



Private Equity Update

7/28/2016



North Carolina Department of State Treasurer
Investment Management

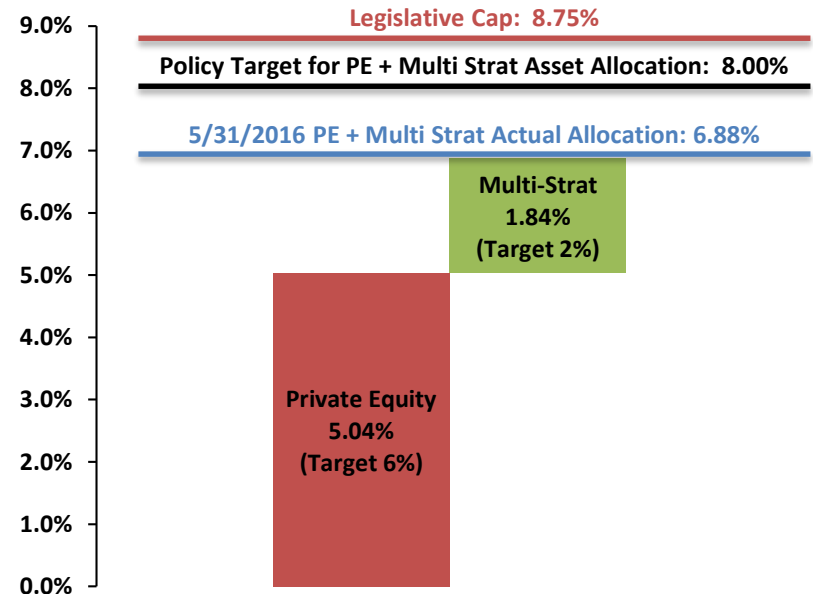
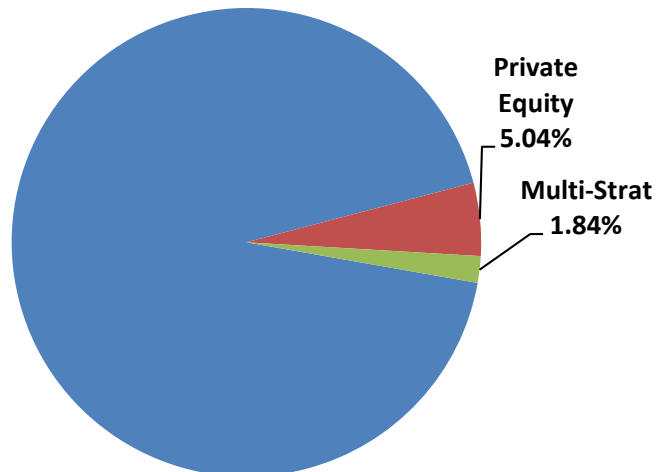
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Statutory Allocation

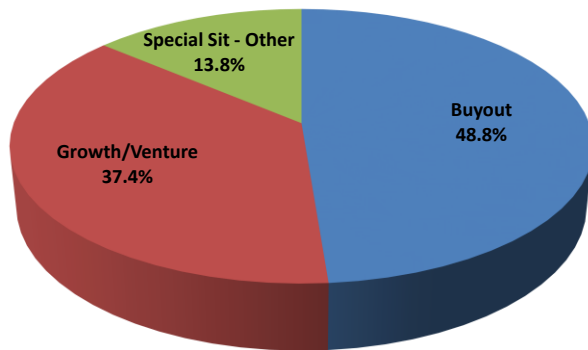
As of May 31, 2016

- Private Equity + Multi Strat represented 6.88% of the Total NCRS Plan
- Private Equity represented 5.04%, below the Policy Target of 6%

