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2017 | J.P. MORGAN GLOBAL LIQUIDITY

INVESTMENT PEERVIEW℠

Industry insights: See how your cash strategy compares

J.P.Morgan
Asset Management

Contents

Introduction

I am pleased to introduce the 2017 J.P. Morgan Global Liquidity Investment PeerView℠ survey results report. Nearly 400 CIOs, treasurers and other senior decision-makers—each representing a unique entity, and from all sectors of the global economy—responded to the online survey. Our methodology was carefully constructed to draw decision-makers to participate in the survey, which can serve as an industry benchmark.

As you'll see from the results, the strong response rate has helped to identify several critical trends.

As investors continue to navigate shifting interest rate environments globally and face new regulatory pressures—recently implemented Securities and Exchange Commission (SEC) money market fund reform in the U.S. and approaching reform in Europe—the PeerView findings will help them better understand their cash investment decisions through a comparison with those of their peers.

CUSTOMIZED RESULTS

Survey participants will receive customized reports that compare their responses to those of their peer groups by region, cash balance and industry. These tailored reports provide a unique gauge for firms to evaluate their cash investment policies and practices relative to those of their peers.

PARTNERSHIP WITH OUR CLIENTS

We could not have completed the survey report without the generous participation of our clients, and I would like to thank everyone who took the time to participate. Your contributions have helped us produce a report that provides many fresh insights.

If you require further information, please visit: **www.jpmorgan.com/liquidity/peerview**.

Paula Stibbe

Global Head of Sales
J.P. Morgan Global Liquidity

Executive summary

MONEY IN MOTION: TACKLING CHANGING RATES AND REGULATIONS

In the early months of 2017, J.P. Morgan surveyed respondents at an important juncture, as investors faced unfolding or approaching changes in the regulatory, interest rate, economic and political arenas. As our survey reports, on all fronts investors are reassessing their short-term fixed income investment portfolios, looking for the strategies and solutions that can best help them navigate the changing environment.

In the U.S., new SEC rules governing money market funds (MMFs) took effect in October 2016, following a two-year transition period. After they considered new regulations on floating NAV (FNAV), liquidity fees and gates, many cash investors decided to transition assets from prime to government funds. But as they become more comfortable with the new parameters of prime funds, and ponder their excess yield, many investors are rethinking the relative attractiveness of prime vs. government MMFs. In Europe, where money market fund reform is slated to take effect in late 2018 or early 2019, investors will evaluate a range of new MMF structures. Finally, Basel III regulations, which redefine global standards for bank capital, liquidity and leverage, will continue to drive non-operating deposits off bank balance sheets.

The Federal Reserve's December 2016 policy rate hike, only its second in the past 10 years, was fresh on the mind of respondents when they answered our survey questions. Liquidity investors looked ahead to policy normalization—likely a gradual pace of U.S. rate increases and, eventually, a reduction in the central bank balance sheet. In Europe, rates remained exceptionally low, but a tapering in the European Central Bank's bond-buying program could be seen on the horizon.

Around the world, a broadening of stronger growth beyond the U.S. spurred a global reflation trade. In global markets, a "Trump trade" animated investors bullish on the possibility of pro-growth U.S. tax policy and fiscal stimulus. For U.S. multinationals, talk of tax policies to encourage cash repatriation attracted keen interest, but the prospects—and details—of any policy changes are as yet unknown.

Amid all these shifting pressures, investors will be looking for strong investment partners who can help them understand the implications of new regulations and fund structures, offer guidance on cash segmentation and provide insights into the global rate outlook. The most effective partner can align innovative products and solutions that best meet an investor's liquidity requirements, risk tolerance and investment return objectives.

As investors re-evaluate their cash investment decision-making—an often demanding but always critical process—they will greatly benefit from a peer comparison. It can reveal how their policies and practices resemble, and differ from, those of their peers. In this regard, the J.P. Morgan Global Liquidity Investment PeerView℠ survey can serve as an indispensable industry benchmark.

KEY FINDINGS

- **Investment in money market funds still strong**—Based on the market outlook for next year, over 60% of respondents will continue with the same allocation to money market funds, while 22% will increase their allocations to stable NAV funds and 20% to floating NAV funds. Money market funds and bank obligations account for the majority of cash balance allocation. Nearly 40% of respondents cited money market funds as their chosen vehicle for money moved off a bank balance sheet—by far the most popular placement.
- **Regulatory pressures**—In many ways, the regulatory arena has been transformed since our last survey, in 2015. Respondents are grappling with the implementation of money market reform in the U.S. and the approach of reform in Europe, as well as the effects of Basel III around the globe. In Europe, 44% of respondents said they need more time and/or information before they decide on their preferred money market fund structure. Among those considering new structures, 43% ranked risk of gating or a liquidity fee as the most important factor in their decision-making process.
- **Investment policy changes**—More respondents are updating their investment policies to ensure that they provide the flexibility needed in the new rate and regulatory environment. Notably, 48% of respondent policies now permit FNAV funds, up from 32% in 2015. Nearly a third of respondents are looking to add FNAV funds to their list of allowable investments. Changing an investment policy is rarely a simple undertaking. More than three-quarters of respondents said it would take a moderate or significant effort to implement a change—suggesting that planning should begin well in advance.
- **Shifting rate environment, search for yield**—In a still-low rate environment, investors continue to search for yield and reassess their appetite for risk. Nearly two-thirds of respondents said they would select money market funds for their cash investments if bank deposit rates lag. As they evaluate the impact of negative interest rates on euro—and/or sterling—denominated instruments, a large majority of respondents are considering policy changes to allow increased credit risk, more interest rate risk and the use of currency swaps.
- **Keener need for cash segmentation**—Liquidity investors are re-evaluating their investment strategies to meet the demands—and seize the opportunities—of an evolving rate and regulatory environment. Many respondents have determined that they need to consider new investment solutions, including floating NAV funds and more customized portfolios. Cash segmentation—categorizing cash by liquidity needs—is often a key component of the re-evaluation process. More than 70% of respondents can forecast their cash flows out for a month or longer. Just under half can forecast out a quarter or longer.
- **Moving back into prime funds**—Only 37% of U.S.-based respondents are currently invested in a prime money market fund, down from 63% in 2015. A majority transitioned assets to a government money market fund in the wake of new SEC 2a-7 rules. Fifty percent of U.S. investors who transitioned assets from a prime to a government MMF cited comfort level with floating NAV and gates/fees as the primary factor in reconsidering prime. Among respondents who transitioned assets out of prime MMFs, nearly half would consider moving back if prime offered an excess yield of between 15 basis points and 50 basis points.

Overview

OBJECTIVE

PeerView is a program that provides a unique opportunity for firms to compare their cash investment practices with those of their peers globally.

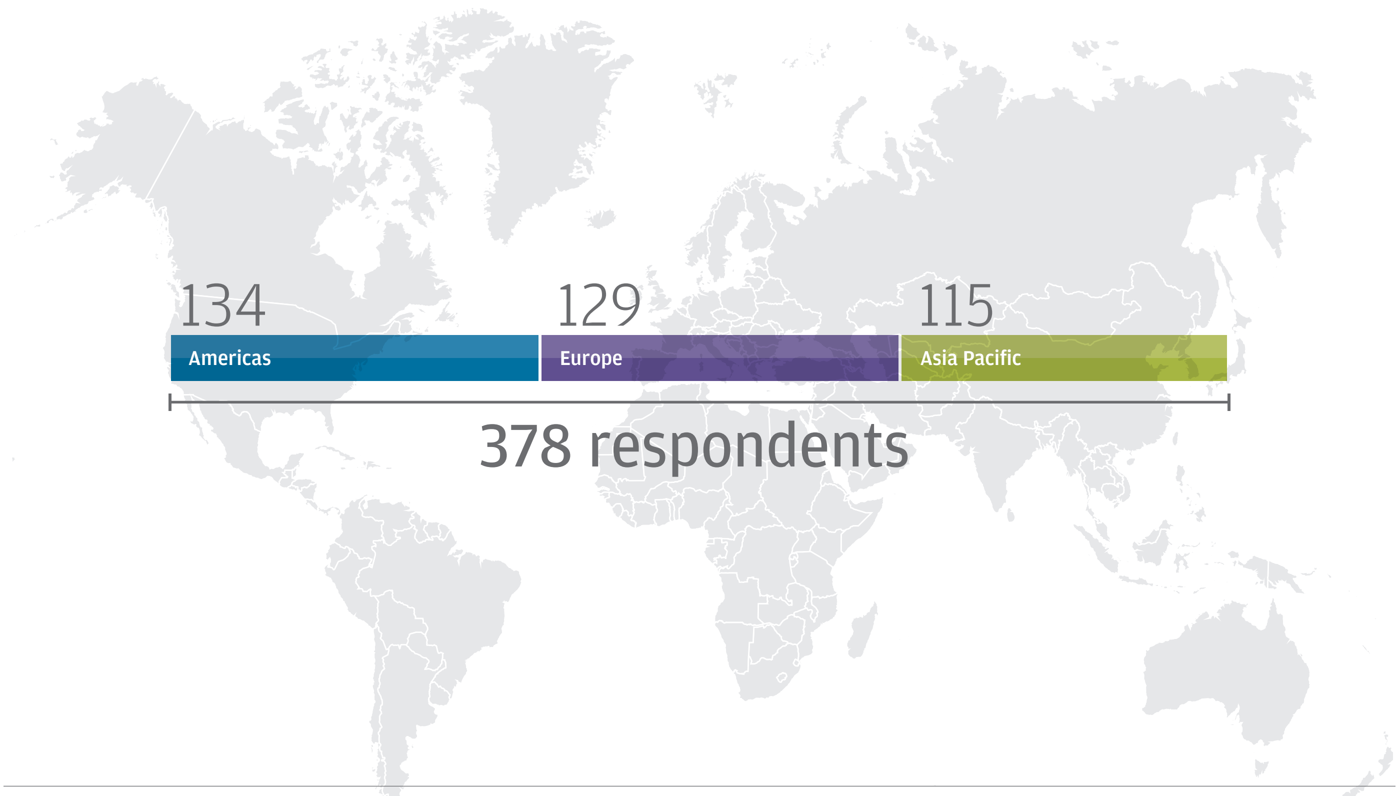
METHODOLOGY

An online survey fielded between January and March 2017, with 378 responses from CIOs, treasurers and other senior cash investment decision-makers around the world, representing an approximate combined cash balance of USD 1.2 trillion.[1]

GEOGRAPHICAL BREAKDOWN

The 2017 survey was truly global in scope, with decision-makers responding on behalf of organizations in a wide range of regions and markets. There was strong participation globally, with each of the three regions representing a third of the respondent population.

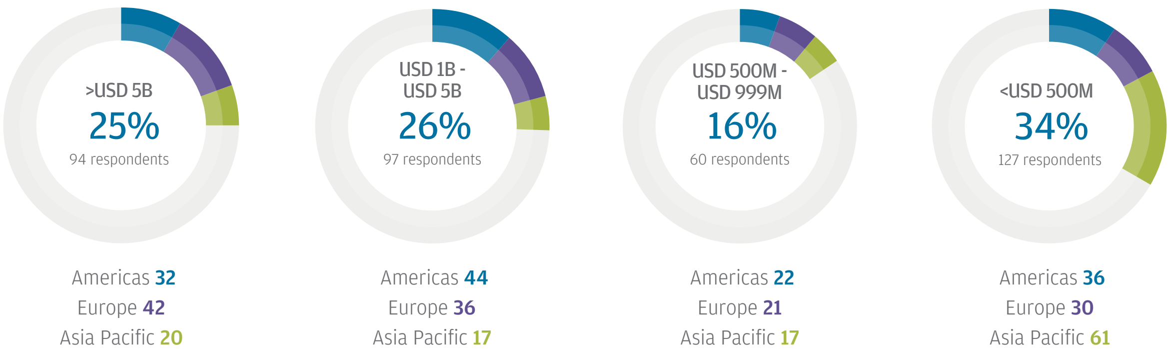
Please note that regional breakdowns throughout this report are based on the locations of the respondents' company headquarters.



[1]Calculated by multiplying the midpoint of the answer range for cash balance by the number of respondents who selected that answer and then summing values.

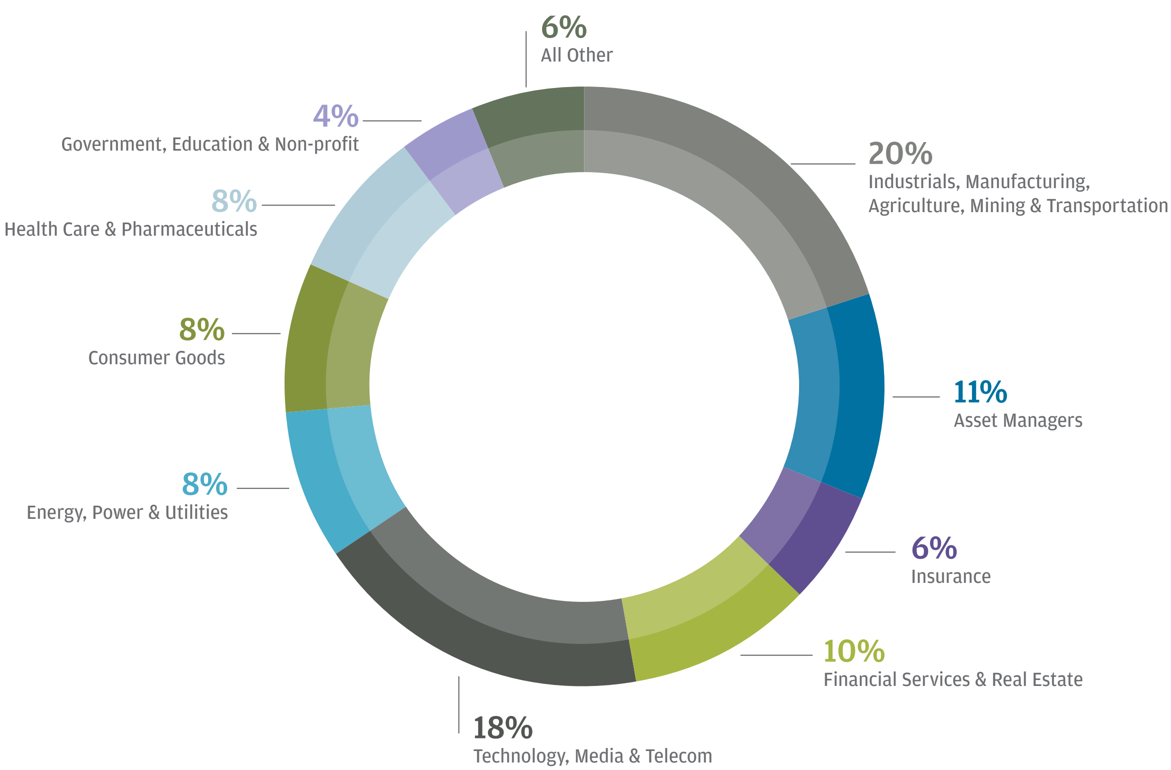
CASH BALANCE

The survey sought to capture the views of liquidity investors from organizations of all sizes, from small regional players to large multinationals. Around 34% of respondents had a cash balance of less than USD 500 million, while 25% had a cash balance of more than USD 5 billion.



