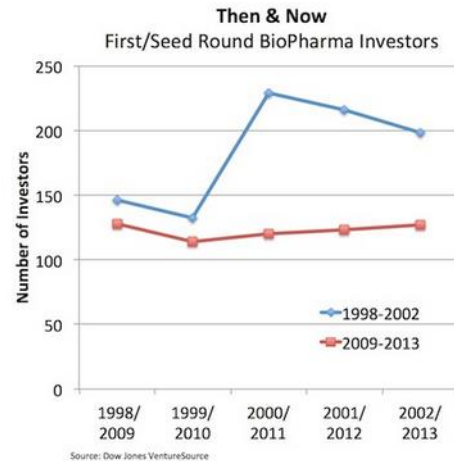
“On the early stage side, nearly one-third of all Series A funding comes from corporate venture capital (CVC) – and this has been increasing over time.”



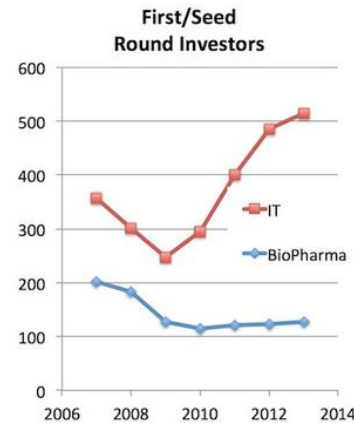
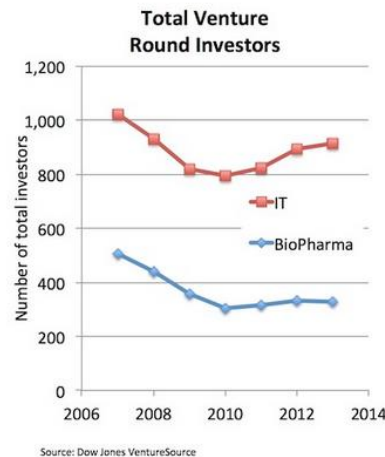
Warning Signs?

Warning Signs?

“With only ~100 new biotech startups being formed each year, and only a few dozen firms actively doing it, there’s a tiny universe of players responsible for creating the next wave of biotech's likely to mature in the 2nd half of this decade.”



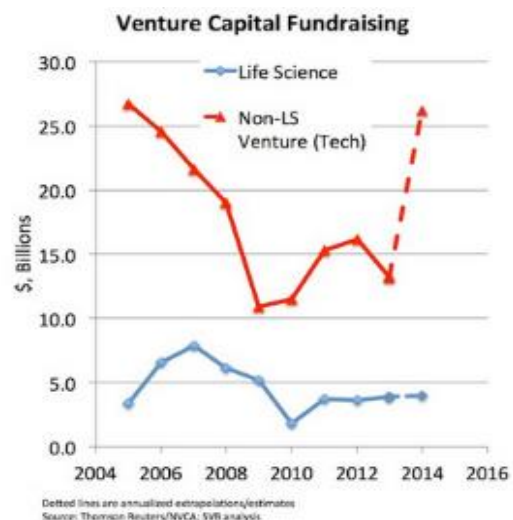
- “....difference between then (1998-2002) and now (2009-2013): in 2000, the number of early-stage investors spiked 75% as the IPO window for biotech began to open up, and stayed high through the collapse of the bubble in 2012.
- By contrast, the last few years – even with one of the biggest/longest IPO windows in biotech history, have been defined by restraint and constraint in terms of early-stage biotech venture and startup formation.”



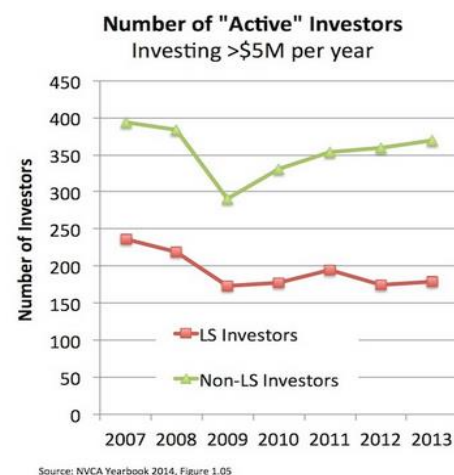
- “Investors participating in BioPharma venture deals declined by ~40%, and never recovered those numbers. This represents a major culling of the herd.”

