

Private Bank



FAMILY OFFICE SURVEY 2021

Citi Private Capital Group

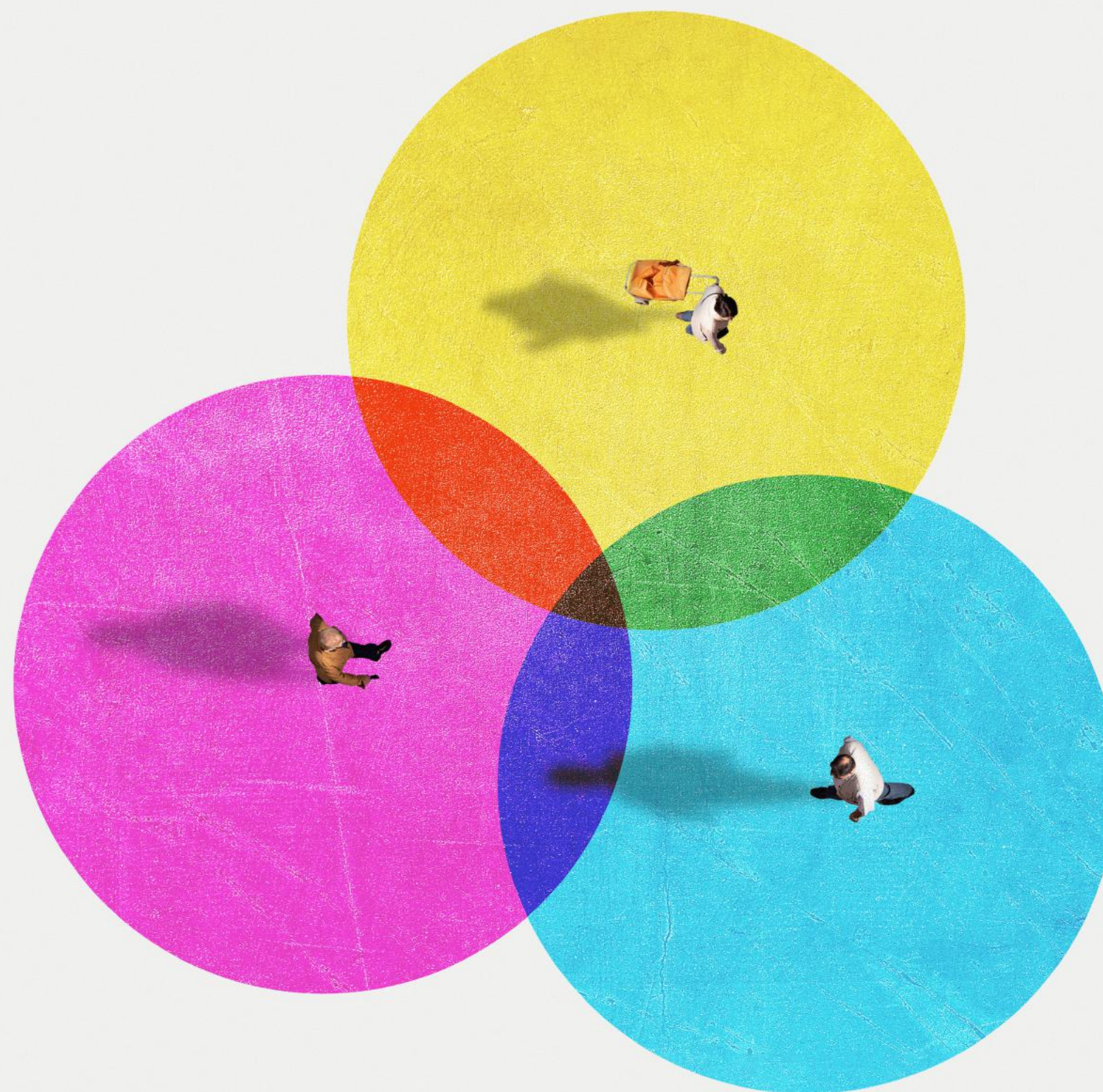




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Foreword

I am pleased to introduce the results of our Family Office Survey 2021, which we conducted as part of our sixth annual Family Office Leadership Program in June 2021.

Coming off the success of the 2020 virtual summit, and while some parts of the world continued to make progress in the fight against the COVID-19 pandemic, we decided to host the 2021 edition of this event virtually as well. However, it is our intention, circumstances permitting, to revert to our in-person format in New York in 2022. Of course, we will look to incorporate elements of our virtual format and our teams will gear up for a new hybrid era.

This year's event was a success, with several thousand attending each of the sessions, which featured live conversations with Eric Schmidt, Al Gore, Cathie Wood and Ray Dalio, among many others. We tailored the program content to the topics most important to our global family office clients and are grateful to receive your feedback - we received more survey responses than ever before.

The results and analysis in this report offer a rare insight into the thinking of some of the world's most sophisticated family office executives and leading investors. We asked them about their outlook for the global economy and financial markets, as well as what they are doing with the portfolios that they oversee, the opportunities and risks ahead and the actions they expect to take. The responses we received make for fascinating reading and represent diverse perspectives from each of the regions that Citi Private Bank serves. I would like to thank everyone who generously gave their time to participate in the survey, and I hope you find the results as illuminating as we have.

I also want to commend all our guest speakers who shared their perspectives freely with us during the virtual summit, as well as thank Stephen Campbell, James Holder and Ajay Kamath for their efforts organizing the summit and this report.

While we hope to gather for next year's Family Office Leadership Program in person, we will also aim to provide virtual access so that as many as possible can continue to experience this very special event.

Thank you for the trust and confidence you place in Citi Private Bank.



Ida Liu,
Global Head of Private Banking,
Citi Global Wealth

Executive summary: Glimpse of predominant client themes in a challenging climate

Over the past six years, we have had the opportunity to work closely with many of the world's sophisticated family office executives and principals, who have been generous with their time to share their unique perspectives and insights as part of the Family Office Leadership Program as well as via concurrent surveys. Their insights have proven to be a bellwether for investing sentiment as well as a guide to evaluate performance and strategy versus their cohorts. This year, we were excited to see an increase of 11% in the total number of respondents, bringing it to nearly 200, of which, 156 self-identified as family offices.

There were four predominant themes worth mentioning following a close review of the responses:

- Concern on rising Inflation topped the list of worries over the next 12 months with nearly 30% indicating that to be at the top of their concerns (see Page 4).
- High cash levels in the face of low-yield environment with 32% of family offices holding over 20% in cash and highly liquid assets (see Page 4).
- Continued growth in portfolio allocation to direct investing opportunities with 44% of family offices allocating over 25% of their portfolio (see Page 6).

- A remarkable comeback in portfolio values year over year in a period of high degree of uncertainty with over half reporting an increase greater than 10%; a far cry from last year where only 3% reported similar gains (see Page 8).

A few other notable observations include:

- Gradual but less than expected interest in sustainable investing and portfolio alignment with ESG principles (see Page 9).
- An expected mix of interest coupled with a high degree of scepticism in crypto assets (see Page 9).

So, what do the family offices expect in the next 12 months? There appears to be a sense of cautious optimism in spite of a wide variety of opposing influences, including concerns around COVID-19, perception of peak market valuations and inflationary issues among other anxieties. While over three fourths of all respondents expect returns of 5% or more, interestingly, the outlook is more optimistic for family offices with AUM under \$500 million with 30% expecting over 10% returns versus 19% of family offices with AUM over \$500 million.

Our program participants also shared some insight on their top issues and challenges, and preparations to manage transition to the next generation. Over a third of respondents pointed to managing transition to the next generation as their biggest challenge and less than half of those felt fully prepared to manage that smoothly. No doubt, in our engagements, this continues to be a consistent theme and certainly one that we are proud to support our clients with.

Finally, we hope the detailed observations on our findings along with the analysis and commentary from our Chief Investment Officer David Bailin and Chief Investment Strategist Steven Wieting included in this survey report prove to be a meaningful and fascinating read.

As always, the Citi Private Bank team is available to help answer your questions and make sense of the results in the context of your specific portfolio needs.

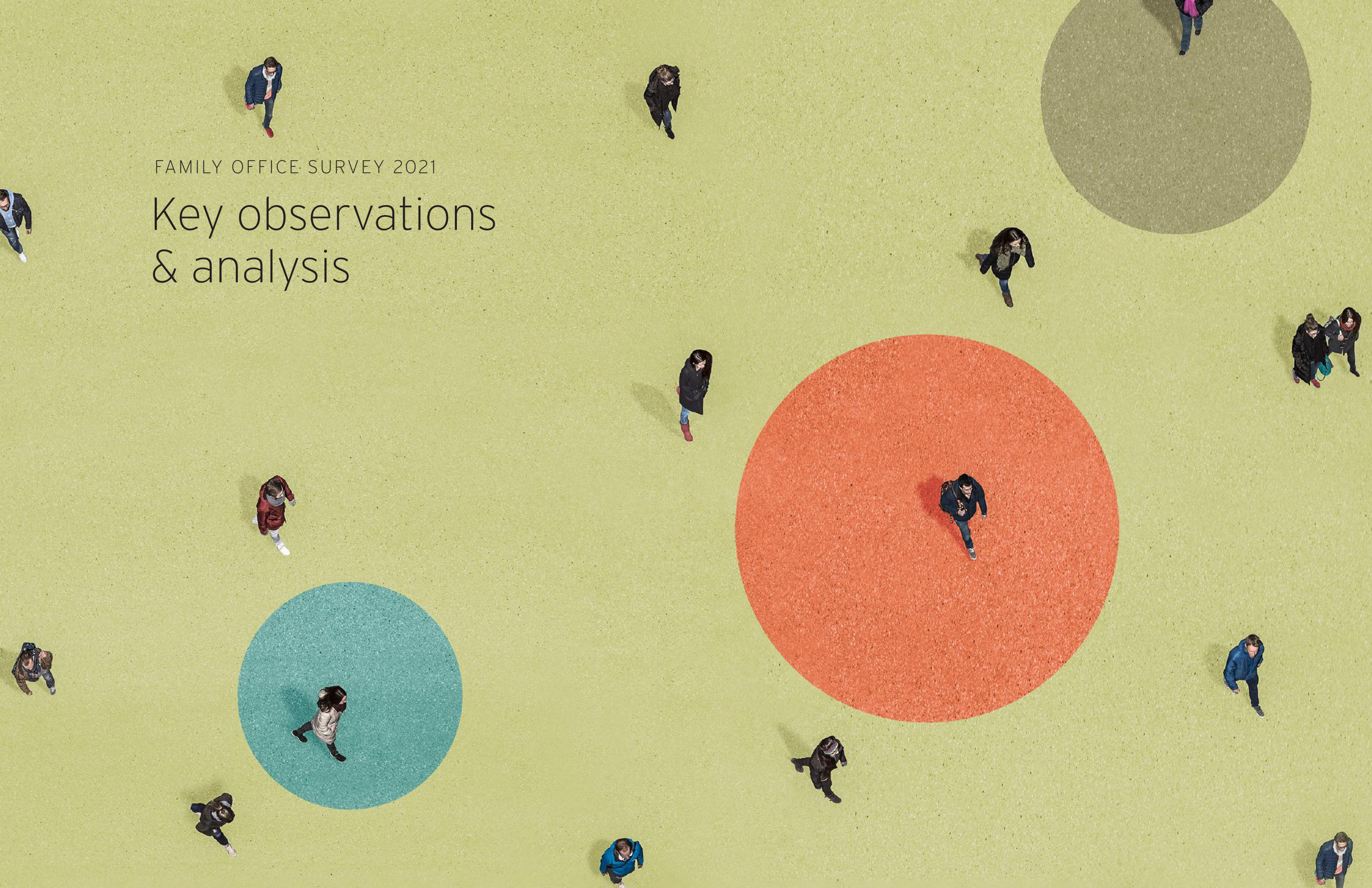


Stephen Campbell,
Chairman,
Citi Private Capital Group



FAMILY OFFICE SURVEY 2021

Key observations & analysis

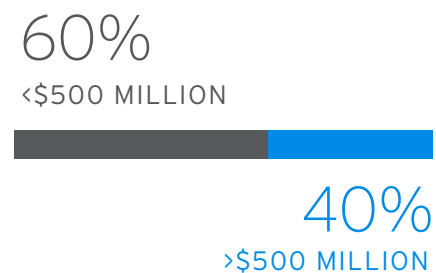


197 | RESPONDENTS
156 FAMILY OFFICES

Participant data and demographics

NUMBER OF RESPONDENTS

The total number of respondents for 2021 Citi Private Capital Group survey increased to 197 versus 177 in 2020; an uptick of 11%. Of the 197 respondents, 79% or 156 were family offices; an increase of 24% year over year. The overall increase in the survey responses as well as increased participation by family offices makes the data even more valuable and relevant for analysis and attribution.