INDUSTRY SPREAD

Respondents represented companies and organizations from all sectors of the economy, from industrials and technology to financial services and health care.



Totals do not equal 100% due to rounding.

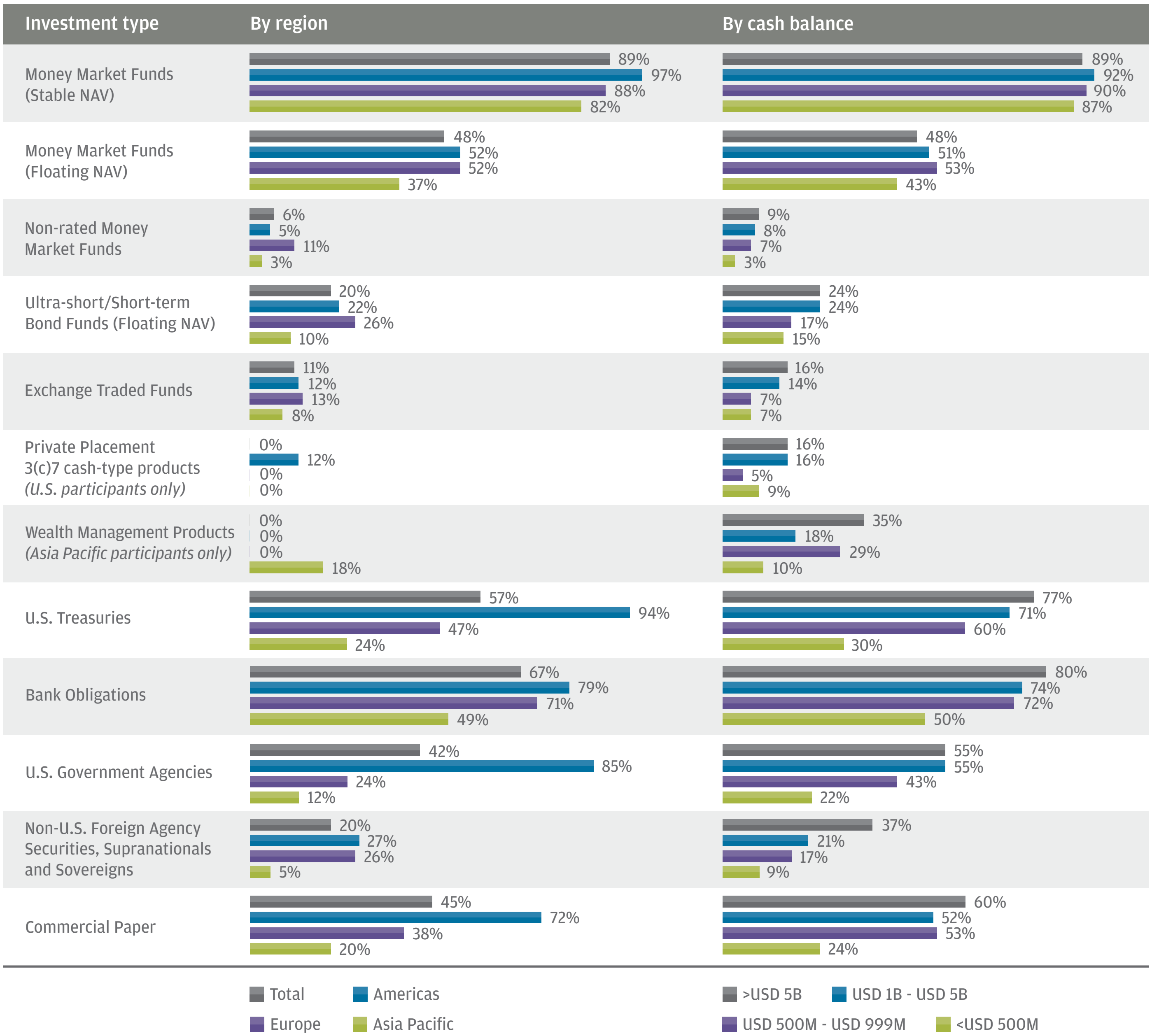
Since our last survey, globally we saw a more than 50% increase in the percentage of investment policies that permit FNAV MMFs, up from 32% to 48%. Historically, Europe had the largest percentage of firms permitting FNAV MMFs, but in the wake of the implementation of U.S. MMF reform in October 2016—new SEC rules require institutional prime and municipal money market funds to float their market-based NAV—52% of Americas respondents permit FNAV MMFs, up 80% from the 2015 survey.

Investment policy: Permissible investments

Stable NAV money market funds continue to be the most permissible investment, followed by bank obligations, U.S. Treasuries, floating NAV MMFs, commercial paper and U.S. government agency securities. Insurance companies tend to allow more investments to be permissible compared with other industries. The vast majority of respondents prefer rated money market funds over non-rated funds, which are permitted by only 6% of survey participants' investment policies.

Q: Which of the following cash investments are permissible under your company's investment policy?

EXHIBIT 1: PERMISSIBLE INVESTMENTS ACROSS PEER GROUPS



With an increase across all three regions, one in five respondents globally permit the usage of ultra-short/short-term bond funds, up 54% from 2015. Over 10% of respondents' policies allow for exchange traded funds (ETFs). Permissibility is most often reported by asset managers (36%) and insurers (48%). Among Asia Pacific participants, most of whom are China-based, the percentage of firms permitting wealth management products has fallen significantly, from 40% in 2015 to 18% in 2017.

Firms with larger cash balances tend to have more flexibility in allowing riskier securities to be permissible. Nearly one-third of firms with USD 5 billion-plus in cash permit asset-backed securities, and almost one-quarter allow mortgage-backed securities. The expanded set of prospective investments provides greater opportunity for diversification.

EXHIBIT 1: PERMISSIBLE INVESTMENTS ACROSS PEER GROUPS *(CONTINUED)*

Investment Type	By region: Total	By region: Americas	By region: Europe	By region: Asia Pacific	By cash balance: >USD 5B	By cash balance: USD 1B - USD 5B	By cash balance: USD 500M - USD 999M	By cash balance: <USD 500M
Asset-backed Commercial Paper	20%	34%	17%	8%	33%	23%	18%	9%
Traditional Repurchase Agreements	29%	42%	25%	19%	49%	33%	23%	14%
Non-traditional Repurchase Agreements	6%	7%	9%	2%	12%	5%	7%	2%
Corporate Debt Securities	28%	46%	22%	13%	47%	28%	28%	13%
Structured Deposits *(Asia Pacific participants only)*	0%	0%	0%	48%	55%	18%	71%	48%
Variable Rate Demand Notes	12%	24%	5%	4%	15%	19%	10%	5%
Floating Rate Notes *(Asia Pacific participants only)*	0%	0%	0%	10%	40%	0%	18%	2%
Asset-backed Securities	18%	35%	9%	8%	31%	21%	15%	8%
Mortgage-backed Securities	12%	21%	9%	5%	24%	16%	5%	3%
Municipal Notes	16%	35%	6%	5%	23%	19%	20%	7%
High Yield Bonds	7%	10%	6%	3%	12%	6%	8%	2%
Emerging Market Debt	7%	9%	5%	6%	14%	6%	7%	2%

Total · Americas · Europe · Asia Pacific

>USD 5B · USD 1B - USD 5B · USD 500M - USD 999M · <USD 500M

Cash flow forecast

More than 70% of respondents can forecast their cash flows out for a month or longer. Just under half can forecast out a quarter or longer. Cash segmentation—categorizing cash by liquidity needs—can enable firms to deploy a range of investment strategies to seize the varied opportunities available in a shifting rate environment.

Q: How far out are you able to accurately forecast cash flows?

EXHIBIT 2: LENGTH OF TIME OUT ABLE TO ACCURATELY FORECAST CASH FLOWS

Length of time	By region				By cash balance			
	Total	Americas	Europe	Asia Pacific	>USD 5B	USD 1B - USD 5B	USD 500M - USD 999M	<USD 500M
Daily	10%	4%	12%	14%	15%	9%	8%	7%
Weekly	16%	7%	19%	24%	23%	12%	12%	17%
Monthly	28%	29%	24%	32%	24%	34%	28%	27%
Quarterly	27%	32%	27%	20%	17%	24%	32%	34%
Semi-annually or longer	19%	28%	18%	10%	20%	21%	20%	16%

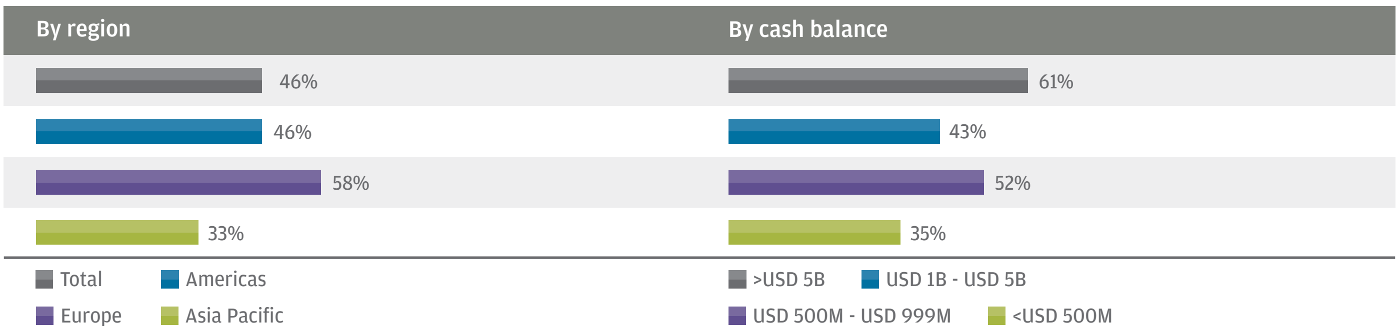
Among the sectors surveyed, insurance companies and government/education/non-profit entities ranked as the sectors able to forecast cash flow out the furthest.

Investment policy: Plans for policy changes and effort required

In an evolving regulatory environment, nearly half (46%) of respondents plan to change their investment policy in the next six to 12 months. That is up from 38% in 2015. Changes to an investment policy may be needed to take advantage of developing market opportunities, but the process takes time and, often, considerable effort. Among respondents considering making policy changes, 82% said it would take a moderate or significant effort.

Q: Has consideration been given to making changes to your investment policy in the next six months to one year given the current regulatory environment? Please indicate the level of effort required to implement changes to your investment policy.

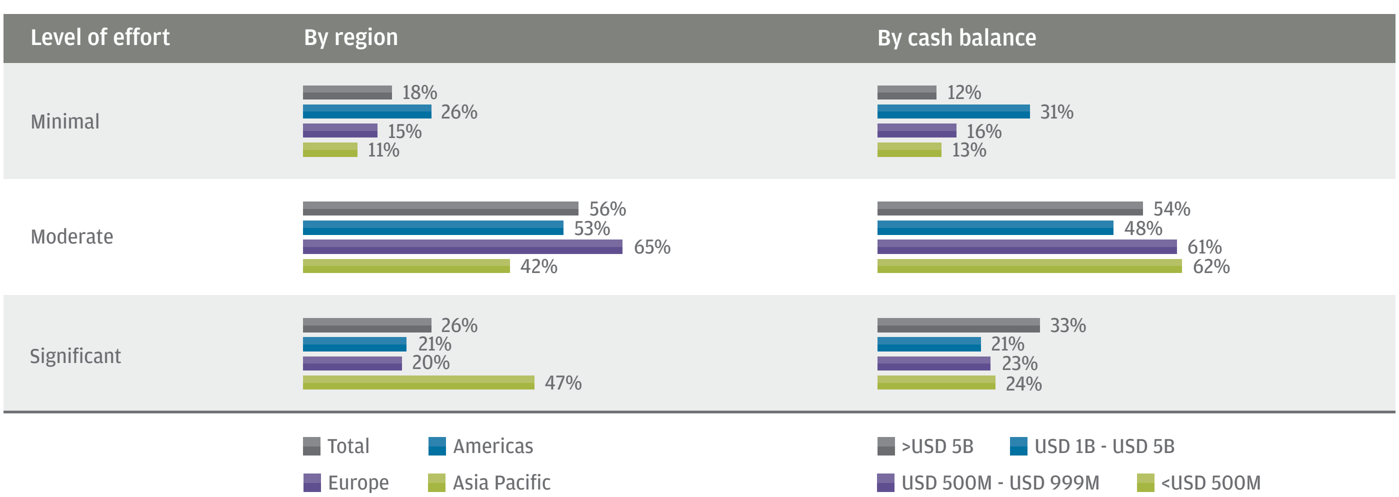
EXHIBIT 3: % RESPONDED YES TO CONSIDERING CHANGES TO INVESTMENT POLICY



More than half of all Europe participants intend to change their investment policies, the highest percentage among all regions, most likely driven by upcoming MMF reform. Only 33% of Asia Pacific participants plan to change their investment policies, which could be reflective of attractive USD bank deposit rates and fewer regulatory pressures in the region in comparison with Europe and the Americas.

Amending policies is significantly more difficult in Asia Pacific, respondents report. Nearly 50% say that a significant effort is required. The process is more demanding for investors with cash balances over USD 5 billion: 87% report that changes would require a moderate or significant effort.

