FALL 2021

SACRS

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MAY 10-13 2022

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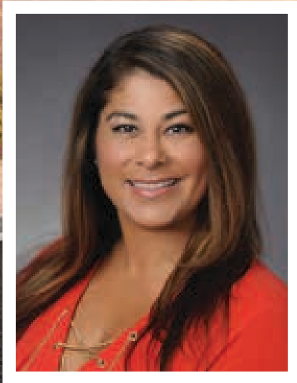
FROM THE EDITOR



MOVING FORWARD

"Why not get your calendar out right now, and save SACRS dates for 2022?"

Can you believe 2021 is rapidly coming to a close and the conference just passed? It has truly been a whirlwind year, but to be with so many of you in Hollywood was a definite highlight!

I love our conferences. Developed *for* SACRS members *by* SACRS members, conferences offer several days of relevant, educational information, and networking. While we did well with our virtual conferences and kept things going at the height of the pandemic, there is no substitute for being in-person. We were joined by an amazing line-up of top speaking talent. Turn to page 20 of this edition of SACRS magazine to see some of the conference speaker highpoints.

SACRS events are specially crafted to appeal to Trustees, Administrators; Affiliates; Attorneys; Accounting/Internal Auditors; Investment; Ops/Benefit; and Safety. There really is something for everyone. Now that the Fall Conference has past, my focus is already turned to events for next year. Why not get your calendar out right now, and save SACRS dates for 2022? Here is what we have in store:

SACRS Spring Conference 2022, May 10-13, will be held at the Omni Rancho Las Palmas Resort & Spa in Rancho Mirage.

SACRS Fall Conference 2022, November 8-11, will be held at the Hyatt Regency Long Beach in Long Beach.

We are also at work developing our SACRS Berkeley Program. This is an exceptional opportunity to join fellow public pension trustees and retirement staff for *SACRS' Public Pension Investment Management Program 2022*, taking place in July. The program, entitled "Modern Investment Theory and Practice for Retirement Systems", is presented in partnership with the UC Berkeley Center for Executive Education at the Haas School of Business. This exclusive four-day program is designed for SACRS trustees and staff that aspire to better understand current investment theory and practice. Registration will open in February and space will be limited and on a first-come, first-serve basis. At this time, we anticipate it will be held in-person for the first time in two years!

I hope you enjoy this issue of *SACRS Magazine*, which continues the tradition of articles shared by members. If you have news or ideas for a story, consider submitting an article! You can do that by contacting me at *sulema@sacrs.org*.

Until next time,

Sulema H. Peterson

***Sulema H. Peterson**, SACRS Executive Director, State Association of County Retirement Systems*

TOGETHER AGAIN!

FACE-TO-FACE IN A **"NEW NORMAL"** SPACE

"I believe one of the reasons for SACRS success is the alignment between the needs of our members, SACRS mission, and our core values."

SACRS Fall Conference 2021 at Loew's Hollywood Hotel was an incredible success. We had over 500 registrants all COVID compliant thanks to our screening process as part of registration and the hotel's COVID compliance restrictions. SACRS also provided COVID testing for those requiring tests before returning home.

The conference began with our keynote speakers Ritchie Parker and Jessica Long whose life stories presented us with a perspective on perseverance and triumph. The remainder of the conference was filled with education and informational speakers and panels. The highlight of one of our general sessions was the "Not Your Standard Economic Update…The Big Questions of the Day Post Covid". Frances Donald, Global Chief Economist and Global Head of Macroeconomic Strategy of Manulife Investment Management, gave us a "delightful" unexpected perspective on the economy post-pandemic. For more conference highlights, turn to page 20.

It feels like we are beginning to get a little bit back to normal, whatever that may be. I have to say I am so proud of our SACRS family – our members, our Board, our Staff, our Committees – during the past 20-plus months. We've been challenged to think and work differently. We've had to pivot, re-think, re-invent, and learn new ways to communicate, conduct meetings, and continue our business.

I believe one of the reasons for SACRS success is the alignment between the needs of our members, SACRS mission and our core values of teamwork, integrity, education, service and support. SACRS Board of Directors met a few months ago and together determined several Key Strategic Goals for 2021-22 including, but not limited to:

- Increasing interaction with our 37 Act Systems with a renewed focus.
- Continue to expand our educational offerings, including our conferences, UC Berkeley Program, webinars, and Spotlight Series.
- Encourage greater participation on the various SACRS Committees and Board of Directors
- Continue to foster and take an active role in the legislative process as it affects our 37 Act County retirement systems.

Our goals aim to ensure that SACRS is dedicated to providing forums for the dissemination of knowledge and the development of expertise in the operation of our retirement systems by providing resources that will give guidance during these challenging and uncertain times.

I encourage everyone to consider getting more connected with SACRS. If you would like to be involved, just let us know…SACRS has a place for you!

Be safe, be smart, be healthy,

***Vivian Gray**, President of SACRS & LACERA Trustee*

It was wonderful to be back in-person and face-to-face!

Deal Due Diligence Adapted for Lockdown

All types of due diligence analysis were impacted when restricted air travel, shelter-in-place, and social distancing rules hit in March 2020. As new deals and financing opportunities arose, NXT Capital pivoted to find ways to continue practicing vigilant due diligence. With so many diligence aspects to consider – financial, operational, human capital, etc. – we sought to adapt the core attributes of our robust underwriting process. Below we highlight three core practices leveraged during the cycle.

1 Partnered with Private Equity ("PE") Groups with a Record of Successful Strategy Execution

Without air-travel and limited invitations to in-person meetings, partnering with PE sponsors where we have a long-term relationship became even more important. Having worked with the sponsor in the past, we were well informed of their operating knowledge, business strengths and diligence acumen. We also knew firsthand about a sponsor's specialties, such as industry knowledge, operational expertise, execution of investment and operational plans, and experience of the investment team.

Prior to closing a new platform acquisition, the sponsors we work with found ways to meet with target management teams and visited sites, which provided us comfort. Having a relationship with the sponsor allows us to understand the level of depth the PE team conducts when performing management interviews, the clarity of analyses completed and what they consider to be red flags or opportunities while touring the facility or speaking with management. While the ability to leverage the sponsor's work was critical, we also conducted our own diligence.

> *"While we do not see in-person meetings going away, with the right resources and skills to collaborate online, we do see benefits of the technology-enabled tools."*

> *As some providers were limited to how they could collect data (as in not being onsite), they provided details about their practices and procedures in order to bring a level of comfort on how information was collected, verified, and ultimately signed off on.*

2 Leaned into Technology

In all aspects of life, technology has been a huge resource during the pandemic. In a world mostly limited to remote due diligence, the increased use of technology-enabled-tools facilitated processes immensely. The underwriting teams at NXT Capital leaned into technology to help bridge the uncertainty around not being able to tour facilities or meet the management teams in person. Video conferencing has been used for management meetings, facility tours and operational discussions. With video conferencing and the ability to screen share, access to the management team and their information was uninterrupted. Both the target company and sponsor played a key role in making remote due diligence efficient, including a shift to digital collection of business documentation, contracts, and financial data. Companies have also been creative with their materials to include videos of their products, product tutorials, as well as recordings of team member biographies.

While we do not see in-person meetings going away, with the right resources and skills to collaborate online, we do see benefits of the technology-enabled tools. Technology allows for more opportunities in sustainable business practices, the ability to break down physical and logistical barriers and improvement in deal timelines.

3 Reviewed Third-Party Due Diligence Reports

Always a critical part of the process, third-party due diligence reports did not fundamentally change during the pandemic. NXT Capital has always required third-party service provider reports, quality of earnings, and applicable industry or environmental reports. As some providers were limited to how they could collect data (as in not being onsite), they provided details about their practices and procedures in order to bring a level of comfort on how information was collected, verified, and ultimately signed off on. NXT Capital underwriters have always had the ability to set-up "Industry Expert" calls to learn more about an industry, product offering, or business model and these calls were used even more during the pandemic. Fortunately, the pandemic did not materially hinder third-party diligence.

Throughout the pandemic deal participants learned how to interact and safely conduct business by leveraging relationships, using technology and reviewing third-party due diligence reports. As much of the world has had to adapt, deal due diligence was no different.

Managing Director & Regional Credit Officer ***Dan Green*** *leads the underwriting and portfolio risk management for NXT Capital's East and South Region Sponsor teams, where he structures, underwrites, negotiates and manages investments for the firm. Green brings 10 years of leverage finance experience to NXT Capital. Prior to joining NXT Capital, he structured, underwrote and managed traditional senior secured and unitranche investments as a member of GE Antares Capital. Green began his career as an auditor with Deloitte and held positions at LaSalle Bank. He earned a B.S. in Accounting from DePaul University and an M.B.A. from the J.L. Kellogg Graduate School of Management at Northwestern University.*

Managing Director & Regional Credit Officer ***Andrea Tunick*** *leads the underwriting team for the West Region of the Direct Lending Group. She focuses on structuring, underwriting and closing cash flow loans for new platforms, as well as monitoring the loan portfolio. Tunick has 15 years of underwriting and due diligence experience. Prior to joining NXT Capital, she was an Assistant Vice President at GE Antares Capital and Merrill Lynch Capital. Her background also includes completing financial due diligence for private equity transactions in KPMG's transaction services group. Tunick earned a B.S. in Finance from the University of Illinois.*

FEATURED STORY

PUBLIC PENSIONS, POST-PANDEMIC

After a year of navigating uncharted terrain, public pensions entered 2021 looking ahead to a post-pandemic recovery, but the far-reaching implications of COVID 19 on governments has added additional pressures for plans to generate adequate investment performance.

> *There's evidence that the pandemic caused sharp rises in retirements, potentially and contributions.*

State and local governments incurred large costs to manage the pandemic and keep communities safe, while some simultaneously experienced decreases in tax revenue.[1] Although tax revenue shortfalls were not as extreme as many initially predicted, budgets could still be squeezed to a point that will impact future pension contributions. Meanwhile, there's evidence that the pandemic caused sharp rises in retirements, potentially adding to the widening gap between benefit payments and contributions.[2]

The long-term impact of these trends continues to unfold against a backdrop of challenging funding conditions. Since the Great Financial Crisis, funded status has hovered around the low to mid 70s. Strong performance in public equities has helped, but funded ratios continue to struggle due to other factors, such as sluggish payroll growth and improved life expectancy of retirees. We believe looking forward many public pension plans have to hit their return assumptions consistently, and may even need to increase performance targets, to meet growing liabilities. Most plans will need to rethink their asset allocations to make up ground. Our analysis estimates that over half the plans may fall short of current assumed returns, based on current asset exposures and BlackRock's May 2021 Capital Market Assumptions (CMAs).

This year we considered these challenges as we completed our annual public peer study to provide a holistic overview of the public pension investment landscape, including asset allocation, expected returns, risk factor decomposition and stress testing. BlackRock partnered with Pensions & Investments to collect fund-level asset data for more than 85 U.S. public pensions. Using Aladdin® analytics, we mapped each fund to asset class CMAs to estimate its risk and return characteristics. (Please see Exhibit A on page 14.)

The plans we reviewed represent close to over $1.8tn in pensions assets under management. Plans ranged in size from $300mn to $246bn, with average and median assets under management of $20bn and $9.5bn, respectively. The plans have an average funded status of 75.6%.

> *Following the Global Financial Crisis, public pensions realized average annualized returns of more than 8% over the past 10 years, while the median assumed return targets are now around 7%, after steadily declining over the years.*

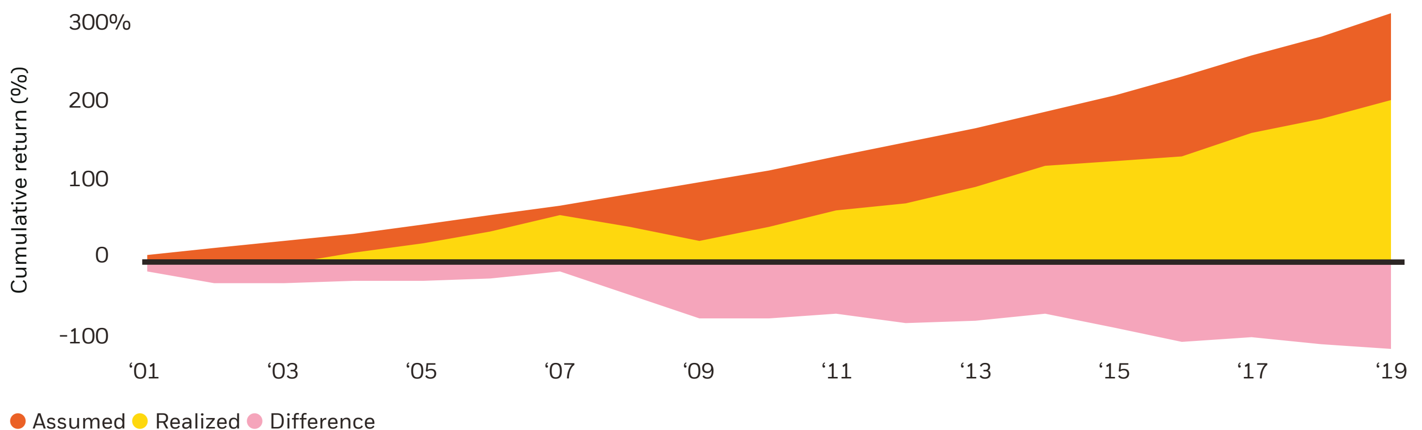
Running in place

Over the past decade, public pensions surpassed their assumed return expectations, largely due to the strength in public equity markets. However, our research suggests higher than expected investment performance was not enough to recover from the market stresses of the early aughts and public plans are still experiencing sideways to downward movement in funded ratios.

Following the Global Financial Crisis, public pensions realized average annualized returns of more than 8% over the past 10 years, while the median assumed return targets are now around 7%, after steadily declining over the years. Despite this strong investment performance, actuarial funded status has continued to drop over the past two decades from fully funded in 2001 to about 85% just prior to 2008, then to the low to mid 70s in the aftermath of the Great Financial Crisis and generally remains in that range today.

Since the turn of the century; market stresses, such as the 2001 Tech Bubble and the 2008 Global Financial Crisis, caused significant asset erosion and declines in funded ratios, which require larger returns to make up. For example, to recover from a 25% market decline, a portfolio would need to earn over 33%. Our analysis found that despite outperforming assumed returns following these crises, the market declines had lasting impact on the cumulative performance of a theoretical portfolio that consistently met its assumed return expectation and the average realized return of public pensions over the same period.

10 years of strong returns



Source: Public Plan Data, January 2021. Past performance is not indicative of future results.

> *We believe building efficient portfolios to diversify risk and improve returns will prove critical for public plans in the post pandemic recovery.*

During longer recoveries the liability would also continue to grow due to factors such as normal and interest costs, making it even more difficult to get back to full funding. Additionally, while benefit payments reduce both the asset and the liability by the same amount, the denominator effect of being underfunded results in a decline in funded status.

The combination of these factors has increased the pressures on the investment performance to make up shortfalls for underfunded plans. We believe building efficient portfolios to diversify risk and improve returns will prove critical for public plans in the post pandemic recovery. We see opportunities across the following themes to help portfolios reach return expectations, while helping to weather market downturns of the future.

