

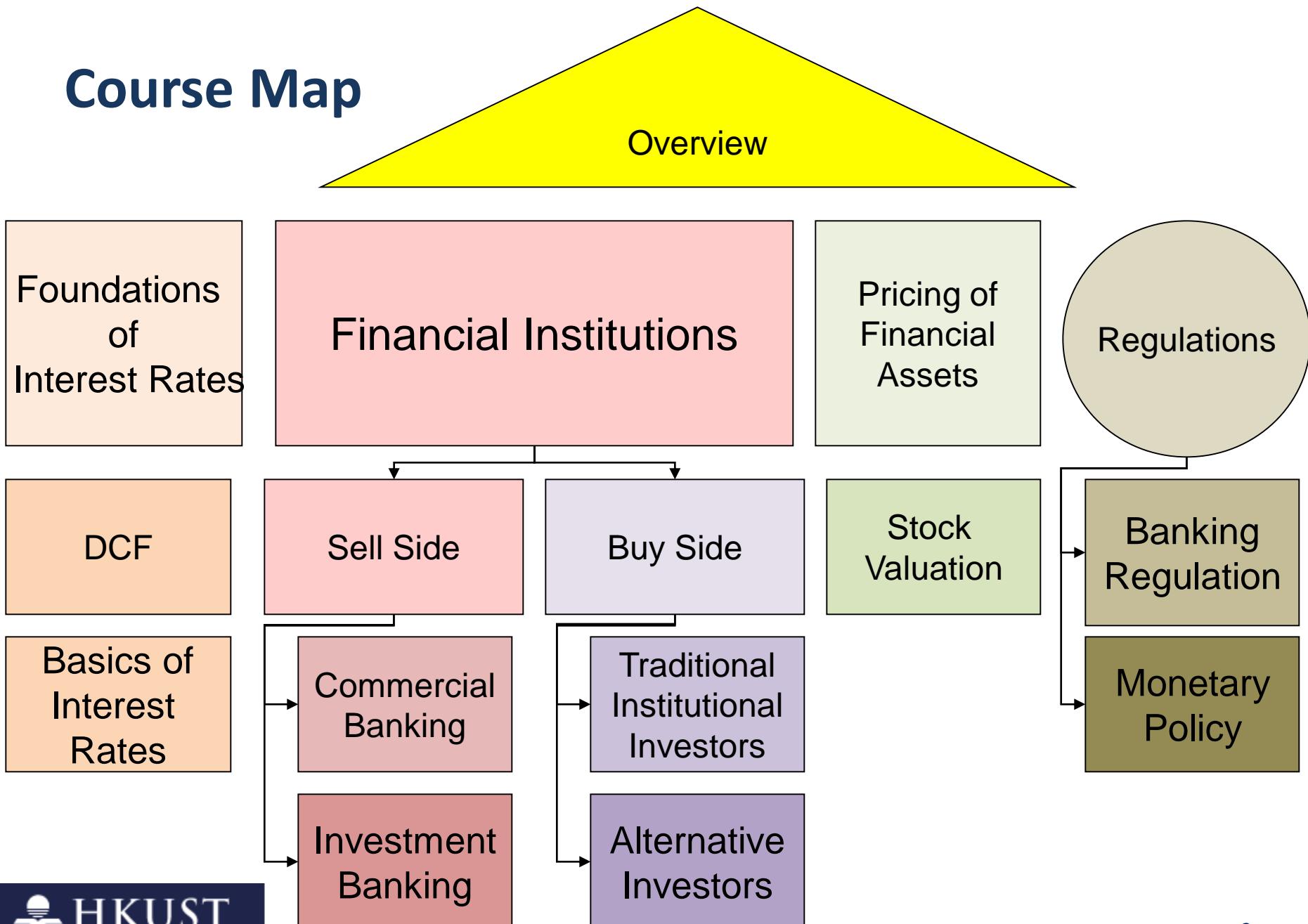
FINA 1303

THE SHADOW MARKET: ALTERNATIVE INVESTMENTS

Veronique Lafon-Vinais

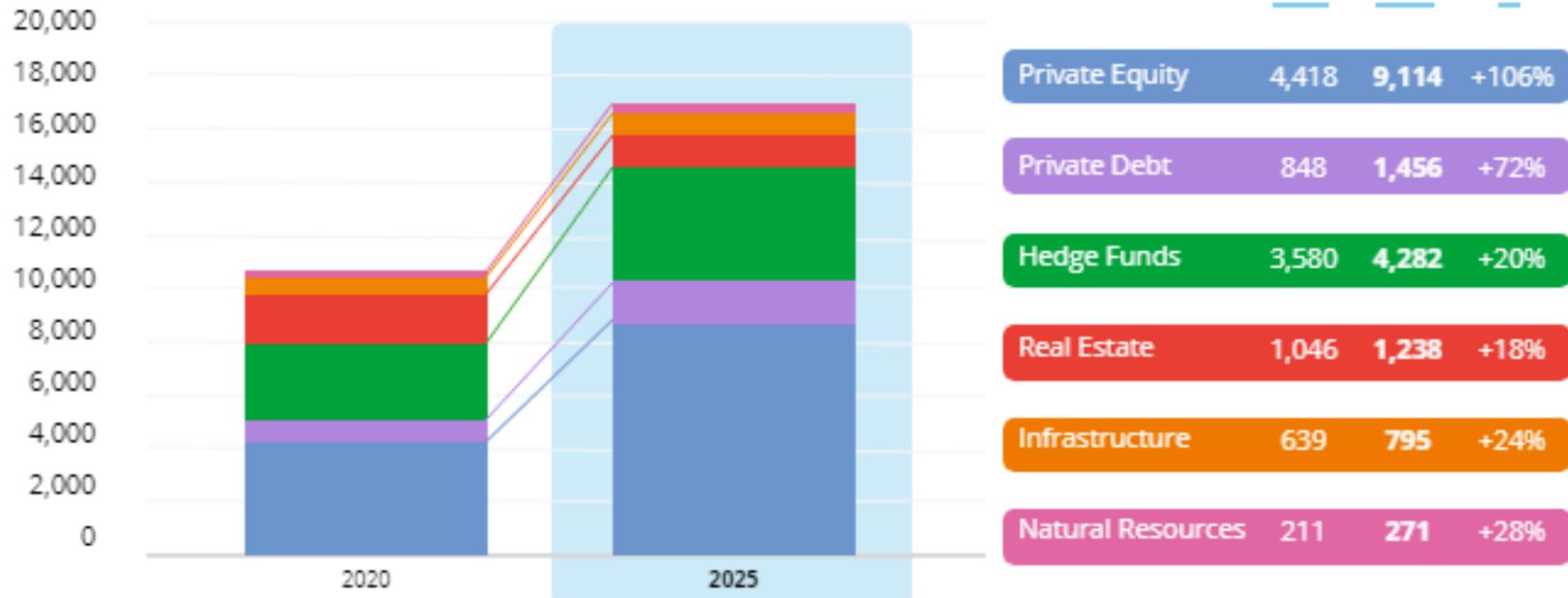
Associate Professor of Business Education - Department of Finance

Course Map



Alternatives – a growing market

Alternative Assets under Management (\$bn), 2020 vs. 2025*



*2020 figure is annualized based on data to October. 2021-2025 are Preqin's forecasted figures.

Source: Preqin

Between the end of 2020 and the end of 2025, global AUM in alternatives is expected to increase by 60%, equal to a **CAGR of 9.8%**.

The bulk of AUM growth in private markets is expected to take place in **Asia-Pacific**, where we predict AUM will swell from \$1.62tn in 2020 to \$4.97tn in 2025.

Course Map

Overview

Financial Institutions

Sell Side

Commercial
Banking

Investment
Banking

Buy Side

Traditional
Institutional
Investors

Alternative
Investors

- 1. Sovereign Wealth Funds**
2. Private Equity and Venture Capital
3. Hedge Funds

Alternative Investors

Definition of SWFs

Three key elements define an SWF:

- **Ownership:** SWFs are owned by the general government, which includes both central government and subnational governments.
- **Investments:** The investment strategies include investments in foreign financial assets, so it excludes those funds that solely invest in domestic assets.
- **Purposes and Objectives:** Established by the general government for macroeconomic purposes, SWFs are created to invest government funds to achieve financial objectives, and (may) have liabilities that are only broadly defined, thus allowing SWFs to employ a wide range of investment strategies with a medium- to long-term timescale. SWFs are created to serve a different objective than, for example, reserve portfolios held only for traditional balance of payments purposes. While SWFs may include reserve assets, the intention is not to regard all reserve assets as SWFs.

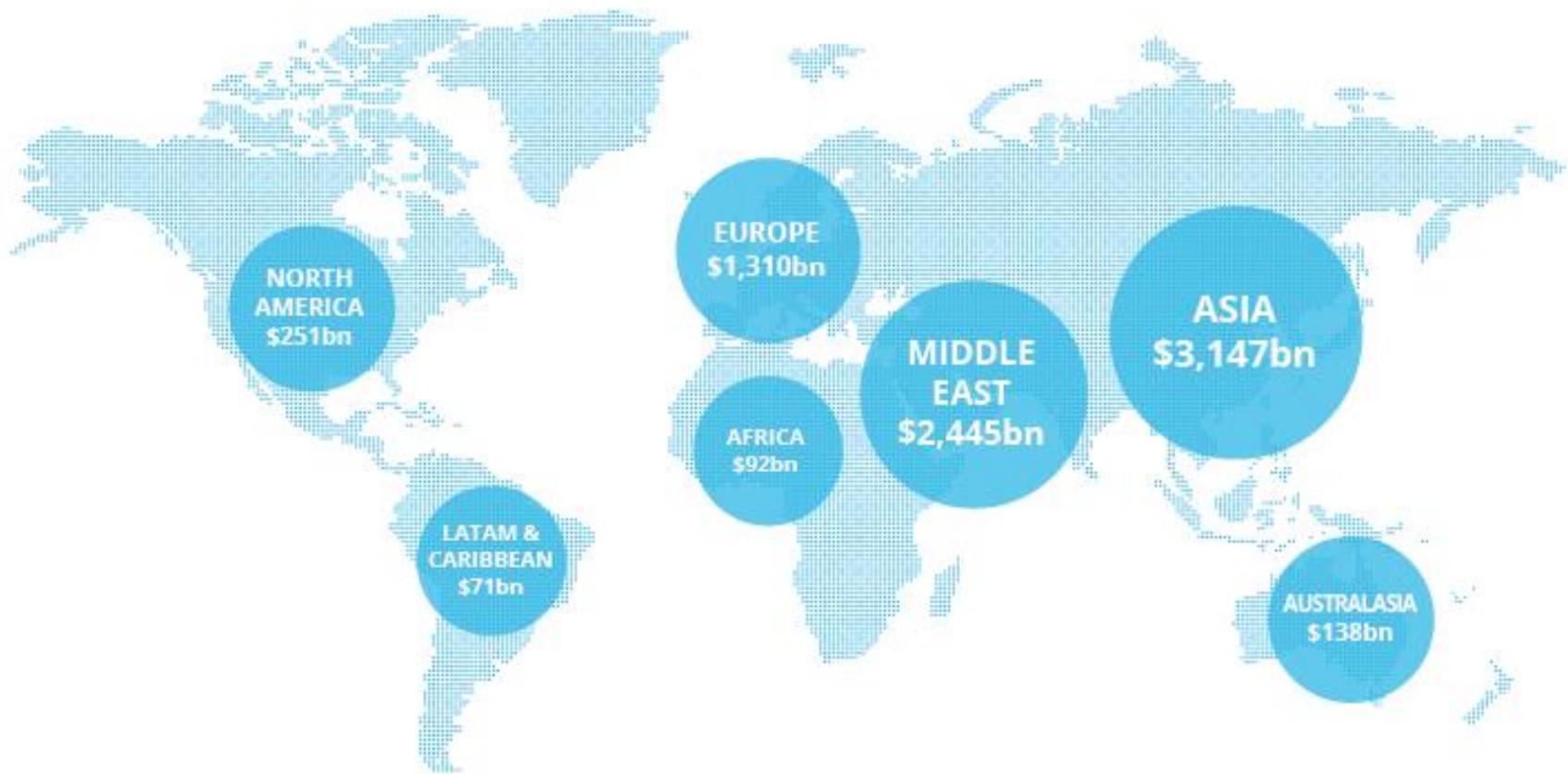
DEFINITION OF SWFs

SWFs are as special purpose investment funds or arrangements, owned by the general government. Created by the government for macroeconomic purposes, SWFs hold, manage, or administer assets to achieve financial objectives, and employ a set of investment strategies which include investing in foreign financial assets. SWFs' assets are commonly established out of balance of payments surpluses (Figure 4), official foreign currency operations, the proceeds of privatisations and fiscal surpluses.

Source: IMF, Santiago Principles

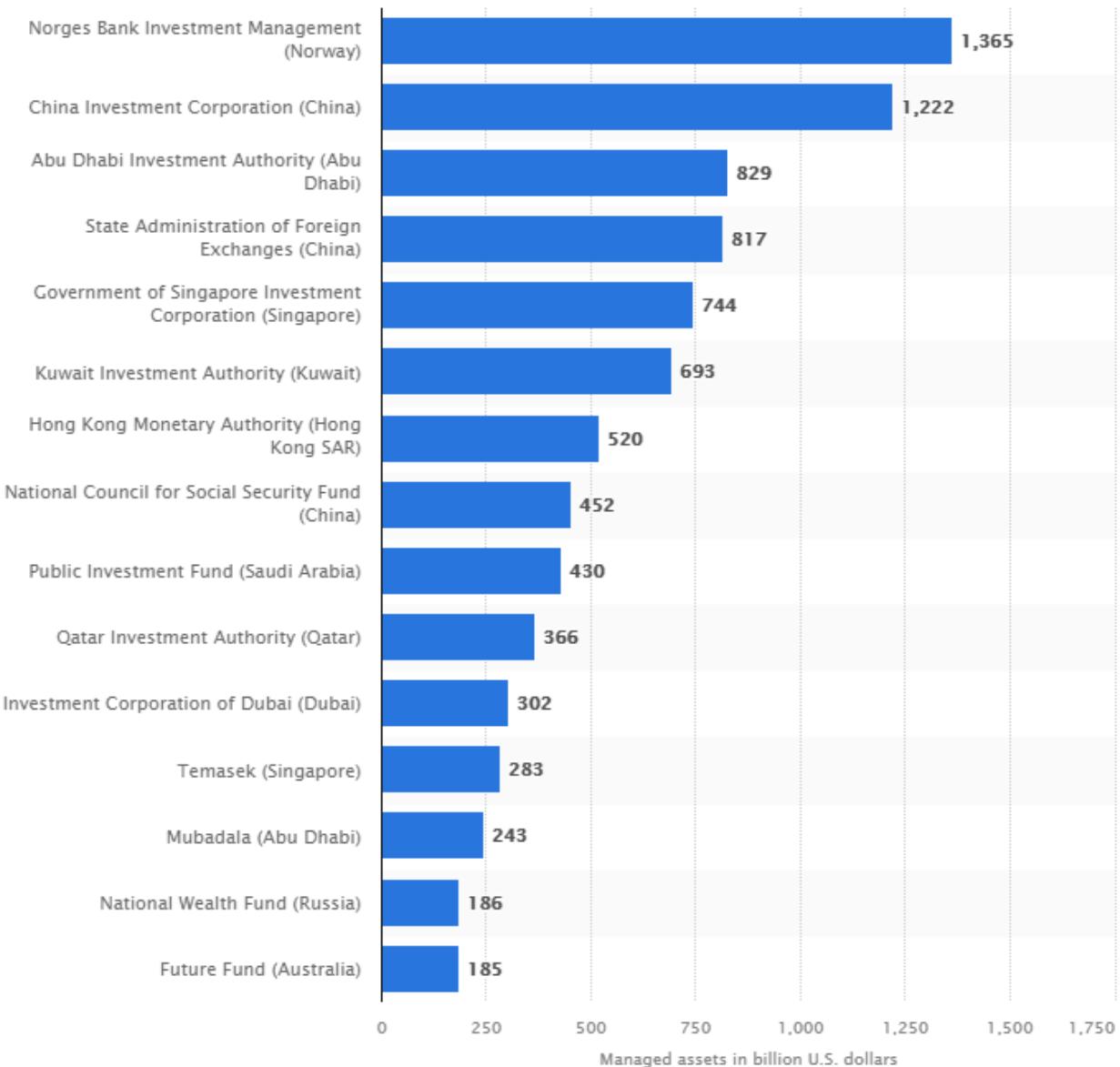
Source: The City UK SWF 2015

SWFs global presence (AuM)



Source: Prequin SWF 2018 report

Top SWFs by AuM as of Sept 21



<https://www.swfinstitute.org/fund-rankings/sovereign-wealth-fund>

Concerns about SWFs

- **Size & market impact**
- **Growth of sector**
- **Political issues:** national security concerns and protectionism
- **Disclosure & transparency:**
 - the International Working Group of Sovereign Wealth Funds (**IWG**) was formed in May 2008, with the IMF providing support in the form of a secretariat.
 - In October 2008, the Group published a set of 24 voluntary Principles, the Generally Accepted Principles and Practices for Sovereign Wealth Funds, known as **the Santiago Principles**
 - The IWG reached a consensus in April 2009 on the establishment of the **International Forum of Sovereign Wealth Funds** to follow up on the work undertaken in the context of the Santiago Principles. The Forum is a **voluntary** group of SWFs which meets at least once a year to exchange views on issues of common interest, facilitate an understanding of the Santiago Principles and SWFs activities, and encourage cooperation with investment recipient countries.