EXHIBIT 4: LEVEL OF EFFORT REQUIRED TO IMPLEMENT CHANGES TO INVESTMENT POLICY



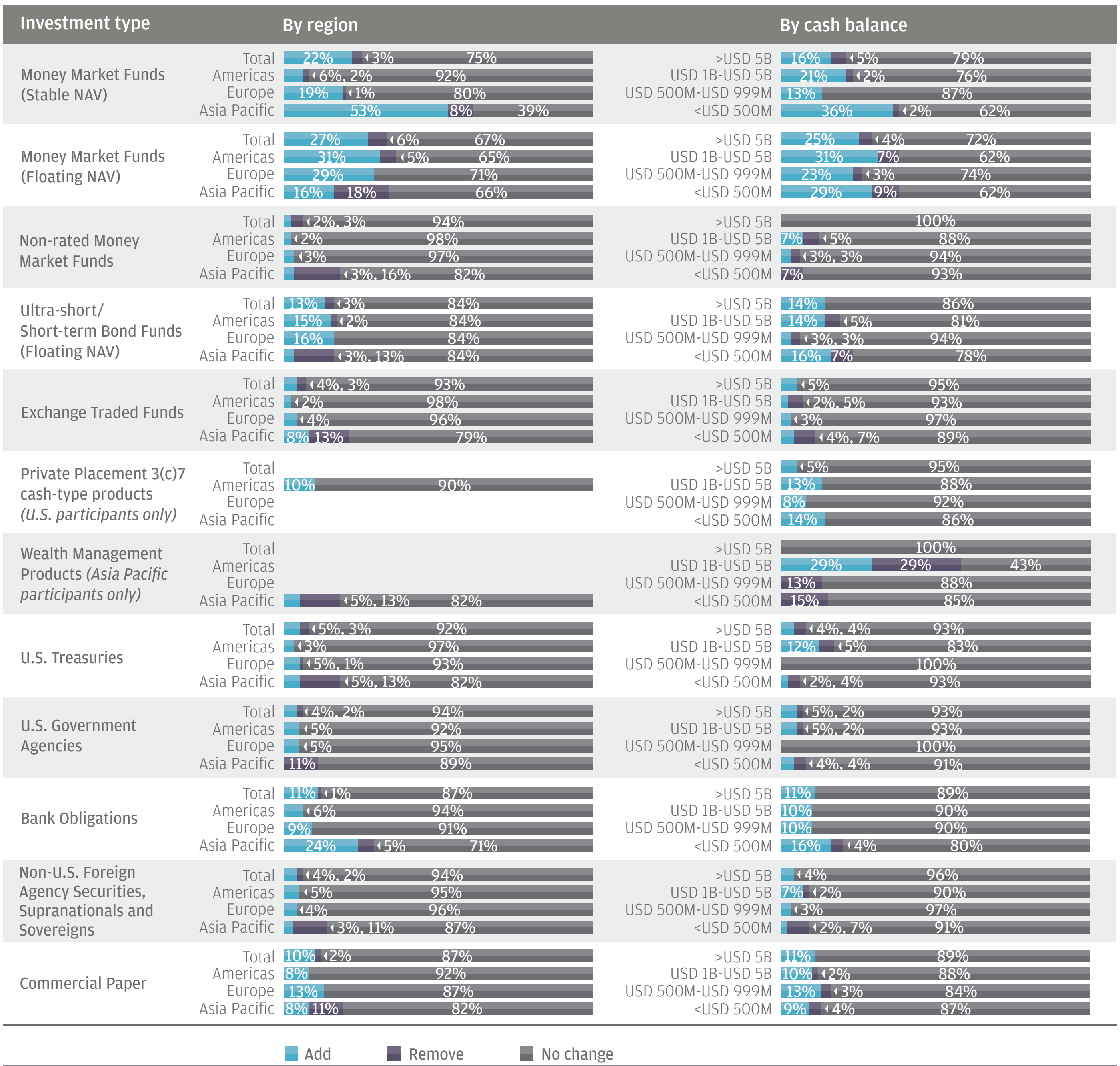
Investment policy: Intended changes

> Our survey finds a growing number of respondents who intend to permit FNAV funds, from 14% of respondents in 2014 to 19% in 2015 and 27% in 2017.

In terms of investment type, intended policy changes are focused on adding stable and floating NAV MMF and ultra-short/short-term bond funds. Asia Pacific firms are significantly more likely to intend to make changes to stable NAV money market funds, non-rated money market funds, exchange traded funds, bank obligations and high yield bonds compared with companies in Europe and the Americas.

Q: Please indicate your intent to add, remove or make no change to the following cash investments from your investment policy.

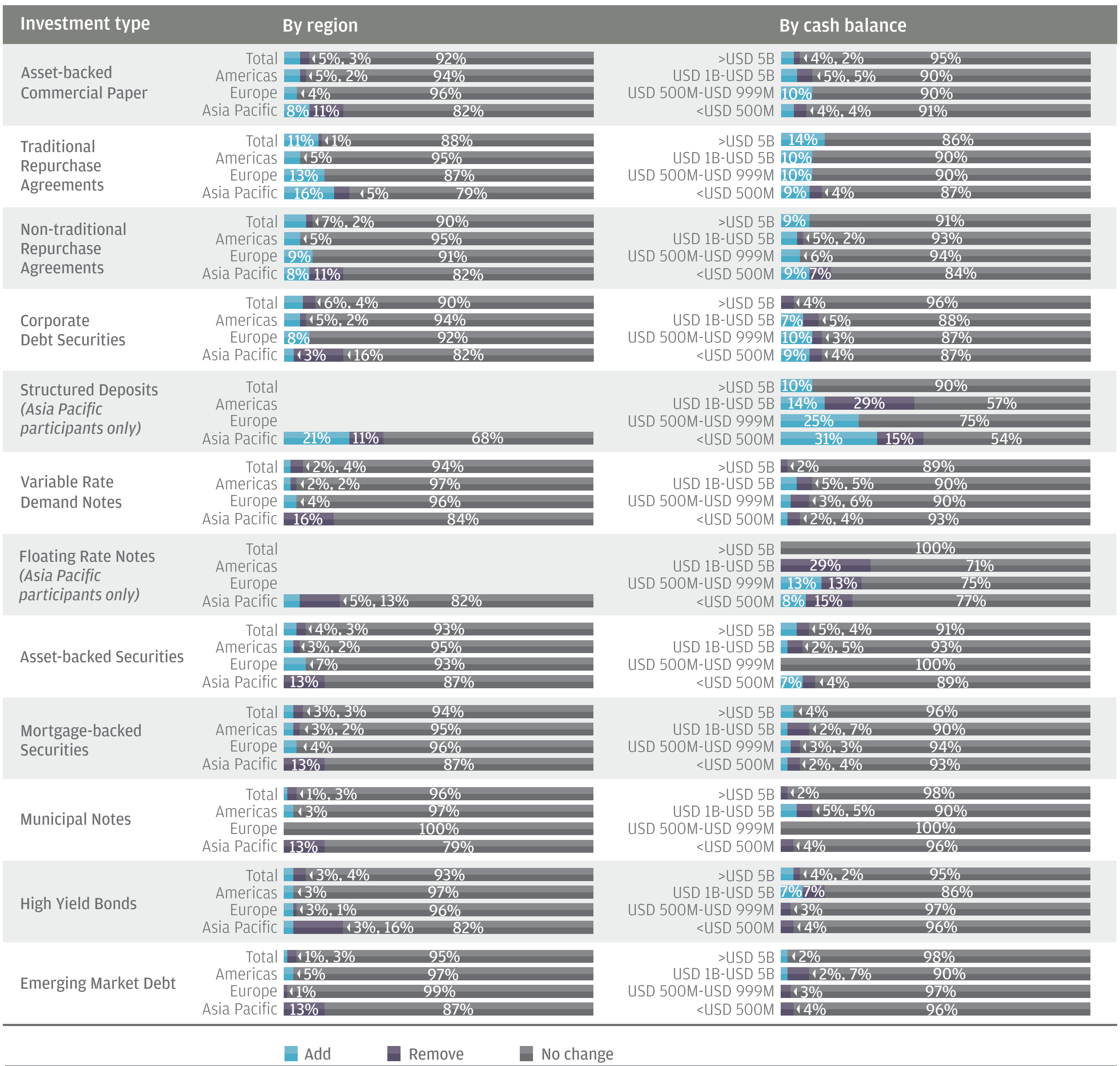
EXHIBIT 5: INTENDED CHANGES TO INVESTMENT POLICY



In Asia Pacific, firms have traditionally used bank deposits. Notably, though, Asia Pacific firms intend to add stable NAV money market funds (53%), bank obligations (24%) and traditional repo (16%) at a higher rate than their Americas and Europe counterparts. This could be a sign of the developments in the China market.

Globally the survey showed a modest increase in the number of firms that intend to add commercial paper, asset-backed securities, traditional/non-traditional repo and corporate debt, suggesting a slight increase in appetite for moderately riskier assets.

EXHIBIT 5: INTENDED CHANGES TO INVESTMENT POLICY *(CONTINUED)*



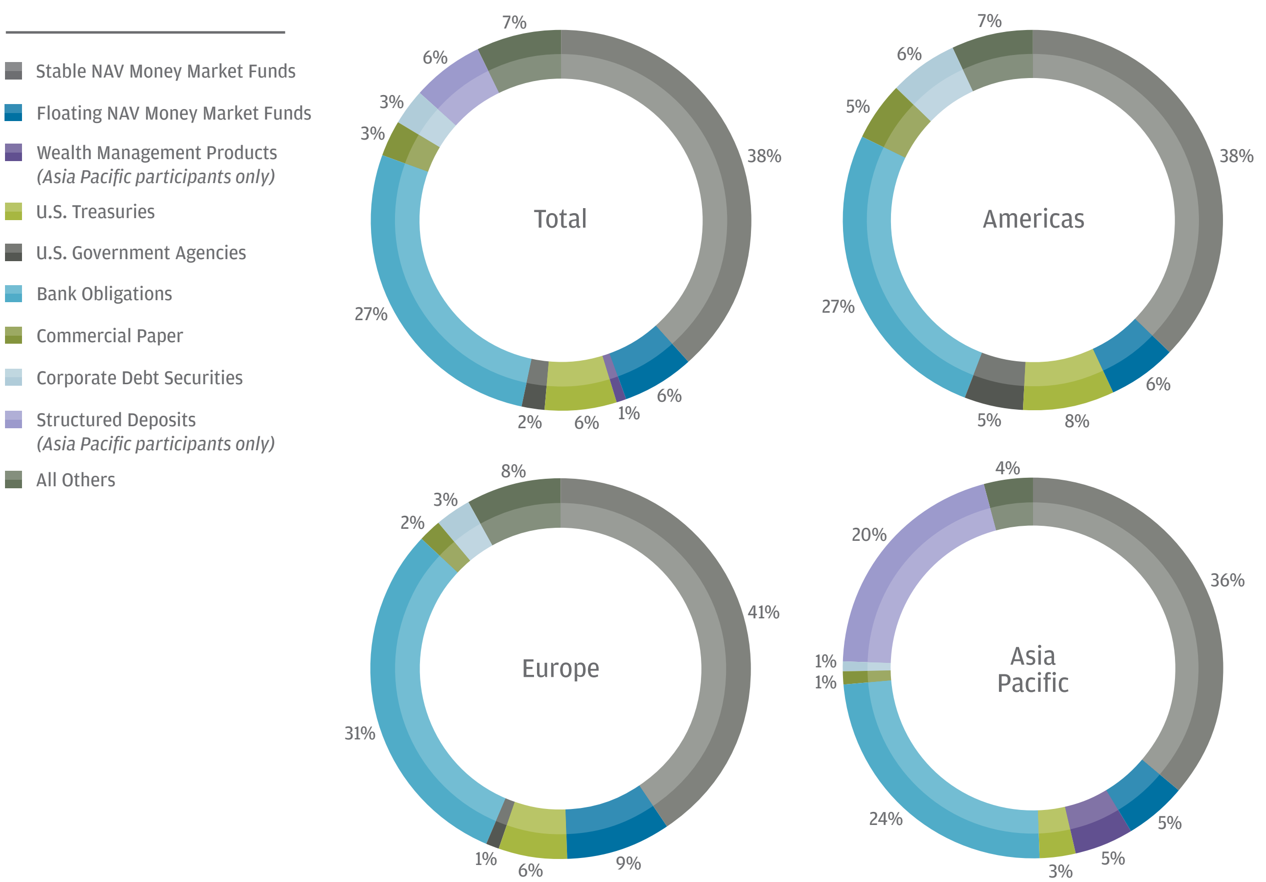
Current allocation

BY REGION

With a 44% allocation to MMFs in 2017 vs. 30% in 2015, liquidity investors demonstrate a continued and substantial commitment to both stable NAV and floating NAV MMFs. The share of cash allocated to bank obligations has fallen significantly, from 47% in 2015 to 27% in 2017.

Q: Approximately what percentage of your cash is invested in each of the following solutions?