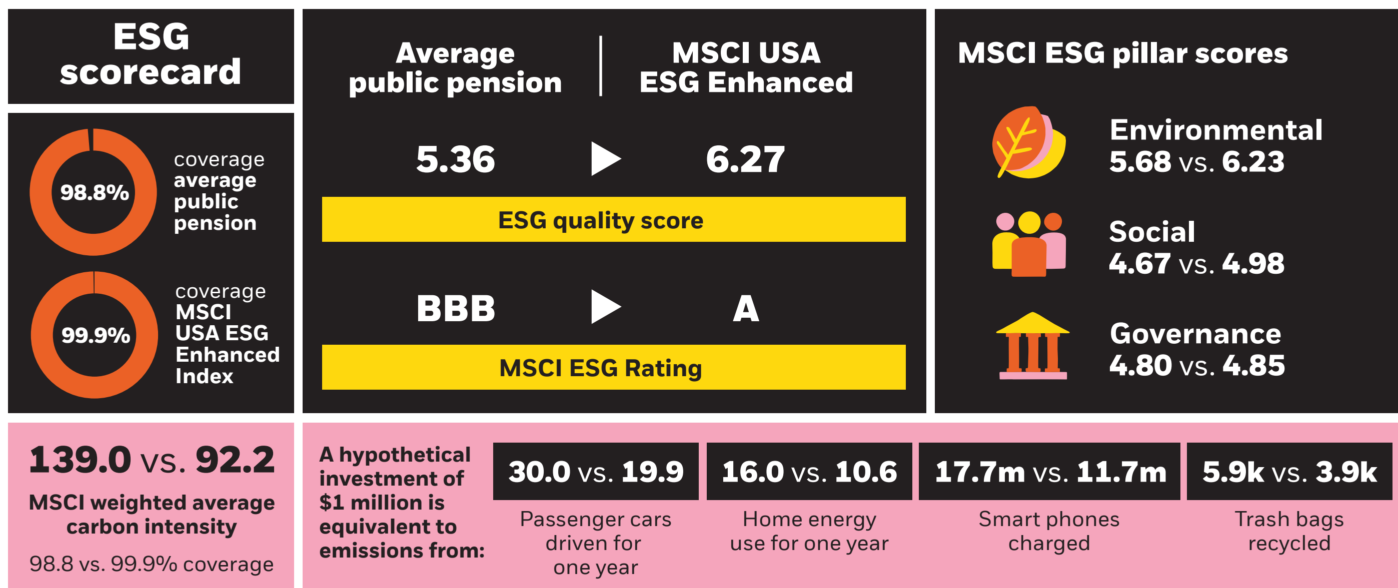
Portfolio resilience demands climate resistance

The historical market declines of the 2000s, including last year's pandemic drop, demonstrated the need for pensions to enhance their portfolio resilience and downside protection. We believe climate risk and the net zero transition represent some of the biggest future market events and a thorough environmental, social and governance (ESG) analysis can help build more defensive and robust portfolios. Avoiding climate-related damages will help prevent economic deterioration and improve risk-asset returns. Reallocating to sustainable exposures preserves the expected return for the average pension portfolio, with slight reduction in risk based on our forward-looking CMAs, which now incorporate the impacts of climate change, reflecting our view that climate risk is investment risk.

Incorporating ESG into portfolio construction also positions portfolios for the post-carbon transition. Our analysis found that swapping the average plan's US equity exposure from the MSCI USA Index to the MSCI USA ESG Enhanced Index not only significantly improved ESG ratings and scores, but also reduced the portfolio's carbon intensity by more than 30%. For every $1 million invested, that reduction is equivalent to eliminating the emissions of 10 passenger vehicles driven in a full year. Investors that account for carbon and climate risk exposures in portfolio design can help mitigate risk likely caused by possible assets re-pricing, increased regulation, and costs, and changing consumer preferences.

Moreover, the transition to a low-carbon world offers tremendous opportunities[3] for economies and risk assets. Our CMAs reflect our view that the green transition to a low-carbon economy, consistent with the Paris Agreement goals, will deliver an improved outlook for growth and risk assets relative to doing nothing. Globally, we estimate a cumulative loss in

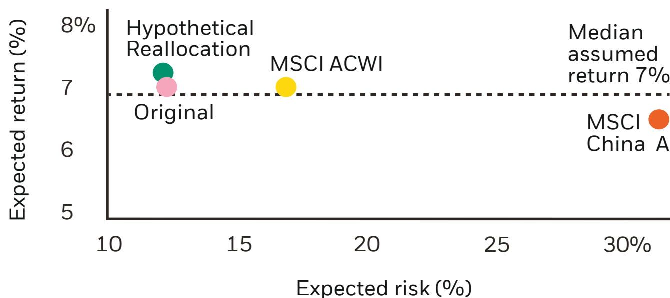
The impact of incorporating ESG



Source: BlackRock, with data provided by MSCI ESG Research for individual companies as of May 2021. The Weighted Average Carbon Intensity measures a portfolio's exposure to carbon intensive companies. The figure is the sum of security weight (normalized for corporate positions only) multiplied by the security Carbon Intensity. MSCI rates companies on a 'AAA' to 'CCC' scale according to their exposure to industry specific ESG risks and their ability to manage those risks relative to peers. The portfolio MSCI ESG Rating is based on the weighted average ESG Quality Scores of the underlying companies within the portfolio, and then adjusted based on portfolio exposure to issuers with positive trending ESG scores, issuers with negative trending ESG scores, and ESG Laggards (B and CCC rated issuers). The result is the ESG Quality Score, which can be mapped directly to the letter ESG Rating. The MSCI ESG Pillar Scores are the weighted average of the underlying companies' scores rated on a scale of 0-10. Pillar scores are comparable across all industries because they are not industry-weighted like the overall MSCI ESG Quality Score. 'Coverage' is defined as the percent of the portfolio's underlying holdings that have an MSCI ESG Rating. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the readers as research or investment advice regarding any security in particular. **For a glossary of terms, see Exhibit B.** All figures based on US EPA's calculation for converting greenhouse gas emissions (tCO2e) numbers into different types of equivalent units. Hypothetical example is for illustrative purposes only. Results for actual accounts will vary.

Globally, we estimate a cumulative loss in economic output of nearly 25% over the next two decades if no climate change mitigation measures were taken.

Expected return and risk



Source: BlackRock as of May 2021. Expected 10-year risk and return calculations based on BlackRock's capital market assumptions (CMA). See section titled "Capital Market and Modeling Assumptions" in Exhibit C at the end of this analysis for additional details. Risk: 84% confidence interval, 246 constant weighted monthly observations; 1yr horizon. For illustrative purposes only. There are no assurances that the hypothetical portfolio's objectives will be met. Additionally, there are frequently sharp differences between a hypothetical performance record and the actual record subsequently achieved. Another inherent limitation of these results is that the allocation decisions reflected in the performance record were not made under actual market conditions and, therefore, cannot completely account for the impact of financial risk in actual portfolio management. The performance shown does not represent any existing portfolio, and as such, is not an investible product. There is no guarantee that the capital market assumptions will be achieved, and actual returns could be significantly higher or lower than those shown.

China A-Shares, which trade on the mainland exchanges of Shanghai and Shenzhen, have especially compelling potential to enhance both absolute and risk-adjusted returns.

economic output of nearly 25% over the next two decades if no climate change mitigation measures were taken. To give another illustration, our expected returns for U.S. equities are 2% higher under a green transition in which the economy embraces the post-carbon future.

Diversification potential of China A-Shares

Shifting assets within public market exposures could also help public pensions increase portfolio efficiency. One area of interest is onshore China exposure, as our research[4] shows the potential to boost returns while providing diversification that have some risk benefits. China has grown to represent almost 20% of global GDP, but it's still not fully reflected in global benchmarks. For example, the MSCI All Country World Index (ACWI) holds a weight of just 4% in China equities. (As of April 2021)

China A-Shares, which trade on the mainland exchanges of Shanghai and Shenzhen, have especially compelling

potential to enhance both absolute and risk-adjusted returns. A-Shares have become much more accessible to investors outside of China in recent years. The MSCI China A Index offers relatively high potential returns and low historical correlations to other equity assets, including a correlation of just 0.36 to the MSCI USA Index. In our analysis we decreased MSCI ACWI exposure by 5% and reallocated to MSCI China A Index, which resulted in an average increase in expected return of 23 bps, while decreasing risk by 14 bps. Outcome for specific portfolios will vary depending on the client's constraints and risk appetite.

Fixing fixed income

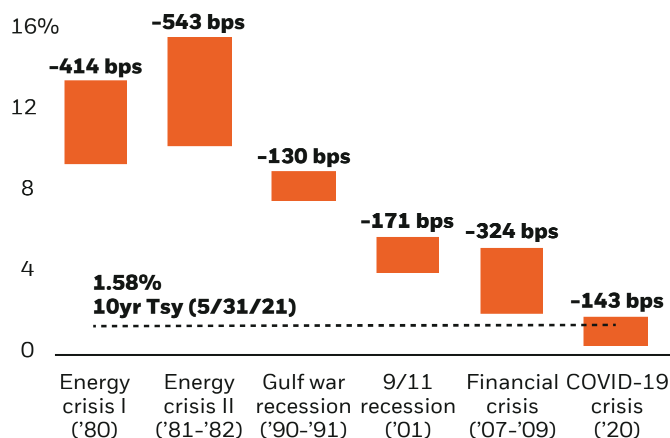
The 2020s have ushered in a new era for persistent low yields across most fixed income markets. Many of our public pension partners are weighing the impact the low yield environment could have on their ability to meet return targets and the diversification advantages of fixed income allocations. We see opportunities for them to reevaluate both the role of fixed income in their portfolio and how they allocate within their income bucket.

On the fiscal side, the US government's response dwarfed the steps it took during and after the Great Financial Crisis. Our analysis[5] estimated that the pandemic had a quarter of the GFC's overall economic impact but received four times the fiscal response. All that spending has important implications for inflation, economic growth, government debt that drive bond performance. Meanwhile, changes in monetary policy pulled down interest rates and bond yields. The rate on the 10-year Treasury note, only about 2% at the beginning of the pandemic, fell rapidly and sharply, dropping almost 1.5 percentage points in just three months.

Although yields creeped higher during the first quarter of 2021, we expect a low-yield environment to persist for some time and to pose several challenges to public pensions. Low yields could diminish bonds' ability to provide the degree of diversification from equities that they have in the past.

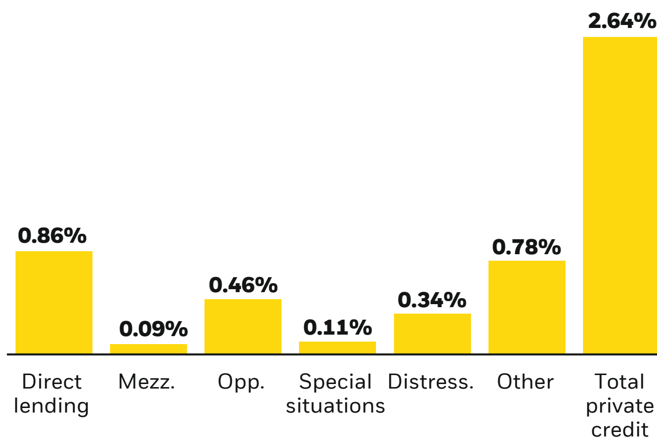
> *"Public pensions currently have a 23% average allocation to illiquid assets, and our research indicates that many plans could assume greater illiquidity risk in pursuit of return premiums."*

Yields have little room left to fall



Source: BlackRock, Bloomberg, as of May 2021. U.S. recession periods are defined by National Bureau of Economic Research. Graph displays U.S. 10-year Treasury yield rate changes during recession periods. 10-year Treasury change reflects the biggest move seen from as early as six months before the recession period. Past performance is not indicative of future results.

Opportunistic private credit looks underfunded



Source: BlackRock and P&I. Average Private Credit allocations of all plans is a simple average.

The chances of fixed income contributing much to total returns has, in our view, been greatly diminished. Our estimates project the Bloomberg Barclays US Aggregate Index to return up to 1.8% in our May 2021 CMAs, reflecting a first-quarter rise in interest rates. The average US public pension plan has a 23% allocation to fixed income, with approximately half those assets in domestic core. Such meaningful exposure to an asset with a likely return of less than 2% makes it very difficult for plans to achieve their desired results. It also places considerable pressure on the growth portion of the portfolio to outperform.

For example, consider a hypothetical plan with a 7% assumed return. If the plan were to maintain a 20% allocation to an asset, such as core fixed income, with an expected return below 2%, then that portfolio exposure would generate only about one-twentieth of the target return. The remaining allocations would need to generate at least 8.25% to reach the performance targets. To reach this higher growth target the portfolio may need to take on greater risk in the growth portfolio.

Introducing judicious exposure to less-liquid assets within the fixed-income allocation could prove crucial to meeting performance targets and maximizing the return generated per unit of risk. Private debt underwriting enables investors to offer lending on their own terms, potentially leading to stronger covenants and better downside mitigation than what is currently available in the public markets. These qualities can improve recoveries and loss ratios in the event of defaults, potentially producing better risk-adjusted yields.

Fixed income can also help provide critical liquidity for pensions to meet their liabilities and we've seen some clients utilize ETFs to balance exposure to less liquid asset classes.

Investors with the willingness and capacity to accept greater risk in their fixed income allocations can also benefit from considering opportunistic private credit investments. Opportunistic credit involves lending to issuers that need flexible, bespoke financing solutions. It offers elements of both income and capital appreciation, with the potential for upside participation that can help deliver equity-like returns with a debt-like risk profile. While public pensions have been steadily increasing their allocations to private credit, our data shows that they tend to under-allocate to opportunistic credit.

Gaining ground with illiquid assets

Illiquid assets may help pensions meet these aggressive demands. Public pensions currently have a 23% average allocation to illiquid assets, and our research indicates that many plans could assume greater illiquidity risk in pursuit of return premiums.

Specifically, plans could use private markets as a primary tool to help them meet assumed returns and diversify against risk factor concentration. Our current market assumptions expect 10-year annualized returns of 9.3% for private credit and 19.5% for private equity.

We modeled the potential impact of reallocating 5% of each plan's exposure from public equity to private equity and found expected returns increased by more than 70 basis points, on average, bringing many plans within reach of their assumed return. Risk increased commensurately, but portfolio efficiency—return per unit of risk—increased by an average of 0.03.

Many public pension plans are on this track as allocations to private equity and real assets have increased since 2010 by 2% and more than 4%, respectively. Our research suggests that public pensions have the ability to continue this trend and would benefit from doing so.

Looking ahead

None of these strategies—increasing allocations to illiquid assets, shifting portfolios' geographic weights, incorporate climate considerations, evolving fixed income allocations — are the silver bullet. But we are optimistic on the opportunities of the post-pandemic recovery and possibilities of previously overlooked portions of the market. Public pension plans will need to consider each carefully in the context of their current allocations, return targets, assets, liabilities, stakeholders, and other characteristics.

SOURCES

1 Virus Did Not Bring Financial Rout That Many States Feared, New York Times, March 2021.
2 If COVID-19 Prompts Teacher Retirements, Pensions in Jeopardy, Plan Sponsor, August 2020.
3 Turning climate risk into opportunity, BlackRock, February 2021.
4 The case for Chinese assets, BlackRock, May 2021.
5 Testing debt tolerance, BlackRock, February 2021.

Exhibit A: Asset class mappings

Asset class	Asset description	Benchmark/Proxy description
Cash	Cash	U.S. cash
Fixed income	Domestic	BBG Barc U.S. Aggregate Index
Fixed income	Long duration	BBG Barc Treasury 10+ Yr Index
Fixed income	TIPs	BBG Barc U.S. TIPS Index
Fixed income	Securitized	BBG Barc Securitized Index
Fixed income	Emerging markets	50% JPM GBI-EM Global Diversified Index | 50% JPM Global EMBI Index
Fixed income	International/Global	BBG Barc Global Aggregate Index
Fixed income	High yield	BBG Barc U.S. Corporate High Yield Index
Fixed income	Bank loans	BlackRock Proxy, based on S&P/LSTA Leveraged Loan Index
Fixed income	Multi-strategy	BBG Barc U.S. Universal Index
Fixed income	Convertibles	BBG Barc U.S. Aggregate Index
Equity	U.S. all-cap	Russell 3000 Index
Equity	U.S. large-cap	Russell 1000 Index
Equity	U.S. mid-cap	Russell Midcap Index
Equity	U.S. SMID-cap	Russell 2500 Index
Equity	U.S. small-cap	Russell 2000 Index
Equity	Developed ex-U.S.	MSCI World ex-U.S.
Equity	International	MSCI All Country World ex-U.S.
Equity	Emerging markets	MSCI Emerging Markets Index
Equity	Global equity	MSCI All Country World Index
Alternatives	HF	BlackRock proxy: Hedge funds (global fund weighted)
Alternatives	Portable alpha	BlackRock proxy: Hedge funds (global fund weighted)
Alternatives	Risk parity	16.25% Long duration, U.S. HY, TIPS, EMD | 20% MSCI ACWI | 15% commodities
Alternatives	Private equity	BlackRock Proxy: U.S. buyout private equity
Alternatives	Real estate: REITs	FTSE EPRA Nareit United States Index
Alternatives	Real estate: Debt	BlackRock Proxy: Real estate mezzanine debt unhedged
Alternatives	Real estate: Core	BlackRock Proxy: U.S. core real estate
Alternatives	Real estate: Core-plus	BlackRock Proxy: U.S. core real estate
Alternatives	Real estate: Value-added	BlackRock Proxy: U.S. value-added real estate
Alternatives	Real estate: Opportunistic	BlackRock Proxy: U.S. value-added real estate
Alternatives	Real estate: Distressed	BlackRock Proxy: U.S. value-added real estate
Alternatives	Real estate: Other	BlackRock Proxy: U.S. core real estate
Alternatives	Real assets: Commodities	BlackRock proxy: Commodities unhedged
Alternatives	Real assets: Energy	BlackRock proxy: Commodities unhedged
Alternatives	Real assets: MLPs	BlackRock proxy: Commodities unhedged
Alternatives	Real assets: Infrastructure	BlackRock Proxy: Global unquoted infrastructure equity
Alternatives	Real assets: Farmland	FTSE Nareit equity diversified
Alternatives	Real assets: Timber	BlackRock proxy: Commodities unhedged
Alternatives	Real assets: Other	BlackRock proxy: Commodities unhedged
Alternatives	Alt credit: Direct lending	BlackRock proxy: Direct lending
Alternatives	Alt credit: Mezzanine	BlackRock proxy: Direct lending
Alternatives	Alt credit: Opportunistic	BlackRock proxy: Direct lending
Alternatives	Alt credit: Distressed debt	BlackRock proxy: Direct lending
Alternatives	Alt credit: Special situations	BlackRock proxy: Direct lending
Alternatives	Alt credit: Other	BlackRock proxy: Direct lending

Exhibit B: Glossary of ESG terms

MSCI ESG quality score: The MSCI ESG Quality Score measures the ability of a company to manage key medium- to long-term risks and opportunities arising from environmental, social, and governance factors. The MSCI ESG Quality Score (0 - 10) for portfolios is calculated using the weighted average of the ESG scores of the underlying companies. The Score also considers ESG Rating trend of underlying companies and the portfolio exposure to companies in the laggard category. MSCI rates underlying companies according to their exposure to industry specific ESG risks and their ability to manage those risks relative to peers. These issuer-level ESG ratings correspond to an issuer-level ESG Score.