Bruce Booth “Early Stage Biotech Venture Scarcity: Fitness, Fear, and Greed,” Forbes, 9/22/14 – Data: Dow Jones Venture Source, Franklin Park Associates, NVCA

“With only ~100 new biotech startups being formed each year, and only a few dozen firms actively doing it, there’s a tiny universe of players responsible for creating the next wave of biotech's likely to mature in the 2nd half of this decade.”



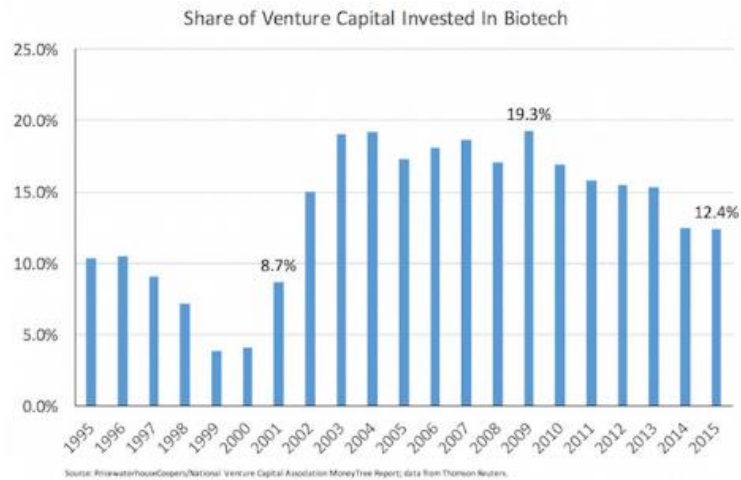
- “The take home message from these data is clear: there’s a huge influx of capital into venture, mostly into technology, and there remains a limited pool of capital flowing into life science venture, and even smaller into early-stage funds – despite the IPO and M&A markets.”



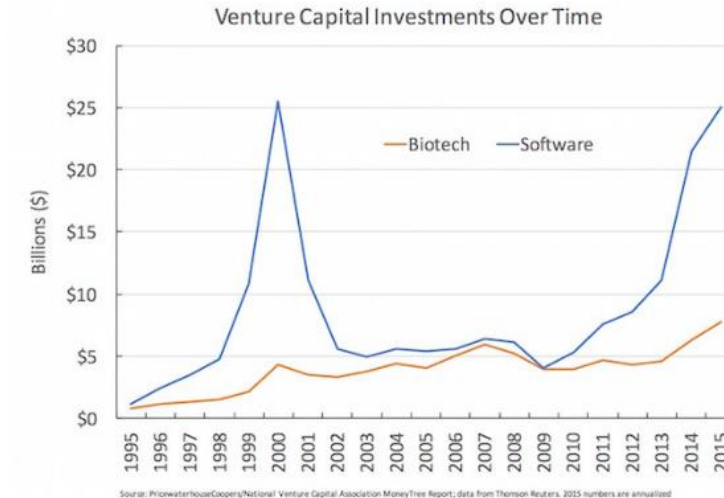
- “Active life science investor numbers (including BioPharma and Medtech) dropped by 25% since 2007, and haven’t rebounded.
- FLAG Capital Management did a further refinement of 'active investors' filtering for only investors that had made at least four new investments with at least \$4M in aggregate during 2013, they identified only ~25 active healthcare venture capital investors, and only a subset of those VC’s actually help start or back drug discovery and research stage biotech's.
- Probably only a dozen firms regularly start or fund more than 4-6 new biotech companies a year.”

