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U.S. Public Plan Asset Allocation Report

Opportunities for asset managers in the public DB space

Powered by eVestment | Released June 2021

Executive Summary

Asset allocation information affords public funds the opportunity to benchmark their strategic targets against their peers and review potential landscape shifts around various asset classes. For asset managers, asset allocation data can illuminate areas of demand for specific strategies and show whether or not a product market may be approaching saturation – what we like to think are early signals for activity. The following report also covers mandate information which show the most immediate needs of allocators and can prove invaluable for investor relations and business development teams.

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Global Head of Research
eVestment

The information in this report is based on U.S. public plan documents sourced from eVestment Market Lens through 2020. We used asset allocation disclosures provided by 249 U.S. plans managing assets of $4.1 trillion.

Highlights:

Public equity allocations currently sit at 44.94% versus target allocations of 44.24%. The aggregate public equity over-allocation of +70 bps implies a net outflow of -$28.5 billion. However, we still calculate implied gross inflows of +$59.6 billion from those plans which are underweight public equities.

Despite private equity and private debt commitment totals rising +23.2% and +26.7% Y/Y in 2020, respectively, U.S. public plans are still under-allocated to these asset classes. Plans that are underweight private alternatives must commit +$62.8 billion to meet allocation targets.

U.S. public plans are under-allocated to real assets by -135 bps against their target allocations of 13.1%. Real estate equity and debt represents the bulk of the under-allocation, but infrastructure and natural resources strategies also require significant additional capital to reach their strategic targets.

Hedge funds and multi-asset allocations are over-allocated by +3 bps and +20 bps through 2020, respectively. While certain plans are planning on topping up their exposure to these asset classes, there are also a number of institutions which plan to eliminate these allocations entirely. This latter group, in addition to those looking to simply reduce their allocations, represent implied gross outflows of -$11.9 billion for hedge funds and -$11.1 billion for multi-asset strategies.

About This Data

The asset allocation data in this report is sourced from eVestment Market Lens, a curated library of more than 90,000 documents from 11,000+ public and corporate plans in the U.S., U.K. and Canada. Our data science team reviews every document added to the collection to detect intelligence such as differences in current versus future allocations across asset classes. This intelligence helps managers forecast future demand for their strategies and identify opportunities to manufacture new products.

This data illustrates just some of the aggregated intelligence Market Lens subscribers have access to as part of their subscription. To request a Market Lens tour and view intelligence specifically related to your products, please contact solutions@evestment.com.

Asset Allocation in Transition

We utilize U.S. public plans' asset allocation disclosures to construct a top-down view of allocations through 2020. The sample on which this report is based includes 249 plans managing a combined $4.1 trillion. Before diving into the analysis, we provide a recent illustrative example of one plan undergoing an asset allocation transition.

The plan adopted a new asset allocation in Q4 2018 after a regularly scheduled 5-year assessment of its IPS and asset allocation – meaning the possibility of significant portfolio changes was known well in advance. The transition began in Q1 2019 using a segregated portfolio approach. Portfolio reviews through Q1 2019 are shown below.

Background of Transition Plan

In 2012, the Board adopted a so called Beta Balance portfolio, which it subsequently amended in 2016 (the "Beta Balanced Portfolio"), as described in Section 3.2 of the [illegible] Governance Policies as in effect immediately before the adoption of the Investment Policy Statement effective November 15, 2018 (the "Governance Policies"). The Board adopted a different allocation, as described in the Investment Policy Statement, dated November 15, 2018 (the "2018 Portfolio").

The Transition

Starting January 1, 2019, the CIO will begin transitioning [illegible] asset allocation from the Beta Balanced Portfolio to the 2018 Portfolio in accordance with this Transition Plan. In absence of a material change in circumstances, the Board expects the transition period to last from January 1, 2019 to December 31, 2021(the "Transition Period"). The Board expects the CIO to keep it apprised of the transition process; however, the CIO may accelerate the Transition Plan up to an additional 3/12th of the value portfolio per calendar year if, in the CIO's judgment, conditions make it advisable. From time to time, the Board may vote to change the Transition Period, if in its judgment the Board believes it is appropriate.

Old Portfolio at 3/31/2019

Asset Buckets/Strategies	Policy Allocation	Actual Allocation	Over/(Under) vs Policy
Opportunistic Equities	38%	35.5%	-2.5%
Long Treasuries	44%	42.1%	-1.9%
Commodities	20%	17.7%	-2.3%
TIPS	39%	36.4%	-2.6%
Alternative Betas	31%	28.1%	-2.9%
Total Fund	**172%**	**159.9%**	**-12.1%**

New Portfolio at 3/31/2019

Asset Buckets/Strategies	Policy Allocation	Actual Allocation	Over/(Under) vs Policy
Total Growth	**45%**	**45.3%**	**0.3%**
Global Public Equities	30%	30.3%	0.3%
Global Private Equities	15%	15.0%	0.0%
Total Income	**35%**	**36.2%**	**1.2%**
Long Treasuries	25%	26.2%	1.2%
Core Bonds	10%	10.1%	0.1%
Total Inflation Hedge	**40%**	**40.1%**	**0.1%**
Commodities	5%	5.0%	0.0%
TIPS	25%	25.2%	0.2%
Private Real Assets	5%	5.0%	0.0%
Public Real Assets	5%	5.0%	0.0%
Total Alt Beta	**20%**	**19.8%**	**-0.2%**
Hedge Funds	5%	5.0%	0.0%
Alt Beta	10%	10.0%	0.0%
Private Credit	5%	4.9%	-0.1%
Total Fund	**140%**	**141.5%**	**1.5%**

The plan's consultant provides a review of the ongoing asset allocation implementation through Q2 2020. We make note of the option provided to the CIO to accelerate transition and the ongoing funding of private equity and private real assets.

The 2018 asset allocation policy incorporated numerous changes from the prior policy and requires a large transition encompassing approximately 10% of assets on a market exposure basis, which is a meaningful amount of assets. Given the large effect on the investment program to transition into the 2018 asset allocation policy, [illegible] recommendation was to dollar cost average in over a period of 36 months. This recommendation was supported by [illegible] Staff. The main reason behind the prolonged asset allocation implementation is the increased exposure to private markets, both private equities and private real assets. Staff introduced a detailed monthly asset transition plan to the Board at the November 2018 Board meeting. The transition process began effective January 1st, 2019 and Staff has maintained adherence to that plan, the progress of which is being regularly reported to the Board at every meeting. At the June 2020 Board meeting, the Board approved a revision to the Transition Plan to allow the CIO to accelerate the Plan an additional month for each month remaining in calendar year 2020 if conditions make it advisable. Market conditions during the second quarter of 2020 spurred by the COVID pandemic provided an opportunity for the CIO to transition more effectively during this period.

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The purpose of the annual review is to inform the Board how effectively the asset allocation policy is fulfilling the Board's real return and asset allocation objectives. The total portfolio (legacy portfolio plus new portfolio) outperformed its asset allocation policy index for the 1-year period ended June 30, 2020 with a portfolio return of 5.2% and a policy return of 1.9%. Although the fund outperformed the policy asset allocation, it underperformed the 7.1% assumed rate objective and slightly lagged the 5.4% real return objective over this same period. For the one-year period ended June 30, 2020, [illegible] total fund return was ahead of all peer U.S. public funds, 5.2% versus 1.3% for the median public fund based upon the InvestorForce Public DB plans > $1B Universe. It should be noted, however, that even the top quartile public fund return of 2.6% also did not meet or exceed either [illegible] assumed rate or real return objectives.

At this point, Staff is adhering to the initial implementation plan, so the pacing is on target. The new portfolio asset allocations are very close to the policy target weights and within the rebalancing parameters established by the Board. The new portfolio is behind its policy index as it returned 4.7% versus 7.9% for the policy for the one-year period as of June 30, 2020. This underperformance is attributable to the utilization of public markets strategies as proxies in both Private Equities and Real Private Assets as those asset classes are being funded per the transition plan.

We utilize documents-based information like those below, along with data culled from board meeting transcripts, U.S. Department of Labor filings, and other records on Market Lens to provide a picture of asset allocations through 2020. The remainder of the report is based on 249 U.S. public plans managing $4.1 trillion and focuses on asset allocation decisions, the impact of these decisions in terms of potential capital movement, and the historical context of these flows.

Implementation continued through Q4 2020 with a sizeable number of transactions occurring in the quarter. Transactions include those caused by the transition as well as rebalancing. We also find transactions which did not arise due solely to the new asset allocation implementation.

Date	Portfolio	Account/Manager	Buy / (Sell)	Description
10/23/2020	New Port - Alt Beta		$100,000,000	New manager hire in Alt Beta - Beta
10/30/2020	Old Port - Alt Beta		-$30,000,000	Partial redemption
11/04/2020	Old Port - Long Treasuries		-$50,000,000	Opportunistic reduction of Long Treasury exposure
11/09/2020	New Port - Public Equities		-$25,000,000	Sold S&P500 Value (rebalancing)
11/09/2020	Old Port - Public Equities		-$25,000,000	Sold S&P500 Value (rebalancing)
11/25/2020	New Port - Alt Beta		$82,000,000	Added to in new portfolio
11/30/2020	Old and New Port - Alt Beta		-$82,000,000	Sold Trend exposure to fund
11/30/2020	Old and New Port - Alt Beta		-$23,000,000	Partial redemption (transition)
11/30/2020	Old Port - Public Equities		-$60,000,000	Partial redemption (transition)
12/10/2020	New Port - Public Equities		-$50,000,000	Sold ACWI exposure (rebalancing)
12/14/2020	Old Port - Public Equities		-$40,000,000	Sold ACWI exposure (rebalancing)
12/17/2020	New Port - Public Equities		-$100,000,000	Sold S&P500 Value (rebalancing - reduced tactical position)
12/29/2020	New Port - Alt Beta		$85,000,000	Added to in new portfolio
12/31/2020	Old and New Port - Alt Beta		-$25,000,000	Partial redemption (transition)
12/31/2020	New Port - Private Real Assets		$65,000,000	Funded new real estate manager in new portfolio
12/31/2020	New Port - Hedge Funds/Portable Alpha		$125,000,000	Funded new hedge fund manager
12/31/2020	Old and New Port - Alt Beta		-$85,000,000	Sold Trend exposure to fund
12/31/2020	Old Port - Public Equities		-$60,000,000	Partial redemption (rebalancing)

Lastly, the table below is a Feb-2021 review of the portfolio showing the transition of the vast majority of assets to the new portfolio. However, the plan is still utilizing public markets proxies, as mentioned in prior exhibits, for its private equity and private real assets allocations. This under-allocation to private markets funds should result in further rebalancing outflows from public strategies and commitments to privates through the balance of the year.