MSCI ESG rating: The MSCI ESG Rating is designed to measure the resiliency of portfolios to long-term ESG risks and opportunities. The most highly rated portfolios consist of issuers with leading or improving management of key ESG risks. The ESG Rating is calculated as a direct mapping of ESG Quality Scores to letter rating categories (e.g. AAA = 8.6-10). The ESG Ratings range from leader (AAA, AA), average (A, BBB, BB) to laggard (B, CCC).

ESG coverage (%)*: Percent by weight of a portfolio's securities that have ESG Data.

MSCI ESG environment pillar score*: An Environmental Score measures companies' management of and exposure to key environmental risks and opportunities.

MSCI ESG social pillar score*: A Social Score measures companies' management of and exposure to key social risks and opportunities.

MSCI governance pillar score*: A Governance Score measures companies' management of and exposure to key governance risks and opportunities.

MSCI ESG carbon risk*: The MSCI Weighted Average Carbon Intensity measures a portfolio's exposure to carbon intensive companies. This figure represents the estimated greenhouse gas emissions per $1 million in sales across the holdings. The figure is a sum of the normalized security weight multiplied by the security Carbon Intensity. This allows for comparisons between portfolios of different sizes.

Carbon coverage (%) *: Percent by weight of a portfolio's securities that have MSCI carbon data.

* Source: MSCI ESG research.

Exhibit C: Capital market and modeling assumptions

Asset class	Asset description	Benchmark	10yr ann. expected return	Expected risk
Cash	Cash	U.S. cash	0.8%	0.0%
Fixed income	Domestic	BBG Barc U.S. Aggregate Index	1.8%	4.6%
Fixed income	Long duration	BBG Barc Treasury 10+ Yr Index	1.8%	14.9%
Fixed income	TIPs	BBG Barc U.S. TIPS Index	2.7%	5.4%
Fixed income	Securitized	BBG Barc Securitized Index	1.7%	3.2%
Fixed income	Emerging markets	50% JPM GBI-EM Global Diversified Index | 50% JPM Global EMBI Index	3.9%	9.0%
Fixed income	International/Global	BBG Barc Global Aggregate Index	2.0%	5.7%
Fixed income	High yield	BBG Barc U.S. Corporate High Yield Index	3.7%	8.4%
Fixed income	Bank loans	BlackRock Proxy, based on S&P/LSTA Leveraged Loan Index	4.3%	8.0%
Fixed income	Multi-strategy	BBG Barc U.S. Universal Index	2.1%	4.5%
Equity	U.S. all-cap	Russell 3000 Index	6.6%	17.8%
Equity	U.S. large-cap	Russell 1000 Index	6.5%	17.5%
Equity	U.S. mid-cap	Russell Midcap Index	6.7%	19.7%
Equity	U.S. SMID-cap	Russell 2500 Index	6.8%	22.2%
Equity	U.S. small-cap	Russell 2000 Index	6.8%	23.4%
Equity	Developed ex-U.S.	MSCI World ex-U.S.	7.4%	16.9%
Equity	International	MSCI All Country World ex-U.S.	7.6%	17.6%
Equity	Emerging markets	MSCI Emerging Markets Index	7.4%	22.1%
Equity	Global equity	MSCI All Country World Index	7.1%	16.9%
Alternatives	HF	BlackRock Proxy: Hedge funds (global fund weighted)	4.8%	7.4%
Alternatives	Private equity	BlackRock Proxy: U.S. buyout private equity	19.5%	32.0%
Alternatives	Real estate: REITs	FTSE EPRA Nareit United States Index	5.7%	22.6%
Alternatives	Real estate: Debt	BlackRock Proxy: Real estate mezzanine debt unhedged	5.5%	10.7%
Alternatives	Real estate: Core	BlackRock Proxy: U.S. core real estate	6.3%	12.3%
Alternatives	Real estate: Value-added	BlackRock Proxy: U.S. value-added real estate	7.6%	18.8%
Alternatives	Real assets: Commodities	BlackRock proxy: Commodities unhedged	6.8%	16.2%
Alternatives	Real assets: Infrastructure	BlackRock Proxy: Global unquoted infrastructure equity	6.8%	16.2%
Alternatives	Real assets: Farmland	FTSE nareit equity diversified	5.9%	27.0%
Alternatives	Alt credit: Direct lending	BlackRock Proxy: Direct lending	9.3%	11.8%
Alternatives	Risk parity	16.25% Long Duration, U.S. HY, TIPS, EMD | 20% MSCI ACWI | 15% commodities	4.5%	7.5%
Equity	Chinese equity	MSCI China A Inclusion Net Index	6.6%	31.3%

The representative indices listed above may differ from those that are publicly available, but the underlying methodology and assumptions are consistent. BlackRock expected market return information is based on BlackRock's long-term capital market assumptions as of May 2021 which are subject to change. Capital market assumptions contain forward-looking information that is not purely historical in nature. They should not be construed as guarantees of future returns. The projections in the chart above are based on BlackRock's proprietary long-term capital markets assumptions (10+ years) for risk and geometric return (above) and correlations between major asset classes. These asset class assumptions are passive

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*BlackRock authors include **Calvin Yu, CFA**, Head of the Client Insight Unit; **Jonathan Cogan**, CFA, CAIA, Director of the Client Insight Unit; and **Sarah Siwinski**, Member of the Client Insight Unit. BlackRock's purpose is to help more and more people experience financial well-being. As a fiduciary to investors and a leading provider of financial technology, the company helps millions of people build savings that serve them throughout their lives by making investing easier and more affordable.*

ARE **NATURAL RESOURCE STOCKS** THE INFLATION FIGHTERS INVESTORS WANT?

Investors like the commodity asset class for both diversification and inflation protection—but they may be investing in commodities the wrong way.

"The result is that this intuitively appealing substitution of natural resources stocks for a futures-based commodity exposure leads to a less effective solution for both inflation protection and portfolio diversification."

As the US economy has begun digging out of the massive hole left by the COVID-19 pandemic, ultra-loose monetary policy and several rounds of fiscal stimulus have awoken concerns that inflationary pressures may be just around the corner. In response to these concerns, more investors are considering an allocation to commodities, attracted to the asset class for its inflation-fighting characteristics. While the most common way to get commodity exposure is by investing in a portfolio of commodity futures, many investors believe that owning a portfolio of natural resource stocks is an easier solution. The logic behind this position is often that the largest driver of return for these stocks should be the price of their underlying commodity—for example, a mining company's share price ought to be driven largely by the price of iron ore.

However, this seemingly commonsense argument couldn't be further from the truth. For one thing, price movements of natural resource stocks display dramatically different return patterns than their associated commodity. For another, compared with an exposure to commodity futures, natural resource stocks demonstrate higher levels of correlation with the equity asset class, while exhibiting significantly greater levels of volatility. Most importantly, they've historically been less sensitive to actual inflation. The result is that this intuitively appealing substitution of natural resources stocks for a futures-based commodity exposure leads to a less effective solution for both inflation protection and portfolio diversification.

“While stock prices will change to reflect company-specific changes in dividend policy, corporate governance, or earnings potential, there’s no reason to expect that this will have any impact on the associated commodity.”

Why do natural resource stocks behave differently from underlying commodities?

The notion that the shares of a natural resource company behave differently from the underlying commodity may seem puzzling. Why wouldn’t the price of copper, say, be the largest factor in the price movements of a copper producer? Yet there are fundamental differences between these two asset classes that cause their price levels to move independently. First, company-specific factors will influence an organization’s stock price but not the price of the underlying commodity. While stock prices will change to reflect company-specific changes in dividend policy, corporate governance, or earnings potential, there’s no reason to expect that this will have any impact on the associated commodity. For example, the Deepwater Horizon oil spill in the Gulf of Mexico in 2010 had a dramatically negative impact on BP’s share price due to many company-specific risks, including a change in management, fines imposed by the US government, and a revised dividend policy. But the oil spill had only a minor impact on the price of crude oil, which initially rallied following the incident as the market reacted to the negative supply shock.

Second, market-level factors that impact equity prices aren’t mirrored by commodity prices. These factors are categorically referred to as equity beta, which includes such things as the expansion or compression of earnings multiples, a negative regulatory environment for natural resource stocks, and the tendency for equity prices to move together as an asset class. For instance, during the onset of the COVID-19 pandemic in early 2020, general fear in the markets caused the price of the commonly followed NYSE Arca Gold Miners Index to decline over 25% through March 23. While a faintly similar return pattern can be detected in the price of gold, its return over the same period was a gain of 3%, with many investors actually fleeing to gold due to its perceived safe-haven status.

Third, many commodity-related companies are aware of their commodity exposure and may actively hedge away this risk using forward price agreements or other instruments. While this doesn’t completely immunize these companies from the price impacts of the underlying commodity, it diminishes the relationship between a company’s profitability—and, indirectly, its share price—and the price of the underlying commodity.

“The increased correlation with the equity asset class should hardly come as a surprise, since natural resource equities are—to state the obvious—equities.”

What does this mean for investors seeking diversification and inflation protection?

For many investors, the desire to own commodities stems from the asset class’s inflation-hedging or portfolio-diversifying characteristics. However, these positive attributes are somewhat lost when the allocation is expressed through public market equities due to the differences in price movements we’ve discussed. When compared with a futures-based commodity exposure, this return dispersion means natural resource stocks have demonstrated a much lower connection to inflation historically. Over the past 10 years, the S&P North American Natural Resources Sector Index’s correlation with the Consumer Price Index was 0.31, compared with 0.63 for the Bloomberg Commodity Index. In addition, natural resource stocks have demonstrated higher volatility and higher correlation with all equities when compared with commodities. The increased correlation with the equity asset class should hardly come as a surprise, since natural resource equities are—to state the obvious—equities.

Both this elevated correlation and higher volatility diminish natural resource stocks’ diversification benefit in a total portfolio setting. They can lead to a portfolio that has a lower expected return and higher expected volatility than an equivalent portfolio holding similar exposure to a futures-based commodity strategy.

Volatility and correlation properties of commodities and natural resource equities (12/31/2010–12/31/2020)

	S&P 500®	S&P N. American Natural Resources Sector Index	Bloomberg Commodity Index Total Return
Volatility	13.54%	24.24%	13.71%
Correlation with S&P 500® total return	1.00	0.81	0.53

Sources: Bloomberg, S&P Dow Jones, Parametric, 12/31/2020. For illustrative purposes only. Not a recommendation to buy or sell any security. It is not possible to invest directly in an index.

The Bottom Line

Getting commodity exposure through a futures position is complex on many fronts, and it may involve investing in unfamiliar financial instruments that can appear complicated even to seasoned investors. For less experienced investors, the primary motive for choosing natural resource stocks to provide commodity exposure is the ease of implementation and a greater familiarity with the risk factors involved in an equity investment. However, this choice has serious downsides. At the top level, the very claim that natural resource stocks can be a proxy for commodities is questionable. Equity returns have many drivers that won't affect commodity prices, and many of these natural resource companies use hedges to mute the impact of commodity price volatility on their revenues and profits. All in all, for an investor looking to add commodity exposure for either its inflation-fighting powers or its portfolio-level diversification, natural resource stocks simply aren't a substitute for commodity futures.

*As Senior Investment Strategist, **Greg Liebl**, CFA drives strategy evolution across Parametric's Emerging Markets, International Equity, and Commodities strategies. Since joining Parametric in 2010 (originally as an employee of the Clifton Group, which was acquired by Parametric in 2012), Liebl has provided portfolio management in the areas of risk and exposure management and customized implementation solutions. He's a member of the CFA Society of Minnesota.*

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Here's What's In It For You. . .

TOP REASONS TO BE AN ACTIVE MEMBER OF SACRS

"Whether you're a trustee pursuing new investment strategies or an affiliate representative looking to help SACRS build on its success, you'll likely find rewards you weren't even seeking."

You may have become a SACRS member to receive one specific benefit or achieve a particular goal, but when you seek you will find more benefits and activities that hold much more opportunity than you ever imagined.

- **Networking**
- **Training and Education**
- **Certification**
- **Influence**
- **Information**
- **Best Practices**
- **Exchange of Ideas**
- **Relationships**

As an active member, the education and training SACRS provides can expand your skill set, improve your effectiveness at work and advance your career. Our Ethics Training for Trustees and Staff, which meets AB 1234 compliance, and Sexual Harassment Prevention Training for Local Agency Officials, which meets AB 1661 compliance, are provided at no cost to our members. SACRS offers and partially subsidizes a unique Investment Management Program at UC Berkeley, and offers continuing education opportunities that include certificates of completion.

You'll also meet some amazing people along the way at our conferences and events, building supportive relationships with peers and possibly cultivating some lifelong friendships, too. Whether you're a trustee pursuing new investment strategies or an affiliate representative looking to help SACRS build on its success, you'll likely find rewards you weren't even seeking.

SACRS MEMBERSHIP

Your participation in the State Association of County Retirement Systems (SACRS) helps build a stronger California economy and deliver retirement security for deserving employees and retirees statewide.

MEMBER CATEGORIES

SACRS classifies its membership into three main categories:

- **System** members consisting of elected and appointed trustees and staff from the 20 retirement systems that abide by the County Employees Retirement Law of 1937 (CERL).
- **Organizational Affiliate** members that are retirement-related or investment-related organizations. Membership acceptance requires sponsorship from two System member trustees or administrators. *Note: SACRS bylaws cap the maximum number of Affiliate members at 215 organizations; membership can be subject to availability.*
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JOIN US

To become a SACRS member, visit **https://sacrs.org/Membership** and complete the online membership application form, or download the application and follow the instructions for submitting it.

If you are already a member and want to become more involved, contact SACRS Executive Director Sulema H. Peterson, **(916) 701-5158** or email **sulema@sacrs.org**.

SHORT TAKES

Conversations with Fall Conference Keynotes

SACRS Fall Conference 2021 marked the first return of an in-person SACRS event since the Coronavirus pandemic. Held in Hollywood, the event boasted a great lineup of insightful and inspirational speakers. If you missed hearing from them, here are a few highlights.

PERSEVERANCE AND TRIUMPH

SACRS attendees were inspired to persevere through challenging times in the opening keynote session presented by Richie Parker and Jessica Long.

RICHIE PARKER

Richie Parker believes you should take responsibility for your life and career, and never give up until you reach your goals. Born with bilateral amelia, a non-genetic birth defect in which limbs are not formed, Parker currently works for Hendrick Motorsports as the Manager of Special Government Projects, where he leads engineering efforts on government and military defense related projects. Previously, at Hendrick Motorsports, Parker worked as the Vehicle Design Group Manager for the four NASCAR Sprint Cup Series teams.