EXHIBIT 6: AVERAGE CASH ALLOCATION ACROSS PEER GROUPS*



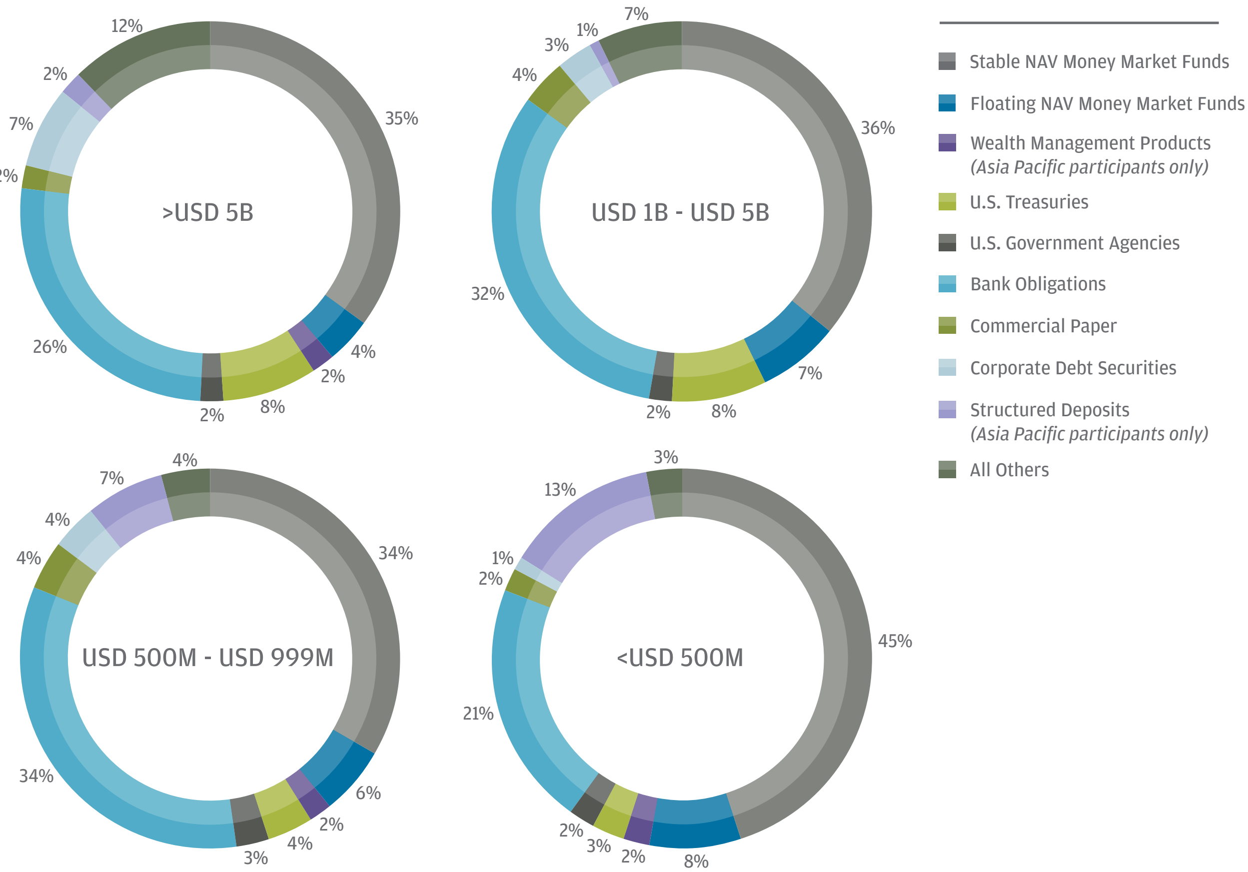
Respondents reported a larger allocation to MMFs than to bank obligations (44% vs. 27%), which likely reflects at least in part a move by banks to drive non-operating deposits off balance sheet to comply with Basel III regulations. The survey showed a 50% global increase in floating NAV allocation since 2015, with a 200% increase among Americas respondents, as new SEC rules require institutional prime and municipal MMFs to float their NAV. Since our 2015 survey, Asia Pacific respondents, primarily China based entities, reduced their allocation to wealth management products (5% in 2017 vs. 12% in 2015) while increasing their allocation to structured deposits (20% in 2017 vs. 9% in 2015).

BY CASH BALANCE

Firms with less than USD 500 million in cash have over half (53%) of their cash invested in money market funds. Peers with assets of USD 5 billion or more have more diversified allocations.

Q: Approximately what percentage of your cash is invested in each of the following solutions?

EXHIBIT 6: AVERAGE CASH ALLOCATION ACROSS PEER GROUPS* *(CONTINUED)*



* Percentages may not total 100% due to rounding.

Likely investment portfolio changes

Overall, most firms plan to stay the course with their allocations based on next year's market outlook, although they are making changes at the margin.

Q: Based on your market outlook and interest rate forecasts for next year, what changes are you likely to make to your investment portfolio?

EXHIBIT 7: LIKELIHOOD OF CHANGES TO INVESTMENT PORTFOLIO BASED ON NEXT YEAR'S MARKET OUTLOOK

Investment type		By region		By cash balance
Money Market Funds (Stable NAV)	Total	22% 14% 64%	>USD 5B	21% 14% 65%
	Americas	13% 13% 73%	USD 1B-USD 5B	22% 21% 58%
	Europe	20% 21% 59%	USD 500M-USD 999M	22% 13% 65%
	Asia Pacific	35% 6% 59%	<USD 500M	24% 9% 68%
Money Market Funds (Floating NAV)	Total	20% 4% 76%	>USD 5B	16% 4% 80%
	Americas	22% 3% 75%	USD 1B-USD 5B	28% 4% 68%
	Europe	24% 5% 71%	USD 500M-USD 999M	25% 2% 73%
	Asia Pacific	13% 6% 81%	<USD 500M	14% 6% 80%
Non-rated Money Market Funds	Total	1%, 3% 95%	>USD 5B	3%, 3% 94%
	Americas	1%, 1% 99%	USD 1B-USD 5B	1%, 4% 95%
	Europe	2%, 2% 97%	USD 500M-USD 999M	3% 97%
	Asia Pacific	1%, 8% 91%	<USD 500M	1%, 3% 96%
Ultra-short/ Short-term Bond Funds (Floating NAV)	Total	6%, 2% 93%	>USD 5B	10% 5% 88%
	Americas	6%, 1% 93%	USD 1B-USD 5B	4%, 1% 95%
	Europe	8%, 1% 91%	USD 500M-USD 999M	8% 3% 88%
	Asia Pacific	3%, 4% 93%	<USD 500M	2%, 2% 96%
Exchange Traded Funds	Total	2%, 2% 96%	>USD 5B	1%, 2% 97%
	Americas	2% 98%	USD 1B-USD 5B	4%, 1% 95%
	Europe	2%, 2% 97%	USD 500M-USD 999M	3% 97%
	Asia Pacific	2%, 5% 93%	<USD 500M	2%, 2% 96%
Private Placement 3(c)7 cash-type products *(U.S. participants only)*	Total		>USD 5B	3% 97%
	Americas	4% 96%	USD 1B-USD 5B	2% 98%
	Europe		USD 500M-USD 999M	5% 95%
	Asia Pacific		<USD 500M	6% 94%
Wealth Management Products *(Asia Pacific participants only)*	Total		>USD 5B	10% 90%
	Americas		USD 1B-USD 5B	12% 88%
	Europe		USD 500M-USD 999M	12% 88%
	Asia Pacific	5%, 3% 91%	<USD 500M	3%, 3% 93%
U.S. Treasuries	Total	9% 3% 88%	>USD 5B	12% 5% 83%
	Americas	11% 2% 87%	USD 1B-USD 5B	13% 2% 85%
	Europe	7% 4% 89%	USD 500M-USD 999M	12% 3% 85%
	Asia Pacific	9% 3% 88%	<USD 500M	2%, 2% 95%
U.S. Government Agencies	Total	4%, 2% 94%	>USD 5B	6%, 2% 91%
	Americas	7%, 2% 91%	USD 1B-USD 5B	5% 95%
	Europe	3%, 1% 96%	USD 500M-USD 999M	7%, 3% 90%
	Asia Pacific	3%, 2% 96%	<USD 500M	1%, 2% 98%
Bank Obligations	Total	15% 12% 73%	>USD 5B	18% 14% 68%
	Americas	13% 12% 75%	USD 1B-USD 5B	18% 10% 90%
	Europe	16% 14% 71%	USD 500M-USD 999M	17% 20% 90%
	Asia Pacific	17% 9% 75%	<USD 500M	10% 4% 80%
Non-U.S. Foreign Agency Securities, Supranationals and Sovereigns	Total	3%, 2% 95%	>USD 5B	5%, 1% 94%
	Americas	3% 97%	USD 1B-USD 5B	5% 95%
	Europe	5%, 1% 95%	USD 500M-USD 999M	3%, 5% 92%
	Asia Pacific	2%, 6% 92%	<USD 500M	3% 97%
Commercial Paper	Total	12% 3% 86%	>USD 5B	17% 2% 81%
	Americas	19% 1% 81%	USD 1B-USD 5B	12% 1% 87%
	Europe	11% 2% 88%	USD 500M-USD 999M	12% 7% 82%
	Asia Pacific	4%, 6% 90%	<USD 500M	7% 2% 91%

Increase | Decrease | Stay the same

Looking to capitalize on the current yield opportunity and anticipating what is likely to be an environment of slowly rising rates, respondents reported a net increase in expected allocations to stable NAV, floating NAV and ultra-short/short-term bond funds. The survey finds that many participants have already amended their investment policies to permit FNAV funds, and many also intend to increase their allocation to FNAV funds.

EXHIBIT 7: LIKELIHOOD OF CHANGES TO INVESTMENT PORTFOLIO BASED ON NEXT YEAR'S MARKET OUTLOOK *(CONTINUED)*

Investment type	By region		By cash balance	
Asset-backed Commercial Paper	Total	3%, 2% 94%	>USD 5B	5%, 2% 93%
	Americas	4%, 1% 95%	USD 1B-USD 5B	2%, 1% 97%
	Europe	4%, 2% 94%	USD 500M-USD 999M	5%, 5% 90%
	Asia Pacific	1%, 4% 95%	<USD 500M	2%, 2% 96%
Traditional Repurchase Agreements	Total	6%, 2% 93%	>USD 5B	12% 2% 86%
	Americas	6% 94%	USD 1B-USD 5B	5%, 2% 93%
	Europe	6%, 3% 91%	USD 500M-USD 999M	5%, 2% 93%
	Asia Pacific	4%, 2% 94%	<USD 500M	2%, 1% 98%
Non-traditional Repurchase Agreements	Total	3%, 2% 96%	>USD 5B	4%, 1% 95%
	Americas	2% 98%	USD 1B-USD 5B	3% 97%
	Europe	5%, 1% 94%	USD 500M-USD 999M	3%, 3% 93%
	Asia Pacific	1%, 4% 95%	<USD 500M	2%, 2% 96%
Corporate Debt Securities	Total	7%, 4% 90%	>USD 5B	11% 6% 83%
	Americas	10%, 3% 87%	USD 1B-USD 5B	6%, 1% 93%
	Europe	6%, 2% 91%	USD 500M-USD 999M	8%, 5% 87%
	Asia Pacific	3%, 6% 90%	<USD 500M	3%, 3% 94%
Structured Deposits *(Asia Pacific participants only)*	Total		>USD 5B	15% 15% 70%
	Americas		USD 1B-USD 5B	12% 88%
	Europe		USD 500M-USD 999M	18% 82%
	Asia Pacific	16% 7% 77%	<USD 500M	16% 8% 75%
Variable Rate Demand Notes	Total	1%, 2% 97%	>USD 5B	1%, 1% 98%
	Americas	2%, 1% 96%	USD 1B-USD 5B	3%, 2% 95%
	Europe	1%, 1% 98%	USD 500M-USD 999M	5% 95%
	Asia Pacific	4% 96%	<USD 500M	2% 98%
Floating Rate Notes *(Asia Pacific participants only)*	Total		>USD 5B	5%, 5% 90%
	Americas		USD 1B-USD 5B	100%
	Europe		USD 500M-USD 999M	6% 94%
	Asia Pacific	1%, 3% 96%	<USD 500M	3% 97%
Asset-backed Securities	Total	2%, 2% 96%	>USD 5B	4%, 2% 94%
	Americas	5% 95%	USD 1B-USD 5B	4%, 1% 95%
	Europe	1%, 2% 97%	USD 500M-USD 999M	2%, 3% 95%
	Asia Pacific	1%, 3% 96%	<USD 500M	2% 98%
Mortgage-backed Securities	Total	2%, 3% 96%	>USD 5B	3%, 5% 91%
	Americas	3%, 2% 95%	USD 1B-USD 5B	3%, 1% 96%
	Europe	2%, 2% 96%	USD 500M-USD 999M	3% 97%
	Asia Pacific	3% 97%	<USD 500M	2% 98%
Municipal Notes	Total	2%, 2% 97%	>USD 5B	1%, 1% 98%
	Americas	3%, 1% 96%	USD 1B-USD 5B	2%, 1% 97%
	Europe	2%, 1% 98%	USD 500M-USD 999M	3%, 3% 93%
	Asia Pacific	3% 97%	<USD 500M	1%, 2% 98%
High Yield Bonds	Total	2%, 3% 96%	>USD 5B	2%, 5% 93%
	Americas	1%, 2% 96%	USD 1B-USD 5B	2%, 2% 96%
	Europe	2%, 3% 95%	USD 500M-USD 999M	2%, 3% 95%
	Asia Pacific	2%, 3% 95%	<USD 500M	1%, 2% 98%
Emerging Market Debt	Total	1%, 2% 97%	>USD 5B	1%, 1% 98%
	Americas	1%, 1% 98%	USD 1B-USD 5B	1%, 2% 97%
	Europe	2% 98%	USD 500M-USD 999M	3%, 3% 93%
	Asia Pacific	3%, 3% 94%	<USD 500M	1%, 2% 98%

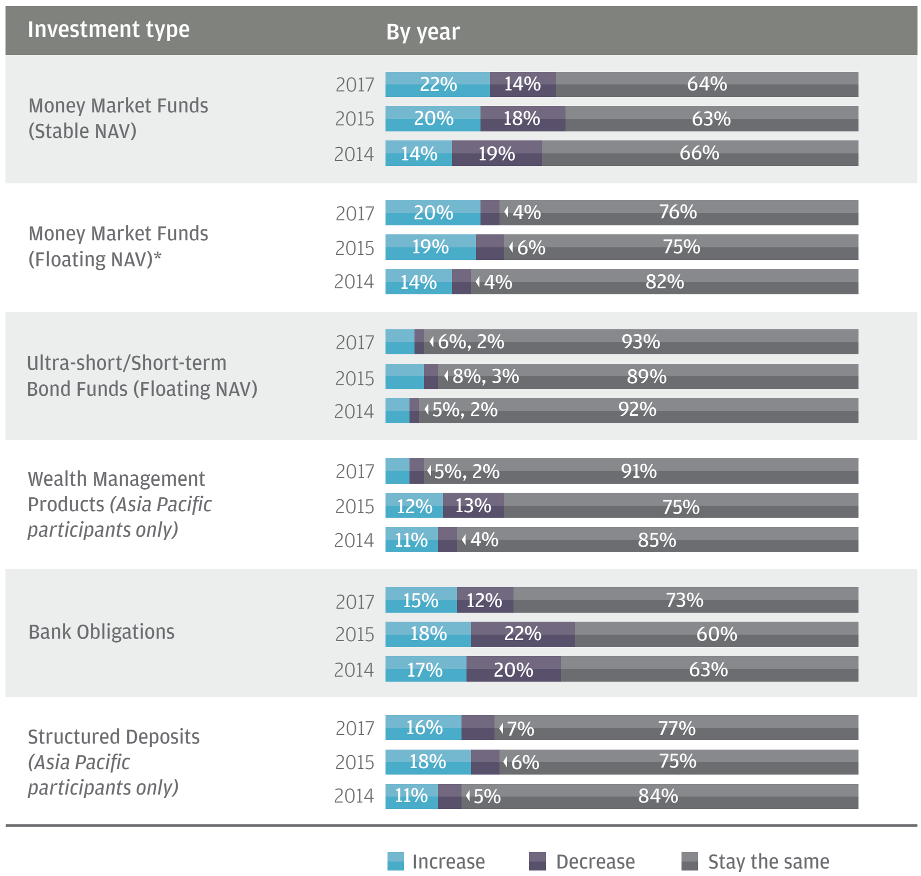
Increase | Decrease | Stay the same

Likely investment portfolio changes: 2014 to 2017

Our results have identified fairly consistent trends over the last few years—a steady increase in the use of MMFs and ultra-short/short-duration bond funds and a decline in the percentage of firms decreasing their use of bank obligations (from 22% in 2015 to 12% in 2017). This suggests that much of the Basel III-induced movement of cash may have already occurred.

