

Private Markets Program

Investment Committee Presentation

October 2020

Objectives

- Review the purpose and history of the private markets program.
- Show the maturation of the private markets program.
- Highlight staff's current views of the market, opportunities and challenges.
- Respond to questions or concerns.

Summary of objectives, targets, and constraints

- Private markets are included in the Growth section of the asset allocation. The plans allocate to private markets because capital market assumptions show higher expected returns for these asset classes.

<i>Measurement Group</i>	<i>Net Return</i>	<i>Time Horizon and Methodology</i>
Private Markets Program	8.5%-9.0%	20Y, time-weighted rate of return
Buyout	9.0%-11.0%	
Venture	8.0%-9.5%	
Debt	5.5%-7.5%	
Real Estate	6.0%-11.5%	
Real Assets	6.5%-9.5%	

- The asset allocation provides the breakdown of private markets and implies a set of objectives and targets for the asset class, which if achieved, contribute to the plans' meeting their overarching objectives.
- The pacing plan articulates the specific actions that need to be taken in order to achieve the private markets objectives.
- Execution of the pacing plan is constrained by several factors that influence strategy, including California public pension status, governance, and resources.
- Every input – capital market assumptions, asset allocation, pacing plan, and resource constraints are reviewed and updated at least annually.
- Based on the reviews, the Boards control the direction of the plans and the role of private markets.
- Primarily invests through commingled funds with a drawdown structure but will use whatever structure is most advantageous for the plans.
- Primarily targets underlying assets that are not accessible via public markets/trading strategies, unless such assets are so illiquid that a private fund is justified.

Evolution of the private markets program

- Prior to 2017, private markets asset classes were treated individually, sometimes incorporated with public markets asset classes, differing levels of staff and consultant involvement in portfolio construction and manager selection.

Pre-Global Financial Crisis

- Private market exposure primarily in real estate
- Some fund-of-fund exposure in private equity

2010-2017

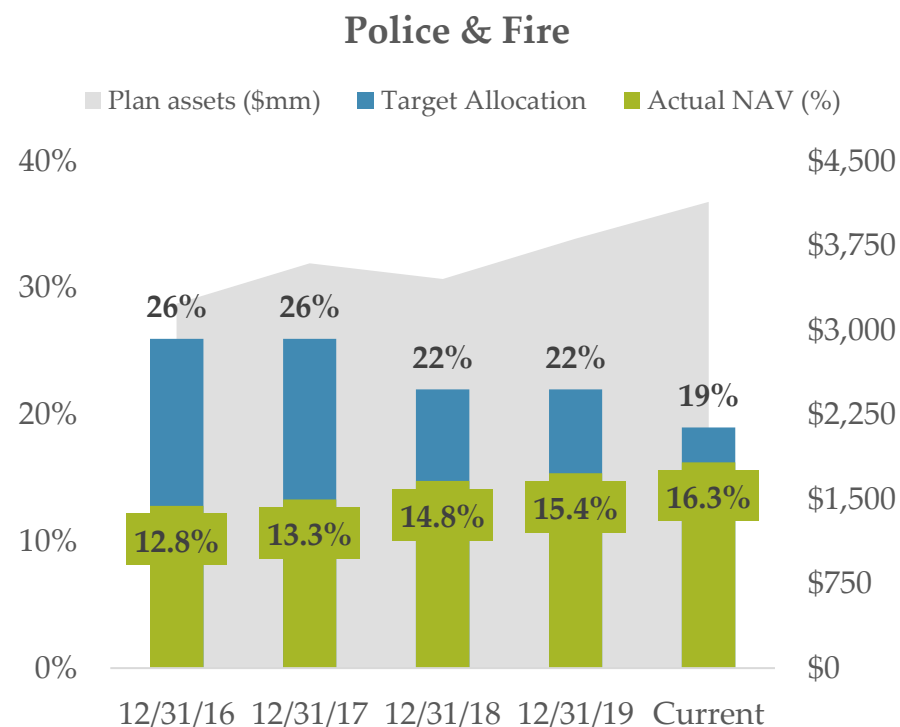
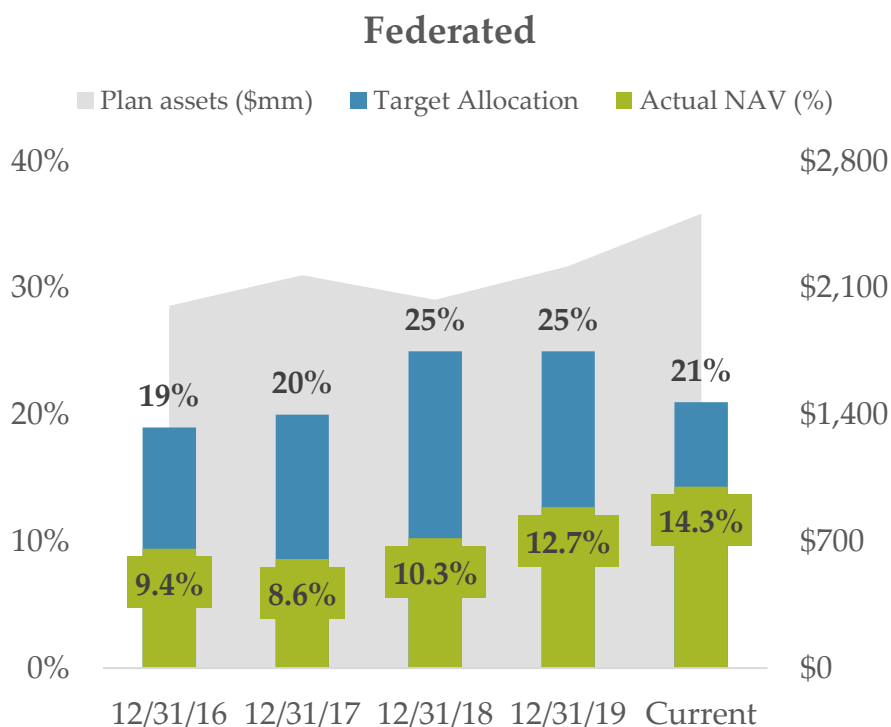
- General increase in private markets target allocations
- Divergence in implementation between plans

