

2019 | J.P. MORGAN GLOBAL LIQUIDITY

INVESTMENT PEERVIEWSM

We've surveyed the globe.
How does your cash strategy compare?



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Introduction

I am pleased to introduce the 2019 J.P. Morgan Global Liquidity Investment PeerViewSM survey results report. The respondents to the 2019 online survey were 346 CIOs, treasurers and other senior cash decision-makers, each representing a unique entity from all sectors of the global economy. Our methodology was carefully constructed to draw decision-makers to participate in the survey, which can serve as an industry benchmark.

As you will see from the results, the strong response rate has helped us to identify several key trends.

Investors navigating a changing global economic environment are faced with many challenges. Around the globe, we see growth slowing, trade tensions rising and interest rates falling. The Federal Reserve has responded by cutting interest rates, and financial markets are expecting further easing from major global central banks.

The PeerViewSM survey provides a unique opportunity for firms to gain insights into their own cash investment practices by comparing them with those of their peers globally. We hope you may discover new opportunities as you evaluate the variations in peers' cash investment practices.

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/peerview.



Paula Stibbe

Global Head of Sales
J.P. Morgan Global Liquidity

Executive summary

TRYING TO STAY POSITIVE IN A NEGATIVE WORLD

In the first half of 2019, J.P. Morgan surveyed respondents at a time of slowing global growth momentum, late in the business cycle. The U.S. had led what would quickly become a worldwide pivot toward monetary policy easing, the first since the global financial crisis. Not least, geopolitical uncertainties and trade tensions were looming large in investors' minds. As our survey reports, demand for money market funds is strong, and investors with short-term fixed income portfolios continue to seek out the strategies and solutions that can best help them navigate a changing environment.

Europe: Easier monetary policy, looming geopolitics

In the UK and Europe, the macroeconomic picture is mixed, under the shadow of a possible no-deal Brexit and continuing trade tensions that have especially hit exporting manufacturers. Eurozone growth and inflation projections remain below central bank targets, though in the UK resilient consumers and robust wages and employment have provided some offset.

The European Central Bank (ECB), spurred by this backdrop, enacted comprehensive, highly accommodative measures in September – among them, interest rate cuts, renewed and open-ended quantitative easing and steps to help banks cope with negative rates. Despite some downside risks, the ECB said the easy policy should remain in place “for the foreseeable future.” Also on liquidity investors' minds in the first few months of the year: the final phase of European Money Market Fund Reform. The transition to new fund structures and new rules went smoothly, since most investors were already familiar with these features.

Asia-Pacific: Multiple headwinds as currencies weaken

Asian investors were facing multiple headwinds as our survey was conducted: escalating trade tensions, slowing growth, muted inflation and weak domestic demand regionally. Following the Federal Reserve's (Fed's) lead, Asian central banks turned more dovish, and further interest rate cuts are expected – a significant pivot from a few months ago, when the forecast was for rate hikes and steeper yield curves. Lower yields have reanimated the cash management challenges of identifying good investments and locking in reasonable yields.

Major Asia Pacific currencies weakened markedly around the time of our survey. The Chinese renminbi breached the psychologically important seven per USD level in August, and the Australian dollar, the Hong Kong dollar and even the safe haven Singapore dollar declined significantly, carrying implications for regional cash investors.

U.S.: Relative outperformance

The Federal Reserve's dovish policy reversal in early and mid 2019 – culminating in the first policy rate cuts since the global financial crisis – was on our survey respondents' minds. Further easing was expected, in response to trade tensions and slowing global inflation and growth, though the pace of cuts remained unclear. Still, compared with other developed markets, the U.S. environment looked benign, as U.S. growth and unemployment were close to the Fed's target rates.

Some of the economic outperformance could be traced to the effects of fiscal stimulus, which were, however, expected to further dwindle in the coming year, lifting the chances that the global deceleration could drag the U.S. down with it. However, any potential downturn would likely be much weaker than the Great Recession, given the current strength of the U.S. consumer and the relative health of bank balance sheets.

Amid these shifting pressures, investors will be looking for strong investment partners who can help them understand the implications of the latest macroeconomic and geopolitical developments, offer guidance on cash segmentation and provide insights into the global interest rate outlook. The most effective partner can align innovative products and solutions that best meet an investor's liquidity requirements, risk tolerance and 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 PeerViewSM survey can serve as an indispensable industry benchmark.

GLOBAL KEY FINDINGS

- **Demand for money market funds (MMFs) is still strong:** Even as the market outlook evolves, stable/constant/low volatility net asset value (NAV) MMFs remain the most permissible investment (in 92% of investment policies), followed by bank obligations (62% of policies) and U.S. Treasuries (60%). Most survey respondents (75%) plan to maintain their stable NAV MMFs, based on the market outlook for the coming year.
- **Environmental, social and governance (ESG) investments on the rise:** Investors are increasingly turning to responsible investing, using ESG criteria to screen investments: 19% of respondents globally are doing so now, and an additional 25% are likely to start within the next two years.
- **Wider adoption of treasury management systems:** The percentage of investors surveyed using such systems is now 61%. The features used most are cash management and treasury accounting (98%), investments and debt management (67%) and FX and interest rate risk management (50%). Asia Pacific (APAC) investors are more likely to develop in-house systems (43%) than use third parties; in the U.S., only 12% and in EMEA 11% developed their systems in-house.
- **Investors are eyeing rising political risk:** Rising political risk tops the list of investment challenges, with 67% of respondents expressing concern about the U.S.-China trade war and Brexit.

REGIONAL KEY FINDINGS

Europe

- **The search for yield and return:** Term deposits continue to be the most popular investment solution to avoid negative interest rates in EUR- and GBP-denominated investments (62%), followed by ultra-short duration bond funds (23%).

Asia Pacific

- **APAC investors are eyeing rising credit risk in China:** One-fifth of APAC investors consider rising credit risk and default risk in China to be major investment challenges, far more than their EMEA and U.S. peers do.
- **Regulatory change is sweeping the region:** More than half of APAC investors consider new regulations a top investment challenge, second only to rising political risk.
- **APAC investors are more actively reviewing their investment policies:** Two-thirds of APAC investors review at least once a year, far higher than in the U.S. (39%) and Europe (48%). Stable and floating MMFs top the list of instruments APAC investors expect to add (21%); non-rated MMFs top the list of instruments they expect to remove (14%).

Overview

OBJECTIVE

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

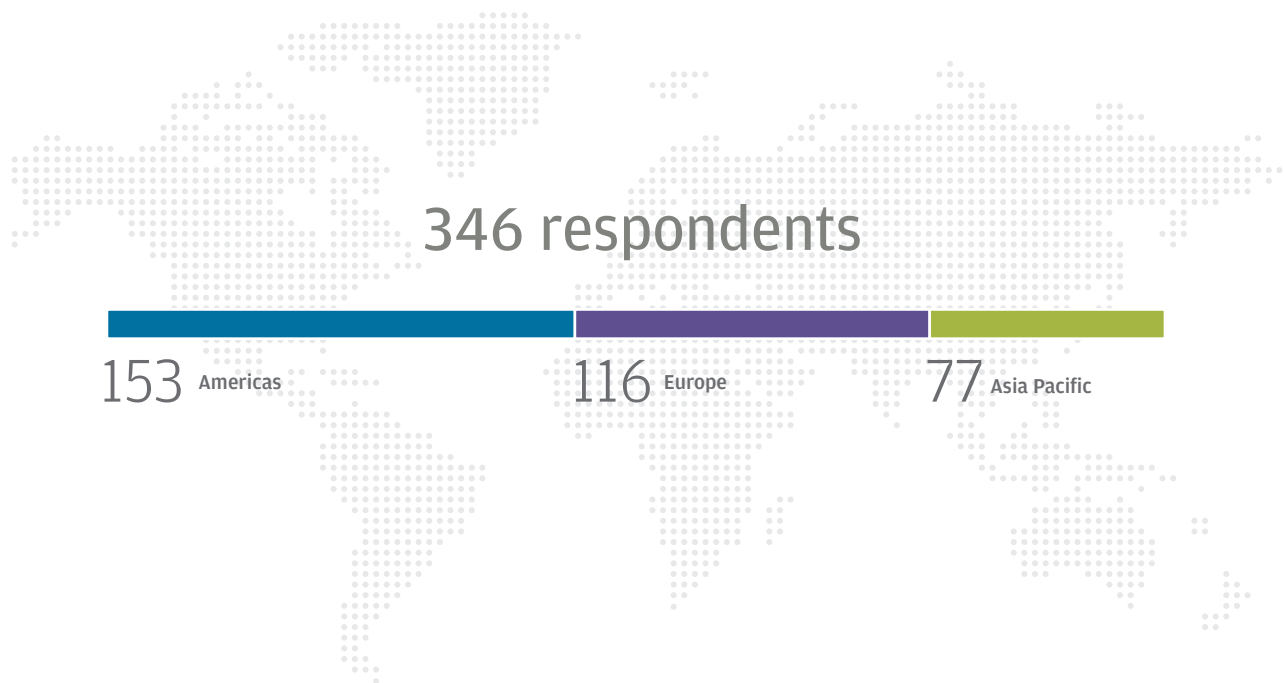
METHODOLOGY

An online survey fielded between May and July 2019, with 346 responses from CIOs, treasurers and other senior cash investment decision-makers around the world, representing an approximate combined cash balance of USD 1 trillion.¹

GEOGRAPHICAL BREAKDOWN

The 2019 survey was truly global in scope, with decision-makers responding on behalf of organizations in a wide range of regions and markets.

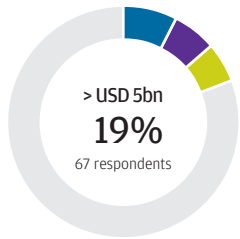
Please note that regional breakdowns throughout this report are based on the locations of the respondents' company headquarters.



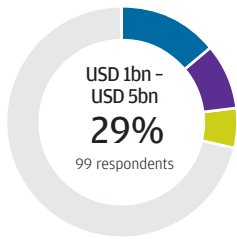
¹Calculated by multiplying the midpoint of the answer range for cash balance by the number of respondents who selected that answer and then adding all values together.

CASH BALANCE

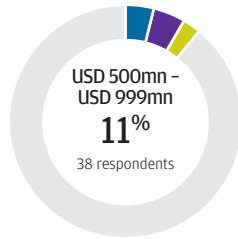
The survey sought to capture the views of liquidity investors from organizations of all sizes, from small regional players to large multinationals. Around 41% of respondents had a cash balance of less than USD 500 million, while 19% had a cash balance of more than USD 5 billion.



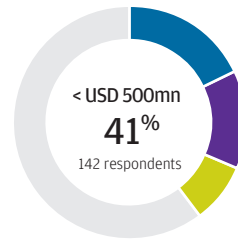
Americas **26**
Europe **22**
Asia Pacific **19**



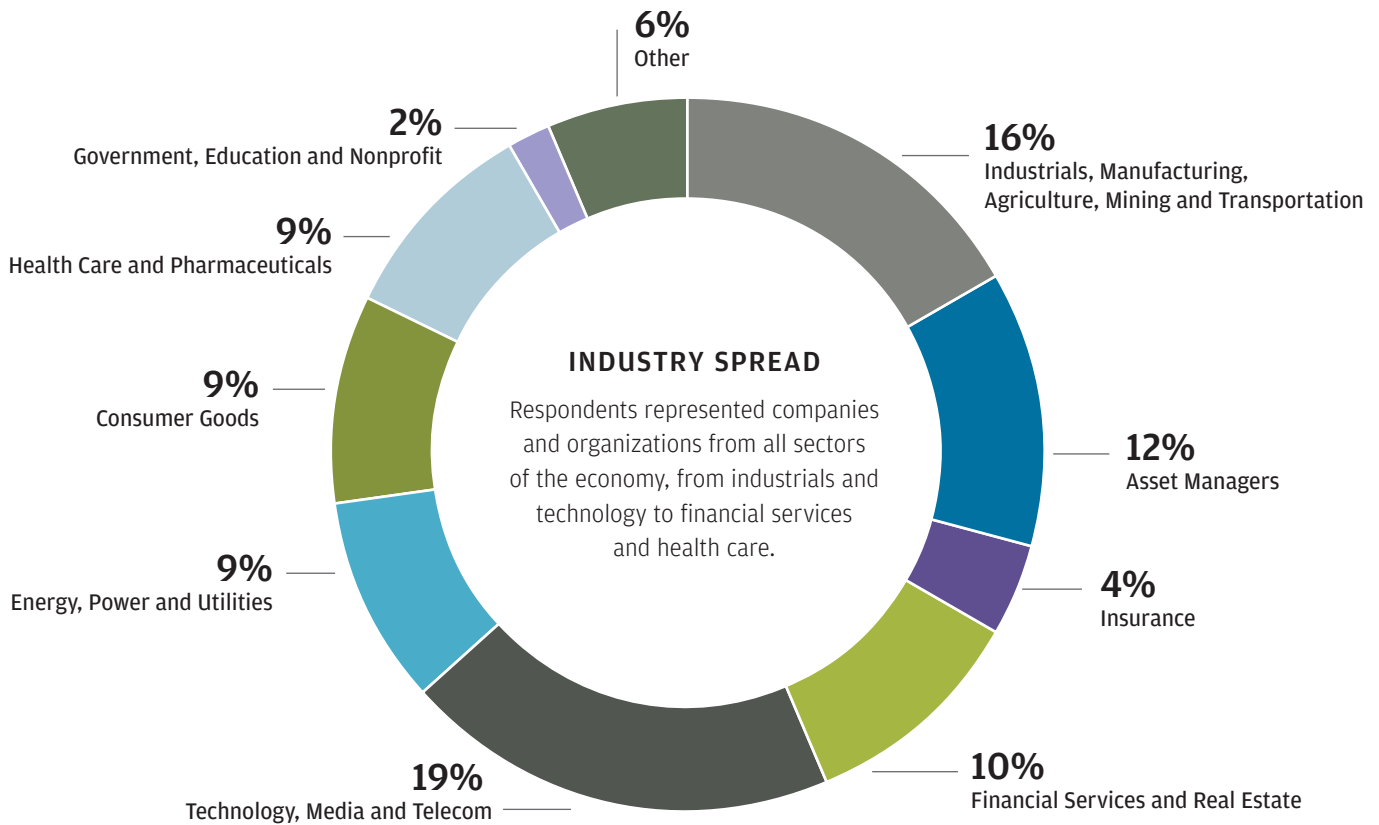
Americas **49**
Europe **31**
Asia Pacific **19**



Americas **14**
Europe **15**
Asia Pacific **9**



Americas **64**
Europe **48**
Asia Pacific **30**



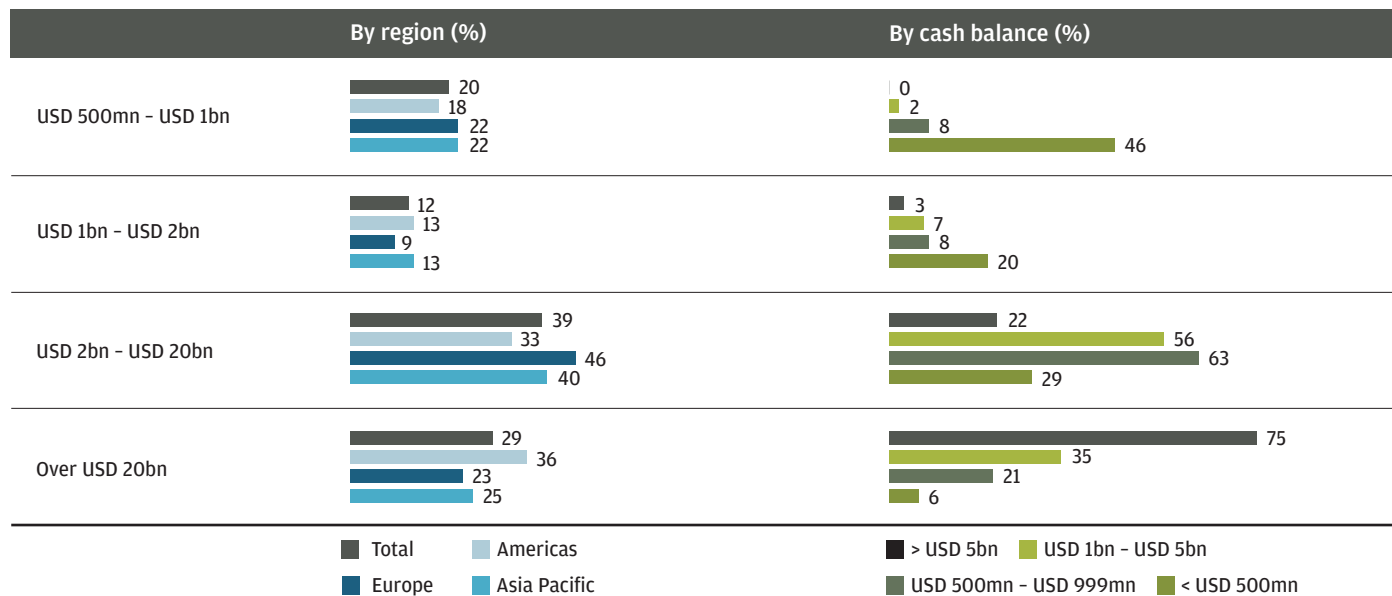
Totals do not equal 100% due to rounding.