NCRS PE + Multi Strat Allocation
based on 5/31/2016 MV



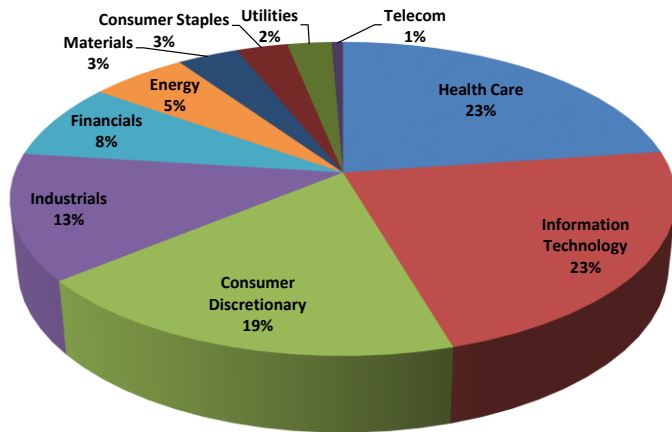
Private Equity Allocation



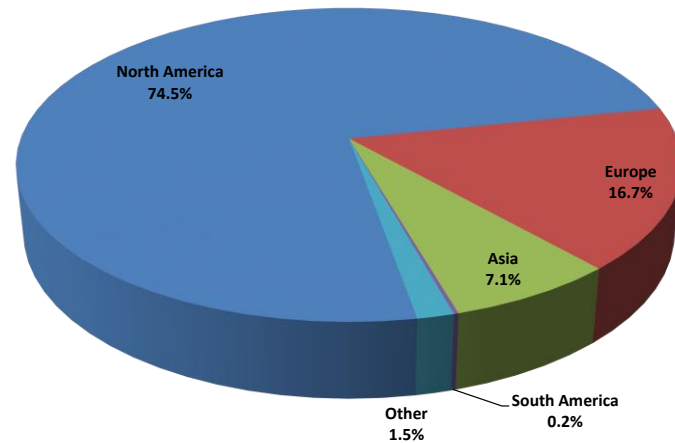
Policy Relative to Actual Portfolio Weights						
Strategy	Policy Range			Actual* (12/31/2015)	Estimated* (6/30/2016)	Unfunded* (6/30/2016)
	MIN	TARGET	MAX	(FMV)	(Adj. Value)	
Buyout	35%	50%	65%	48.8%	48.7%	48.4%
Growth/Venture	10%	20%	30%	37.4%	36.5%	26.9%
Special Situations	15%	30%	45%	13.8%	14.8%	24.7%
TOTAL				100%	100%	100%

➤ Based on forward pipeline through 2017 (as of 6/30/2016), targeted commitments to: Buyout – 62.8%, Growth/Venture – 14.2%, and Special Situations – 22.7%

GICS Industry Allocation*



Geographic Allocation*

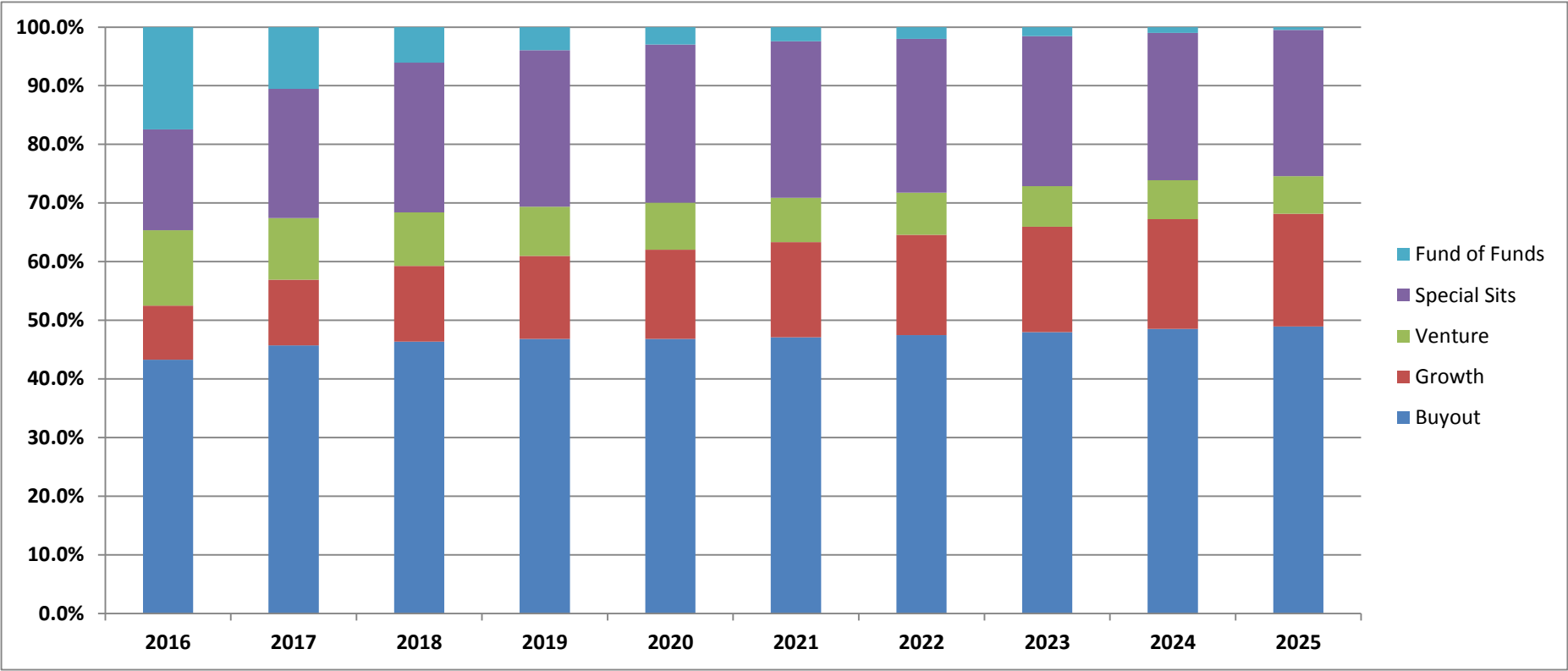


*Data includes Fund of Funds' underlying exposure (as of 12/31/15 or most recent)



