



Office of Retirement Services

Federated City Employees' Retirement System
Police and Fire Department Retirement Plan

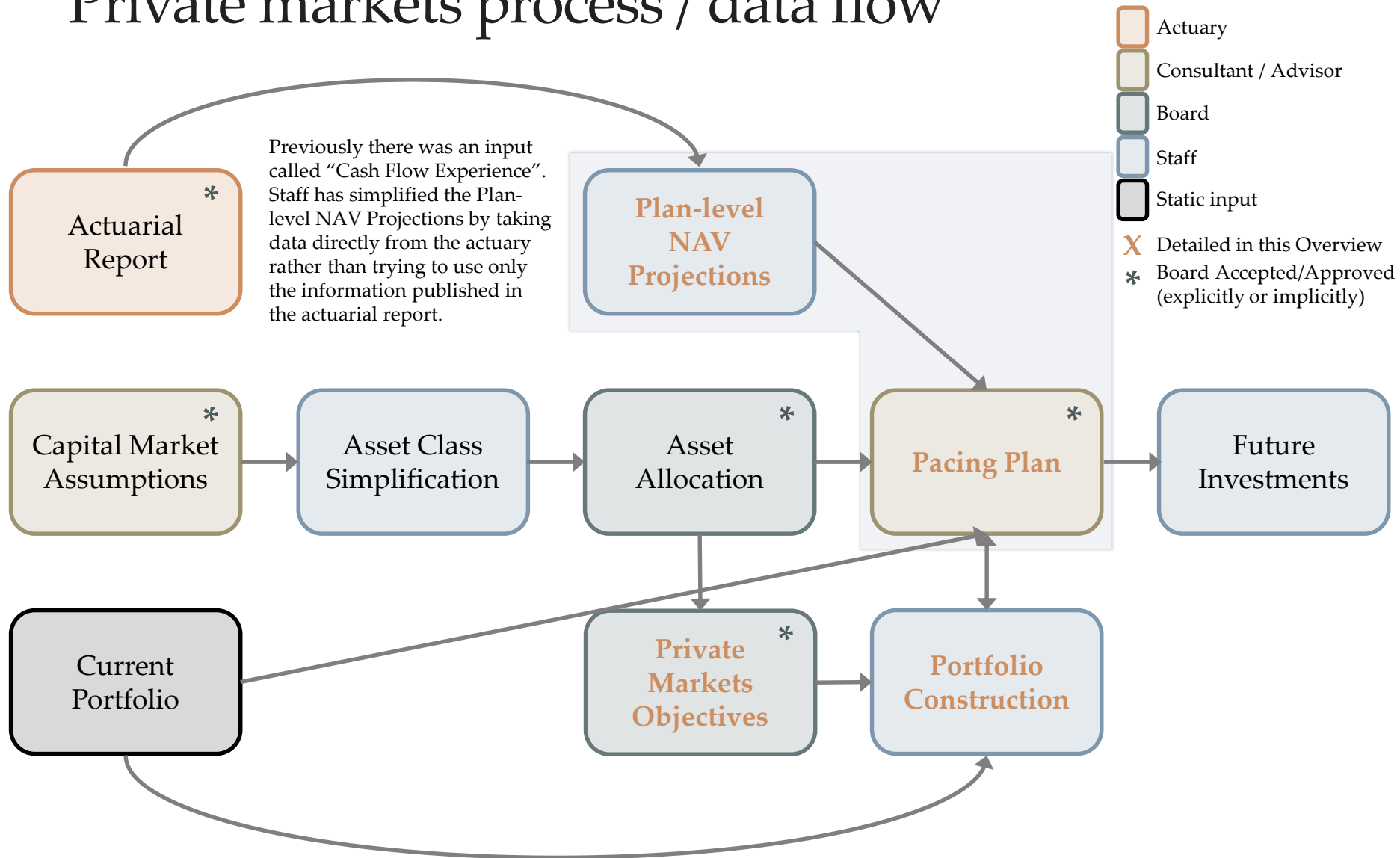
PRIVATE MARKETS PACING PLAN

Fiscal year 2019-2020

Pacing plan

- The pacing plan models how the pension funds will reach and maintain their target allocations to private markets strategies.
- The key output is a target level of annual commitments to funds in each private market asset class.
- Many assumptions are incorporated into the pacing plan models. Because of the assumptions' high variance (actual vs. forecast), the pacing plan is revisited annually.
- Staff produces plan-level NAV targets for each private markets asset class, which are then provided to Neuberger Berman and Meketa Investment Group for detailed modeling.
- Staff aggregates the output into a single pacing plan document to allow stakeholders to view the private markets program holistically.
- For Private Debt, Private Real Estate, and Private Real Assets, the Boards' approvals of their respective pacing plans sets the guideline for the constraints outlined in the IPS around delegation of manager selection to staff.
- For Buyout, the plans control the pacing of investments not through approval of the pacing plan, but rather by the level of commitments to the Neuberger Berman fund-of-ones. Over time, these are approximately equivalent methodologies.
- For Venture Capital, staff will present a pacing recommendation alongside a strategic recommendation in the near future. In this presentation, the asset class is shown only for illustrative purposes.

Private markets process / data flow



Plan-level net asset value

The following plan-level net asset values and asset class target NAVs were used in the model. Changes versus last years' forecasts are minimal.