Bruce Booth “Early Stage Biotech Venture Scarcity: Fitness, Fear, and Greed,” Forbes, 9/22/14 – Data: Dow Jones Venture Source, Franklin Park Associates, NVCA

Within Venture, A Booming Biotech Sector is Shrinking (2015)



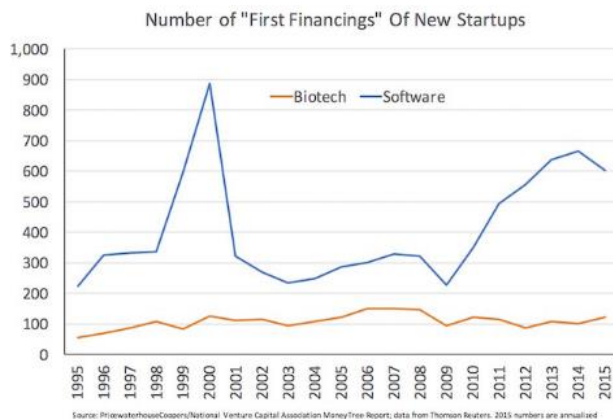
- “Biotech is at its lowest share of venture capital investments since 2001 – only 12.4% of total venture capital disbursements in 2015.
- Biotech topped out as a share of the industry in 2009 at 19.3% in part because the contraction in biotech funding was far less severe than in the tech sector as the financial crisis bottomed out in that year.”



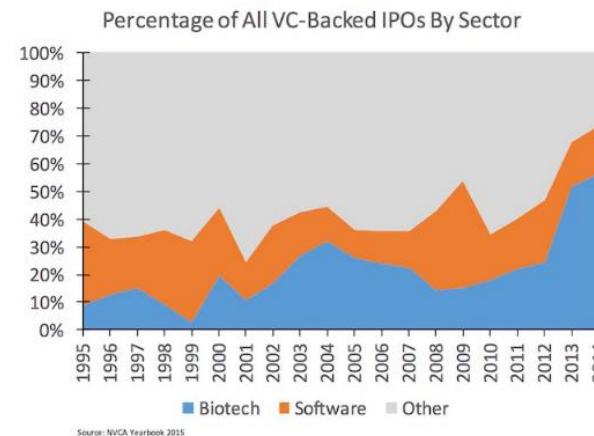
- “Software investing has skyrocketed relative to Biotech, with a spike in funding that echoes of 2000 bubble.
- Although biotech venture funding has progressed upwards since the 2009 bottom, now up nearly 2-fold since then, software VC investing is up a staggering ~525%, on track for 2015 to meet or exceed the 200 funding level of \$25B.
- By comparison biotech is likely to surpass \$7.5B this year. Much of the “venture” money that’s plowed into biotech in recent quarters has come from crossover investors rather than conventional investor firms.”

Bruce Booth, “Within Venture, A Booming Biotech Sector is Shrinking, Forbes,” October 19, 2015

Within Venture, A Booming Biotech Sector is Shrinking (2015)



- “The pace of new startup formation remains largely flat in biotech, unlike the explosion in tech startups.the pace of biotech “first financings” (a good proxy for startup formation) remains largely flat, tracking to 100-120 companies per year over the past decade.
- In software, this number has risen by ~100% over the past few years, pushing out over 1,600 new tech companies in the past three years.



- “Fortunately, biotech has grown in its share of the number of IPO offerings.
- Not surprising to those observing the biotech IPO window over the past couple years, and the increasing number of private tech unicorns struggling to get public.
- “Both sectors have experienced higher funding rates per new startup – and biotech in particular: the average funding level per first financing in biotech is up nearly 2x in 2015 vs. 2014.

Within Venture, A Booming Biotech Sector is Shrinking (2015)

- Should more funding be going into a larger number of young startups, exploring a broad range of science?
- Or does the increase in funds-per-startup mean that we're building fewer, but healthier companies?



- **"The latter rests on an often faulty premise that picking winning science early and powering it up quickly is smart.**
- **History would suggest it's not easy, especially where the false positive rate (irreproducible science) is so high."**
- **Powering up young companies with lots of capital is great if there's a "premium value" off-ramp via a accommodative IPO market: otherwise, over-capitalizing young companies is a recipe for future down rounds."**

2016?

- “We expect increases in fundraising and investment levels will lead to a very active 2015-2016, with a note of caution, however;
- When the window closes, and non-VC investors pull back, the industry could be left with a crowded private market and lack of investors.”