Current issues: Sovereign Wealth Funds in Asia: example of recent investments and controversy surrounding it(Group 18)

- Videos:

<https://www.youtube.com/watch?v=j8zsHz-rWuk>

- Articles:

<https://www.bloomberg.com/news/articles/2022-02-23/saudi-wealth-fund-weighs-options-for-86-billion-aramco-stake>

SUMMARY

- Key elements in the definition
- Concerns
- Santiago Principles

Test Your Understanding

- Which of the following is NOT a key element of SWFs:
 - Owned by the general government
 - Invests solely in domestic assets
 - Invests to achieve financial objectives
 - Invests on a global basis
- Which voluntary code of conduct did major SWFs sign?
 - Equator Principles
 - Santiago Principles
 - Basel Principles
 - New York Principles



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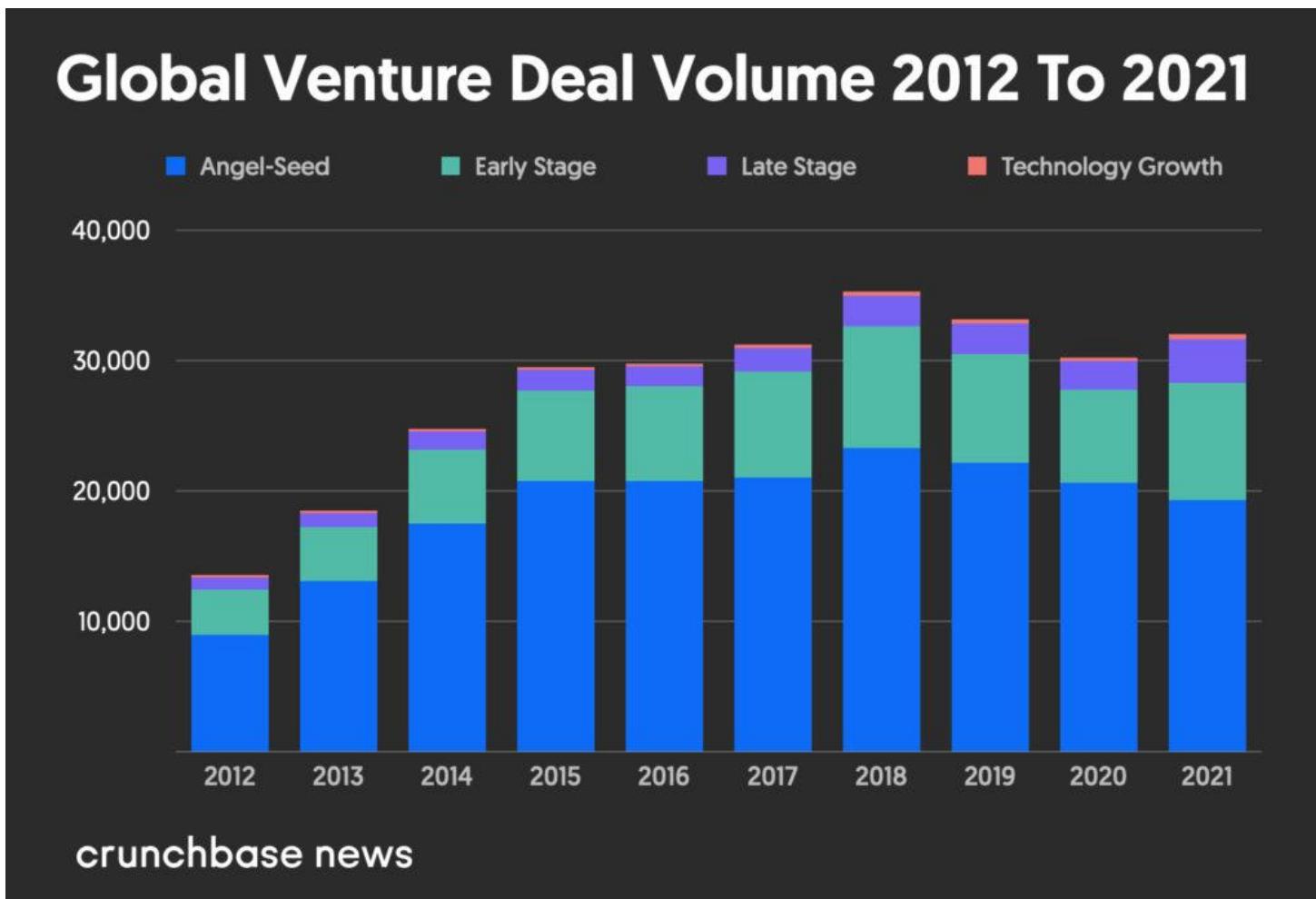
1. Sovereign Wealth Funds
2. **Private Equity and Venture Capital**
3. Hedge Funds

Alternative Investors

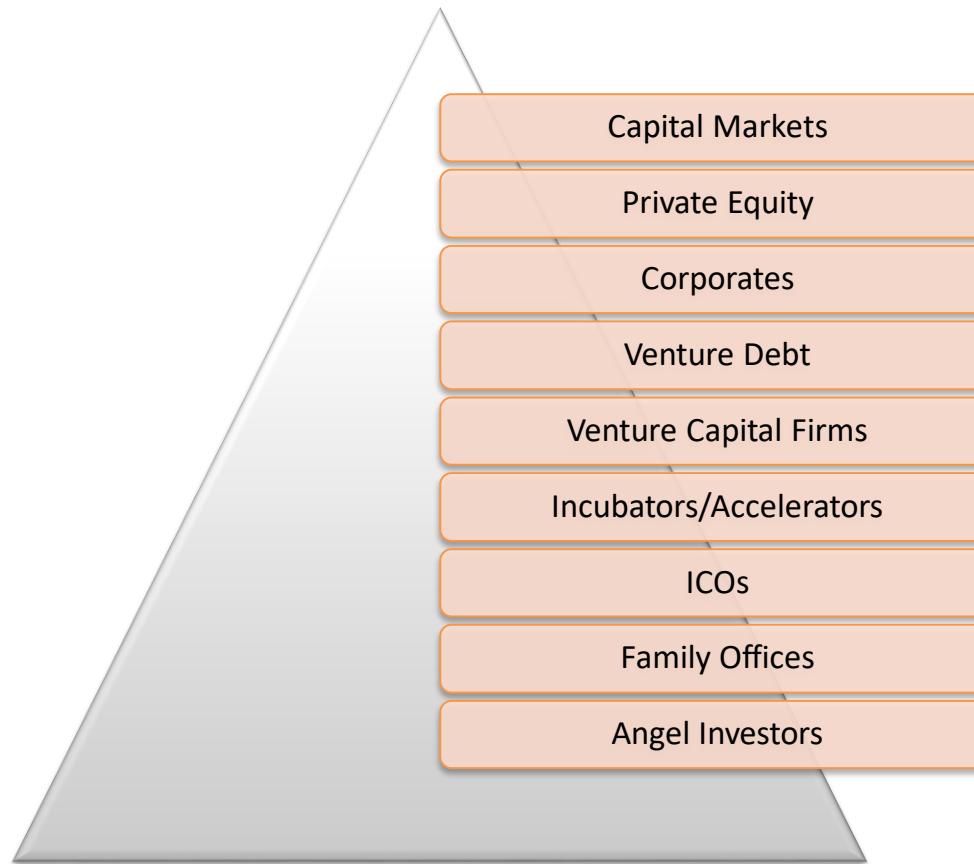
Venture Capital and Private Equity: agenda today

- Definition of VC
- Definition of PE
- PE vs. VC?
- Investment stages
- Current issues

Global VC Deal Volume 2012-2021



SOURCES OF CAPITAL FOR STARTUPS



Source: courtesy of Nick Adams and Differential Ventures

Angel Investors

- Individuals – not funds
- Invest their own money – not OPM
- Typically HNWI and successful entrepreneurs
- Hunt alone or in groups (angel groups, angel networks)
- Motivation generally beyond pure financial returns
- Investment horizon could be very long
- Typically very early stage investing: seed money, start-ups....

Venture Capital (VC)

- Venture capital is money provided by professionals who invest alongside management in **young, rapidly growing** companies that have the potential to develop into significant economic contributors. Venture capital is an important source of equity for **start-up** companies.
- Professionally managed venture capital firms generally are **private partnerships or closely-held corporations** funded by private and public pension funds, endowment funds, foundations, corporations, wealthy individuals, foreign investors, and the venture capitalists themselves.

Source: NVCA (National Venture Capital Association)

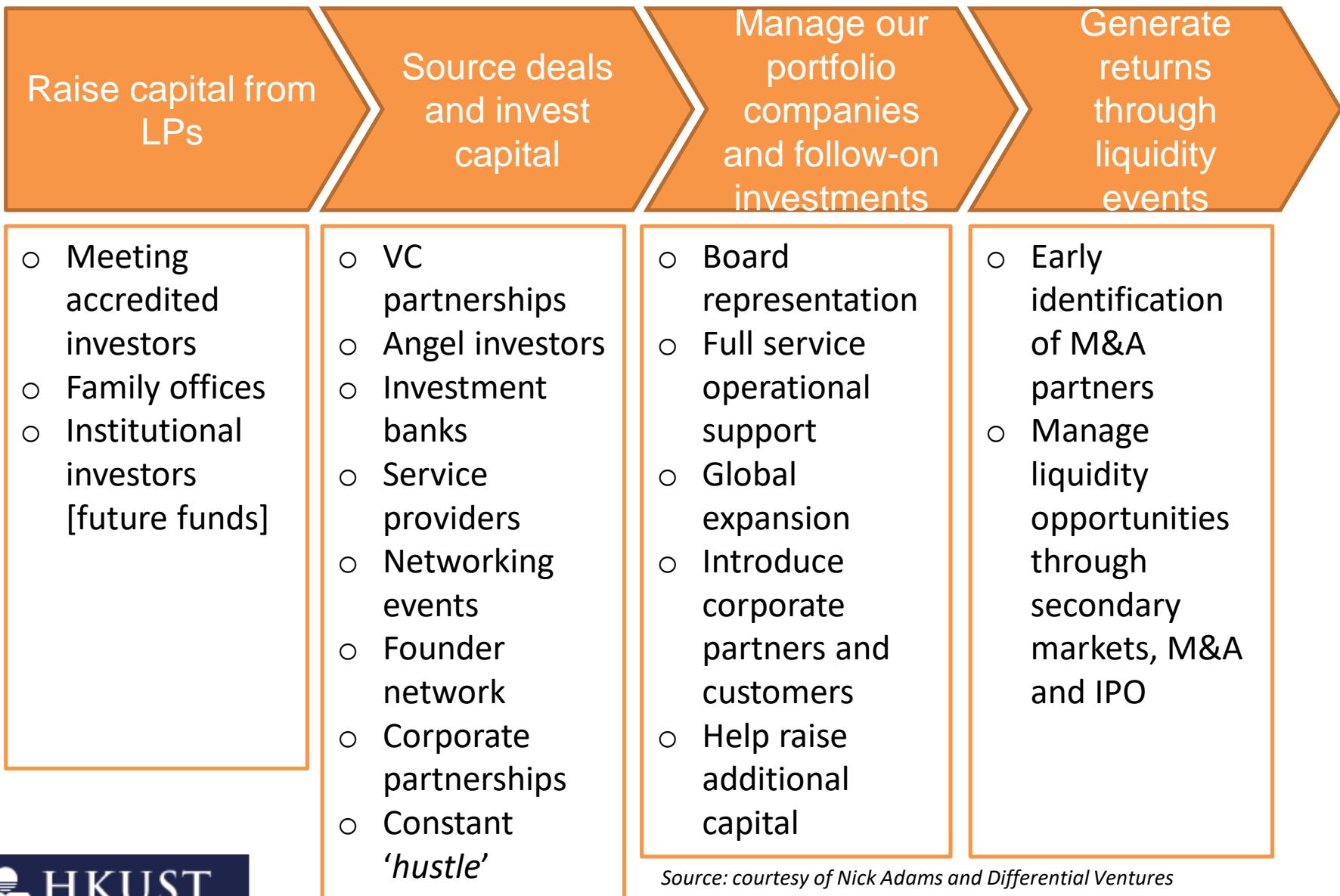
Venture Capital (VC) (Cont'd)

Venture capitalists generally:

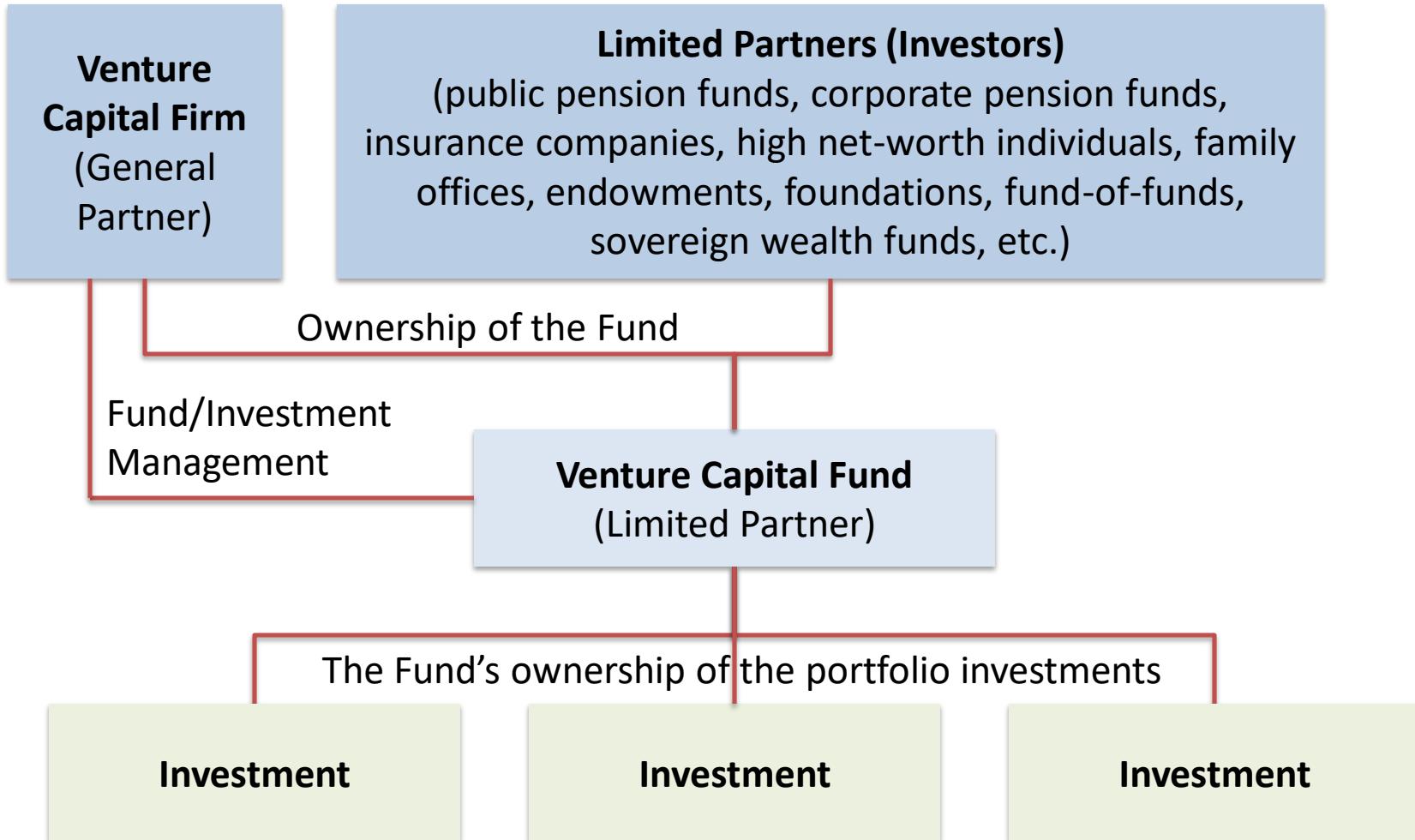
- Finance **new and rapidly growing companies**
- Purchase equity securities
- Assist in the development of new products or services
- Add value to the company through active participation
- Take higher risks with the expectation of higher rewards
- Have a long-term orientation

Source: NVCA (National Venture Capital Association)

WHAT DOES A VC DO?