Future Portfolio Weighting

Strategy Allocation including Fund-of-Funds



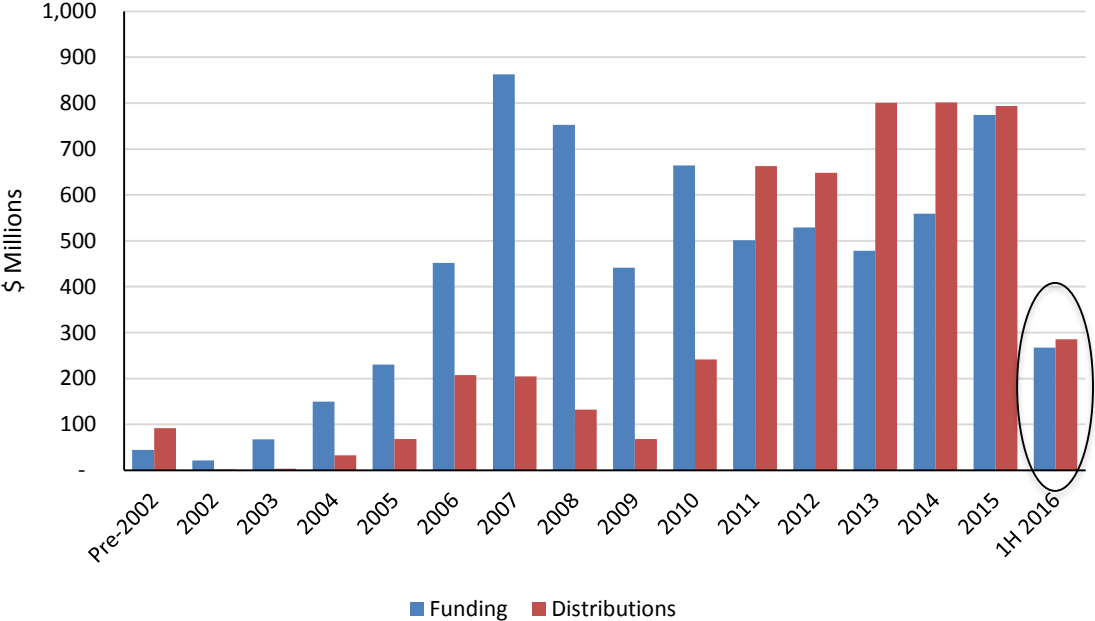
Note: Fund of Funds is comprised of: Buyout – 33.5%, Growth/Venture – 59.1%, and Special Situations – 7.4% (as of 12/31/15 or most recent)



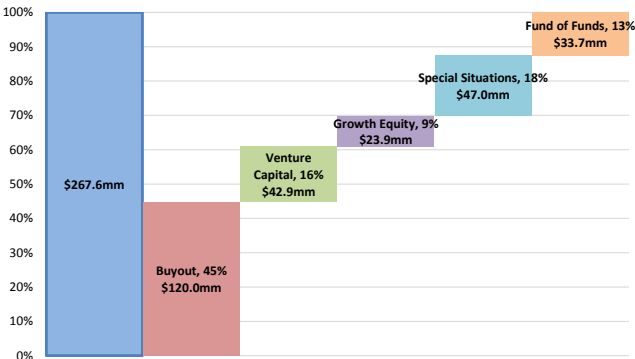
Private Equity Cash Flow Detail

➤ From 2011 through 1H 2016 Distributions have exceeded Funding

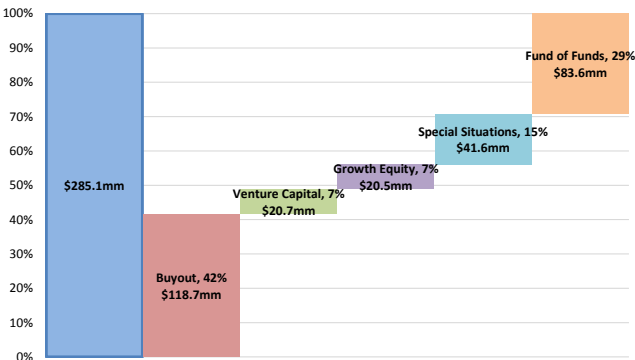
Private Equity Cashflows
by Calendar Year