2017-Present

- Consolidation into private markets program
- Greater authority provided to staff
- Frequent and significant asset allocation changes

Stable execution results in approaching target allocations

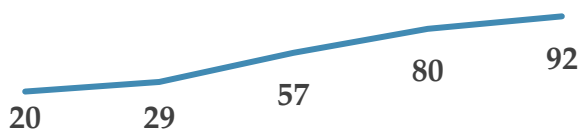
- Excluding the new venture capital allocation, the private markets program is effectively at target. The boards enabled the successful implementation of the program by:
 - Consolidating to a single general investment consultant
 - Approving the strategic partnership with Neuberger Berman
 - Supporting the investment team buildout and staffing continuity
 - Delegating authority for manager selection to staff
 - Maintaining commitment to private markets within the asset allocation



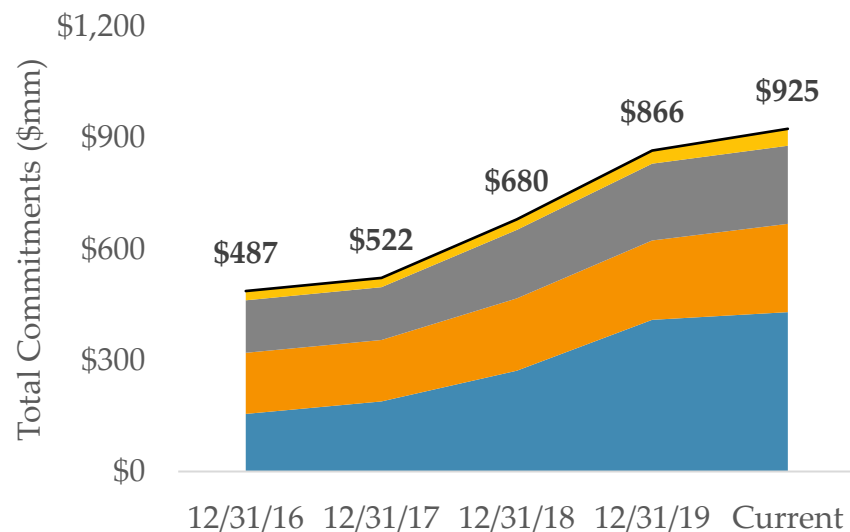
Steady allocation progress belies breadth of activity

- Over the last four years, the plans have made approximately 80 new investments (funds, secondaries, and co-investments) totaling more than \$1.1 billion.
- Excluding the Neuberger Berman strategic partnerships, these numbers are approximately 20 investments totaling nearly \$550 million.