Parker takes pride in finding creative solutions that allow him to lead a perfectly normal and independent life and often speaks to organizations about overcoming obstacles and facing adversity. Parker inspired SACRS attendees when he encouraged them to *Embrace the Challenge*.

SACRS Magazine: After graduating from Clemson University with a bachelor's degree in mechanical engineering, and as you were deciding what to do next, you accepted a 10-month internship with NASCAR's Hendrick Motorsports. Fast-forward to today and you are still employed there. In 2017 you earned a master's degree in business administration in entrepreneurship from Clemson. There must have been so many challenges and hurdles along the way.

In your presentation to SACRS Fall Conference attendees you talked about how everyone is dealing with something difficult and that more often than not, it is something that cannot be seen.

RP: We all have challenges that we need to overcome in order to make the most of our lives. I was born without arms. But I believe everybody has something they battle. I think there are three levels that can help us overcome challenges. First, you have to understand it. Then, you have to accept and manage it. But to really reach your full potential, you also have to embrace the challenge – whatever it is you are dealing with. Most people don't get to this level. You have to take complete ownership; no one owns it, but you. We can't put it on someone else. You have to truly believe in yourself. And I struggle with this too. You can't let other people's opinions of what they think you can do affect your goals.

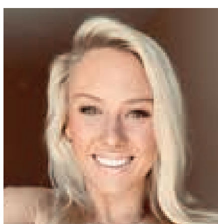
And not only should you not limit your belief in yourself, it is important that you don't limit what you believe *others* can do. Try not to be that person that limits other people. Because, impossible is a mindset. I really encourage everyone to be open-minded. Especially when it comes to someone else.

SACRS Magazine: An inspirational quote that you shared was from Maya Angelou that said, "You may not control all the events that happen to you, but you can decide not to be reduced by them."

RP: You are in control of your own happiness. My message is: "Don't let someone else distract you from being the best version of yourself." Life is about what you can do, not what you can't do. Things don't always work out the first time, or the second. You have to be ready to fail and not let it hold you back.

SACRS Magazine: You stated that in overcoming challenges there are several things we can control.

RP: That's right. Effort and attitude are two things we have complete control over. Creativity, passion, energy, and hard work; these are things that we can control. You are your only limit. Really the biggest disability in life is a bad attitude.



JESSICA LONG

As one of America's most decorated Paralympic champions, Jessica Long is a speaker, author, advocate, and sports personality. Most recently, she competed in the Paralympic games for the U.S. in Tokyo. It is with unrelenting determination and belief in herself that Long has been able to reach the pinnacle of her sport and maintain her position amongst the best in the world for over a decade. Now, her work focuses on winning in the water and inspiring others outside the pool. It's through her struggles that she has learned to grow and thrive as a champion and person.

SACRS Magazine: Born to a teenage mother in Siberia, you were placed for adoption at 13-months old. You were adopted, brought to the U.S., and at just 18-months old had your legs amputated below the knee due to a rare bone disorder called fibular hemimelia, to improve your mobility with prosthetic legs. In total, you needed 25 surgeries.

JL: My childhood was hard and painful. I struggled with acceptance and with confidence. There are spots of my childhood I don't remember because I was going in and out of surgery so much. I relearned how to walk too many times to count. I have been frustrated many times by the fact that I will never have legs, but I also know this is the only life I've been given and I choose to live it to the fullest.

I have always been good at being determined and the water is where I felt really free and capable. From a young age, I would swim at my grandparents' house and pretend to be a mermaid. When I was in the pool, I never really felt like I was missing my legs.

SACRS Magazine: At 10-years old you began to swim competitively because your adoptive parents encouraged you to play sports and you enjoyed the water so much.

JL: In the water I felt powerful and I thought it was cool that I could beat other girls with legs. It wasn't long before my times were good enough to qualify for the Paralympic Games. I made my debut when I was 12-years old at Athens 2004, and took home three gold medals [100m freestyle, 400m freestyle, 4 x 100 m freestyle relay.] I was the youngest member of team USA. This was a big confidence booster for me and I started showing my legs in shorts.

SACRS Magazine: And then there was Beijing, China in 2008, where at 16-years old you were projected to win seven gold medals and instead took home four gold medals [100m butterfly] three of which were also world records [400m freestyle, 100m freestyle, 200m individual medley]; a silver medal [100m backstroke]; and a bronze medal [100m breaststroke]. And yet you say you felt like a failure.

JL: It's easy to say that a gold medal doesn't define you, but when you are used to a certain level of performance and then you don't have it, it's really easy to feel a lack of worth. I now know how great a bronze medal is, but at the time, I asked my parents if they still loved me. I had to decide my own worth, and learn that worth does not come from medals.

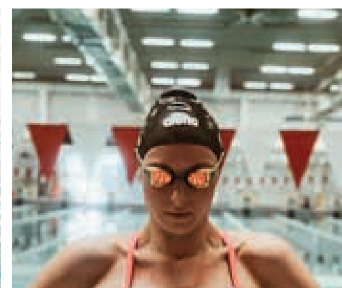
SACRS Magazine: You came back in 2012 to win five gold medals [100m butterfly, 400m freestyle, 100m breaststroke, 200m individual medley, 100m freestyle]; two silver medals [4 x 100m freestyle, 100m backstroke]; and a bronze medal [4 x 100m medley] in the Paralympic Summer Games in London. The in Rio de Janeiro in 2016, there was one gold medal [200m individual medley]; three silver medals [100m breaststroke, 400m freestyle, 4x100m freestyle]; and two bronze medals (100m butterfly, 100m backstroke).

JL: I was very angry over how my performance went in Rio. I had to step back and ask myself, if I would continue. I took some time off and I taught swimming. I think it is important to give back. I really wanted to give back to the sport of swimming. I think during the pandemic, we all went through really challenging times. For me, my focus was on controlling the controllables and turning the whys into why nots. We all have to find our passion in life, which helps to fulfill the purpose.

SACRS Magazine: The coronavirus forced the delay of the Tokyo 2020 Paralympics into 2021. This time you achieved three gold medals [100m butterfly, 200m medley and 4x100m medley relay]; two silver medals [100m breaststroke, 400m freestyle] and a bronze medal [100m backstroke]. Now at 29 and being the most decorated active Paralympian claiming 29 medals – 16 of them gold – across five Games, will you continue to swim?

JL: I plan to continue to swim. I will do Paris in 2024, and maybe Los Angeles in 2028.

I used to think life would be so much easier with legs, but now I would not have it any other way. Being without legs has taught me to be resilient. There are moments that I struggle. We always have a choice. I am reminded every day, as I put on my prosthetics, that life is hard. But I don't want my disability to define me. We all have challenges and hard times. It is always our choice to give up or press on. For me, I will never give up!



DAVID BURKUS

Dr. David Burkus is an organizational psychologist and best-selling author of four books about business and leadership. Since 2017, Burkus ranks as one of the world's top business thought leaders by Thinkers50 with his books winning multiple awards and translated into dozens of languages. A former business school professor, Burkus holds a master's degree in organizational psychology from the University of Oklahoma, and a doctorate in strategic leadership from Regent University.

In his SACRS keynote, *Best Team Ever: The Surprising Science of High-Performing Teams*, Burkus outlined how to build teams that bring out the best in everyone, revealed what some of the most effective teams in the world do differently, and how any organization can begin doing the same.

SACRS Magazine: When you talked about building the best team ever, you pointed out that having top talent isn't the most important element of a high-performing team.

DB: It's a misconception that adding more talented people will raise the performance of a team. We know that talent isn't always portable. Research has proven that lesser talented people can make for a great team. Managers often think: 'If I could only get more talented people, I would have a better team.' In reality, the individual talent of team members is not what makes the higher performing team; it is the team that *makes* the talent. Talent flows from teams.

SACRS Magazine: What kinds of team-building activities work best to help cultivate a high-performing outcome?

DB: Those offsite traditional team-building exercises don't really lead to better teams because people don't really change, they can be feel-good activities to share, but true team-building requires a change in habit back at the office. And the word we use to define these sought after habits and norms is 'culture.' So when you think about the best team ever, you have to think about the culture. What makes for that culture? When you look at the research on high performing teams, you find the highest levels of performance in teams are marked by three elements: Common Understanding. Psychological Safety. Prosocial Purpose.

SACRS Magazine: In your SACRS session, you did a deeper dive into these three areas, but because of space limits here, can you give a brief highlight on each?

DB: Sure. Common Understanding seems simple enough, but it boils down to role clarity, context, and preferences. Things like knowing what each team member's expertise is, task assignments, skill sets, responsibilities, how one another prefers to work. Organizations can help build some of the softer stuff of Common Understanding through the use of huddles – either in-person, email, Zoom, Google Docs – where the whole team comes together to do daily, weekly, or monthly check-ins to ask: What is complete? What is next? What is blocking progress? This makes it okay to ask for help, if it is needed, or for the team to come together to problem solve. Also important is finding ways for the team to really know each other. There is a Swedish custom called Fika, where people gather to eat, drink, and talk. It is a workplace tradition that is essentially a mandatory coffee break, sometimes happening twice a day, for unstructured conversation where employees can connect with each other as people. The importance of this idea is that it leads to greater trust among team members.

This idea of Psychological Safety is the extent to which team members feel safe to express themselves and to take risks. The highest levels of performance in teams can come from the mindset that treats conflict as collaboration and contributing to a diversity of ideas. Feeling like it is safe to speak up when there is a disagreement leads to team members feeling heard and that dissent is acceptable. Or that risks may be taken, even those that might lead to failure, and to draw learning out of the mistake or failed effort.

If you have a team that truly has Common Understanding and Psychological Safety, it will be high-performing, but adding Prosocial Purpose as the third leg to great team culture can take things to a whole other level. Prosocial purpose is the extent that team members feel they're making a meaningful contribution toward work that benefits others. It makes the work more than a job, instead elevating the work to something that makes a greater impact for good. Research indicates that people are most motivated if there is understanding of who directly benefits from the work that is being done. And this is not what the company as a whole does, but the work of that individual team member really understanding their contribution though a Prosocial Purpose lens. Connecting the worker to the beneficiary of the work, through an email, or meeting, or by other means to show how the work being done makes a difference, in turn leads to increased motivation and productivity.

SACRS Magazine: Which one of the elements should an organization start with?

DB: You can't really pick just one. These aren't just three pillars; these interact synergistically. And as a manager, between Common Understanding and Prosocial Purpose, you will attract the best people. Because of Common Understanding and Psychological Safety you will get the best ideas. And because of Psychological Safety and Prosocial Purpose you will get the best effort from your team. When you build all three elements together, you will find you have built your best team ever.

SACRS Magazine: Once COVID restrictions ease, what adjustments do you predict managers are going to need to make when it comes to remote work?

DB: If management thinks people are going to return to work in the office, in the same way as pre-COVID, they are in for a surprise. I think people are okay with heading back to the office and not working remotely, but what has changed is the desire for increased autonomy and flexibility. Workers are going to have a different set of preferences than before; a different set of responsive and non-responsive times that will need to be addressed in return-to-work plans. And about those plans? This I can guarantee: Whatever the return-to-work policies are at the start of 2022, for many organizations, it will not be the policy by the end of 2022. A lot of plans won't survive first contact. My best advice to management is to focus on the culture piece and be willing to make changes along the way.

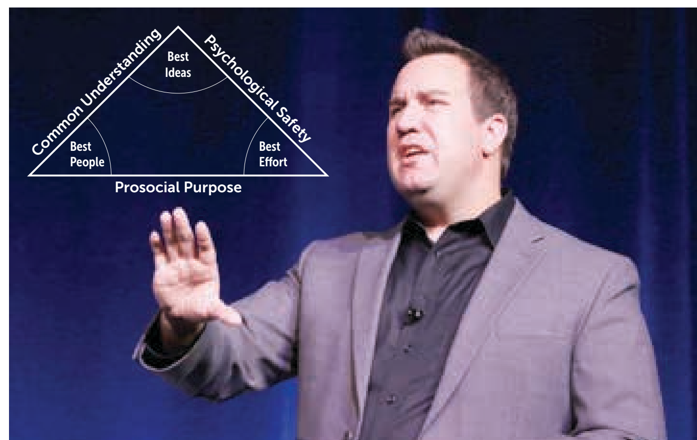
Books by Dr. David Burkus

Leading From Anywhere: The Essential Guide to Managing Remote Teams

Pick A Fight: How Great Teams Find A Purpose Worth Rallying Around

Friend of a Friend: Understanding the Hidden Networks That Can Transform Your Life and Your Career

Under New Management: How Leading Organizations Are Upending Business as Usual



FRANCES DONALD

In a thought-provoking session, Frances Donald, Global Chief Economist and Global Head of Macroeconomic Strategy, Multi-Asset Solutions Team, at Manulife Investment Management, presented *NOT Your Standard Economic Update... The Big Questions of the Day Post COVID*. Donald forecasts global macroeconomic and financial trends, analyzes the economy and capital markets for potential opportunities and risks, and serves as a thought leader both within the firm and externally as a sought after commentator on global economic conditions.

Donald shared with SACRS Fall Conference attendees how many of the same questions that we asked before the COVID recession will still matter, like: Where are we in the business cycle? Where will interest rates head next? How strong is the consumer? What about China? But she explained that the way we answer these questions isn't going to be the same, and how we need a post-COVID lens to address them.

SACRS Magazine: In your presentation, you talked about how indicators, like the Federal Reserve's shifting mandates, persistent supply chain disruptions, ESG investing, and other macroeconomic themes, now require a forward-looking "twist" in order to get the outlook right.

FD: In periods of uncertainty, having a good working knowledge of the key macro drivers influencing global growth dynamics can be helpful to understanding where financial markets could head next. During COVID-19 we bounced around many times in a matter of months from Stagflation to Reflation and Stagnation to Goldilocks. The known and unknowns have made it really hard to gauge the direction that we are headed in.

SACRS Magazine: You pay particular attention to China and ports, why?

FD: Remember the adage: As China goes, so goes the global trade. For it's part, China is still pursuing strict COVID-19 restrictions. We expect Chinese growth to be downgraded in the face of these stringent shutdowns and the delayed effects of tighter fiscal, monetary, and regulatory policy. We are seeing supply chain disruption as a result.

I am obsessed with watching ports, especially while in LA for the SACRS conference: the LA and Long Beach ports, which represent about 40% of the shipping containers that come into the U.S. and handle the bulk of cargo coming from China. Recently there was a record 100 vessels floating off the coast waiting to dock and unlike comparable ports, say in China, they don't normally operate around the clock.

COVID had a huge impact on personal choices and behaviors causing a significant change in how money is being spent. There is a shift from goods to services. But the goods are sitting on ships.

So you have ships waiting days, even a couple of weeks to unload their cargo. But then there are labor shortages along the supply chain because of a workforce hit by the pandemic. Containers that have been stacked up on the docks for weeks are waiting to be unloaded, but a shortage of on-dock workers and truck drivers has led to long delays in the process. There aren't enough people working at distribution centers and warehouses.

Ports are the best microcosm of what is happening right now. Those huge clogs will start to rollover, encouraging labor to come back to work, the supply chain will begin to unwind and the excess demand for goods will start to decrease. The warehouses that have been empty will start to fill and inventory will rebuild.

SACRS Magazine: How long will the supply chain disruptions last?

FD: The biggest medium-term risk to inflation—the problematic kind that restrains growth and compresses margins—is ongoing supply chain disruptions. Now that the COVID-era federal government emergency employment aid programs expired, we see that 42% of Americans don't have a job right now, which means that 58% are supporting the other 42%. There has been a huge falloff in the labor force, and we also have a lot of retirements since the pandemic and these workers are not coming back. Labor has a direct impact on productivity. Should the labor force supply fail to rise, we could experience broad-based inflation. Even if supply chain disruptions turn out to be stickier than initially thought, it is expected that the Fed will continue to label them as being transitory.

SACRS Magazine: In your SACRS talk, you went through four known unknowns: COVID-19, more specifically COVID-zero policies in China; supply chain disruptions, how long they will last and if they are about inflation or growth; how policy makers will respond; and lastly, you questioned whether we are even doing economics right. Going back to your session title: *NOT Your Standard Economic Update ...The Big Questions of the Day Post COVID*, is the message today that there is nothing certain but uncertainty?

FD: The surge in the Delta variant creates even more vulnerability in this recovery as it forces us to question if the latest outbreak might be the final wave during which demand is simply *delayed*, or are we stuck in a holding pattern characterized by new variants, rolling supply chain disruptions, and a more sustained reduction in aggregate consumer spending as demand *destruction* takes place? We simply don't know.