1H 2016 Funding
by Strategy

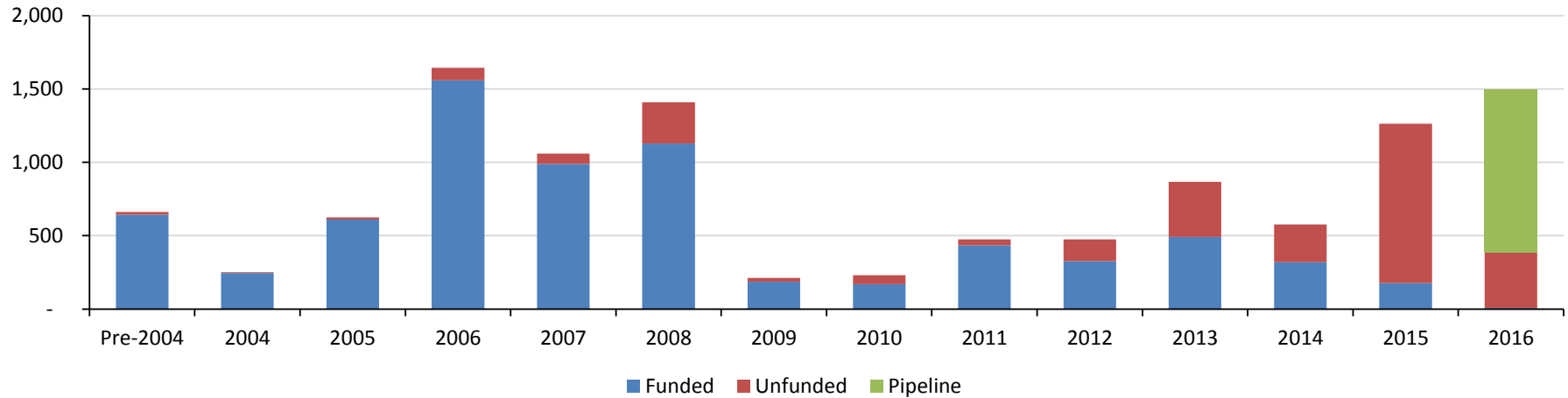


1H 2016 Distributions
by Strategy



Private Equity Commitments

Private Equity Commitments by Vintage Year



Note: Data as of 6/30/2016

\$ in Millions		2016				2017		
Strategy	Closed	Pending	Identified	2016 Total		Identified	Potential	2017 Total
Buyout	250	500	100	850		650	200	850
Growth/Venture	135	210	-	345		125	-	125
Special Situations	-	-	300	300		225	-	225
TOTAL	385	710	400	1,495		1,000	200	1,200



Performance Attribution

IRR by Vintage Year (%)

Year Ended	Vintage Year												
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total*
2015	7.59	4.99	3.00	9.67	10.10	13.65	20.04	10.97	15.84	9.67	11.91	0.04	7.76
2014	8.35	5.34	3.23	9.59	10.96	14.23	20.34	8.09	18.07	4.03	-25.13	N/A	7.74
2013	7.51	5.69	3.62	7.52	10.25	11.45	19.43	8.54	2.99	-15.45	N/A	N/A	7.36

Note: Data as of 12/31/2015

*Total includes pre-2004 vintage year performance

Performance by Vintage Year

Vintage Years	# of Funds	IRR
Inception - 2015	133	7.76%
1988 - 2009	98	7.30%
2010 - 2014	26	13.67%

Performance by Strategy (2010 - 2014 Vintages)

Strategy	# of Funds	IRR
Buyout	14	13.97%
Venture Capital	3	10.81%
Growth Equity	2	11.13%
Special Situations	5	6.69%
Fund of Funds	2	19.86%

Private Equity Portfolio

as of December 31, 2015

USD in Millions

Vintage Year	2010 - 2014
Funds	26
Called Capital	\$1,540.0
Realized Value	\$282.4
Residual Value	\$1,600.0
Total Value	\$1,882.4
Gain/Loss	\$342.4
TVPI	1.22x
DPI	0.18x
IRR	13.67%
K&S Public Market Equivalent*	1.08x

*PME is run against S&P 500



Private Equity - Market Activity

Slow Start to 2016

1Q16 sequential quarterly decline

- Invested down 8.5%
- Transactions down 23.3%

1Q16 Y-O-Y quarterly decline

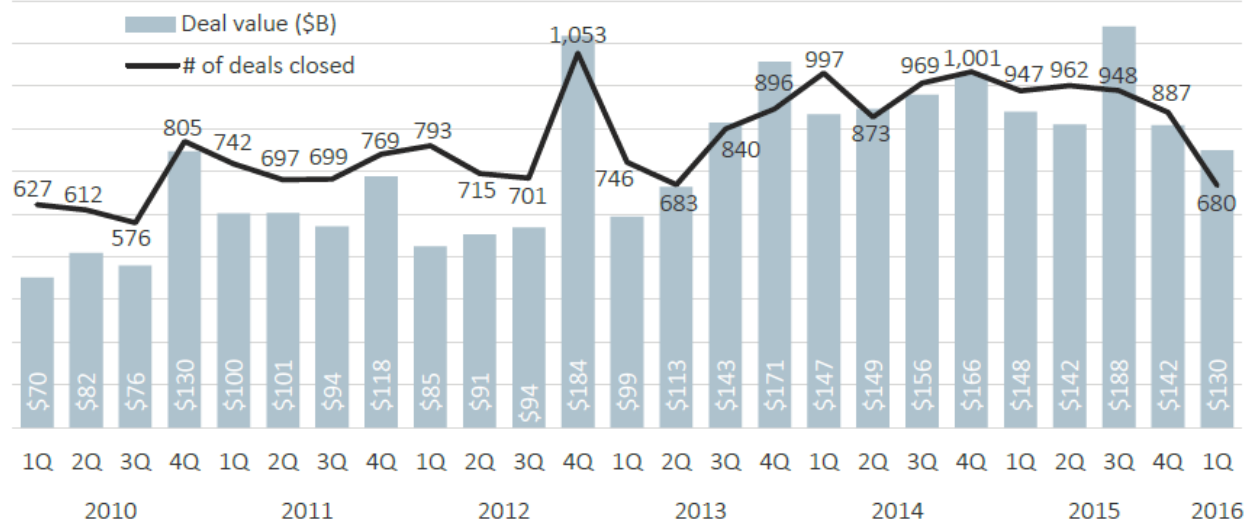
- Invested down 11.6%
- Transactions down 28.2%

- Currency swings
- Volatile public markets
- U.S. Treasury inflows
- China

- Valuations
- Election
- Brexit
- Energy

Result: Underwriting becomes more difficult given macro unknowns.