Asset Buckets /Strategies	Current Combined Portfolio Exposures				New Portfolio - 100% Transitioned			
	Old Port Exposure in Dollars	New Port Exposure in Dollars	Total Exposure in Dollars	Actual in %	Final Policy Target in %	Over (Under) Weight vs Target	Final Policy Target in $	Additional Buys / (Sells) Needed in Dollars
Global Public Equities	$ 93,248,168	$ 3,684,495,497	$ 3,777,743,665	41.1%	30%	11.1%	$ 2,756,010,387	$ (1,021,733,278)
Global Private Equities	$ 7,434,326	$ 397,930,232	$ 405,364,558	4.4%	15%	-10.6%	$ 1,378,005,193	$ 972,640,635
Total Equities	$ 100,682,494	$ 4,082,425,729	$ 4,183,108,223	45.5%	45%	0.5%	$ 4,134,015,580	$ (49,092,643)
Long Treasuries	$ 112,370,452	$ 2,034,199,700	$ 2,146,570,152	23.4%	25%	-1.6%	$ 2,296,675,322	$ 150,105,170
Core Bonds	$ -	$ 881,090,254	$ 881,090,254	9.6%	10%	-0.4%	$ 918,670,129	$ 37,579,875
Commodities	$ 52,788,221	$ 468,090,465	$ 520,878,686	5.7%	5%	0.7%	$ 459,335,064	$ (61,543,622)
TIPS	$ 94,254,515	$ 2,123,330,622	$ 2,217,585,137	24.1%	25%	-0.9%	$ 2,296,675,322	$ 79,090,186
Private Real Assets	$ 1,428,560	$ 214,999,417	$ 216,427,977	2.4%	5%	-2.6%	$ 459,335,064	$ 242,907,088
Public Real Assets	$ -	$ 647,561,438	$ 647,561,438	7.0%	5%	2.0%	$ 459,335,064	$ (188,226,374)
Total Real Assets	$ 1,428,560	$ 862,560,856	$ 863,989,415	9.4%	10%	-0.6%	$ 918,670,129	$ 54,680,714
Hedge Funds	$ -	$ 443,543,001	$ 443,543,001	4.8%	5%	-0.2%	$ 459,335,064	$ 15,792,064
Alt Beta	$ 87,071,672	$ 887,946,887	$ 975,018,559	10.6%	10%	0.6%	$ 918,670,129	$ (56,348,431)
Private Credit	$ -	$ 441,776,068	$ 441,776,068	4.8%	5%	-0.2%	$ 459,335,064	$ 17,558,996
Total Fund Exposure	$ 448,595,913	$12,224,963,582	$12,673,559,495	138.0%	140%	-2.0%	$ 12,861,381,804	$ 187,822,309

2020 U.S. Public Plan Asset Allocations

The U.S. public plans we surveyed are modestly overweight public equities, fixed income, multi-asset strategies, and hedge funds. The differential between current and target allocations imply a net outflow of -$28.5 billion from public equities, -$1.3 billion from fixed income, -$8.3 billion from multi-asset strategies, and -$1.3 billion from hedge funds.

While we expect outflows from these asset classes on net, there still exist individual plans which are under-allocated to these strategies. These under-allocated plans represent sizeable opportunities. Implied gross inflows for public equities and fixed income measure +$59.6 billion and +$57.1 billion, respectively. Implied gross inflows for hedge funds and multi-asset strategies, while smaller due to relative allocation sizing, also represent multi-billion dollar opportunities. Elsewhere in public market strategies, we note cash and overlays represent the most significant over-allocation at +1.22% against targets.

Private alternatives and real assets are the most under-allocated to asset classes at -0.98% and -1.35% against targets, respectively. Furthermore, plans need to invest capital across all of the various sub-asset classes within these broader categories.

Real estate is the most under-allocated to, a continuing trend from our Asset Allocation Report last year. Implied gross inflows total +$35.8 billion for private equity, +$19.4 billion for private debt, and +$34.4 billion for real estate and real estate debt. Furthermore, these figures exclude blended private alternatives and real assets allocations which are not clearly delineated, but may nevertheless end up investing in these asset classes.

Lastly, while we do calculate implied gross outflows for these asset classes, we recognize these are largely closed-end vehicles with limited liquidity profiles. In light of this fact, gross outflows should be interpreted as a capital allocation and distribution timing option, a buffer to underperformance, or as potential secondary opportunities in contrast to outflows under the more usual definition retained for the liquid asset classes.

Asset Class	2020 Allocations	Target Allocation	2020 Allocation Less Target	Implied Net Flows ($B)	Implied Gross Inflows ($B)	Implied Gross Outflows ($B)
Public Equity	**44.94%**	**44.24%**	**0.70%**	**$(28.52)**	**$59.57**	**$(88.09)**
Fixed Income	**23.03%**	**23.00%**	**0.03%**	**$(1.31)**	**$57.09**	**$(58.40)**
Multi-Asset	**1.23%**	**1.03%**	**0.20%**	**$(8.33)**	**$2.72**	**$(11.05)**
Alternatives	**13.35%**	**14.30%**	**-0.95%**	**$38.57**	**$73.43**	**$(34.86)**
Hedge Funds/Absolute Return	2.38%	2.35%	0.03%	$(1.30)	$10.64	$(11.94)
Private Equity	8.94%	9.36%	-0.42%	$16.98	$35.79	$(18.81)
Private Debt	1.14%	1.55%	-0.40%	$16.44	$19.37	$(2.93)
Alternatives (Blend)[1]	0.88%	1.04%	-0.16%	$6.45	$7.63	$(1.18)
Real Assets	**11.78%**	**13.14%**	**-1.35%**	**$55.06**	**$70.88**	**$(15.82)**
Real Estate	7.46%	8.06%	-0.60%	$24.47	$34.42	$(9.95)
Infrastructure	0.29%	0.46%	-0.17%	$7.08	$7.45	$(0.37)
Natural Resources	0.40%	0.43%	-0.03%	$1.19	$2.98	$(1.79)
Real Assets (Blend)[2]	3.65%	4.20%	-0.55%	$22.26	$26.03	$(3.77)
Blended Allocations	**3.49%**	**3.50%**	**-0.01%**	**$0.36**	**$10.33**	**$(9.97)**
Growth Strategies[3]	1.30%	1.23%	0.07%	$(2.65)	$2.21	$(4.86)
Risk Mitigation/Diversification[4]	0.85%	0.88%	-0.03%	$1.32	$2.09	$(0.77)
Other	1.34%	1.38%	-0.04%	$1.69	$6.02	$(4.34)
Cash & Overlays	**1.75%**	**0.54%**	**1.22%**	**$(49.47)**	**$4.53**	**$(54.00)**

[1]Mixed asset class allocation, generally includes PE and private debt and to a lesser extent PERE, infrastructure, etc.
[2]Mixed real assets allocation, generally includes RE, infrastructure, energy, and agriculture and to a lesser extent TIPS
[3]Mixed asset class allocation, generally includes public equity, private alternatives, credit, and non-core real estate
[4]Mixed asset class allocation, generally includes multi-asset strategies, hedge funds, long duration Treasuries

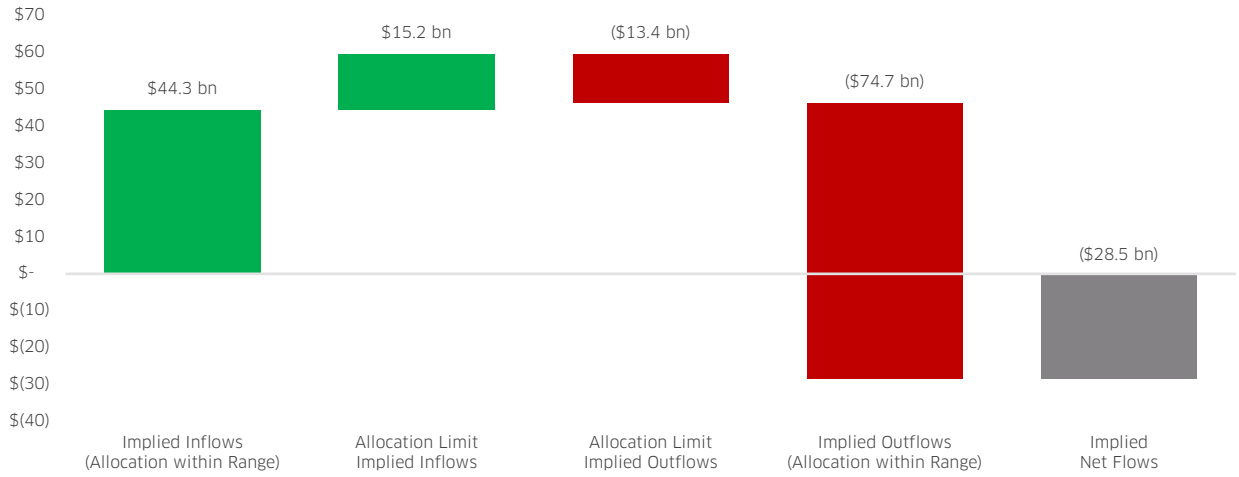
Public Equity

Public equity continues to be the single largest asset class allocation for U.S. public plans with a target allocation of 44.24% in aggregate. Through 2020 plans are over-allocated to public equity strategies versus their target allocations by +70 bps. We find this over-allocation to hold in aggregate across U.S., international, and emerging markets equity strategies based on those plans which provided enough granularity. We use current and target allocations to determine the amount of capital required to close allocation gaps, whether it be inflows for allocation shortfalls or outflows for allocation surpluses. This amount calculated across our sample is the implied net flows for each allocation. Public equities, with a net over-allocation of +70 bps, imply a net outflow of -$28.5 billion.

In addition to implied net flows for the 249 plans as a whole, we calculate two additional measures. Firstly, we calculate implied gross flows, both in and out, by segregating plans based on whether they are over- or under-allocated to a given asset class. This ensures we are capturing the total volume of capital movement, as allowed by these asset allocation disclosures. Secondly, we calculate implied gross flows adjusted for allowable allocation ranges. In many instances, a minor deviation from strategic target allocations will not generate flows as asset owners allow performance and other factors to impact their overall portfolios. While this might be useful information for managers with pre-existing relationships, this information is less constructive for those not already on the roster. Therefore, we also aggregate plan-level mismatches where current allocations exceed their targets, or vice versa, in excess of their allowable allocation ranges to determine allocation limit implied flows. Allocation limit implied flows include the entirety of the difference between current and target allocations, i.e.: we assume that the amount of capital will be enough to bring the allocation in-line against targets and not just to the boundary of the allowable allocation range.

Across U.S. public plans, we see significant opportunities to raise capital for long-only equity managers. We calculate roughly +$15.2 billion needs to be deployed in public equities across plans with allocations below their allowable allocation ranges. This total represents the most pressing needs and are therefore the most likely to result in a new mandate if one is not already ongoing. These will also generally capture asset classes which

Public Equity Implied Flows Bridge



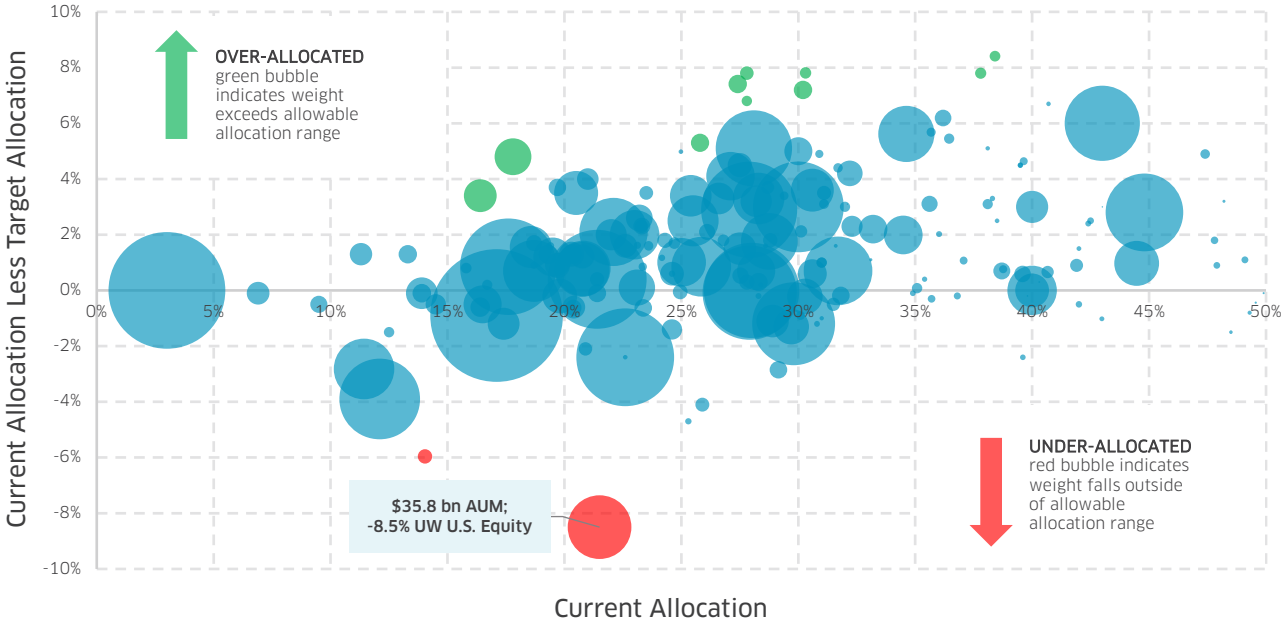
Note: Due to certain plans' lack of disclosure regarding allowable allocation ranges, we stylize allocation limits for all plans as follows. Allocation limits are calculated as the target allocation plus or minus the allowable variance. The allowable variance is calculated as 0.25 times the target allocation level. However, the minimum allowable variance is +/-2%, the maximum allowable variance is +/-10%. For instance, a 50% target allocation will have an allowable variance of +/-10%, given that 0.25 times 50% is 12.5% which exceeds the maximum allowable variance of +/-10%.