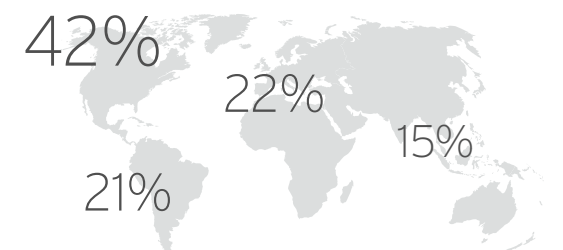


ASSETS UNDER MANAGEMENT

Nearly 40% (63 in 2021 versus 47 in 2020) of the family office respondents managed assets over \$500 million of which 54% (34) managed \$1 billion plus, while the remaining 60% managed less than \$500 million.

GEOGRAPHIC SPREAD

The responses in 2021 were proportionate with Citi Private Bank's overall client base with family offices in North America representing 42% of overall responses, followed by 22% from EMEA and Middle East, 21% from LATAM and 15% from Asia Pacific.



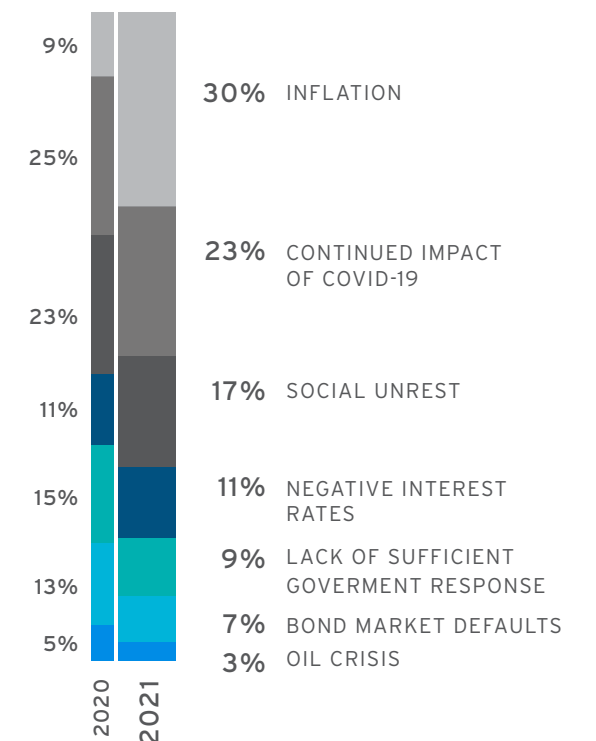
Investor sentiment

NEAR-TERM WORRIES

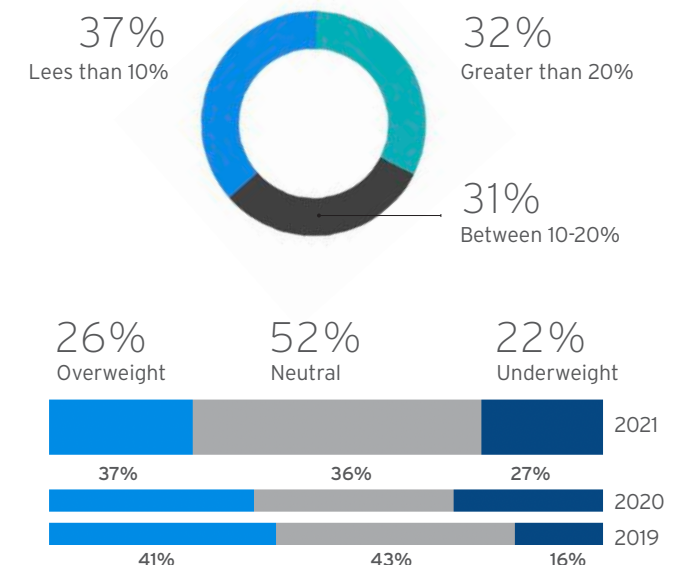
Unsurprisingly, inflation tops the list of clients' worries over the next 12 months, with 30% indicating inflationary concerns to be at the top of their list. In 2020 at the time of the survey, there was significant uncertainty about the vaccine development and rollout. While we now do have multiple COVID-19 vaccines, anxiety about the impact of the virus persists (23% in 2021 versus 25%), quite possibly stemming from the uneven rollouts globally as well as the significant concern on highly contagious virus variants. On a more positive note, it appears there is acknowledgement that government actions across the globe have blunted some of the worst outcomes, especially by boosting purchasing power through unemployment and other social programs.

There is marginally less concern around widespread social unrest, likely linked to the re-establishment of traditional governance protocols, attempts at bipartisan legislation especially in the US and willingness to restart global cooperation.

TOP FACTORS THAT WILL IMPACT THE FINANCIAL MARKETS IN THE NEXT 12 MONTHS



PERCENTAGE (%) OF PORTFOLIO ALLOCATION HELD IN CASH AND HIGHLY LIQUID ASSETS?



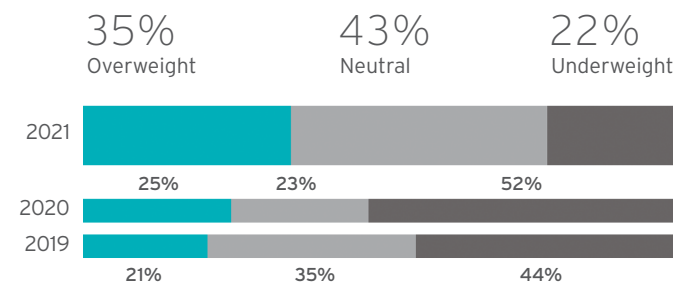
Asset class sentiment

CASH

Based on the responses, it is clear that family offices continue to hold significant cash, some perhaps hoping to time the markets, others seeking safety and liquidity. No matter what the reason, we see it as a potential detractor to overall portfolio performance given the low-yield environment. It would be prudent to revisit the main reasons for having such significant cash allocation.

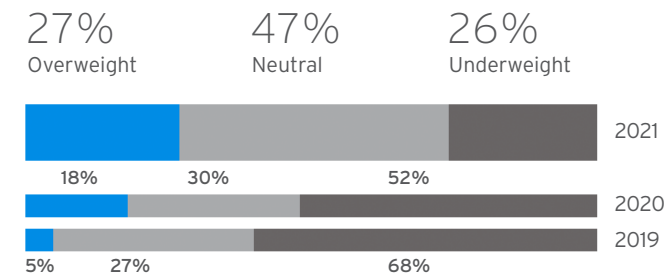
COMMODITIES

Commodities are seen as hedge against inflation, as is evident from a shift in sentiment to this asset class with two-thirds responding as 'overweight' or 'neutral' in 2021 compared to nearly half in 2020 and a third in 2019. Inflation remained elevated in July with consumer price inflation (CPI) 5.4% higher than a year prior. June's readings were tied with the highest increases since 2008. Core CPI was up 4.3%, which excludes food and energy. While overall inflation has yet to recede, there are numerous signs that it will. The commodity boom that we have seen over the past several months is due to a robust global recovery and changing global dynamics. If trade growth continues, we can expect higher investor interest in commodities.



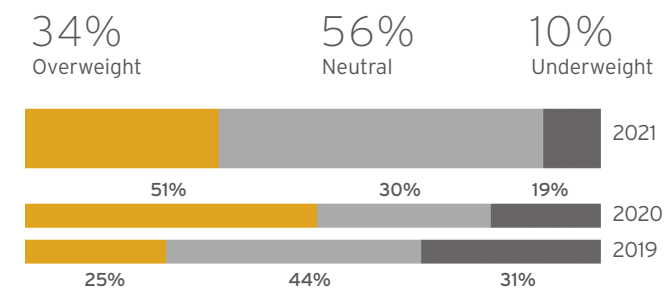
GLOBAL DEVELOPED MARKET EQUITIES

While investors appear to have taken a slightly more cautious view in 2021, driven by concerns of high valuation and record territory for indexes especially in the US, there certainly appears to be continued expectation of higher returns in this asset class with investors seeking out key sectors like healthcare, which still trades at a discount and can be defensive. We agree that the S&P 500 absolute valuations as measured by P/E ratios are not cheap on a historical basis, but when compared to the alternatives across other traditional asset classes (e.g. high-quality US bonds), valuations are still trading at average levels.



GLOBAL EMERGING MARKET EQUITIES

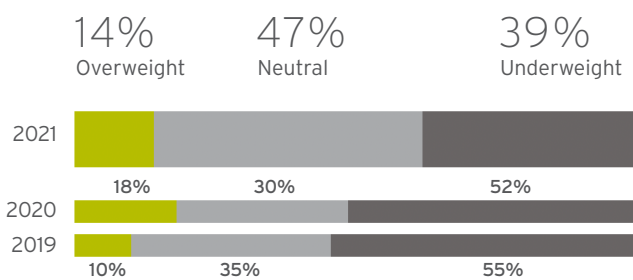
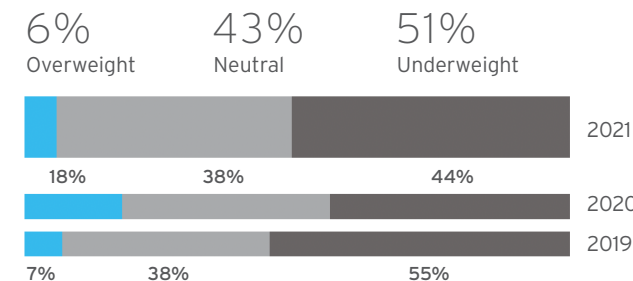
The continued shift in interest in emerging market equities is clearly observed, driven by the growth and value opportunities and overvaluation of certain sectors in developed markets. Investor sentiment appears to be in sync with our tactical asset allocation, which is overweight to emerging market equities.