U.S. PE activity by quarter



Source: PitchBook as of 3/31/16

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BREXIT: Portfolio Impact

- **Certainty** that we are in another period of volatility, funds are guarded but looking for new opportunities.
- **Uncertainty** around renegotiation of trade agreements and timing of an actual exit from the EU.
- Private Equity currently has an allocation of 16.7% to Europe*, however the majority of our exposure is to Western Europe.
- No covenant, liquidity, or maturity issues as managers completed acquisition financings and refinancing ahead of vote.
- Weaker GBP could make acquisitions cheaper for foreign buyers.
- This will be complex and benefit those managers who can take advantage of volatility.
- Opportunities to recapitalize and or acquire European distressed opportunities.

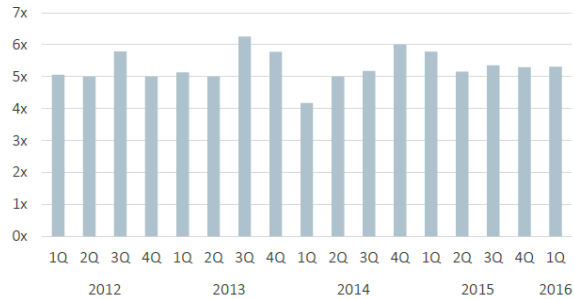
*As of 12/31/15



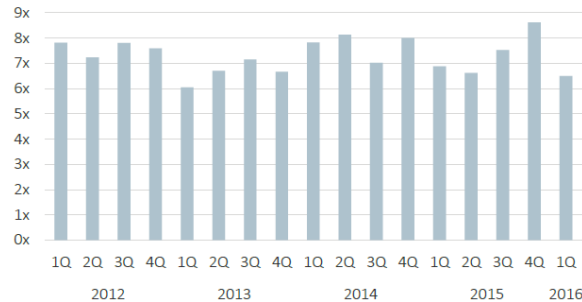
Private Equity - Valuations

Multiples Decline in 1Q16

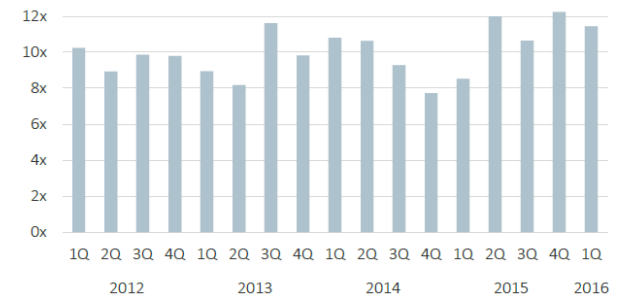
Median EV/EBITDA buyout multiples by EV under \$25M



Median EV/EBITDA buyout multiples by EV from \$25M to \$250M



Median EV/EBITDA buyout multiples by EV above \$250M



- Buyers weighing the environment and factoring in more conservative assumptions → Lower Valuations
- Sellers holding out for higher valuations if not forced to sell → Lower Volumes
- In 1Q16, smaller transactions are making up the bulk of deals
 - Deals sized below EV \$100 MM approaching 75% of transactions, similar to 2008 and 2009
 - 2010-2015, typically 65-70%

Source: PitchBook as of 3/31/16

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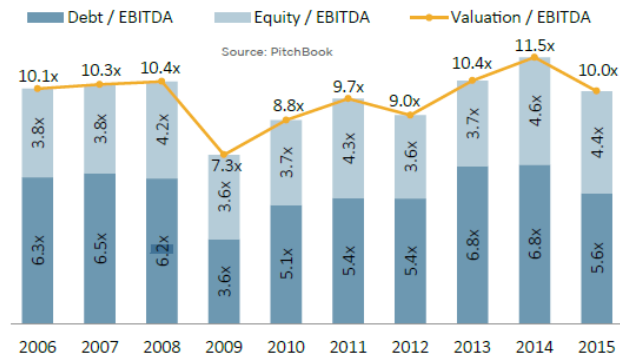
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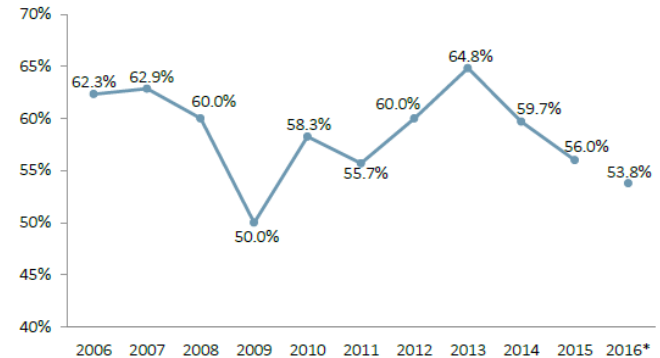
Private Equity - Leverage

