SPRING 2018

SACRS

STATE ASSOCIATION *of* COUNTY RETIREMENT SYSTEMS

LOOKING FOR IMPACT IN CEO COMPENSATION
Page 7

A MEGATREND IS UNDERWAY
Page 19

ARTIFICIAL INTELLIGENCE'S COMING OF AGE
Page 21

GET REAL

Harnessing the Power of Liquid Real Assets in an Institutional Portfolio

Page 9

SACRS™

REGISTER **TODAY**

MODERN INVESTMENT THEORY & PRACTICE for Retirement Systems

SACRS PUBLIC PENSION INVESTMENT MANAGEMENT PROGRAM 2018

center for UC Berkeley executive education

July 15-18, 2018

Sponsorship opportunities are available for the 2018 program

THANK YOU

Invesco

WELLINGTON MANAGEMENT®

CROSS OCEAN PARTNERS

PATHWAY

Verus

WELLS FARGO ASSET MANAGEMENT

AMERICAN REALTY ADVISORS

Eaton Vance Investment Managers

LORD ABBETT®

Parametric™ Engineered Portfolio Solutions

DWS

Goldman Sachs Asset Management

CRESCENT

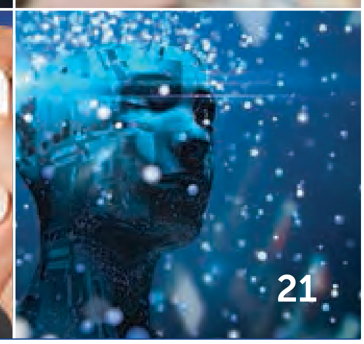
William Blair

CHEIRON

REGISTER TODAY! please visit SACRS website at **SACRS.ORG**

CONTENT

SPRING 2018



SACRS

1415 L Street, Suite 1000
Sacramento, CA 95814
T 916.441.1850 | F 916.441.6178
sacrs.org

PLEASE RECYCLE THIS MAGAZINE

As I write this, we are putting the finishing touches on SACRS Spring Conference to take place in Anaheim May 15-18. Will you be there? It promises to be a great conference. Developed *for* SACRS members *by* SACRS members, it will be several days of relevant, educational information and networking.

Another great learning opportunity created by members for other members is this publication, *SACRS Magazine*. If you have an idea for an article, send a proposal to me, **sulema@sacrs.org**. Topics of interest include: Alternative Investing, Asset Servicing, Defined Benefit Plans, Defined Contribution, Governance, Hedge Funds, International, Investment Strategy, Investment Technology, Money Managers, Mutual Funds, Private Equity, Real Estate, Regulation & Legislation, Trading & Research and Venture Capital. Articles should be no shorter than 700 words and no more than 2,500 words. You can find out more about the magazine from editorial to advertising by visiting: **https://sacrs.org/sacrs/assets/SACRS%20MAGAZINE%20ADVERTISEMENT.pdf.**

For a little fun, take a look at the above image. . .who is that above singer songwriter P!nk? Why it's our own SACRS member Atara Hirsch! If you don't know, Atara is the author of the 2016 children's book, *Curlee Girlee*, which has the message to encourage young girls to love the features that make them unique. It's an Amazon bestseller, and book 2 is expected to debut later this year. Atara is with Abraham, Frutcher & Twersky, LLP and concentrates her legal practice in securities litigation and serves as AF&T's Director of Institutional Investor Services. It's a great little book.

Summer will be here before you know it, and we again will offer the exceptional opportunity to join fellow public pension trustees and retirement staff for SACRS' Public Pension Investment Management Program 2018, taking place July 15—18. 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. Nearly 40 people were in the class of 2017. Space is limited and is on a first-come, first-serve basis. To see the full program and register visit: **https://sacrs.org/events/sacrs-uc-berkeley-program/.**

Hope to see you in Anaheim!