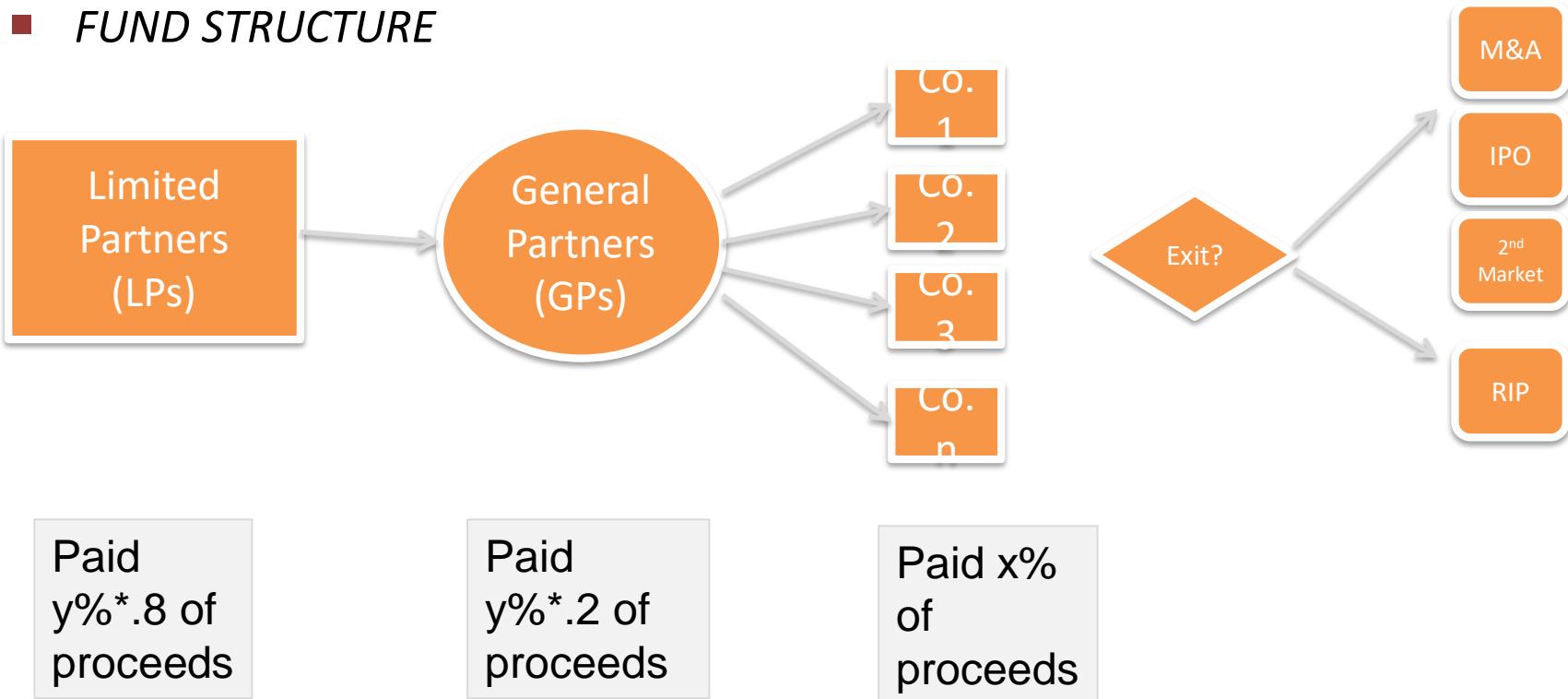


Structure of a generic Venture Capital Fund



HOW VENTURE CAPITAL WORKS

■ FUND STRUCTURE



Source: courtesy of Nick Adams and Differential Ventures

VC IN THE PRIVATE EQUITY MATRIX

Type of PE	Company Stage (early > late)	Size of Typical Investment	Type of PE Firm	Description	Example Industry Focus
Venture Capital		\$50,000 to \$5 million	VC	Typically investments in companies that are early stage of development and are cash flow negative. Requires convincing market potential since not proven.	Life sciences; Technology; Software
Growth Capital		\$5 million to \$50 million	Small - Mid Tier	Typically investments in equity and/or debt instruments as these companies are growing and require increasing amounts of working capital, capital expenditures or an acquisition.	Most types
Mezzanine Financing		\$5 million to \$50 million	Small - Mid Tier	Typically subordinated debt or preferred equity investment into a company that falls between equity and senior debt on the balance sheet.	Manufacturing; Consumer products; Real estate
Leveraged Buyout		\$2 million to \$200+ million	Buyout (all sizes)	Acquisition of an operating company with a significant amount of borrowed funds to create value by realizing opportunities and improving efficiencies, etc.(use debt as financial leverage)	Consumer products; Food manufacturing
Distressed Buyout		\$2 million to \$200+ million	Buyout (all sizes)	Typically investments in equity or debt securities of financially stressed companies. Investor can look for a corporate restructuring or turnaround of business, for example.	Paper & pulp manufacturing

Source: courtesy of Nick Adams and Differential Ventures

Private Equity

- **Definition:** Equity investments in nonpublic companies
- Equity capital that is made available to companies or investors, but not quoted on a stock market. The funds raised through private equity can be used to develop new products and technologies, to expand working capital, to make acquisitions, or to strengthen a company's balance sheet.
- By extension, any investment in equity other than publicly listed equity
- Currently private equity refers mainly to **buy-out funds**
- Pricing in private markets is different than public markets as there should be a premium for illiquidity → PE should be more expensive

Definition of PE

Private markets, defined

We consider “private markets” to include closed-end funds investing in private equity, real estate, private debt, infrastructure, or natural resources, as well as related secondaries and funds-of-funds.

We exclude hedge funds and publicly traded or open-ended funds. We analyzed five asset classes:

1. private equity: buyouts, venture capital (VC), and growth equity

2. real estate: closed-end funds that invest in property, excluding direct holdings, listed real estate holdings (such as REITs), and open-ended funds

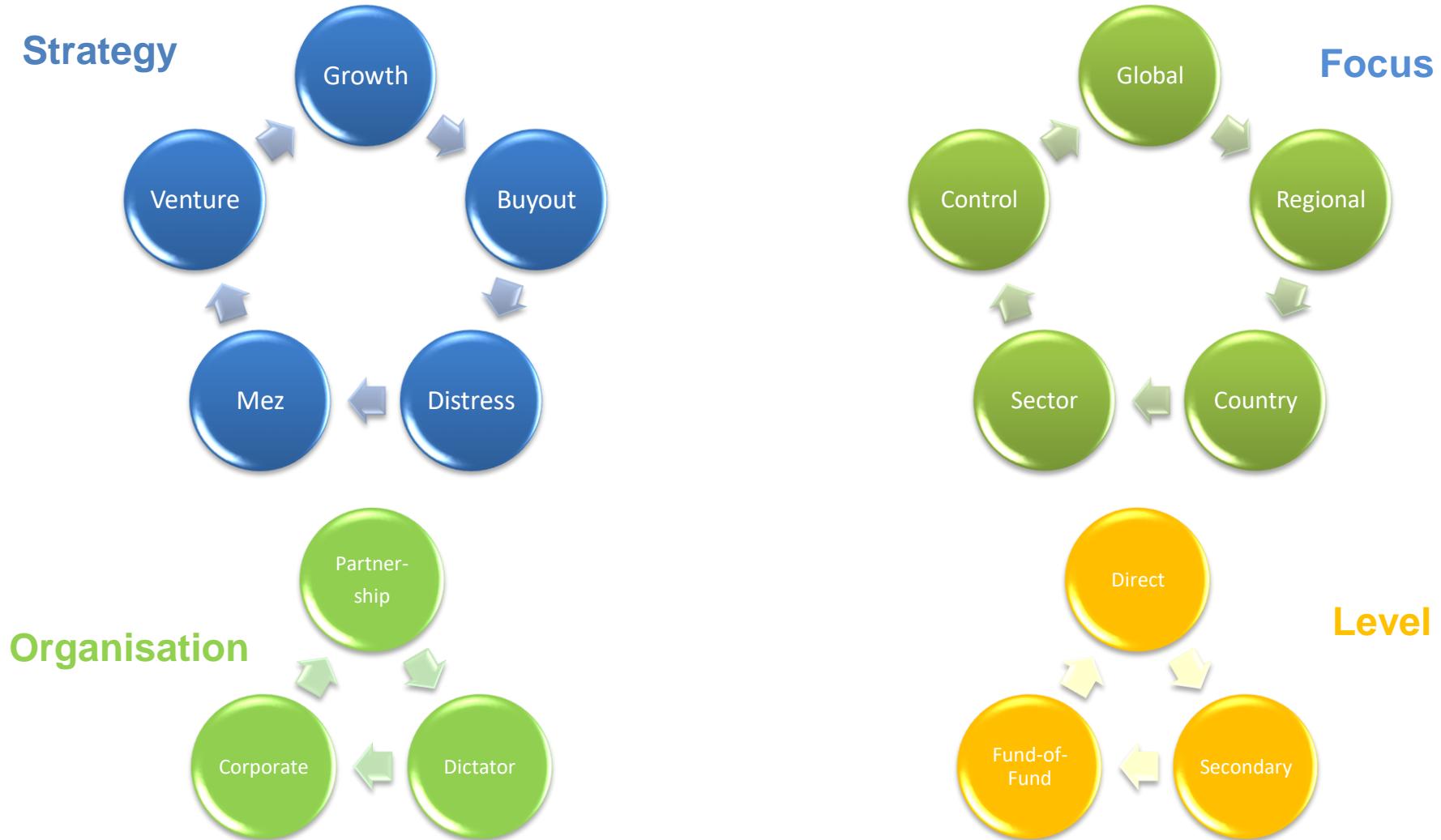
3. private debt: closed-end funds that invest in nonlisted debt issues, including bonds, notes, or loans

4. infrastructure: closed-end funds that invest in large-scale projects, excluding investments in public-infrastructure firms and listed funds

5. natural resources: closed-end funds that invest in real assets (for example, agriculture/farmland, oil and gas reserves, mines and metal-processing plants, and timberland) and other assets

Source: McKinsey Global Private Markets review 2017

Private Equity - Industry



Source: HKVCA

Private Equity: Fee structure and performance

- Fee structure
 - High “friction costs” (various fees, operating costs and inefficiencies that reduce return on investment) of around 11% per year
 - Typical fee structure:
 - **2%** fee on committed capital and 4% on average invested capital;
 - **20%** of profits;
 - acquisition fees, disposal fees, fees charged to companies and legal fees add probably another 2%
 - However leverage reduces the impact of friction costs
- Performance

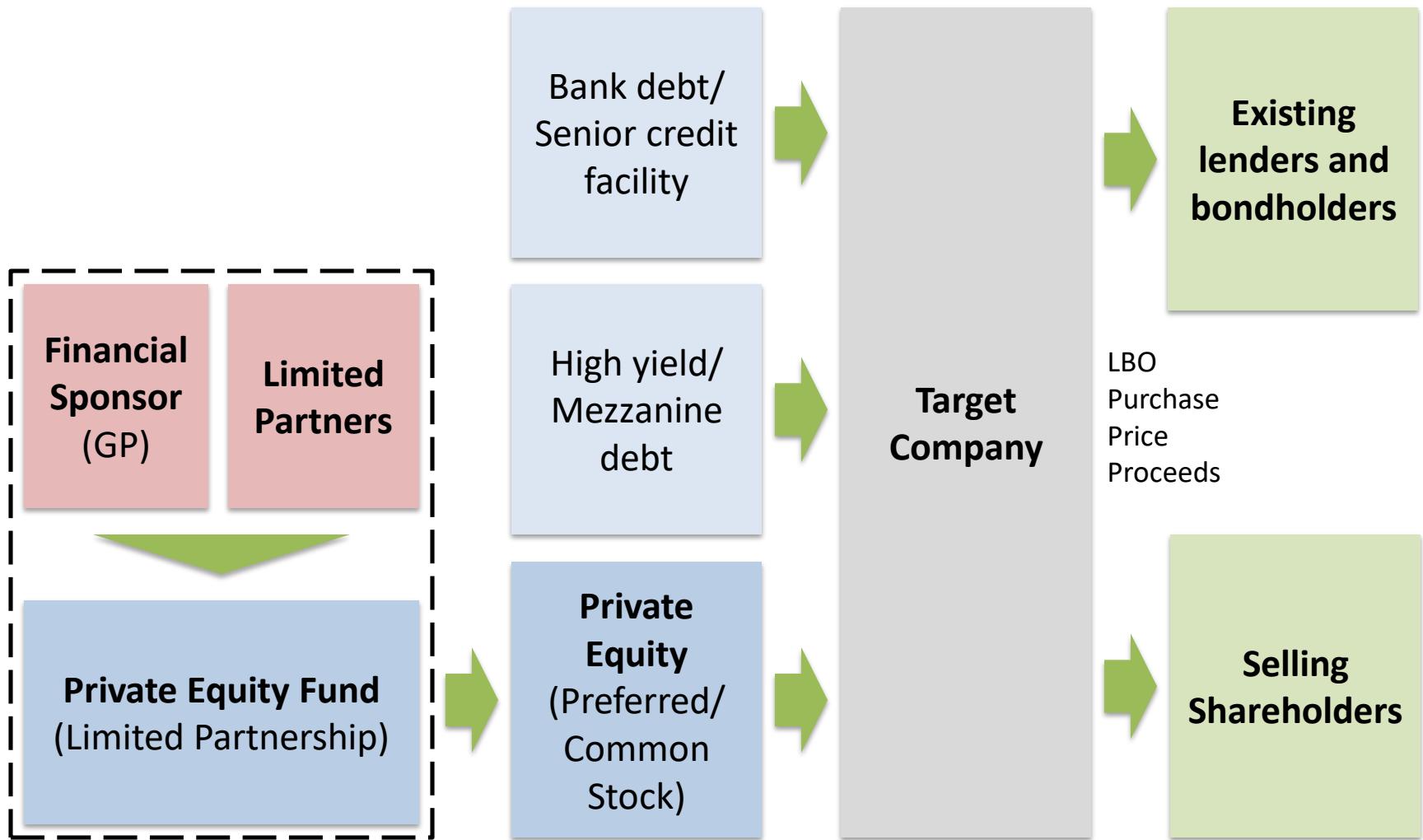
Private Equity Glossary

- **Leveraged buyout:** Also called LBO or buyout, this is a strategy financial sponsors employ to acquire a majority stake in a company, business unit or business assets from the current shareholders, typically using a combination of equity and debt. The target companies involved in these transactions are typically mature and generate healthy operating cash flows.
- **Venture capital:** This is an equity investment made to finance the launch, early development or expansion of a business. Venture investing is most often found in the application of new technology, new marketing concepts and new products that have yet to be proven, and it usually involves acquiring a minority stake in the business.