Debt Percentages Declining

Median EBITDA multiples of U.S. buyouts



Median debt percentages for U.S. buyouts



➤ Borrowing Cost

Today		
1st lien	3-3.5X EBITDA	L + 500-550
2nd lien		L + 900-950

1Q16		
1st lien	3X EBITDA	L + 450
2nd lien		L + 1000

Mid 2015		
1st lien	3.5-4X EBITDA	L + 400
2nd lien		L + 750-900

- Opportunity – Direct lending strategies could take advantage of the void of traditional capital
- Higher volume of smaller deals – don't require as much if any debt
 - Tuck in acquisitions

Graphs - Source: PitchBook as of 3/31/16

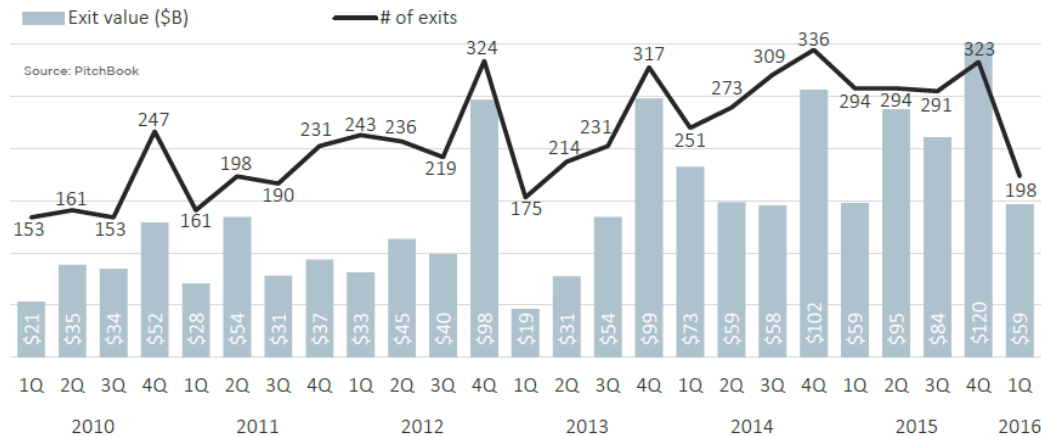
* Figures are preliminary and are likely to adjust as more data is collected



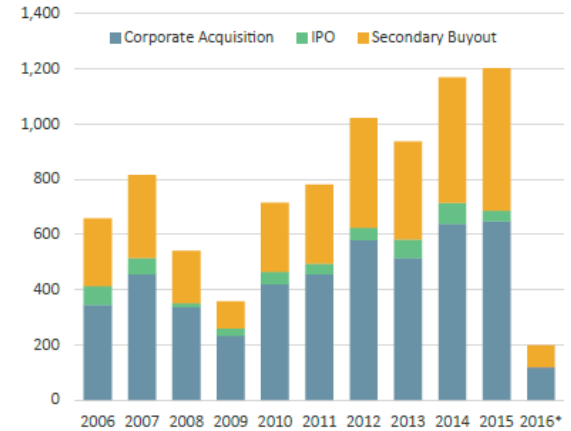
U.S. Private Equity – Exit Environment

PE-Backed Sales Plunge

U.S. PE-backed exit activity



U.S. PE-backed exits (#) by type



- 1Q16 PE backed exits decline sequentially → 39% on a transaction basis; 51% on a dollar basis
 - However, 1Q is typically a slower period
- Exits were down across the board – Corporate Acquisitions / IPOs / Secondary Buyout (other sponsors)
 - Noteworthy – Zero PE-backed IPOs → Market Uncertainties / Volatility

Source: PitchBook as of 3/31/16

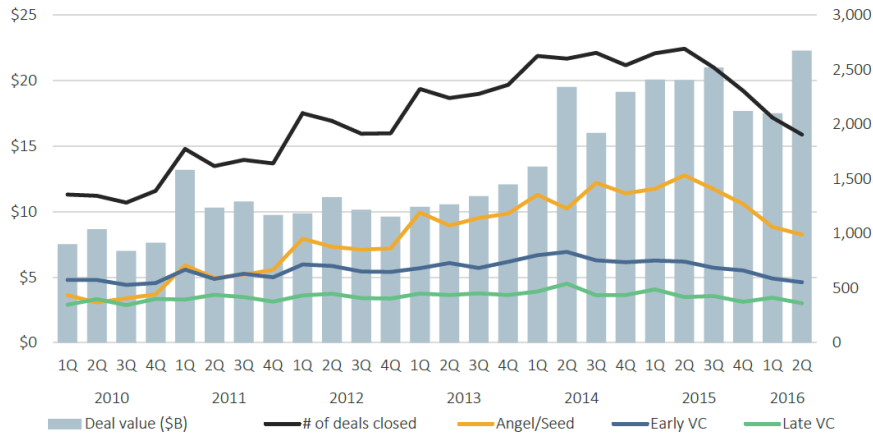
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Venture Capital – Market Activity