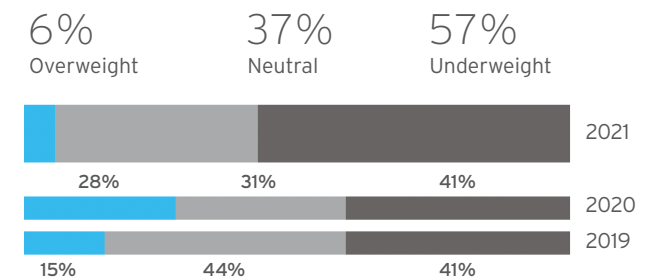
FIXED INCOME

Across the board, we noted a general tendency to underweight fixed income as an asset class. And yet again in 2021, lower exposure to fixed income did not come as a big surprise given the market conditions and inflationary fears. The bond market has reached back toward cycle highs in inflation-adjusted terms. But we have not seen a negative impact on investment performance when clients overweight generally longer duration securities like the US Treasury Inflation Protected securities and neutral weight US bonds generally.

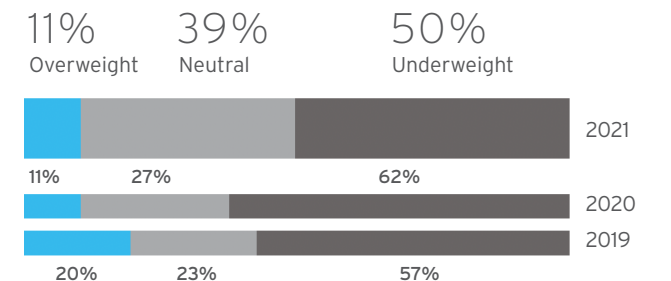
DEVELOPED HIGH-YIELD FIXED INCOME



DEVELOPED INVESTMENT-GRADE FIXED INCOME



EMERGING MARKET FIXED INCOME

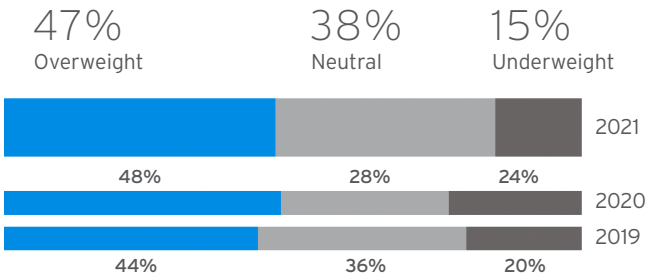


HEDGE FUNDS

Shift in investor interest and sentiment is in line with our observation of improved performance by select hedge fund managers and client desire to position their portfolios to balance opportunity with uncertainty.

PRIVATE EQUITY

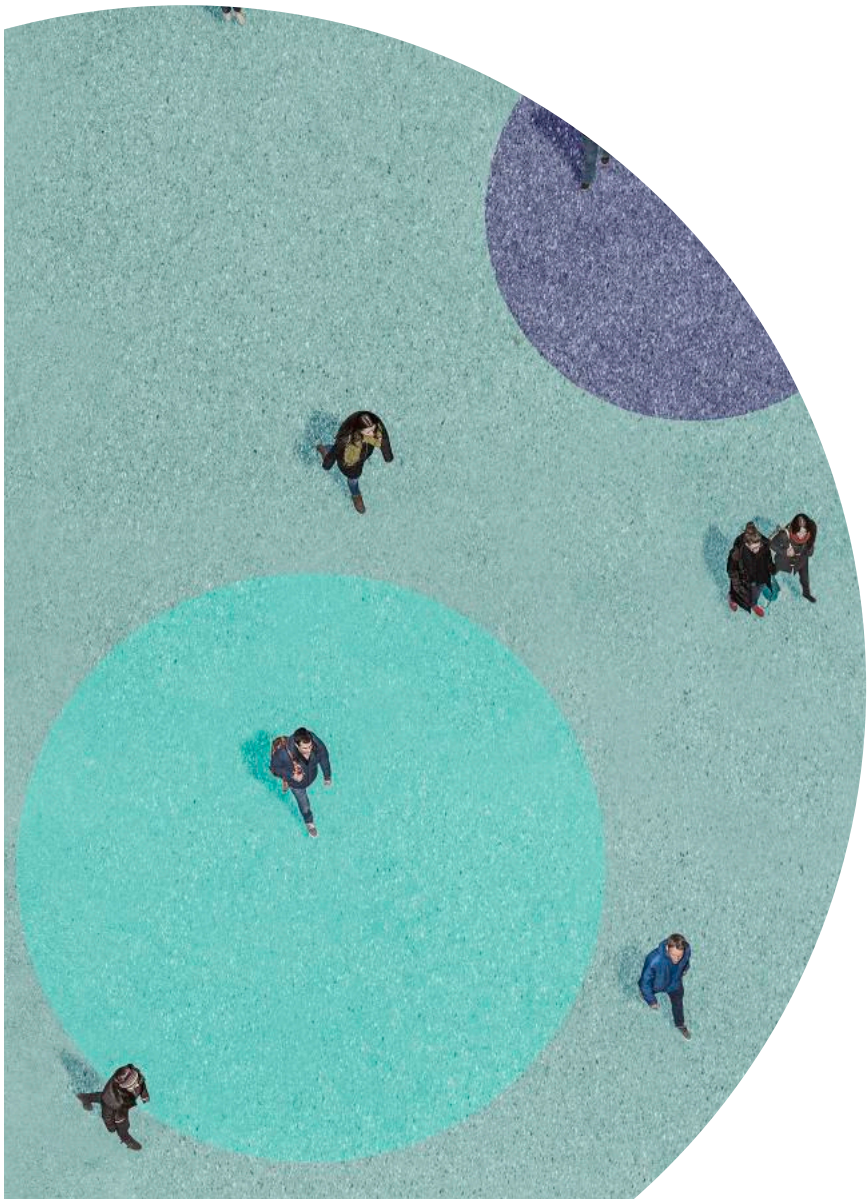
Favorable sentiment toward private equity is a continuing theme, although a shift into neutral sentiment seems likely on the horizon given the concerns of an overheated market with too much money chasing too few targets and the ticking clock on deploying SPAC funds. Within historic periods of economic tumult, alternative investment managers have been at the forefront of addressing and exploiting periods of dislocation and change as is observed from this sentiment.



Mark to Market Value

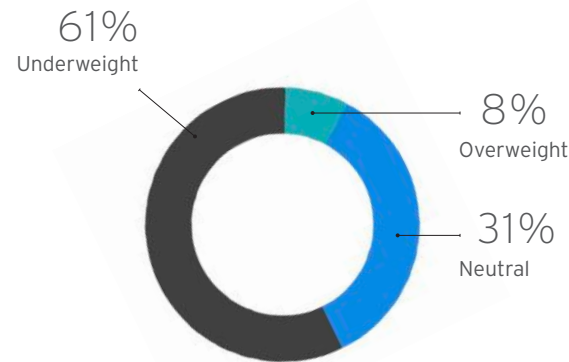
What a difference a year can make. The picture says it all - a remarkable improvement in portfolio valuation is indicative of the opportunistic sectors that a significant number of respondents have invested in and benefitted from in the past 12 months. In 2020, 79% of all responses either had a negative or flat return since the beginning of the pandemic. Compared to 2021, 87% of all responses had positive or flat return in the last 12 months.

This year, 52% of family offices have reported a return greater than 10% compared to just 2% the previous year. This data shows that family offices have reacted to COVID-19 effectively and have made up for losses in the beginning of the pandemic. However, the gains significantly vary based on the assets under management and appear to have direct linkage to scale (higher the AUM - higher the returns). Those family offices managing AUMs over \$500 million appear to have generally fared better with 64% reporting an above 10% increase while 13% of family offices managing AUM under \$500 million reported an increase above 10%, and 47% reporting increase between 0-10%.