Private Equity Glossary (Cont)

- **Growth capital:** This is an equity investment made most often to acquire a minority position in a relatively mature company that is looking to expand or restructure operations, enter new markets or finance a major acquisition without ceding control of the business.
- **Distressed investments:** Distressed, or special, situations are a broad category referring to investments into financially troubled companies. Investors may acquire debt securities in anticipation of taking control of the company's equity after a corporate restructuring. Investors may also provide “rescue financing” typically a combination of debt and equity to companies undergoing operational or financial challenges.

LBO Diagram



Stages of Investment (PE/VC)

Seed	Startup/ Development	Expansion	Mezzanine	Buyouts
The business is still in idea stage and needs money to conceive and prove its product/service	The service or product is produced at this stage, but it but needs additional funds to sell commercially in a larger scale	Additional funds for further business expansion (e.g. additional markets or additional product/service offerings)	Covers need to restructure financing in preparation for listing on the stock exchange. Also an endorsement by a reputable venture capital firm will attract greater investor	The acquisition of control over a business either through the purchase of shares or the assets and trading liabilities of the business. Types include: <ul style="list-style-type: none">• Management Buyout (MBO)• Leveraged Buyout (LBO)• Management Buy In (MBI)• or a combination of all three

Some in the investment industry use the term "private equity" to refer only to buyout fund investing

Startup

Development

Buyout

Source: HKVCA <http://www.hkvca.com.hk/2004/m2-set.htm>

Summary

- Angel Investors definition
- VC:
 - definition
 - role
 - Fund Structure
- PE
 - Definition
 - Industry organization
 - Fee structure and performance
 - PE Glossary
- LBO Diagram
- PE/VC Stages of investment

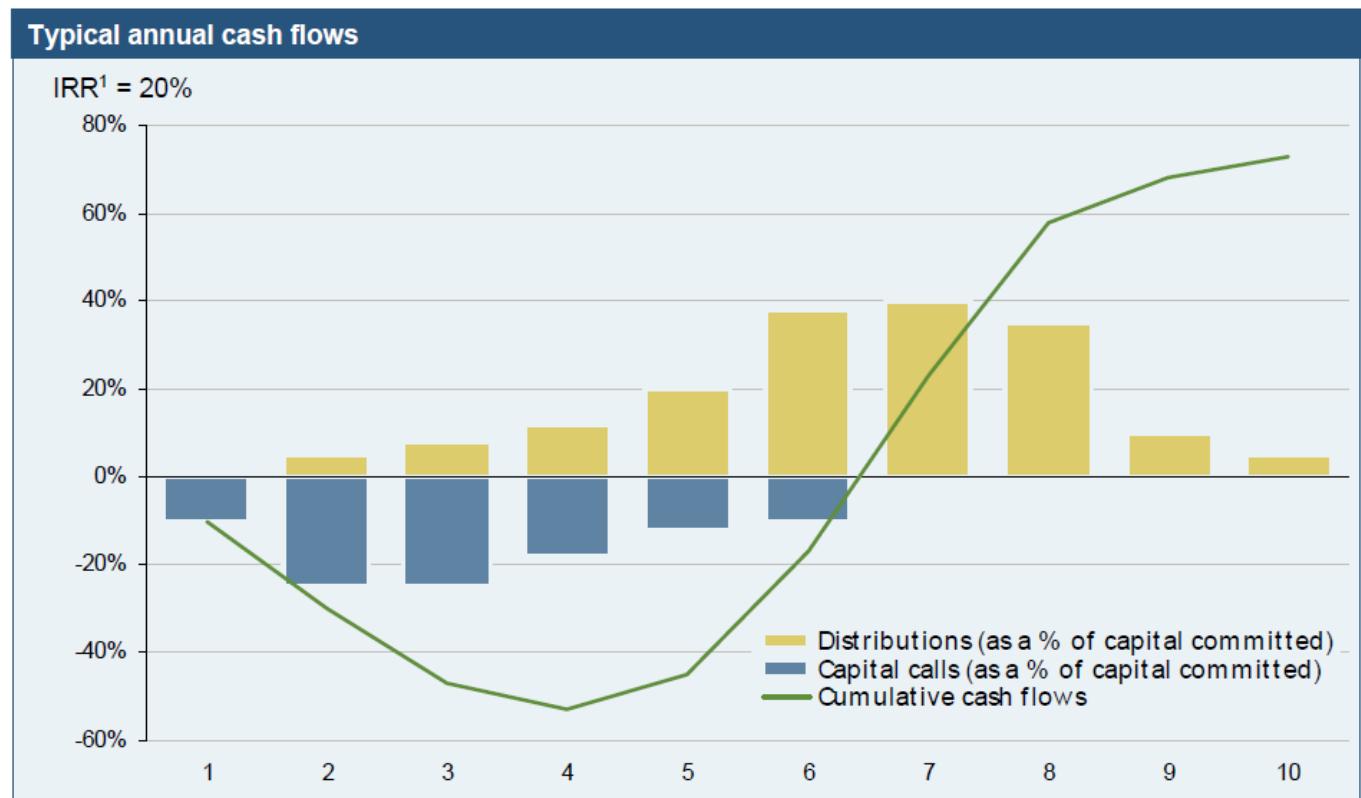
Test Your Understanding

- When a HNWI invests in young companies to help them grow we call this
 - Angel investing
 - VC fund
 - PE fund
- A fund that invests in very young companies that only have a prototype is typically called
 - VC fund
 - PE fund
- A fund that invests in companies to take them private is typically called
 - VC fund
 - PE fund



Private Equity's J-Curve

- Investors chip-in capital calls early during fund lifecycle: distributions typically come during mid-to-later years



Source: HKPEFA

Investment process

1. Initial Evaluation

- Evaluate RFF (request for financing) and business plan
- Very high rejection rate

2. Initial Negotiation

- Discuss and negotiate general terms and structure of investment with entrepreneur/company before submission to investment committee for approval

3. Due Diligence

- Sign Memorandum of Understanding (MOU)
- Independent investigation of information

4. Final Negotiation and Completion

- Key points include price, structure and role of the VC investor
- Legal documentation to be signed

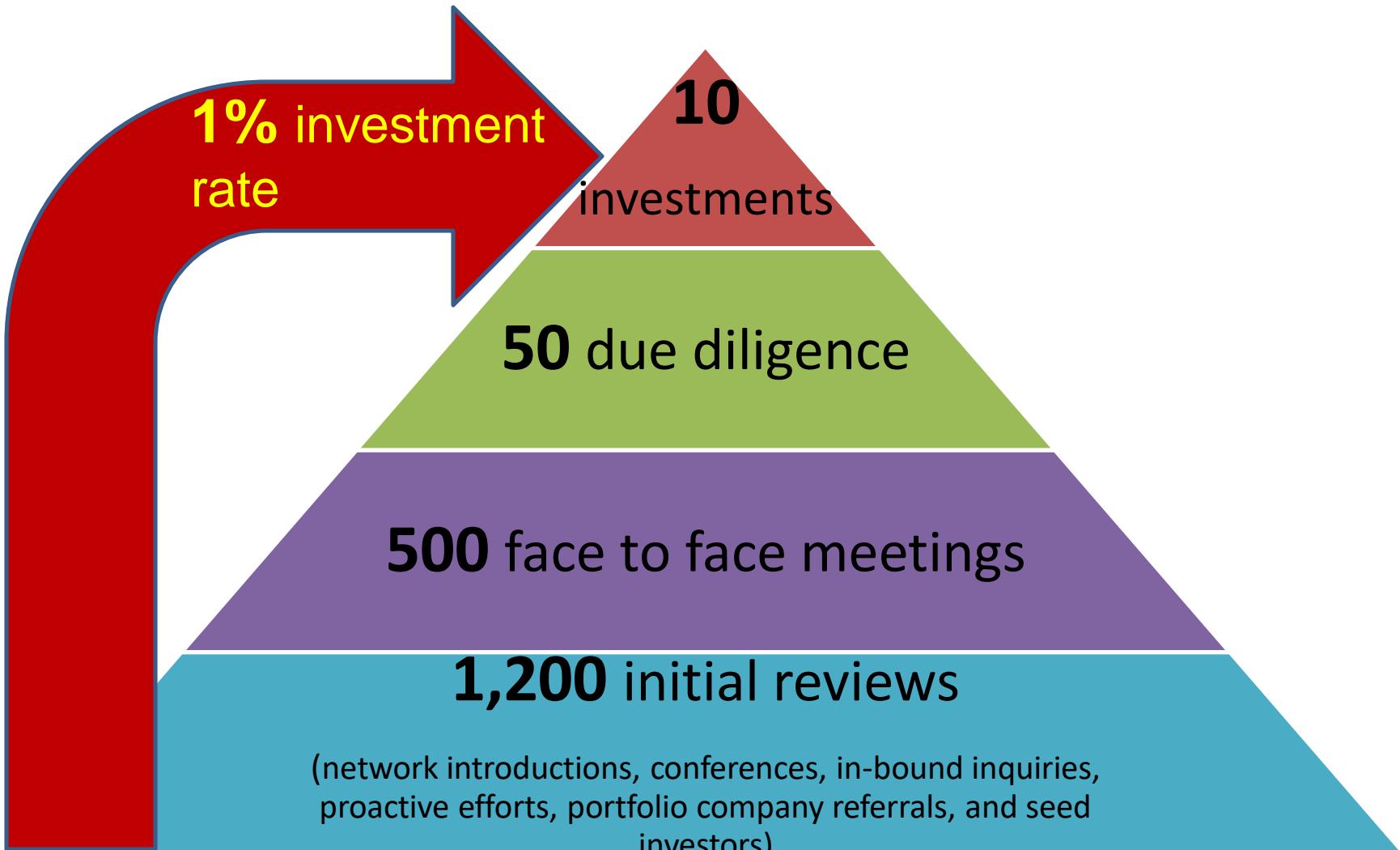
5. Monitoring

6. Exit

- Generally 3-5 years after initial investment by IPO or to strategic partner

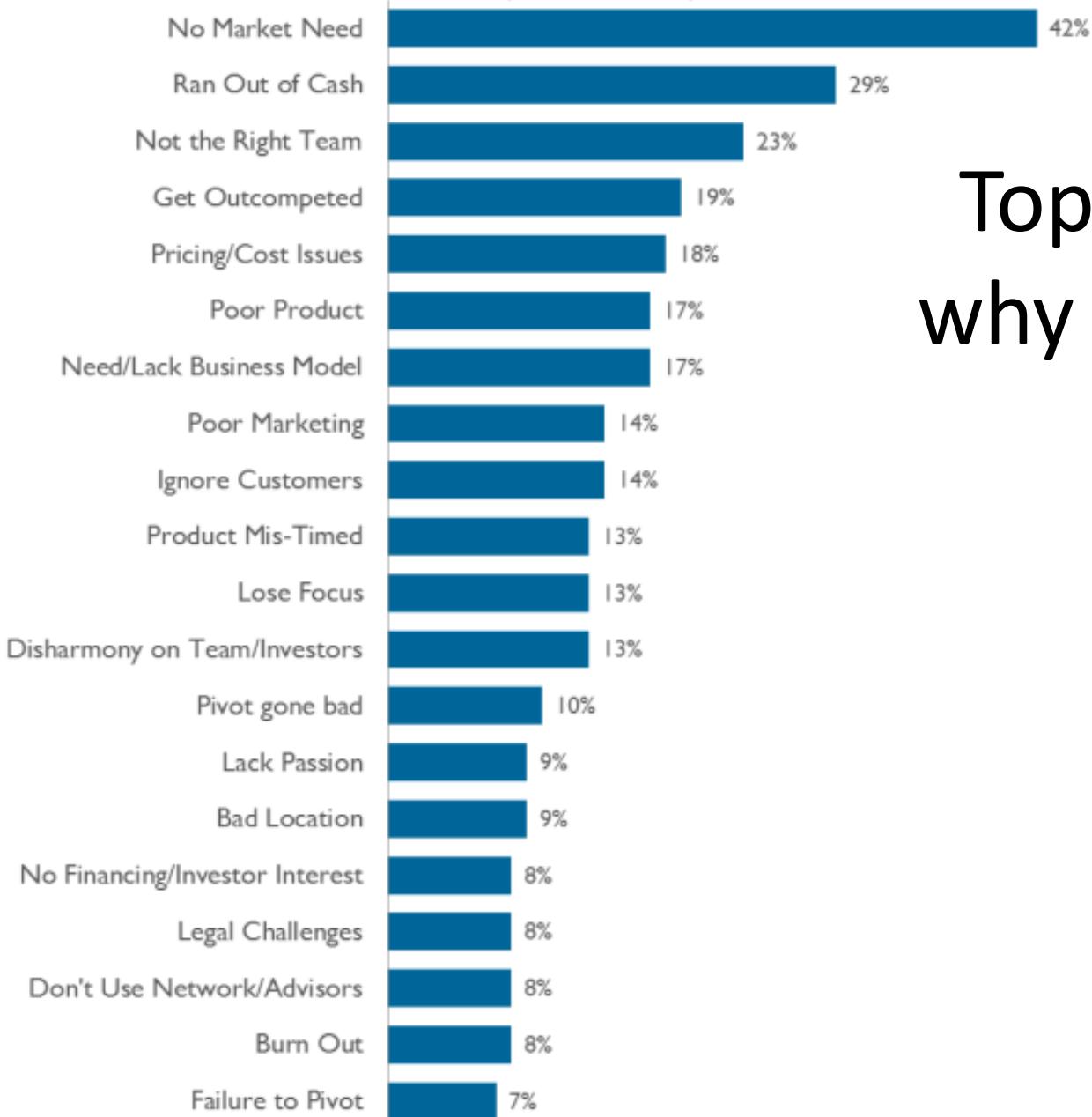
Source: HKVCA <http://www.hkvca.com.hk/2004/m2-set.htm>

The VC pipeline



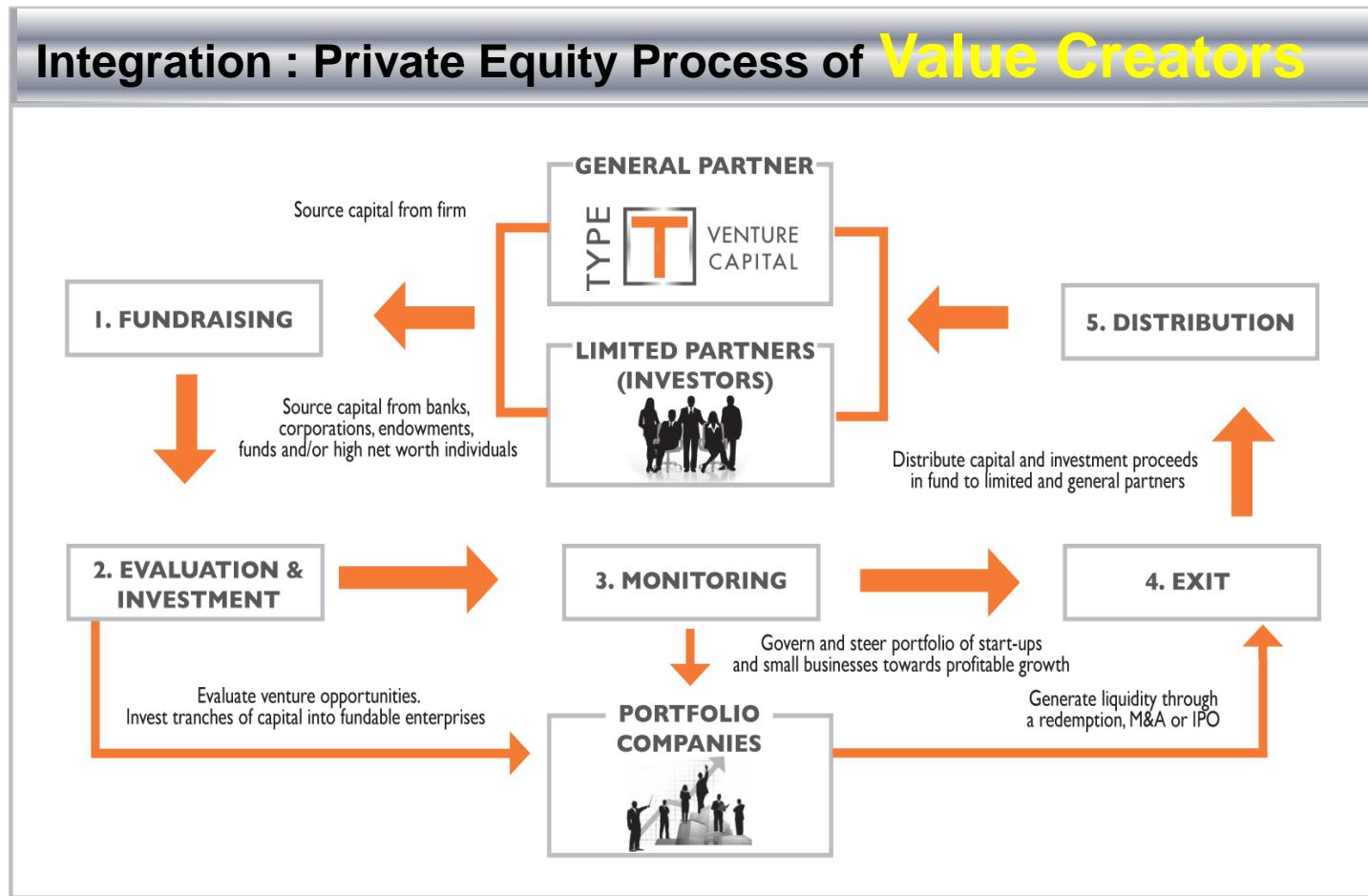
Top 20 Reasons Startups Fail

Based on an Analysis of 101 Startup Post-Mortems



Top 20 reasons why start-ups fail

The Life Cycle of a PE Fund



Source: HKPEFA

Current Issues in PE and VC

- A very public debate: “locusts” or public benefactors? Video: Other People’s Money <https://www.youtube.com/watch?v=xJRhrow3Jws>
- Performance and fee structure
- Disclosure and corporate governance issues
- Growing participation of unsophisticated investors in PE (indirectly through pension funds and mutual funds)
- Competition from corporate (CVC) and family offices
- The shrinking IPO
- Large amounts of dry powder => capacity to invest? Impact on valuations