Activity is Mixed

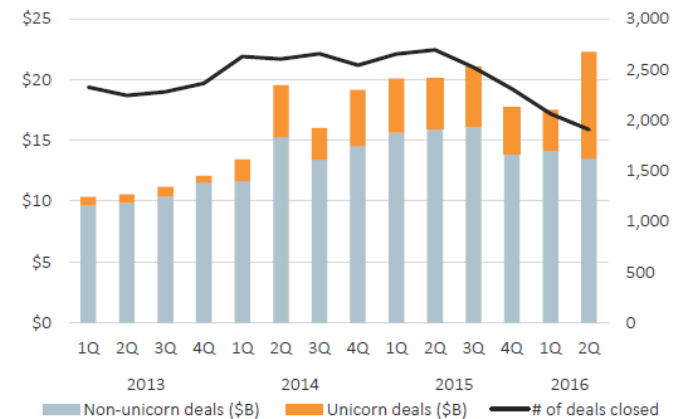
U.S. VC activity



- Deal volume has declined at every stage over the past year
- Capital invested has remained relatively robust

- Since 2014, “unicorns” have been responsible for much of the surge in VC invested
- VCs backing what they see as clear winners

U.S. VC activity by financings of unicorns



Source: PitchBook as of 6/30/16

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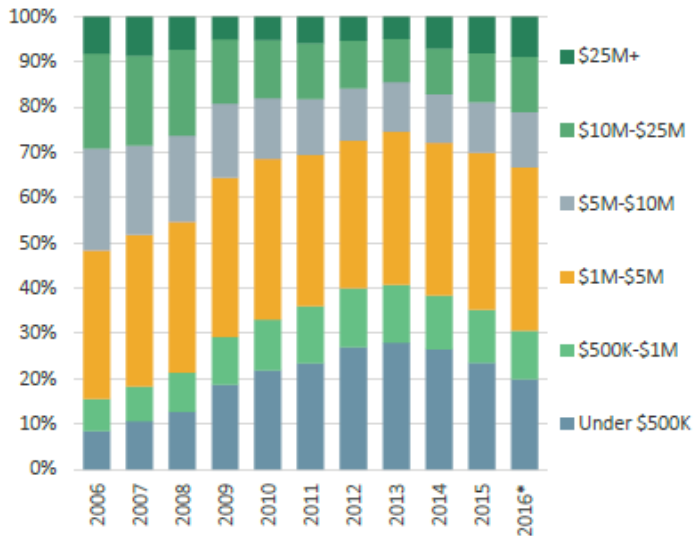
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Venture Capital – Financing

Risk Aversion

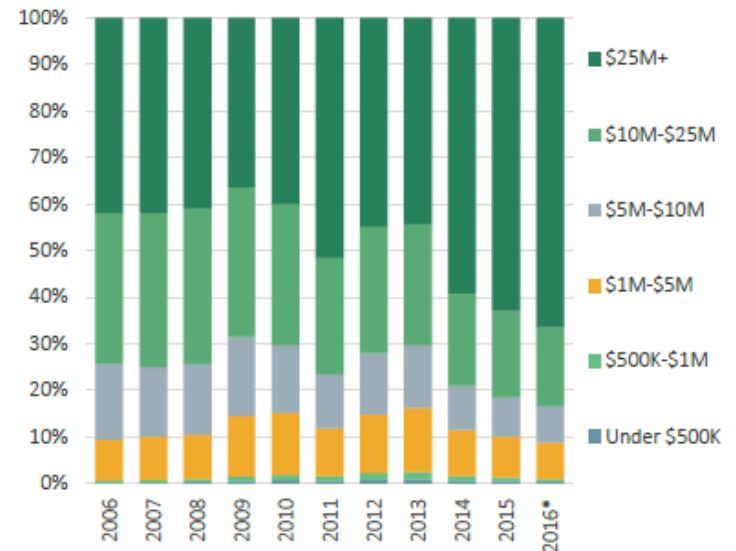
U.S. VC activity (#) by round size



- A flight to quality continues to boost the proportion of large financings

- A focus on more mature companies
→ \$25M+ financings accounting for over 2/3 of all VC \$ invested in 1H16