Silicon Valley Bank ➤

Out of the Ashes Re-Investing VC

Kauffman Foundation – Report

- Most VC Funds do not generate returns of 3-5% better than public markets
- Recommendations
 - ✓ Invest directly in a small portfolio of new companies, without high fees/carry
 - ✓ Co-Invest in later-round deals side-by-side with seasoned investors
 - ✓ Invest in VC funds of less than \$400M with consistently high public market equivalent performance (PME)
 - ✓ Move a portion of capital invested in VC into the public markets

KAUFFMAN
The Foundation of Entrepreneurship

Prequin Private Equity Survey, June 2014

- 92% of investors expect to “increase” or “maintain” allocations to Venture Capital over long term
- 55% of Limited Partners (LPs) with fund investments in healthcare identified management fees as the principal motivation for shift in investment strategies
- 77% of LPs are “actively” or “opportunistically” engaging in direct investments
- 24% of LPs allocate more than 10% of AUM to direct investments
 - ✓ By 2016, direct investments will increase by 50% to 15% of AUM
- 86% of LPs assert that direct investing yields “significantly better” or “slightly better” returns
- 87% of LPs intend to “increase” or “maintain” their direct investment activity during the next five years



Going “Direct”: A New Paradigm In Venture Capital Investing

New Paradigm in Venture Capital Investing

- Co-Investment Definition - Direct investments into portfolio companies alongside a fund at the invitation of General Partner (GPs)
- Strategy's popularity has grown as institutional investors increasingly seek ways to invest more private capital with select GPs at reduced cost
- GPs are offering more co-invest—a preferred approach over investing alongside other GPs as a consortium— as a way to:
 - ✓ Differentiate themselves with the LP community
 - ✓ Deepen relationships with key investors
 - ✓ Manage risk
 - ✓ Maintain greater investment flexibility

Investors have at least four different ways to pursue co-investments

- Invest in a fund-of-funds (FOF) with an allocation to co-investments
- Invest in a diversified co-investment fund
- Invest in a single GP's co-investment fund
- Directly co-invest alongside a GP in one or more companies.

Fund-of-Funds (FOF)

- Co-investments typically compose 5% to 15% of some FOFs
- Sometimes FOFs charge slightly higher fees on the capital they deploy in co-investments than charged on fund investments
 - ✓ FOF fee drag of 2% - 4%
 - ✓ At other times, the FOF fee is flat across all types of underlying investments
- While a co-investment portfolio adds risk to the FOF portfolio, the performance is embedded within the FOF's fund portfolio

Performance

- FOFs typically deliver lower losses but fewer outsized wins

Diversified Co-Investment Fund

- Multi-sponsor co-investment funds, typically managed by an advisor, FOF, or similar asset manager with many GP relationships
- LPs invest in a basket of co-investment opportunities advisors or FOF sources from its own manager relationships
- Charge ~1% management fee and 10% carried interest (less than traditional 2/20 model)
- Products are ultimately diversified by the number of investments included and by sponsoring GP
 - ✓ Reduces the overall risk profile of the co-investment program and potentially the return profile as well
- This approach can also provide participating LPs with an association upon which to build a relationship for access to GPs not in their own programs

Performance

- The performance of multi-sponsored co-investment funds has been mixed;
- Of 34 funds analyzed in this report, 25 were performing below the median performance levels of direct funds of the same vintage years and strategies

Single Sponsor Co-Investment Funds, “Annex Funds”

- GPs raise separate co-investment funds to operate alongside the main fund
- Given GPs may be sensitive about alienating LPs with which they have pre-existing direct co-investment relationships;
 - ✓ Type of vehicle may not receive as complete an allocation as expected, as opportunities may also be offered to LPs outside of the vehicle
- Some GP co-invest funds invest in all deals with excess capacity while others invest only in later rounds of portfolio company financings
- These single sponsor vehicles often have a lower fee structure than the core fund
 - ✓ Charging fees only on drawn capital, or for administration, or confine themselves to only carried interest to demonstrate some alignment with investors
- Require LPs to understand the guidelines and expected portfolio construction prior to committing
- LPs committing to annex funds do not make investment decisions on individual transactions
- LPs accumulate additional exposure to a single GP when (in the GP’s view) circumstances warrant