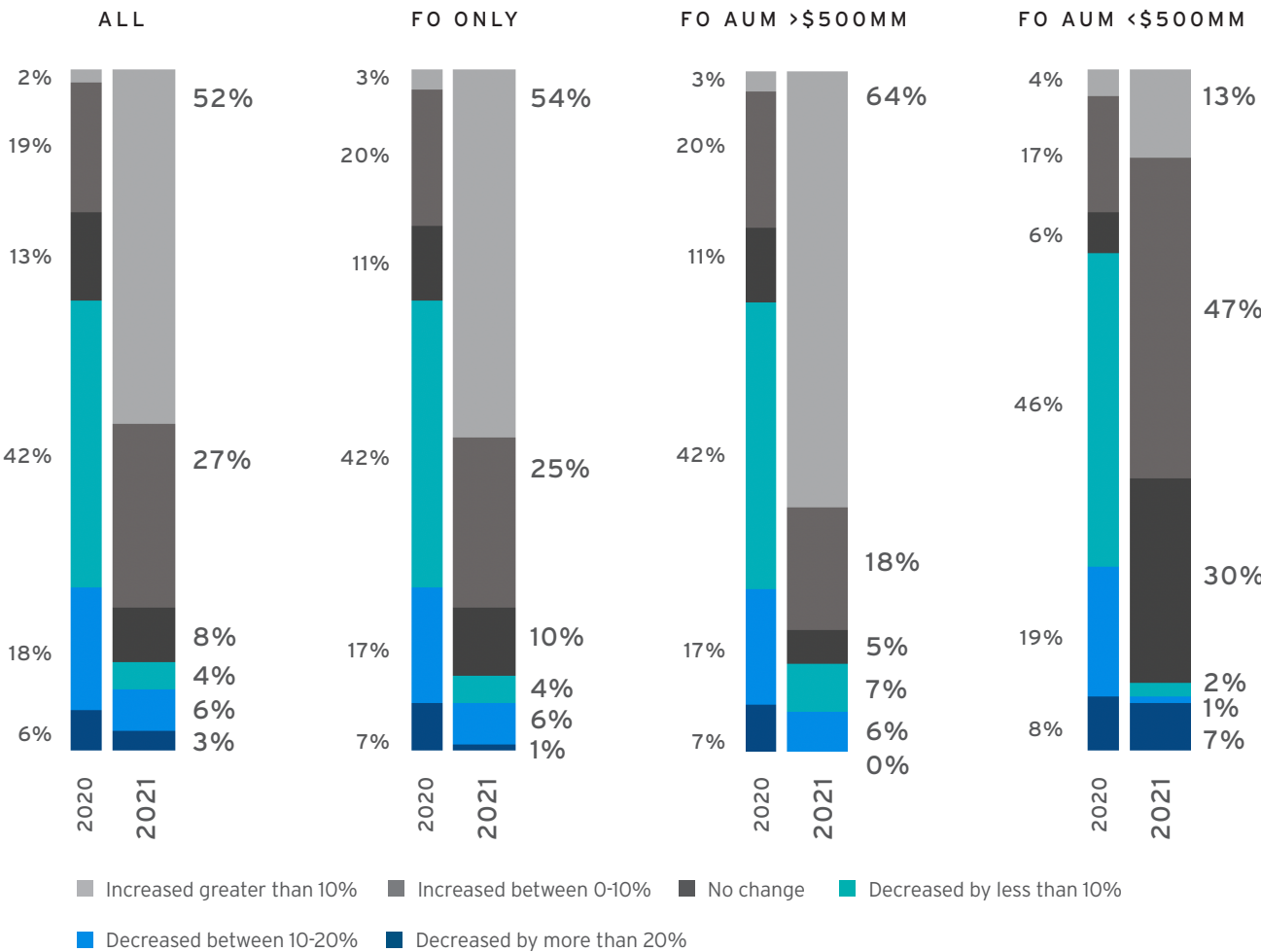


CRYPTO ASSETS

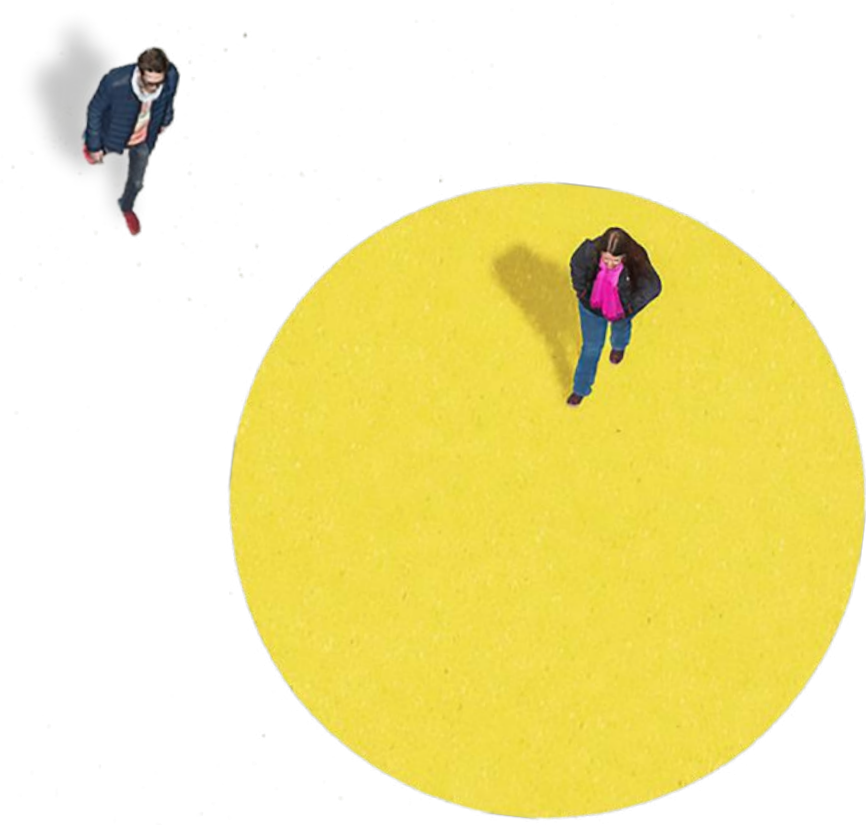
Survey responses likely indicate a wait, watch, and learn approach.



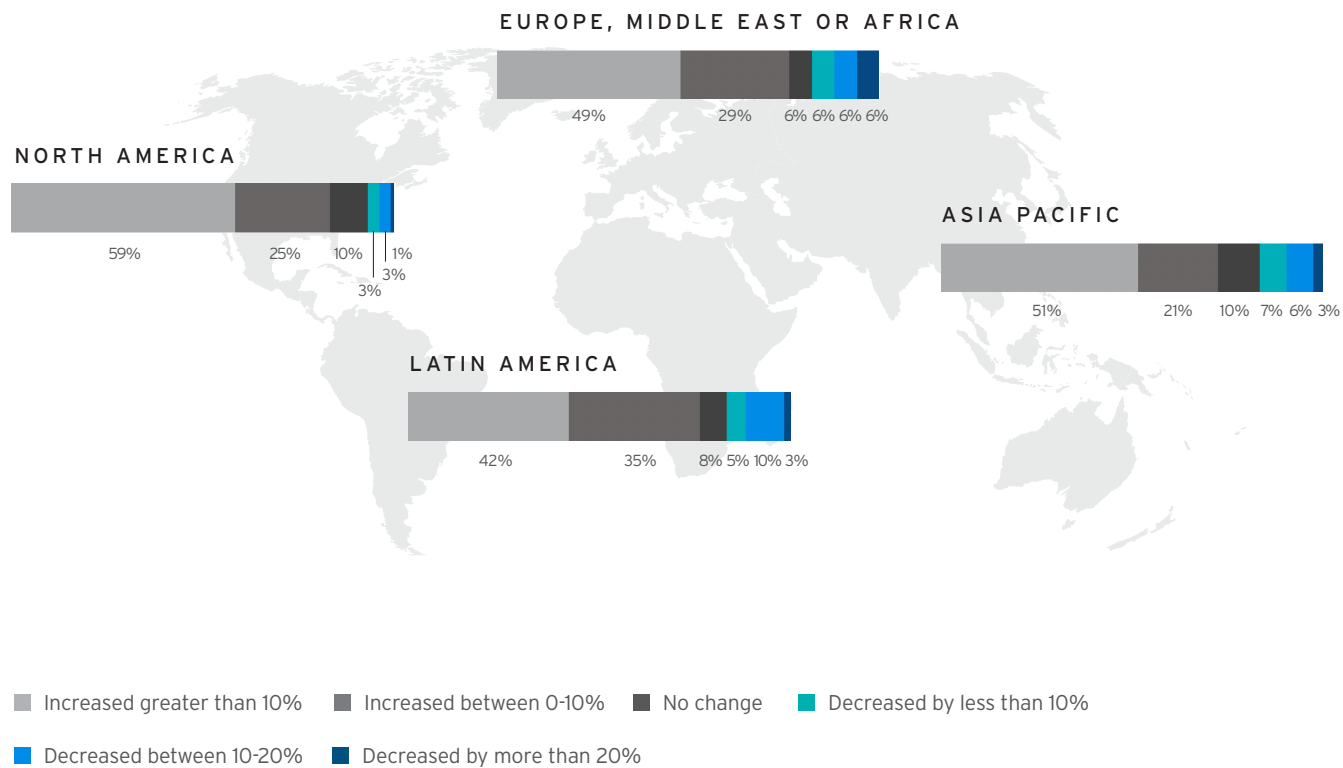
12 MONTH CHANGE IN PORTFOLIO MARK TO MARKET VALUE



Gains varied across regions as well, potentially driven by portfolio weights tied to geography as we have noted previously. Nearly 60% of the family offices in North America reported gains greater than 10% compared to 42% of the respondents from LATAM. Family offices from Asia and EMEA landed in the middle with approximately 50% reporting gains greater than 10%. On the other side, nearly 24% of LATAM and EMEA family offices reported no change to decrease of more than 20% in mark to market value, followed by APAC at 17% and significantly lower at 7% for North America family offices.

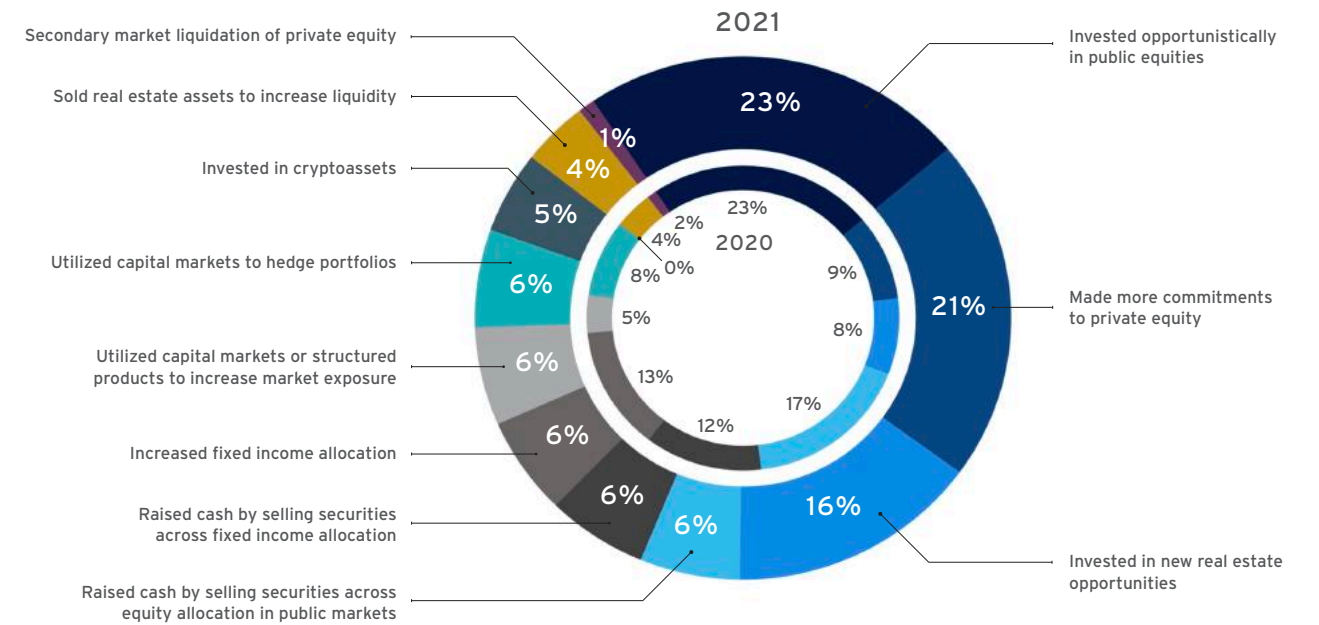


MARK TO MARKET CHANGE BY REGION



Portfolio actions

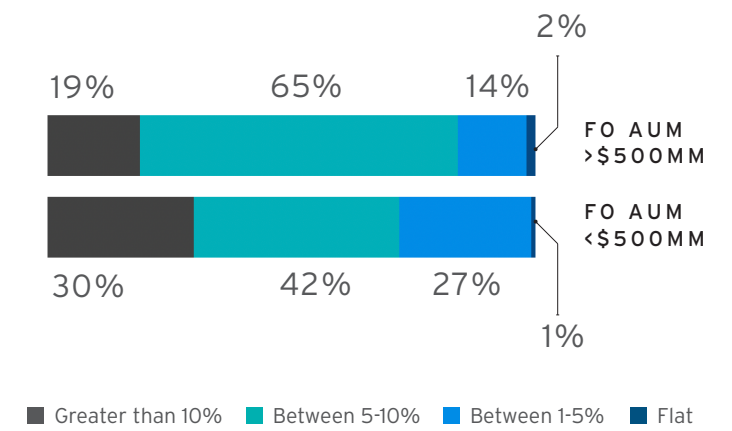
As we note the changes in mark to market value year over year, a look at the portfolio actions indicates a definitive shift from caution (sell off and cash conservation) to opportunistic investing in private equity and real estate. Interestingly, use of capital markets for structured products and/or to hedge positions appears to remain at low levels of interest.



Outlook for the next 12 months

So, what do the family offices expect in the next 12 months? There appears to be a sense of cautious optimism driven by a wide variety of opposing influences including concerns such as COVID, perception of peak market valuations, and inflationary issues. While over three fourths of all respondents expect 5% or more, interestingly, the outlook is more optimistic for family offices with AUM under \$500 million with 30% expecting over 10% versus 19% of Family Offices with AUMs over \$500 million.