All of these known unknowns are why it is hard to know our economic outlook right now. We have to be brave and say: "I don't know." We are dealing with a mass amount of uncertainty. Right now, the best thing we can do for the people's whose money is in our hands, is acknowledge there is a limit to our visibility. We have to stay nimble and we cannot be swept away by the latest data point or headline. It is very important to do your own research and make sure the data that you are relying on is reputable. Don't accept interpreted data – make sure you have the original source.

Right now, I am primed for surprises.

STEFFEN REICHOLD & KATHRYN MCDONALD

Kathryn McDonald is Co-Founder of RadientESG Global Investors, a women-owned, independent asset management firm focused on next-generation Environmental, Social, and Governance (ESG) and impact investment opportunities for institutional and wealth management clients worldwide. She is the former Head of Sustainable Investing at Rosenberg Equities overseeing the integration of ESG information in Rosenberg's investment process and leading the firm's ESG and impact research effort. Steffen Reichold, PHD is a Portfolio Manager, Emerging Markets Economist and Co-Head of Stone Harbor's ESG Committee. He joined Stone Harbor's Emerging Markets Debt team in 2009 focusing on sovereign credit in hard and local currency debt markets. He has also led the development and implementation of Stone Harbor's ESG framework.

McDonald and Reichold were panelists in the SACRS session *Transitioning to a Low Carbon Economy*, which explored the transition to a low carbon economy and its implications on industry and investment returns and risks.

SACRS Magazine: What is the outlook for ESG investing?

SR: ESG is having a significant impact on the global economy and the amount of change that will happen in the next 10 years will be huge. We already are seeing more pension plans that align with the values of the people in the pension plan.

KM: Climate change is an existential threat. It is a part of daily conversation, whether a trustee or not. There have been big changes from 10 years ago or even five years ago.

To date, we [the U.S.] have been the laggards, but that is starting to change. We need government to step in to grease the skids with funding toward climate change efforts for private technologies. Companies respond well to incentives.

SACRS Magazine: Should only ESG companies be considered for investment?

KM: Calls for divestment are definitely getting louder and louder. But if I divest, I lose my ability to influence the path of travel for that company. I have a responsibility to help companies to evolve. We need the laggards to evolve. There is little evidence that divestment will change access to capital. We need to push them toward best practices and be asking them "What is the game plan?" We can support management, while working on their long-term future plans; use both carrots and sticks.

The world's largest investors own a portion of the economy. As a stock picker I ask: how can I add value when picking between company A and company B? It's in my best interest to try to shape change in my investments because I want the whole economy to function well.

SACRS Magazine: But it can be difficult to measure a company's ESG score.

KM: Everyone has a different definition of ESG and often it is not adequately represented in financial statements. The lack of standardized ESG metrics to provide useful, reliable, and comparable ESG-related disclosures for the most basic ESG information is needed. If we had this, it would put all investors in the world on an equal playing field.

SR: We also need a way to be sure that projects are actually happening, an audit mechanism. Different data sources give different measures. While progress is being made, not everyone agrees on what we should measure when it comes to carbon footprints for example. We are moving in the right direction, but it's a process.

NEVER TOO LATE TO **BEGIN AGAIN**

"I am passionate about helping empower people to focus on their own wellness and set the stage for new beginnings."

For Laurie Whetstone, SACRS Fall Conference 2021 was vastly different than the SACRS conferences of the past. Not because it is the first in-person event since the pandemic, but because it is the first one she hasn't attended as a participant. Instead, Whetstone led yoga for the Wednesday, November 10 SACRS Wellness session.

Whetstone, also known to friends as LDub, (slang for her initials LW), has over 25 years of business leadership experience, where she has held executive positions in the highly regulated securities industry. A Wall Street veteran, Whetstone has a successful track record of building, launching, and revamping businesses, products, and teams. During her career, Whetstone founded several companies, served as CEO, Managing Director, and held other executive positions, as well as served her country in the U.S. Army.

So, how did this transition happen?

"After decades as a corporate executive, I stepped away in November of 2020," explains Whetstone. "The pandemic really precipitated it. I went from spending 150 to 250 days a year on the road, to sheltering at home with my 16- and 14-year old kids. What a period of time we have been through. For me, I came to realize that I want to focus on giving back by helping others and on my own self-care and wellness. I want to be the best version of myself and to share my journey to inspire others to be the best version of themselves."

A serial entrepreneur, Whetstone, who is used to building out territories and developing relationships, launched Holistic Wellness Design, which offers private client-style health, nutrition, wellness, and yoga. In addition, she started *The Musings of LW*, a lifestyle blog that features adventure travel tips, personal development tools, and wellness hacks. Whetstone is also Founder and President of Whetstone Group Holdings, a consulting firm that helps companies grow, and is active with board advisory and director endeavors.

"All of us high achieving types, it's no secret we tend to overwork," states Whetstone. "There isn't enough self-care. We need laughs, inspiration, and downtime to focus on our own wellness. I have put in blood, sweat, and tears and lived armored-up, game face on, for a long time. We need to find the time for self without feeling guilty. In the words of author Dennis Waitley: 'Personal development is the belief that you are worth the effort, time, and energy needed to develop yourself.' I want to help others on their journeys to be their best selves."

While Whetstone is diving headfirst into the next chapter in her life to pursue her passions and to give back, is she advocating that everyone abandon their current careers?

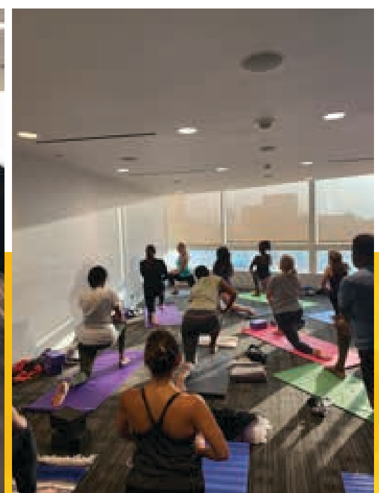
"No, not at all," responds Whetstone. "In focusing on my own self-care and wellness, I am beginning again. There are lots of ways to begin again without leaving your career, but you have to be truthful with yourself about where you are versus where you want to be. You've heard this before: awareness is the first step. Maybe it's a relationship that you know in your heart it's time to move on from, or letting go of those long-held and no longer needed self-limiting beliefs and old behavior patterns. Whatever it may be, now is the time to begin again."

Connect with ***Laurie Whetstone***

https://themusingsoflw.com
https://holisticwellnessdesign.com

In the past, Laurie Whetstone regularly attended SACRS events.

Ever the entrepreneur, Laurie Whetstone is now, among a number of new pursuits, the founder of Holistic Wellness Design.



During the SACRS Fall Conference 2021, Laurie Whetstone's early morning yoga session was well attended.

SACRS FALL CONFERENCE

LOEWS HOLLYWOOD HOTEL, HOLLYWOOD, CA

NOVEMBER 9–12, 2021

The SACRS 2021 Fall Conference took place in Hollywood, California and marked the return of face-to-face events for the association. Here's a look back at a few of the activities and events.

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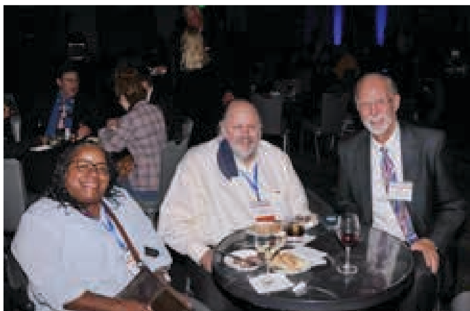

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ACCELERATING CHANGES IN THE MEDIA LANDSCAPE

Amidst the COVID-19 pandemic, changes in the media landscape have accelerated at an even faster rate than we envisioned a couple of years ago. The rise of subscription video-on-demand (SVOD), advertising video-on-demand (AVOD), and pay video-on-demand (PVOD) services, along with continued linear television cord-cutting and extended movie theater shutdowns, have forced Hollywood to reevaluate its value proposition to consumers.

Importantly, advertisers have started to reevaluate their strategies on both the traditional linear and digital sides.

After recently spending time with a variety of executives in the media industry, we are updating our previous thoughts on the changing dynamics in the media landscape.

VIEWERS MIGRATING AWAY FROM TRADITIONAL TELEVISION

Linear television viewers continue to cut the cord at a steady pace, as evidenced by the 7% reduction in households with traditional cable services in 2020. Looking over a longer time horizon, just over 60% of households have traditional cable today, compared to over 80% in 2015. Part of this migration is the result of a demographic shift, as younger viewers tend to shift to digital services more easily, while older viewers are more likely to continue to utilize traditional cable services.

“Looking over a longer time horizon, just over 60% of households have traditional cable today, compared to over 80% in 2015”

The rise of new subscription streaming services such as Paramount Plus and Disney Plus, along with more traditional streaming services such as Netflix, Hulu, and Amazon Prime Video, are offering viewers a variety of high-quality programs that are generally superior to traditional linear television programs—all while significantly reducing or eliminating advertisement interruptions.

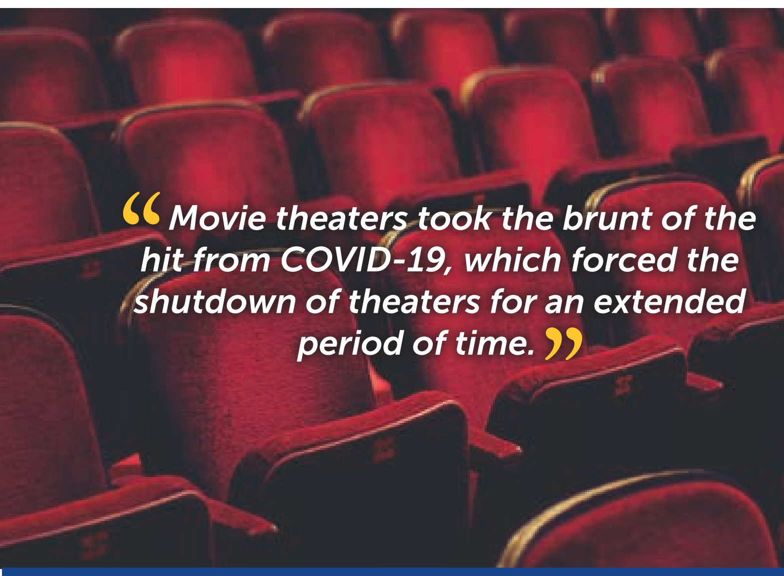
It is expected that some new streaming companies that own existing cable networks will eventually release new original content over the paywall of a streaming service in order to drive subscriber growth, while at the same time negatively impacting the value of traditional television. Ironically, as more viewers exit traditional television, the cost of an existing cable package to the remaining subscribers will likely rise as there will be fewer subscribers to cover the cost of a cable network, accelerating the decline of linear television.

THE NUANCES OF LIVE PROGRAMMING

Live programming, such as news and sports, should continue to be a value driver for linear television in the near term. News, however, remains under pressure with significant rating declines, particularly after the election, as viewers are finding alternative ways to receive the news, in part due to the perceived politicization of some networks to viewers.

> "The business model for a streaming service is fairly simple at the moment—aim to grow subscribers."

Sports programming is at an interesting point with linear networks, given the historical focus on reaching the broadest audience for sporting events. League executives and team owners are well aware of the evolving media landscape and it is clear that these shifting dynamics are impacting the structure of sports programming. For example, recent National Football League (NFL) contract renewals gave the winning companies the continued ability to show NFL games on their networks, but also provided them with the ability to simulcast the events on their streaming service. Notably, Thursday Night Football games will only be available to view through a streaming service. The NFL also reserved the right to cancel the contracts after seven years and renegotiate terms, given how fast trends are changing with regards to traditional cable television.



In addition, the National Hockey League (NHL) recently signed a new national contract that places a greater focus on streaming hockey games rather than broadcasting them through traditional television services.

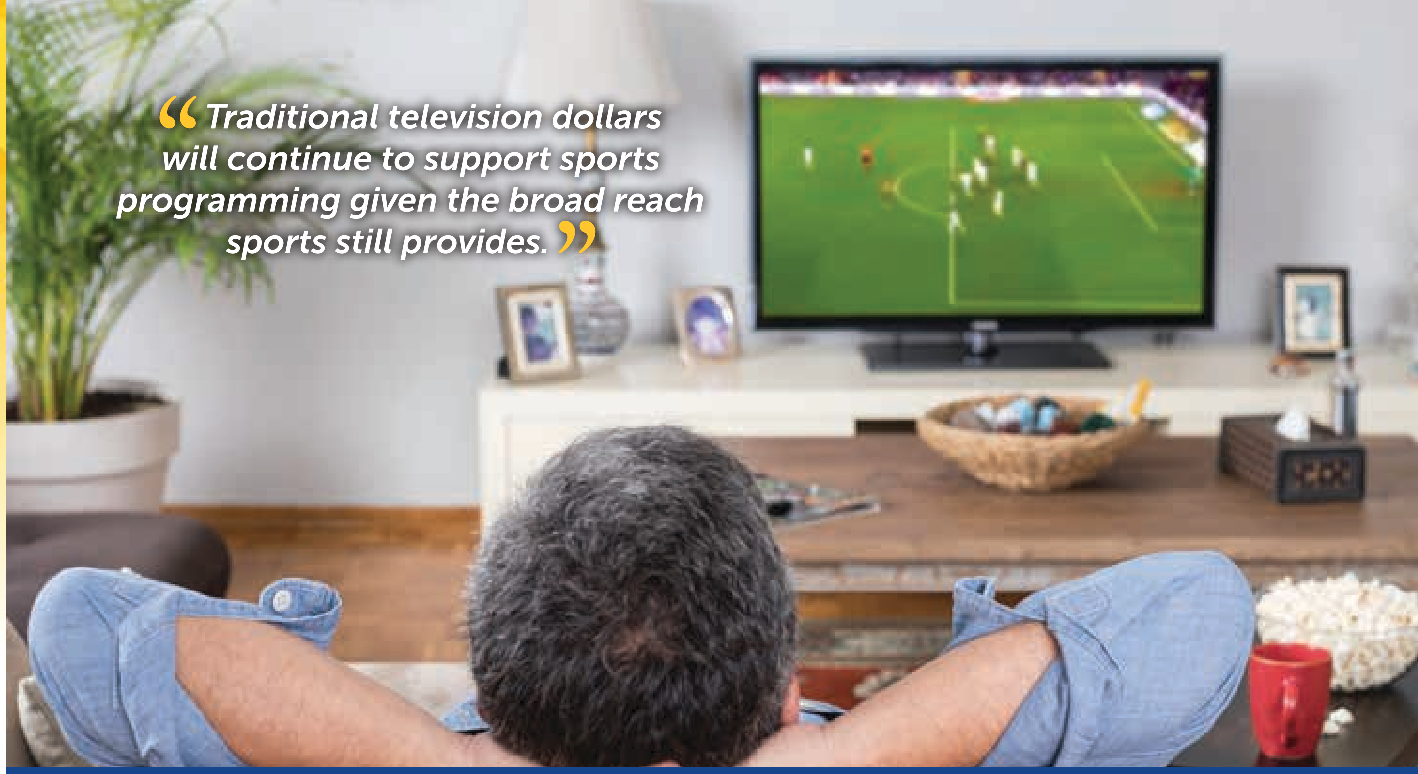
As sports leagues continue to explore digital streaming avenues, the value of traditional cable bundles will likely decline further as sports programming is an important advantage of subscribing to cable services.

STUDIOS FOCUS ON NEW CONTENT

Studios continue to benefit from the insatiable demand for new content. The business model for a streaming service is fairly simple at the moment—aim to grow subscribers.

In order to achieve that goal, there is a need for new original content that will attract and retain subscribers. New high-value content typically gets aggressive bids from multiple streaming services, and a vast majority of studios are focused on ramping up the volume of new content over the next few years.

In addition, there continues to be a need for a long-tail library (older programming) to satisfy the need for "comfort food" within a subscription streaming or AVOD service. This allows subscribers to watch shows that have been released and viewed in the past, but are still relevant today. As a result, the value of high-quality library content remains elevated.



Studios remain in a healthy position with multiple avenues for content distribution—streaming, theatrical, and linear television—with streaming taking the dominant share.