Performance

- Diversification itself generally places this approach lower than direct co-investing on the risk-reward spectrum
- Of the 39 annex funds raised between 1998 and 2012 analyzed;
- 25, roughly two-thirds, outperformed the sponsor’s corresponding main fund as of December 2013

“Making Waves: The Cresting Co-Investment Opportunity,” 2015, Cambridge Associates

Direct Co-Investments

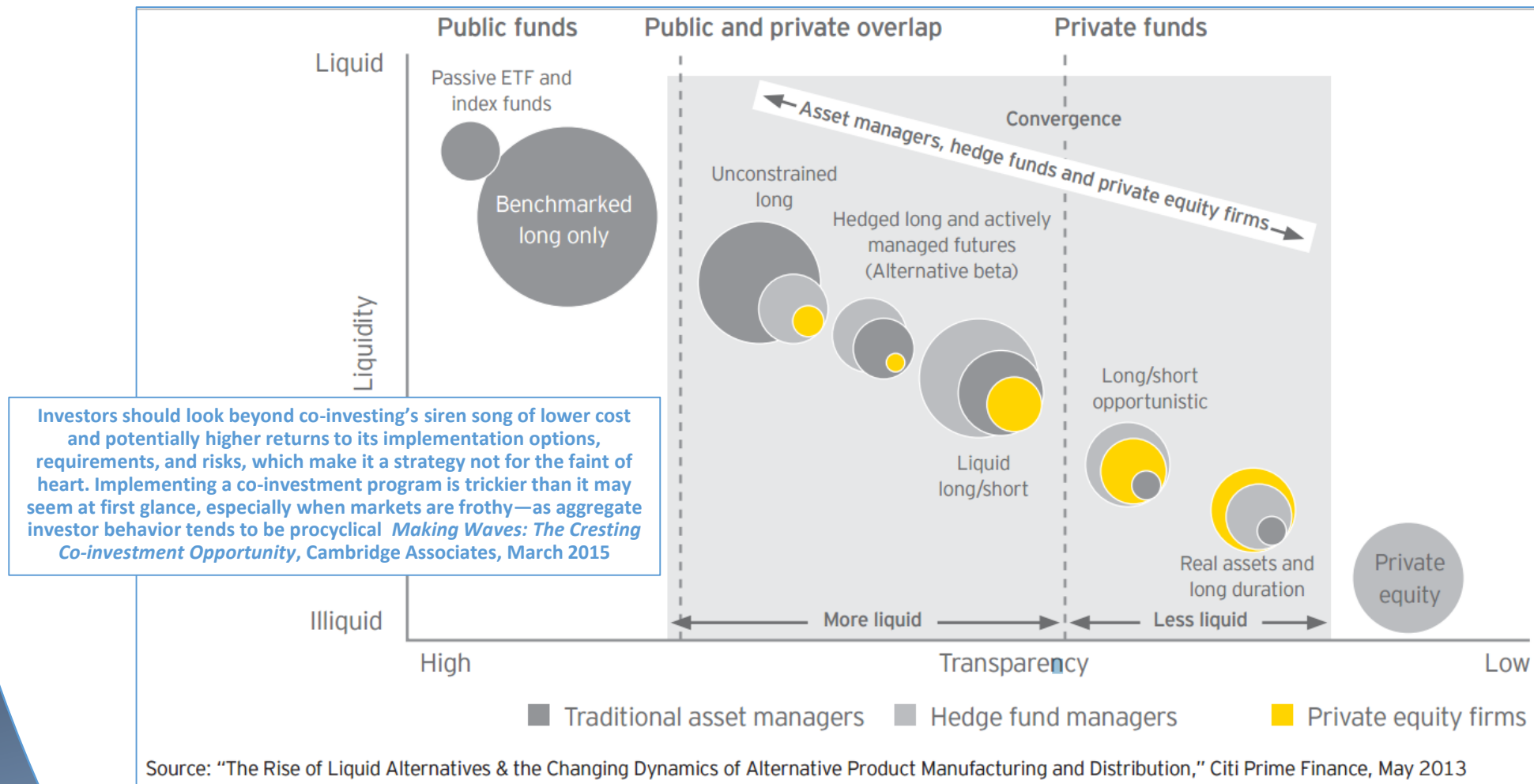
- Directly co-investing alongside a GP is the traditional approach
 - ✓ LPs access opportunities via their GP fund commitments
- LPs are not obligated to participate or deploy a specified amount of capital
 - ✓ Positioned to see deal flow from sponsors and then make co-investment decisions on a case-by-case basis
- With control over investment decisions, LPs can design a co-investment portfolio based on their desired investment characteristics and corresponding return expectations
- GPs often charged a co-investment fee in these situations
 - ✓ Most managers have been offering traditional direct co-investing on a carry-free and management fee-free basis (though administrative costs are involved)
- Requires an LP to have a strong relationship with the GP for access to opportunities, quick reaction times, and an internal evaluation process leverages the GP's due diligence
- A direct approach affords investors greatest control over the co-investment portfolio created