Sulema H. Peterson

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

Featured SACRS Member

ATARA HIRSCH

Atara Hirsch concentrates her practice in securities litigation and serves as AF&T's Director of Institutional Investor Services. In that role, she advises public and private institutions throughout the world concerning shareholder rights as they relate to class action and individual direct action claims arising under U.S. federal and state laws. She received her Juris Doctor degree from Brooklyn Law School and is admitted to practice in the state of New York as well as the Southern and Eastern Districts of the New York federal courts.

Atara Hirsch is a frequent speaker on securities litigation issues, particularly in regard to the rights and responsibilities of institutional investors. Atara Hirsch has addressed the National Conference on Public Employee Retirement Systems, the Native American Finance Conference and the Florida Public Pension Trustees Association. She is the author of the article "Custodians Leave Investor Money on the Table" (PERSist, National Conference on Public Employee Retirement Systems, Fall 2009) detailing the many issues that may arise when pension funds rely solely on their custodians to monitor their stock portfolio.

LET'S HAVE A CONVERSATION

Experience has shown that any discussion about public employee pension benefits or sustainability issues is often fraught with tension and acrimony. Many people don't want to hear arguments from the other side.

But at SACRS, dialogue is our number one priority. We all have our differences, but we live in a free and open society that cherishes dialogue between warring factions, and our responsibility is too important to ignore. Pensions are our ongoing obligation, whether you work on the local or state level.

We must foster conversations between sponsors and beneficiaries because the long-term health of a pension system is a fluid situation. Things can change quickly in our economy; we could see a slight or major market correction or, heaven forbid, another recession. These could result from events that we have no control over like devastating world scenarios or domestic issues that create obstacles preventing us from meeting our pension goals.

RELEASING THE PENSION TENSION

It's not as simples as taking two aspirin and calling in sick. But we do have a good prescription: Attend SACRS' two conferences every year and get involved.

Through our conferences, we hope to create a fruitful dialogue by presenting thoughtful, insightful speakers. Attendees have a chance to listen to opposing views and become more versed in overarching concerns related to pensions' long-term sustainability.

Among the discussion topics are annual contributions from employees and plan sponsors, the ability of a fund to reach annual actuarial goals, and that ability to find enough magic to meet the promise that was made to public employees in retirement.

Another topic is the impact of the California Public Employees' Pension Reform Act (PEPRA), enacted and signed into law in 2013. The legislation seeks a balance of employee/employer contributions by mandating that pension contributions should be shared equally, with employees paying at least half of normal contributions. PEPRA also changes how pensionable compensation is calculated, basing it on the employee's base pay instead of incorporating overtime, bonuses, unused leave, or other types of compensation.

These changes and future reform that is likely to come will alter how we manage these pensions. We must challenge ourselves to think differently about these problems in order to keep our systems solvent well into the future.

I hope you will take advantage of the chance to participate in our dialogue at our Spring SACRS Conference at the Anaheim Marriott from May 15 to 18 or at our Fall SACRS Conference at the Renaissance Indian Wells Resort & Spa in Indian Wells from November 13 to 16.

Additionally, from July 15 to 18, we will be partnering with the UC Berkeley Haas School of Business to put on our annual Public Pension Investment Management Program. Visit WWW.SACRS.ORG to register for this outstanding program, and bring your friends!

Finally, please consider committing yourself to working with one of our committees this year. We're always in need of volunteers to help with each of SACRS' committees: Program, Affiliate, Audit, Bylaws, Education, Legislative and Nominating.

Please plan to join us in Anaheim, and let's start some important conversations.

***Dan McAllister**, President of SACRS & SDCERA Trustee*

You Can Make A DIFFERENCE

I hope this article finds you and your loved ones in good health and enjoying 2018. As I write this, we are in the final planning stages for our upcoming Spring SACRS Conference in Anaheim. As always, your SACRS Program Committee is working diligently and passionately to make the upcoming conference very successful and very memorable for attendees.