Overview (cont'd.)

MARKET CAPITALIZATION

Globally, 29% of respondents were from companies with a market cap of over USD 20bn.

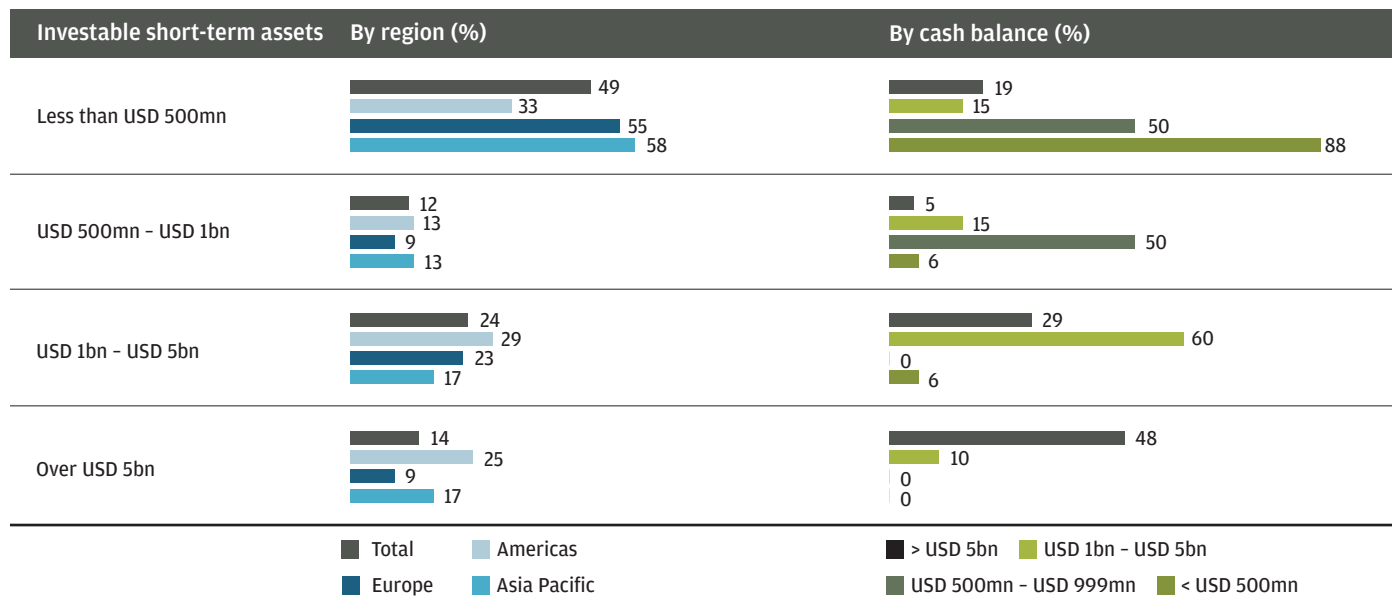
EXHIBIT 1: MARKET CAPITALIZATION



INVESTMENT SIZE (USD)

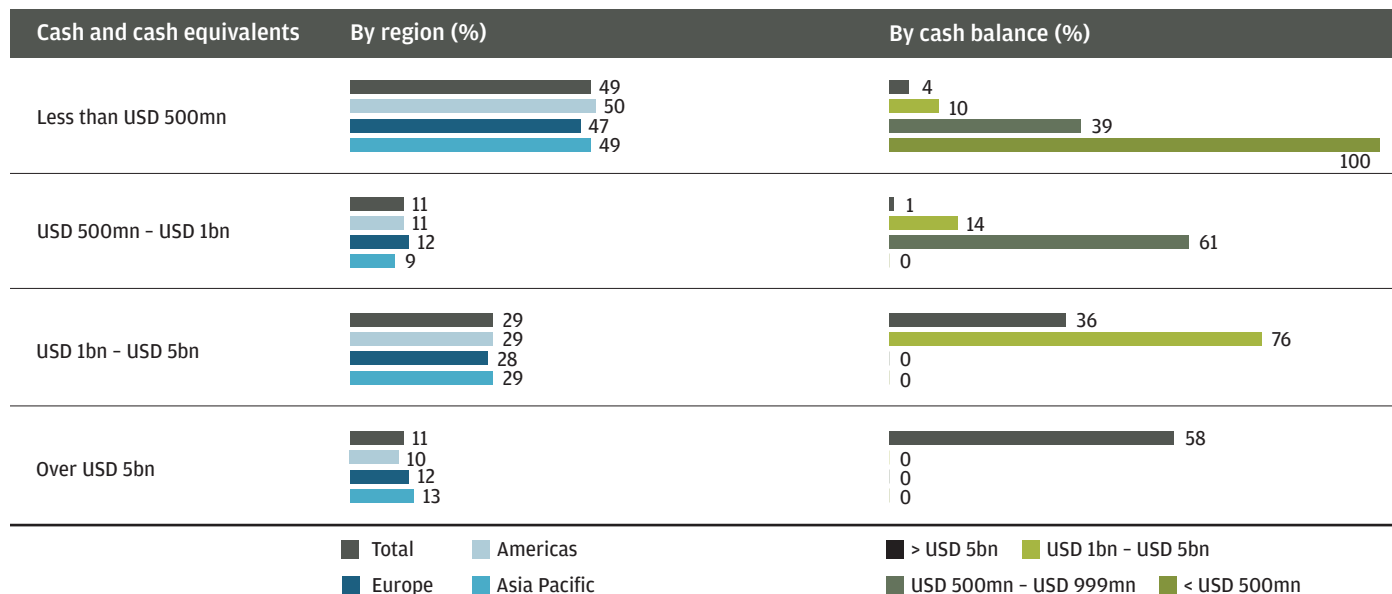
Globally, 49% of respondents have less than USD 500mn of investable short-term assets under their control, and 14% have over USD 5bn of investable short-term assets under their control.

EXHIBIT 2: INVESTABLE SHORT-TERM ASSETS



Of the total value of cash and marketable securities, 11% of respondents globally have cash and cash equivalents valued at over USD 5bn.

EXHIBIT 3: CASH AND CASH EQUIVALENTS

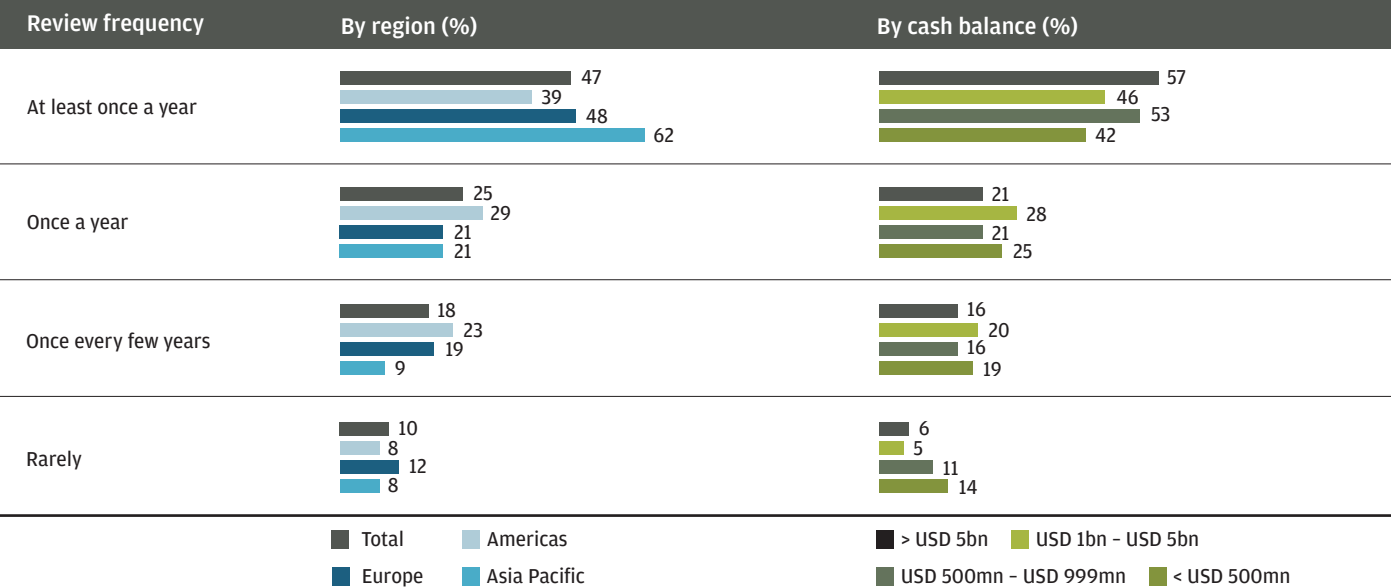


Investment policy: Review frequency

Almost half of respondents globally review their investment policy at least once a year, with 62% of Asia Pacific respondents reviewing their investment policy more often. Respondents with cash balances of over USD 5bn review their policies more than once a year, as well.

Q: How often do you review your investment policy statement?

EXHIBIT 5: REVIEW FREQUENCY



Permissible investments are little changed since our last survey, in 2017, except for wealth management products in APAC. Wealth management products rose as a permissible investment in APAC, from 18% of respondents in 2017 to 44% in 2019.

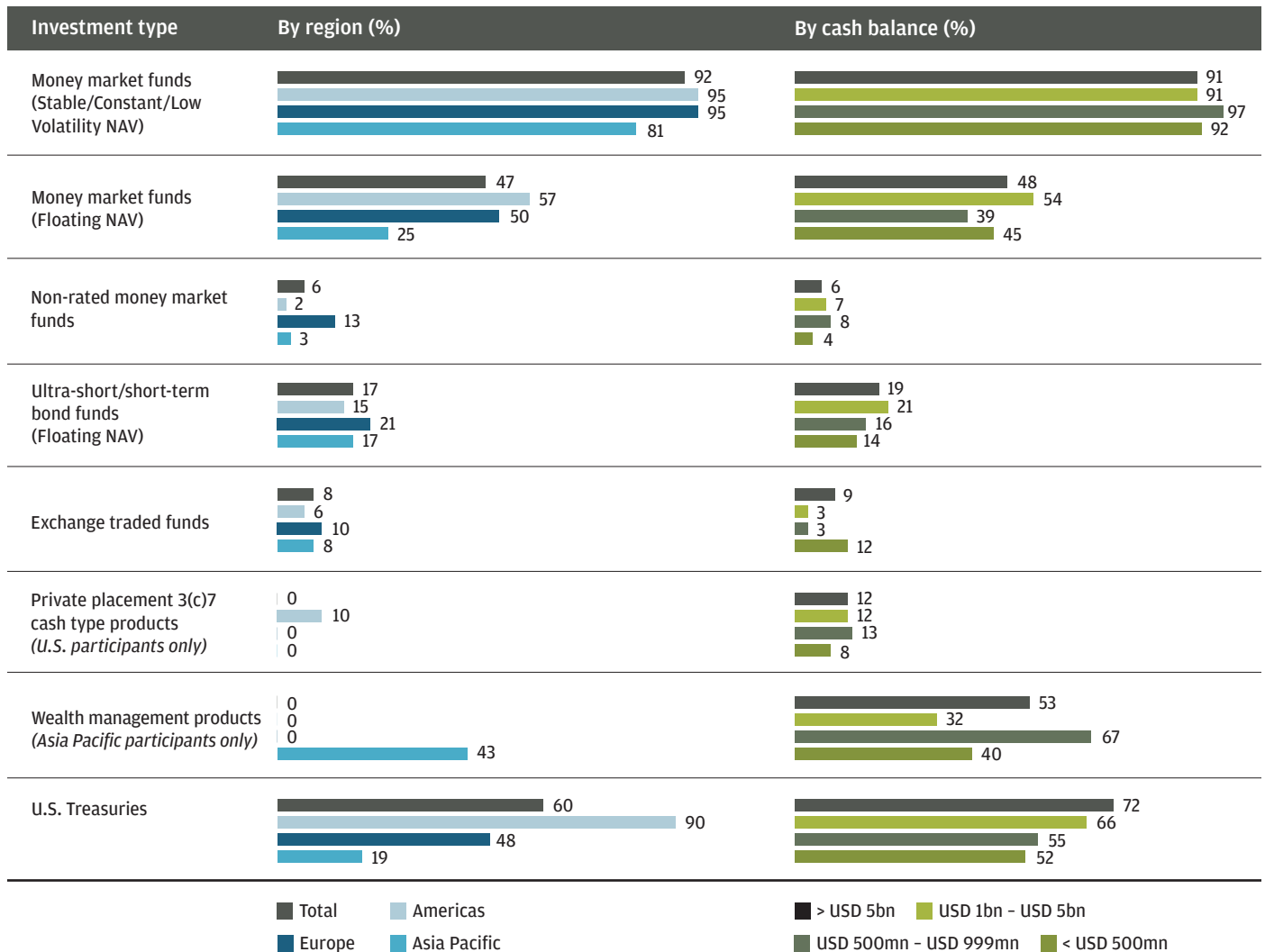
Globally, bank obligations decreased as a permissible investment (from 67% in 2017 to 62% in 2019). Asset-backed securities also decreased (from 18% to 15%).

Investment policy: Permissible cash investments

Stable NAV money market funds and bank obligations are the most permissible investments, followed by U.S. Treasuries, floating NAV money market funds and (among Asia Pacific participants only) structured deposits/wealth management products.