Total Number of Investments

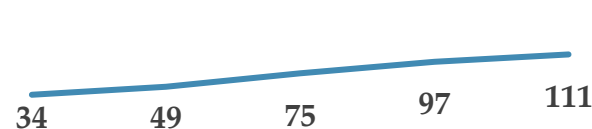


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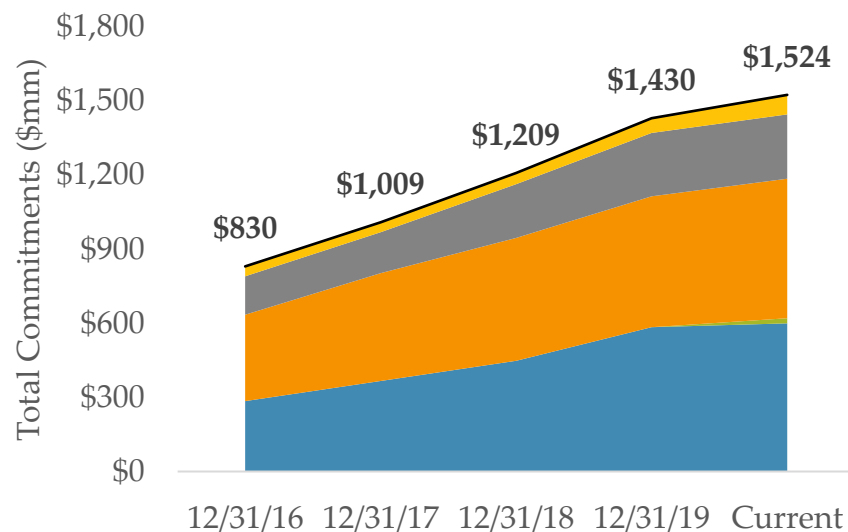


■ Buyout ■ Venture ■ Debt
■ Real estate ■ Real assets — Program Total

Total Number of Investments



Police & Fire



■ Buyout ■ Venture ■ Debt
■ Real estate ■ Real assets — Program Total

Private markets program diversification follows expectations

- In 2018, staff developed calculations of the appropriate level of diversification to balance the competing objectives of (a) maintaining the possibility of outperformance; and (b) ensuring the realized return on the asset class does not fall below a certain threshold.
- Incorporating the maturity level of each asset class portfolio, the results to-date have been highly consistent with expectations.

Expectations					
Asset Class	Max. Deviation from Exp. Return @ 90% Conf. Int.	Total Funds	Investing Funds	Ideal Range of Number of Portfolio Assets	Avg. Portfolio Asset Size (\$mm, plans combined)
Buyout	-180 bps	72	30	300-400	\$1.42
Venture	-200 bps	24	10	500-600	\$0.45
Debt	-150 bps	15	7	200-300	\$0.91
Real estate	-170 bps	19	10	200-300	\$0.68
Real assets	-170bps	48	20	200-300	\$0.68

Current (approximate)						
Asset Class	Total Funds (Fed / P&F)	Investing Funds (Fed / P&F)	Portfolio Assets (Fed / P&F)	Min. Asset Size (\$mm, Fed / P&F)	Avg. Asset Size (\$mm, Fed + P&F)	Max. Asset Size (\$mm, Fed / P&F)
Buyout	30 / 40	25 / 25	300 / 300	< \$0.01 / < \$0.01	\$0.4 + \$0.4 = \$0.8	\$4.9 / \$4.3
Venture	n.r. / n.r.	n.r. / n.r.	n.r. / n.r.	n.r.	n.r.	n.r.
Debt	9 / 14	5 / 5	230 / 280	< \$0.01 / < \$0.01	\$0.3 + \$0.7 = \$1.0	\$6.0 / \$6.0
Real estate	11 / 16	6 / 6	200 / 270	< \$0.01 / < \$0.01	\$0.3 + \$0.4 = \$0.7	\$11.1 / \$11.1
Real assets	6 / 7	20	30 / 45	\$0.01 / \$0.02	\$0.8 + \$0.8 = \$1.6	\$3.9 / \$3.1

Regular performance reporting provides transparency

- Performance of each asset class and benchmarking for each individual investment is produced by the investment consultant and presented to the boards quarterly, providing a regular forum for discussion.
- New performance reports for the quarter ended 6/30/2020 will be available shortly. In the most recent performance report, underperformance versus long-term expectations is significantly impacted by the 3/31/2020 valuation date.