Special thanks go out to Zandra Cholmondeley from Santa Barbara, who as a member of the Program Committee, was able to schedule a general speaking session with the renowned Financier and Philanthropist David Rubenstein of the Carlye Group. At our conference, Mr. Rubenstein will be filming an episode of his "The David Rubenstein Show, Peer to Peer Conversation" that is aired on the Bloomberg Channel, as well as Public Broadcasting Stations. I have watched several episodes of Mr. Rubenstein's interviews and I have found them to be of the highest caliber.

> *"The one thing we all have in common is our fiduciary duty to our systems."*

The SACRS Program Committee members are diligently working on scheduling other great speakers as well as selecting interesting and dynamic topics for our breakout sessions. Our hopes are that the sessions SACRS provides helps to make all of us better Trustees, Staff Members and Affiliates. The one thing we all have in common is our fiduciary duty to our systems. The SACRS conferences are always geared towards helping us to be better stewards of our system's assets with so many members depending on us.

Lastly, I want to encourage all of you to get involved in SACRS. We want SACRS to continue to benefit from the wealth of knowledge that comes from our very diverse members. We come from different walks of life and have various backgrounds and experiences. SACRS is only as good as the members that get involved and help out. This year, SACRS added two members to the Board of Directors and created new committee by-laws that allow for new members to join the various committees.

Growing up in the 60's, I will always remember the immortal words of President John Kennedy, "Ask not what your country can do for you, ask what you can do for your country." These words can be applied to SACRS as well. SACRS is only as good as its members. Please do not stand on the side line and be a spectator, but instead get involved in committees, collecting evaluations, welcoming new members, and sharing your ideas with your SACRS Board of Directors. We do listen, and we have made significant changes in the last couple of years based on feedback from our members. You can make a difference.

I do look forward to seeing each and every one of you at Anaheim.

__Gabriel Rodrigues__ is a Deputy Sheriff with the Contra Costa County Office of the Sheriff and SACRS Vice President and Program Committee Chairperson. Gabe chose to become a Retirement Board Trustee, allowing him the opportunity to use his business experience to protect and grow the assets of the pension plan that his fellow Contra Costa County employees depend on for their retirement.

Looking for Impact In CEO COMPENSATION

Most executives at publicly traded companies have a significant portion of their annual compensation tied to performance goals. However, gauging the effectiveness of incentive compensation can be difficult for management, boards, and investors, who must evaluate the metrics that best correlate with improved business outcomes or share price performance. While many companies use total shareholder return as the metric for incentive plans, other measures might highlight different and important aspects of management success.

For investors concerned about corporate governance issues, the structure of management incentive compensation has become a prominent consideration. Still, we do not have a complete understanding of the linkages between pay structures and company performance. While many companies have moved to incorporate total shareholder return (TSR, or stock price appreciation plus dividends) into their incentive metrics, the use of this metric alone does not necessarily ensure alignment between management and shareholders.

> "Show me the incentive and I will show you the outcome."
>
> *Charlie Munger*

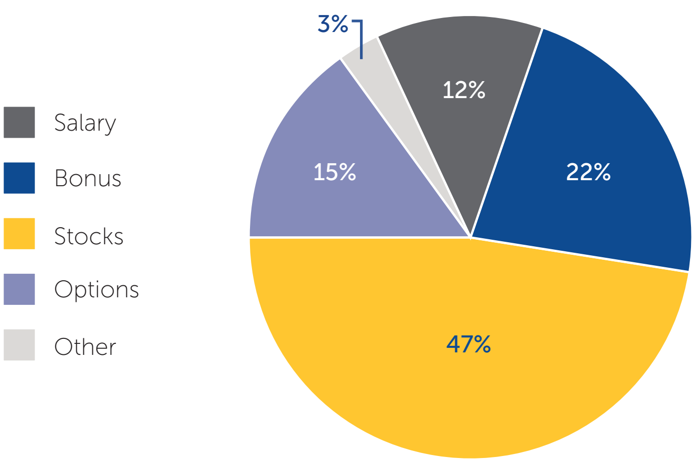
FINDING THE RIGHT COMPENSATION MEASURES

Many publicly traded companies, including those listed in the S&P 500 Index, link a part of their executives' annual compensation to performance goals, including TSR, return on invested capital (ROIC), earnings per share (EPS), and revenue growth. These incentive plans provide shareholders insight on how management pay is aligned with company performance.