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

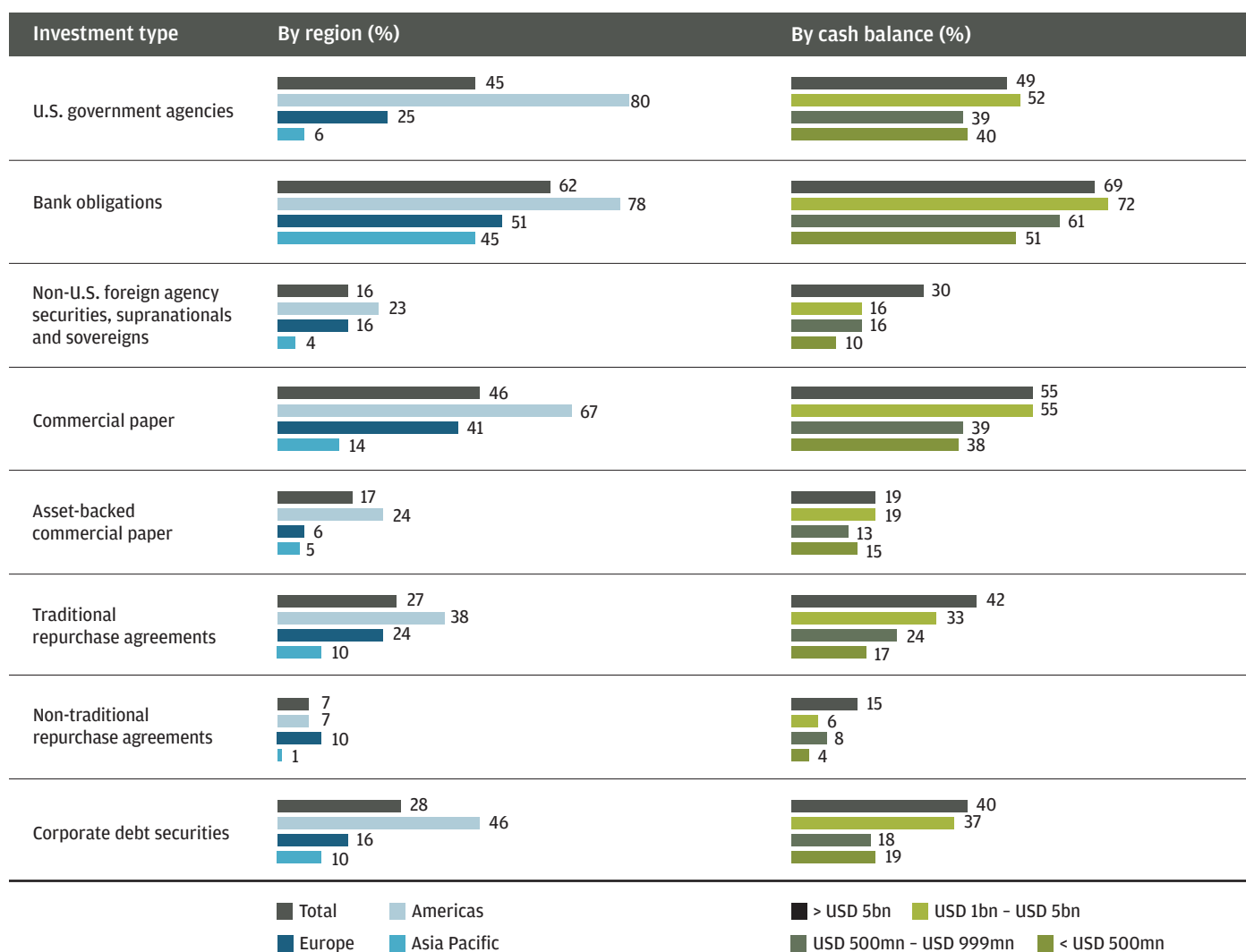
EXHIBIT 6: ASSET CLASSES PERMISSIBLE ACROSS PEER GROUP



Firms in the Americas are significantly more likely to permit more investment instruments than European and Asia Pacific companies. These include stable/constant/low volatility NAV money market funds, commercial paper, asset-backed commercial paper, traditional repurchase agreements, corporate debt securities, variable-rate demand notes, asset-backed securities, mortgage-backed securities and municipal notes.

Firms with larger cash balances tend to have more flexibility in allowing riskier securities to be permissible; more than one-fifth of USD 5bn-plus companies permit asset-backed securities, and almost one-quarter allow mortgage-backed securities.

EXHIBIT 6: ASSET CLASSES PERMISSIBLE ACROSS PEER GROUP (CONTINUED)



Nearly half of APAC firms surveyed indicated they would be adding new products to their portfolio, with 19% planning to add three or more.

Investment policy: Investment policy review

Of those respondents considering making changes to their investment policy in the next six months to one year (82%), changes relating to only a few securities are being contemplated: stable/constant/low volatility NAV money market funds, floating NAV money market funds and, among Asia Pacific firms, structured deposits.

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

EXHIBIT 7: INTENDED CHANGES TO INVESTMENT POLICY

Investment type	By region (%)		By cash balance (%)	
Money market funds (Stable/constant/low volatility NAV)	Total	90	>USD 5B	94
	Americas	97	USD 1B-USD 5B	90
	Europe	90	USD 500M-USD 999M	87
	Asia Pacific	77	<USD 500M	89
Money market funds (Floating NAV)	Total	88	>USD 5B	94
	Americas	95	USD 1B-USD 5B	91
	Europe	91	USD 500M-USD 999M	82
	Asia Pacific	73	<USD 500M	86
Non-rated money market funds	Total	95	>USD 5B	96
	Americas	99	USD 1B-USD 5B	96
	Europe	96	USD 500M-USD 999M	95
	Asia Pacific	84	<USD 500M	94
Ultra-short/short-term bond funds (Floating NAV)	Total	92	>USD 5B	91
	Americas	97	USD 1B-USD 5B	92
	Europe	91	USD 500M-USD 999M	87
	Asia Pacific	82	<USD 500M	93
Exchange traded funds	Total	95	>USD 5B	96
	Americas	98	USD 1B-USD 5B	96
	Europe	97	USD 500M-USD 999M	89
	Asia Pacific	86	<USD 500M	95
Private placement 3(c)7 cash-type products (U.S. participants only)	Total	97	>USD 5B	100
	Americas	97	USD 1B-USD 5B	100
	Europe	97	USD 500M-USD 999M	100
	Asia Pacific	81	<USD 500M	93
Wealth management products (Asia Pacific participants only)	Total	81	>USD 5B	89
	Americas	95	USD 1B-USD 5B	79
	Europe	94	USD 500M-USD 999M	78
	Asia Pacific	81	<USD 500M	77
U.S. Treasuries	Total	95	>USD 5B	100
	Americas	98	USD 1B-USD 5B	97
	Europe	96	USD 500M-USD 999M	89
	Asia Pacific	88	<USD 500M	93
U.S. government agencies	Total	95	>USD 5B	97
	Americas	98	USD 1B-USD 5B	96
	Europe	94	USD 500M-USD 999M	89
	Asia Pacific	87	<USD 500M	94
Bank obligations	Total	95	>USD 5B	100
	Americas	99	USD 1B-USD 5B	95
	Europe	97	USD 500M-USD 999M	87
	Asia Pacific	86	<USD 500M	96
Non-U.S. foreign agency securities, supranationals and sovereigns	Total	95	>USD 5B	96
	Americas	99	USD 1B-USD 5B	97
	Europe	96	USD 500M-USD 999M	92
	Asia Pacific	87	<USD 500M	95
Commercial paper	Total	95	>USD 5B	97
	Americas	98	USD 1B-USD 5B	94
	Europe	94	USD 500M-USD 999M	87
	Asia Pacific	88	<USD 500M	96

■ Add ■ Remove ■ No change

Asia Pacific firms are significantly more likely to make changes to their investment policy by adding or removing instruments compared with companies in Europe and the Americas. The changes contemplated concern money market funds, exchange traded funds, bank obligations and high yield bonds.

EXHIBIT 7: INTENDED CHANGES TO INVESTMENT POLICY (CONTINUED)

Investment type	By region (%)		By cash balance (%)	
Asset-backed commercial paper	Total	▲3, 3 94	>USD 5B	▲1, 2 97
	Americas	▲1, 1 97	USD 1B-USD 5B	▲4, 1 95
	Europe	▲4, 1 95	USD 500M-USD 999M	▲3, 8 89
	Asia Pacific	▲5, 10 84	<USD 500M	▲4, 4 92
Traditional repurchase agreements	Total	▲3, 2 95	>USD 5B	6 94
	Americas	1 99	USD 1B-USD 5B	▲2, 1 97
	Europe	▲5, 1 94	USD 500M-USD 999M	▲5, 5 89
	Asia Pacific	▲3, 10 87	<USD 500M	▲4, 2 94
Non-traditional repurchase agreements	Total	▲2, 4 94	>USD 5B	▲1, 1 97
	Americas	▲1, 1 98	USD 1B-USD 5B	▲4, 1 95
	Europe	▲4, 2 94	USD 500M-USD 999M	▲5, 5 89
	Asia Pacific	▲1, 12 87	<USD 500M	6 94
Corporate debt securities	Total	▲3, 2 94	>USD 5B	▲3, 1 96
	Americas	▲3, 1 96	USD 1B-USD 5B	▲3, 1 96
	Europe	3 97	USD 500M-USD 999M	▲11, 3 87
	Asia Pacific	▲4, 9 87	<USD 500M	▲2, 4 94
Structured deposits (Asia Pacific participants only)	Total		>USD 5B	1 99
	Americas		USD 1B-USD 5B	4 96
	Europe		USD 500M-USD 999M	11 89
	Asia Pacific	▲17, 1 82	<USD 500M	▲3, 1 96
Variable-rate demand notes	Total	▲1, 4 95	>USD 5B	▲1, 1 97
	Americas	▲1, 2 97	USD 1B-USD 5B	1 99
	Europe	▲2, 2 97	USD 500M-USD 999M	▲8, 8 84
	Asia Pacific	12 88	<USD 500M	6 94
Asset-backed securities	Total	▲2, 3 95	>USD 5B	▲1, 1 97
	Americas	▲1, 1 98	USD 1B-USD 5B	▲2, 1 97
	Europe	▲2, 1 97	USD 500M-USD 999M	▲3, 8 89
	Asia Pacific	▲4, 10 86	<USD 500M	▲1, 4 94
Mortgage-backed securities	Total	▲1, 3 96	>USD 5B	▲1, 1 97
	Americas	▲1, 1 98	USD 1B-USD 5B	▲2, 1 97
	Europe	▲2, 1 97	USD 500M-USD 999M	▲3, 5 92
	Asia Pacific	▲3, 9 88	<USD 500M	▲1, 4 95
Municipal notes	Total	▲1, 3 95	>USD 5B	1 99
	Americas	▲1, 1 98	USD 1B-USD 5B	▲1, 2 97
	Europe	▲1, 2 97	USD 500M-USD 999M	▲5, 5 89
	Asia Pacific	▲1, 12 87	<USD 500M	▲1, 5 94
High yield bonds	Total	▲1, 3 96	>USD 5B	1 99
	Americas	1 99	USD 1B-USD 5B	▲2, 1 97
	Europe	▲1, 1 98	USD 500M-USD 999M	6 95
	Asia Pacific	▲3, 12 86	<USD 500M	▲1, 5 94
Emerging market debt	Total	▲1, 3 95	>USD 5B	1 99
	Americas	1 99	USD 1B-USD 5B	▲3, 1 96
	Europe	▲2, 1 97	USD 500M-USD 999M	5 95
	Asia Pacific	▲4, 12 84	<USD 500M	▲1, 6 94

■ Add ■ Remove ■ No change

■ Add ■ Remove ■ No change

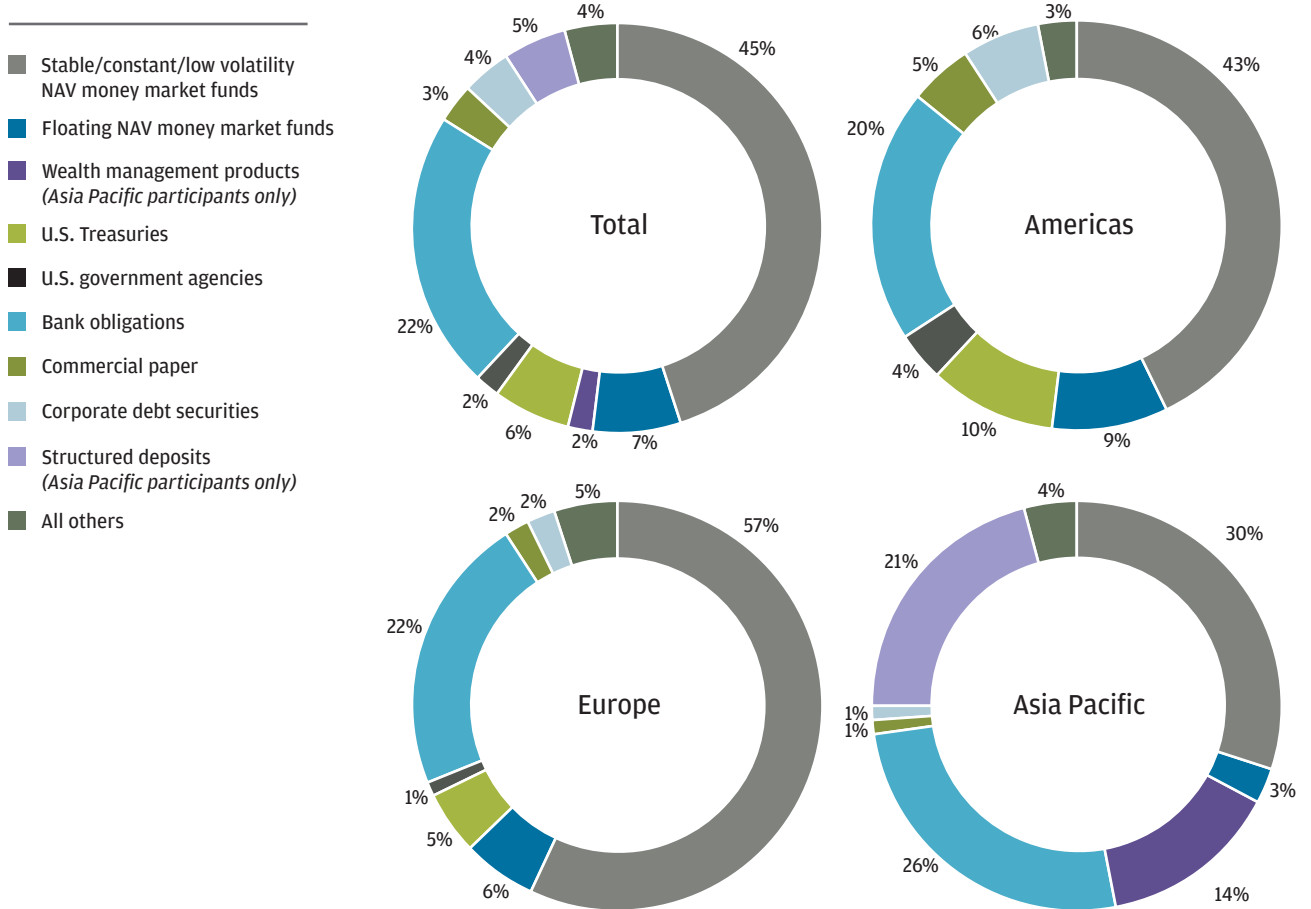
Investment policy: Cash allocation

BY REGION

The percentage of cash allocated to stable/constant/low volatility NAV money market funds is highest in Europe (57%) and lowest in Asia Pacific (30%). However, many clients in Asia Pacific (30%) indicated in 2019 that they will be adding stable/constant/low volatility/floating MMFs to their portfolios. Investment in structured deposits is also expected to increase in Asia Pacific.