FEDERATED

		<u>6/30/2019</u>	<u>6/30/2020</u>	<u>6/30/2021</u>	<u>6/30/2022</u>	<u>6/30/2023</u>	<u>6/30/2024</u>	<u>6/30/2025</u>	<u>6/30/2026</u>	<u>6/30/2027</u>	<u>6/30/2028</u>	<u>6/30/2029</u>	<u>6/30/2030</u>
Net Asset Value		2,056	2,178	2,307	2,440	2,578	2,720	2,866	3,019	3,177	3,343	3,515	3,695
Previous NAV forecast		2,122	2,220	2,322	2,428	2,537	2,647	2,758	2,871	2,984	-	-	-
Difference		-3%	-2%	-1%	1%	2%	3%	4%	5%	6%	-	-	-
	<u>Target</u>												
Private Markets	25%	514	545	577	610	644	680	717	755	794	836	879	924
Buyout	10%	206	218	231	244	258	272	287	302	318	334	351	369
Venture capital	5%	103	109	115	122	129	136	143	151	159	167	176	185
Private debt	4%	82	87	92	98	103	109	115	121	127	134	141	148
Private real estate	3%	62	65	69	73	77	82	86	91	95	100	105	111
Private real assets	3%	62	65	69	73	77	82	86	91	95	100	105	111

POLICE & FIRE

		<u>6/30/2019</u>	<u>6/30/2020</u>	<u>6/30/2021</u>	<u>6/30/2022</u>	<u>6/30/2023</u>	<u>6/30/2024</u>	<u>6/30/2025</u>	<u>6/30/2026</u>	<u>6/30/2027</u>	<u>6/30/2028</u>	<u>6/30/2029</u>	<u>6/30/2030</u>
Net Asset Value		3,623	3,844	4,080	4,325	4,560	4,800	5,058	5,325	5,541	5,721	5,943	6,157
Previous NAV forecast		3,623	3,816	4,019	4,236	4,464	4,694	4,933	5,188	5,454	-	-	-
Difference		0%	1%	2%	2%	2%	2%	3%	3%	2%	-	-	-
	<u>Target</u>												
Private Markets	22%	797	846	898	951	1,003	1,056	1,113	1,171	1,219	1,259	1,307	1,355
Buyout	8%	290	308	326	346	365	384	405	426	443	458	475	493
Venture capital	4%	145	154	163	173	182	192	202	213	222	229	238	246
Private debt	4%	145	154	163	173	182	192	202	213	222	229	238	246
Private real estate	3%	109	115	122	130	137	144	152	160	166	172	178	185
Private real assets	3%	109	115	122	130	137	144	152	160	166	172	178	185