Performance

- Depending on the desired portfolio characteristics, it can offer the highest potential returns, however, it also entails the most risk

Confronting Risks – Direct Investing

An exchange focused on private direct investing in emerging growth companies needs to protect the investor in illiquid, opaque, and difficult investment context



Confronting Risks – Limited Partners

- Direct Co-Investing Requires the Right Skillset
 - ✓ Consider whether to add appropriate skills in-house, work with advisor, or outsource
- One Must Find One's Own Co-Investments
 - ✓ Co-Investors must regularly remind target GPs of their interests to see sufficient/attractive deal flow
- Timing Is Unpredictable
 - ✓ GPs syndicate co-investments to investors when capital accessible via main fund is low
- Approval in “30 Minutes or Less”
 - ✓ Once GP decides to pursue an investment, co-investors may have as little as two weeks to review and secure internal approval
- Finding a Pearl....Or Just an Oyster
 - ✓ Offer investors the potential to “try their hand” at selecting which GP co-investments opportunities will outperform
- Too Good To Be True
 - ✓ Investors should be cognizant of adverse selection risk

Risks of Venture vs. Direct Investing

RISKS OF VENTURE	Summary Description	DIRECT Investment Solution
Illiquidity	Capital Velocity / Access to Cash	<ul style="list-style-type: none"> ■ Reduce investment horizon ■ Create “Evergreen” fund mechanism
Adverse Selection	“Investors should be cognizant of the possibility that managers may be sharing their less attractive opportunities.” – Cambridge Associates	<ul style="list-style-type: none"> ■ Establish stringent investment criteria – “Rule Set” – stipulating that every Direct investment be subject to leadership from new, third-party institutional investor
Diversification	Achieving a Portfolio Effect	<ul style="list-style-type: none"> ■ Invest at same rate as top-decile GPs
Correlation	Targeting pure “Alpha”	<ul style="list-style-type: none"> ■ # of General Partners, multiplied by the # of institutionally-backed portfolio companies, equals the potential for non-correlated IRR. ■ Eliminate “J-Curve”
Volatility	Extreme dispersion of returns on company-by-company basis	<ul style="list-style-type: none"> ■ Mitigate “downside” through deal selection based on “Rule Set” ■ 65.3% of Standard Deviation of Returns in VC due to “upside” events
Performance	Generating superior IRR / MOIC	<ul style="list-style-type: none"> ■ No Fee, No Carry. ■ Gross Return = Net Return
Scalability of Venture Capital	<p>“At fund sizes greater than \$200 million, performance suffers” – Kaufmann Foundation</p> <p>“Increasingly challenging to get into top tier funds since VC funds are getting smaller and access is limited.”</p> <p>– National Venture Capital Association</p>	<ul style="list-style-type: none"> ■ (900) direct transactions ■ \$11 billion opportunity
Access to Best Managers / GPs	<p>“As early-stage investors seek to preserve their positions in companies in early rounds of financing, venture co-investments are more often offered at late-stage rounds when they may also be subject to high valuations.”</p> <p>– Cambridge Associates</p>	<ul style="list-style-type: none"> ■ Broad exposure to top-tier funds ■ ‘Dating Prior to a Marriage’ ■ Eliminating the effect of fees and carried interest enables greater universe of GPs to achieve top-decile Gross IRR
Valuation	<p>“As early-stage investors seek to preserve their positions in companies in early rounds of financing, venture co-investments are more often offered at late-stage rounds when they may also be subject to high valuations.”</p> <p>– Cambridge Associates</p>	<ul style="list-style-type: none"> ■ Every direct investment made on “pari passu” basis, subject to discrete, independent pricing as established by new institutional “Lead” investor with like-minded return expectations
“Zeros”	High loss ratios associated with write-offs	<ul style="list-style-type: none"> ■ Single Purpose Investment Vehicle (“SPV”) permits diversification, attenuates impact of losses, preserves return profile of portfolio
Inconsistent Cash Flows	<p>“Cash flows from venture capital are lumpy.”</p> <p>– Prequin</p>	<ul style="list-style-type: none"> ■ Continuous distributions upon “exit” of each discrete portfolio company ■ Continuous liquidity following investment period of initial portfolio companies
Relationship with GPs	<p>“GPs assume significant reputational risk with their investors when offering co-investment opportunities. Poor interactions with LPs and poor results could cost future fund commitments.”</p> <p>– Collier & Company</p>	<ul style="list-style-type: none"> ■ Third-party, “Arms-Length” structure ■ Deal-by-Deal decision making