U.S. VC activity (\$B) by round size

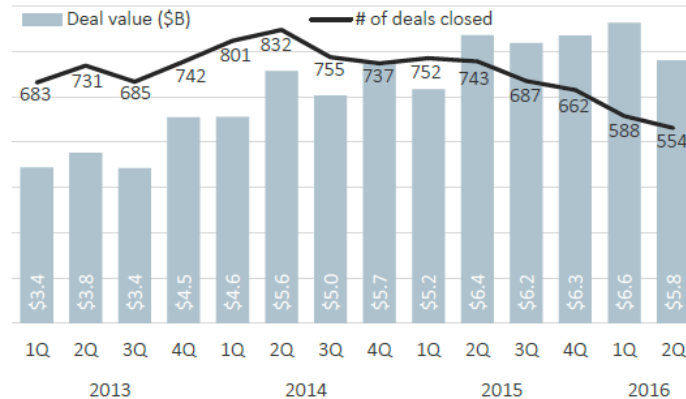


Source: PitchBook as of 6/30/16



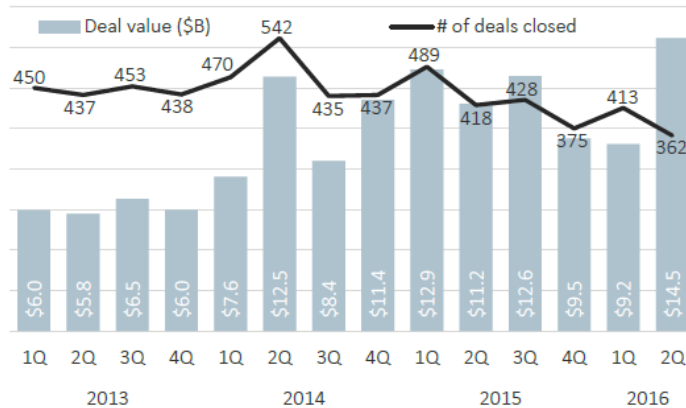
Venture Capital – Financing

U.S. early-stage VC activity



- Earlier in the investment lifecycle, fewer companies are getting funded
- Those that can demonstrate healthy metrics are receiving larger rounds

U.S. late-stage VC activity



- At the late stage, highly successful companies continue to rake in large financing rounds

Source: PitchBook as of 6/30/16

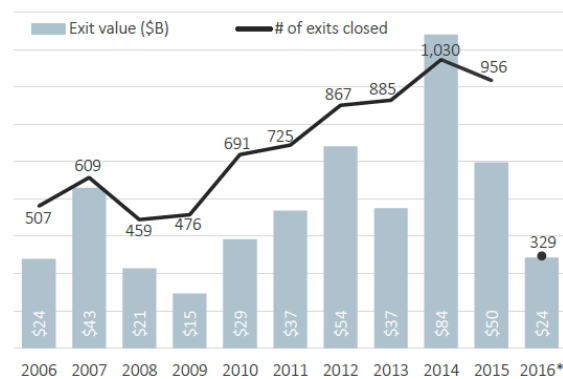
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Venture Capital – Exit Environment

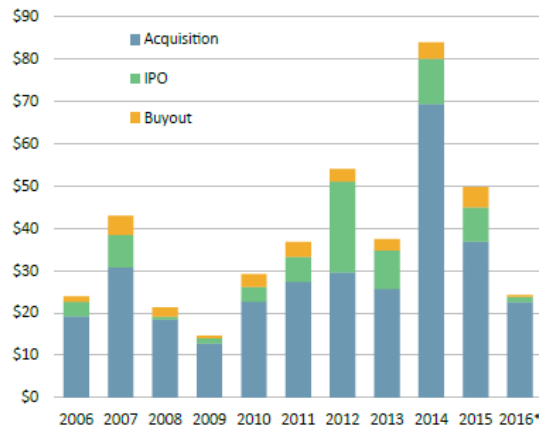
Realizations Down / Exit Valuations Strong

U.S. venture-backed exit activity



- On pace to record the fewest exits since 2010
- Those that can demonstrate healthy metrics are receiving larger rounds

U.S. venture-backed exits (\$B) by type



- Corporate M&A is rebounding somewhat
- The IPO backdrop is expected to remain weak given the macro unknowns

Source: PitchBook as of 6/30/16

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Current Initiatives

➤ Anticipated Commitments

- 2016: approximately \$1.5B of commitments
 - Year of Re-Ups
 - New Platforms
 - Co-Investment Platform
 - Secondary Platform
- 2017: approximately \$1.2B of commitments, and thereafter, pending actual flows/NAV

➤ Rationalization Analysis

- “Tail” Review
- Fund-of-Funds – restructure / decrease fees
- Non-Core relationships

➤ Special Programs

- Venture Capital Multiplier Fund – Escheat Fund



Current Initiatives

<i>\$ in Millions</i>	2016				2017		
Strategy	Closed	Pending	Identified	2016 Total	Identified	Potential	2017 Total
Buyout	250	500	100	850	650	200	850
Growth/Venture	135	210	-	345	125	-	125
Special Situations	-	-	300	300	225	-	225
TOTAL	385	710	400	1,495	1,000	200	1,200

“Core Strategy” Buyout Fund

- Focus on high quality, low volatility, established companies
 - Stable, predictable free cash flow generation
 - Companies looking for long-term business partners
- Investor friendly economics
 - Mitigated J-Curve
 - Co-Investment potential
- Longer-term hold periods
 - Returns insulated from economic and credit cycles





Thank You!

Together we can build and maintain a fiscally strong and prosperous North Carolina.

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