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

EXHIBIT 8: CASH ALLOCATION BY REGION*



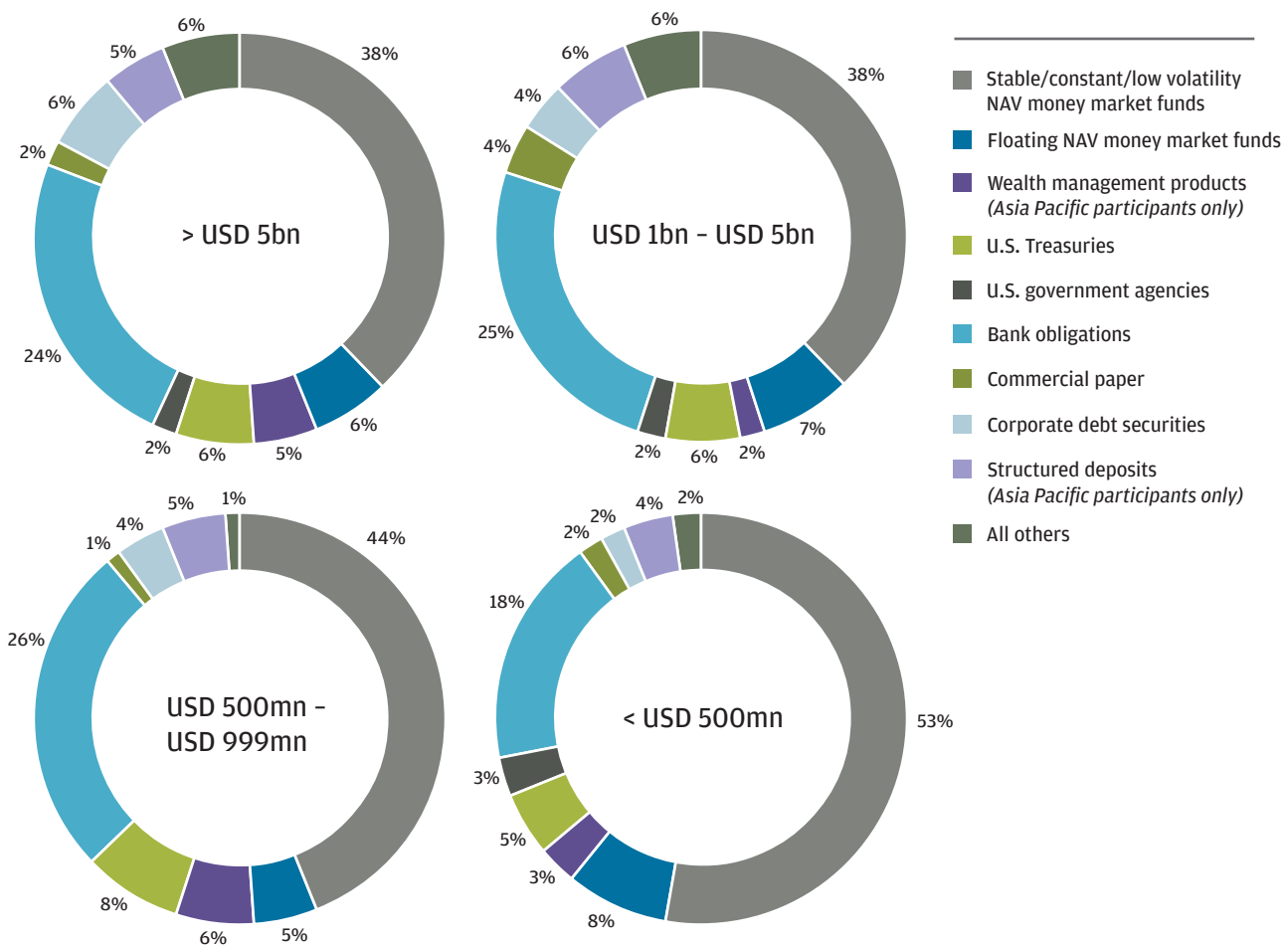
* Percentages may not total 100% due to rounding.

BY CASH BALANCE

Firms with cash balances of less than USD 500mn have 53% of their cash invested in stable/constant/low volatility NAV money market funds.

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

EXHIBIT 9: CASH ALLOCATION BY CASH BALANCE



* Percentages may not total 100% due to rounding.

While cash allocations were mostly unchanged overall since our last survey, allocations to money market funds (stable/constant/low volatility NAV) increased 6% while allocations to bank obligations decreased 6% from 2017.

Investment policy: Cash allocation (cont'd.)

Although firms plan to stay the course with their allocations to most investments, based on next year's market outlook and interest rate forecasts, the investments with the highest likelihood of change are stable/constant/low volatility NAV money market funds, floating NAV money market funds, bank obligations and, among Asia Pacific companies, wealth management products.

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

Investment type	By region (%)		By cash balance (%)			
Money market funds (Stable/constant/low volatility NAV)	Total	15, 10	75	>USD 5B	13, 9	78
	Americas	10, 11	79	USD 1B-USD 5B	14, 13	73
	Europe	16, 10	73	USD 500M-USD 999M	13, 8	79
	Asia Pacific	23, 9	68	<USD 500M	17, 10	73
Money market funds (Floating NAV)	Total	12, 3	85	>USD 5B	4, 4	91
	Americas	10, 13	77	USD 1B-USD 5B	15, 4	83
	Europe	12, 2	86	USD 500M-USD 999M	16	84
	Asia Pacific	13, 5	81	<USD 500M	11, 4	85
Non-rated money market funds	Total	1, 2	97	>USD 5B	3	97
	Americas		100	USD 1B-USD 5B	2, 1	97
	Europe	1, 2	97	USD 500M-USD 999M		100
	Asia Pacific	4, 8	88	<USD 500M	1, 4	95
Ultra-short/short-term bond funds (Floating NAV)	Total	5, 2	93	>USD 5B	7, 2	91
	Americas	3	97	USD 1B-USD 5B	7, 1	92
	Europe	5, 1	94	USD 500M-USD 999M	5	95
	Asia Pacific	10, 6	84	<USD 500M	3, 2	95
Exchange traded funds	Total	2, 2	96	>USD 5B	4	96
	Americas	1	99	USD 1B-USD 5B	3, 1	96
	Europe	2, 1	97	USD 500M-USD 999M		100
	Asia Pacific	6, 6	88	<USD 500M	1, 3	96
Private placement 3(c)7 cash-type products (U.S. participants only)	Total			>USD 5B		100
	Americas	2	98	USD 1B-USD 5B	2	98
	Europe			USD 500M-USD 999M		100
	Asia Pacific			<USD 500M	3	97
Wealth management products (Asia Pacific participants only)	Total			>USD 5B	14, 10	76
	Americas			USD 1B-USD 5B	5	95
	Europe			USD 500M-USD 999M	11, 1	78
	Asia Pacific	15, 9	76	<USD 500M	27, 10	63
U.S. Treasuries	Total	6, 4	90	>USD 5B	7, 3	90
	Americas	10, 4	86	USD 1B-USD 5B	5, 6	89
	Europe	5, 1	94	USD 500M-USD 999M	5, 3	92
	Asia Pacific	1, 8	91	<USD 500M	7, 3	90
U.S. government agencies	Total	6, 3	90	>USD 5B	7, 3	90
	Americas	10, 3	87	USD 1B-USD 5B	5, 6	89
	Europe	4, 1	95	USD 500M-USD 999M	3	97
	Asia Pacific	1, 8	91	<USD 500M	7, 3	90
Bank obligations	Total	13, 5	83	>USD 5B	12, 4	84
	Americas	14, 4	82	USD 1B-USD 5B	16, 8	76
	Europe	10, 6	84	USD 500M-USD 999M	11	89
	Asia Pacific	13, 4	83	<USD 500M	11, 4	85
Non-U.S. foreign agency securities, supnationals and sovereigns	Total	1, 2	97	>USD 5B	3, 2	96
	Americas	1, 1	98	USD 1B-USD 5B	1, 1	98
	Europe	3, 1	96	USD 500M-USD 999M	3	97
	Asia Pacific	8	92	<USD 500M	1, 4	95
Commercial paper	Total	8, 3	89	>USD 5B	7, 3	90
	Americas	12, 3	85	USD 1B-USD 5B	10, 2	88
	Europe	7	93	USD 500M-USD 999M	3	97
	Asia Pacific	8	92	<USD 500M	8, 4	88

■ Increase ■ Decrease ■ Stay the same

■ Increase ■ Decrease ■ Stay the same

Firms with cash balances of less than USD 500mn are significantly more likely to maintain the same allocation to U.S. Treasuries and bank obligations compared with firms with higher cash balances.

Most surveyed firms are likely to keep their allocations to stable/constant/low volatility NAV money market funds. Among companies in the Americas, 79% expect no change. For European companies, 68% see no change; in Asia Pacific, 73% expect no change.

EXHIBIT 10: 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 95	>USD 5B	↔1, 2 97
	Americas	↔3, 1 96	USD 1B-USD 5B	↔3, 2 95
	Europe	↔3 97	USD 500M-USD 999M	↔3 97
	Asia Pacific	↔3, 6 91	<USD 500M	↔3, 2 95
Traditional repurchase agreements	Total	↔3, 2 95	>USD 5B	↔3, 3 94
	Americas	↔5 95	USD 1B-USD 5B	↔5, 2 93
	Europe	↔3 97	USD 500M-USD 999M	↔3 97
	Asia Pacific	↔1, 8 91	<USD 500M	↔2, 2 96
Non-traditional repurchase agreements	Total	↔1, 2 97	>USD 5B	↔1, 1 97
	Americas	↔100 100	USD 1B-USD 5B	↔1, 1 98
	Europe	↔3, 1 96	USD 500M-USD 999M	↔5 95
	Asia Pacific	↔1, 8 91	<USD 500M	↔1, 4 95
Corporate debt securities	Total	↔5, 5 90	>USD 5B	↔4, 8 88
	Americas	↔7, 7 86	USD 1B-USD 5B	↔7, 4 89
	Europe	↔3, 2 95	USD 500M-USD 999M	↔3, 3 94
	Asia Pacific	↔3, 8 89	<USD 500M	↔4, 6 90
Structured deposits (Asia Pacific participants only)	Total		>USD 5B	↔10, 5 85
	Americas		USD 1B-USD 5B	↔30, 5 65
	Europe		USD 500M-USD 999M	↔11 89
	Asia Pacific	↔19, 9 73	<USD 500M	↔20, 17 63
Variable-rate demand notes	Total	↔1, 2 97	>USD 5B	↔1 99
	Americas	↔1 99	USD 1B-USD 5B	↔3, 1 96
	Europe	↔1 99	USD 500M-USD 999M	↔100 100
	Asia Pacific	↔1, 7 92	<USD 500M	↔3 97
Asset-backed securities	Total	↔3, 2 95	>USD 5B	↔4, 3 93
	Americas	↔3, 2 95	USD 1B-USD 5B	↔4, 2 94
	Europe	↔2, 1 97	USD 500M-USD 999M	↔100 100
	Asia Pacific	↔3, 5 92	<USD 500M	↔1, 3 96
Mortgage-backed securities	Total	↔2, 2 96	>USD 5B	↔4, 1 94
	Americas	↔3, 1 97	USD 1B-USD 5B	↔3, 1 96
	Europe	↔1, 1 98	USD 500M-USD 999M	↔100 100
	Asia Pacific	↔3, 5 92	<USD 500M	↔1, 3 96
Municipal notes	Total	↔2, 2 96	>USD 5B	↔1 99
	Americas	↔3, 1 96	USD 1B-USD 5B	↔3, 3 94
	Europe	↔1 99	USD 500M-USD 999M	↔100 100
	Asia Pacific	↔3, 6 91	<USD 500M	↔1, 4 95
High yield bonds	Total	↔1, 3 96	>USD 5B	↔3, 4 93
	Americas	↔1, 1 98	USD 1B-USD 5B	↔2, 1 97
	Europe	↔3, 1 96	USD 500M-USD 999M	↔100 100
	Asia Pacific	↔3, 8 90	<USD 500M	↔1, 4 95
Emerging market debt	Total	↔2, 2 97	>USD 5B	↔3, 1 96
	Americas	↔1 99	USD 1B-USD 5B	↔3, 1 96
	Europe	↔2 97	USD 500M-USD 999M	↔100 100
	Asia Pacific	↔3, 6 91	<USD 500M	↔1, 3 96

■ Increase
 ■ Decrease
 ■ Stay the same
 ■ Increase
 ■ Decrease
 ■ Stay the same

More APAC respondents have required A-1+/P-1/F1+ ratings than U.S. and EMEA firms, according to past survey results, and that was truer still in our 2019 survey.

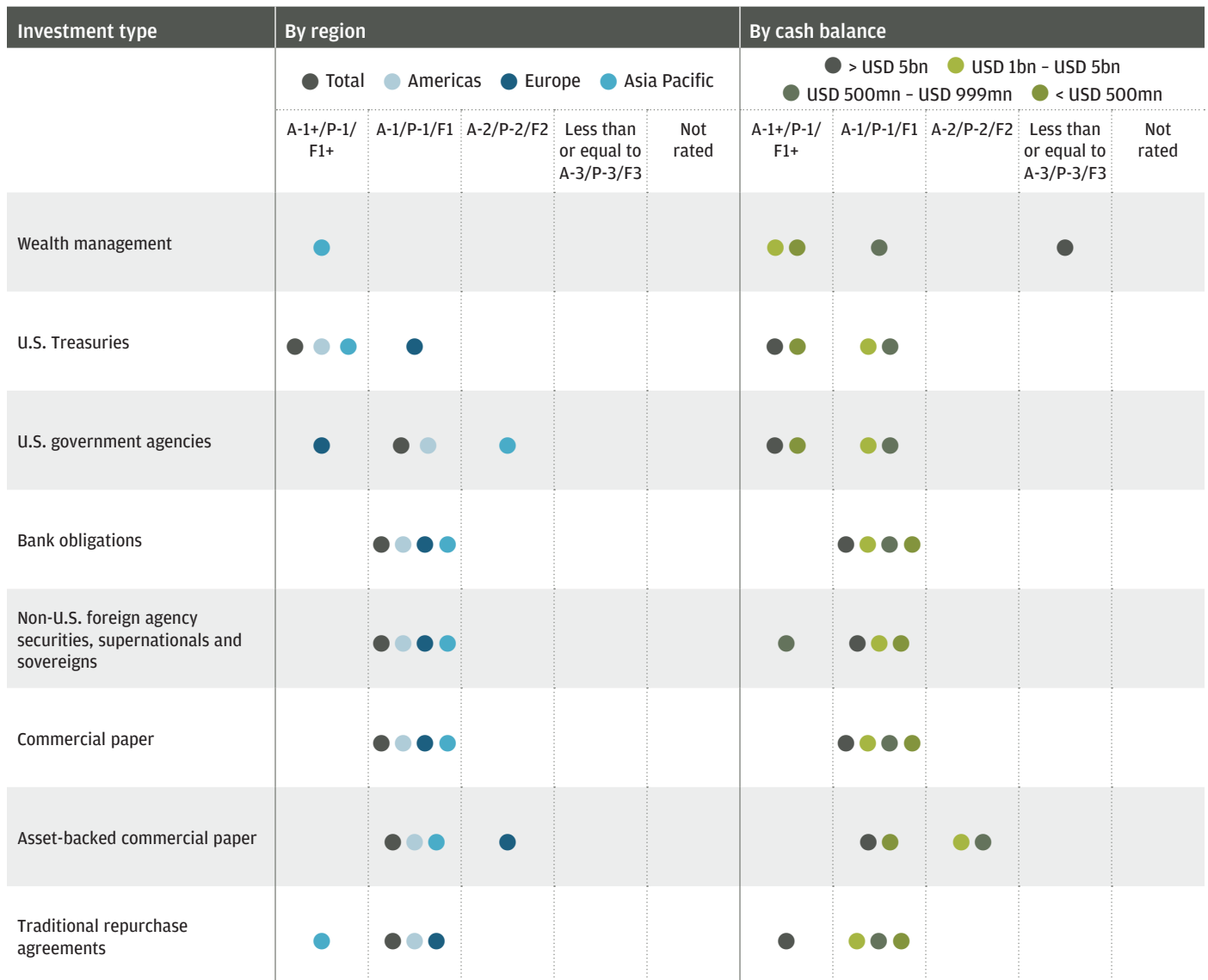
Investment policy: Credit rating and duration

SHORT-TERM CREDIT RATING

The minimum required credit ratings are mostly conservative at A-1/P-1/F1 for short-term securities, which is little changed from 2017.

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

EXHIBIT 11: MINIMUM SHORT-TERM CREDIT RATING REQUIRED*



* Please note that not all 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 11: MINIMUM SHORT-TERM CREDIT RATING REQUIRED* (CONTINUED)

Investment type	By region					By cash balance				
	● Total ● Americas ● Europe ● Asia Pacific					● > USD 5bn ● USD 1bn - USD 5bn ● USD 500mn - USD 999mn ● < USD 500mn				
	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
Non-traditional repurchase agreements	●	● ● ●					● ● ● ●			
Corporate debt securities		● ● ●	●				● ● ● ●			
Structured deposits (Asia Pacific participants only)		●				● ●	●		●	
Variable-rate demand notes		● ● ● ●					● ●	●		
Asset-backed securities	●	● ● ●					● ● ●	●		
Mortgage-backed securities	●		● ● ●				● ●	● ●		
Municipal notes		● ●	●			●	● ●	●		
High yield bonds		●	● ● ●				●	● ●		
Emerging market debt		●	● ● ●				● ●		●	

* Please note that not all 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.