Commitment pacing

FEDERATED

	FY18-19		Pacing Plan				
	<u>Pacing Plan</u>	<u>Est. Actual</u>	<u>FY19-20</u>	<u>FY20-21</u>	<u>FY21-22</u>	<u>FY22-23</u>	<u>FY23-24</u>
Private Markets	\$ 172	\$ 159-172	\$ 144	\$ 127	\$ 132	\$ 128	\$ 128
Buyout	85	133	52	35	35	35	35
Venture capital	20	-	14	14	14	10	10
Private debt	35	20-29	40	40	40	40	40
Private real estate	16	0	20	20	25	25	25
Private real assets	16	6-10	18	18	18	18	18

POLICE & FIRE

	FY18-19		Pacing Plan				
	<u>Pacing Plan</u>	<u>Est. Actual</u>	<u>FY19-20</u>	<u>FY20-21</u>	<u>FY21-22</u>	<u>FY22-23</u>	<u>FY23-24</u>
Private Markets	\$ 247	\$ 162-184	\$ 228	\$ 213	\$ 213	\$ 212	\$ 227
Buyout	99	118	80	65	65	65	65
Venture capital	23	-	19	19	19	13	13
Private debt	60	32-48	60	60	60	60	75
Private real estate	35	0	35	35	35	40	40
Private real assets	30	12-18	34	34	34	34	34

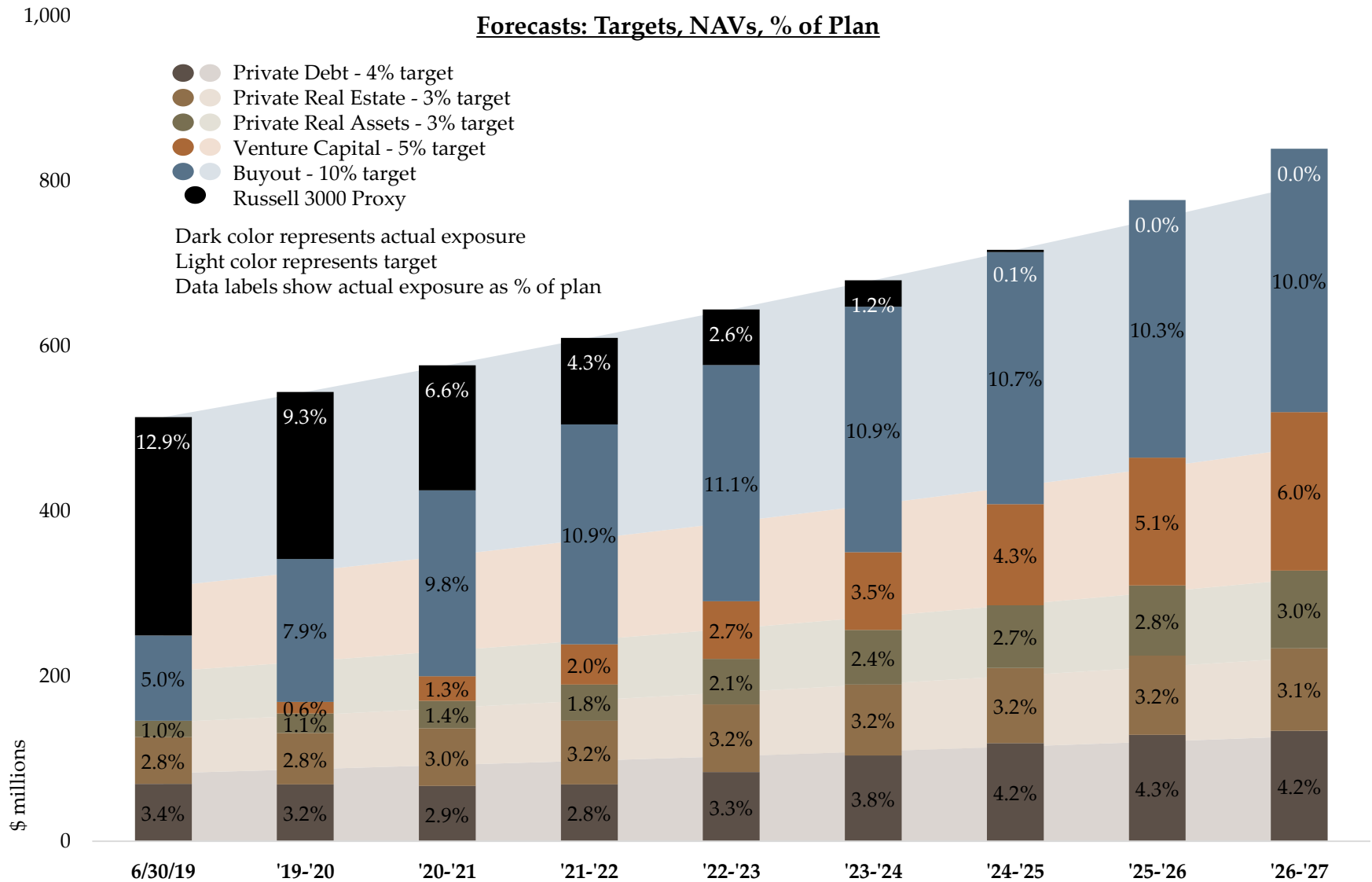
Notes on estimated actual commitments for FY2018-2019:

- The apparent overcommitment to buyout is a function of eliminating venture capital from the fund-of-one mandate and private equity managers coming back to market earlier than expected (i.e. requiring a commitment sooner, but not necessarily activating the fund).
- Where a range is shown, it is (on the low end) what has actually closed and (on the high end) what is deep in diligence/documentation and may close on or before June 30, 2019.
- Core Real Estate, which is ~\$340mm across the four plans, was prioritized during the first half of FY2018-2019, though it does not reside in the Private Markets allocation. Staff anticipates closing on two private funds in fiscal 1Q19-20 based on in-progress diligence.

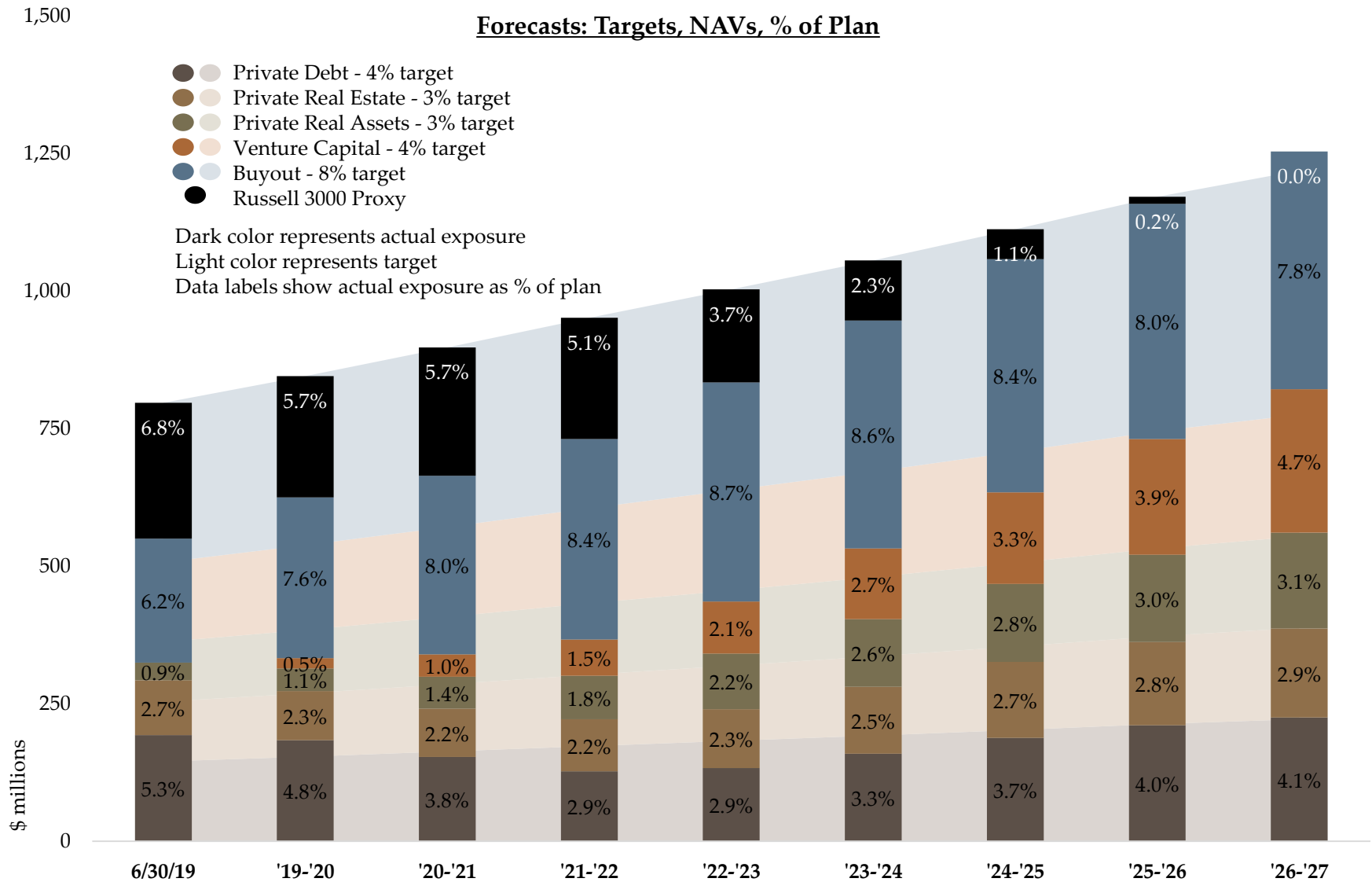
Deployment of commitments

- Buyout will continue to deploy 70%+ of commitment to primary funds, while the remaining amount will be invested in secondary transactions and co-investments.
- Private Debt will have 2-4 commitments over the next fiscal year. Initial focus is on stressed/distressed strategies that have a US emphasis.
- Private Real Estate will have 2-4 commitments over the next fiscal year through a combination of likely re-ups and new managers. US-focused opportunistic real estate strategies are the top priority.
- Private Real Assets will have 3-5 commitments over the next fiscal year. Staff believes opportunities in metals & mining and energy to be more attractive than those in infrastructure.
- In Private Debt, Private Real Estate, and Private Real Assets, investments are likely to be only primary fund commitments. While co-investment flow remains strong, few opportunities seem attractive, and many co-investment timelines are too rapid for our governance model.