Public Equity (continued)

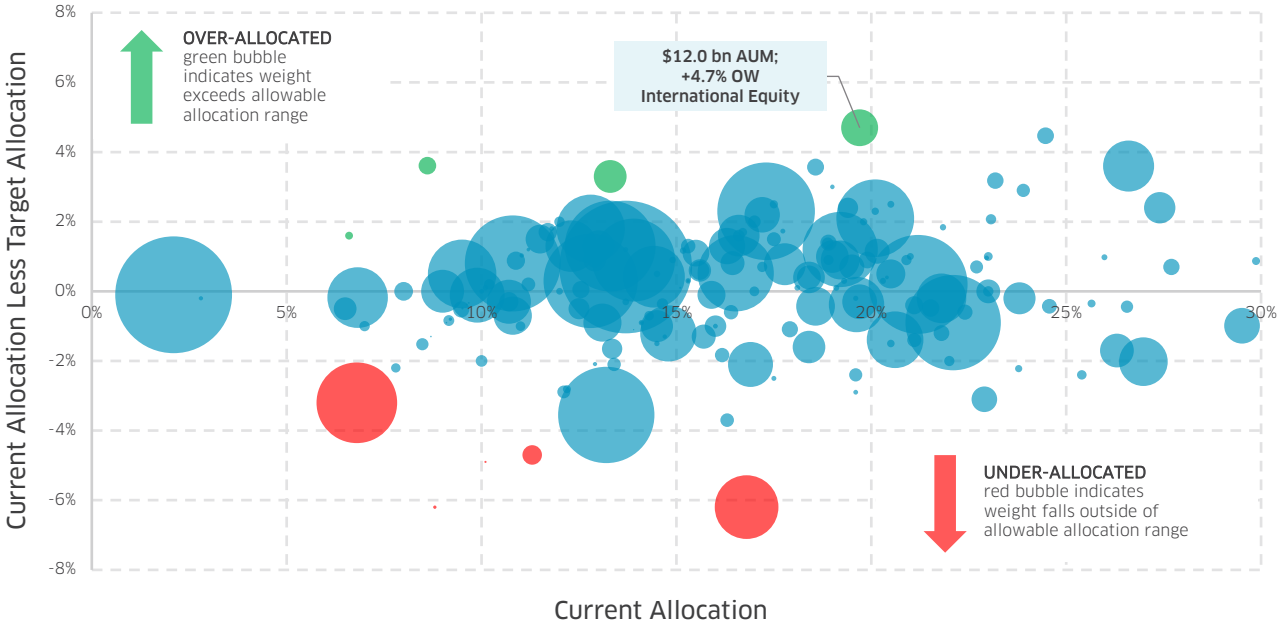
have been newly included with changes to investment policy statements and strategic asset allocations. For plans in compliance with their public equity allocation ranges, an additional +$44.3 billion can be deployed to immediately bring these plans into compliance with their public equity targets.

At the opposite end of the spectrum, we see -$13.4 billion in capital as being at high risk of being withdrawn from long-only equity managers. Lastly, an additional -$74.7 billion in gross outflows need to occur for all plans that are overweight public equities bring their allocations down to target levels.

U.S. Equity Allocations



International Equity Allocations



Public Equity (continued)

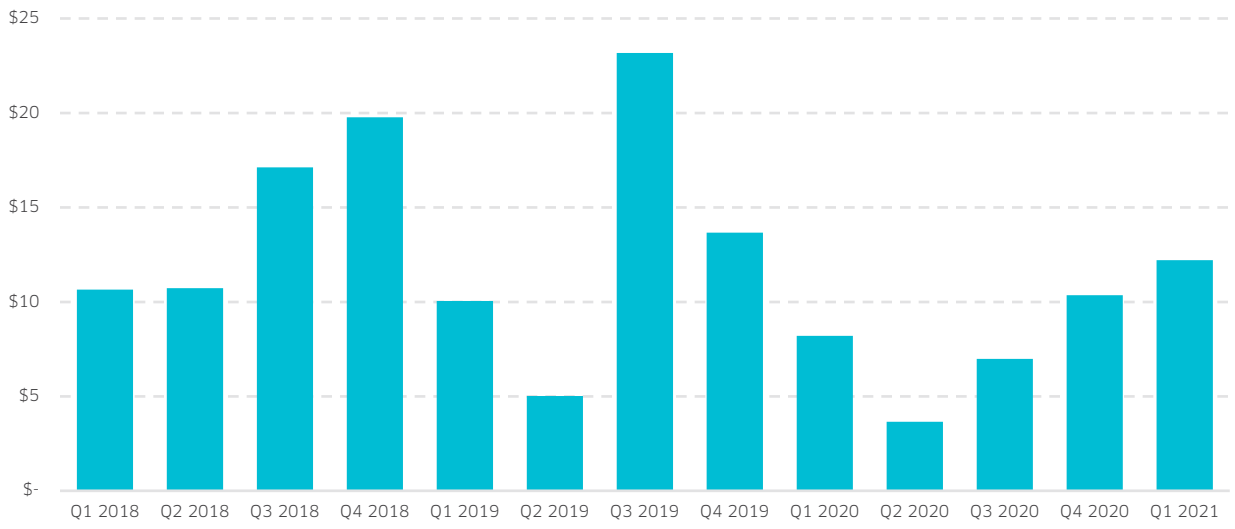
Alongside portfolio reviews, we also look at mandates to put current allocations into historical context and to obtain a better understanding of forward demand. The number of public equity mandates placed in Q1 2021 was slightly below pace against 2019 and 2020 levels, see table below. Looking at the strategy level, we saw outsized demand for long-only U.S. equity, and in particular active large cap managers and passive strategies, relative to other equity strategies in 2020. Q1 2021 and ongoing and potential mandates suggest this trend is likely to keep apace.

While the number of managers hired are slightly below prior 2 year levels, the amount invested in Q1 2021 exceeded Q1 totals for each of the prior 3 years, +$12.2 billion in Q1 2021 versus +$8.2 billion (Q1'20), +$10.5 billion (Q1'19), and +$10.7 billion (Q1'18). The quarterly commitment amount for public equities over the past 12 quarters, excluding the Q2 2020 COVID outlier, averaged +$12.3 billion. At this pace, it would take 4.8 quarters to completely eliminate the allocation shortfall calculated for the public plans in our sample, e.g.: our implied gross inflow estimate of +$59.6 billion.

Asset Class	Number of Commitments			Ongoing & Potential Commitments
	2019	2020	Q1 2021	
Equity	**502**	**488**	**90**	**615**
U.S.	155	210	33	187
Active U.S. Large Cap	38	69	2	70
Active U.S. Mid/SMID Cap	26	24	7	55
Active U.S. Small/Micro Cap	60	60	6	43
U.S. Passive	26	50	16	13
Emerging Markets	84	40	7	72
International	124	104	15	123
Global	52	43	16	47
ESG	15	12	7	23

Note: Certain sub-strategies are not shown. Additionally, certain mandates lack granular descriptions and do not have a sub-strategy classification.

Public Equity Commitment Totals ($B)



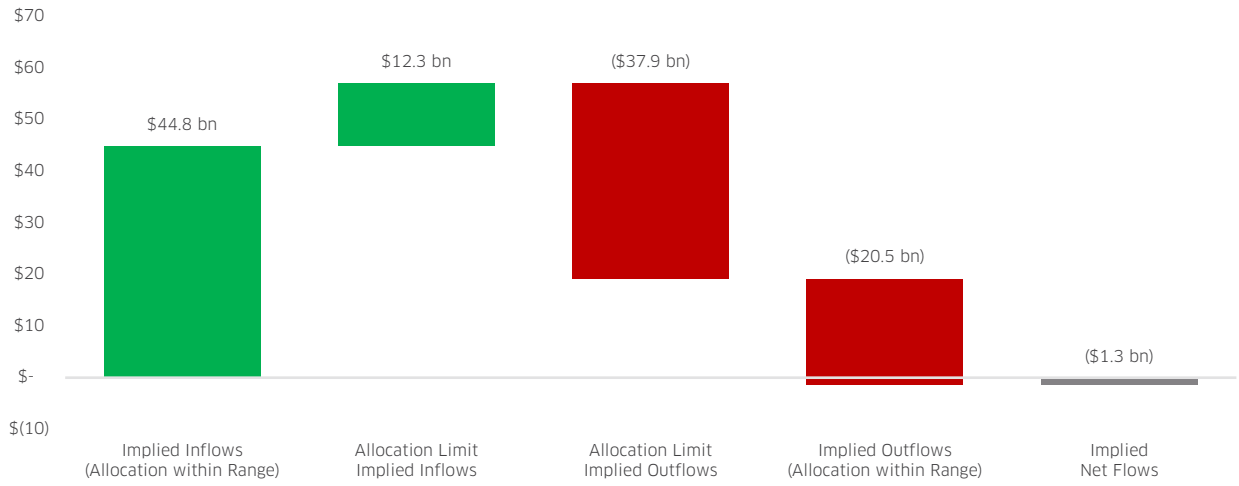
Fixed Income

Fixed income allocations are roughly neutral weight at +3 bps against target allocations. In aggregate, the excess 2020 allocations imply a net outflow of -$1.3 billion. Compared to other asset classes, public plans generally provided the least detail for their fixed income allocations and this is reflected in our aggregated table on page 5. Fixed income includes core public fixed income, more niche strategies such as bank loans, and for certain plans also encapsulates private debt. Where current and target allocations for private debt are clearly delineated from public fixed income allocations, we capture both separately. Standalone private debt allocation analysis can be seen starting with page 16.

As with public equities, the relative size of fixed income allocations means there are ample flows to capture in both directions, regardless of the net positioning across our sample. We calculate +$12.3 billion in allocation limit implied inflows, the difference between current and target exposures which undershoot our stylized allowable allocation range. Among these are 5 new allocations with zero current exposure, but a non-zero target allocation – 2 for bank loans, 1 for high yield debt, 1 for emerging markets debt, and one for intermediate duration Treasuries. An additional +$44.8 billion in capital is required to close allocation gaps for plans in compliance with their fixed income allocation ranges. We note that all flows data is captured at the allocation-level, i.e.: a single plan can contribute to gross inflows and gross outflows for a broader asset class. 2020 asset allocation data imply total outflows of -$58.4 billion, -$37.9 billion for allocations which exceed their allowable ranges and another -$20.5 billion for those that are over-allocated, but still within their allowable ranges.

For those plans which provided enough granularity, core and core plus allocations are over-allocated by +158 bps, high yield and bank loans by +25 bps, and inflation-linked bonds by +8 bps against targets. At the opposite end of the spectrum, we find emerging markets debt to be under-allocated to by -8 bps. We reiterate these are not sample-wide figures, but across those which disclosed both current and target allocations specifically for these fixed income strategies. The following page shows these graphically for core/core plus fixed income and inflation-linked bond allocations.