THE FUTURE OF MOVIE THEATERS

Movie theaters took the brunt of the hit from COVID-19, which forced the shutdown of theaters for an extended period of time. This allowed studios to experiment with new business models such as PVOD, where a movie intended to be released in a theater is released directly to a streaming service for home viewing.

The current consensus is that theaters will likely survive. However, movies that run in a theater will likely be blockbuster types with the potential to generate several hundreds of millions of dollars of revenues. Lower-budget and lower-potential revenue movies will most likely be released directly to a streaming service.

In addition, the period of time a movie plays in a theater will likely be significantly shorter, around 30 to 45 days, as roughly 90% of a movie's box office receipts occur within the first 30 days. After this period, the movie would be released to a streaming service. As mentioned above, streaming services need new content to help retain and attract subscribers, so gaining quick access to blockbusters will be an important factor.

INVESTMENT IMPLICATIONS: ADVERTISING DOLLARS ARE SHIFTING

As advertisers continue to sort through the changing landscape, it is becoming clear that as more viewing hours shift to online and streaming services, advertising dollars will continue to follow. The rise of AVOD services plays nicely to this trend, with dollars shifting from traditional television to AVOD.

Traditional television dollars will continue to support sports programming given the broad reach sports still provides. However, as we previously mentioned, sports leagues are now rethinking their digital strategy and the role traditional television will play in the changing environment.

It is clear that companies that benefit from the shift of content to online and streaming services, particularly AVOD, should do well over the coming years to the detriment of companies tied to traditional forms of advertising.

As we continue to monitor the shifting media landscape, we remain focused on identifying what we call structurally advantaged companies—growing companies in growing industries whose long-term growth potential is underappreciated by the market. The acceleration of this secular shift increases our confidence that this trend will drive disparate performance among industry participants and create compelling opportunities for the structurally advantaged companies in which we invest.

James Golan, CFA, partner, is a portfolio manager on William Blair's Large Cap Growth strategy and a research analyst covering U.S. large-cap technology stocks. From 2000 until 2005, when he assumed his current role, Golan was a research analyst focusing on financial, technology, industrial, and resource stocks. Before joining William Blair in 2000, he worked at Citigroup Global Asset Management, where he was a global research team leader for the telecommunications sector and a key member of the team that devised valuation metrics for standardizing the analysis of U.S. and international companies. He is a member of the CFA Institute and the CFA Society Chicago. Golan received a B.A. in economics from DePauw University and an M.B.A. in finance from Northwestern University's Kellogg Graduate School of Management

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LEGISLATIVE REPORT

Friday, September 10, marked the last day of the first year of the 2021-22 Legislative Session. The Legislature sent 836 bills to the Governor's desk at the end of session. By the bill signing deadline of October 10, the Governor signed 770 of those bills and vetoed only 66.

The Legislature will remain on interim recess through the fall. Session will reconvene in January, where Legislators will return to Sacramento to introduce new legislation and continue work on two-year bills.

2022 SACRS SPONSORED BILL

Along with shepherding the 2021 SACRS sponsored bill through the legislative process, the SACRS Legislative Committee has fielded bill ideas from the SACRS membership, reviewed those proposals, and drafted language to develop a proposed 2022 SACRS sponsored bill.

The SACRS Board of Directors approved the draft bill in September, and the proposal went before the SACRS membership at the business meeting during the SACRS 2021 Fall Conference. The lobbying team will begin to work the relevant committees in the Legislature to get the bill introduced next year.

TWO-YEAR BILLS OF INTEREST

Below is an update on the bills SACRS was tracking in 2021 that could return in 2022 when the Legislature reconvenes in January.

AB 826 (Irwin) - Compensation Earnable

Late into session, this bill was amended into a bill that prescribes that the definition of compensation earnable in CERL includes any form of remuneration, whether paid in cash or as in-kind benefits, if certain requirements are met.

The bill is co-sponsored by SEIU and the Ventura County Board of Supervisors. The sponsors argue that some pay items, like their Flexible Benefit Allowance was not clearly addressed in the *Alameda* decision and should not be excluded, because members receive the full cash value, it is a regular, set amount paid every pay period, and it isn't subject to pension spiking or any other manipulation.

In the final days of session, the bill was amended to clarify that the provisions of the bill only apply to Ventura County. The bill was moved to the inactive file before the Legislature adjourned, making it a two-year bill.

SACRS does not have a position on the bill.

AB 498 (Quirk-Silva) – Compensation Earnable

At the end of session, Assemblymember Quirk-Silva amended her AB 498 to attempt to address a difference of opinion regarding compensation earnable, similar to AB 826 (Irwin) discussed above.

Because the bill was amended just before the end of session, it did not move in 2021 and will be considered next year when the Legislature returns in January.

Michael R. Robson *has worked since 1990 in California politics and has been lobbying since 2001 when he joined Edelstein, Gilbert, Robson & Smith LLC. Prior to joining the firm, he began a successful career with Senator Dede Alpert as a legislative aide soon after she was elected to the Assembly in 1990. He became staff director/chief of staff in 1998, while the Senator served in the position of Chair of the Senate Appropriations Committee. He is experienced in all public policy areas with particular expertise in environmental safety, utilities, revenue and taxation, local government finance, education, and the budget.*

Trent E. Smith *worked for over 12 years in the State Capitol prior to joining the Edelstein, Gilbert, Robson & Smith LLC. He started his career in 1990 working for the well-respected late Senate Republican Leader Ken Maddy. He was later awarded one of 16 positions in the prestigious Senate Fellowship Program. Upon completion, he started working in various positions in the State Assembly. He worked as a Chief of Staff to Assembly Member Tom Woods of Redding and later to Orange County Assembly Member, Patricia Bates, who served as Vice Chair of the Assembly Appropriations Committee. In this position, he gained a unique and valuable knowledge of the State budget and related fiscal policy matters. In addition, he has extensive experience in numerous policy areas.*

Bridget McGowan *joined Edelstein Gilbert Robson & Smith in 2018. Prior to joining the firm, she gained policy experience in the California State Assembly. Through internships in the district office of her local Assemblymember and later, in the office of the Chief Clerk, McGowan developed her knowledge of California's legislative process, rules and procedures. A graduate from UC Davis in 2018 with a Bachelor of Arts in International Relations, she is currently pursing a Master of Public Administration from the University of Southern California Price School of Public Policy.*

SKEW

AN IMPORTANT MOMENT

Over the years we all have learned about return and standard deviation, the first and second "moments" of asset class return distributions. But there are more moments to every distribution and the third, skew, is important to understand as you consider your asset allocation model. Put simply, skew tells you which way the big moves in the return series lean. We all know the stock market goes up on the escalator and down on the elevator – up gradually, down fast. That means the return distribution has negative skew. In this article, we will go through the details of an asset with positive skew, Managed Futures. We will show how positive skew can impact portfolio returns, and how strategy decisions by your manager may be impacting that skew.

SHARPE OR SKEW?

Managed Futures offers this promise – uncorrelated returns with the potential for crisis protection. How an allocator chooses to allocate to this asset class is important. Do they judge managers by best risk-adjusted performance? Or do they judge managers by how they improve the risk-adjusted performance of the total portfolio? Do they view the asset as an absolute return element, prioritizing Sharpe Ratio, or as a portfolio element prioritizing diversification? Assuming the latter, prioritizing the addition of positive skew is critical to crisis diversification, offsetting the historically negative skew of the equity market and creating a better total portfolio.

Typical Managed Futures managers employ a risk-controlled approach called volatility, or "vol", targeting. In essence, vol targeting involves increasing exposure when volatility is low and reducing it when volatility is high. Historically this has improved manager Sharpe ratio at the expense of skew.

In Table 1 we compare the MLM Index EV and MLM Global Index EV to the SG Trend Index (index of manager returns) and the Credit Suisse (CS) Managed Futures Liquid Index (vol-adjusted price-based index) and show skew and correlation statistics. The MLM Index EV and MLM Global Index EV, price-based benchmarks of Managed Futures, are constructed a bit differently. While implementing similar trend following algorithms, positions are sized on exposure, not vol. Notice the skew line, highlighted in yellow. Stocks and credit show negative skew, while Managed Futures are positive. This makes intuitive sense; trend following tends to crash up, while equity markets tend to crash down. However, the vol adjusted Managed Futures indices have a much lower positive skew.

Let's see how the skew differences impact portfolio outcomes.

"If you are optimizing for the whole, and are rebalancing, you ideally need diversifying assets that have a negative or low correlation and positive skew."

Table 1: Index Performance Comparison

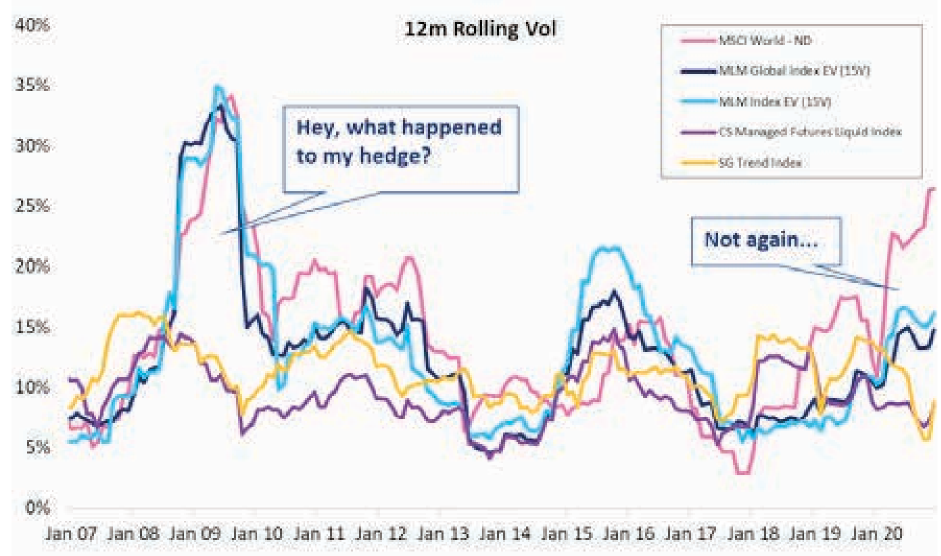
Data Jan 2007 to Dec 2020	MSCI World - ND	Bloomberg Barclays US Corporate Inv. Grade	MLM Global Index EV (15V)	MLM Index EV (15V)	CS Managed Futures Liquid Index	SG Trend Index
Total Return	140.7%	122.4%	74.2%	57.2%	52.4%	58.0%
CAGR	6.5%	5.9%	4.0%	3.3%	3.1%	3.3%
Max Drawdown	-54.0%	-15.4%	-24.3%	-27.6%	-18.7%	-20.7%
2020 Return	15.9%	9.9%	1.2%	6.1%	1.8%	6.3%
GFC (11/2007 - 2/2009)	-54.0%	-5.7%	74.9%	52.7%	21.3%	21.6%
COVID-19 (1/2020 - 3/2020)	-21.1%	-3.6%	6.9%	13.9%	-1.5%	2.3%
Monthly Sharpe	0.34	0.82	0.22	0.16	0.22	0.21
Volatility	16.4%	6.1%	14.2%	14.8%	9.6%	11.5%
Skew	-0.67	-0.94	1.36	0.56	0.19	0.07
Kurtosis	1.82	6.21	7.75	4.18	0.34	-0.62
Best Month	12.8%	6.8%	25.4%	21.6%	8.2%	7.3%
Worst Month	-19.0%	-7.8%	-10.5%	-16.0%	-8.1%	-9.0%
Best Year	30.0%	18.7%	64.2%	40.4%	23.1%	20.9%
Worst Year	-40.7%	-4.9%	-7.5%	-11.9%	-8.0%	-8.1%

Source: Mount Lucas, Credit Suisse and Evestment

YOU SHOULDN'T BRING A KNIFE TO A GUNFIGHT!

Stocks and credits are negatively skewed and historically have had large drawdowns. Neither asset class is volatility adjusted. If you are optimizing for the whole, and are rebalancing, you ideally need diversifying assets that have a negative or low correlation and positive skew. Chart 1 is a comparison of rolling 12-month volatility for all the indices in Table 1. Notice that the volatility of the MLM Indices matches the volatility of stocks and credit, whereas the other Managed Futures indices control volatility. That's good for Sharpe, but bad for the portfolio. Correlations in Chart 2 bear this out, with higher negative correlation between the MLM Indices and stocks and credit.

Chart 1: 12-Month Rolling Volatility



Source: Mount Lucas, Credit Suisse and Evestment

Chart 2: Correlation Table

	MSCI World-ND	Bloomberg Barclays US Corporate Inv. Grade	MLM Global Index EV	MLM Index EV	Credit Suisse Managed Futures Liquid Index	SG Trend Index
MSCI World-ND	1.00	0.46	-0.38	-0.37	-0.14	0.04
Bloomberg Barclays US Corporate Inv. Grade	0.46	1.00	-0.15	-0.09	-0.01	0.12
MLM Global Index EV	-0.38	-0.15	1.00	0.88	0.78	0.74
MLM Index EV	-0.37	-0.09	0.88	1.00	0.67	0.67
Credit Suisse Managed Futures Liquid Index	-0.14	-0.01	0.78	0.67	1.00	0.84
SG Trend Index	0.04	0.12	0.74	0.67	0.84	1.00

Source: Mount Lucas, Credit Suisse and Evestment

PRACTICAL EXAMPLES

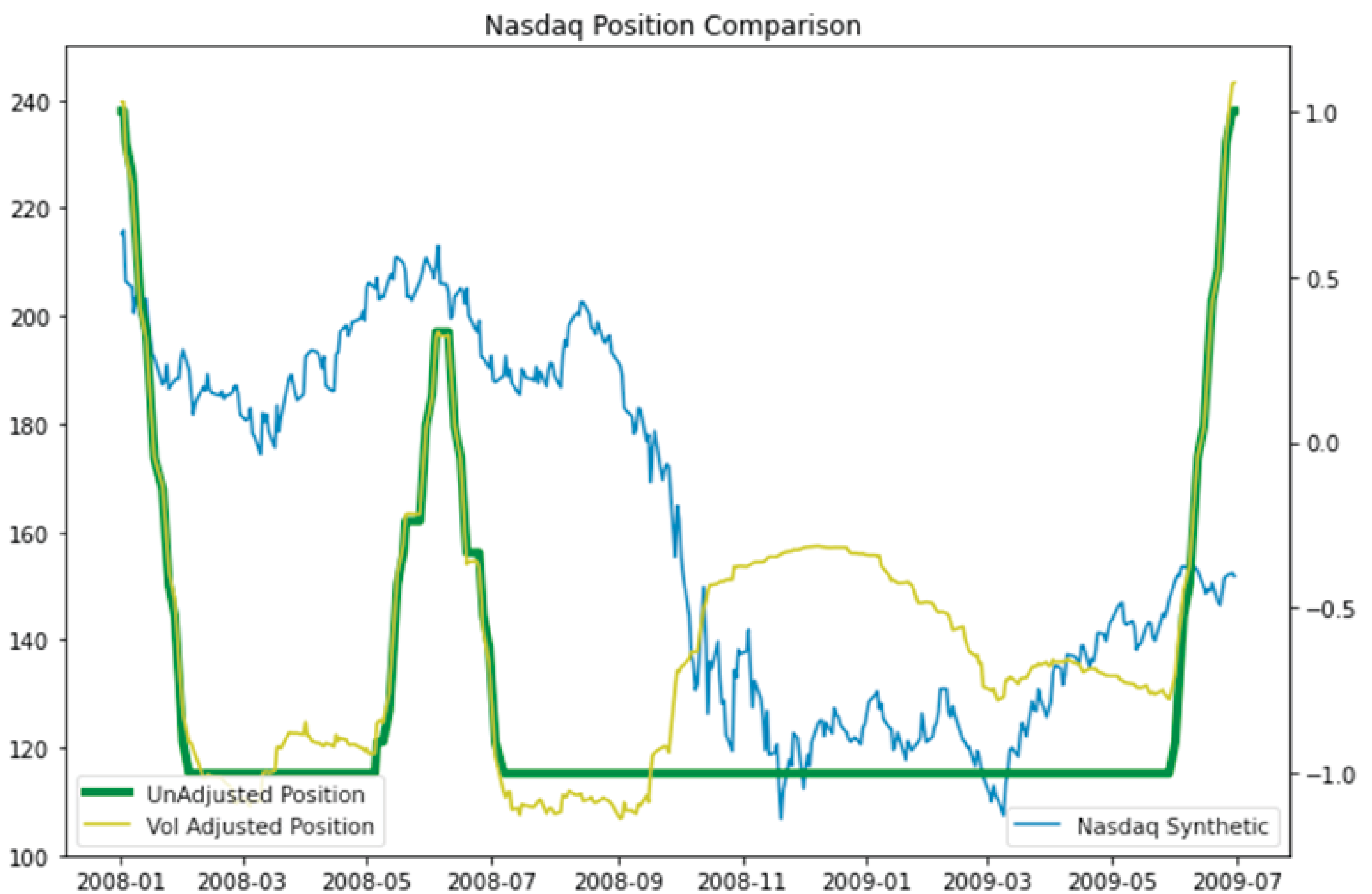
Cast your mind back to late 2008 into 2009 when things were really going wrong. Stocks were plummeting, credit markets were freezing. At the same time, the USD was going up, crude oil was dropping precipitously, and the US Treasury market was rallying. See the impact at the position level of a representative model that vol adjusts vs. one that does not, using the Nasdaq as the example in Chart 3.