Q: Based on your market outlook and interest rate forecasts for next year, what changes are you likely to make to your investment portfolio?

EXHIBIT 8: LIKELIHOOD OF CHANGES TO INVESTMENT PORTFOLIO BASED ON NEXT YEAR'S MARKET OUTLOOK



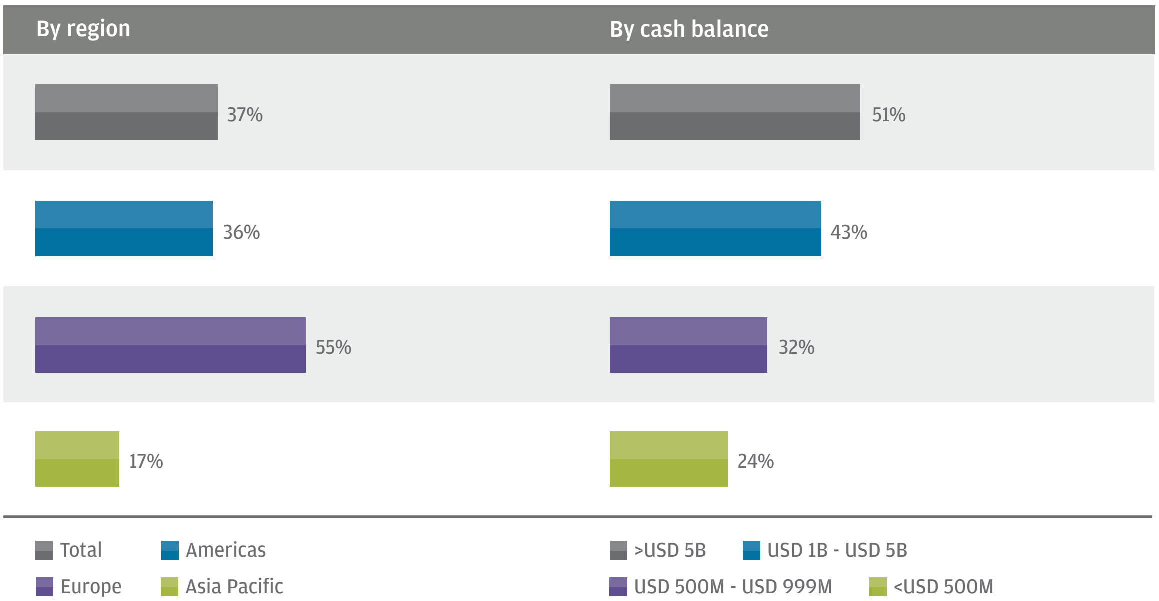
* In 2014, this investment was asked only of European respondents. Beginning in 2015, it was asked of all respondents.

Movement of cash deposits off balance sheet

Survey results show a continued, clear relationship between size of cash balance and industry type on the one hand and a bank's request to move deposits on the other. Sectors reporting the most encouragement are asset managers (60%) and financial services and real estate firms (62%).

Q: Has your bank encouraged you to move cash deposits off of its balance sheet (e.g., earnings credit rate, term deposits, etc.) as a result of Basel III regulations or for any other reason?

EXHIBIT 9: % ENCOURAGED BY BANK TO MOVE CASH DEPOSITS OFF BALANCE SHEET



Regionally, firms in Asia Pacific are the least likely to report that banks have encouraged them to move their deposits (17%). Comparing sectors, government/education/non-profit entities report the least encouragement (12%).

Comparing the 2015 and 2017 surveys, we highlight one notable change: Significantly fewer Americas respondents indicated that their banks had encouraged them to move cash deposits off balance sheet, down from 63% to 36%, while survey participants in Europe report the highest rate of encouragement at 55%, down slightly from 61%. Compared with their Americas and European peers, firms in Asia Pacific are once again less likely to report pressure from banks (at a 17% rate, up from 11% in 2015).

Plans for assets moved off balance sheet

For those respondents encouraged by their banks to move deposits, money market funds are the most popular placement for money being moved off balance sheet (39% of respondents), followed by other banking institutions (21%). Money market funds are a significantly more popular choice for European firms (48%).

Q: Where do you plan to place money that is being moved off balance sheet?

EXHIBIT 10: WHERE PLAN TO PLACE MONEY BEING MOVED OFF BALANCE SHEET

Placement	By region				By cash balance			
	Total	Americas	Europe	Asia Pacific	>USD 5B	USD 1B - USD 5B	USD 500M - USD 999M	<USD 500M
Money Market Funds	39%	34%	48%	36%	44%	41%	32%	39%
Other Banking Institutions	21%	20%	27%	17%	23%	26%	27%	14%
Separately Managed Accounts	9%	15%	8%	3%	18%	8%	7%	3%
Direct Securities	8%	8%	12%	4%	15%	9%	8%	3%
Other	5%	3%	11%	0%	4%	6%	2%	6%
Does not apply	48%	51%	38%	55%	43%	44%	48%	54%

Americas (67%) and the health care/pharmaceuticals and government/education/non-profit entities (38%) are more likely to move money to separately managed accounts (SMAs) vs. other regions and sectors, while those respondents with USD 1 billion or more represented 72% of those who selected SMAs.

Cash placement if bank deposit rates lag other money market instruments

If bank deposit rates lag other money market investments, money market funds are by far the most popular choice for moving cash, selected by nearly two-thirds of respondents. That feedback is consistent across all regions, cash balances and industry types.

Q: If bank deposit rates lag other money market investments, where are you likely to move your cash?

EXHIBIT 11: WHERE LIKELY TO MOVE CASH IF BANK DEPOSIT RATES LAG OTHER MONEY MARKET INVESTMENTS

Placement	By region: Total	Americas	Europe	Asia Pacific	By cash balance: >USD 5B	USD 1B - USD 5B	USD 500M - USD 999M	<USD 500M
Money Market Funds	65%	62%	68%	65%	69%	61%	65%	65%
Other Banking Institutions	19%	13%	21%	23%	18%	21%	23%	16%
Direct Securities	16%	19%	19%	10%	21%	21%	18%	8%
Separately Managed Accounts	14%	21%	13%	7%	22%	10%	18%	9%
Other	5%	5%	7%	2%	5%	6%	3%	4%
Does not apply	17%	19%	14%	19%	17%	16%	15%	20%

New European money market fund structures

There is no clear preference among the four structures for short-term money market fund investments, but more than a third of investors said they need more time and/or information before making a decision (particularly European respondents–44%).

Q: As the new money market fund regulation becomes final in Europe, it appears that investors will have a choice among four structures for their short-term money market fund investments. If presented with these options, which would you choose?

EXHIBIT 12: PREFERRED CHOICE AMONG FOUR STRUCTURES FOR SHORT-TERM MONEY MARKET FUND INVESTMENTS

Structures	By region: Total	By region: Americas	By region: Europe	By region: Asia Pacific	By cash balance: >USD 5B	By cash balance: USD 1B - USD 5B	By cash balance: USD 500M - USD 999M	By cash balance: <USD 500M
Government MMF with a constant NAV, with liquidity-based fee/gating provisions	20%	25%	19%	16%	22%	25%	13%	19%
Government MMF with a variable NAV (VNAV), with no fee/gating provisions	10%	5%	11%	13%	7%	12%	7%	10%
Prime/credit-style low volatility NAV (LVNAV) MMF, with liquidity-based fee/gating provisions	19%	13%	29%	14%	22%	19%	13%	18%
Prime/credit-style variable NAV (VNAV) MMF, with no fee/gating provisions	16%	9%	24%	16%	26%	19%	8%	11%
Seek other investment opportunities outside of money market funds	12%	12%	19%	5%	16%	13%	12%	9%
I need more time and/or information before making a decision	34%	30%	44%	29%	39%	30%	42%	31%
Not applicable	27%	35%	9%	37%	12%	26%	28%	38%

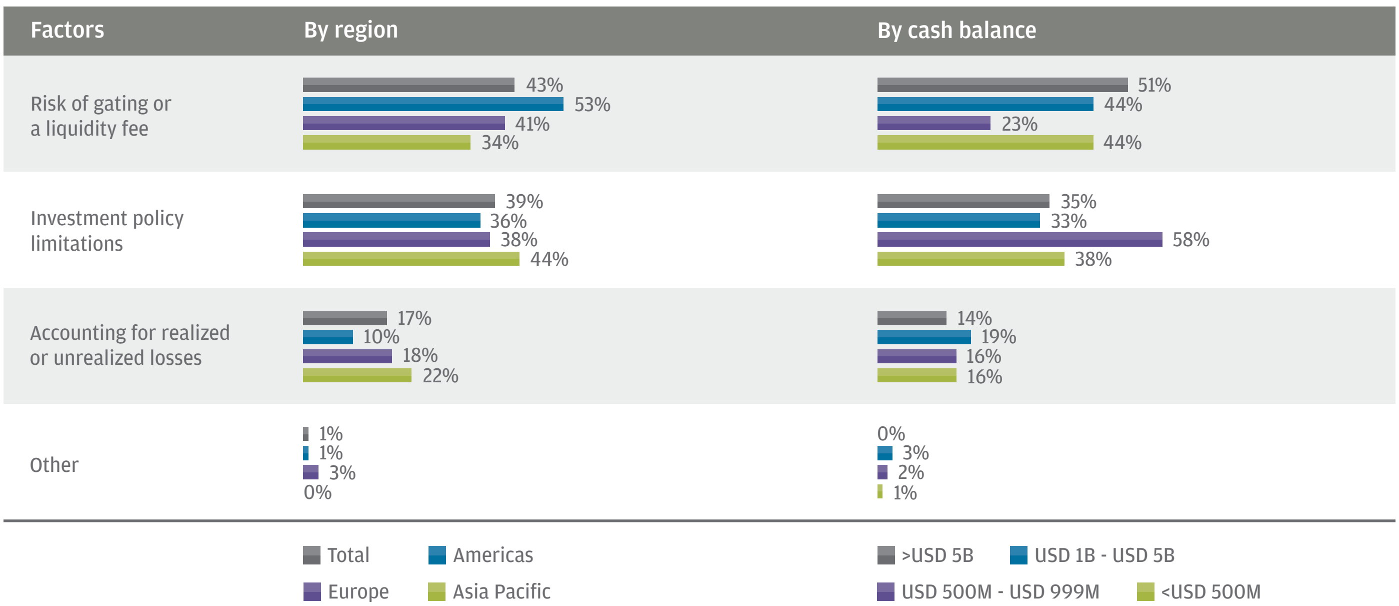
Examining the four structures, European respondents are significantly more likely than their Americas or Asia Pacific peers to prefer a prime/credit-style low volatility NAV money market fund with liquidity-based fee/gating provisions. Among Americas survey participants, the most popular choice (25%) was a government MMF with a constant NAV and liquidity-based fee/gating provisions, while Asia Pacific was split between the two.

Factors impacting new money market fund structures decision-making

Among survey participants who are considering these four new money market fund structures, 43% ranked risk of a liquidity fee/gate as the most important factor in their decision-making. The percentages were highest for asset managers (68%) and insurers (61%). Nearly as many respondents (39%) said investment policy limitations were the most important factor. In Asia Pacific, investment policy limitations ranked as the most popular choice.

Q: Please rank in order of importance the factors that will impact your decision-making process as you consider the four new money market fund structures.

EXHIBIT 13: MOST IMPORTANT FACTOR THAT WILL IMPACT DECISION-MAKING PROCESS REGARDING NEW MONEY MARKET FUND STRUCTURES



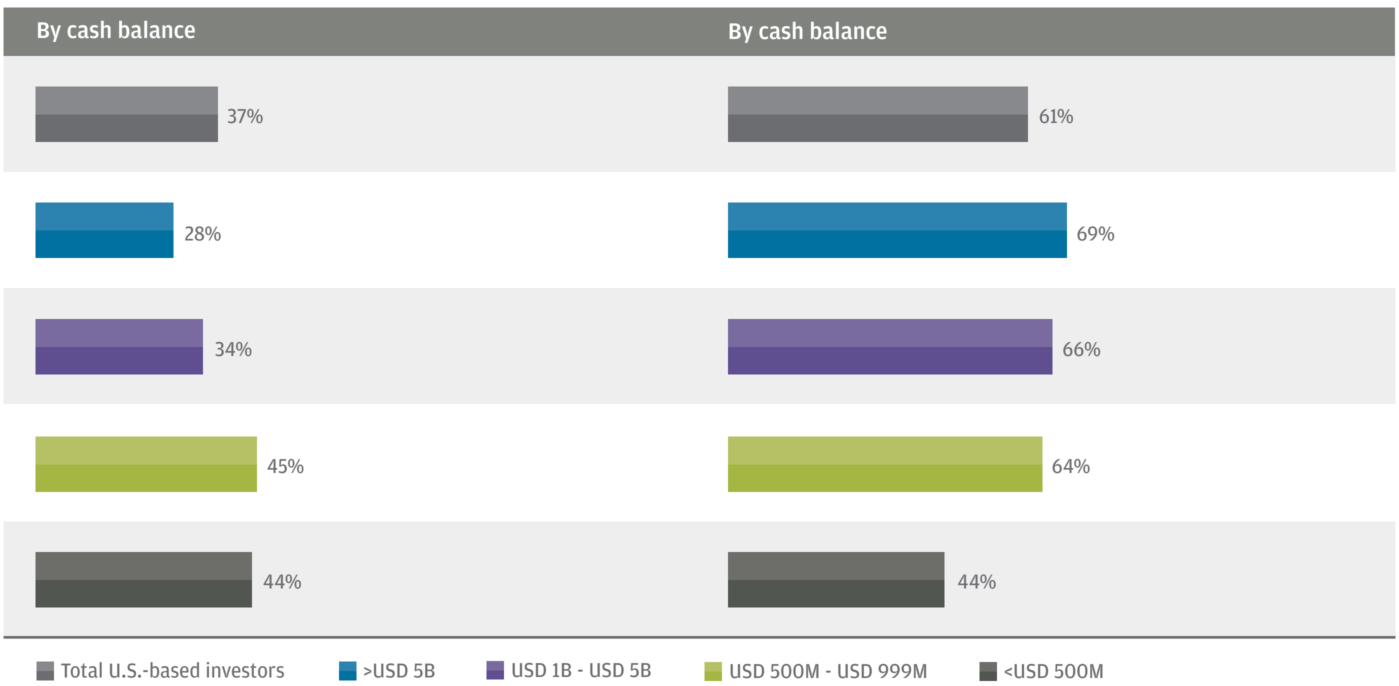
Prime money market fund usage

Only 37% of U.S.-based investors are currently invested in a prime money market fund, down from 63% in 2015. A majority (61%) transitioned assets from a prime MMF to a government MMF because of the SEC Rule 2a-7 changes that went into effect in October 2016. At the time of the 2015 survey, 70% of respondents expected to keep their assets in prime MMFs.