Fixed Income Implied Flows Bridge



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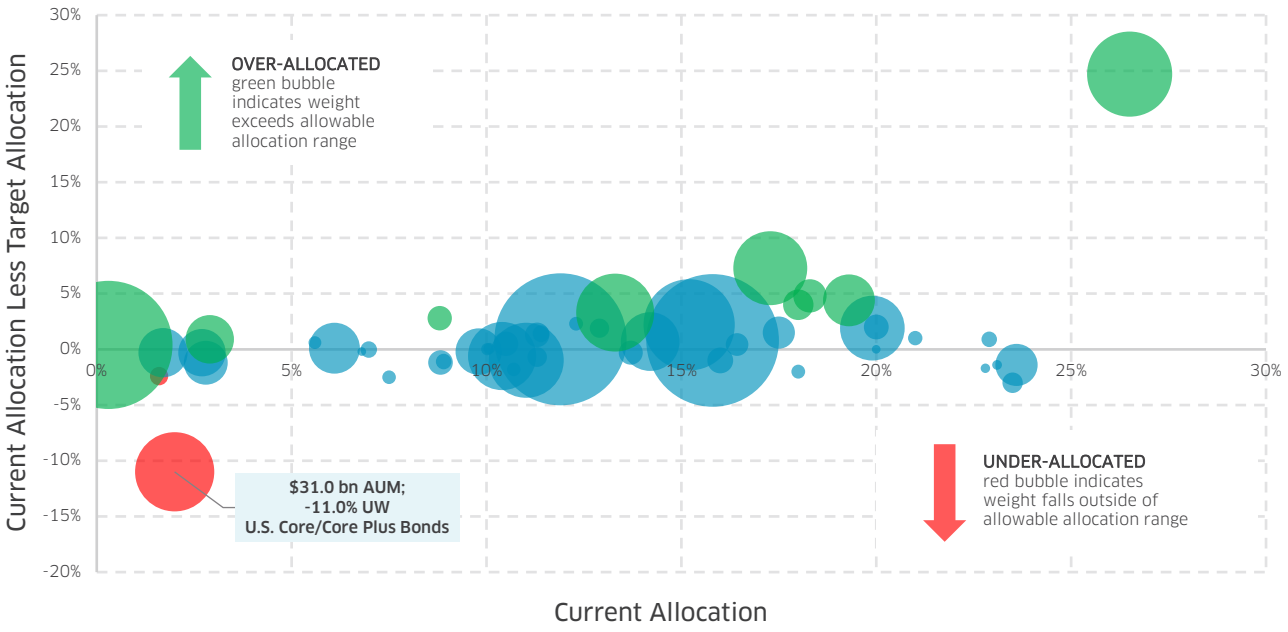
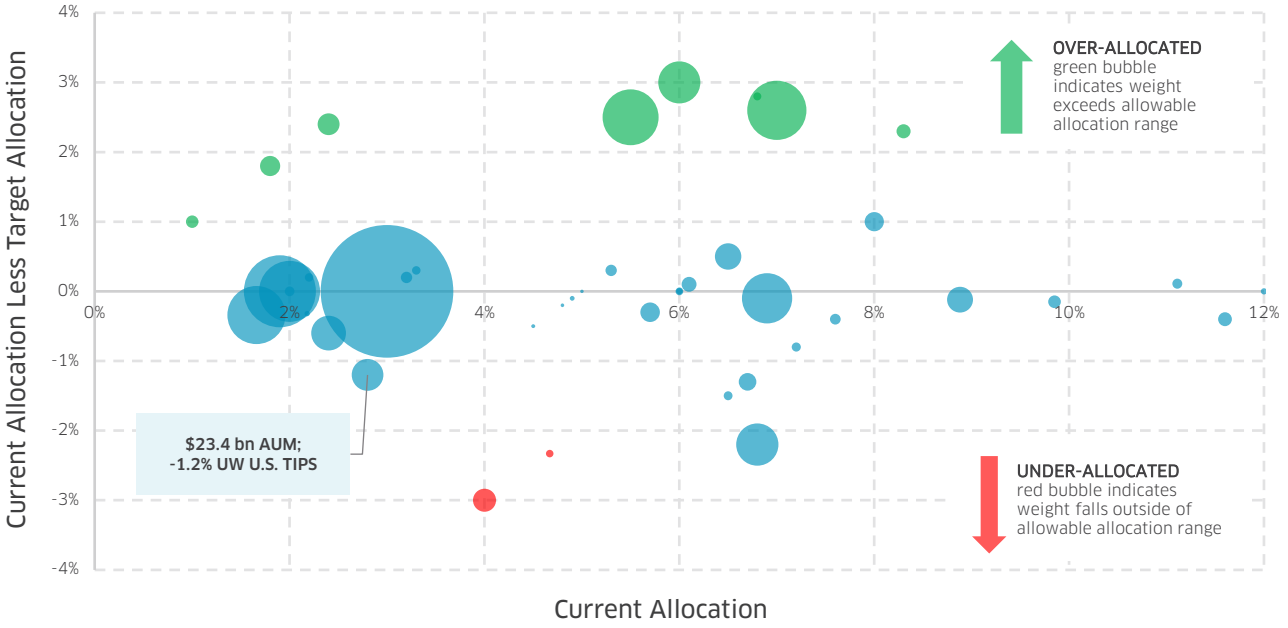
Fixed Income (continued)

U.S. Core & Core Plus Allocations



U.S. TIPS Allocations



Fixed Income (continued)

We saw +37.3% growth in the number of commitment made to fixed income managers in 2020 versus 2019. Q2 2020 in particular saw a number of fixed income placements. TALF 2.0 offerings were a significant part of the 2020 increase, but we also saw commitments increase for other yield-focused strategies as plans tried to allocate opportunistically. There remains a substantial mandate pipeline for most fixed income strategies. However, forward demand for bank loan and EM debt strategies as measured by ongoing and potential mandates seems depressed relative to other public fixed income strategies.

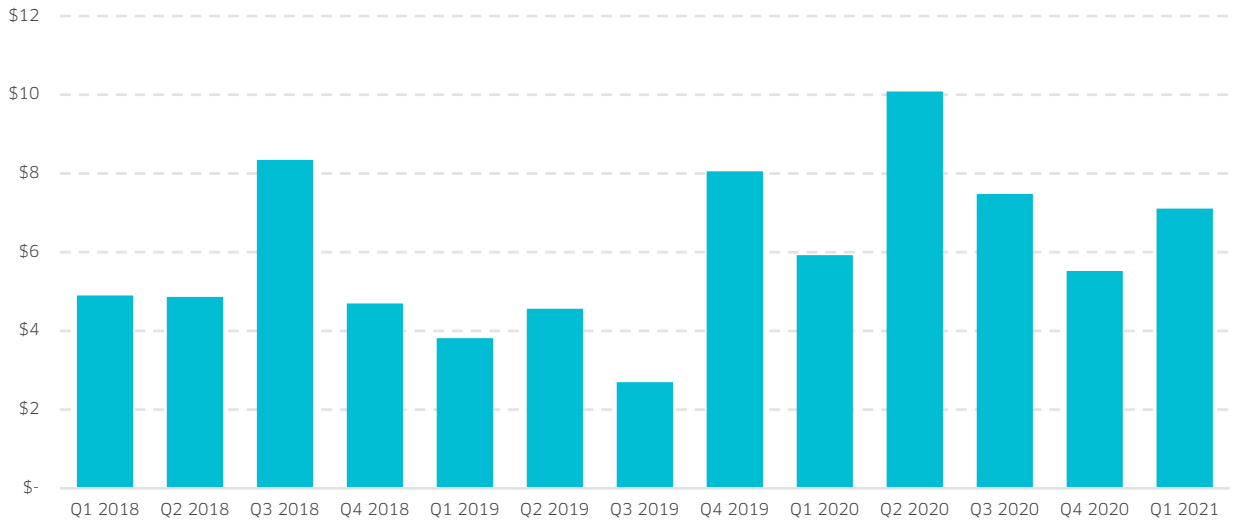
In terms of dollars committed, Q1 2021 was a solid quarter for fixed income managers. We recorded commitments of +$7.1 billion during the quarter versus +$5.9 billion in Q1 2020, +$3.8 billion in Q1 2019, and +$4.9 billion in Q1 2018. Excluding Q2 2020 as a COVID-related outlier, the quarterly average commitment total for fixed income was +$5.7 billion, as found on eVestment Market Lens.

Given implied gross inflows in our sample of +$57.1 billion for fixed income, it would take just over 10 quarters at this historical quarterly rate for allocation shortfalls to be eliminated. In contrast to the information on page 10, which we noted may include private debt for plans with a blended allocation, the data below are strictly for public fixed income mandates.

Asset Class	Number of Commitments			Ongoing & Potential Commitments
	2019	2020	Q1 2021	
Fixed Income	**263**	**361**	**60**	**448**
U.S.	142	158	30	194
U.S. Core & Core Plus	58	39	12	60
U.S. High Yield & Bank Loans	24	36	2	24
U.S. TIPS	9	5	5	26
U.S. Passive	18	15	8	5
Emerging Markets	23	51	8	27
Global	48	53	4	66
Multi-Sector/Unconstrained	36	40	3	48

Note: Certain sub-strategies are not shown. Additionally, certain mandates lack granular descriptions and do not have a sub-strategy classification.

Public Fixed Income Commitment Totals ($B)



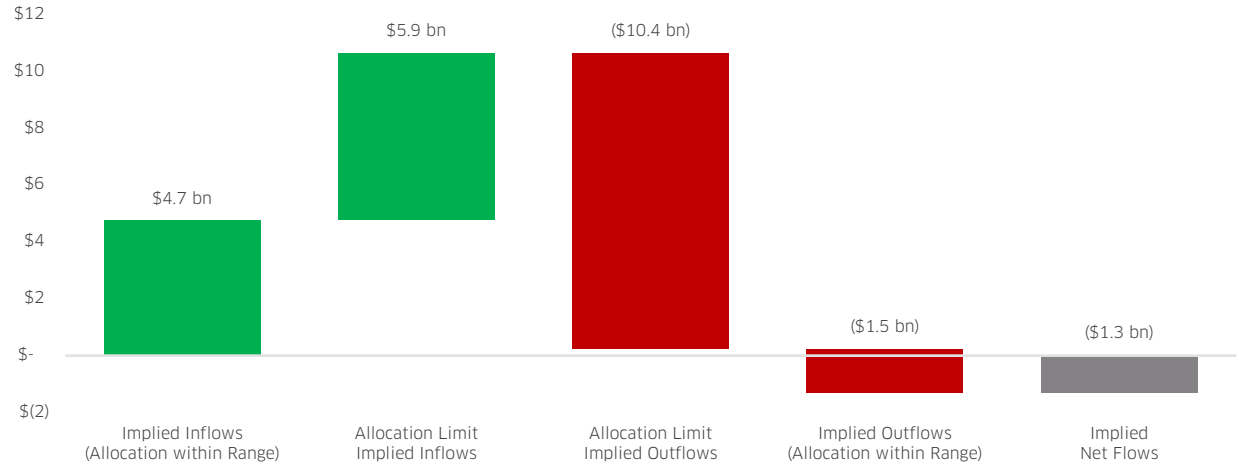
Hedge Funds & Multi-Asset

Multi-asset allocations are overweight by +20 bps against targets, while hedge fund/ absolute return allocations are overweight by +3 bps. Across our sample of 249 plans only 48 have an allocation to multi-asset strategies and 2020 implied net flows for multi-asset strategies stand at -$8.3 billion.