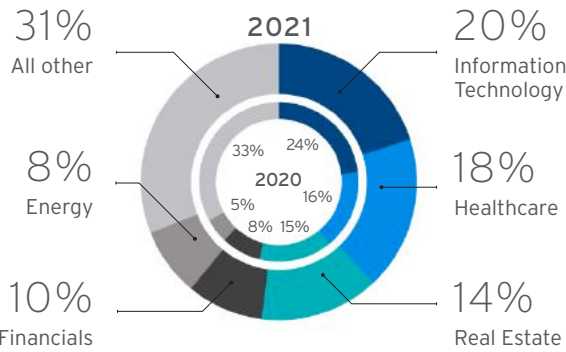
EXPECTED PORTFOLIO RETURNS IN THE NEXT 12 MONTHS



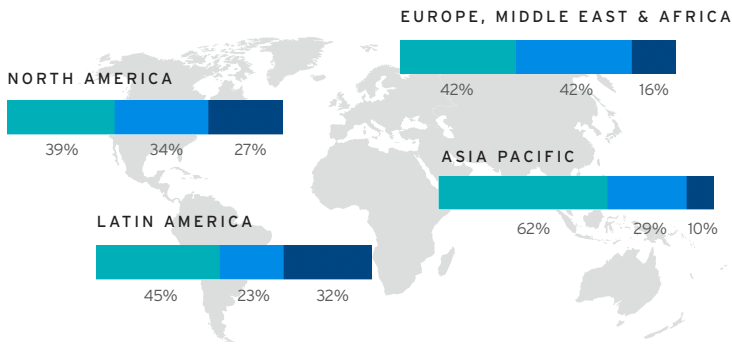
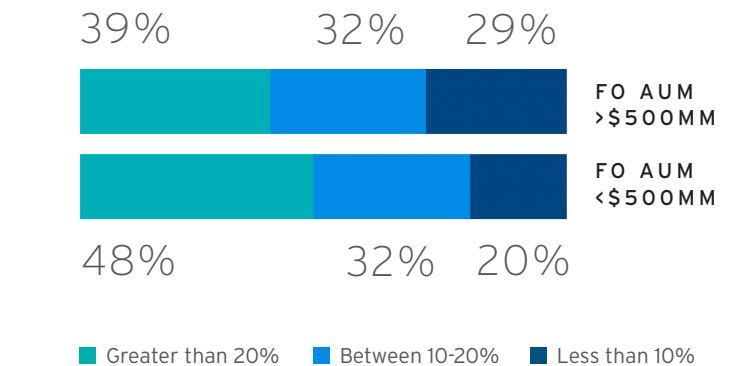
Direct Investments

The allocation to direct investments continues to increase substantially as we have noted in our past years' surveys. Around 44% of all family offices respondents reported over 25% of their portfolio was assigned to direct investments. It appears family offices managing lower AUMs are assigning an even bigger chunk of the portfolio allocation with 48% reporting over 25% of their portfolio being assigned to direct investments.

Asia Pacific-based family offices appear to invest a significantly large portion of their portfolio in direct investments to amplify returns with nearly 62%, reporting greater than 25% of their portfolio allocated to this asset class. This contrasts to 45% in LATAM, 42% in Europe and 39% in North America respectively.



PERCENTAGE(%) OF PORTFOLIO ASSIGNED TO DIRECT INVESTMENTS



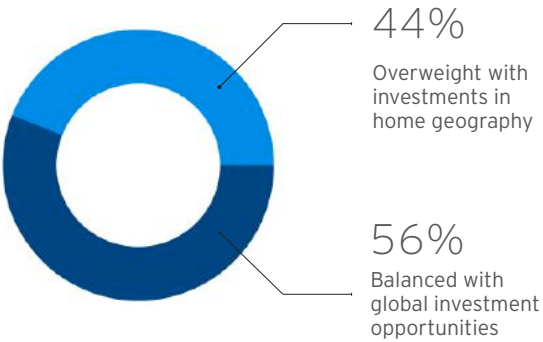
Sectors and industries

Information Technology, Healthcare, Real Estate, Financials and Energy remain as the top 5 sectors for direct investing as well as the overall portfolio investing for more than two-thirds of the family office respondents with Information Technology topping the list, followed by Healthcare. Year over year, the materials sector has shown a substantial increase in interest with 5% (versus 1%) reporting it as one of their top 3 choices. This may be attributable interest in rare materials required for battery technologies, etc.

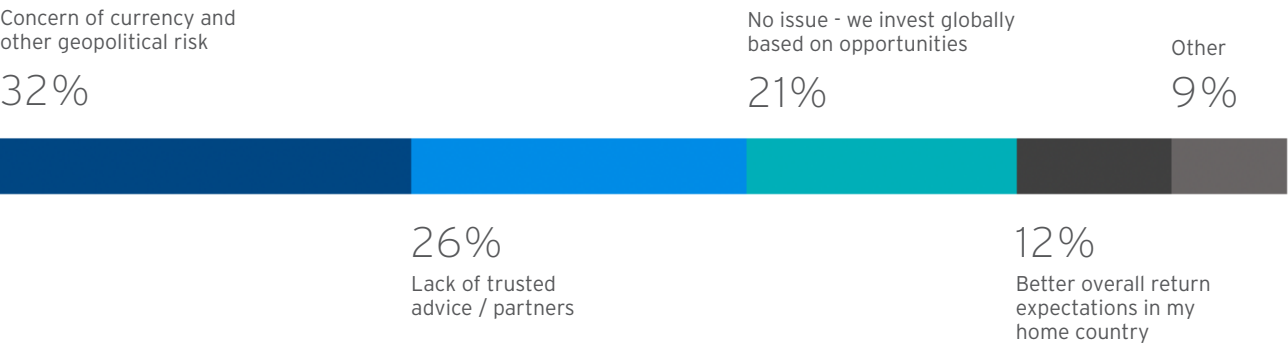
Geography and bias for investing

In addition to the survey questions, we carried out several live polls during the 2021 Family Office Leadership Program Virtual Summit. Two of the questions explored the preference and challenges of investing beyond their home geography. Based on the responses, we can conclude that there continues to be a fair amount of bias from investors in choosing their home geography for investing despite potential upsides by seeking a global mix. Nearly 44% of respondents indicated their portfolio is overweight with investments in their home geography versus 56% indicating a balanced global allocation.

FOLP LIVE POLL QUESTION: OUR OVERALL PORTFOLIO IS:



FOLP LIVE POLL QUESTION: THE BIGGEST CHALLENGE TO INVEST OUTSIDE OUR HOME GEOGRAPHY IS:



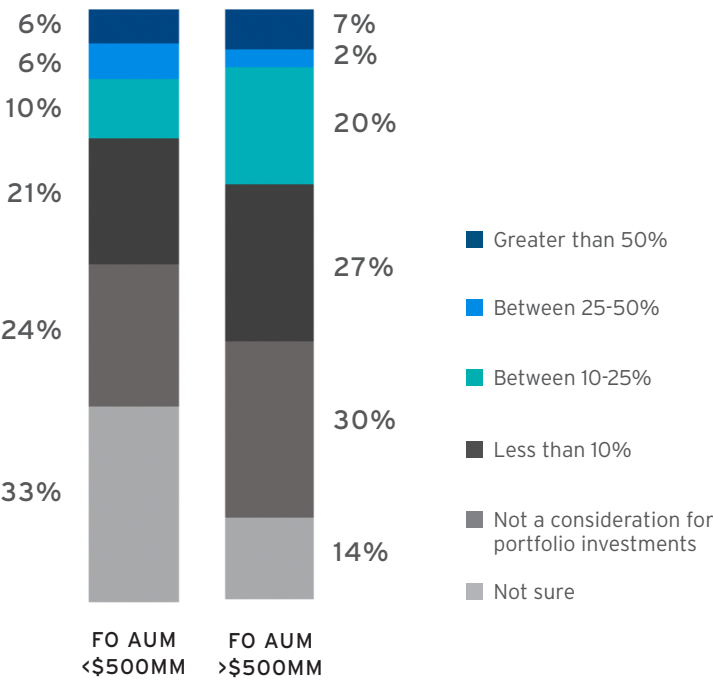
Sustainability and ESG investing

In our 2021 survey, we introduced two new questions to gauge investor sentiment around sustainable investing and alignment of portfolio toward ESG (Environmental, Social, Governance) principles. Based on the responses, it appears that family offices are gradually evaluating and aligning their portfolio for sustainability. 10 to 12% of family office respondents report over 25% of portfolio alignment toward sustainability / ESG principles. Even more remarkably, 57% of family offices with AUMs under \$500 million report that ESG alignment is not a consideration or are unsure while 45% of family offices with AUM over \$500 million report a similar response. Perhaps this reflects a need for greater engagement especially with the next generation, for whom this is generally a topic of keen interest.

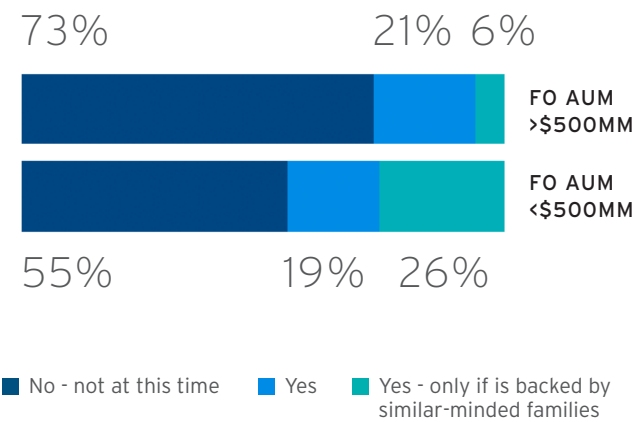
Taking this a step further, we tried to gauge the willingness of family office investors to perhaps consider lower-than-market returns to invest and scale technologies to fight climate change.

Based on the responses, while a majority would not consider it at this time, they would move somewhat if their peers co-invested. It also appears that family offices managing under \$500 million would be more inclined in taking a more active role. It is possible that larger family offices manage their investment mandates and portfolio strategies distinctly and separately from social investing or link such investments to their philanthropic giving.