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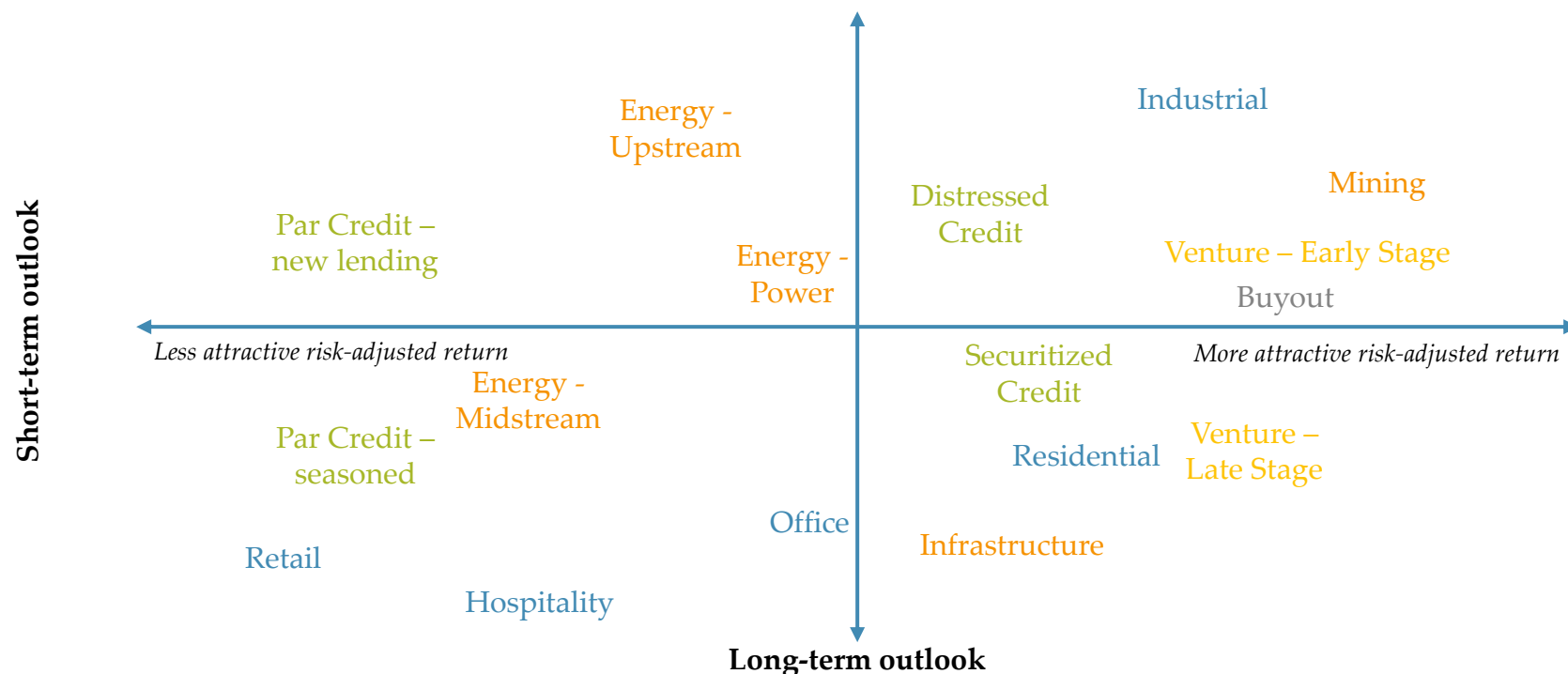
Account Type	Inception Year	Committed (\$ MM)	Contributed (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	IRR (%)	PME IRR (%)
Legacy Private Equity	2005	174.3	154.1	189.9	36.3	1.47	7.4	6.1
NB Fund of One	2017	261.8	109.1	2.3	115.7	1.08	8.2	-13.2
Private Debt	2010	222.6	224.1	183.8	59.2	1.08	2.9	5.5
Real Estate	2007	206.3	169.5	146.3	66.2	1.25	6.0	5.8
Real Assets	2016	35.2	24.6	3.2	20.5	0.96	-2.0	-1.9
Total		900.2	681.4	525.5	297.9	1.21	5.7	NA

Police & Fire

Account Type	Inception Year	Committed (\$ MM)	Contributed (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	IRR (%)	PME IRR (%)
Legacy Private Equity	2005	361.2	319.0	312.9	171.7	1.52	9.4	6.1
NB Fund of One	2017	266.6	100.1	2.0	106.1	1.08	8.1	-13.3
Private Debt	2010	541.5	491.7	399.5	149.1	1.12	4.2	4.4
Real Estate	2007	254.6	166.0	89.5	113.7	1.22	10.8	-1.8
Real Assets	2016	59.2	39.7	7.5	34.6	1.06	3.4	-1.8
Total		1,483.1	1,116.6	811.5	575.1	1.24	7.5	NA

Current market views

- The broad recovery in asset prices from March 2020 lows mirrors that of public markets.
- Ample overall liquidity is divided between perceived post-virus and geopolitical winners and losers, and the divergence is most glaring in valuations.
- Nearly every investment decision requires one of two decisions:
 - The investment can maintain a high valuation or grow enough to absorb some multiple contraction; or
 - The investment can overcome near-term headwinds or is sufficiently cheap to justify unpopular risks.



Questions