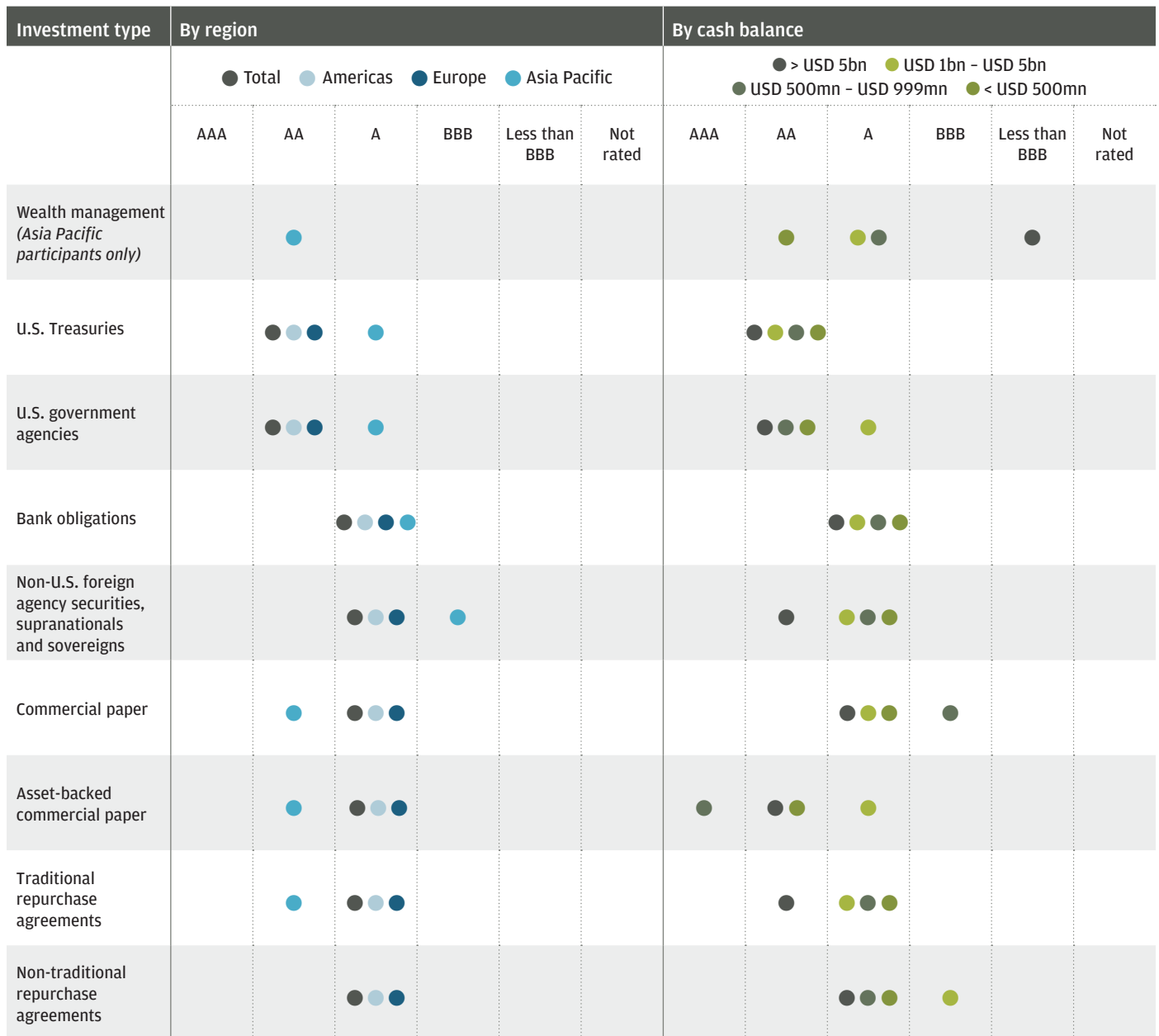
Investment policy: Credit rating and duration (cont'd.)

LONG-TERM CREDIT RATING

Most respondents, across the three regions and cash balances, have long-term minimum credit rating requirements ranging from AA to A.

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

EXHIBIT 12: MINIMUM LONG-TERM CREDIT RATING REQUIRED*



* Please note that not all 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 12: MINIMUM LONG-TERM CREDIT RATING REQUIRED* (CONTINUED)

Investment type	By region						By cash balance					
	● Total ● Americas ● Europe ● Asia Pacific						● > USD 5bn ● USD 1bn - USD 5bn ● USD 500mn - USD 999mn ● < USD 500mn					
	AAA	AA	A	BBB	Less than BBB	Not rated	AAA	AA	A	BBB	Less than BBB	Not rated
Corporate debt securities			● ●	● ●					● ● ●	●		
Structured deposits <i>(Asia Pacific participants only)</i>		●					●	● ●		●		
Variable-rate demand notes		●	● ●	●					● ● ●			
Asset-backed securities			● ●	● ●			●	● ● ●				
Mortgage-backed securities			● ●	● ●			●	● ● ●				
Municipal notes			● ● ●	●				● ● ● ●				
High yield bonds			●	● ● ●					●	● ●		
Emerging market debt				● ● ● ●						● ● ●		

* Please note that not all 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.

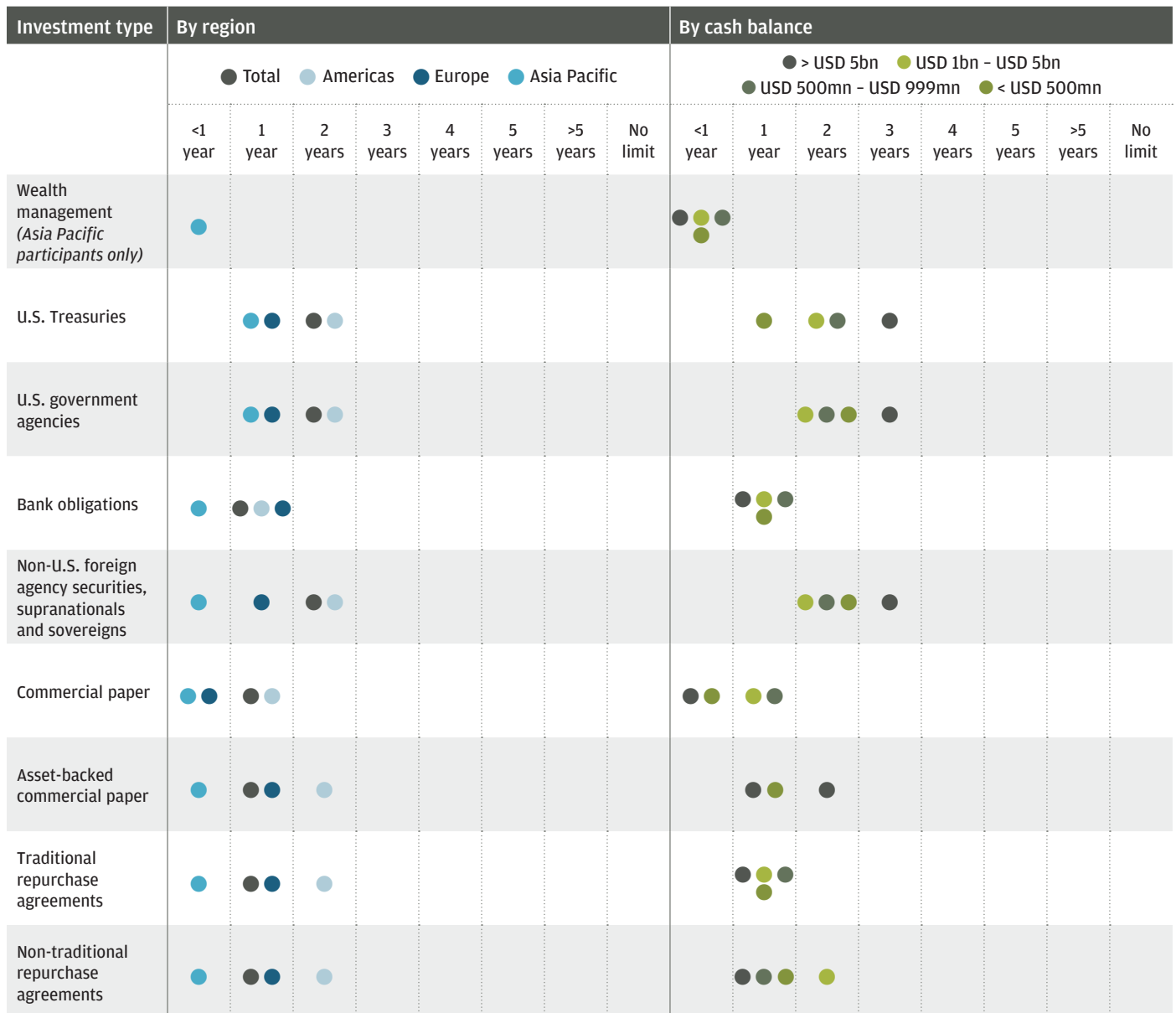
Investment policy: Credit rating and duration (cont'd.)

MAXIMUM FINAL MATURITY

Firms with over USD 5bn in cash balance 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?*

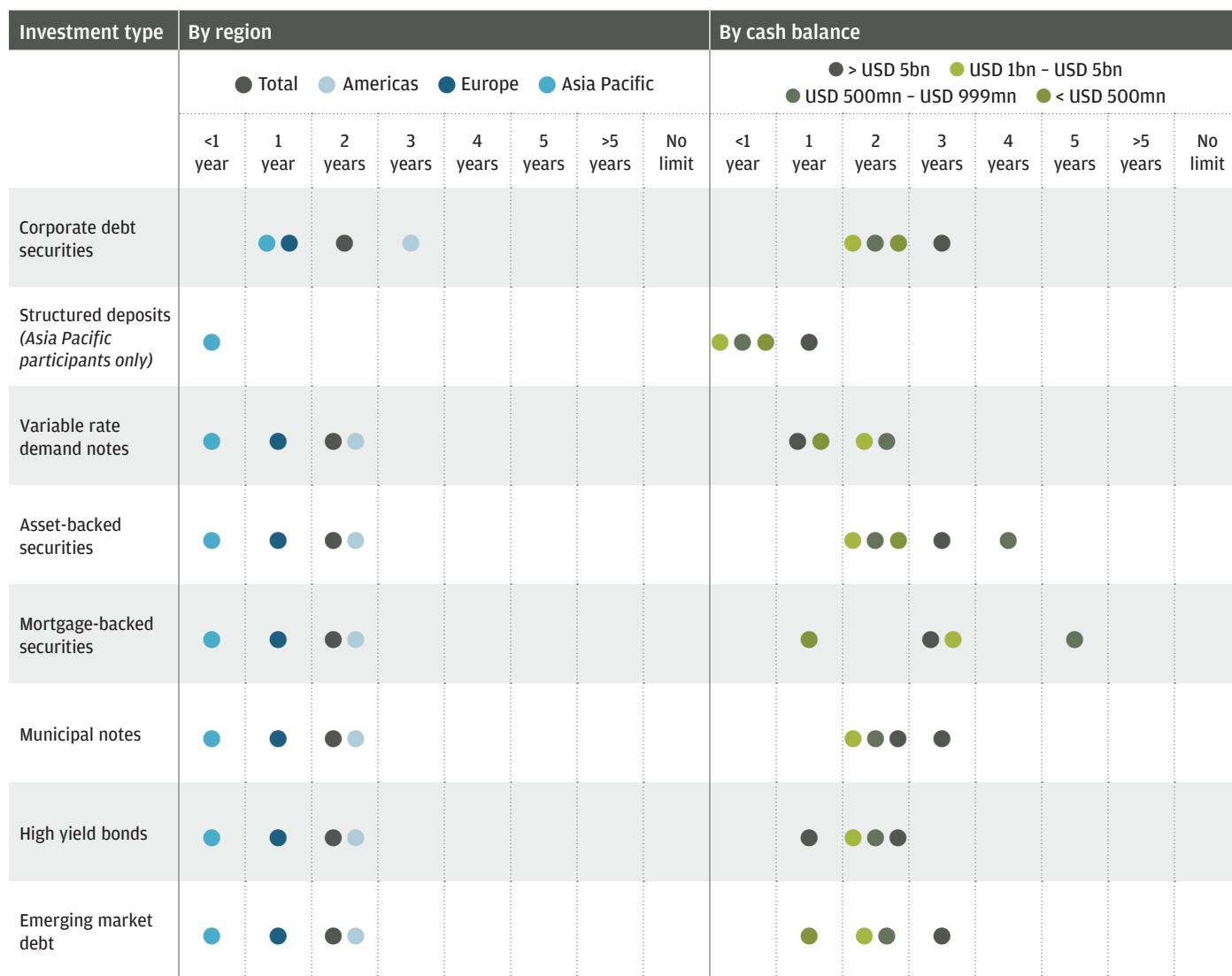
EXHIBIT 13: MAXIMUM FINAL MATURITY**



* Not all 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 those participants classified as Group B (those whose firms are more diversified in their investments).

** Please note that not all 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 13: MAXIMUM FINAL MATURITY (CONTINUED)**



*Not all 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 those participants classified as Group B (those whose firms are more diversified in their investments).

** Please note that not all 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 show 26% of respondents using currency swaps to mitigate the impact of negative interest rates in euro- and/or sterling-denominated investments, an increase from 23% in 2017.