Rules Based Co-Investing

Rules Based Co-Investing

Externally priced term sheet creates the context for a passive co-investor to participate without suffering from adverse selection or an informational disadvantage on terms

- Lead Investor is not a member of the existing issuer shareholders, has raised a new fund since 2012 in excess of \$50 million, is a recognized Family Office of greater than \$500MM, or Corporate Strategic Investor – ensures the pre-money valuation is market-based and arms-length by a recently validated sponsor
- Lead Investor owns at least a 10% ownership interest post-money – we believe this ensures that Lead Investor is making a significant bet and has appropriate influence
- The Direct Investors in aggregate make up no more than two thirds of the round – we believe that this ensures that the Partnership does not assume the Lead Investor role
- The Direct Investors are at least half of the Lead Investor, and not more than twice the Lead Investor – we believe this ensures that the Direct Investors and Lead Investor are tied together strategically
- The Direct Investors invest on the same terms as the Lead Investor, and the Lead Investor's economics with the issuer arise solely out of the purchased security

Sources of Potential Superior Outcomes in Direct Investing

Sources of Potential Superior Outcomes in Direct Investing

GENERAL PARTNERS:

Transition from Traditional GP Role to ... "LEAD" INVESTOR

Reduce Financing Risk	■ Access to \$11 billion in available co-invest capital
Enhanced Control	■ Direct investors are passive participants
Lower Investment Expense	■ Eliminate costs and complexity of syndication with other GPs
Rapid Decision Making	■ Direct investors depend upon diligence and track record of Lead
Greater Strategic Flexibility	■ Ability to finance to "Peak Value"
Higher Capital Efficiency	■ Tighter reserves
Stronger Portfolio	■ More companies, broader diversification
New LP Relationships	■ "Deal-by-Deal" leads to stronger relationships

LIMITED PARTNERS:

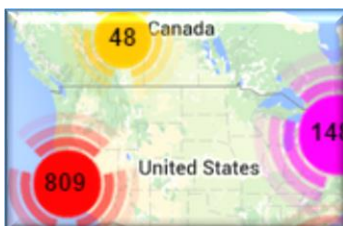
Transition from Traditional GP Role to ... "DIRECT" INVESTOR

No Fee, No Carry	■ Gross IRR = Net IRR
Shortened Investment Horizons	■ Average "Hold" period for discrete healthcare investment = 4.7 years
Accelerated Liquidity	■ Distributions made immediately upon "Exit" of each Company
Maximize MOIC	■ \$100 to \$150 million of annual investment potential in (12) to (15) deals
Participation with Top-Tier Managers	■ (8,300) Lead investors have made at least (1) investment since 2012
Extensive Deal Flow	■ 900+ Direct healthcare co-investment opportunities, annually
Established "Exit" Pathway	■ Institutional leadership and strategic validation
Transparency	■ 8-week due diligence; Online portfolio management and reporting
Access To Management & Board	■ Opportunity evaluation, performance measurement, "exit" planning
Tailored Portfolio	■ Focus on sectors, stage of development, asset class, Lead investors
Favorable Valuation & Structure	■ "Pari Passu" investment directly alongside institutional Lead investor
'Deal-By-Deal' Discretion	■ Flexibility in decision-making, customizing portfolio