SUMMARY

- PE's J-curve
- PE/VC Investment process
- Life Cycle of funds
- Performance
- CVC

Test Your Understanding

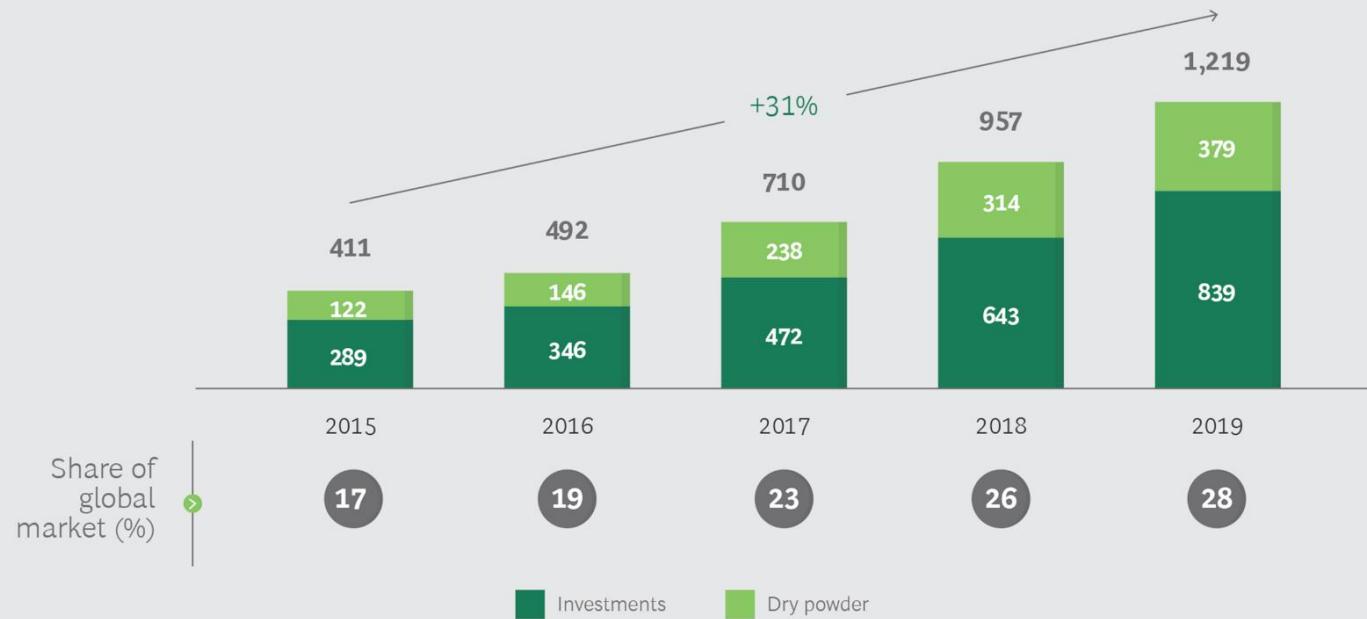
- Your friend, who is in his final year of engineering studies at HKUST, has discovered a way of making tele-transportation work. He is now looking to build a prototype of his machine, and asks for your guidance in seeking funding to start his new business. Which type of financial institution would you recommend he try?
 - A commercial bank
 - A hedge fund
 - A seed (venture capital) fund
 - A mutual fund



PE in APAC

EXHIBIT 1 | APAC-Focused Funds Have Shown Strong Growth

APAC assets under management (\$billions)



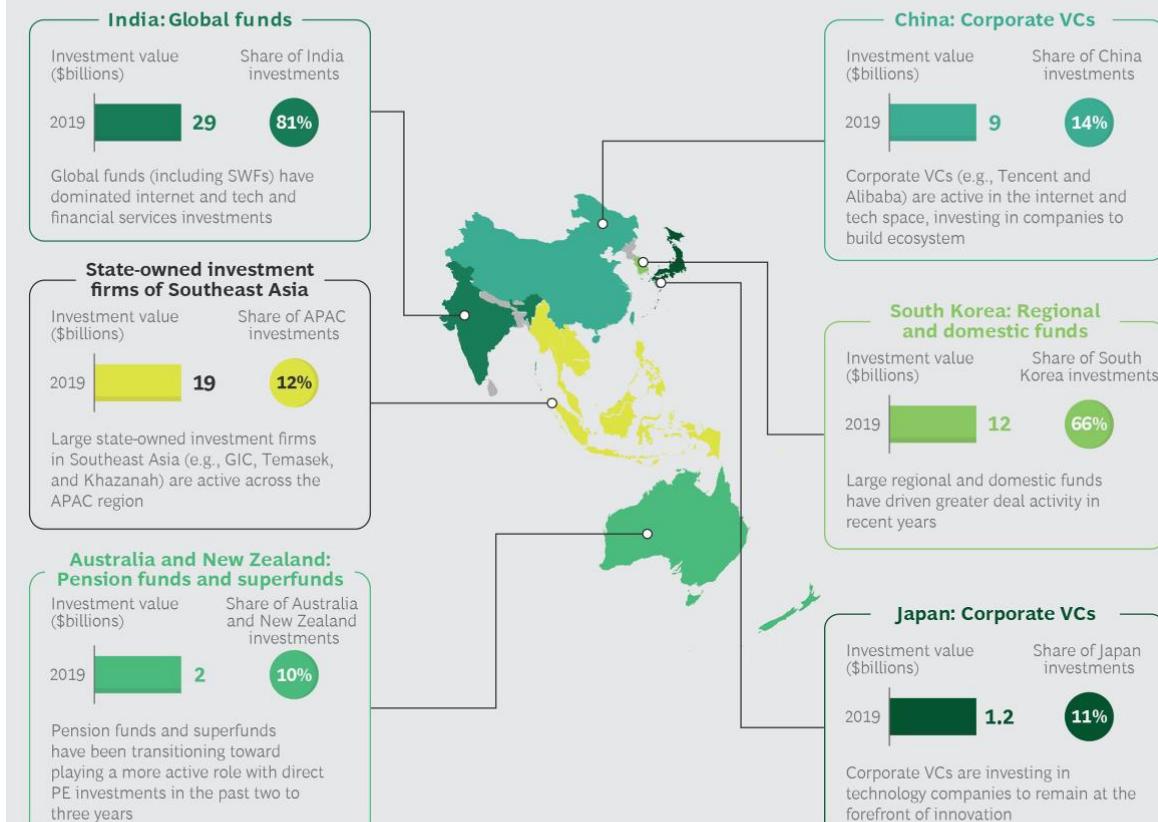
Sources: Preqin; BCG analysis.

Note: APAC funds are defined as those that primarily invest in APAC markets; APAC allocations of non-APAC-focused funds have been excluded. AUM includes venture capital; funds of funds have been excluded.

Source: BCG 2020

PE in APAC (ct'd)

EXHIBIT 2 | Different Classes of Investors Operate Across Heterogeneous Markets Within the APAC Region



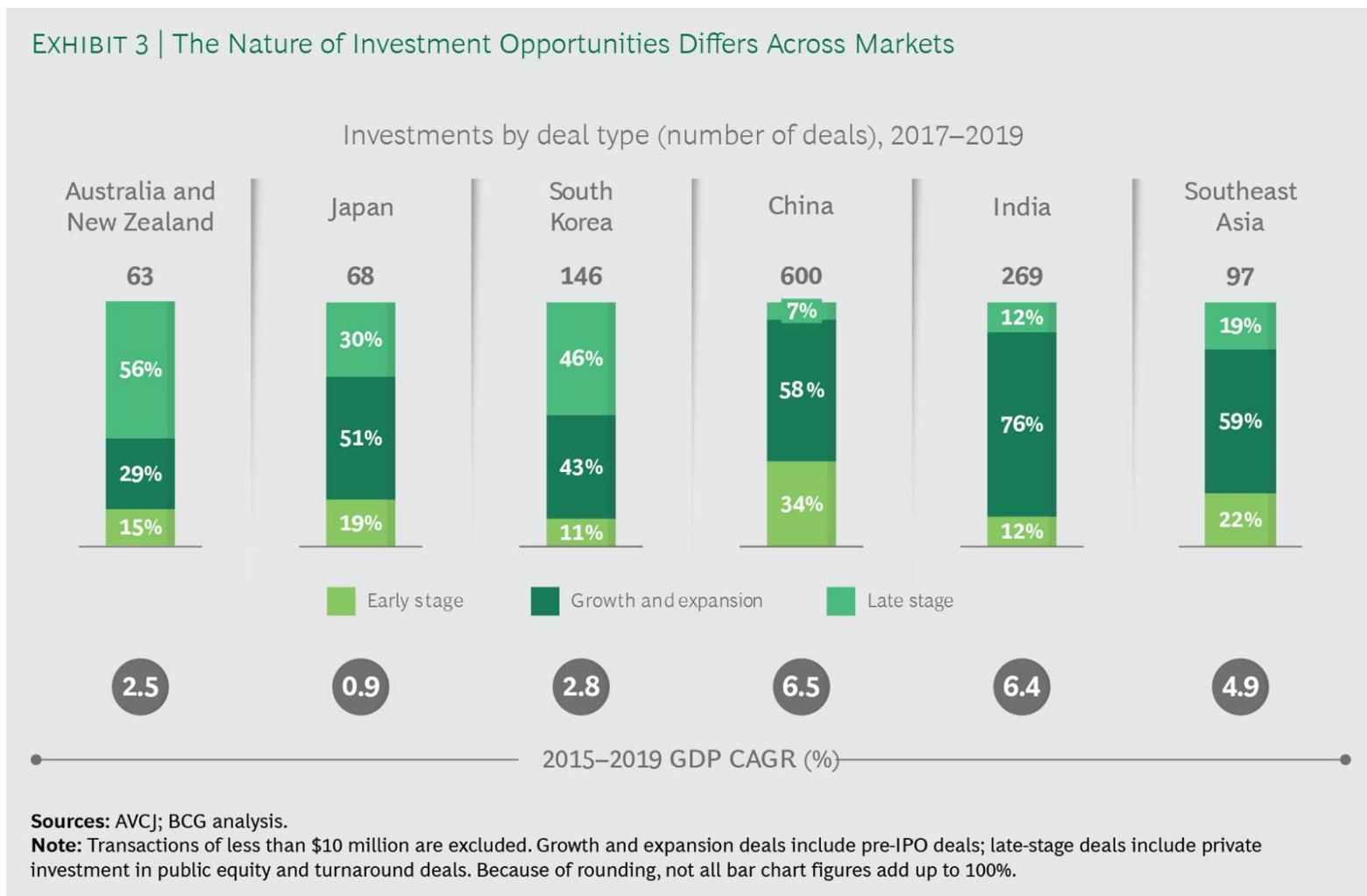
Sources: AVCJ; BCG analysis.

Note: Many transactions attributed to a specific class of investors include other types of funds and corporations as co-investors. SWF = sovereign wealth fund.

Private Equity and Venture Capital

PE in APAC (ct'd)

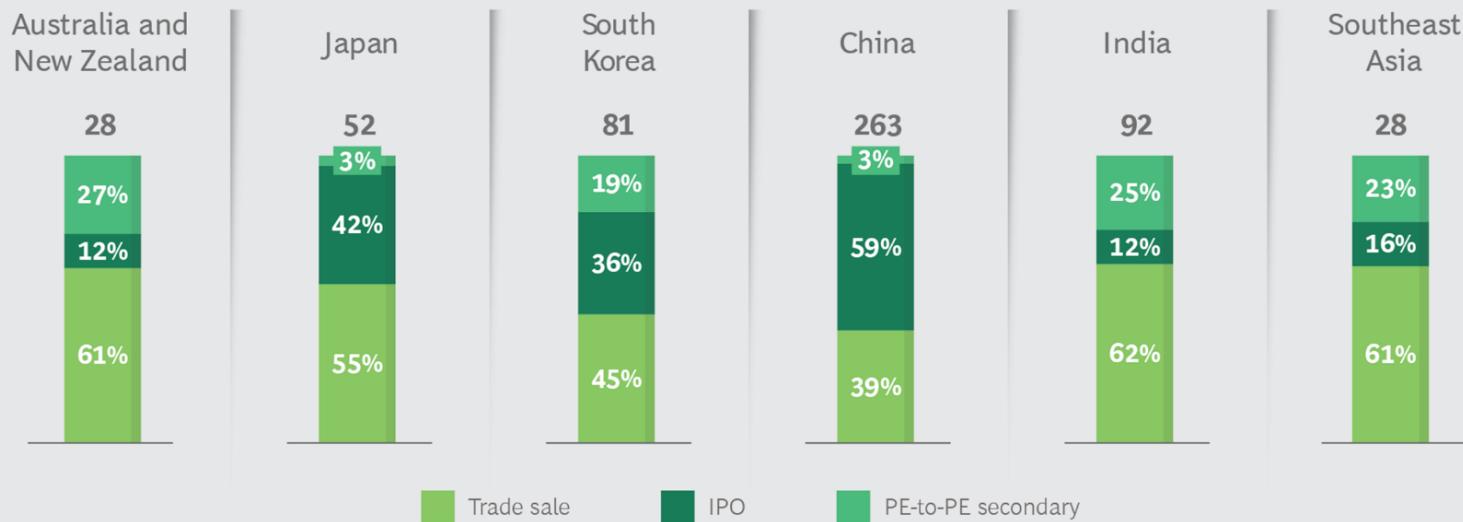
EXHIBIT 3 | The Nature of Investment Opportunities Differs Across Markets



PE in APAC (ct'd)

EXHIBIT 4 | In More-Evolved Markets, Funds Prefer Exits Through IPOs, but Emerging Markets Such as India and Southeast Asia Have a Higher Share of PE-to-PE Exits