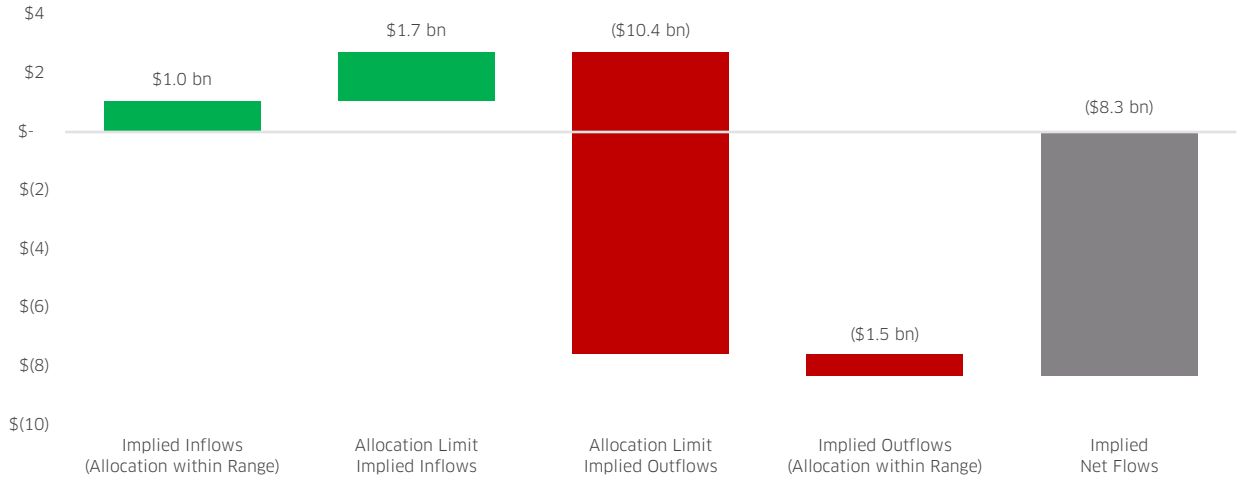
Among the 48 plans currently invested in multi-asset strategies 8 now have a target allocation of 0.0%. In other words, they have eliminated their allocation to multi-asset strategies and are driving the outsized allocation limit adjusted implied outflow figure of -$10.4 billion.

A similar story is occurring in the hedge fund space with 11 of the 101 plans currently invested with hedge funds planning to eliminate this asset class from their asset allocations entirely. On a positive note, there seem to be a number of plans with hedge fund allocation shortfalls, enough to push implied net flows back up to just -$1.3 billion.

Hedge Funds Implied Flows Bridge



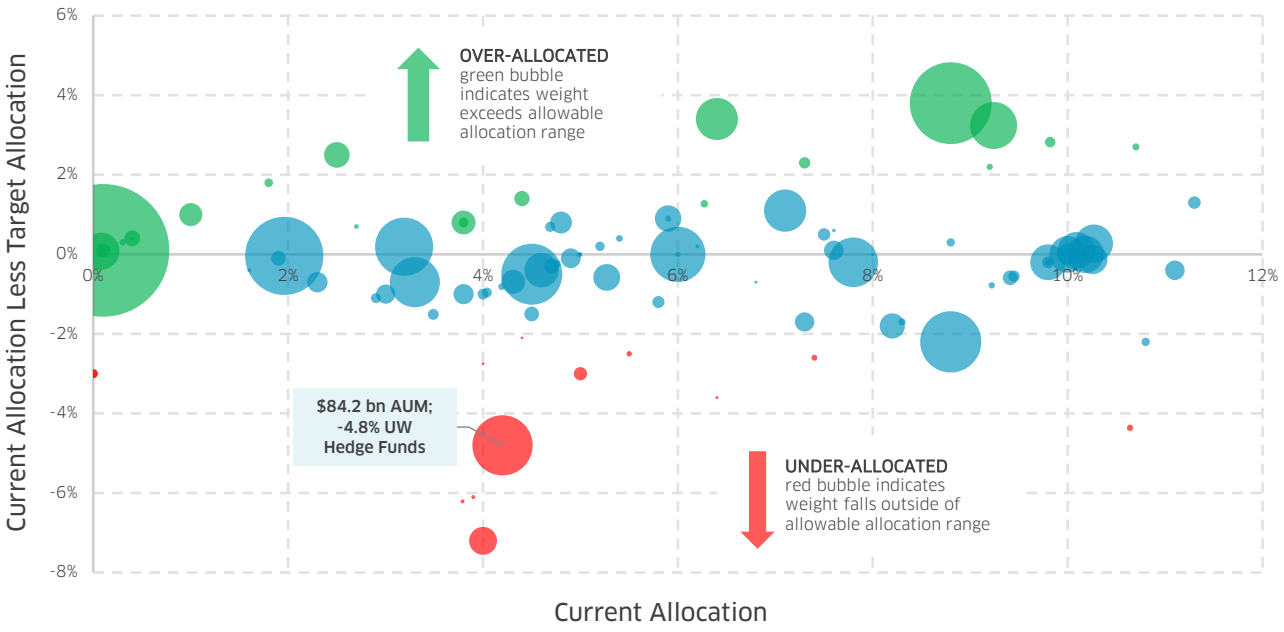
Multi-Asset Implied Flows Bridge



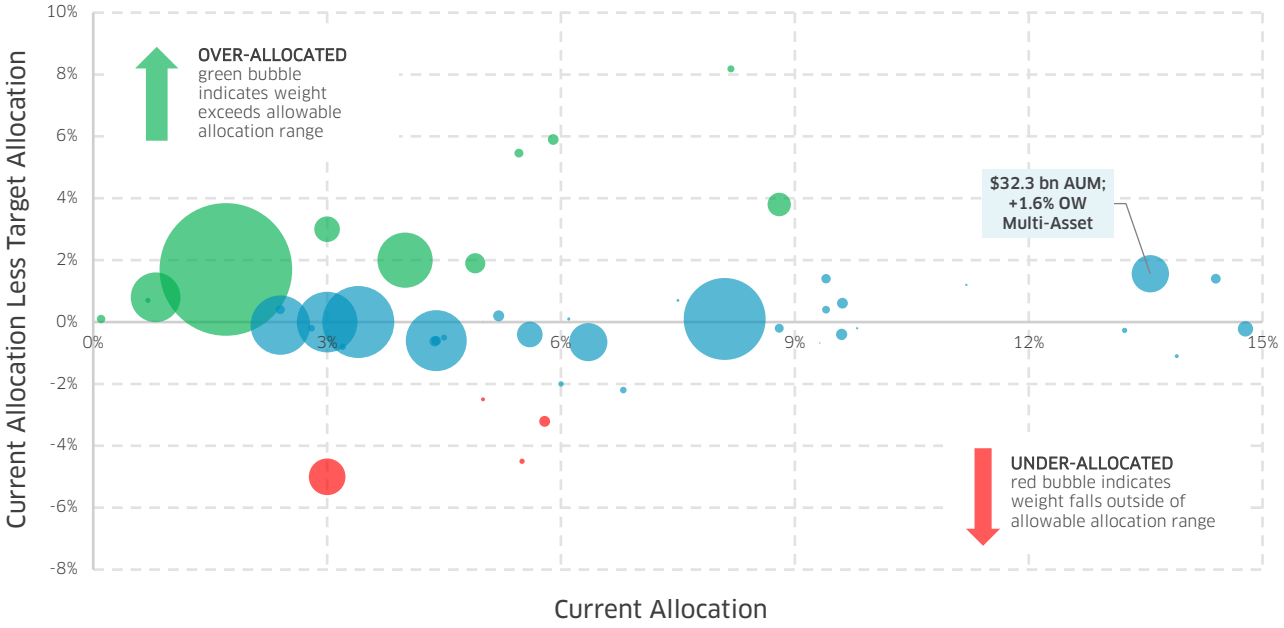
Note: Due to certain plans' lack of disclosure regarding allowable allocation ranges, we stylize allocation limits for all plans as follows. Allocation limits are calculated as the target allocation plus or minus the allowable variance. The allowable variance is calculated as 0.25 times the target allocation level. However, the minimum allowable variance is +/-2%, the maximum allowable variance is +/-10%. For instance, a 50% target allocation will have an allowable variance of +/-10%, given that 0.25 times 50% is 12.5% which exceeds the maximum allowable variance of +/-10%.

Hedge Funds & Multi-Asset (continued)

Hedge Fund Allocations



Multi-Asset Allocations



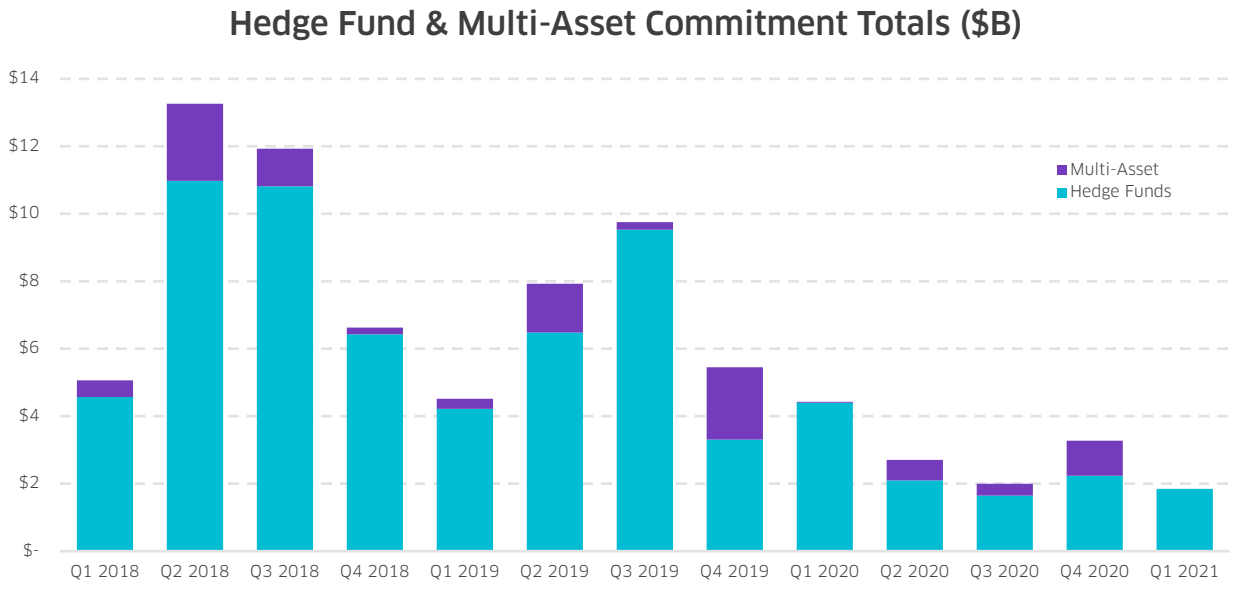
Hedge Funds & Multi-Asset (continued)

We saw 2 multi-asset managers hired in Q1 2021, 29 in CY 2020, and 55 in CY 2019. Within our sample of U.S. public plans, there is a dearth of demand for these products. However, we are still seeing significant demand for multi-asset products, in particular diversified growth funds and global tactical asset allocation, from U.K. public plans. Furthermore, multi-asset strategies are still being placed "on the shelves" for defined contribution schemes.

Hedge funds are facing a more benign environment than multi-asset managers. However, recent results have been fairly poor for the asset class. eVestment recorded 17 hedge fund commitments made in Q1 2021, down from 39 in Q1 2020, 45 in Q1 2019, and 41 in Q1 2018. Furthermore, we have seen a marked decline in dollars committed to the asset class. The trailing four quarter hedge fund commitment total measured +$7.8 billion versus +$56.1 billion in the preceding two years (2Q'18 - 1Q'20). Looking ahead, we find the number of ongoing and potential mandates uninspiring relative to other asset classes. Assuming an average of 1.4 hedge fund managers are hired per current ongoing and potential mandate (the historical rate since 2018), we would need 60.3% of these mandates to close within the year for the total number of commitments to remain unchanged from 2020 to 2021.

Asset Class	Number of Commitments			Ongoing & Potential Commitments
	2019	2020	Q1 2021	
Hedge Funds	185	122	17	123
Multi-Asset	55	29	2	57

Note: Certain sub-strategies are not shown. Additionally, certain mandates lack granular descriptions and do not have a sub-strategy classification.