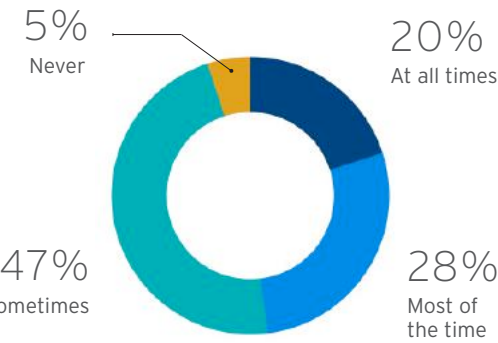
PERCENTAGE (%) OF PORTFOLIO ALIGNED WITH ESG



WILLINGNESS TO CONSIDER SUBORDINATED DEBT / EQUITY FOR CLIMATE CHANGE INVESTMENTS



FOLP LIVE POLL QUESTION: AS AN INVESTOR I LOOK AT SUSTAINABILITY, CLIMATE AND ESG FACTORS:

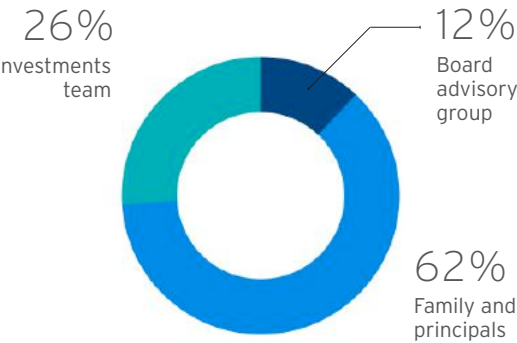


Crypto assets

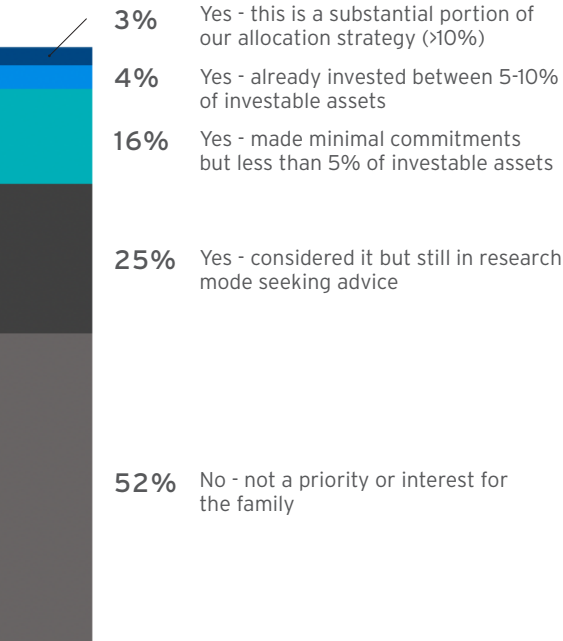
In 2021, we introduced the crypto asset allocation question given the prominence cryptocurrencies have acquired in recent years. The responses are indicative of the growing interest in this topic. From the discussion hosted as part of the 2021 Family Office Leadership Program, we believe family office executives are seeking opportunities in the infrastructure and platform space versus cryptocurrencies themselves.

From our survey, we learned that there is a mix of interest and skepticism as 7% of respondents indicate to have allocated less than 10% of their portfolio to crypto assets while 16% have 0-5% and 25% are in research mode. The balance 52% are currently not interested or prioritizing investing in crypto.

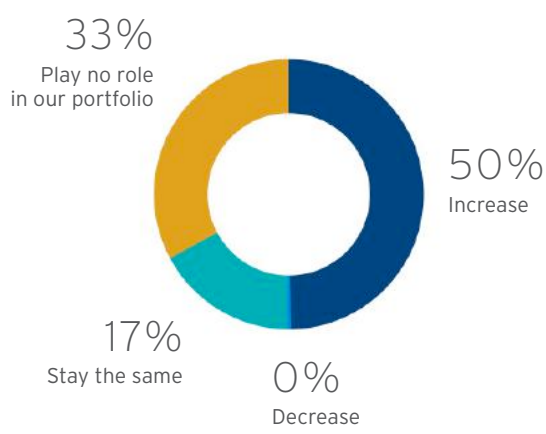
FOLP LIVE POLL QUESTION: OUR ESG INVESTMENT STRATEGY IS DETERMINED BY:



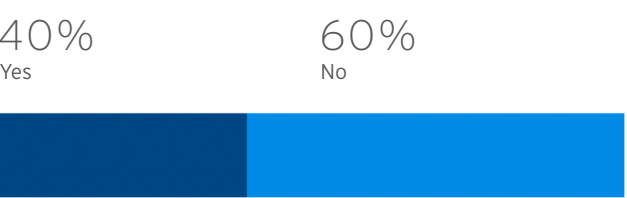
CRYPTO ASSETS - RESPONSES FROM ALL FAMILY OFFICES



FOLP SESSION LIVE POLL:
IN THE NEXT 12 MONTHS, OUR PORTFOLIO
ALLOCATION TO CRYPTO ASSETS WILL:



FOLP SESSION LIVE POLL:
DO YOU CONSIDER CRYPTO ASSETS TO BE A
HEDGE AGAINST INFLATION?



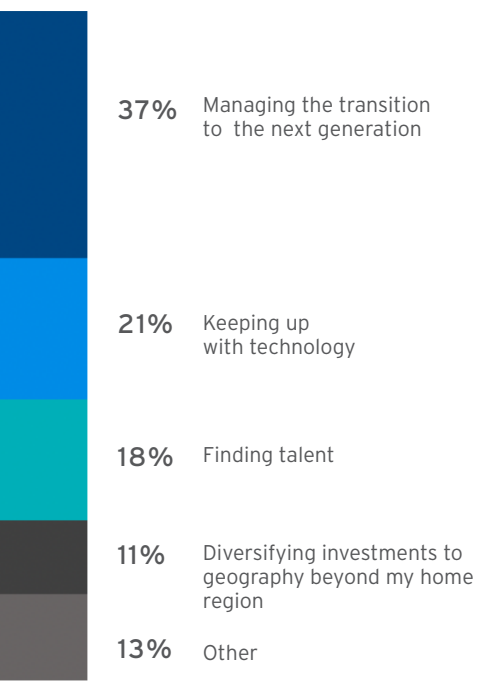
Next generation and other
family office data

Finally, our attendees shared their perspectives on some of their biggest issues and challenges in managing their respective family offices.

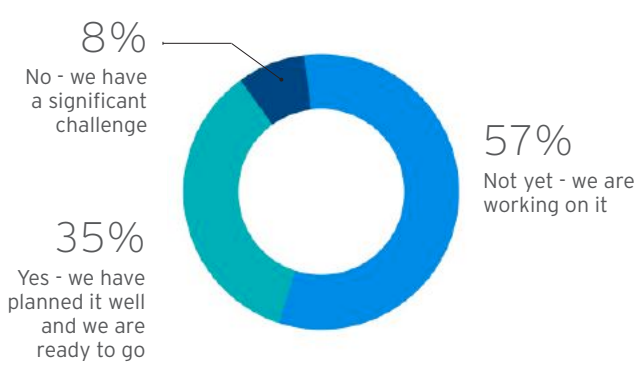
When asked about their biggest challenges, 37% pointed to managing transition to the next generation and 21% felt keeping up with technology was their biggest challenge. Nearly two-thirds of respondents indicated that they are either not fully prepared or working on ensuring that the next generation is fully equipped to take on the family business and carry forward the principal's vision.

Adding to the challenge, 85% of executives find it either always or sometimes difficult to have conversations with their principal or family members.

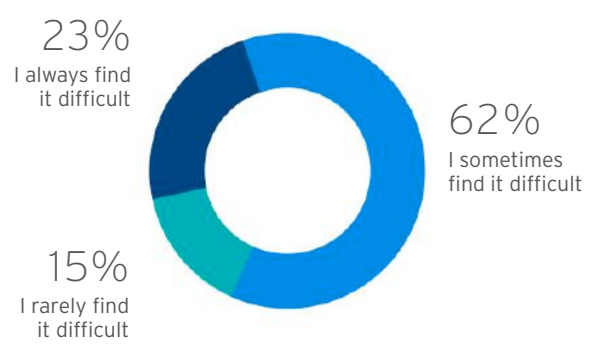
FOLP LIVE POLL:
AS A FAMILY OFFICE EXECUTIVE MY
BIGGEST CHALLENGE FOR THE FUTURE IS:



FOLP LIVE POLL:
DOES THE NEXT GENERATION
HAVE ADEQUATE TOOLS TO CARRY
FOWARD THE FAMILY BUSINESS AND
PRINCIPAL'S VISION?



FOLP LIVE POLL:
WHAT IS YOUR DEGREE OF COMFORT
ADDRESSING DIFFICULT CONVERSATIONS
WITH YOUR PRINCIPAL AND FAMILY?



Citi Private Bank CIO's View: Contradictions in family office investment strategies

A year and a half after the pandemic crushed the global economy, we have experienced both the most severe economic disruption and the most rapid recovery in modern history. Even so, conditions in the US and the world remain unusually uneven. 4.5 million jobs in the US have been created in 2021 alone¹. Some sectors, like suburban housing, are in an unsustainable boom. Yet, the most impacted sectors of the economy are deeply depressed compared with the pre-COVID period. In leisure and hospitality, employment is still 10% below 2019 levels and falling. Even after 80% of those jobs were recovered, the present level would still be history's largest net decline for the sector¹. Such is the "economic divergence."

Divergent views on the economy reflect the contradictory views from our 2021 Family Office Survey results. The two primary investor concerns from the survey were inflation (30%) and COVID-19 (23%). These are the two largest headline risks. In our view, though higher, abnormal levels of inflation will persist during the current period of uneven economic growth, and the probability that we will reach supply-demand equilibrium in 2022 remains high.

The battle against the pandemic remains more than just a "background" factor for markets. The tide against COVID-19 has turned negative this summer with the rapid spread of the infectious "Delta variant" changing the dynamics of the pandemic and

the contours of the global recovery. This partially explains a drop in global interest rates and August re-employment data in the highly sensitive leisure and retail sectors.

The bond market is telling us that sustained inflation is unlikely and that investors should be wary of holding bonds at these levels if long-term inflation runs at 2% to 3% in 2022 and beyond. In our view, when markets prevent fixed income investors from generating positive returns after inflation, equities and alternative investments will play even more important roles in asset allocation.

In spite of these events, we do not in any way expect an economic collapse or a deliberate shutdown in global markets to address the spread of the disease as we saw in 2020. We see news events magnified and blurred by the resilience, successes, ingenuity and failures the world has experienced in the face of COVID.

We do expect a longer period of market dislocations and anomalies, higher transient inflation in pockets of the global economy (for example, used cars and semiconductors), and lower US and global interest rates than one might expect in a normal expansion. The world has learned to adapt and coexist with the virus. However, the rate at which socially close activities can resume and reopen will likely be set back until next year.

Given these views, the amount of cash held by family offices makes little sense. Allocations to cash in excess of 20% are prevalent, yet over the past decade, such an allocation would have resulted in a 12% net decline in value. In the decade to come, we expect the value of cash to diminish by more than 17%. The excuses for holding cash reserves ("waiting for future opportunities" or "seeking safety") are inconsistent with real opportunities in markets, both public and private.

Dividend equities, healthcare and growth companies all stand to benefit from the environment we are now likely to be in for the next several years. Private equity, real estate and certain other sectors of the alternatives market present much better prospects still. They are beneficiaries of sustained, low interest rates. Yet, we do not see a marked family office interest in growing these alternative portfolios. We do see an accelerating interest in direct private investing and co-investments, areas that present opportunities and challenges for family offices.

Finally, diversification and quality should be the watchwords of the 2022 and 2023 period. Though investors are wary of recent changes in Chinese policies and their impact on large Chinese internet companies, those believing that China has become "uninvestable" are likely mistaken.

In contrast, 25% of family offices are exposed to cryptocurrencies which - due to their lack of fundamentals - are highly speculative. Once again, these views are contradictory. As we see 2022 unfold, expect that returns will flow to areas of the economy that can sustain growth and increase profitability even as the post-pandemic period normalizes to growth rates typical of mid-cycle recoveries (GDP +2.5-3.0%). When it comes to investing at this unusual period in history, there are certain financial facts and associations that can make our vision of the world clearer.