Long-term incentive plans (LTIPs) most frequently use TSR as a performance metric, followed by return on capital and EPS. Short-term incentive plans (STIPs) often focus on operating income, or revenue growth. More than 80 percent of companies in the S&P 500 used performance awards in 2015, compared with about 50 percent in 2009, according to a report from Stanford Graduate School of Business (CEO Compensation Data Spotlight). In 2016, more than 90 percent of these companies disclosed LTIPs, company filings show.

Performance-based pay accounts for the majority of CEO compensation for the average S&P 500 company. Only 12 percent of compensation is salary, 22 percent comes from short-term incentives, such as annual cash bonuses, and more than 60 percent of total compensation is from long-term incentives, such as stock and option awards, the Stanford report shows. [Exhibit 1]

EXHIBIT 1



Compensation for S&P 500 CEOs aims to reward company performance

Sample includes CEO compensation of companies listed in the S&P Index.
Source: Equilar, CEO Pay Trends (2016)

"When it comes to incentives, one size does not fit all: Each sector of the market has different exposures to key performance indicators, and executive compensation should be able to reflect these differences."

DOES STOCK PERFORMANCE EQUATE WITH COMPANY PERFORMANCE?

Investors may assume that companies should link executives' pay with share price performance, and indeed, total shareholder return is the most popular metric in incentive plans. According to the Stanford study, 57 percent of companies in the S&P used it in incentive pay. However, there is little empirical evidence that shows a relationship between TSR-based incentive plans and company performance. What's more, company management doesn't directly control the performance of their stock, especially in the short term, whereas the CEO has direct responsibility for the stewardship of a company's capital and has direct influence over operating results.

"It's important for investors to be able to understand how a company's performance relates to its executives' pay."

It's tempting to think that stock performance and management performance are one and the same, and over the long term the two should be closely linked. But there is often a disconnect between long-term total CEO pay and long-term shareholder returns. One recent MSCI study shows that there is little relationship between CEO pay and shareholder returns, even over a 10-year period.

There are several possible explanations for this. Perhaps some stocks were impacted by external factors like commodity prices or takeover valuations in their sector. Perhaps some CEOs created or destroyed value in a way that did not directly impact shareholder returns. And let's not forget the likelihood that some of these outcomes involve luck, where some CEOs were unintentionally overpaid and some underpaid versus the 10-year arc of their companies' TSR.

When it comes to incentives, one size does not fit all: Each sector of the market has different exposures to key performance indicators, and executive compensation should be able to reflect these differences. Yet the disconnect between long-term total CEO pay and long-term shareholder return indicates that important questions remain.

RESEARCH CONTINUES ON AN IMPORTANT GOVERNANCE ISSUE

It's important for investors to be able to understand how a company's performance relates to its executives' pay. As compensation measures become more complicated, the assessments have turned increasingly interesting and nuanced. For example, a metric that works in one industry may not be tied to value creation in another industry. In general, investors would be wise to pay attention to how capital stewardship impacts both company and executive performance, and should aim to understand the rationale and measurements behind incentive awards. Incentive compensation measures reveal a lot about internal company priorities in a way that sometimes amplifies and sometimes contradicts the company's stated mission.

Given these complications, in the short term, Charlie Munger's claim might not be so obvious: We can't always directly tie an incentive to an immediate outcome. The power of incentives becomes more apparent over the long term. Viewing executive compensation in this light can help us to identify organizations that are best aligned with true long-term value creation for their investors and other stakeholders.