Q: Are you currently invested in a prime money market fund? Did you transition assets from a prime money market fund to a government money market fund or other vehicles due to the SEC Rule 2a-7 changes effective October 14, 2016?

EXHIBIT 14: % CURRENTLY INVESTED IN A PRIME MONEY MARKET FUND

% WHO TRANSITIONED ASSETS FROM A PRIME MMF TO A GOVERNMENT MMF DUE TO SEC RULE 2A-7 CHANGES



Question was asked only of U.S.-based respondents.

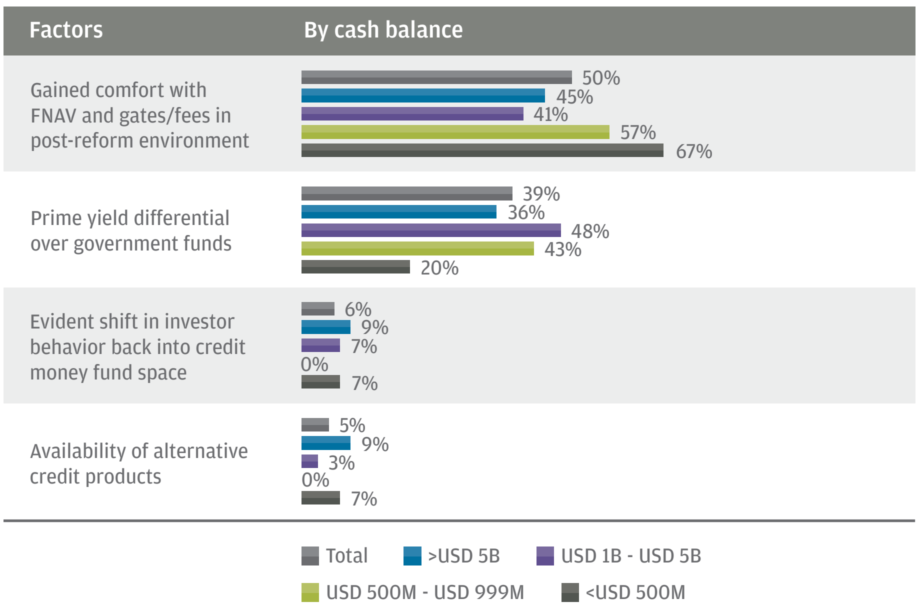
U.S. MMF reform has had a bigger than expected impact on the relative size of the two main MMF sectors, prime and government MMFs. Although the industry expected USD 550 billion to USD 800 billion in assets to move from prime to government MMFs between the announcement of reform in 2014 and its implementation in October 2016, the actual total was about USD 1 trillion in assets. But there are early signs that assets are beginning to return to prime funds as investors become more comfortable with the new rules and yield differentials between government and prime MMFs become more compelling.

Factors impacting decision to move assets back into prime funds

When those U.S.-based investors who transitioned assets from a prime MMF (floating NAV, fees/gates) to a government MMF (stable NAV, no fees/gates) were asked to rank the importance of factors that would impact their decision to move assets back into prime funds, 50% cited comfort level with FNAV and gates/fees as the most important consideration.

Q: Please rank in order of importance the factors that would impact your decision to move assets back into prime funds.

EXHIBIT 15: MOST IMPORTANT FACTOR THAT WILL IMPACT DECISION TO MOVE ASSETS BACK INTO PRIME FUNDS



Question was asked only of U.S.-based respondents.

As measured by cash balance, only one group, investors with between USD 1 billion and USD 5 billion in cash, ranked the yield differential between prime and government MMFs as the most important factor in driving their decision-making.

Minimum excess yield required to consider investing in prime MMF

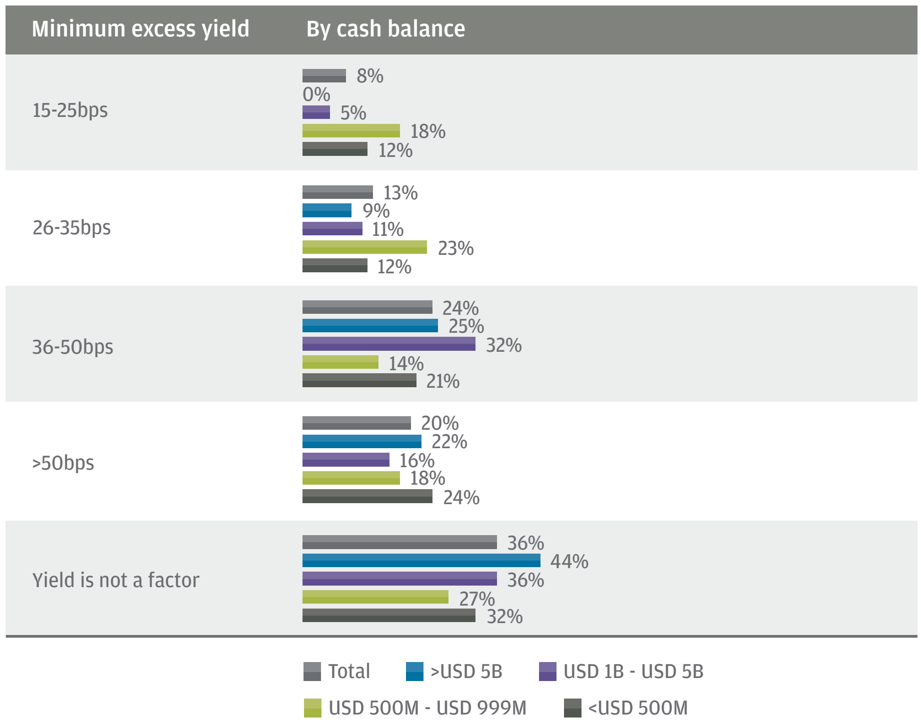
When U.S.-based investors were asked how much excess yield a prime MMF would have to pay before they would consider investing in one, 36% of participants in the 2017 survey said that yield would not be a factor in their decision-making. That is down significantly from 2015, when over 54% said excess yield would not be a factor.

Nearly half of respondents would find an excess yield of between 15 basis points (bps) and 50bps to be a compelling factor.

The yield differential between prime and government MMFs is becoming more of a factor in decision-making.

Q: How much excess yield must a prime MMF (with a floating NAV and gates/fees) pay over a government MMF (stable NAV and no gates/fees) before you would consider investing in a prime MMF?

EXHIBIT 16: MINIMUM EXCESS YIELD A PRIME MMF MUST PAY OVER A GOVERNMENT MMF BEFORE WOULD CONSIDER INVESTING



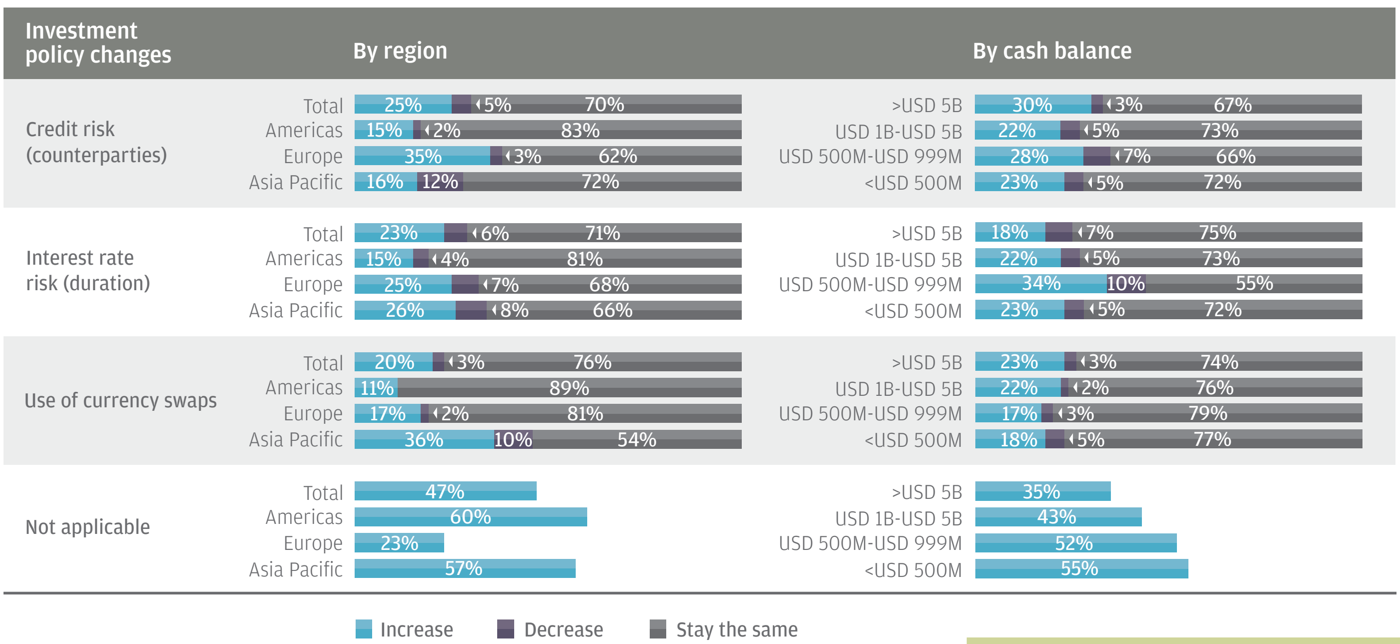
Question was asked only of U.S.-based respondents.

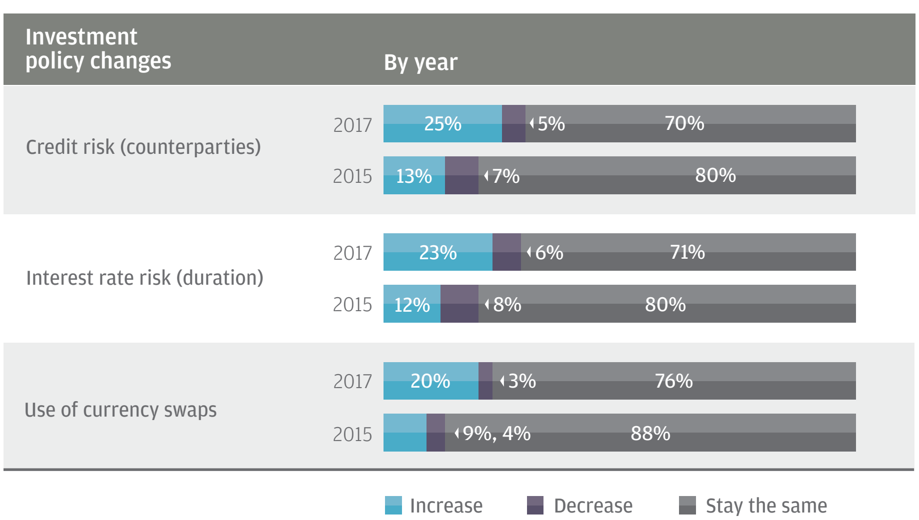
Negative interest rates: Investment policy change

Since our last survey was conducted, in 2015, most respondents have not revised their investment policies in order to mitigate the impact of negative interest rates on euro- and/or sterling-denominated investments. However, there were some changes of note: 35% of European respondents, and 30% of companies with USD 5 billion-plus in cash assets, changed their policies to allow increased credit risk. The survey reports significant increases overall in credit risk, interest rate risk and the use of currency swaps since 2015.

Q: How has your investment policy changed to mitigate the impact of negative interest rates on euro- and/or sterling-denominated investments across the following items?

EXHIBIT 17: CHANGES IN INVESTMENT POLICY TO MITIGATE THE IMPACT OF NEGATIVE INTEREST RATES ON EURO- AND/OR STERLING-DENOMINATED INVESTMENTS





Among other noteworthy trends: More than one-third of Asia Pacific respondents increased their use of currency swaps. Firms with cash balances between USD 500 million and USD 999 million reported an increase in duration. From an industry perspective, asset managers, insurers, energy, government/education/non-profits have made the most investment policy changes across the three categories.

Negative interest rates: Solutions to mitigate exposure

Respondents are not standing still as they face the impact of negative interest rates on euro- and/or sterling-denominated investments. Among the investment solutions that are being utilized or considered, term deposits are the most popular selection (44%). Both ultra-short/short-term bond funds and SMAs were cited by more respondents when compared with the 2015 survey.

Q: What investment solutions are you utilizing or considering in order to avoid the impact of negative interest rates on euro- and/or sterling-denominated investments?