David Bailin,
Global Head of Investments
and Chief Investment Officer,
Citi Global Wealth

1. US Bureau of Labor Statistics

Concluding remarks:

The critical role of private capital

Firstly, I would like to thank the friends, clients and colleagues who contributed to making the Family Office Leadership Program such a success again in 2021. Our daily modules often included more than 2,000 active participants, learning from each other's successes, challenges and failures in what has been a remarkable year.

The depth of the debate highlighted yet again the contribution and critical role that family offices and pools of private capital have to play in the financial ecosystem of the 2020s. Our 2021 Family Office Survey has highlighted several consistent themes, as well as some new learnings, that shed real light on areas where that impact is most pronounced.

There can be no doubt that family offices remain willing to sacrifice medium-term returns to maintain high levels of liquidity. Almost a third of offices report running cash levels at 20% or more, and our own portfolio data analytics show this number is higher. Client conversations suggest that a preference for flexibility, liquidity and the ability to act quickly in the face of opportunity remain the key drivers. Indeed, cash allocations do not reflect a negative investment outlook, with more than 70% of respondents expecting 5% plus returns over the next 12 months. More than a third indicated inflation, the cash crusher, was their most significant near-term concern.

At the other end of the barbell, direct investing in private enterprise has become real. Offices have long indicated that buying directly into corporate capital structures would be an increasing focus. Our survey shows that for almost half of the participants, this kind of exposure represents 25% or more of their overall allocation. This reflects a deep confidence in the flexibility and strength of the global economy. It also underlines the vital role family offices play in supporting innovation, entrepreneurship and the dynamic development of the stakeholder economy, creating jobs and new solutions to the challenges of

our day. Here at Citi Private Bank, we continue to devote more resources to this key theme, working to bridge the gap between innovation, enterprise and investors across our global network.

Lastly, we have been surprised to see that for all the coverage and focus from the asset management industry, sustainability and ESG is not a portfolio priority for roughly half of the participants in our survey. Perhaps that reflects the wide extent to which the investable universe has already embraced ESG. It may also reflect a need for more in-depth conversations, especially with the next generation, where this is a primary driver of allocation.

We are grateful to our client family office executives for taking the time to contribute to this report and share their valuable perspectives. We appreciate your partnership and the trust you continue to place in our people and our global Citi platform.

We remain focused on delivering institutional and advisory services to support your family, executives and next generational needs, from across the firm and around the world. As always, please reach out to me with any feedback or if you would like to discuss any of the themes from the *2021 Family Office Leadership Program* and survey.



James Holder,
Global Head, Citi Private Capital Group,
Citi Private Bank



DISCOVER OUR
FAMILY OFFICE
ADVISORY OFFERING

Learning to stay the course: A reflection on family office portfolios

Two fully-global recessions and two recoveries (one merely incipient) within 15 years has taught invaluable lessons to investors: Those with the balance sheet capacity to take risk and stay invested can reap rewards.

In the aftermath of the 2008-09 crisis, many family office/private capital portfolios stayed under-invested throughout a lengthy bull market. During that time, global equity returns were positive in 9 of 11 years¹. A good number of family office (FO) investors saw this as a mistake not to repeat.

As of early 2020, the global economy had experienced an uninterrupted decade of economic growth with mere regional setbacks along the way. Many investors rightly assumed a new US recession and large market correction lurked somewhere in the near future. When it struck in the form of the COVID-19 shock, it was less difficult for FO managers to put capital to work. And as discussed below, portfolios benefited from doing so during the past year.

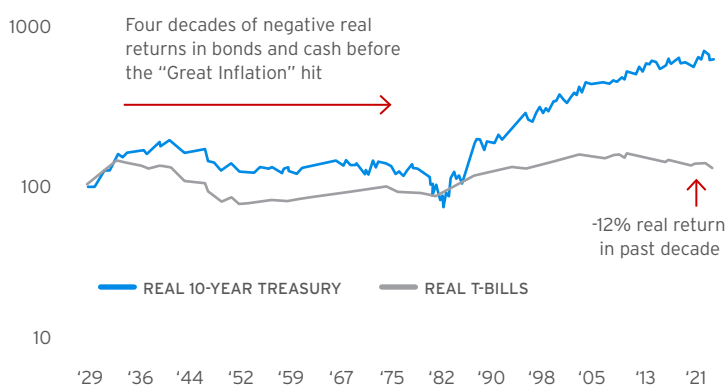
With this said, there remains an ironic dichotomy in our 2021 Family Office Survey results. The largest single concern among FO managers is the outlook for inflation. Yet a majority also continue to hold portfolio cash at levels above 10%. A full one-third report allocating more than 20% to cash. Peering into portfolios held at Citi, we see that actual cash holdings are much higher.

“Waiting for market opportunities” is one way to describe this. However, there are strategies across risk tolerance levels that can do better, and not lock up liquidity forever. US dollar cash has lost 5% of its purchasing power to inflation over the past year². In our view, it is likely to lose 3%³ more in the coming year, with another decade of loss beyond.

While COVID-19 distortions to the world economy are the larger part of the recent inflation spike, there are lasting elements to the rise. Central banks are not moving toward a regime of compensating savers for inflation risk. While we don’t expect central banks to accommodate an acceleration to double-digit inflation, they are deliberately seeking a higher trend inflation rate for the first time since at least the 1960s.

US Treasury securities price CPI inflation at a moderate 2.4% average pace over the coming 10 years. This is higher than the past decade, but a sharp deceleration from the past year. Thus, in real terms, it implies a 12% wealth loss for owners of 10-year US Treasury notes if held to maturity. Assuming a historically average yield curve relationship (which implies higher bond yields), an estimate for cash would yield a 15% wealth loss over the coming decade, even if the US experiences an uninterrupted economic expansion through decade end³. This already follows a decade of lost wealth to mostly zero nominal cash yields (SEE FIGURE 1).

FIGURE 1. REAL CASH AND BOND RETURNS MONTHLY (LOG SCALE)



Source: Citi Private Bank, Office of Chief Investment Strategist through Aug 5, 2021. Nominal return indices are deflated with US Consumer Price Index. Past performance is not indicative of future returns.

We find this situation similar to the period of “financial repression” that followed World War II when US government debt burdens first exceeded 100% of GDP. With growth and inflation, US government debt burdens collapsed to 25% of GDP over 30 years. During that time, risk-averse bond and cash investors saw their wealth stagnate.

We are not arguing that there is a free lunch for investors. Returns across virtually all asset classes have diminished since the crisis lows of March 2020. However, real return opportunities still vary widely across asset classes (SEE FIGURE 2).

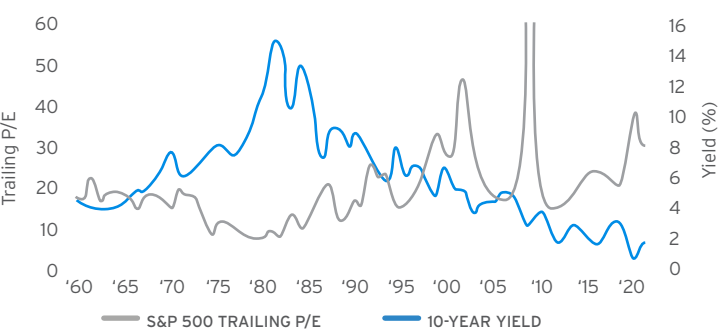
FIGURE 2. CITI PRIVATE BANK STRATEGIC RETURN ESTIMATES, AND REAL RETURNS IF US CPI RISES 2.5% AVERAGE PACE

	STRATEGIC RETURN ESTIMATES (SRE) %				
	NOMINAL	INFLATION-ADJUSTED	10-YEAR CUMULATIVE INFLATION-ADJUSTED	AMOUNT OF TIME TO DOUBLE INFLATION-ADJUSTED AT SRE	AMOUNT OF TIME TO HALVE INFLATION-ADJUSTED WEALTH AT SRE
GLOBAL DEVELOPED EQUITY	5.0	2.5	28.0	28 years	
GLOBAL EMERGING EQUITY	9.2	6.7	91.0	11 years	
GLOBAL DEVELOPED IG	1.2	-1.3	-12.3		53 years
GLOBAL HY	3.9	1.4	14.9	50 years	
GLOBAL EM FIXED INCOME	3.6	1.1	11.6	63 years	
US CASH	0.7	-1.8	-16.6		38 years
HEDGE FUNDS	4.0	1.5	16.1	47 years	
PRIVATE EQUITY	14.2	11.7	202.4	6 years	
REAL ESTATE	8.8	6.3	132.4	11 years	
COMMODITIES	1.2	-1.3	-12.3		53 years

Source: Citi Private Bank Asset Allocation team and Office of Chief Investment Strategist. Annual Strategic Return Estimates for Adaptive Valuation Strategies (AVS) for 2021. Note: Inflation-adjusted subtracts estimated 10-year CPI rate of 2.5%. Strategic Return Estimates are in US dollars; all estimates are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Strategic Return Estimates are no guarantee of future performance.

1. Standard and Poor’s, Citi Private Bank Global Investment Lab.
2. US Bureau of Labor Statistics
3. 10-year US Treasury Inflation Protected Securities Trade at a -1.1% yield to maturity.

FIGURE 3. NOMINAL US 10-YEAR TREASURY YIELD VS S&P 500 TRAILING PRICE/EARNINGS RATIO



Source: Citi Private Bank Office of Chief Investment Strategist through August 5, 2021.
Past performance is not indicative of future returns.

This is not the place for us to discuss tactical opportunities. Structurally, however equities (and some hard assets including real estate) reflect nominal sales, profits and dividend prospects that can be inflated. We would not expect equity valuations to be depressed from rising inflation until real interest rates rise (SEE FIGURE 3). *Whether* they will ever rise sharply remains an open question.

To help preserve and grow wealth, we advise clients to consider owning highly diversified multi-asset class portfolios. As discussed in our [Mid-Year Outlook](#), this means building a portfolio that doesn't seek the absolute highest potential return, but rather one that seeks the highest risk-adjusted return in line with the downside risks that individuals determine they can bear for their portfolios as a whole.

As FIGURE 4 shows, such an asset allocation portfolio has had above-average absolute returns in every decade we can track. On a risk-adjusted basis, it has generated higher returns than any single asset class.⁴ Also noteworthy is that nominal cash returns are in the bottom half of absolute returns in every single decade. What prospect do you think cash has now with inflation-adjusted yields negative?