***Katherine Collins**, CFA, MTS, Head of Sustainable Investing is responsible for leading Putnam's investment research, strategy implementation, and thought leadership on environmental, social, and governance (ESG) principles. Collins collaborates with portfolio managers and analysts on ESG integration, assessing the fundamental relevance of ESG issues at a security level, and the potential for alpha generation and risk mitigation at a portfolio level. In addition, she is the portfolio manager of two ESG-focused separately managed accounts, specifically managed for institutional clients.*

***Stephanie Henderson** is a Portfolio Manager and an Analyst in the Equity Research group at Putnam, specializing in sustainable investing strategies. She is responsible for conducting fundamental analysis and valuation of companies, evaluating their performance across environmental, social, and governance (ESG) factors, and identifying potential risks and opportunities related to these factors. Henderson joined Putnam in 2017 and has been in the investment industry since 2011.*

GET REAL

Harnessing the Power of Liquid Real Assets in an Institutional Portfolio

Sure, 2018 is off to a nice start for equity markets, largely continuing the supportive trends that we saw close out last year. Frankly, it isn't as though capital markets are running on fumes either, as there is plenty of demand for risky assets thanks to relatively low interest rates, U.S. tax cuts, and a stable global economic backdrop.

Still, this rosy situation cannot last forever. Already some potential clouds are gathering on the horizon, namely in the form of rich valuations and rising inflation. Either of these challenges could derail the equity bull market in 2018, and a number of political issues are worth considering as trouble spots.

Beyond these concerns, the threat from a new Federal Reserve regime looms in what is already a tightening cycle. The potential for additional Fed action cannot be ignored, and could become a worry if the market overheats in the second half of the year.

That is why some investors—at least those with an eye to mitigating risks—are already taking these more volatile or inflation-heavy scenarios into account. An analysis of this type of environment benefits from one type of exposure in particular – liquid real assets.

Why Liquid Real Assets?

Investing in liquid real assets—infrastructure securities, commodities, real estate securities, and natural resource equities certainly includes some meaningful potential benefits. Like all investments, however, they also come with some attendant risks. These risk factors include, but are not limited to: interest rate sensitivity (these are long duration liquid real assets that are capital-intensive); price volatility; lower liquidity during extreme environments; and irrational pricing in macro-driven markets (periods when bottom-up fundamentals can be eclipsed by irrational top-down forces).

> *“Already some potential clouds are gathering on the horizon, namely in the form of rich valuations and rising inflation.”*

As active managers, we seek to mitigate these risks on behalf of clients and look to take advantage of some of the more defensive properties of these asset classes. Liquid real assets are arguably designed for more difficult market environments; they may offer investors downside protection vs. broader equity markets. This is shown in the adjacent chart which shows various asset classes and their average 24-month downside and upside capture when compared to global stocks.[1] In fact, securities across the real asset space tend to serve as long-term portfolio diversifiers, given their low correlation and overlap with “traditional” equities.

More specifically, the defensive characteristics of liquid real assets provide exposure to segments of the capital markets, which may potentially reduce downside capture during volatile market environments, while also participating in “up markets.” In other words, liquid real assets have differentiated return drivers from global equities – their counter-cyclical nature produces lower risk aggregate levels, while still offering the real return[2] potential.

Liquid Real assets, have historically offered greater sensitivity to offset rising inflation levels, especially when compared to their peers in the broader equity[1] and fixed income[3] markets. In fact, if you consider the ‘inflation Beta’ of liquid real assets— (higher inflation Beta = responds more quickly to changes in inflation) you’ll note that commodities, global infrastructure, natural resource equities, and global real estate all exhibit higher inflation Betas, especially when inflation is accelerating. Thus, they may actually benefit from a market environment that may harm other asset classes.

Liquid real assets are also known for their income potential, though there is no guarantee that this investment objective will be achieved. Still, many companies in the liquid real asset space own hard assets or properties that generate contractual income—many of which have inflation hedging characteristics.