Investments by exit type (number of exits), 2017–2019



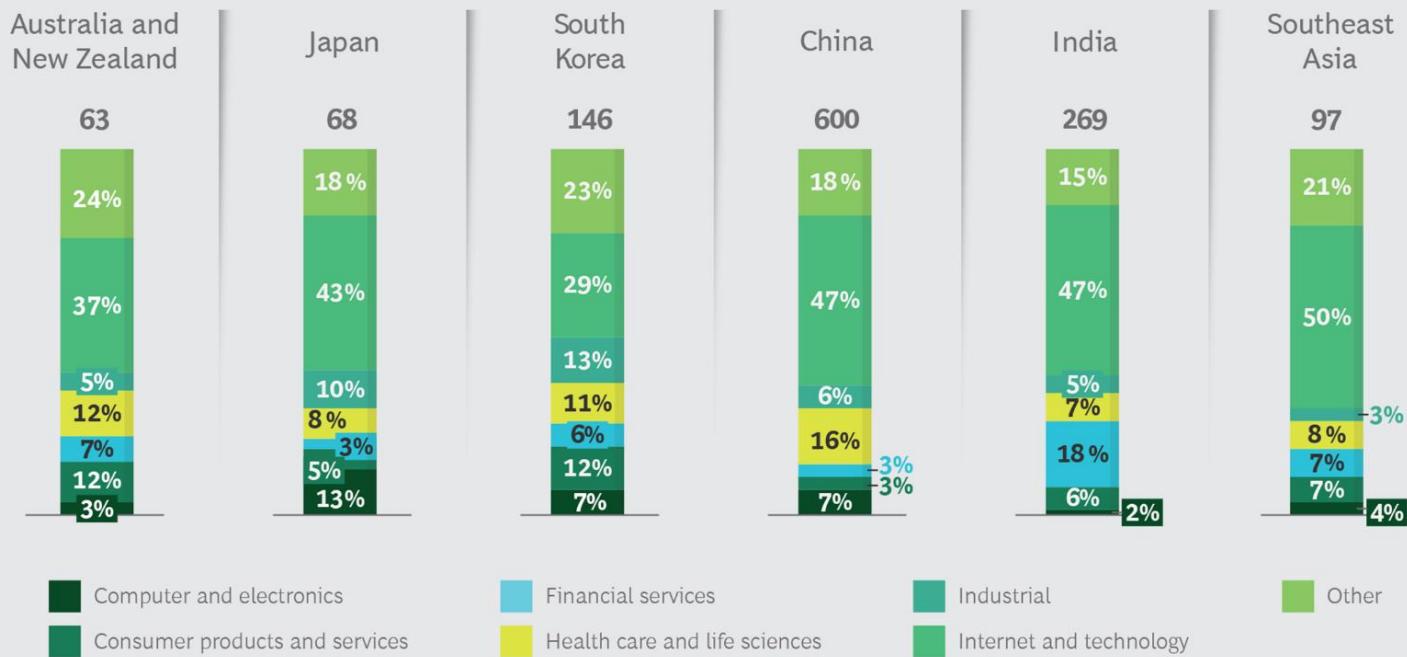
Sources: AVCJ; Economist Intelligence Unit; BCG analysis.

Note: IPOs include public listing of portfolio company, where PE funds have not exited. Non-IPO exits with a transaction value of less than \$10 million are excluded; IPOs of less than \$10 million are excluded. Trade sales comprise exits through a sale to corporations or retail investors; secondaries comprise exits through sale of investment to general partners. Because of rounding, not all bar chart figures add up to 100%.

PE in APAC (ct'd)

EXHIBIT 5 | Technology and Computer-Related Sectors Have Dominated Investments Across the Region

Investments by sector (number of deals), 2017–2019



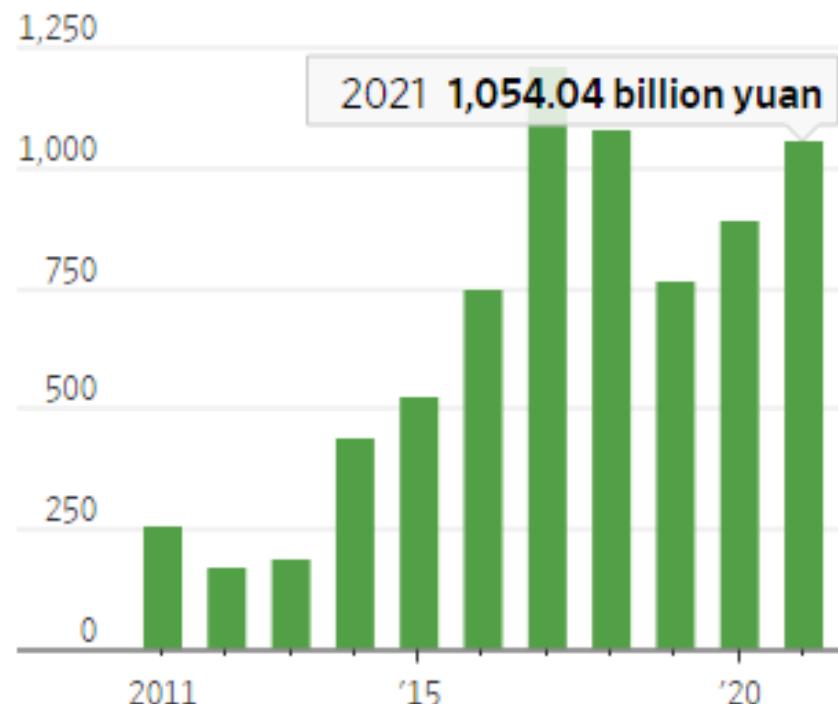
Sources: AVCJ; BCG analysis.

Note: Transactions of less than \$10 million have been excluded. Because of rounding, not all bar chart figures add up to 100%.

VC/PE in China

China's venture-capital and private-equity investments

1,500 billion yuan



Note: Q1 to Q3 for 2021; 1 billion yuan = \$156 million
Source: Zero2IPO

Current issues: Private Equity Funds in Asia: what is the trend? What is happening in China? In India? What are the issues? Implications?(Group 17)

- Videos
- <https://www.youtube.com/watch?v=7uhTFQ5hbSc>
- Articles
- <https://www.bain.com/insights/asia-pacific-private-equity-2021/>

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2. Private Equity and Venture Capital
3. **Hedge Funds**

Alternative Investors

What is a Hedge Fund?

- **Surprisingly, there is no official legal definition.**
- Some examples of definitions:
 - “a limited partnership, which can take long and short positions, use leverage, and pay to the manager (principal partner) 20% of their profit. The manager has usually invested his own money”. (Alfred Winslow Jones)
 - “a mutual fund that employs leverage and uses various techniques of hedging”. (G. Soros)
 - “all investment funds with an absolute return goal”. (TASS)
 - “a risky investment pool, generally open only to well-heeled investors, that seeks very high returns by taking very great risks”. (Money Central Investor)

Source: Prof F.S. Lhabitant

What is a hedge fund?

- A hedge fund constitutes an investment program whereby the managers or partners seek **absolute returns** by exploiting investment opportunities while **protecting principal** from potential financial loss. The first hedge fund was indeed a **hedged** fund.
- The reason the term “hedge fund” is perceived as a misnomer is because there are no hedge funds that hedge all risks. If all risks were hedged, so would be the returns.
- This definition highlights two important aspects of hedge funds: the attempt to generate **positive absolute returns** by taking risk and, at the same time, trying to **control losses** and avoid negative compounding of capital. Their investment philosophy is materially different from the investment philosophy of a manager who is tied to a market benchmark.
- The hedge funds/alternative investment moniker is a description of what an investment fund **is not** rather than what it is. The universe of alternative investments is just that – the universe.

Source: AIMA Roadmap to Hedge Funds Nov 08

Hedge Funds Characteristics

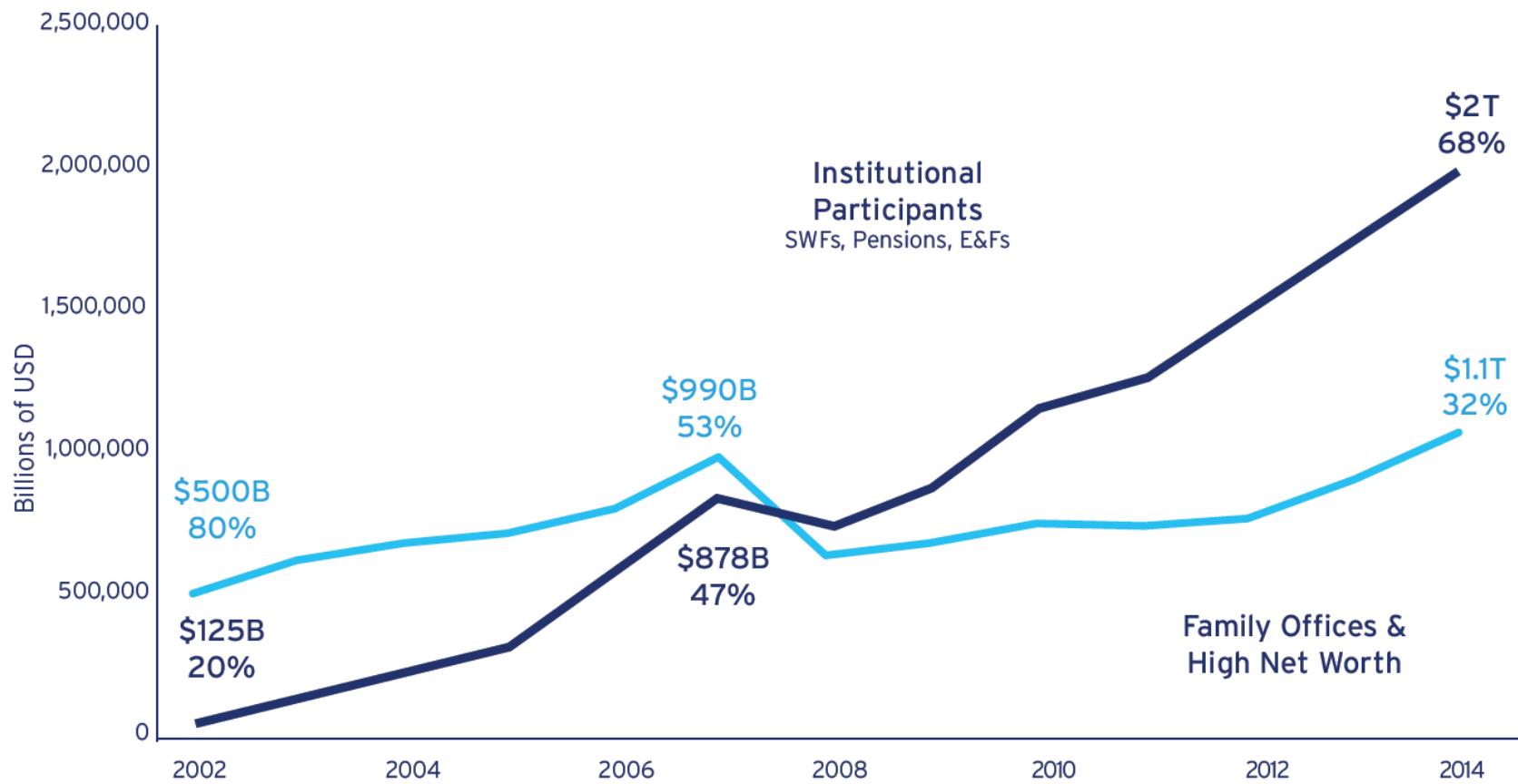
- Actively managed – returns driven by manager skills (“alpha”).
- No benchmarks, no relative weights, no relative returns.
- Flexible investment policies.
- Often located “offshore”.
- Limited liquidity.
- Performance fees – the 2+20 system
- Run by partners, not employees
- Secretive

Source: Prof F.S. Lhabitant

Who are the investors?

- Originally, for PE and HF, investors were primarily HNWI and family offices
- Over time, the role of institutional investors has increased
- The flow of money from institutionals increased due to the search for yield post-GFC
- Recently, hedge funds under-performance has caused many withdrawals from key investors, particularly US pension funds

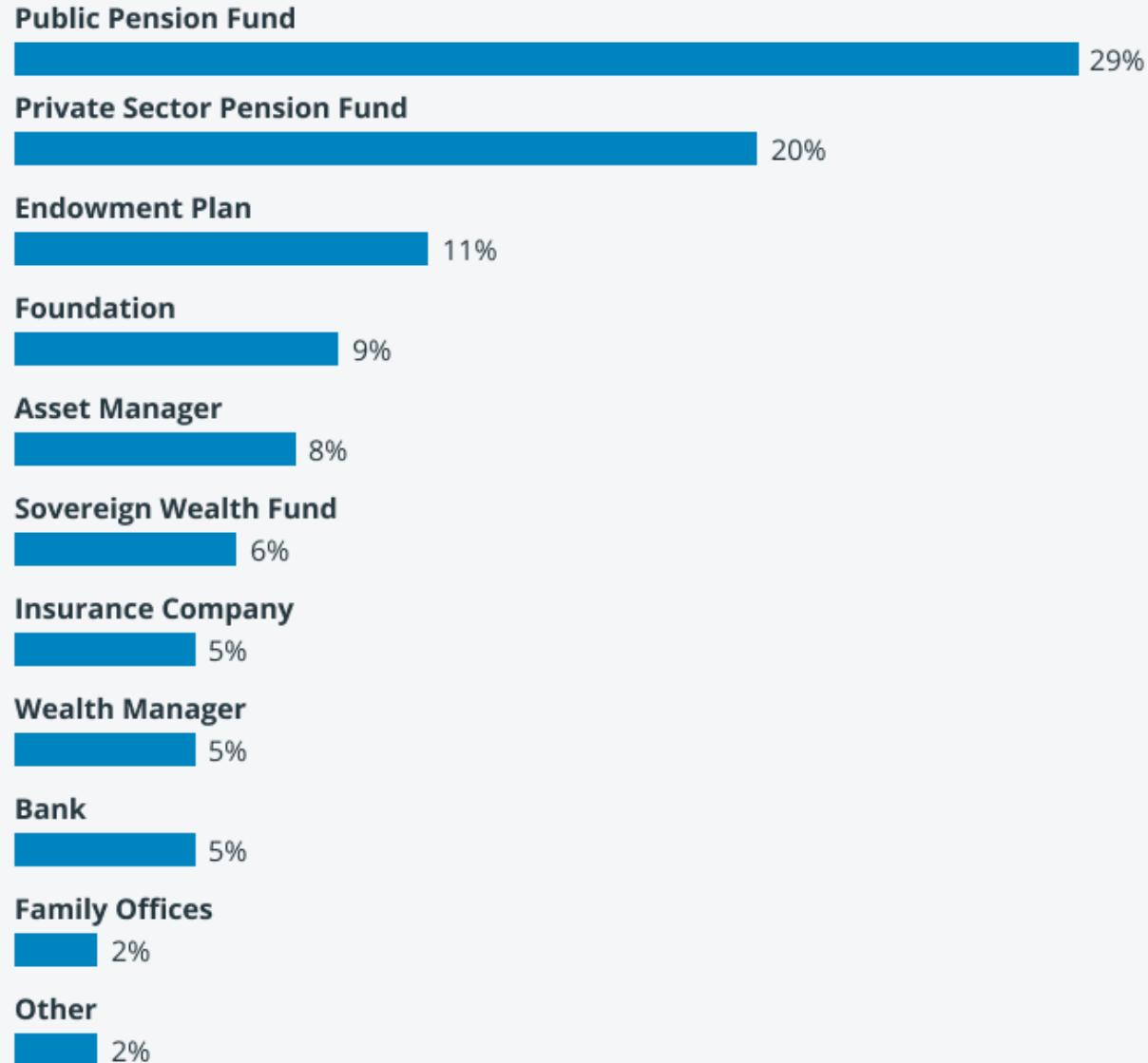
Sources of underlying capital directed to HF industry