FIGURE 4. RETURNS BY DECADE FOR MAJOR ASSET CLASSES FROM HIGHEST (TOP) TO LOWEST (BOTTOM)

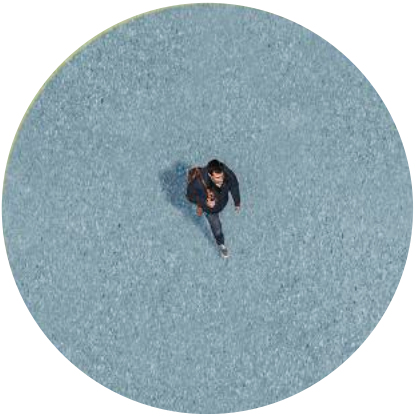
1950s	1960s	1970s	1980s	1990s	2000s	2010s	AVG 10-YEAR RETURN	RISK-ADJUSTMENT RETURN
World es-US Equities 20.8%	US Small Caps 15.5%	EM Govt USD Bond 14.4%	World ex-US Equities 22.8%	US Equities 18.2%	EM Govt USD Bond 12.9%	US Equities 13.6%	US Small Caps 12.0%	Asset Allocation 0.53
US Equities 19.3%	US Equities 7.8%	US Small Caps 11.5%	US Equities 17.5%	US Small Caps 11.6%	G7 Govt Bond 6.4%	US Small Caps 10.5%	US Equities 11.6%	US Equities 0.49
US Small Caps 16.9%	Asset Allocation 5.4%	World es-US Equities 10.1%	Asset Allocation 17.4%	Asset Allocation 11.0%	US Investment Grade 6.4%	Asset Allocation 7.7%	World es-US Equities 10.5%	EM Govt USD Bond 0.43
Asset Allocation 12.1%	World ex-US Equities 5.1%	Asset Allocation 8.0%	US Small Caps 15.8%	G7 Govt Bond 8.0%	Asset Allocation 3.4%	EM Govt USD Bond 6.3%	Asset Allocation 9.3%	US Small Caps 0.38
EM Govt USD Bond 5.3%	Cash 4.1%	Cash 6.5%	US Investment Grade 12.8%	US Investment Grade 8.0%	Cash 2.7%	World es-US Equities 6.0%	EM Govt USD Bond 8.1%	World ex-US Equities 0.37
Cash 2.0%	EM Govt USD Bond 3.5%	US Investment Grade 6.1%	G7 Govt Bond 12.8%	EM Govt USD Bond 7.7%	US Small Caps 2.2%	US Investment Grade 4.3%	US Investment Grade 5.8%	US Investment Grade 0.18
G7 Govt Bond 0.4%	US Investment Grade 2.4%	G7 Govt USD Bond 6.1%	Cash 9.1%	World es-US Equities 7.3%	World es-US Equities 1.6%	G7 Govt Bond 3.7%	G7 Govt Bond 5.7%	G7 Govt Bond 0.17
US Investment Grade 0.4%	G7 Govt Bond 2.4%	US Equities 5.8%	EM Govt USD Bond 6.4%	Cash 5.0%	US Equities -0.9%	Cash 0.6%	Cash 4.3%	

Source: Factset and Citi Private Bank, Global Asset Allocation Team as of 30 July 2021. Adaptive Valuation Strategies (AVS) is the Private Bank's proprietary strategic asset allocation methodology. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary. "Asset allocation" in this diagram represents an AVS Risk Level 3 allocation, which includes allocations to equities, fixed income, commodities, cash and hedge funds. Risk levels are an indication of clients' appetite for risk. Risk Level 3 - Seeks modest capital appreciation and, secondly capital preservation. The returns shown were calculated at an asset class level using indices and do not reflect fees, which would have reduced the performance shown. Risk-adjusted return is defined here as the Sharpe ratio. See glossary for definition of terms.

4. This measure is the so-called Sharpe ratio, or the return of the asset class above the cash yield adjusted for volatility (standard deviation).



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Chief Investment Strategist and
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Survey particulars

The *Family Office Survey 2021* was conducted as part of Citi Private Bank's *2021 Family Office Leadership Program*, held from 7 to 10 June 2021. While the program ran during the said week, polling for the survey was conducted online over a longer period from 25 May to 12 June 2021.

The survey included over 20 questions aimed at gauging investment sentiment and portfolio actions of clients anonymously in the wake of macroeconomic headwinds created by the COVID-19 global pandemic and the subsequent recovery. It drew responses from a total of 197 participants. Of the stated number of respondents, 156 (or 79%) were those with family offices, while the remaining 41 (or 21%) were ultra-high net worth individuals who do not have a family office.

Geographically speaking, of the 156 family office respondents, the survey received 66 responses from North America accounting for 42% of the total sample pool. The number of respondents from Europe, Middle East and Africa came in at 34 (or 22% of the sample pool), followed by Latin America with 32 (or 21%) and Asia Pacific with 24 (or 15%). In total, the respondents hailed from over 100 different countries.

For statistical purposes and the respondents' questionnaire, the US dollar was the valuation currency of the survey. Of the total number of family office respondents, 20 (or 13% of the sample pool) had more than \$2 billion in assets under management (AUM); 14 (or 9%) had AUM in the \$1 billion to \$2 billion range; 29 (or 19%) in the \$500 million to \$1 billion range; 33 (21%) in the \$200 million to \$500 million range while 60 (38%) had under \$200 million in AUM.

Credits & acknowledgements

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Glossary

ASSET CLASS DEFINITIONS:

Cash is represented by US 3-month Government Bond TR, measuring the US dollar-denominated active 3-Month, fixed-rate, nominal debt issues by the US Treasury.

Commodities asset class contains the index composites – GSCI Precious Metals Index, GSCI Energy Index, GSCI Industrial Metals Index, and GSCI Agricultural Index – measuring investment performance in different markets, namely precious metals (e.g., gold, silver), energy commodity (e.g., oil, coal), industrial metals (e.g., copper, iron ore), and agricultural commodity (i.e., soy, coffee) respectively. Reuters/Jeffries CRB Spot Price Index, the TR/CC CRB Excess Return Index, an arithmetic average of commodity futures prices with monthly rebalancing, is used for supplemental historical data.

Emerging Markets (EM) Hard Currency Fixed Income is represented by the FTSE Emerging Market Sovereign Bond Index (ESBI), covering hard currency emerging market sovereign debt.

Global Developed Market Corporate Fixed Income is composed of Bloomberg Barclays indices capturing investment debt from seven different local currency markets. The composite includes investment grade rated corporate bonds from the developed-market issuers.

Global Developed Market Equity is composed of MSCI indices capturing large-, mid- and small-cap representation across 23 individual developed-market countries, as weighted by the market capitalization of these countries. The composite covers approximately 95% of the free float-adjusted market capitalization in each country.

Global Developed Investment Grade Fixed Income is composed of Bloomberg Barclays indices capturing investment-grade debt from twenty different local currency markets. The composite includes fixed-rate treasury, government-related, and investment-grade rated corporate and securitized bonds from the developed market issuers. Local market indices for US, UK and Japan are used for supplemental historical data.

Global Emerging Market Fixed Income is composed of Bloomberg Barclays indices measuring performance of fixed-rate local currency emerging markets government debt for 19 different

markets across Latin America, EMEA and Asia regions. iBoxx ABF China Govt. Bond, the Markit iBoxx ABF Index comprising local currency debt from China, is used for supplemental historical data.

Global High–yield Fixed Income is composed of Bloomberg Barclays indices measuring the non-investment grade, fixed-rate corporate bonds denominated in US dollars, British pounds and euros. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt.

Ibbotson High–yield Index, a broad high-yield index including bonds across the maturity spectrum, within the BB-B rated credit quality spectrum, included in the below-investment-grade universe, is used for supplemental historical data.

Hedge Funds are composed of investment managers employing different investment styles as characterized by different sub-categories – HFRI Equity Long/Short: Positions both long and short in primarily equity and equity-derivative securities; HFRI Credit: Positions in corporate fixed income securities; HFRI Event Driven: Positions in companies currently or prospectively involved in a wide variety of corporate transactions; HFRI Relative Value: Positions based on a valuation discrepancy between multiple securities; HFRI Multi Strategy: Positions based on realization of a spread between related yield instruments; HFRI Macro: Positions based on movements in underlying economic variables and their impact on different markets; Barclays Trader CTA Index: The composite performance of established programs (Commodity Trading Advisors) with more than four years of performance history.

High–yield Bank Loans are debt financing obligations issued by a bank or other financial institution to a company or individual that holds legal claim to the borrower's assets in the event of a corporate bankruptcy. These loans are usually secured by a company's assets, and often pay a high coupon due to a company's poor (non-investment-grade) credit worthiness.

Private Equity characteristics are driven by those for Developed Market Small Cap Equities, adjusted for illiquidity, sector concentration, and greater leverage.

INDEX DEFINITIONS:

Bloomberg Barclays US Corporate Bond Index measures the investment-grade, fixed-rate, taxable corporate bond market. It includes US dollar-denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

Bloomberg Barclays US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury.

FTSE All–World Index is a stock market index representing global equity performance that covers over 3,100 companies in 47 countries starting in 1986.

MSCI AC Asia ex–Japan Index captures large and mid-cap representation across two of three Developed Markets (DM) countries* (excluding Japan) and 9 Emerging Markets (EM) countries* in Asia. With 1,187 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI China Index captures large and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). With 704 constituents, the index covers about 85% of this China equity universe.

MSCI Emerging Markets Index captures large- and mid-cap representation across 24 Emerging Markets (EM) countries. With 837 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets EMEA Index captures large and mid-cap representation across 11 Emerging Markets (EM) countries* in Europe, the Middle East and Africa (EMEA). With 173 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets (EM) Latin America Index captures large and mid-cap representation across five Emerging Markets (EM) countries in Latin America. With 113 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Europe Index captures large- and mid-cap representation across 15 Developed Markets (DM) countries in Europe*. With 437 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across the European Developed Markets equity universe.

MSCI Global Alternative Energy Index includes developed and emerging market large-, mid- and small-cap companies that derive 50% or more of their revenues from products and services in alternative energy.

MSCI ACWI Energy Index includes large and mid-cap securities across 23 Developed Markets (DM) and 27 Emerging Markets (EM) countries. All securities in the index are classified in the Energy as per the Global Industry Classification Standard (GICS).

MSCI ACWI Index is MSCI's flagship global equity index. It is designed to represent performance of the full opportunity set of large and mid-cap stocks across 23 developed and 27 emerging markets. As of November 2020, it covers more than 3,000 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market.

The VIX or the Chicago Board Options Exchange (CBOE) Volatility Index is a real-time index representing the market's expectation of 30-day forward-looking volatility, derived from the price inputs of the S&P 500 index options.

OTHER TERMINOLOGY:

Adaptive Valuations Strategies is Citi Private Bank's own strategic asset allocation methodology. It determines the suitable long-term mix of assets for each client's investment portfolio.

Correlation is a statistical measure of how two assets or asset classes move in relation to one another. Correlation is measured on a scale of 1 to -1. A correlation of 1 implies perfect positive correlation, meaning that two assets or asset classes move in the same direction all of the time. A correlation of -1 implies perfect negative correlation, such that two assets or asset classes move in the opposite direction to each other all the time. A correlation of 0 implies zero correlation, such that there is no relationship between the movements in the two over time.

EU or the European Union is a political and economic union of 27 member states in Europe.

IEA or the International Energy Agency is an autonomous intergovernmental organization established in the framework of the OECD in the wake of the 1973 oil crisis to further energy consumers' interests.

LIBOR or London interbank offered rate is the rate of interest at which banks offer to lend funds to each other. It is used as a reference rate for large amounts of financial contracts.

OECD or the Organisation for Economic Co-operation and Development is an intergovernmental economic organization with 38 member countries, aimed at stimulating economic progress and world trade.

Sharpe ratio is a measure of risk-adjusted return, expressed as excess return per unit of deviation, typically referred to as risk.

SPAC or Special-purpose acquisition company, is a shell corporation with no business or operations but is listed on a stock exchange with the purpose of acquiring a private company, thereby making it public without going through the conventional initial public offering process.

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