Volatility adjusting positions reduces the diversification benefit at the worst time. The Nasdaq began to fall, the trend following component of the models moved short. The volatility adjustment process reduces the short as realized volatility picks up on the down move around the Lehman collapse. In this representative example, the short is reduced by some 60%.

In Chart 4 we compare the volatility adjusted model to the unadjusted model, you can see the unadjusted volatility

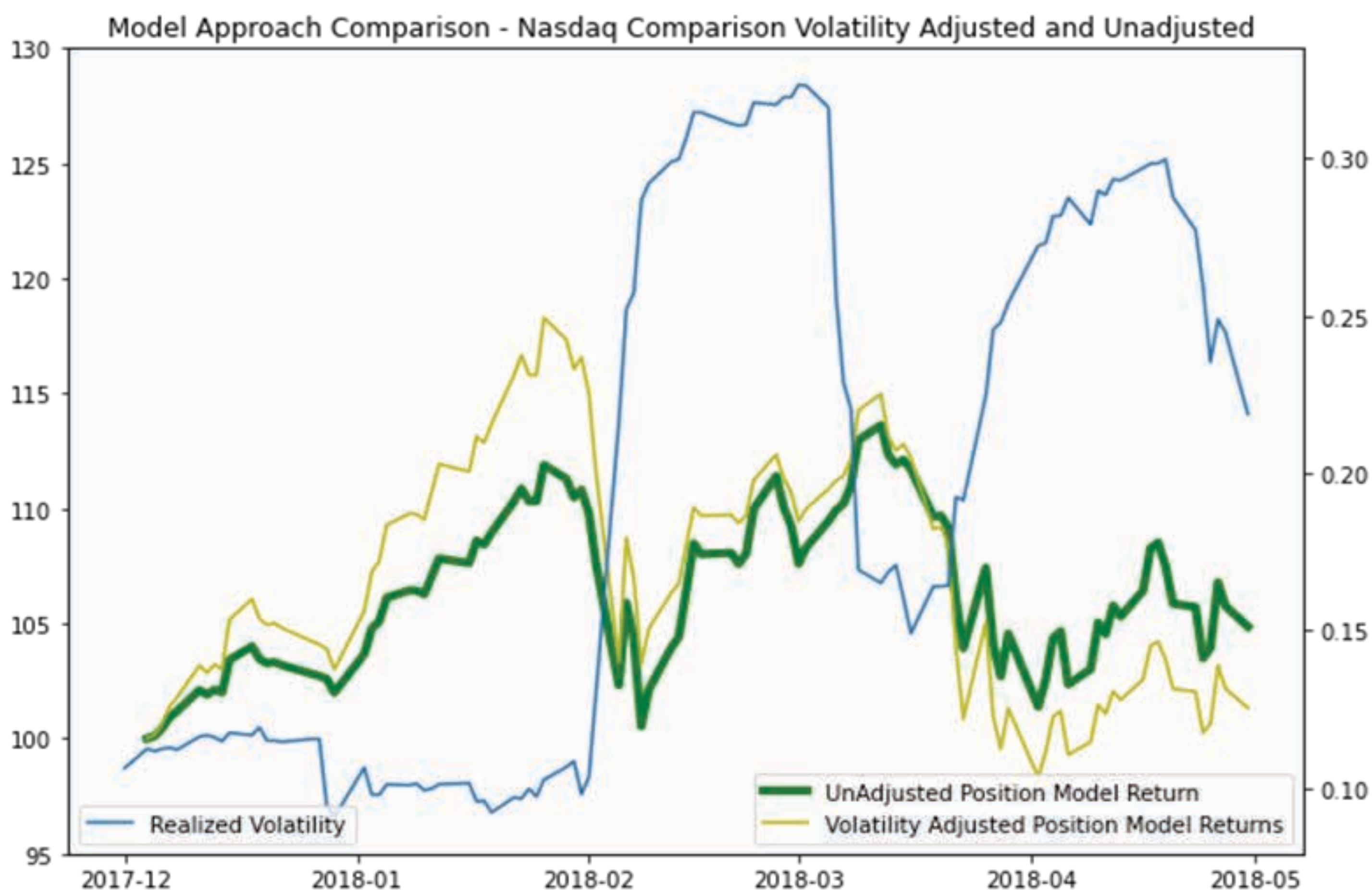
“As volatility adjusting models increased position sizes in response to falling realized volatility, they are making the case that risk is falling, which is dangerous in our view.”

Chart 3: Volatility Adjusted Positions vs. Unadjusted Positions



Source: Mount Lucas

Chart 4: Model Approach Comparison – Nasdaq Comparison Volatility Adjusted and Unadjusted



Source: Mount Lucas

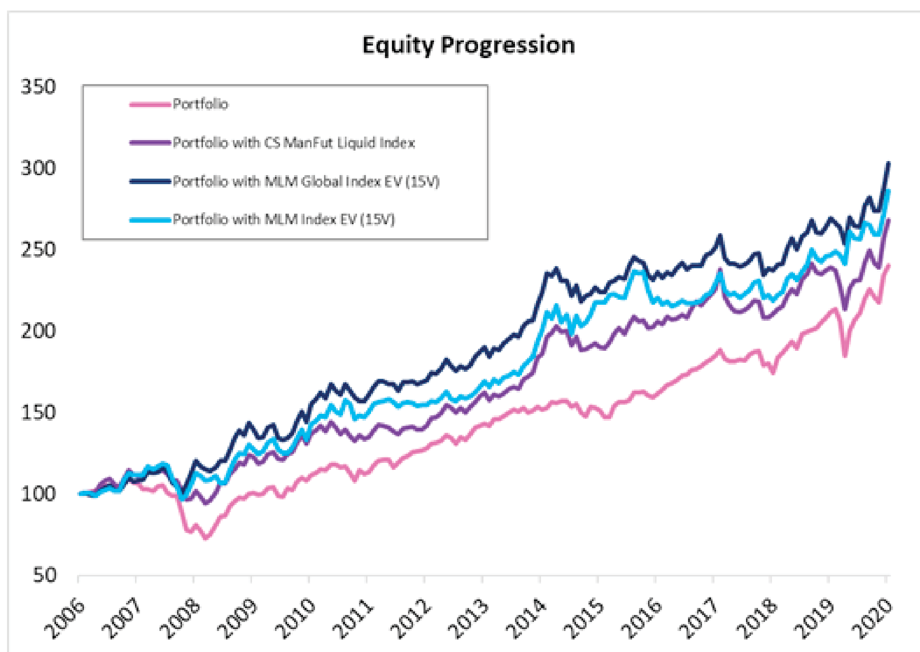
approach has higher returns when you need them most. When using this approach, it is critically important that portfolio elements are rebalanced. Even though returns in this example end up in about the same spot, at the portfolio level the sequence matters. The extra gains are monetized, the Managed Futures allocation is sold down, and more stock is bought at lower levels.

Volatility adjusting can also be detrimental, given that equity prices and vol are negatively correlated. In early 2018, volatility collapsed until it didn't. As volatility adjusting models increased position sizes in response to falling realized volatility, they are making the case that risk is falling, which is dangerous in our view. When the market fell and fell quickly, they took larger losses as they were at max positions. In a portfolio context this reduces the portfolio diversification benefit to the investor, particularly when this is applied to equity index markets.

A BETTER PORTFOLIO

When modeling a portfolio with stocks and credits, the different approach is clear. In Chart 5, we start with a portfolio that holds 50% each stocks and credit. Then we add some vol-adjusted Managed Futures and some leverage to create a portfolio with 40% stocks, 40% credit, and 60% in CS Liquid Managed Futures. For the last two portfolios, we swap in the MLM Global Index EV and the MLM

Chart 5: Equity Progression



Source: Mount Lucas, Credit Suisse and Evestment

Table 2: Equity Progression

Data Jan 2007 to Dec 2020	Portfolio	Portfolio with CS ManFut Liquid Index	Portfolio with MLM Global Index EV (15V)	Portfolio with MLM Index EV (15V)
Total Return	140.3%	168.6%	203.4%	186.3%
CAGR	6.5%	7.3%	8.3%	7.8%
Max Drawdown	33.6%	19.2%	13.5%	18.5%
2020 Return	13.4%	12.1%	12.5%	16.0%
GFC (11/2007 - 2/2009)	-33.6%	-17.9%	4.5%	-4.3%
COVID-19 (1/2020 - 3/2020)	-12.6%	-10.8%	-5.9%	-2.2%
Monthly Sharpe	0.56	0.69	0.78	0.71
Volatility	10.0%	9.2%	9.4%	9.7%
Skew	-0.95	-0.19	0.03	-0.06
Kurtosis	4.07	0.05	-0.18	0.45
Best Month	8.1%	7.5%	7.5%	8.3%
Worst Month	-12.7%	-7.2%	-6.3%	-7.9%
Best Year	24.8%	20.2%	17.9%	18.8%
Worst Year	-24.4%	-8.2%	-5.5%	-4.6%

Source: Mount Lucas, Credit Suisse and Evestment

Index EV at the same 60% allocation for Managed Futures.

Note on Table 2 how the skew changes at the portfolio level – typical portfolios are negatively skewed and adding an uncorrelated positively skewed strategy takes the overall portfolio to zero skew. Drawdowns are much reduced, portfolio Sharpe ratio increases, and overall portfolio volatility goes down.

CONCLUSION

The COVID crisis (Jan 2020 to Mar 2020) provides a complete example in a compact period. Typical trend managers were very long equity December through February, as volatility was still quite low. When markets broke, volatility increased, and the exposure of the trend shorts was proportionately reduced. The same was true in other markets like energy. The MLM Index approach, using constant exposure and thus increased skew, provided better returns over this difficult period. If its diversification you want, ignore the siren song of Sharpe, and go for the skew.

Tim Rudderow co-founded Mount Lucas with Frank Vannerson in 1986. In 1988, Rudderow created the first passive alternative beta benchmark, The MLM Index™. He has over 40 years of experience in the investment industry with a specialty in design and management of technical trading systems applied to futures, equity, and fixed income markets.

FROM THE INN TO THE INSTITUTIONAL:

The Growth of the Real Estate Secondaries Opportunity

In the 14th century, traders and merchants from all over Europe would gather in the square opposite the Ter Buerse Inn in Bruges to exchange promissory notes, government issues, and other securities as they sought to raise liquidity, lay off unwanted risk, or both. Since the advent of these exchanges, or bourses, global capital markets have grown larger and more complex. Today, trillions of dollars in equities, bonds, derivatives, and commodities are traded on these exchanges daily. The flexibility and price transparency inherent in liquid markets have historically eluded investors in private equity, venture capital, and real estate, who accepted the prospect of outsize and uncorrelated returns as adequate compensation for the illiquidity and opacity of private market holdings.

However, as private markets have gone from alternative to mainstream over the past several decades, an ecosystem of investors and advisers has developed that offer ready liquidity to limited partners (LPs) and general partners alike. From its earliest incarnation on the streets of Bruges, the so-called secondaries market eventually reached private markets. They first appeared in private equity and venture capital. Now, secondaries have come of age for the largest and oldest asset class, private real estate.

Secondaries provide several potential benefits to real estate investors including, alpha generation and risk mitigation through discounted entry pricing, portfolio management efficiencies and enhanced diversification. Although this paper emphasizes traditional private equity real estate (PERE) secondaries, there are several alternative ways for investors to access this compelling opportunity.

Traditional PERE fund secondaries are purchased from LPs seeking liquidity prior to the natural liquidation of a fund's assets. Because the fund has often been substantially invested, buyers have greater insight into the underlying assets in the fund's portfolio. Often, they are able to secure some level of discount to the net asset value (NAV). Active secondaries investors can build portfolios that offer a compelling set of attributes, including J-curve mitigation (due to buying at discounts to reported NAV) and an exceptionally high degree of diversification, gaining

Now, secondaries have come of age for the largest and oldest asset class, private real estate.

exposure to many individual assets, property types, markets, and managers. Because secondaries investments are typically made later in the life cycle of a fund when assets are often closer to liquidation, their duration is significantly shorter than that of a primary fund investment. Owing to discounts, returns can be higher than those achieved on comparable assets acquired directly.

The PERE secondaries market has expanded significantly over the past decade, becoming a widely used tool for institutional investors seeking to actively manage their portfolios. The secondaries market provides a means for investors to sell down what would otherwise be illiquid holdings in a relatively straightforward manner. Recessions and corresponding real estate downcycles have historically triggered a wave of secondaries sales as investors seek to generate liquidity and rebalance their portfolios. This white paper describes the evolution of the traditional secondaries market, the structures available, the market factors that give rise to them, and how we would expect those opportunities to manifest in a post-COVID market.

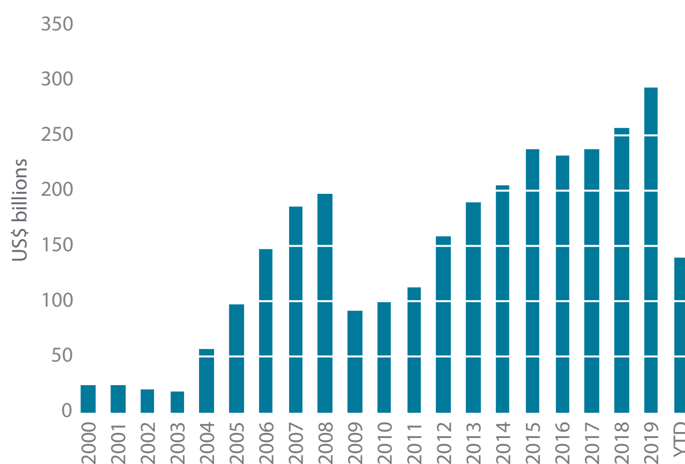
Market Development & Benefits

THE EMERGENCE OF THE REAL ESTATE SECONDARIES MARKET

The availability of PERE secondaries opportunities will naturally reflect the size of the underlying primary fund universe (**Figure 1**). The comparatively low volume of real estate secondaries trading activity in the early 2000s was attributable to the relative newness of PERE funds as an institutional asset class. This was especially true of funds with either a Value Add or an Opportunistic risk profile, which only really started to grow after 2004. The PERE secondaries market emerged during the pre-GFC market upcycle and matured during the bull market that preceded the onset of the COVID-19 pandemic. Between 2002 and 2007, the average PERE secondaries transaction volume was only US$440 million, or 0.2% the size of the average outstanding PERE NAV over the same period **(Figures 2)**. Compare this with the secondaries market for corporate private equity interests in which 1.6% outstanding corporate private equity NAV per vintage was traded.

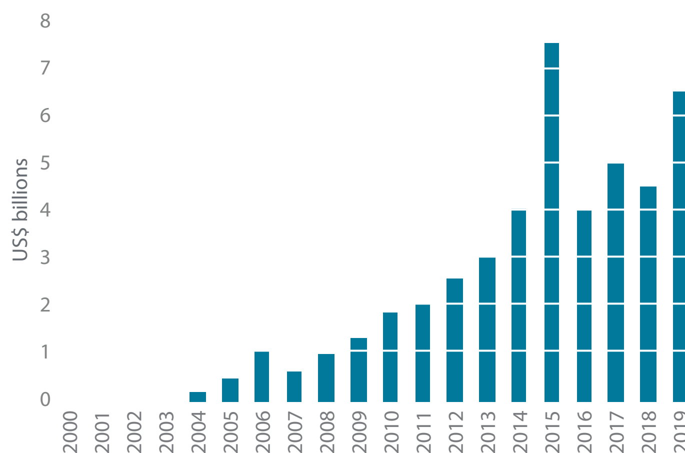
Recessions and corresponding real estate downcycles have historically triggered a wave of secondaries sales as investors seek to generate liquidity and rebalance their portfolios.