Sources: Citi Business Advisory analysis based on HFR and eVestment data

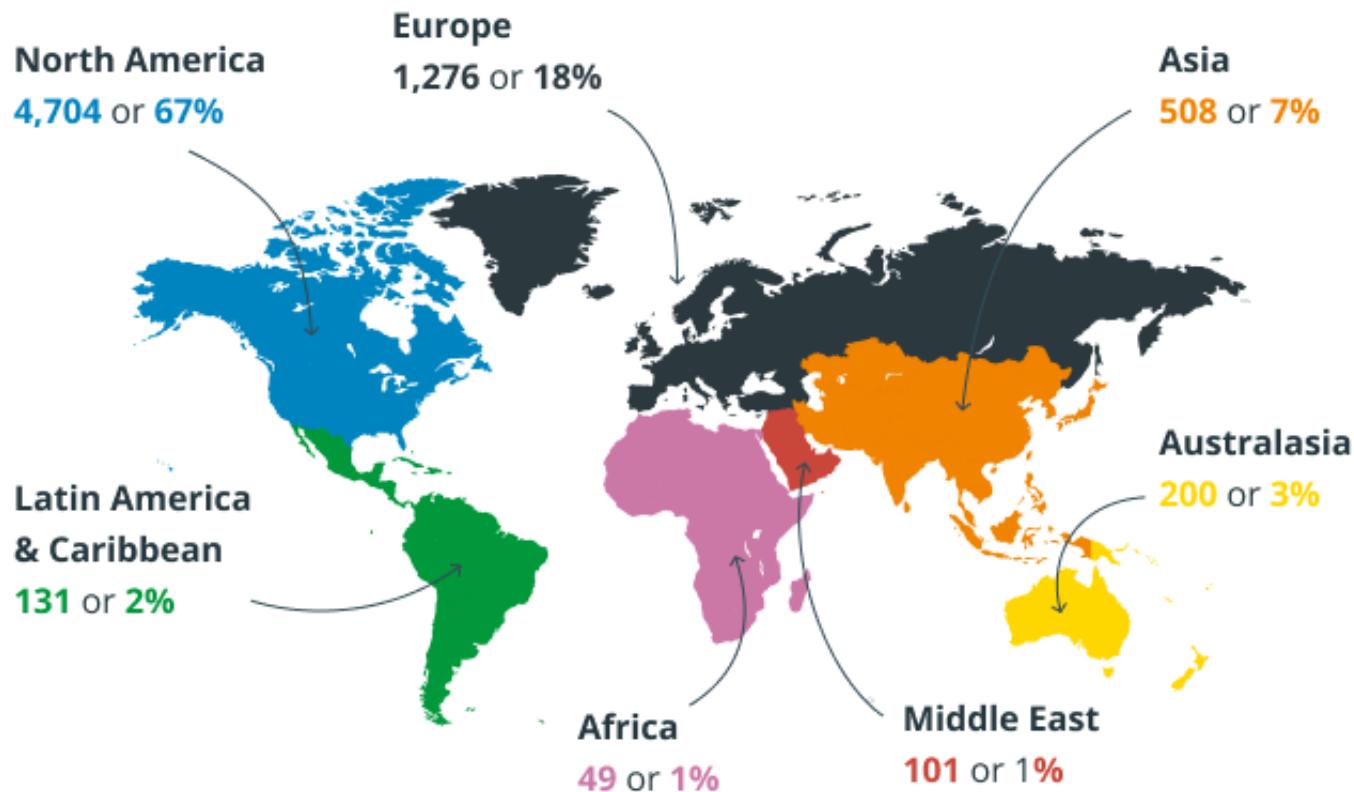
Investors in Hedge Funds

Source of Capital that Allocates to Hedge Funds by Investor Type, Q2 2021



Investors in Hedge Funds

Number of Institutional Investors that Allocate to Hedge Funds, by Region



Key Features of Hedge Funds

- **Organizational structure:** private partnership in US: limited partners (investors) v. general partners (manager)
- **Fee structure:** 2/20: management fee and performance fee, hurdle rate, high water mark
- **Term structure:** lock up and redemption features; side pockets
- **Strategy diversity:** global macro; directional (inc. long/short); event-driven; relative value...

HF Glossary

- **Alpha**: Measures the value that an investment manager produces, by comparing the manager's performance to that of a risk-free investment (usually a Treasury bill).
- **Beta**: Gauges the risk of a fund by measuring the volatility of its past returns in relation to the returns of a benchmark, such as the S&P 500 index.
- **High-water mark**: A provision serving to ensure that a fund manager only collects incentive fees on the highest net asset value previously attained at the end of any prior fiscal year - or gains representing actual profits for each investor. A high water mark means that, where the net asset value (NAV) of the fund drops below its peak, no performance fee can be charged on any subsequent profit until the NAV reaches its previous high.

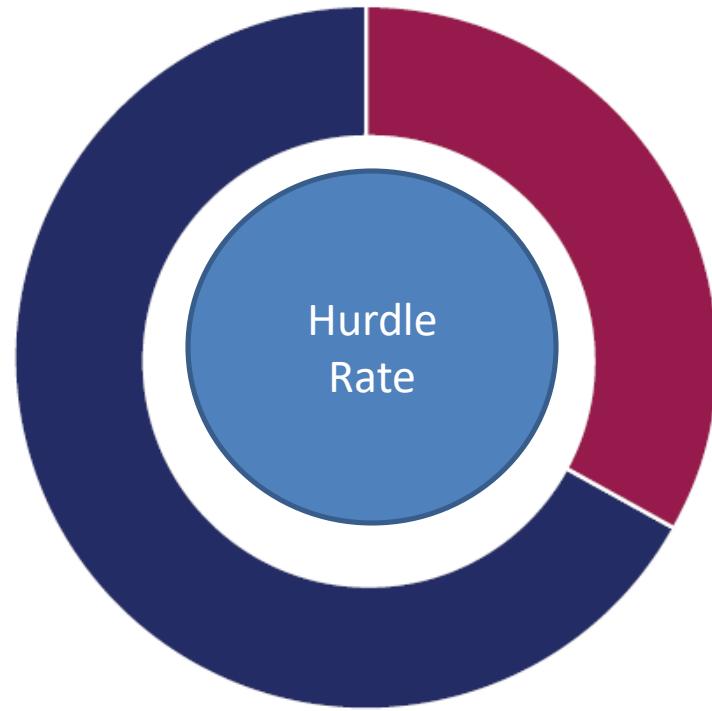
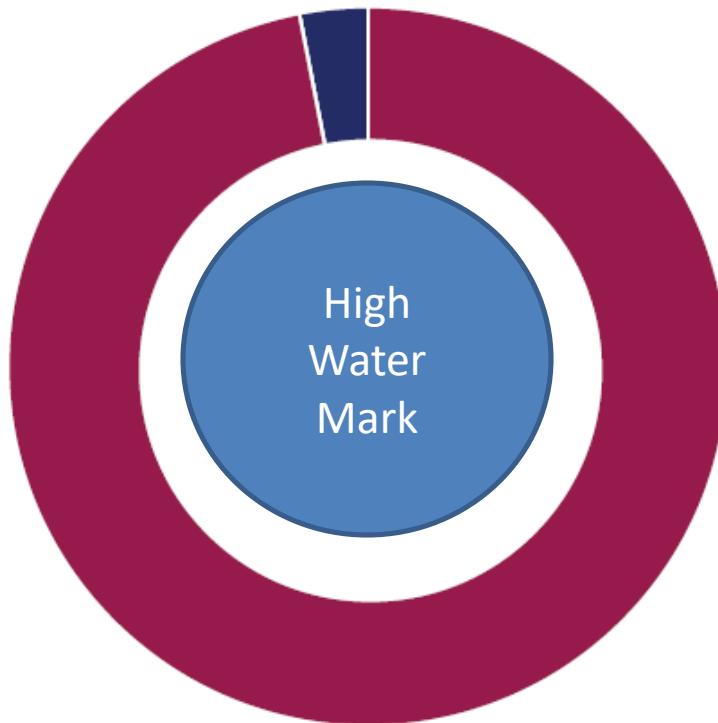
Sources: BNA International/AIMA

HF Glossary (Cont)

- **Hurdle rate:** The minimum return necessary for a fund manager to start collecting incentive fees. The hurdle is usually tied to a benchmark rate such as Libor or the one-year Treasury bill rate plus a spread.
- The deployment of a hurdle rate in a hedge fund means that a hedge fund manager cannot charge a performance fee until the fund's performance exceeds a pre-determined target. So, for example, if a fund sets a hurdle of 5% and returns 15%, performance fees would only apply to the 10% above the hurdle. This target can be pre-specified as a fixed percentage (anything between 0.1% and 10%) or an index based benchmark (usually LIBOR or LIBOR plus a spread).

Sources: BNA International & AIMA

97% of HF managers use high water mark, 1/3 use hurdle rates



Source: AIMA Survey Sept 2016

HF Glossary (Cont)

- **Incentive fee (performance fee):** The charge - typically 20 percent - that a fund manager assesses on gains earned during a given 12-month period.
- **Management fee:** The charge that a fund manager assesses to cover operating expenses. Investors are typically charged separately for costs incurred for outsourced services. The fee generally ranges from an annual 0.5 percent to 2 percent of an investors entire holdings in the fund, and it is usually collected on a quarterly basis.
- **Lock Up:** Investors cannot redeem capital for a certain period. the committed capital gives greater freedom to the hedge fund manager who does not need to hold as much cash on hand to meet potential redemption requests.

Sources: BNA International/AIMA

SUMMARY

- HF definition
- HF Characteristics & Key Features
- HF Glossary

Test Your Understanding

- Which of the following are common characteristics of both hedge funds and private equity funds?
 - Organizational structure as partnerships
 - Fee structure with a combination of management fee and performance fee
 - High denomination
 - High portfolio diversification
 - A, b and c
 - B c and d
 - A c and d
 - A b and d
 - All of the above
 - None of the above



Hedge Fund Industry in Numbers

The Hedge Fund Industry In Numbers

The information below is kindly provided by Preqin's award winning Hedge Fund Online. Preqin provides industry-leading intelligence and cutting edge tools to support industry market participants at every stage of the investment cycle

Number of
Investors:

6,969

Number of
Fund Managers:

7,533

Number of
Funds:

21,537

AUM (\$bn) as
at Q2 2021:

4,327

Q2 2021 Asset
Flow (\$bn):

22.5

Q2 2021
Hedge Funds
Performance:

3.87%

Hedge Funds by Geography

Number of Hedge Funds and AUM by Fund Manager Headquarters

North America

4,821

Fund Managers

\$3,393bn

Assets under Management

Total Industry Value

\$4,327bn

Europe

1,368

Fund Managers

\$709bn

Assets under Management

Rest of World

361

Fund Managers

\$46bn

Assets under Management

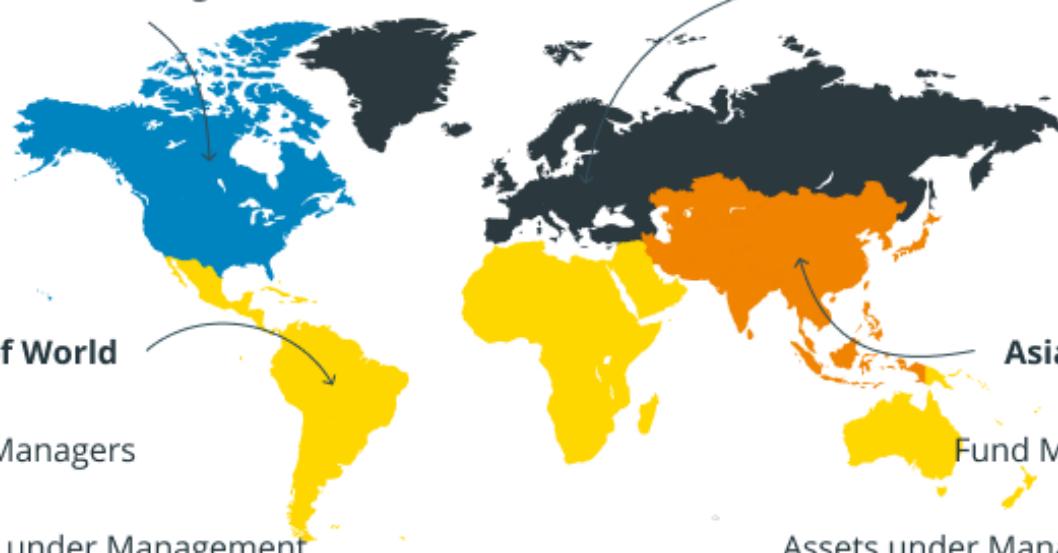
Asia-Pacific

983

Fund Managers

\$178bn

Assets under Management



Regional AUM is indicative of hedge fund managers headquarters location.

Top Hedge Fund Managers by AuM as of June 2018

Manager	Location	Year Established
Bridgewater Associates	US	1975
AQR Capital Management	US	1998
Man Group	UK	1983
Renaissance Technologies	US	1982
J.P. Morgan Asset Management	US	1974
Two Sigma Investments	US	2001
Elliott Management	US	1977
Millennium Management	US	1989
Marshall Wace	UK	1997
Adage Capital Management	US	2001
Davidson Kempner Capital Management	US	1990
Aberdeen Standard Investments	UK	1998
Baupost Group	US	1982
D.E. Shaw & Co.	US	1988
Citadel Advisors	US	1990
BlackRock Alternative Investors	US	2005
H2O Asset Management	UK	2010
Winton Capital Management	UK	1997
Farallon Capital Management	US	1986
Viking Global Investors	US	1999

Hedge Funds by Geography

Number of Hedge Funds and AUM by Fund Manager Headquarters

North America



Europe



Asia-Pacific

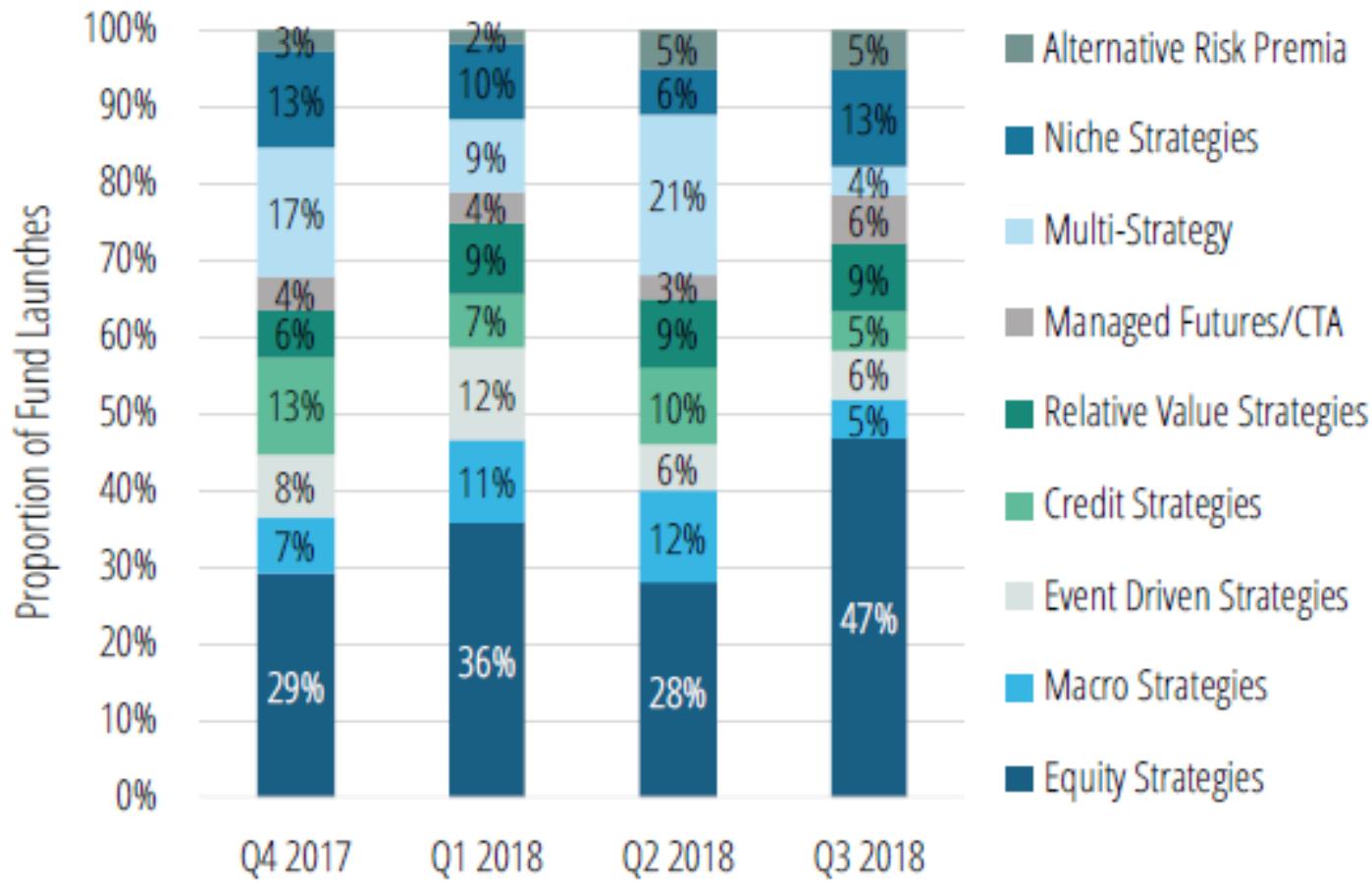


Rest of World



Previous analysis by AIMA indicates a ratio of 2:1 indirect vs direct employees. Data as at Q1 2019