Investment policy: Duration

Most firms have a median maximum permissible portfolio duration of six months to less than one year (consistent with our 2015 and 2017 surveys' results), although European firms continue to 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 14A: MAXIMUM DURATION

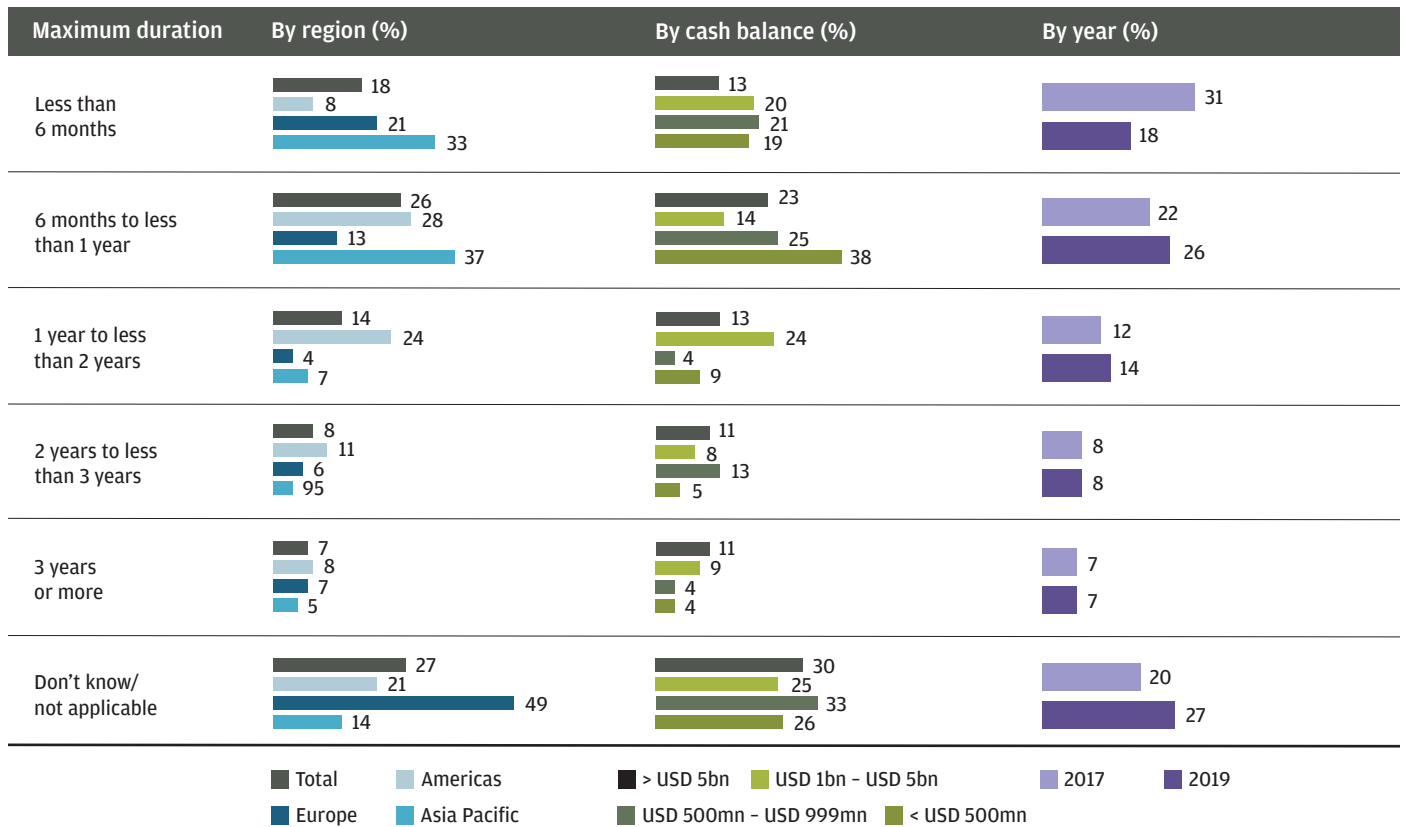
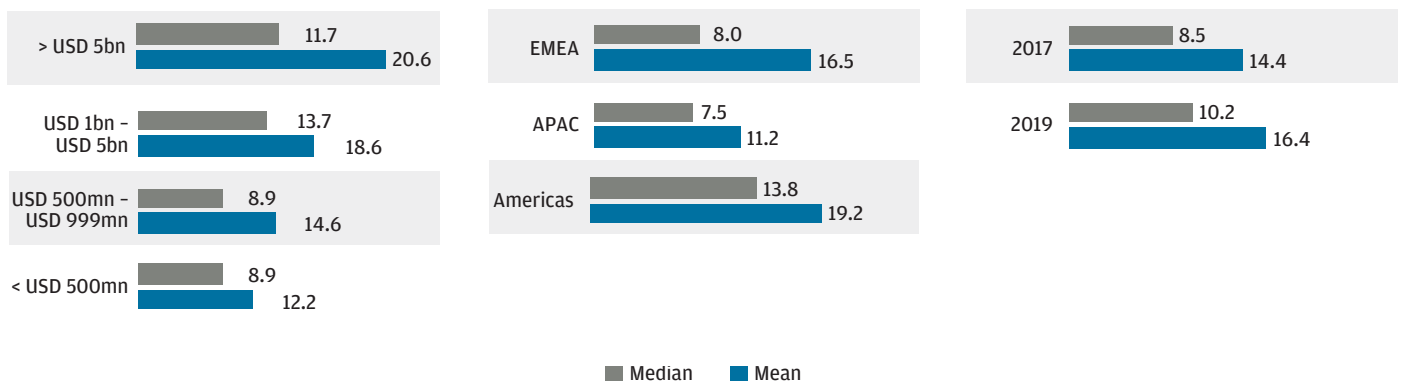


EXHIBIT 14B: MEDIAN AND MEAN MONTHS MAXIMUM DURATION



Investment challenges: Overall leading concerns

When asked what investment challenges they are expecting in the next 12 months, worldwide, two-thirds of respondents said rising political risk (U.S.-China trade war, Brexit, etc.) was a top concern. However, each region has other concerns, not necessarily shared by the others.

Q: What investment challenges are you expecting in the next 12 months?

EXHIBIT 15: INVESTMENT CHALLENGES

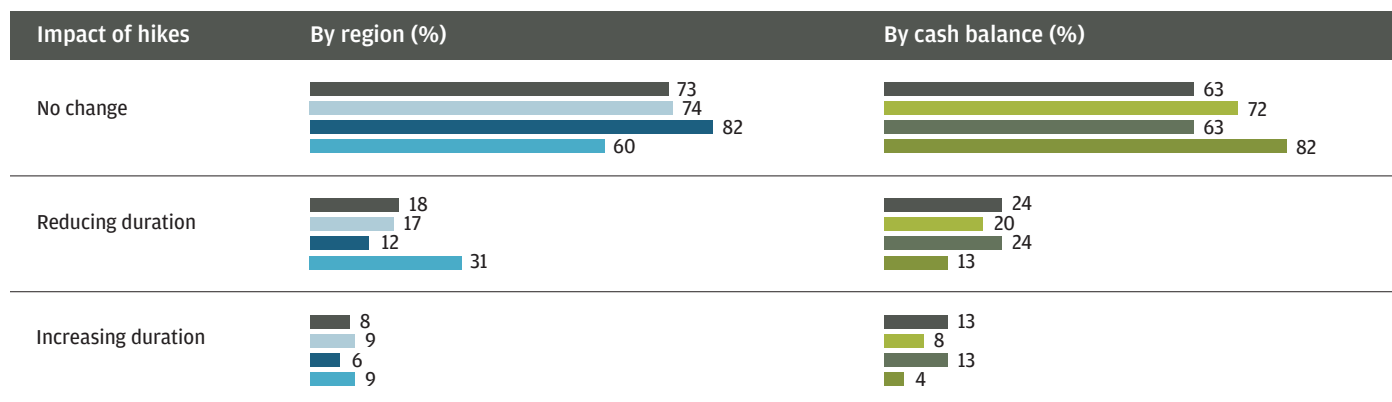
	Total (%)	U.S. (%)	EMEA (%)	APAC (%)
Rising political risk (China trade war, Brexit, etc.)	67	62	71	70
Yield curve inversion	44	52	31	47
Increasing and/or more complex cash needs for business growth	31	35	22	35
Negative yields/returns	24	16	39	17
Regulatory changes	27	14	26	55
Rising credit and default risk in China	5	1	2	21

■ Most important ■ 2nd most important ■ 3rd most important

Globally, 73% of respondents said rate hikes had not caused them to change their investment strategy.

Q: How is your view on interest rate hikes impacting your investment strategy?

EXHIBIT 16: IMPACT OF INTEREST RATE HIKES



■ Total ■ Americas
■ Europe ■ Asia Pacific

■ > USD 5bn ■ USD 1bn - USD 5bn
■ USD 500mn - USD 999mn ■ < USD 500mn

Investment challenges: Overall leading concerns

When it comes to mitigating the impact of negative interest rates on euro- and/or sterling-denominated investments, most respondents (68%) have not changed their firms' investment policies around credit risk. Of note, however, 28% say that they have increased credit risk (up slightly from 25% in 2017). Most respondents also have not changed their interest rate risk policies (64%), but 26% have increased it (up from 23% in 2017). And 33% have increased their use of currency swaps (vs. 20% in 2017).

Q: What investment challenges are you expecting in the next 12 months?

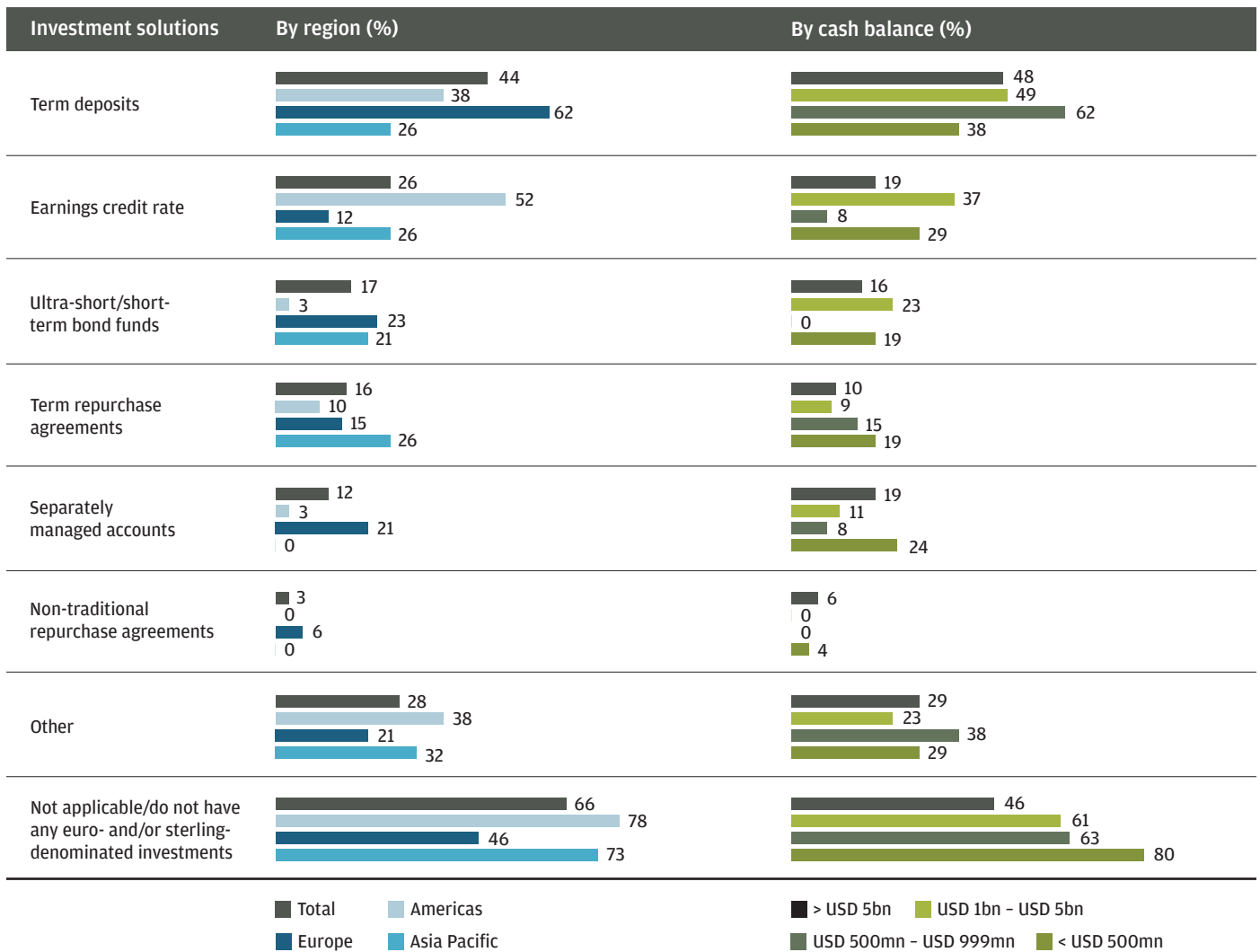
EXHIBIT 17: PERCENTAGE INCREASED USAGE

	Total (%)	U.S. (%)	EMEA (%)	APAC (%)
Credit risk (counterparties)	28	7	25	69
Interest rate risk (duration)	26	14	20	63
Currency swaps	33	14	32	69

Term deposits (selected by 44% of respondents) continue to be the most popular investment solution overall to avoid negative interest rates in euro- and/or sterling-denominated investments. Their usage is significantly higher in Europe.

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

EXHIBIT 18: INVESTMENT SOLUTIONS TO AVOID NEGATIVE INTEREST RATES IN EUR/GBP-DENOMINATED INVESTMENTS



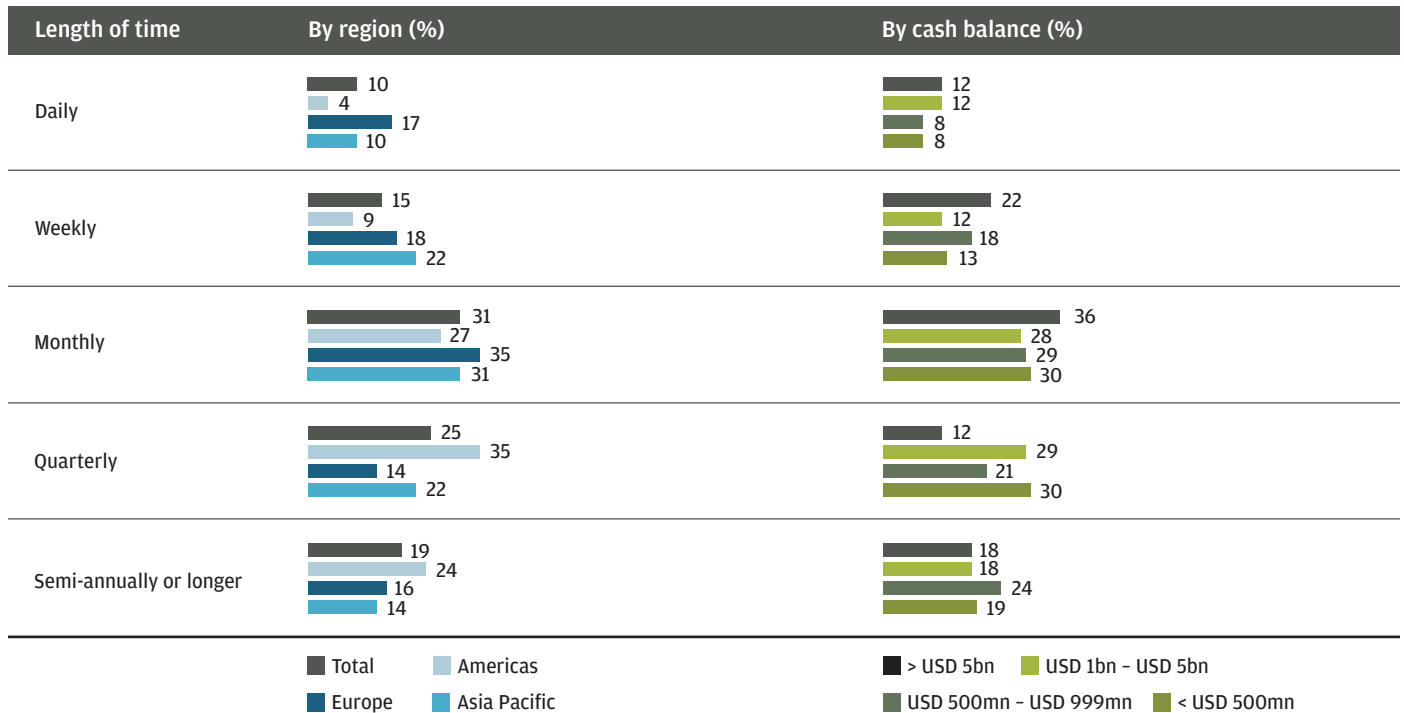
Firms in the Americas are less likely to use term repurchase agreements (10%) than those in Europe (15%) and Asia Pacific (26%).

Cash segmentation: Cash flow forecast

Just under half (44%) of firms are able to accurately forecast their cash flows out quarterly or longer: 59% of companies in the Americas have this capability, while only 36% of Asia Pacific firms can accurately forecast their cash flows out quarterly or longer.