EXHIBIT 18: INVESTMENTS USING OR CONSIDERING TO AVOID THE IMPACT OF NEGATIVE INTEREST RATES ON EURO- AND/OR STERLING-DENOMINATED INVESTMENTS

Investment solutions	By region				By cash balance			
	Total	Americas	Europe	Asia Pacific	>USD 5B	USD 1B - USD 5B	USD 500M - USD 999M	<USD 500M
Term Deposits	44%	40%	48%	38%	41%	45%	48%	42%
Earnings Credit Rate	20%	38%	12%	16%	20%	18%	17%	23%
Ultra-short/Short-term Bond Funds	19%	4%	18%	38%	15%	13%	17%	32%
Term Repurchase Agreements	15%	2%	19%	22%	16%	13%	14%	18%
Separately Managed Accounts	15%	11%	17%	14%	23%	7%	10%	16%
Non-traditional Repurchase Agreements	5%	0%	8%	4%	10%	4%	0%	4%
Other	18%	23%	20%	8%	16%	25%	21%	11%
Not applicable/do not have any euro- and/or sterling-denominated investments	14%	17%	15%	10%	18%	16%	10%	11%

Nearly 40% of Asia Pacific respondents selected ultra-short/short-term bond funds as a solution to negative rates on euro- and/or sterling-denominated investments.

Repatriated assets: Decision-making factors

General corporate purposes ranked as the top factor influencing a decision to repatriate assets, by both region and cash balance. Among companies with a cash balance of less than USD 500 million, 39% cited general corporate purposes as the most important factor, the same percentage as the other three factors combined.

Q: Please rank in order of importance the factors that would drive your decision to repatriate short-term assets.

EXHIBIT 19: MOST IMPORTANT FACTOR IN DECISION TO REPATRIATE SHORT-TERM ASSETS

Factors	By region: Total	By region: Americas	By region: Europe	By region: Asia Pacific	By cash balance: >USD 5B	By cash balance: USD 1B - USD 5B	By cash balance: USD 500M - USD 999M	By cash balance: <USD 500M
General corporate purposes	29%	13%	40%	33%	23%	26%	20%	39%
Changes to tax policy in home country	15%	35%	3%	4%	23%	21%	7%	8%
Corporate finance activity	14%	13%	7%	23%	12%	8%	23%	16%
Currency exposure	13%	5%	14%	22%	13%	12%	12%	15%
Other	3%	1%	5%	3%	5%	1%	2%	2%
Does not apply	27%	32%	31%	16%	23%	32%	37%	20%

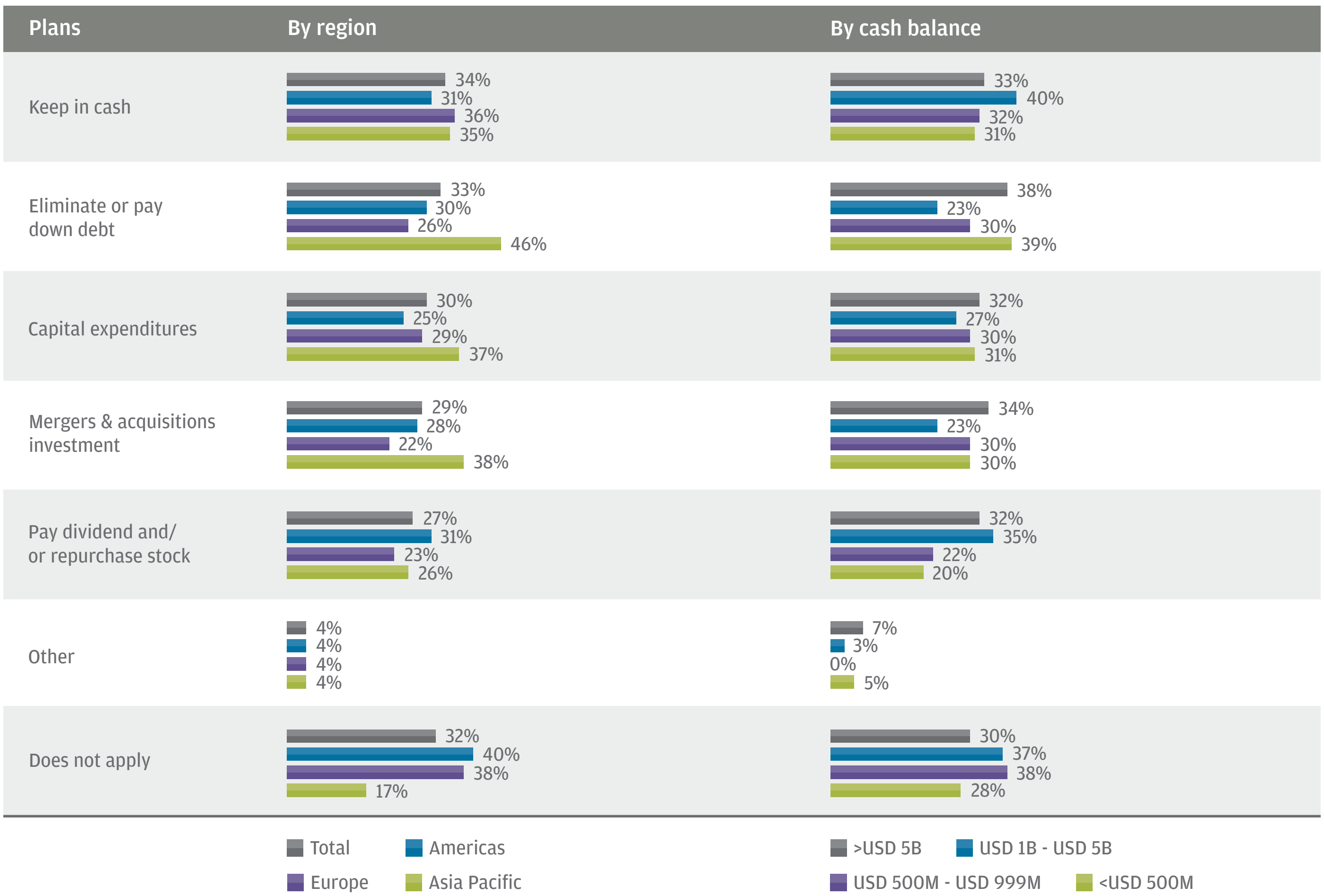
The prospect of potential changes in U.S. tax policy attracted keen interest among U.S. multinationals, although the details and timing of any policy changes are as yet unknown. Among Americas respondents, 35% indicated that changes to tax policy would impact their decision to repatriate assets. Respondents with larger cash balances (44% above USD 1 billion) and firms in the consumer goods (32%) and pharmaceuticals sector (31%) also identified tax considerations as an important factor.

Repatriated assets: Plans to employ

We could see money in motion in the coming quarters and years. Employment of repatriated assets was fairly evenly split among the primary choices for repatriated assets (keep in cash, eliminate or pay down debt, capital expenditures, M&A investment, pay dividend and/or repurchase stock), both regionally and by cash balance.

Q: How do you plan to employ repatriated assets?

EXHIBIT 20: HOW PLAN TO EMPLOY REPATRIATED ASSETS



The majority of respondents plan to either keep repatriated assets in cash or eliminate or pay down debt. Tech/media/telecom (43%), energy/power/utilities (39%), health care/pharmaceuticals (34%) and Asia Pacific companies (46%) are more likely to employ repatriated assets by eliminating or paying down debt. If U.S. tax policy does change, rules governing how the repatriated assets can be deployed will likely have a significant impact on corporate decision-making. If new regulations constrain usage to capex, companies may decide to keep the repatriated funds in cash over the near term.

Investment policy:
Minimum short-term credit rating

The minimum required credit ratings are mostly conservative at A-1/P-1/F1 for short-term securities, which is unchanged from 2015.

Q: For each of these cash investments, what is the minimum short-term credit rating required under your investment policy?

EXHIBIT 21: MEDIAN MINIMUM SHORT-TERM REQUIRED CREDIT RATING ACROSS PEER GROUPS*

Investment type	By region					By cash balance				
	A-1+/P-1/ F1+	A-1/P-1/ F1	A-2/P-2/ F2	Less than or equal to A-3/P-3/ F3	Not Rated	A-1+/P-1/ F1+	A-1/P-1/ F1	A-2/P-2/ F2	Less than or equal to A-3/P-3/ F3	Not Rated
Commercial Paper		● Total ● Americas ● Europe ● Asia Pacific					● >USD 5B ● USD 1B – USD5B ● USD 500M – USD 999M ● <USD 500M			
Bank Obligations		● Total ● Americas ● Europe ● Asia Pacific					● >USD 5B ● USD 1B – USD5B ● USD 500M – USD 999M ● <USD 500M			
Structured Deposits *(Asia Pacific participants only)*		● Asia Pacific					● USD 1B – USD5B ● USD 500M – USD 999M ● <USD 500M	● >USD 5B		
Variable Rate Demand Notes		● Total ● Americas ● Europe ● Asia Pacific					● >USD 5B ● USD 1B – USD5B ● USD 500M – USD 999M ● <USD 500M			
Floating Rate Notes *(Asia Pacific participants only)*		● Asia Pacific					● USD 1B – USD5B ● <USD 500M	● >USD 5B		
Asset-backed Commercial Paper										

● Total ● Americas ● Europe ● Asia Pacific

● >USD 5B ● USD 1B – USD5B ● USD 500M – USD 999M ● <USD 500M

*Please note that not all of the companies are using each type of investment. As such, the credit rating shown for each investment represents the median credit rating among companies that are using that investment.

Our results indicate that Asia Pacific investors are more willing to accept lower rated bank obligations and floating rate notes, but it's important to note that BBB banks are a substantial portion of their investible universe.

Investment policy: Minimum credit rating

Firms with larger cash balances tend to be more comfortable with higher credit risk exposure. These firms are more likely to segment their cash and invest reserve and strategic cash further out the credit spectrum.

Q: For each of these cash investments, what is the minimum credit rating required under your investment policy?

EXHIBIT 22: MEDIAN MINIMUM REQUIRED CREDIT RATING ACROSS PEER GROUPS *(CONTINUED)**

Investment type	By region						
	AAA Aaa/ AAA	AA+, Aa1, AA+/ AA, Aa2, AA/ AA-, Aa3, AA-	A+, A1, A+/ A, A2, A/A-, A3, A-	BBB+, BBB/ Baa1, Baa2/ BBB+, BBB	BBB-, Baa3	Less than BBB-/Baa3/ BBB-	Not rated
Money Market Funds (Stable NAV)	Total, Americas, Europe, Asia Pacific						
Money Market Funds (Floating NAV)	Total, Americas, Europe	Asia Pacific					
Non-rated Money Market Funds			Total, Europe		Americas		Asia Pacific
Ultra-short/Short-term Bond Funds (Floating NAV)		Total, Europe, Asia Pacific	Americas				
Exchange Traded Funds			Total, Americas, Europe, Asia Pacific				
Private Placement 3(c)7 cash-type products *(U.S. participants only)*			Americas				
Wealth Management Products *(Asia Pacific participants only)*			Asia Pacific				
U.S. Treasuries		Total, Americas, Europe	Asia Pacific				
U.S. Government Agencies		Total, Americas, Europe		Asia Pacific			
Bank Obligations			Total, Americas, Europe, Asia Pacific				
Non-U.S. Foreign Agency Securities, Supranationals and Sovereigns			Total, Americas, Europe	Asia Pacific			

● Total ● Americas ● Europe ● Asia Pacific

* Please note that not all of the companies are using each type of investment. As such, the credit rating shown for each investment represents the median credit rating among companies that are using that investment.

Firms in Europe, especially, tend to have more flexibility in credit ratings given low/negative interest rates. They are looking for yield and willing to go down in quality profile.

In general, Asia Pacific firms put less emphasis on money fund ratings, as the vast majority of money funds domiciled in China are unrated.

EXHIBIT 22: MEDIAN MINIMUM REQUIRED CREDIT RATING ACROSS PEER GROUPS *(CONTINUED)**

Investment type	By cash balance						
	AAA Aaa/ AAA	AA+, Aa1, AA+/ AA, Aa2, AA/ AA-, Aa3, AA-	A+, A1, A+/ A, A2, A/A-, A3, A-	BBB+, BBB/ Baa1, Baa2/ BBB+, BBB	BBB-, Baa3	Less than BBB-/Baa3/ BBB-	Not rated
Money Market Funds (Stable NAV)	>USD 5B, USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M						
Money Market Funds (Floating NAV)	>USD 5B, USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M						
Non-rated Money Market Funds			>USD 5B	USD 1B – USD 5B, USD 500M – USD 999M		<USD 500M	
Ultra-short/Short-term Bond Funds (Floating NAV)		>USD 5B, USD 1B – USD 5B	USD 500M – USD 999M, <USD 500M				
Exchange Traded Funds			>USD 5B, USD 1B – USD 5B, <USD 500M	USD 500M – USD 999M			
Private Placement 3(c)7 cash-type products *(U.S. participants only)*	USD 500M – USD 999M	>USD 5B, <USD 500M	USD 1B – USD 5B				
Wealth Management Products *(Asia Pacific participants only)*		>USD 5B	USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M				
U.S. Treasuries		>USD 5B, USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M					
U.S. Government Agencies		>USD 5B, USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M					
Bank Obligations			>USD 5B, USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M				
Non-U.S. Foreign Agency Securities, Supranationals and Sovereigns			>USD 5B, USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M				

>USD 5B   USD 1B – USD 5B   USD 500M – USD 999M   <USD 500M

* Please note that not all of the companies are using each type of investment. As such, the credit rating shown for each investment represents the median credit rating among companies that are using that investment.

Investment Policy:
Minimum Credit Rating (continued)

Q: For each of these cash investments, what is the minimum credit rating required under your investment policy?