Figure 1: GLOBAL PERE HISTORICAL FUNDRAISING



Source: Preqin, August 2020

Figure 2: GLOBAL REAL ESTATE SECONDARIES TRANSACTION VOLUMES



Source: Greenhill, Evercore, June 2020

While PERE secondaries transaction volume began its ascent during the GFC, this nascent market was fraught with failed processes due to the wide bid-ask gaps that occur anytime reported valuations lag true values. As the direct asset trading volumes began to pick up in 2010, buyers' and sellers' perception of value converged, enabling meaningful levels of secondaries trading. Just as the dot-com bubble had a multiplier effect on private equity secondaries activity, the GFC catalyzed a step-function increase in PERE secondaries activity that has persisted. Annual transaction volume averaged US$5.3 billion between 2014 and 2019, a greater-than-tenfold increase relative to the five-year pre-GFC average. At the end of 2019, real estate

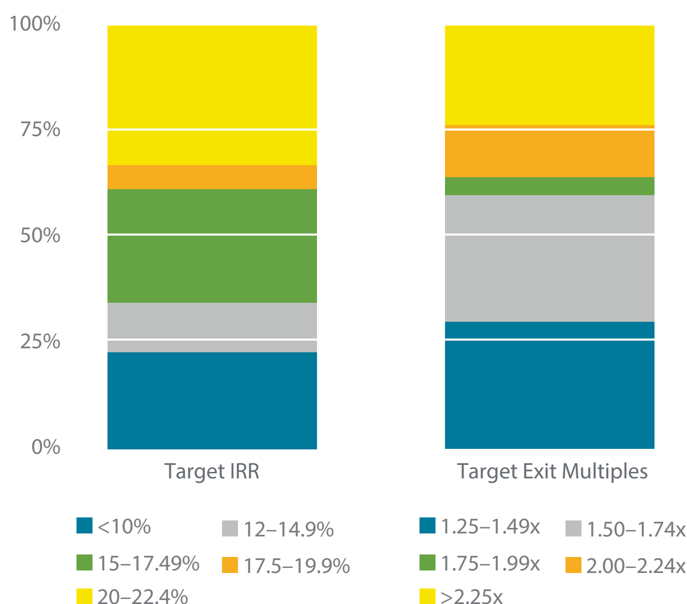
> *At the end of 2019, real estate secondaries assets under management were US$25.3 billion—more than a 1,000% increase over 2009 levels.*

secondaries assets under management were US$25.3 billion—more than a 1,000% increase over 2009 levels.

Most investors tend to regard PERE secondaries as a highyield strategy. As seen in **Figure 3**, nearly two in three buyers had a target return of 15% or above, which is consistent with Value Add and Opportunistic strategies. Still, there are plenty of opportunities farther down the risk–return curve. These opportunities in Core and Core-Plus real estate have historically been more prevalent in developed markets. Through the first quarter of 2020, nearly 80% of the Global Real Estate Core Fund Index was allocated to North America and Europe.1

Lower-risk real estate fund strategies are typically executed through perpetual open-ended structures that permit investor subscriptions and redemptions on an ongoing basis. Although these vehicles have liquidity mechanisms, redemption queues, the suspension of redemptions, and other issues have undermined the effectiveness of these mechanisms. As a result, a vibrant secondaries market has developed. This initially grew in the UK, where subscriptions and redemptions typically entail friction costs that mirror those of the direct transaction market, so there was naturally a "secondaries price" where willing buyers and sellers could trade inside the spread of these costs. This market is now well established globally with good levels of price transparency intermediated by a small number of dedicated brokers and, in certain instances, the GPs themselves.

Figure 3: DEDICATED REAL ESTATE SECONDARIES BUYERS' TARGET RETURNS



Source: Campbell Lutyens, 2019.

POST-GFC PERIOD PERE FUND SELLER MOTIVATIONS

The very factors that allowed the PERE secondaries market to flourish after the GFC continue to provide prospective sellers with a relatively straightforward and efficient option for generating short-term liquidity. These factors, which are summarized below, were central to the development of the PERE secondaries market.

- **Portfolio Management Decisions.** LPs rebalance their portfolios for several reasons including increasing or decreasing their exposure to private real estate;2 changing the number of investment manager relationships; reducing or increasing holdings overseen by underperforming or outperforming managers; changing risk profile exposures; shifting exposure from fund investments to direct investments or joint ventures seeking additional control; and rebalancing exposures to certain geographies or real estate product types.
- **Regulatory Changes.** Regulatory changes following the GFC resulted in new policies aimed at mitigating the effects of future downturns. Basel III set higher capital reserve requirements for banks, particularly for their higher-risk private equity investments. Solvency II, which governs European insurance companies, also imposed higher reserve requirements and penalizes illiquid investments such as real estate. These regulatory changes induced meaningful sales volumes over several years.
- **Need for Liquidity**. The disruption caused by the GFC forced many funds to extend the business plans of their investments, thereby increasing their duration. Many perpetual open-ended funds faced delays in asset sales and also developed exit queues, freezing liquidity for their investors. As a result, the secondaries market expanded to meet investors' demand for liquidity.

> *Regulatory changes following the GFC resulted in new policies aimed at mitigating the effects of future downturns.*

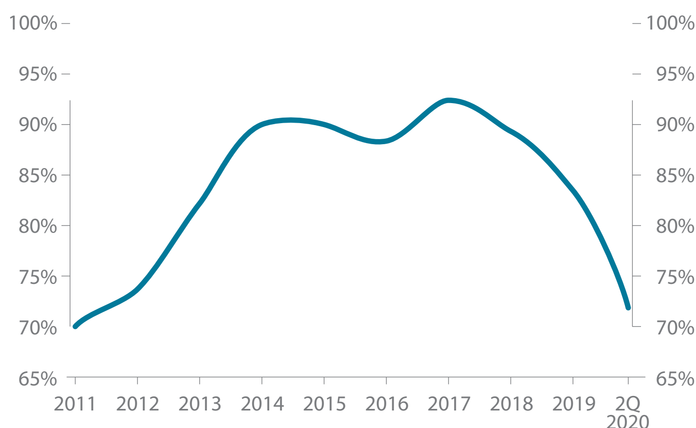
BUYER BENEFITS

With the expansion of the PERE primary funds market and the disruption created by the GFC, real estate secondaries became a potential opportunity for investors. In a similar vein to the corporate private equity secondaries market, traditional PERE secondaries offer a number of key benefits including:

> *Although assets were generally less levered at the beginning of the COVID-induced recession than at the commencement of the GFC, we expect many of the same dynamics will be present during the impending real estate market downturn.*

- **J-Curve Mitigation.** Secondaries mitigate the J-curve effect that is typical in primary investments in funds by providing investors exposure to specified and seasoned assets at discounts to their market value and allowing them to avoid paying fund management fees and costs before all of the fund's capital is invested.
- **Discounted Entry Pricing.** Traditional PERE secondaries are typically acquired at a discount to NAV. **Figure 4** shows that particularly accretive pricing can be achieved when markets are stressed. Discounted entry pricing, which was prevalent throughout the bull market of 2010–2020, provides both downside risk mitigation and alpha-generating potential.
- **Diversification**. A secondaries investment program includes multiple investments in funds, each of which owns multiple assets. Therefore, real estate secondaries investors have the potential to achieve an extraordinarily broad level of diversification by region, property type, number of assets, and vintage year.
- **Mitigated Execution Risk**. In contrast to investing in blindpool funds, secondaries buyers can underwrite existing and, in the majority of instances, fully specific portfolios.

Figure 4: PERE FUND SECONDARIES PRICING VS NAV



Source: Greenhill, July 2020

- **Managing Duration Risk**. Since secondaries investments are typically made deep into the life of a fund, the manager's business plan has usually been fully actualized. Consequently, secondaries may be less risky and closer to realization, therefore reducing market cycle risk.

Available Strategies & Structures

CLOSED-ENDED VEHICLES

Closed-ended PERE fund structures are typically used for higher risk–return value add and opportunistic strategies, although a few Core-Plus programs are also executed through these vehicles. PERE secondaries in closed-ended funds can be broadly categorized by life cycle.

- **Early-stage funds** are largely unfunded, having only been raised within the last three years. Sellers are released from their commitment obligations, and prospective buyers only have partial visibility on what remains an incomplete portfolio.
- In **seasoned funds**, the GP has made all of the underlying investments, and the business plans for each are often at varying stages of fruition. Prospective buyers have substantial to full visibility on the portfolio's composition.
- Significant realization activity has taken place in **tail-end funds**; any remaining assets are likely to be highly seasoned. Prospective buyers have full visibility on the assets.

OPEN-ENDED VEHICLES

Core and Core-Plus funds are typically structured as perpetual vehicles with subscription and redemption mechanisms. The ability to provide investors with liquidity varies at different phases of market cycles.

In stable market conditions, there may be entry queues, which allow managers to easily service investors' liquidity needs with new investors' capital, or by selling assets into strong markets. When market conditions are favorable, investors are often able to sell their interests in open-ended funds at premiums to their NAV. Investors seeking to enter the fund see the advantage of this "queue jumping" because they can put their capital to work more quickly than they could by waiting several quarters for the queue to clear.

By contrast, during market downturns, there tend to be more investors seeking liquidity than investors seeking to enter a fund; if property values have declined, managers are reluctant to sell assets to service investors' liquidity needs. In addition, dislocations between NAVs, which are based on appraisals, and the "true" fair market value (FMV) make it hard to set the redemption price. When this occurs, fund managers will "gate" redemption activities. These situations can lead to attractive opportunities

for secondaries buyers with medium-term investment horizons who can benefit from the discounts that arise from short-term overselling.

ACCESSING PERE SECONDARIES

LPs can access real estate secondaries directly, through dedicated closed-ended commingled funds, or through separately managed accounts. According to Preqin, in 2019 these commingled funds had US$25.5 billion in assets under management and US$8 billion in dry powder. Like direct secondary investments, these funds typically focus on investments farther up the risk curve. Although Core and Core-Plus investments are not yet commonly pursued by commingled funds, LPs can access these opportunities through SMAs, which can be tailored to meet investors' preferred exposure.

INNOVATIONS IN PERE SECONDARIES TRANSACTION STRUCTURES

Over the past decade, secondaries investors across private markets have introduced an array of new structures and solutions. The secondaries transaction structures described below seek to allow managers and investors to more flexibly manage portfolio construction, liquidity, and, in certain instances, reduction of "face" discount.

- **Vertical strips** involve the sale of partial interests in LP positions, enabling sellers to reduce their exposure but retain positions and continue their relationships with the fund manager.
- **Fund windups** seek to provide liquidity to investors at the tail ends of funds while providing GPs with sufficient time, capital, and incentive to maximize remaining value.

- **Direct secondaries** are a portfolio management tool that allows LPs to acquire a partial interest in underlying assets and joint ventures held by funds to deliver liquidity.
- In **deferred payment structures**, the acquisition consideration is partially paid up front with defined payments at future dates. Distributed proceeds can be used to meet the future payment obligations to the seller or to reduce the secondaries buyer's basis. Deferral mechanisms effectively create leverage for the secondaries buyer, and while they can enhance performance, as with any type of leverage, they can also create material performance volatility.
- **Structured secondaries** are executed as a financing solution rather than a transaction. For example, secondaries managers could provide LPs with the liquidity to fund outstanding commitments without absorbing the discount that might be required for an outright exit. The secondaries manager benefits from a defined fixed return coupon and/or minimum equity multiple with both parties sharing proportionately in future performance.

The Opportunity Going Forward

During the GFC, PERE funds were in a dire position due to a combination of overleverage, illiquid capital markets, and uncertain economic prospects. This meant that investments in secondaries posed excessive risk. Although assets were generally less levered at the beginning of the COVID-induced recession than at the commencement of the GFC, we expect many of the same dynamics will be present during the impending real estate market downturn. When equity values decline as quickly and as drastically as they do during significant market downturns, it is difficult for astute buyers to acquire secondaries because the FMV of fund interests is generally much lower than the NAV reported by fund managers. Since LPs tend to base the value of a fund interest on the GPs' reported NAVs, and since fund managers do not typically write their assets down quickly enough to keep pace with true FMV declines, bid-ask spreads widen.

> *"For the simple reason that investors are more familiar with secondaries, we believe there will be more portfolio-management-driven secondaries sales during the post-COVID recovery than there were post-GFC"*

Given the risks of further rent, occupancy, and value diminution prevalent during market downturns, as well as the uncertainty about the timing of a recovery, prudent secondaries buyers should apply conservative underwriting approaches. Sound underwriting requires exceptionally conservative assumptions, such as declining rents, falling occupancy rates, expanding

capitalization rates, the loss of certain assets to foreclosure, and the need for equity infusions to bridge the gap between outstanding loan balances and available refinancing proceeds upon loan maturities. The depressed values that emerge owing to this (appropriately) conservative underwriting approach stand in stark contrast to overstated NAVs that many funds tend to report in a declining market. The bid-ask spread can be significant as a result.

During the post-GFC downturn, many PERE fund investors were acutely aware that the values of their interests were plummeting and that they would face liquidity problems throughout their portfolios. These LPs smartly turned to the previously underutilized secondaries market in an attempt to divest. Understandably, upon receiving bids, few of these prospective sellers elected to part with their assets. With market-bottom pricing, LPs would be paid pennies on the dollar for their fund positions; holding on to their devalued PERE fund interests and awaiting a market recovery seemed to be the better decision for most LPs. Although the ratio of transactions completed to secondaries offered for sale was quite low during the post-GFC downturn, in absolute terms, PERE secondaries volume remained steady at approximately US$800 million per year in 2008 and 2009, before doubling to more than US$1.6 billion in 2010 (Figure 2).

Secondaries struck early in the recovery have been strong performers. These transactions benefit from the initial acquisition discount, improving fundamentals as the real estate market recovers, declining yields as capital market participants grow more competitive, and a high rate of realizations. Though pricing tends to strengthen as the market shifts from forced selling for liquidity to opportunistic selling for portfolio management, returns do not necessarily deteriorate. This is because marks more closely resemble the FMV, and the recovery tends to gain steam mid-cycle.

Whatever faulty wiring Covid exposes is likely to cause the market to recalibrate around a modified framework for risk management. In certain cases (e.g., portfolio management), it will be self-imposed; in others, it will be mandatory. These modifications could trigger a wave of secondaries sales similar to what we saw in the wake of the GFC. If they do, we would expect a strong buyers' market. For the simple reason that investors are more familiar with secondaries, we believe there will be more portfolio-management-driven secondaries sales during the post-Covid recovery than there were post-GFC.

Conclusion

PERE funds have become a large and established global asset class with a permanent allocation in most institutional investor portfolios. Perhaps inspired by the 14th-century streets of Bruges, a natural extension of this growth has been the growth of a secondaries market for interests in these funds. This has included the emergence of cadres of specialist secondaries buyers and liquidity providers, dedicated to offering increased flexibility to managers and investors in this otherwise illiquid asset class. The catalysts for transactions and the overall opportunity set will ebb and flow with the direct real estate market. Downcycles will often trigger the greatest need for liquidity on behalf of investors and their holdings. Avoiding the falling knives requires diligent underwriting and patience.

The ultimate toll of COVID-19 on the global economy and the manner in which real estate will be utilized in the future is still being unveiled. So far, COVID's economic effects have been disguised by unprecedented fiscal and monetary stimulus. While we can speculate on the winners and losers, the depth of the trough and the shape of the recovery remain unknown. Thus, we recommend a cautious and patient approach over the coming quarters; a significant volume of PERE secondaries may emerge over the next 12–24 months as LPs seek liquidity for a variety of reasons. Given the benefits that PERE secondaries can impart to investors' portfolios, we believe an attractive opportunity is on the horizon.

StepStone is a global private markets firm overseeing US$313 billion of private capital allocations, including US$72 billion of assets under management. The firm creates customized portfolios for many of the world's most sophisticated investors using a highly disciplined, research-focused approach that prudently integrates fund investments, secondaries, and co-investments.

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Hyatt Regency Long Beach
Long Beach, CA

SPRING 2023

May 9-12
Paradise Point Resort & Spa
San Diego, CA

FALL 2023

November 5-11
Omni Rancho Las Palmas Resort & Spa
Rancho Mirage, CA