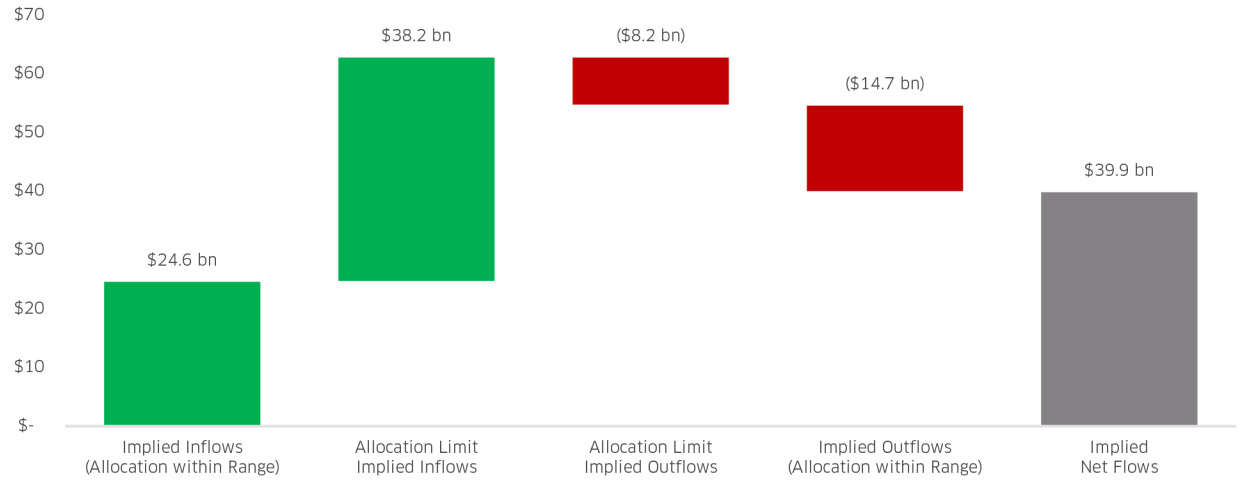
Private Alternatives

The public plans in our sample are under-allocated to private equity by -42 bps and private debt by -40 bps against targets. For plans which utilize a broader private alternatives allocation, which we label "Private Alternatives (Blend)" and include private equity, private debt, private equity real estate, and other private assets, current allocations undershoot targets by -12 bps. We calculate those that are under-allocated beyond their allowable allocation ranges will need to commit +$38.2 billion to private alternatives. Implied inflows for plans within their stylized allocation ranges contribute an additional +$24.6 billion for a total of +$64.8 billion. Some portion of the under-allocations mentioned above, and therefore implied inflows, may already have capital committed behind it waiting to be drawn down. With that being said, we believe this is a good directional barometer making an implicit assumption that distributions will cover the difference.

Before continuing, we reiterate the difference in interpretation for implied outflows across private alternatives, and real assets to follow, given the illiquidity context. This is in contrast to the straightforward interpretation of "outflows" for an asset class like public equities. We take implied outflows for illiquid asset classes as an indication of plans' ability to absorb underperformance within the allocation and as an embedded option in terms of timing future commitments versus distributions; on this last point we do want to mention limitations due to vintage and other forms of diversification, as well as the possibility of overrunning the desired allocation target. There are certain instances where we can reconcile with the more traditional implications of outflows. Namely, interacting with the secondaries market within private markets, or in the case of real assets outright divesting more liquid components of the allocation such as publicly-traded REITs and MLPs. Lastly, we also provide these figures as a means to tie our gross inflow figures to net exposure.

Going back to the data at hand, we find -$8.2 billion in allocation limit implied outflows across private alternatives, -$6.0 billion for private equity, -$1.4 billion for private debt, and -$0.8 billion for our "Private Alternatives (Blend)" category. Additional implied outflows, for plans within their allowable allocation ranges, total -$14.7 billion. This figure too is substantially weighted towards private equity funds.

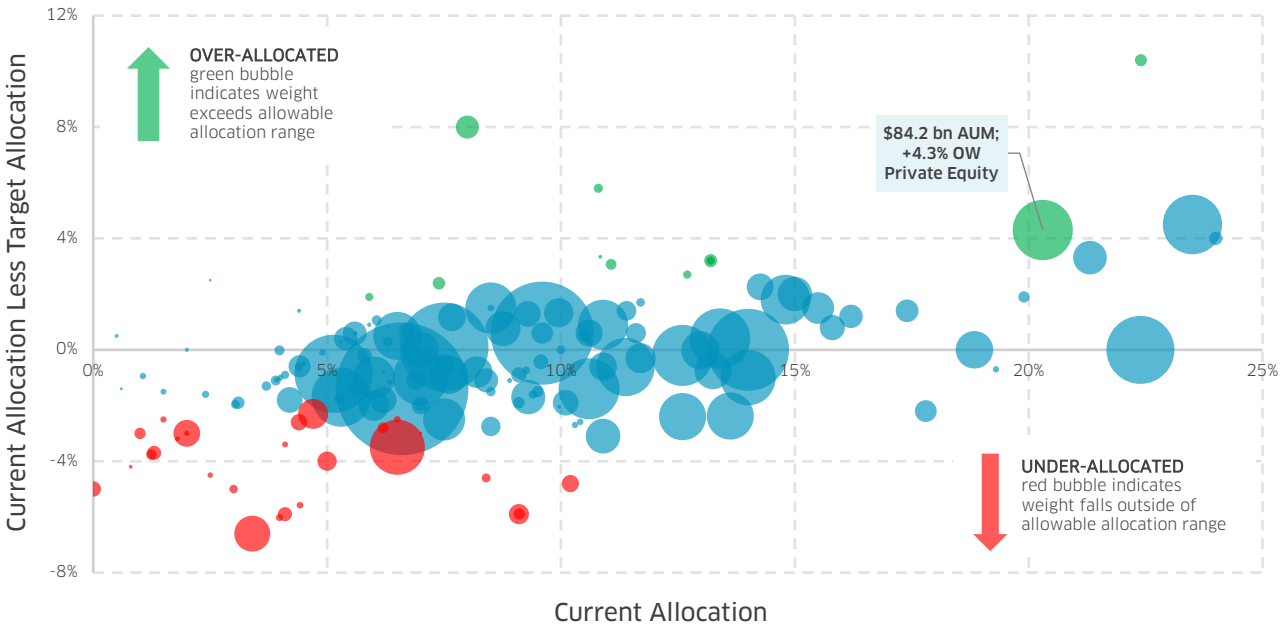
Private Alternatives Implied Flows Bridge



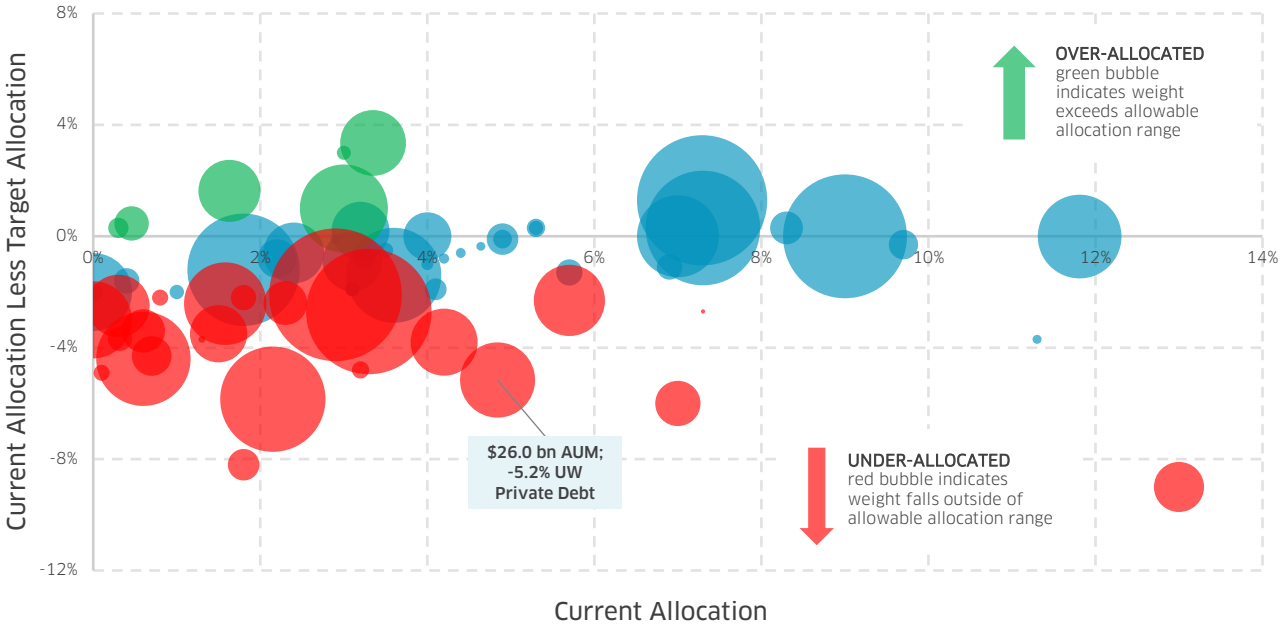
Note: Due to certain plans' lack of disclosure regarding allowable allocation ranges, we stylize allocation limits for all plans as follows. Allocation limits are calculated as the target allocation plus or minus the allowable variance. The allowable variance is calculated as 0.25 times the target allocation level. However, the minimum allowable variance is +/-2%, the maximum allowable variance is +/-10%. For instance, a 50% target allocation will have an allowable variance of +/-10%, given that 0.25 times 50% is 12.5% which exceeds the maximum allowable variance of +/-10%.

Private Alternatives (continued)

Private Equity Allocations



Private Debt Allocations



Private Alternatives (continued)

The number of private equity commitments grew from 908 to 1,063 from 2019 to 2020 or +17.1%. Growth in total commitments exceeded the hire count, increasing from +$69.0 billion to +$85.0 billion or +23.2%. Fundraising for private equity firms was robust in the first quarter of 2021 with 220 commitments made totaling +$17.8 billion. We expect the asset class to gain momentum throughout the year as has been the case in the recent past.

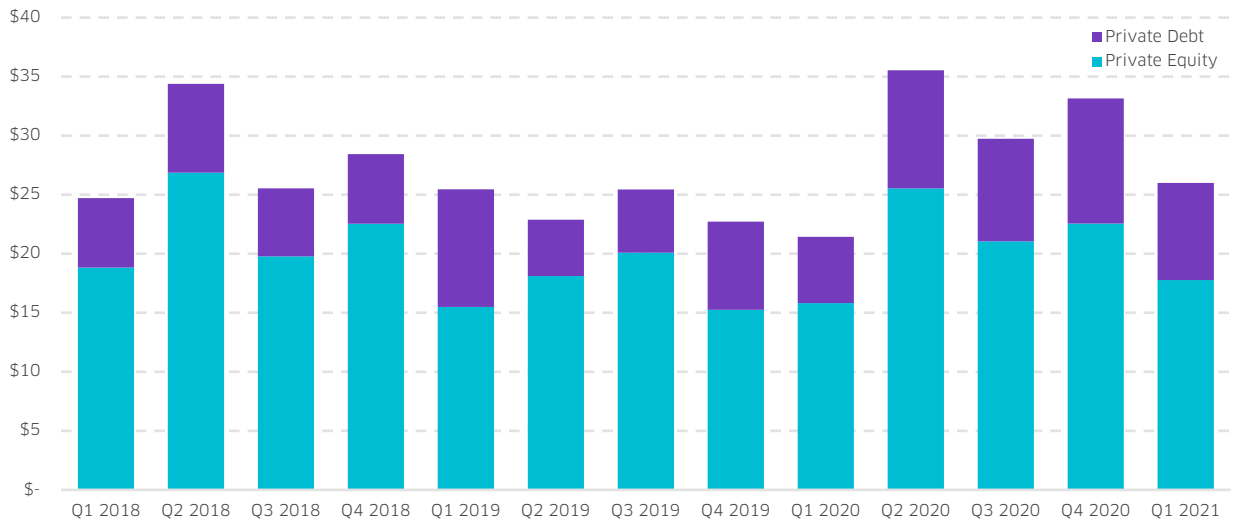
Private debt growth has been even more impressive with the number of commitments growing from 224 in 2019 to 326 in 2020 or +45.5% Y/Y. Private debt commitment totals measured +$27.5 billion in 2019 and +$34.9 billion in 2020 for a growth rate of +26.7%. The asset class started the year off quickly tallying +$8.2 billion across 70 commitments.