Financial Technology – Enabling Direct Investing



- >3,300 members – Accredited Investors, Early- Stage/Growth Company Executives, Investment Professionals, Strategic Buyers
- >800 “Active” healthcare companies in 46 Market Sectors Seeking Licensing Partners, Financings, and/or “Exits”
- Sponsors – S. Jordan Associates and Healthios, Chicago-Based Healthcare Investment Bank



U.S. and Europe



- The World’s Premier “Direct Investing” Platform
- Sponsored by the Singapore Stock Exchange (SGX), Venture Capital Firm - Clearbridge Accelerator, and HealthiosXchange
- SGX - Raise, Capital for Small-Medium Size Enterprises (SME), Fund Allocation, Shares depository (“IPO On Ramp”)



Launching 11/01/2015

Asia Pacific

Key Takeaways & Next Steps

Key Takeaways

- # of Limited Partners Investing on a “Direct” Basis is Accelerating
- Institutional Investors/Managers Seeking “Best Practices” to Participate on a Direct Basis
- Emerging Growth Companies Increasingly are Pursuing Alternative Vehicles to Raise Capital
- FinTECH will Continue to Support this Financing Trend (e.g. Capbridge)

Next Steps – Companies Seeking Capital

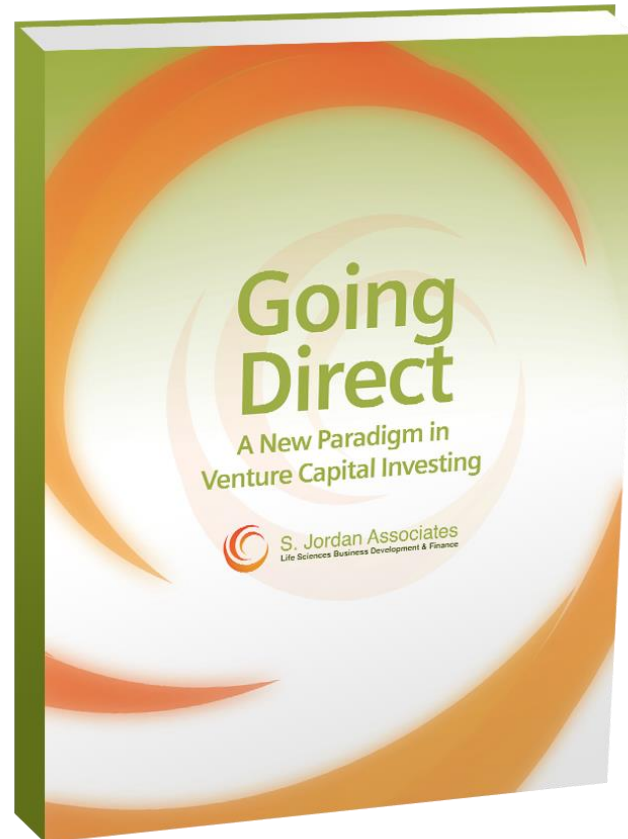
Next Steps

- Contact S. Jordan Associates to Learn More About How to Leverage Direct Investing to Secure Your Next Round of Financing including:
 - ✓ Preparing/Updating Core Documents and Valuation
 - ✓ Regulatory Filings – 506 (b) or (c) - General Solicitation
 - ✓ Identifying Most Active Institutional Investors Participating on a “Direct” Basis
 - ✓ Centralizing Investor Relations - List On Following Portals:
 - ❑ HealthiosXchange <http://www.healthiosxchange.com/>
 - ❑ Capbridge, <http://www.capbridge.sg/s/>
 - ✓ Marketing – Driving Investors to Company Page

Next Steps – Institutional Investors/Managers

- Contact S. Jordan Associates to Learn More About the Essential “Eight” Best Practices for Direct Investing
 - ✓ Subscribe to Receive SJA White Paper, “Going Direct: A New Paradigm in Venture Capital Investing,” – Completion Date, 12/1/15

Going Direct A New Paradigm in Venture Capital Investing



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