EXHIBIT 22: MEDIAN MINIMUM REQUIRED CREDIT RATING ACROSS PEER GROUPS *(CONTINUED)**

Investment type	By region						
	AAA Aaa/ AAA	AA+, Aa1, AA+/ AA, Aa2, AA/ AA-, Aa3, AA-	A+, A1, A+/ A, A2, A/A-, A3, A-	BBB+, BBB/ Baa1, Baa2/ BBB+, BBB	BBB-, Baa3	Less than BBB-/Baa3/ BBB-	Not rated
Traditional Repurchase Agreements			● Total ● Americas ● Europe ● Asia Pacific				
Non-traditional Repurchase Agreements			● Total ● Americas ● Europe	● Asia Pacific			
Corporate Debt Securities			● Americas	● Total ● Europe ● Asia Pacific			
Structured Deposits *(Asia Pacific participants only)*			● Asia Pacific				
Variable Rate Demand Notes			● Total ● Americas	● Europe ● Asia Pacific			
Floating Rate Notes *(Asia Pacific participants only)*				● Asia Pacific			
Asset-backed Securities			● Total ● Europe	● Asia Pacific			
Mortgage-backed Securities		● Americas	● Total ● Europe	● Asia Pacific			
Municipal Notes		● Americas	● Total ● Americas ● Europe	● Asia Pacific			
High Yield Bonds				● Asia Pacific		● Total ● Americas ● Europe	
Emerging Market Debt				● Asia Pacific	● Total ● Americas	● Europe	

● Total ● Americas ● Europe ● Asia Pacific

* Please note that not all of the companies are using each type of investment. As such, the credit rating shown for each investment represents the median credit rating among companies that are using that investment.

EXHIBIT 22: MEDIAN MINIMUM REQUIRED CREDIT RATING ACROSS PEER GROUPS *(CONTINUED)**

Investment type	By cash balance						
	AAA Aaa/ AAA	AA+, Aa1, AA+/ AA, Aa2, AA/ AA-, Aa3, AA-	A+, A1, A+/ A, A2, A/A-, A3, A-	BBB+, BBB/ Baa1, Baa2/ BBB+, BBB	BBB-, Baa3	Less than BBB-/Baa3/ BBB-	Not rated
Traditional Repurchase Agreements		● USD 500M – USD 999M	● >USD 5B ● USD 1B – USD 5B ● <USD 500M				
Non-traditional Repurchase Agreements			● >USD 5B ● USD 1B – USD 5B	● USD 500M – USD 999M			
Corporate Debt Securities			● <USD 500M	● >USD 5B ● USD 1B – USD 5B ● USD 500M – USD 999M			
Structured Deposits *(Asia Pacific participants only)*		● <USD 500M	● >USD 5B ● USD 500M – USD 999M	● USD 1B – USD 5B			
Variable Rate Demand Notes			● >USD 5B ● USD 1B – USD 5B ● USD 500M – USD 999M ● <USD 500M				
Floating Rate Notes *(Asia Pacific participants only)*			● USD 500M – USD 999M	● >USD 5B			
Asset-backed Securities			● >USD 5B ● USD 500M – USD 999M ● <USD 500M				
Mortgage-backed Securities	● USD 1B – USD 5B		● >USD 5B ● <USD 500M	● USD 500M – USD 999M			
Municipal Notes	● USD 1B – USD 5B		● >USD 5B ● USD 1B – USD 5B ● USD 500M – USD 999M ● <USD 500M				
High Yield Bonds				● USD 500M – USD 999M	● <USD 500M	● >USD 5B ● USD 1B – USD 5B	
Emerging Market Debt				● <USD 500M	● >USD 5B ● USD 1B – USD 5B ● USD 500M – USD 999M		

● >USD 5B ● USD 1B – USD 5B ● USD 500M – USD 999M ● <USD 500M

* Please note that not all of the companies are using each type of investment. As such, the credit rating shown for each investment represents the median credit rating among companies that are using that investment.

Investment policy: Maximum maturity

European and Asia Pacific firms tend to have the highest maximum permissible maturity for many securities.

Q: For each of these cash investments, what is the maximum final maturity permissible under your investment policy?

EXHIBIT 23: MEDIAN MAXIMUM FINAL PERMISSIBLE MATURITY ACROSS PEER GROUPS*

Investment type	By region							
	<1 year	1 year	2 years	3 years	4 years	5 years	> 5 years	No limit
Wealth Management Products *(Asia Pacific participants only)*	Asia Pacific							
U.S. Treasuries		Europe	Total, Americas, Asia Pacific					
U.S. Government Agencies			Total, Americas, Europe		Asia Pacific			
Bank Obligations	Europe, Asia Pacific	Total, Americas						
Non-U.S. Foreign Agency Securities, Supranationals and Sovereigns			Europe	Total, Americas, Asia Pacific				
Commercial Paper		Total, Americas, Europe, Asia Pacific						
Asset-backed Commercial Paper		Total, Americas, Europe		Asia Pacific				
Traditional Repurchase Agreements	Total, Europe, Asia Pacific	Americas						
Non-traditional Repurchase Agreements	Europe	Total, Americas				Asia Pacific		

● Total ● Americas ● Europe ● Asia Pacific

* Please note that not all of the companies are using each type of investment. As such, the maximum maturity shown for each investment represents the median among companies that are using that investment. In addition, this question was only asked of survey respondents who have a broader set of permissible investments that extend beyond bank obligations and money market funds.

EXHIBIT 23: MEDIAN MAXIMUM FINAL PERMISSIBLE MATURITY ACROSS PEER GROUPS *(CONTINUED)**

Investment type	By cash balance						
	<1 year	1 year	2 years	3 years	4 years	5 years	> 5 years	No limit
Wealth Management Products *(Asia Pacific participants only)*	USD 1B – USD 5B; <USD 500M	>USD 5B; USD 500M – USD 999M						
U.S. Treasuries		USD 1B – USD 5B; USD 500M – USD 999M; <USD 500M		>USD 5B				
U.S. Government Agencies			USD 1B – USD 5B; USD 500M – USD 999M; <USD 500M			>USD 5B		
Bank Obligations	USD 1B – USD 5B; USD 500M – USD 999M	>USD 5B; <USD 500M						
Non-U.S. Foreign Agency Securities, Supranationals and Sovereigns			USD 500M – USD 999M	USD 1B – USD 5B; <USD 500M		>USD 5B		
Commercial Paper	USD 1B – USD 5B; USD 500M – USD 999M	>USD 5B; <USD 500M						
Asset-backed Commercial Paper	USD 500M – USD 999M	USD 1B – USD 5B; <USD 500M	>USD 5B					
Traditional Repurchase Agreements	>USD 5B; USD 500M – USD 999M; <USD 500M	USD 1B – USD 5B						
Non-traditional Repurchase Agreements	USD 500M – USD 999M	>USD 5B; USD 1B – USD 5B						

● >USD 5B ● USD 1B – USD 5B ● USD 500M – USD 999M ● <USD 500M

* Please note that not all of the companies are using each type of investment. As such, the maximum maturity shown for each investment represents the median among companies that are using that investment. In addition, this question was only asked of survey respondents who have a broader set of permissible investments that extend beyond bank obligations and money market funds.

Investment policy: Maximum maturity (continued)

Firms with over USD 5 billion in cash balance also tend to have a higher maximum permissible maturity for a number of securities.

Q: For each of these cash investments, what is the maximum final maturity permissible under your investment policy?

EXHIBIT 23: MEDIAN MAXIMUM FINAL PERMISSIBLE MATURITY ACROSS PEER GROUPS *(CONTINUED)**

Investment type	By region							
	<1 year	1 year	2 years	3 years	4 years	5 years	> 5 years	No limit
Corporate Debt Securities			Europe	Total, Americas		Asia Pacific		
Structured Deposits *(Asia Pacific participants only)*	Asia Pacific							
Variable Rate Demand Notes			Europe	Total, Americas, Asia Pacific				
Floating Rate Notes *(Asia Pacific participants only)*				Asia Pacific				
Asset-backed Securities				Total, Americas, Asia Pacific			Europe	
Mortgage-backed Securities				Asia Pacific		Total, Americas	Europe	
Municipal Notes				Total, Americas, Asia Pacific			Europe	
High Yield Bonds				Asia Pacific			Americas	Total, Europe
Emerging Market Debt				Asia Pacific			Total, Americas	Europe

● Total ● Americas ● Europe ● Asia Pacific

* Please note that not all of the companies are using each type of investment. As such, the maximum maturity shown for each investment represents the median among companies that are using that investment. In addition, this question was only asked of survey respondents who have a broader set of permissible investments that extend beyond bank obligations and money market funds.

EXHIBIT 23: MEDIAN MAXIMUM FINAL PERMISSIBLE MATURITY ACROSS PEER GROUPS *(CONTINUED)**

Investment type	By cash balance							
	<1 year	1 year	2 years	3 years	4 years	5 years	> 5 years	No limit
Corporate Debt Securities				USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M		>USD 5B		
Structured Deposits *(Asia Pacific participants only)*	USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M	>USD 5B						
Variable Rate Demand Notes	<USD 500M		USD 1B – USD 5B	USD 500M – USD 999M		>USD 5B		
Floating Rate Notes *(Asia Pacific participants only)*	<USD 500M			USD 500M – USD 999M	>USD 5B			
Asset-backed Securities				USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M		>USD 5B		
Mortgage-backed Securities				USD 500M – USD 999M		>USD 5B, USD 1B – USD 5B		<USD 500M
Municipal Notes				USD 1B – USD 5B, USD 500M – USD 999M, <USD 500M		>USD 5B		
High Yield Bonds						USD 500M – USD 999M	USD 1B – USD 5B	>USD 5B, <USD 500M
Emerging Market Debt							USD 1B – USD 5B	>USD 5B, USD 500M – USD 999M, <USD 500M

● >USD 5B ● USD 1B – USD 5B ● USD 500M – USD 999M ● <USD 500M

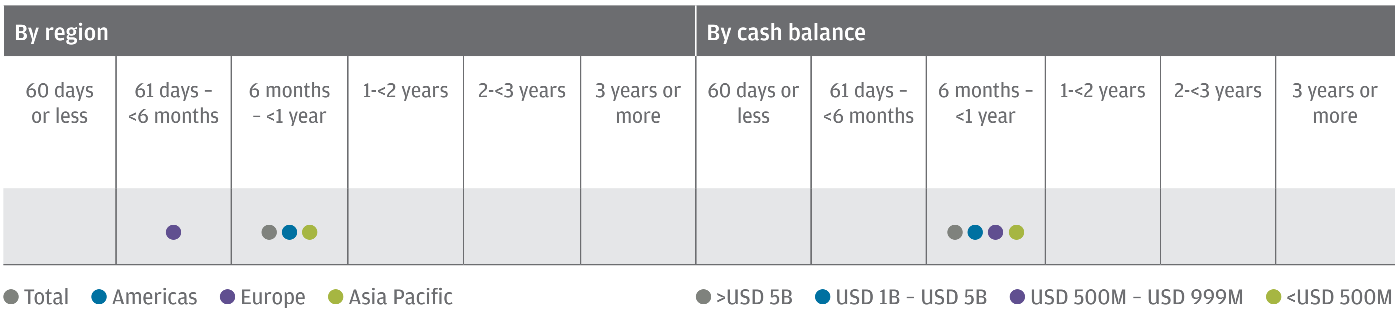
* Please note that not all of the companies are using each type of investment. As such, the maximum maturity shown for each investment represents the median among companies that are using that investment. In addition, this question was only asked of survey respondents who have a broader set of permissible investments that extend beyond bank obligations and money market funds.

Investment policy: Maximum permissible portfolio duration

Most firms have a median maximum permissible portfolio duration of six months to less than one year (consistent with 2015 results), although European firms have a shorter median permissible portfolio duration of 61 days to less than six months.

Q: What is the maximum average portfolio duration permissible under your investment policy?

EXHIBIT 24: MEDIAN MAXIMUM PERMISSIBLE PORTFOLIO DURATION*



*Please note that not all of the companies are using each type of investment. As such, the credit rating shown for each investment represents the median credit rating among companies that are using that investment.

In 2015, firms with balances of less than USD 500 million were the only peer group to have a maximum portfolio duration of less than six months. This year, this group joined the rest of their peers, with a maximum portfolio duration of six months to less than one year. Overall, results are in line with expectations for liquidity.

Partnering with asset managers

Performance/risk-adjusted returns, investment expertise and insights, and firm relationships remain the top factors influencing the choice of an asset manager, consistent with results in previous years across the regions and cash balances.

Q: Please rank the top five reasons in order of importance when selecting an asset manager and/or fund sponsor.

European and Asia Pacific firms put more emphasis on performance/risk-adjusted returns, while American firms cite firm relationship as the more important consideration.

EXHIBIT 25: MOST IMPORTANT REASONS WHEN SELECTING AN ASSET MANAGER AND/OR FUND SPONSOR

Reasons	By region: Total	By region: Americas	By region: Europe	By region: Asia Pacific	By cash balance: >USD 5B	By cash balance: USD 1B - USD 5B	By cash balance: USD 500M - USD 999M	By cash balance: <USD 500M
Performance/ Risk-Adjusted Returns	49%	35%	53%	61%	52%	49%	45%	49%
Investment Expertise and Insights	36%	38%	29%	42%	41%	33%	38%	33%
Firm Relationships	36%	50%	36%	19%	29%	38%	40%	38%
Manager Reputation	24%	24%	25%	23%	17%	28%	23%	26%
Management Fees	21%	22%	29%	12%	28%	26%	23%	13%
Client Service	15%	16%	10%	17%	12%	13%	5%	22%
Access to Investment Resources	8%	7%	7%	10%	11%	6%	5%	9%
Investment Reporting	7%	5%	8%	8%	5%	2%	15%	8%
Environment, Governance and Social	4%	2%	3%	8%	5%	4%	5%	3%

Conclusion

CONTACT

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(352) 3410 3636 in Europe

(302) 634 2960 in Latin America

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www.jpmorgan.com/liquidity/peerview

This year's J.P. Morgan Global Liquidity Investment PeerView℠ survey covers a wide range of subjects as it addresses issues and concerns that are top of mind for liquidity investors. How are my peers thinking about a challenging rate and regulatory environment? How are they considering changes to their policies and practices? We hope this report provides informative, useful answers to these important questions.

As our survey reveals, respondents are grappling with the implementation of money market fund reform in the U.S. and the approach of reform in Europe, as well as the effects of Basel III around the globe. They are finding that cash segmentation is increasingly important as they contend with competing forces—a need for yield on the one hand and a mandate to control risk on the other. (Risk control covers both liquidity risk and preservation of principal risk.)

The ebb and flow of market and regulatory change presents constraints, but also opportunities as investors re-examine their cash investment decision-making. During this process, it can be especially helpful to understand how other liquidity investors are positioning portfolios for the coming changes.

If you have any questions about the survey or would like additional information, please contact your J.P. Morgan Global Liquidity Client Advisor or visit: www.jpmorgan.com/liquidity/peerview.

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