We count 264 ongoing and potential mandates in private equity and 201 in private debt. We note that due to the nature of closed-end funds, these figures are not directly comparable to those provided for more liquid asset classes such as public equities. While there exist cases where private alternative commitments are made through the "traditional" mandate channel, our ongoing and potential mandate counts are not fully reflective of the fundraising pipeline.

Asset Class	Number of Commitments			Ongoing & Potential Commitments
	2019	2020	Q1 2021	
Private Equity	**908**	**1,063**	**220**	**264**
Buyout	397	293	56	24
Growth Equity	77	43	17	4
Venture Capital	142	133	38	15
Fund of Funds	49	35	4	15
Private Debt	**224**	**326**	**70**	**201**
Direct Lending	50	64	20	18
Distressed/Special Sits	73	98	14	21
Multi-Strategy	8	8	2	1

Note: Certain sub-strategies are not shown. Additionally, certain mandates lack granular descriptions and do not have a sub-strategy classification.

Private Equity & Debt Commitment Totals



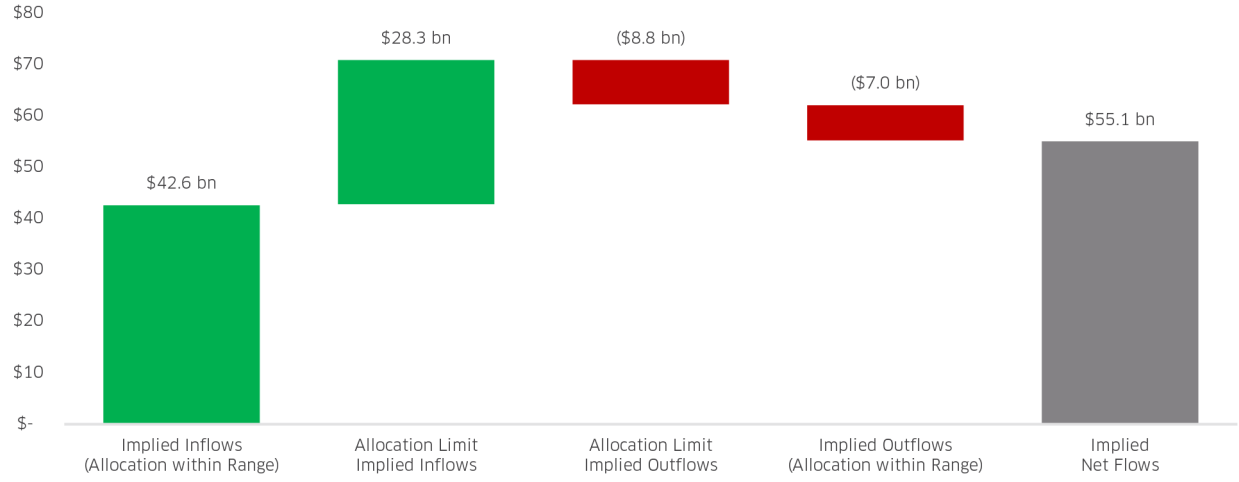
Real Assets

Real assets including real estate are under-allocated to by -1.35% with an aggregate 2020 allocation measuring 11.78% versus a target of 13.14%. The implied net inflows total +$55.1 billion and are the largest relative to other major asset classes. We divide real assets into four major categories, real estate, infrastructure, natural resources which includes energy, MLPs, agriculture, farmland, and timber, and a "Real Assets (Blend)" label for plans which have an allocation target to a combination of the first three groupings and inflation-linked bonds in certain cases.

The 249 plans in our sample are under-allocated to all four of these categories in aggregate. Real estate, the largest of the four, is underweight by -60 bps against targets. "Real Assets (Blend)," the second largest, is underweight by -55 bps. Infrastructure and natural resources round out the asset class at -17 bps and -3 bps, respectively. Implied inflows for plans with real assets allocations outside of their desired range total +$28.3 billion, comprised of +$9.9 billion for real estate, +$5.9 billion for infrastructure, +$1.3 billion for natural resources, and +$11.2 billion for "Real Assets (Blend)." Overall implied gross inflows, including plans within their allocation ranges, measure +$70.9 billion.

Implied outflows total -$15.8 billion across real assets, split roughly evenly between plans within and outside of their allowable allocation ranges. Real estate accounts for the bulk of the total at -$10.0 billion followed by -$3.8 billion for "Real Assets (Blend)." As mentioned in the private alternatives section, implied outflows for real assets should, for the most part, be interpreted differently from public markets outflows.

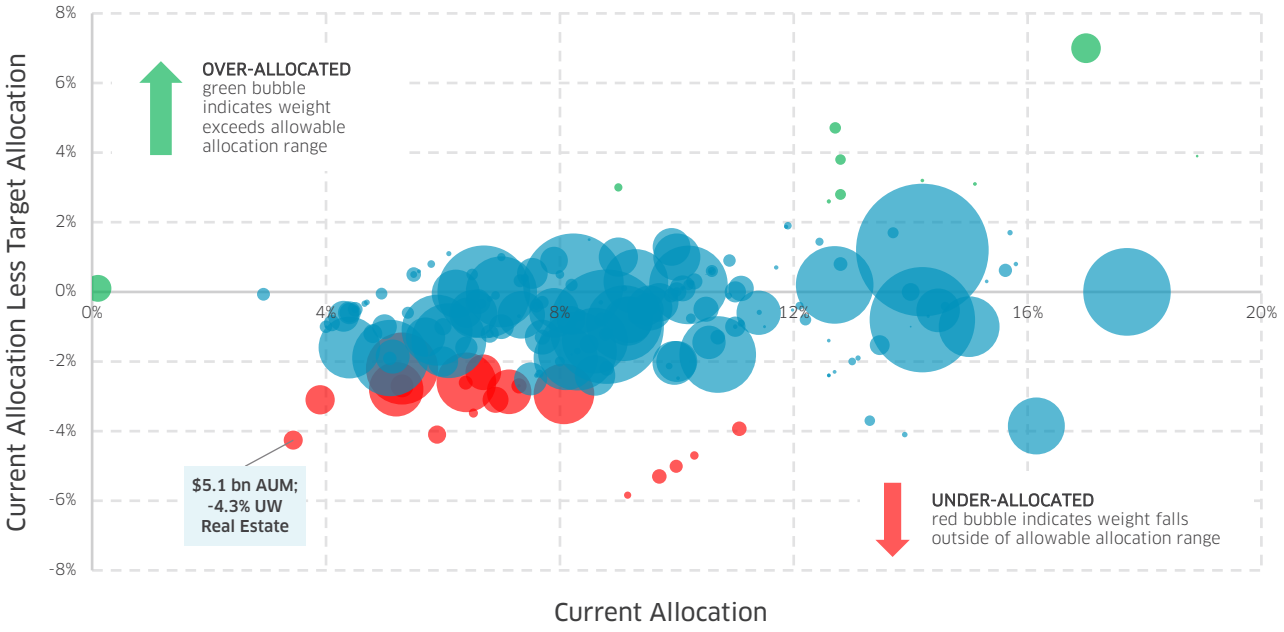
Real Assets Implied Flows Bridge



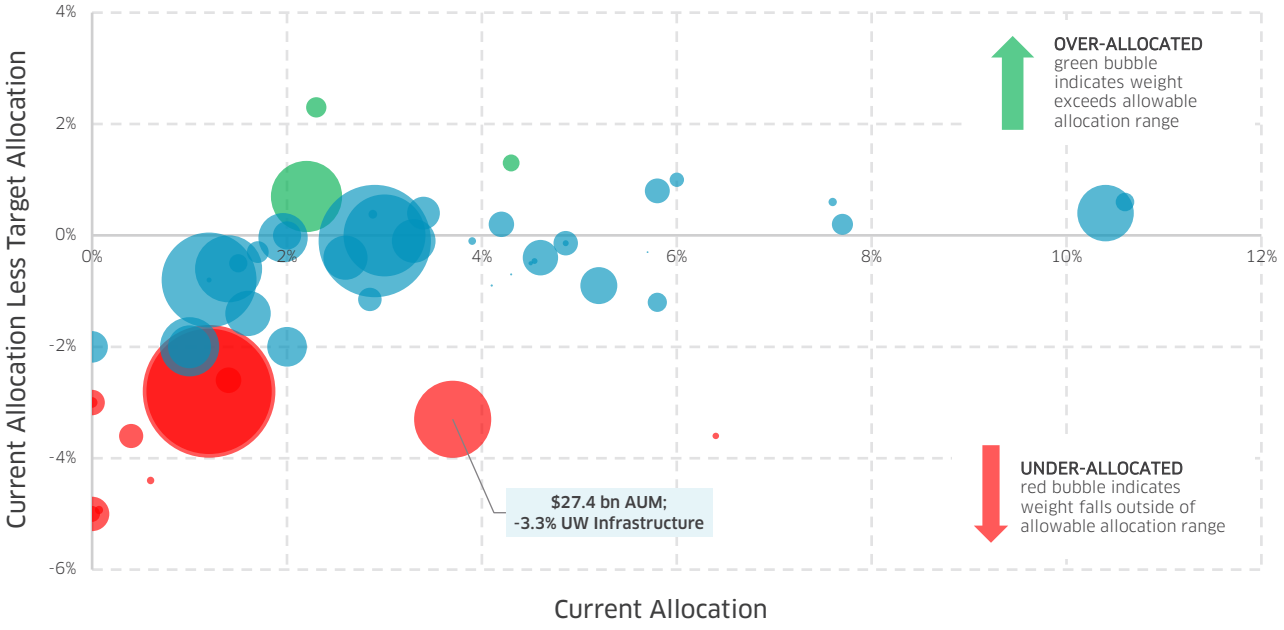
Note: Due to certain plans' lack of disclosure regarding allowable allocation ranges, we stylize allocation limits for all plans as follows. Allocation limits are calculated as the target allocation plus or minus the allowable variance. The allowable variance is calculated as 0.25 times the target allocation level. However, the minimum allowable variance is +/-2%, the maximum allowable variance is +/-10%. For instance, a 50% target allocation will have an allowable variance of +/-10%, given that 0.25 times 50% is 12.5% which exceeds the maximum allowable variance of +/-10%.

Real Assets (continued)

Real Estate Allocations



Infrastructure Allocations



Real Assets (continued)

The number of real estate commitments made declined slightly to 360 in 2020 from 379 the year prior, or -5.0%. Commitments in dollar terms declined more appreciably from +$34.3 billion in 2019 to +$25.7 billion in 2020, or -25.0%. Looking under the hood, we find real estate debt commitments actually increased year-over-year from $4.1 billion to $4.5 billion meaning the entirety of the weakness was in PERE.