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

EXHIBIT 19: LENGTH OF TIME OUT ABLE TO ACCURATELY FORECAST CASH FLOWS



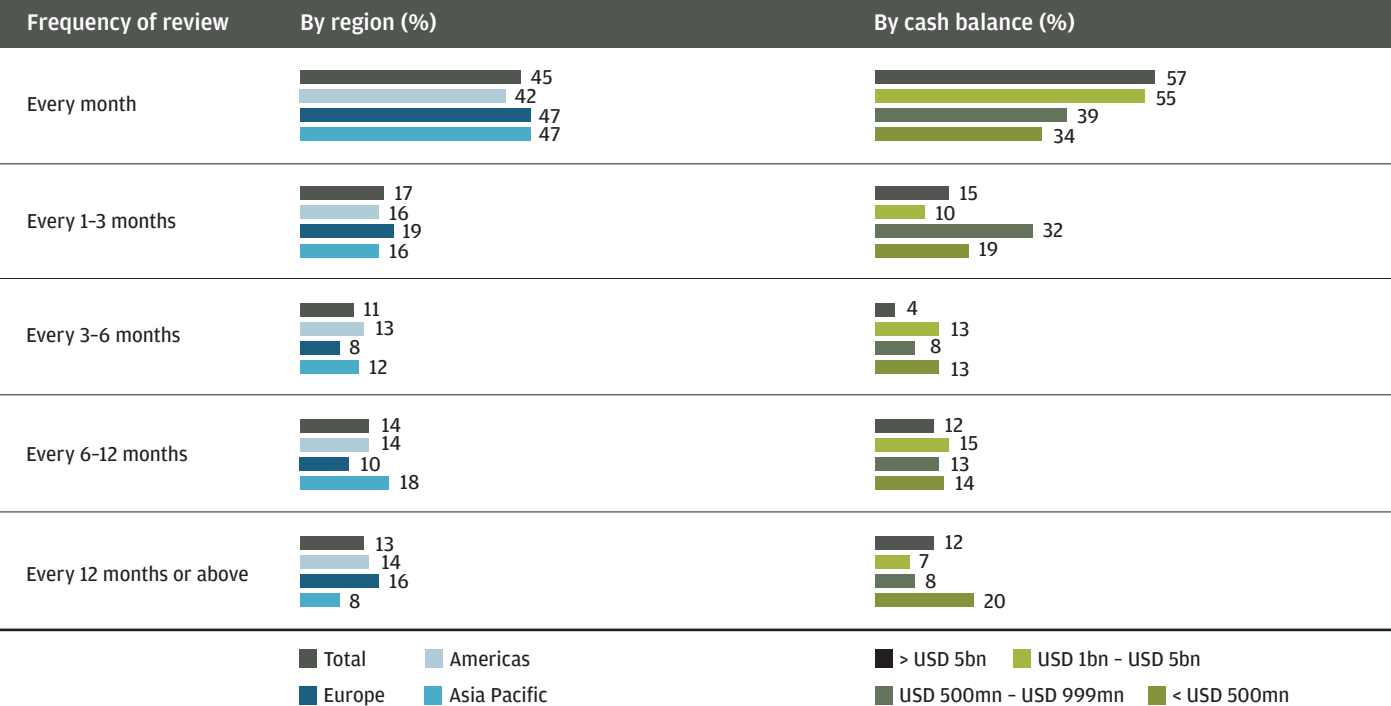
Among the companies surveyed, the group able to view cash flows out the furthest were firms with cash balances of USD 500mn-USD 999mn: 24% of them could forecast semi-annually or longer.

Cash segmentation: Off balance sheets

About 45% of companies surveyed overall review and/or take action to reallocate investments from their bank to alternative options every month. The percentage rises to 45% for companies with more than USD 5bn in cash balances.

Q: What is the frequency you review or take action on your investment options?

EXHIBIT 20: FREQUENCY OF REVIEW

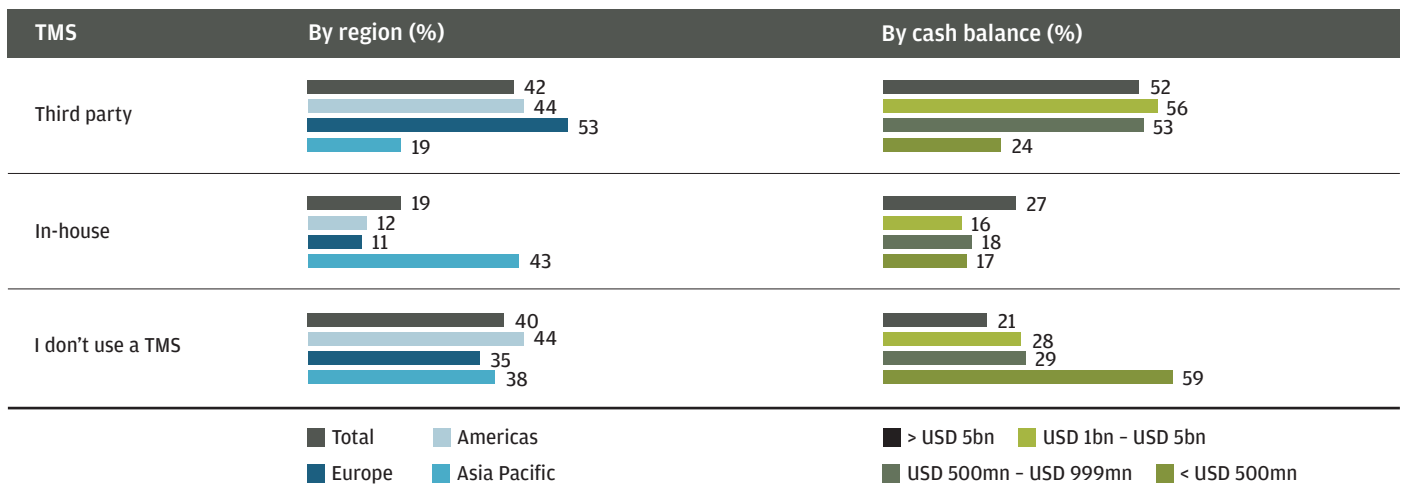


Other topics: Technology

Treasury management systems (TMS) are used by 61% of respondents, with 19% using in-house resources. APAC leads in resourcing in-house (43%), while the Americas and Europe are 12% and 11% in-house, respectively. Of the 209 using a TMS solution, 68% found the benefit of integrating MMF investments into it medium to high.

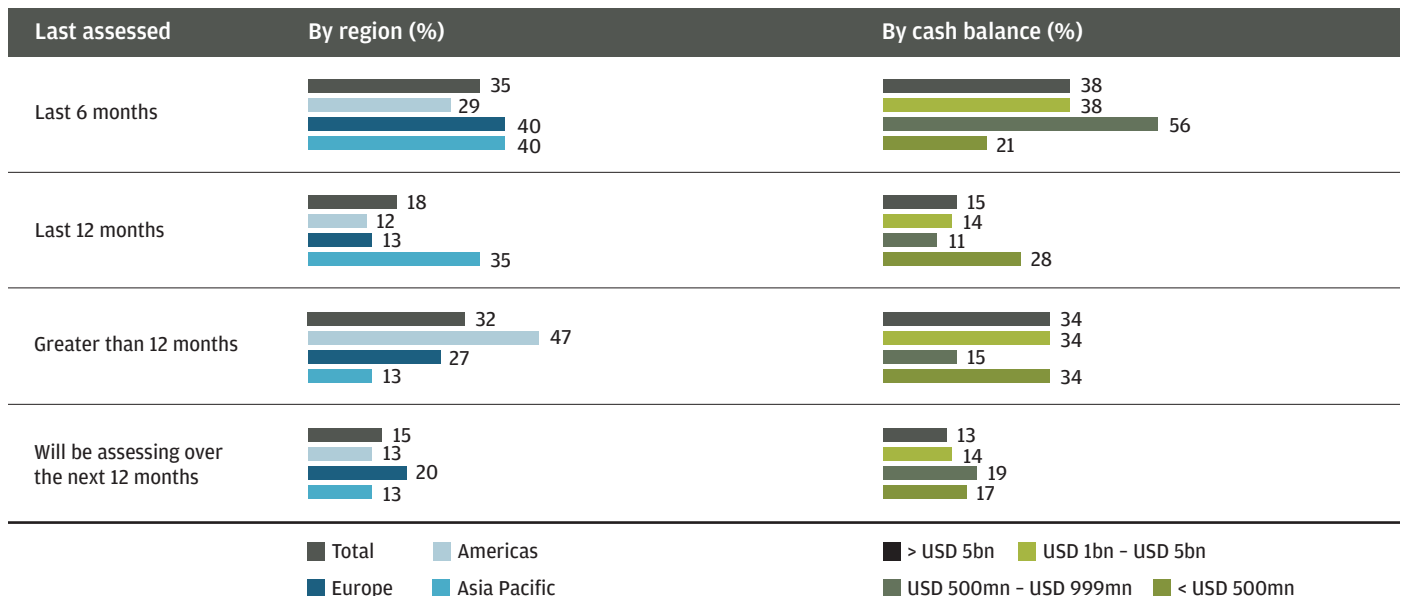
Q: What treasury management system do you use today?

EXHIBIT 21: CURRENT TMS



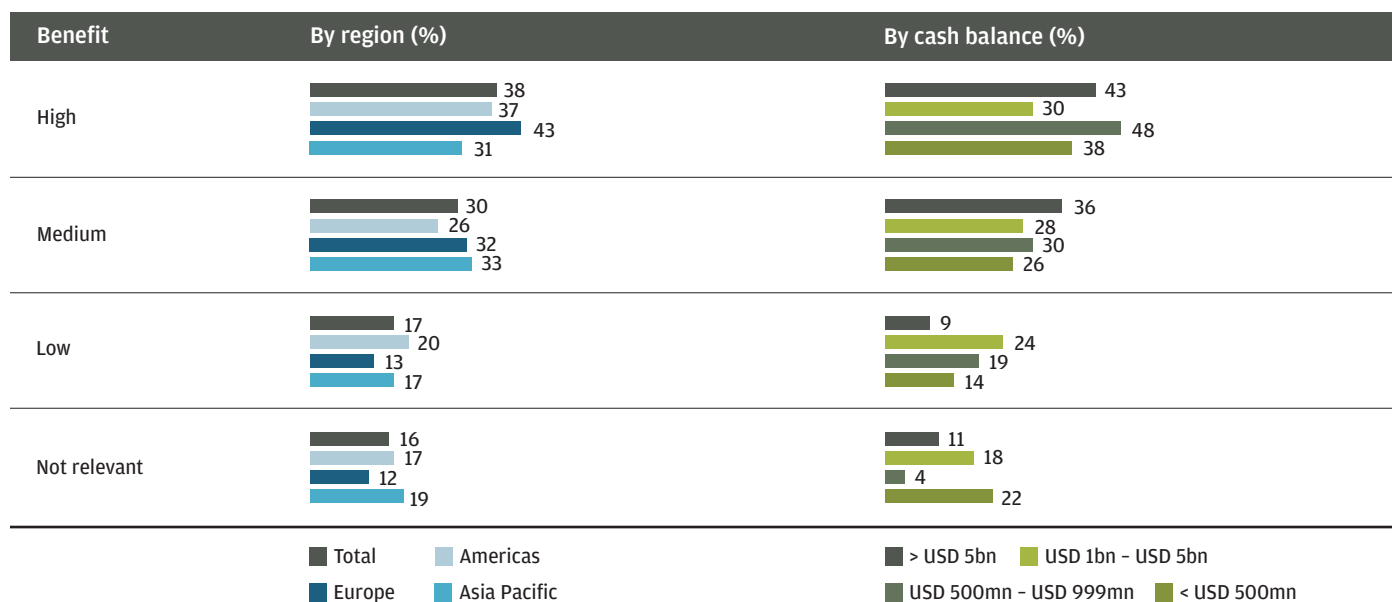
Q: How recently have you assessed a change in your TMS solution?

EXHIBIT 22: LAST ASSESSED TMS



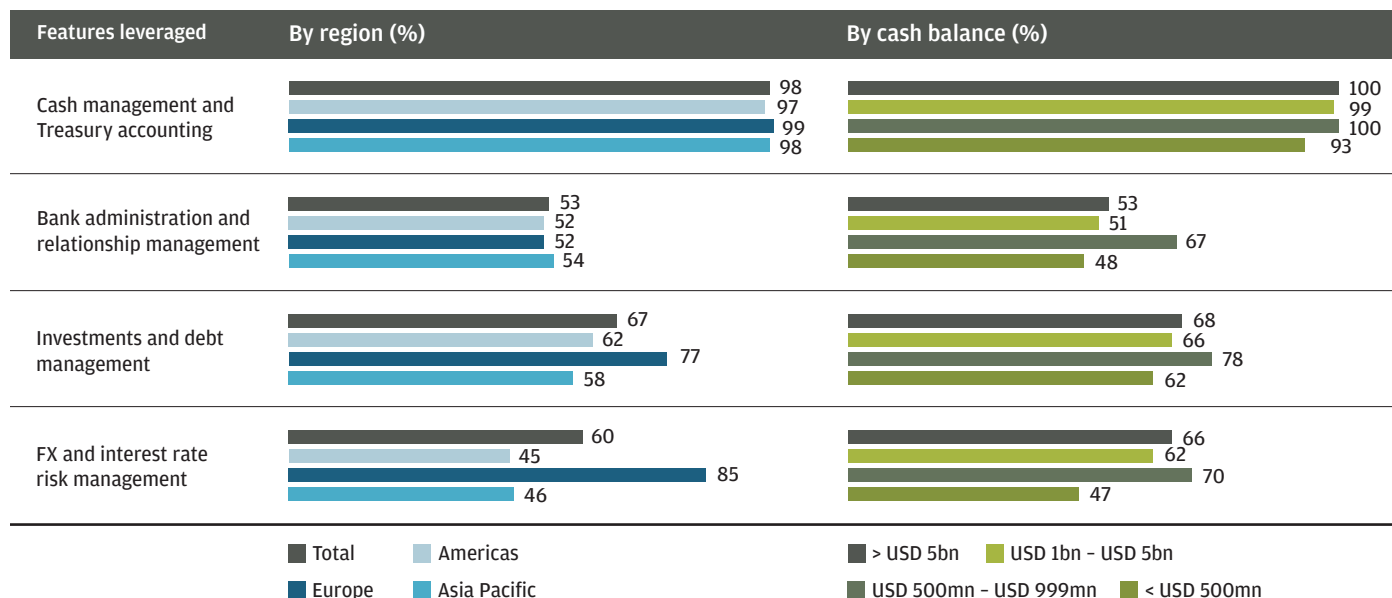
Q: How highly do you rate the benefit of integration of MMF investments into your TMS solution?

EXHIBIT 23: BENEFIT OF MMF INTEGRATION



Q: Which features do you leverage in a TMS solution?

EXHIBIT 24: FEATURES LEVERAGED

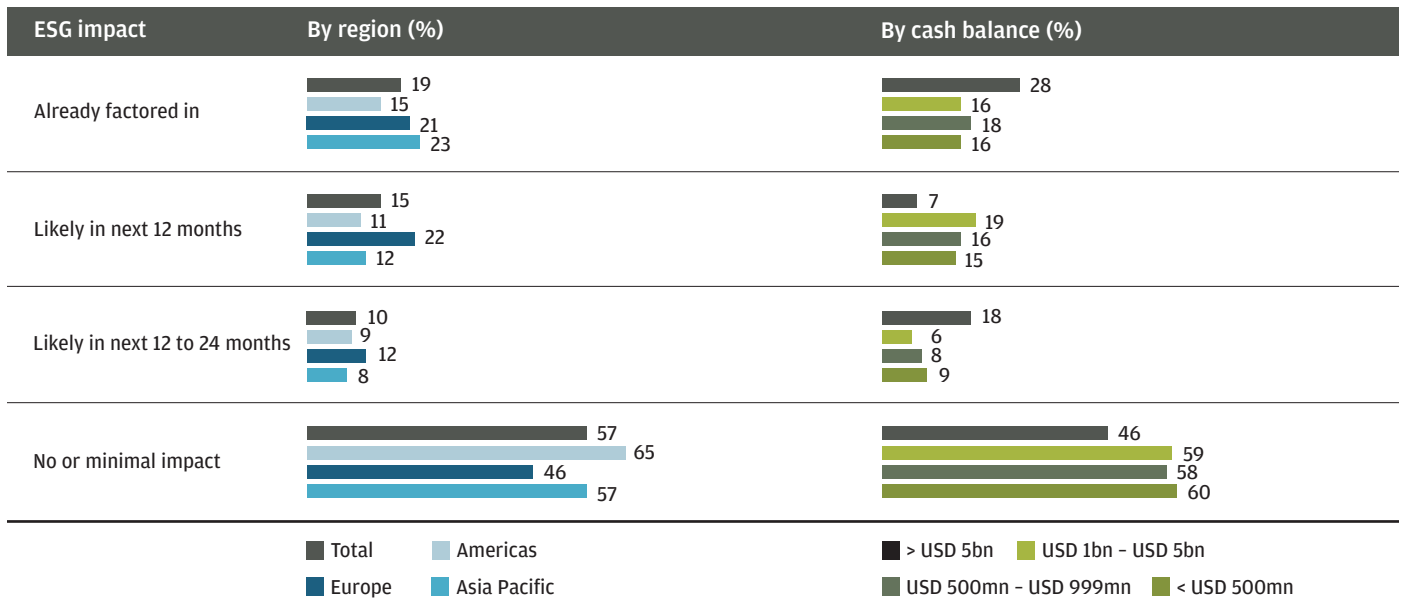


Other topics: Environmental, social and governance (ESG)

Nearly a fifth of all respondents currently factor ESG into their investment decisions, with another 25% planning to do so within two-years.