Hedge Funds launched, by strategy



Hedge Fund AuM by Strategy

Hedge Fund Assets Under Management by Strategy (\$bn), 2014 – Q2 2021								
	2014	2015	2016	2017	2018	2019	2020	Q2 2021
Credit Strategies	231.6	241.5 ↑ 4.3%	236.7 ↓ -2.0%	250.1 ↑ 5.7%	268.2 ↑ 7.2%	293.2 ↑ 9.3%	295.8 ↑ 0.9%	308.7 ↑ 4.4%
CTAs	203.7	223.2 ↑ 9.6%	250.7 ↑ 12.3%	284.0 ↑ 13.3%	260.1 ↓ -8.4%	262.5 ↑ 0.9%	276.6 ↑ 5.4%	302.2 ↑ 9.3%
Equity Strategies	746.7	807.4 ↑ 8.1%	823.2 ↑ 2.0%	918.6 ↑ 11.6%	852.8 ↓ -7.2%	954.9 ↑ 12.0%	1,127.7 ↑ 18.1%	1,263.9 ↑ 12.1%
Event Driven Strategies	166.9	165.4 ↓ -0.9%	176.5 ↑ 6.7%	204.2 ↑ 15.7%	203.4 ↓ -0.4%	193.4 ↓ -4.9%	186.6 ↑ -3.5%	212.8 ↑ 14.1%
Macro Strategies	910.2	919.3 ↑ 1.0%	979.3 ↑ 6.5%	1,061.4 ↑ 8.4%	1,027.3 ↓ -3.2%	1,083.8 ↑ 5.5%	1,143.3 ↑ 5.5%	1,200.6 ↑ 5.0%
Multi-Strategy	394.8	430.6 ↑ 9.1%	425.2 ↓ -1.3%	481.4 ↑ 13.2%	481.0 ↓ -0.1%	497.1 ↑ 3.3%	558.4 ↑ 12.3%	595.8 ↑ 6.7%
Niche Strategies	14.0	14.3 ↑ 2.1%	14.8 ↑ 3.5%	25.0 ↑ 68.9%	29.4 ↑ 17.6%	30.5 ↑ 3.4%	29.7 ↓ -2.6%	43.4 ↑ 46.2%
Relative Value Strategies	351.8	343.7 ↓ -2.3%	340.6 ↓ -0.9%	352.6 ↑ 3.5%	328.3 ↓ -6.9%	340.4 ↑ 3.7%	377.6 ↑ 10.9%	399.2 ↑ 5.7%

Funds of Hedge Funds

- "Funds of hedge funds," a relatively new type of investment product, are investment companies that invest in hedge funds.
- Some, but not all, register with the SEC and file semi-annual reports.
- They often have lower minimum investment thresholds than traditional, unregistered hedge funds and can sell their shares to a larger number of investors.
- Like hedge funds, funds of hedge funds are not mutual funds.
- Unlike open-end mutual funds, funds of hedge funds offer very limited rights of redemption.
- And, unlike ETFs, their shares are not typically listed on an exchange.

If you invest in hedge funds through a fund of hedge funds, you will pay two layers of fees: the fees of the fund of hedge funds and the fees charged by the underlying hedge funds.

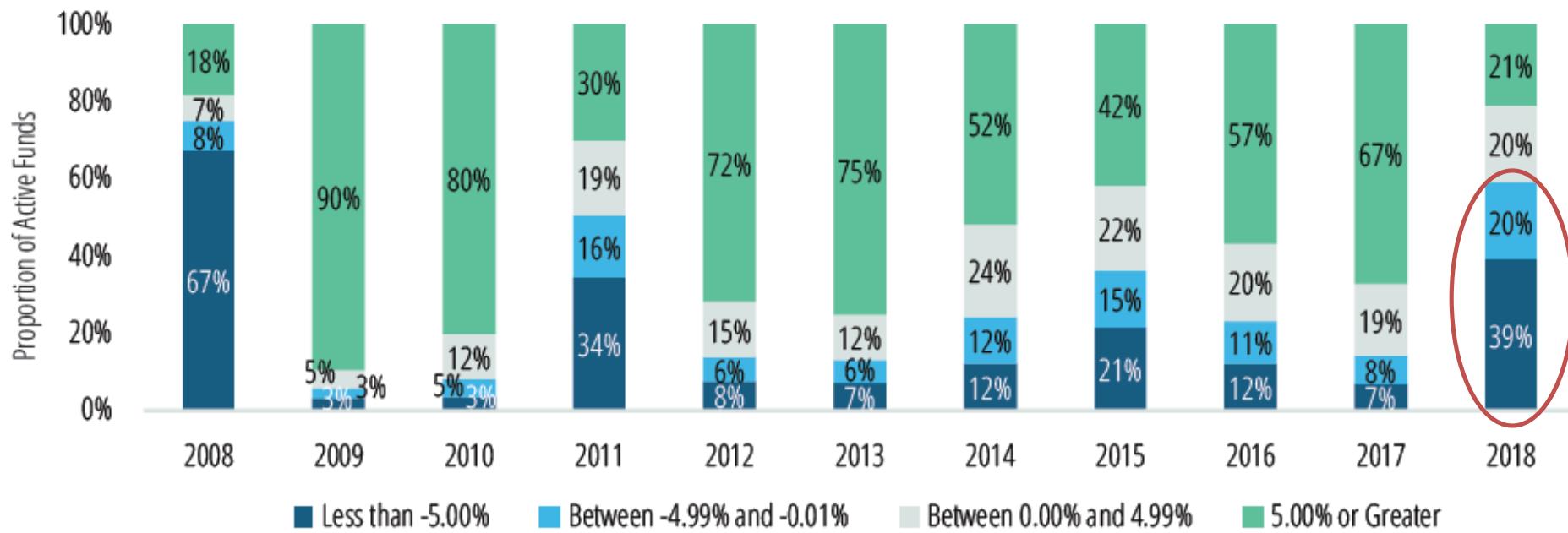
Source: SEC

Current Issues about Hedge Funds

- Impact of crisis
 - Need for regulation of HF?
 - Investors in HFs
 - New regulations post-crisis: Dodd-Frank Act 2010 and Private Fund Investment Advisers Registration Act of 2010 (US); Alternative Investment Fund Directive 2010 (EU)
 - Performance results and fee structure
 - Are hedge funds the new mutual funds?
 - Confidence and withdrawals
- Impact of Madoff scandal: are HFs just a Ponzi scheme?
 - Impact on feeder funds and funds of funds
 - Impact on results and performance

Current issues: hedge fund performance

Active Hedge Funds by Annual Net Return, 2008 - 2018*

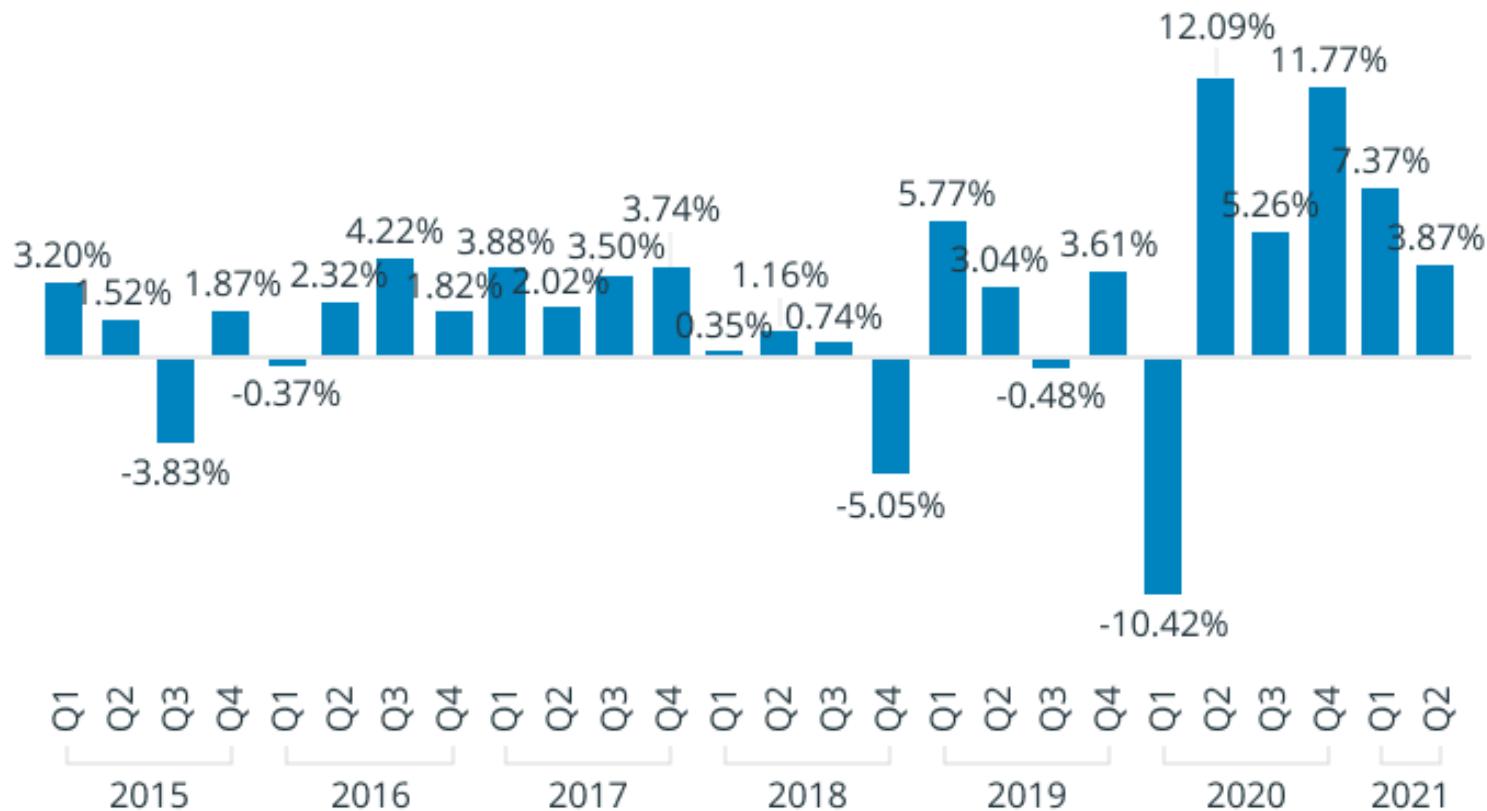


Source: Preqin Pro

*Please note, all performance information includes preliminary data for December 2018 based upon net returns reported to Preqin in early January 2019. Although stated trends and comparisons are not expected to alter significantly, final benchmark values are subject to change.

Hedge Funds Performance

Quarterly Performance on Hedge Funds, Q1 2015 - Q2 2021



Risk and Return

Risk/Return Metrics for Hedge Funds by Top-Level Strategy (As at Q2 2021)

	3-Year			5-Year			10-Year		
	Annualised Return	Volatility	Sharpe Ratio	Annualised Return	Volatility	Sharpe Ratio	Annualised Return	Volatility	Sharpe Ratio
Credit Strategies	5.90%	6.32%	0.62	6.69%	4.94%	0.95	6.83%	3.99%	1.21
Equity Strategies	13.80%	12.40%	0.95	13.35%	9.84%	1.15	9.54%	8.79%	0.86
Event Driven Strategies	9.44%	10.91%	0.68	9.90%	8.57%	0.92	7.56%	7.31%	0.76
Macro Strategies	9.68%	4.80%	1.60	8.09%	4.02%	1.51	6.94%	3.46%	1.43
Multi-Strategy	8.16%	6.62%	0.93	8.19%	5.28%	1.17	7.06%	4.47%	1.13
Relative Value Strategies	6.21%	3.02%	1.39	5.83%	2.42%	158	5.95%	2.07%	1.90
All Hedge Funds	12.30%	9.38%	1.10	11.65%	7.34%	1.30	8.81%	6.46%	1.05

Sharpe Ratio is calculated with a 2% risk-free-rate

Current issues: Hedge Funds in Asia: what is the trend? What is the performance? What are the issues?(Group 16)

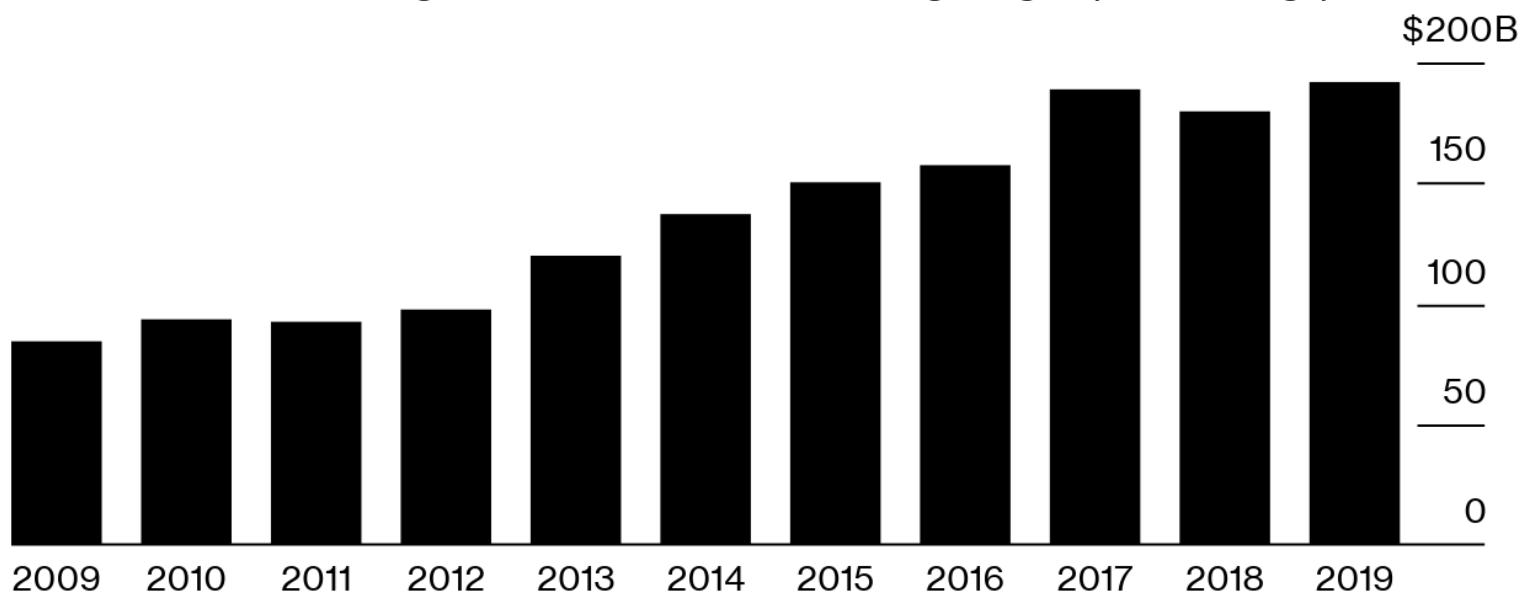
- Videos
- <https://www.youtube.com/watch?v=IdGGco53zHo>
- Articles
- <https://thehedgefundjournal.com/asian-hedge-funds/>

HF AuM in Asia

On the Rise

Hedge fund assets in Asia have swelled to fresh highs

- Combined AUM at hedge funds based in Australia, Hong Kong, Japan and Singapore



Source: Eurekahedge

Note: 2019 figures are as of Sept. 30.

Bloomberg

SUMMARY

- Funds of Hedge Funds