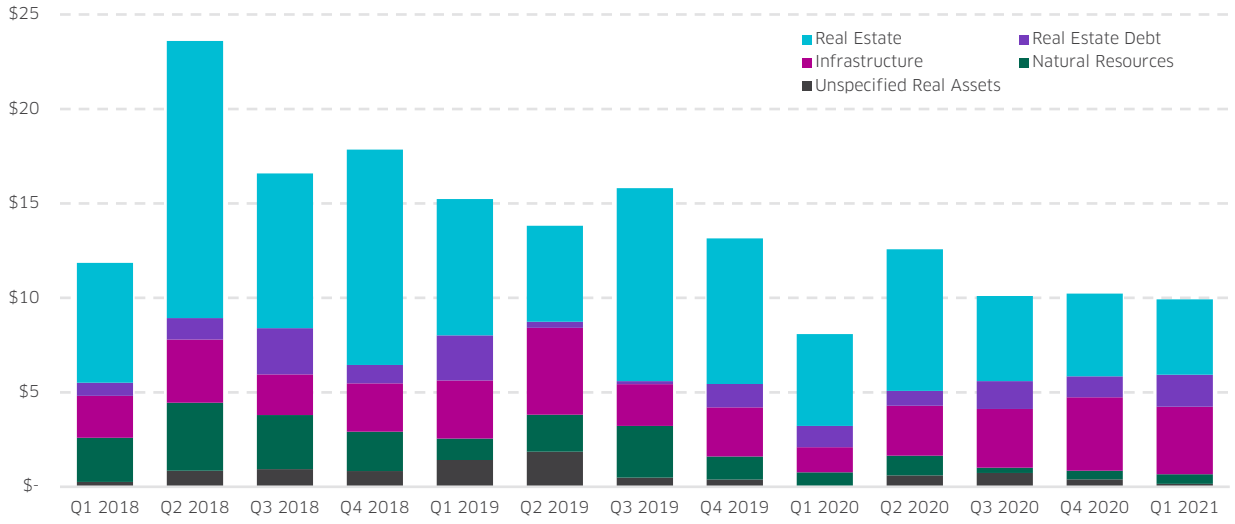
In the first quarter of 2021 the asset class saw a significant number of commitments, but dollar amounts continued to languish at +$5.7 billion.

Commitment amounts to infrastructure and natural resources also declined from 2019 to 2020. The drop was relatively mild for infrastructure funds, dropping from +$12.5 billion to +$11.0 billion, or -12.1%. Furthermore, infrastructure funds have gotten off to a hot start in 2021 bringing in +$3.6 billion across 50 commitments. Natural resources, on the other hand, saw a much steeper decline in 2020 and have yet to shown signs of recovering. 2020 commitments to natural resources funds declined -64.7% Y/Y to +$2.5 billion. Furthermore, we only saw 11 commitments in Q1 2021 totaling +$0.5 billion.

Asset Class	Number of Commitments			Ongoing & Potential Commitments
	2019	2020	Q1 2021	
Real Estate	**379**	**360**	**92**	**254**
Core & Core Plus	80	45	8	31
Value Added	98	72	25	26
Opportunistic	56	29	7	17
REITs	8	7	1	15
Real Estate Debt	38	58	12	13
Real Assets	**242**	**181**	**65**	**226**
Infrastructure	115	127	50	98
Natural Resources	97	43	11	61
Ag., Timber & Forestland	7	6	--	12
Energy & MLPs	50	16	4	13

Note: Certain sub-strategies are not shown. Additionally, certain mandates lack granular descriptions and do not have a sub-strategy classification.

Real Assets Commitment Totals



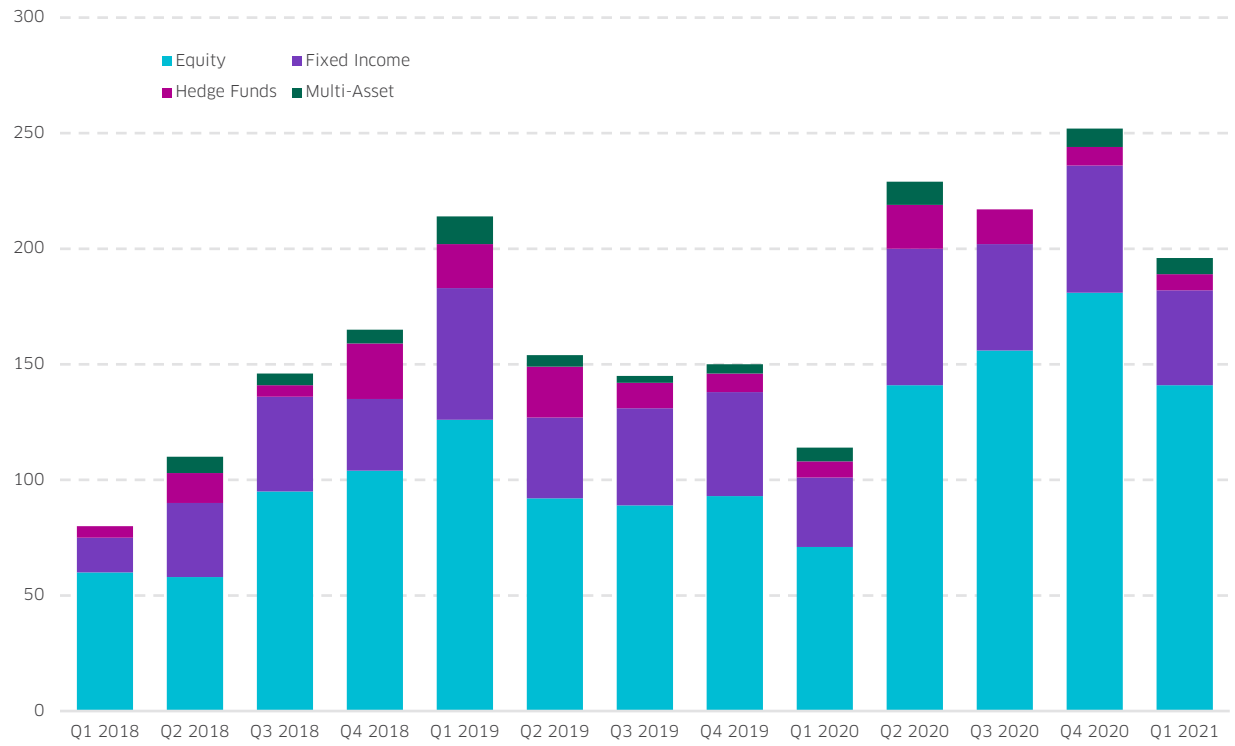
Consultant Investment Recommendations

Before concluding, we show consultant recommendations for the public markets-focused asset classes. While asset allocations are the focus of this report, and can serve as bellwethers for future activity, there exist other circumstance which may cause flows to occur or commitments to be placed. The chart below tallies only consultants' negative recommendations, those proposing managers be added or left on watchlists, replaced, reduced, or terminated.

We find negative recommendations rose substantially in Q2 2020 and have remained elevated. Within public equities, the rise in negative recommendations was well distributed across strategies with the exception of ACWI ex-U.S. managers. In fixed income, U.S. core bonds and U.S. intermediate duration strategies saw the largest increases in watchlist, replacement, and termination recommendations. The number of negative recommendations was largely unchanged for hedge funds – 49 for the year ending in Q1 2021 versus 48 for the preceding 4 quarters and 61 for the year ending Q1 2019. Taken together, we expect equity and fixed income turnover will likely be higher than historical levels, and flat to down for hedge funds and multi-asset strategies.

These recommendations, along with their positive counterparts, can inform asset managers about opportunities to establish new relationships or to take wallet share from other firms. Consultants' product ratings, which are not client-specific, can also help managers understand their standing against peers. An understanding of manager-level details, like the aforementioned recommendations and ratings, and high-level details such as asset allocation decisions can assist managers in finding the right opportunities at the right time.

Number of At-Risk Managers



This list includes the following investment recommendations: Potential Replacement, Terminate/Reduce/Replace, Added to Watchlist, Remain on Watchlist, Watchlist

Methodology & Sample Set

Methodology

ALLOCATION LIMIT IMPLIED INFLOWS (OUTFLOWS)
The sum of positive (negative) allocation-level implied flows, where the allocation shortfall (surplus) exceeds the allocation lower (upper) limit. The allocation lower (upper) limit is calculated as the target allocation minus (plus) the allowable variance. The allowable variance is calculated as at least +/-2%, at most +/-10%, and 0.25 times the strategic target otherwise. Target allocations of 0% have no allowable variance. Allocation limit flows include the entirety of the shortfall or surplus, not just the amount exceeding the range.

COMPLETED MANDATES
The number of managers hired in completed mandates as found on Market Lens. These include mandates from institutional allocators outside of our U.S. public plan sample and are gross figures, i.e.: we do not net out managers replacements. In instances where the mandate does not specify who the hired manager(s) were, we assume only 1 commitment was made.

ONGOING & POTENTIAL MANDATES
The number of explicitly ongoing searches plus the number of potential searches based on documents dated from 26-Apr-2020 to 25-Apr-2021. Potential searches are based on plans', or their consultants', documents approving asset allocation changes, recommending new searches, or initiating action on the existing manager roster. These are not counted on a commitment basis as "Completed Mandates" are.

COMMITMENT TOTALS
The sum of dollar commitments made as found on Market Lens; as with completed mandates these figures include mandates from institutional investors outside of our U.S. public plan sample. Foreign currency commitment amounts are translated to US Dollars using the prevailing spot exchange rate at the time the commitment was made.

CURRENT ALLOCATION VS. ALLOCATION SURPLUS/ SHORTFALL CHARTS
Plan-level 2020 allocations and allocation surpluses/ shortfalls are shown on the axes with bubble sizes scaled to current total AUM. Bubble sizes are not unitized across charts. All U.S. plans are included in each chart provided they have either current or target exposure to the asset class. Each plan may only show up once per chart.

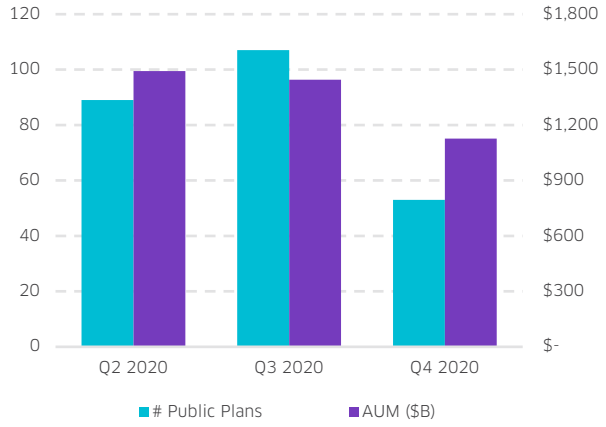
CONSULTANT RATINGS & RECOMMENDATIONS
"Negative" recommendations include investment recommendations made by consultants, tailored for specific clients, to put or keep a manager on a watchlist, to reduce their allocation to a manager, or to terminate or replace a manager entirely. For more information on how we produce these details please consult our Ratings & Recommendations Methodology.

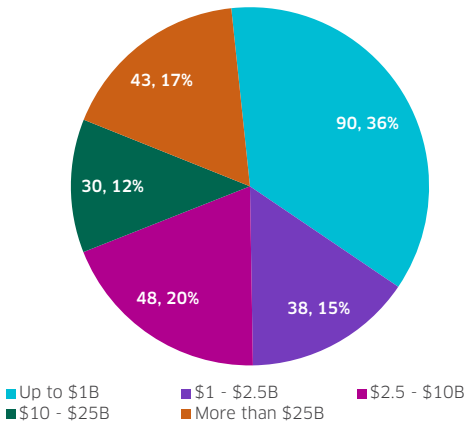
Sample Set Characteristics

We highlight key sample characteristics below. The public plans chosen for this report are not exhaustive of the information available on Market Lens, but chosen based on portfolio review dates, asset allocation disclosure granularity, and geographic base, among other traits.

TOTAL NUMBER OF PLANS: 249
TOTAL AUM ACROSS SAMPLE: $4.1 trillion

AVERAGE AUM: $16.3 billion
MEDIAN AUM: $2.3 billion





To review these findings
or learn how you can
conduct analysis like this:

solutions@evestment.com.