Q: How strongly are environmental, social and governance factors impacting your future credit investment decisions?

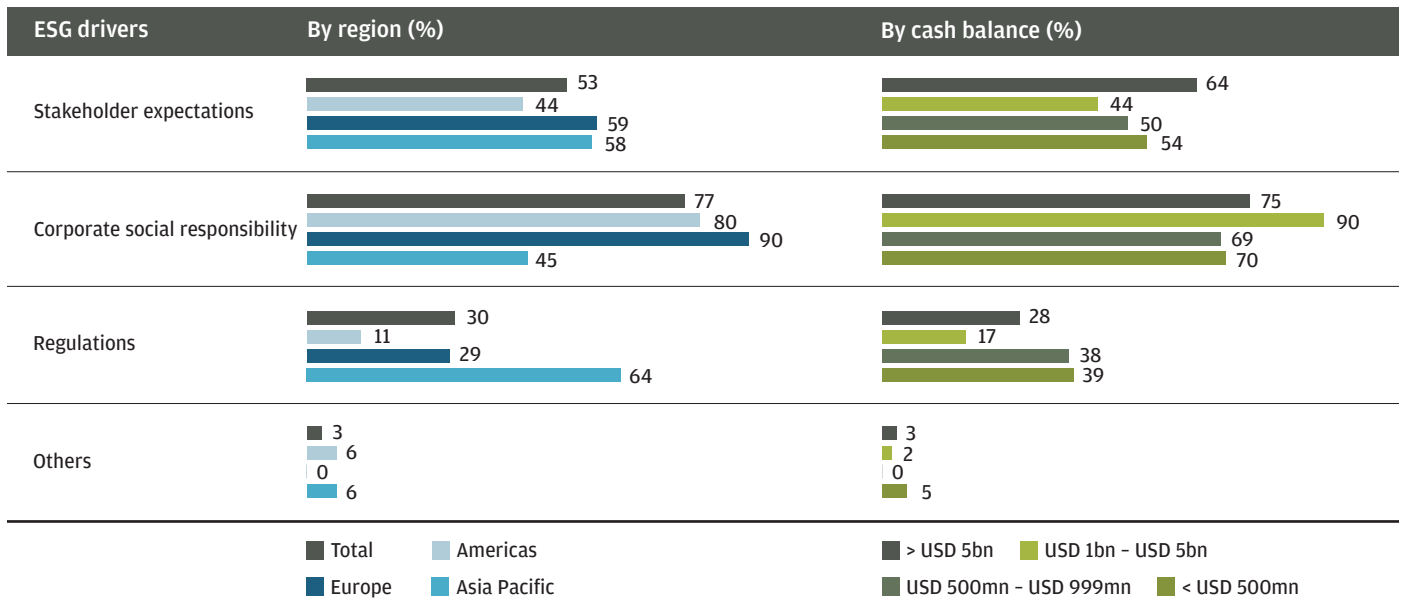
EXHIBIT 25: IMPACT ON FUTURE DECISIONS



Corporate social responsibility topped the list of reasons for factoring in ESG, followed by a desire to meet stakeholder expectations. Respondents said regulatory pressure had a much smaller effect, except in the Asia Pacific region.

Q: If you've already factored in ESG, or are likely to, what is driving this move?

EXHIBIT 26: DRIVERS

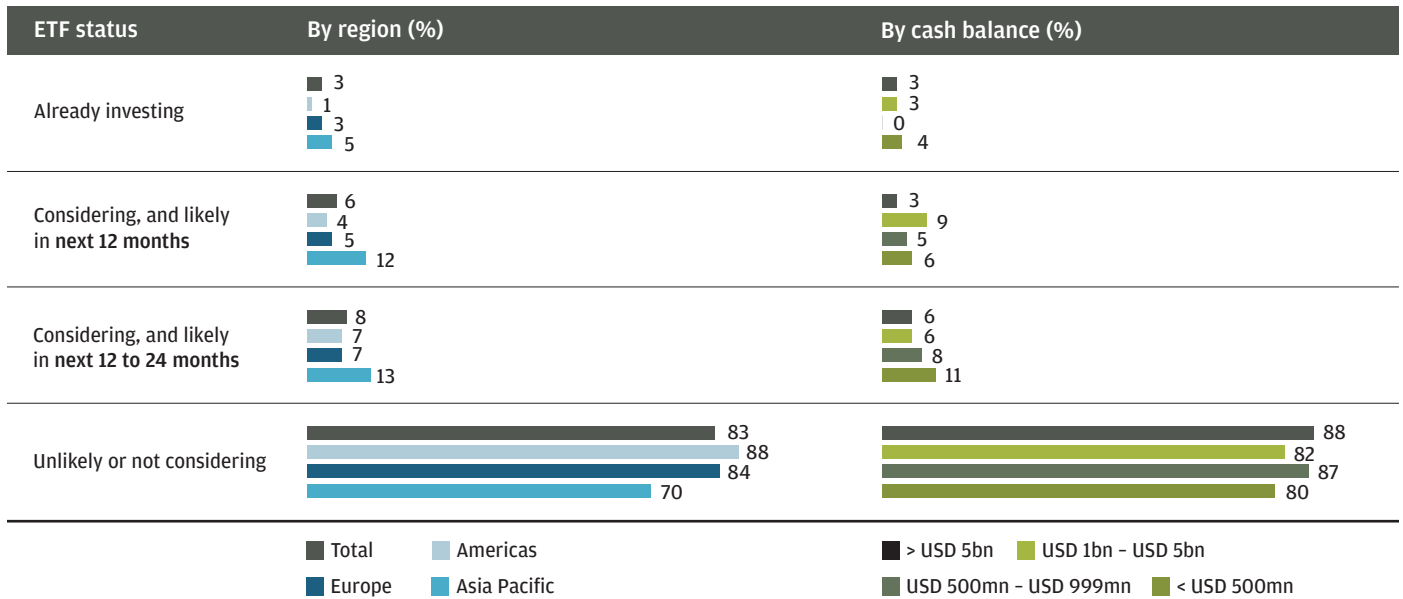


Other topics: Exchange-traded funds (ETFs)

Few firms are currently investing in ultra-short fixed income ETFs, mainly due to restrictive investment policy statements; more than 80% of those surveyed said they were unlikely to consider, or were not considering, doing so. Respondents in APAC were the most likely (13%) to say they would consider such investments in the next 12 to 24 months.

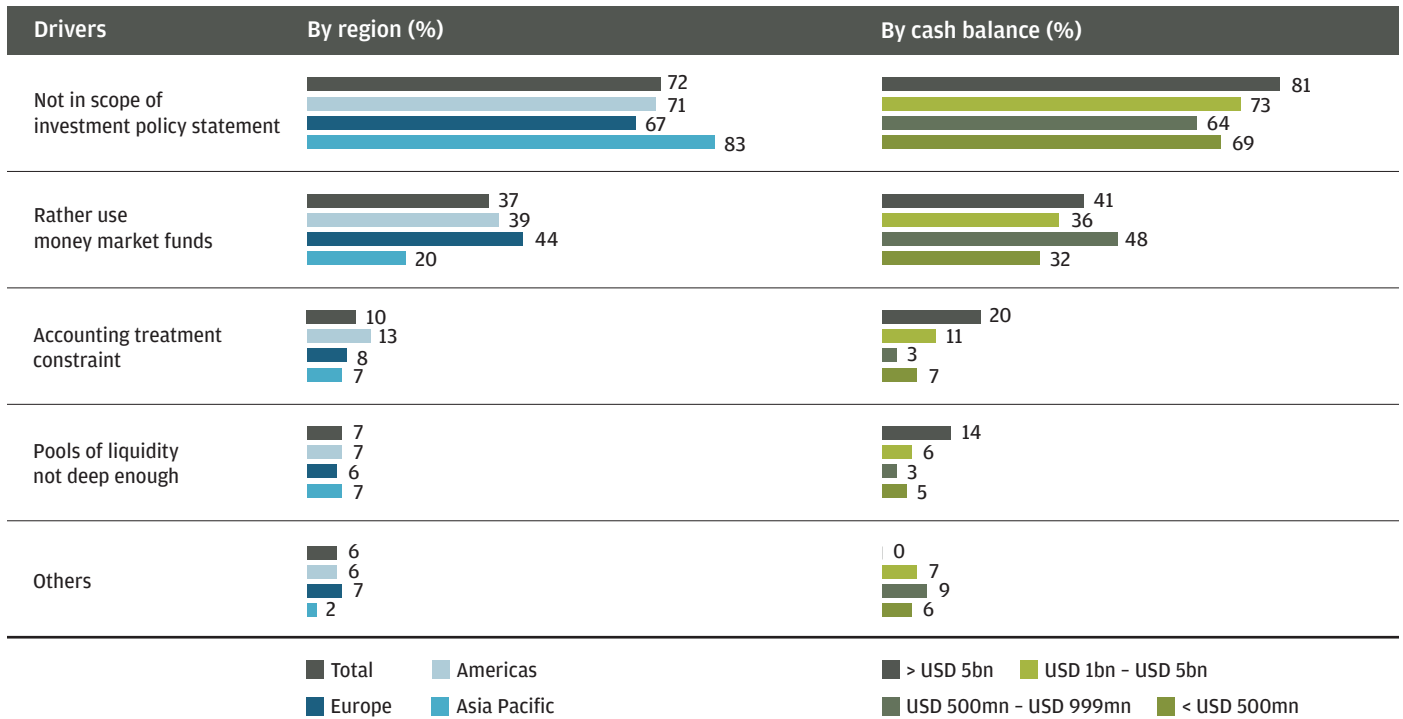
Q: Are you currently invested in ultra-short fixed income ETFs?

EXHIBIT 27: CURRENT INVESTING IN ETFs



Q: If you are not currently investing in or considering ETFs as part of your cash investment, what is driving this decision?

EXHIBIT 28: DRIVERS FOR NOT INVESTING IN ETFs



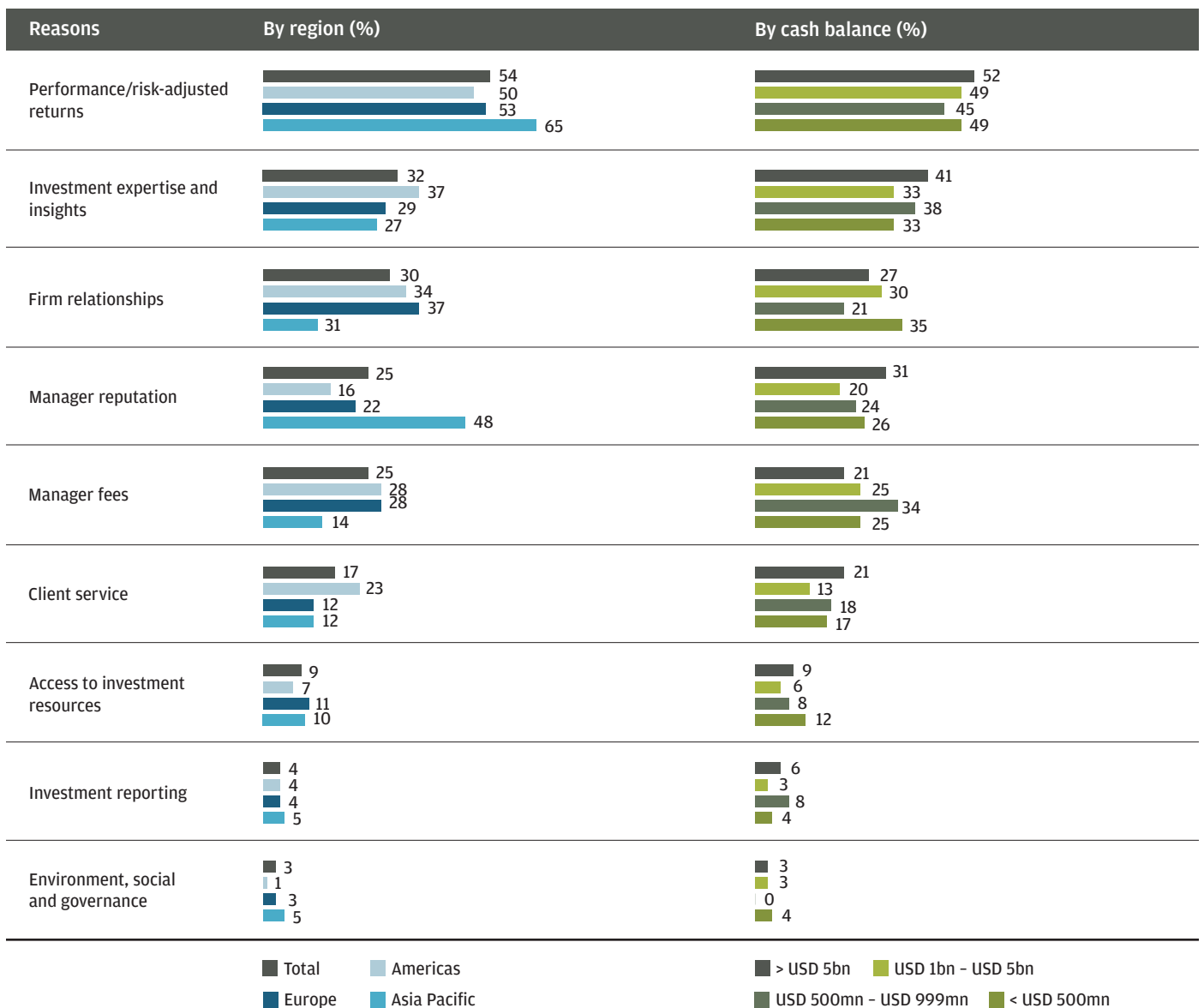
After performance and returns, ranked first in all regions, Asia Pacific firms put the emphasis next on manager reputation (48%), while respondents in the Americas and Europe cite firm relationships as the more important consideration.

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 regions and cash balances.

Q: Please rank the top 5 reasons in order of importance when selecting an asset manager and/or fund sponsor.

EXHIBIT 29: TOP REASONS FOR SELECTING AN ASSET MANAGER



Conclusion

CONTACT

For further information, please contact your J.P. Morgan Global Liquidity Client Advisor or Client Services Representative at:

(852) 2800 2792 in Asia Pacific

(352) 3410 3636 in Europe

(302) 634 2960 in Latin America

(800) 766 7722 in North America

www.jpmorgan.com/peerview

This year's J.P. Morgan Global Liquidity Investment PeerViewSM 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 slowing growth, trade tensions and a shifting interest rate 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, rising political risk tops the list of investment challenges, with respondents grappling with U.S.-China trade tension and concerned about Brexit. They are increasingly turning toward sustainable, socially responsible investing using ESG criteria to select investments. At a time of global change and evolving macroeconomics and financial markets, the demand for money market funds remains strong –MMFs remain the most permissible security within investment policies.

In a world of negative rates, many investors long for the days of zero yields. On the positive side, bond prices continue to rise and investors can still achieve positive returns through conservative credit exposure and currency hedging. Our survey finds that opportunities may arise as investors re-examine their cash investment decision-making; many Asia Pacific investors intend to add new products to their portfolios.

During this time, 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:

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