Forecast private markets exposures / Federated

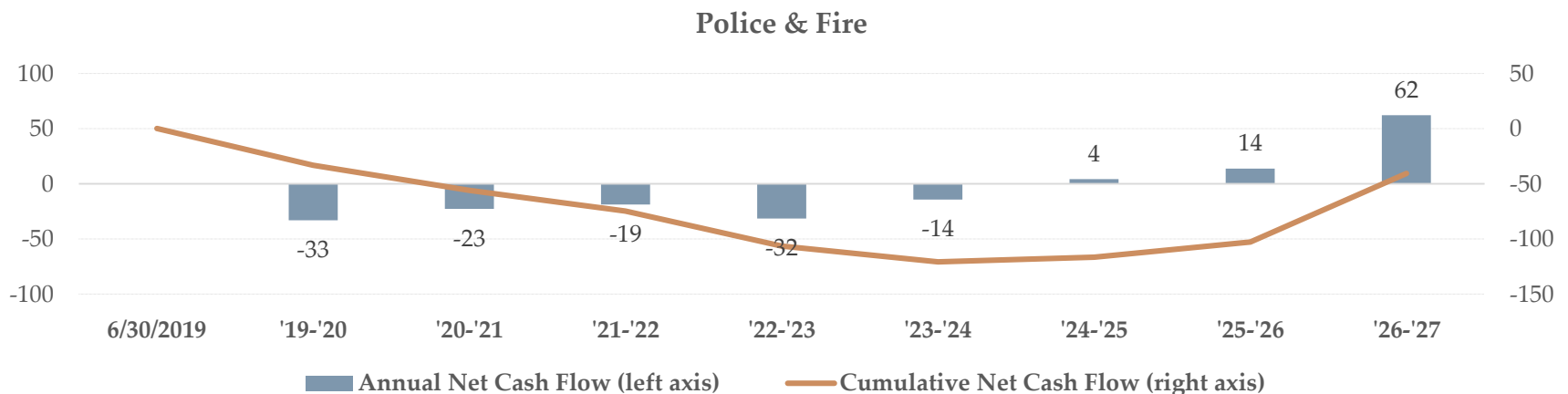
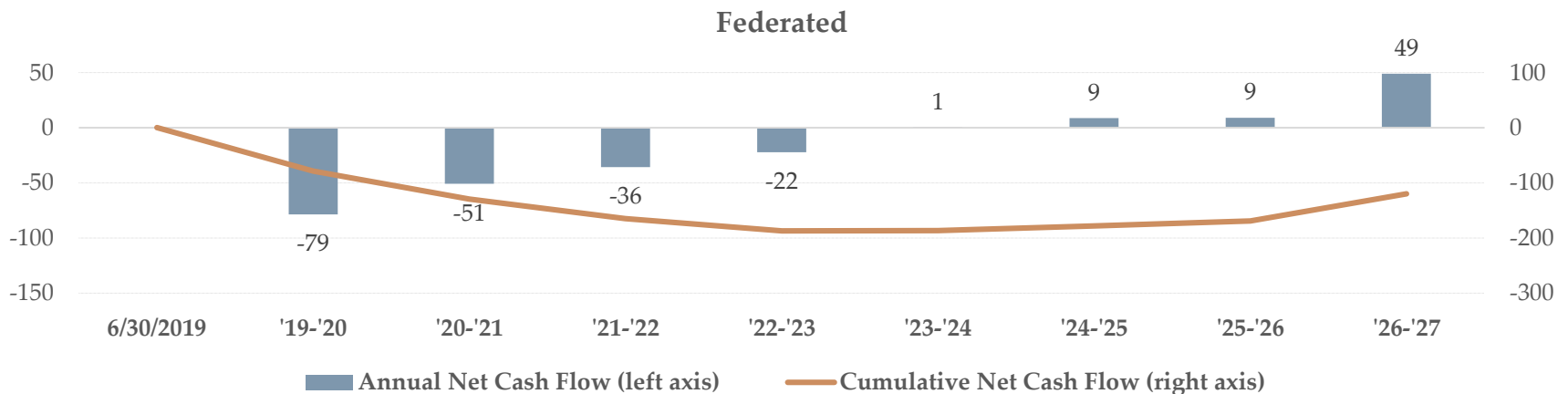


Forecast private markets exposures / Police & Fire



Liquidity requirements

- As the plans work towards their target private markets allocations, contributions will exceed distributions, resulting in the program “consuming” cash flow. Note that returns can (and should) be positive even while cash flows are negative.
- The Federated plan has a higher allocation to private markets and a lower (as a % of plan) starting point, resulting in a steeper and deeper cumulative cash flow curve.



Recommendation

Federated

Staff recommends approval of fiscal year 2019-2020 pacing plan commitment amounts of \$40mm for Private Debt, \$20mm for Private Real Estate, and \$18mm for Private Real Assets.

Police & Fire

Staff recommends approval of fiscal year 2019-2020 pacing plan commitment amounts of \$60mm for Private Debt, \$35mm for Private Real Estate, and \$34mm for Private Real Assets.