While they might not all be a yield destination on their own, real assets can have more favorable income characteristics when compared to a typical global equities[2] portfolio. This additional income may have an impact on returns over the long term, especially considering that liquid real assets often participate in up markets. For example, current yields for global infrastructure (DJ Brookfield Global Infrastructure Index) and global real estate (FTSE EPRA/NAREIT Developed index) are between 3.5-4 percent (as of 12/31/17) and this income, reinvested, can compound over time and contribute to greater total return. Furthermore, their income is ‘real’ or inflation-adjusted. The real income generation—coupled with reinvestment—may make this asset class a solid option over longer time periods.

Why Liquid Real Assets Now

These defensive characteristics could come in handy in 2018, particularly with the growing number of market risk factors and global political uncertainty. If we should experience a sell-off in broader equities this year, there is potential that liquid real assets may provide a ballast for an equity portfolio. But liquid real assets is a rather large category. It can encompass a number of diverse investment segments, and regions around the globe as well. So, let’s break down each of the three main liquid real asset categories below, and discuss areas in each that we feel are interesting opportunities for investors in 2018.

Infrastructure

We believe the strategic merits of global infrastructure are highlighted by its defensive characteristics, with mature, ‘brownfield’ assets historically producing stable, predictable, and inflation-linked cash flows. These characteristics may benefit portfolios over multiple time horizons, but may be especially beneficial in volatile markets.

From a positioning standpoint, our active exposure is primarily driven by stock-specific catalysts, though there are a handful of sectors where we may have a stronger directional view. We continue to favor fundamentally sound infrastructure companies with experienced management teams that we expect to benefit from improvements in global growth, and seek to avoid stocks that could be negatively affected by shorter-term volatility and challenges to their business.

▸ *Energy Pipelines – Positive*

Midstream energy stocks benefited from continued stabilization throughout 2017, regarding both company fundamentals and underlying commodity prices, which we expect to persist.

We continue to believe the expected ramp-up in crude and NGL[4] volumes should drive strong operating leverage and improved cash flow. Our focus will remain on the highest quality companies with diversified pipeline assets in the best locations, limited commodity sensitivity, and a stable tenant base.

One area that we are not as focused on in the energy pipeline space is the upstream market[5]. Securities in this area may face greater levels of risk, in our opinion, compared to their mid-stream peers[6], while upstream-focused companies tend to be more exposed to volatile commodity price fluctuations.

▸ ***Regulated Utilities – Neutral***

Stock-specific catalysts may drive exposure, as we believe utilities overall are likely to be out of favor throughout 2018. However, we continue to see opportunities in the UK, namely water utilities. In the U.S., valuations are relatively expensive; however, select companies present attractive upside potential. European utility valuations are in line, but the risk of rising rates gives us pause.

▸ ***Real Estate***

Valuations of listed real estate (i.e. "REITs" as measured by the FTSE EPRA/NAREIT Developed Index on 12/31/17) remain at historically attractive levels relative to private real estate[7], equities[1], and fixed income[3]. This framework, coupled with compelling fundamentals, supports REITs from an asset allocation standpoint for 2018. A strong fundamental backdrop for property stocks combined with favorable supply/demand dynamics should continue to drive ample cash flow growth going forward.

Overall, we have a bias towards global property stocks with high-quality assets or business models that operate in market segments with favorable supply/demand dynamics, solid management teams, and a track record of adding value for shareholders. In most regions, stable economic growth, positive fundamentals, muted new supply, and healthy tenant demand is proving a positive backdrop for liquid real estate globally.

There are likely broader global macro themes, which may impact each sector, but we believe stock selection will be the key driver going forward in this market. Growing cash flow growth coupled with increased external growth suggest listed real estate has the potential to deliver solid risk-adjusted returns over the next 12 months.

▸ ***United States – Neutral to Positive***

We favor sectors with shorter lease duration or economically sensitive demand drivers (such as data centers, industrial, and hotels). These segments have economically sensitive cash flows and strong secular demand drivers. We believe the U.S. real estate markets remain poised for several years of cash flow and dividend growth, despite an average economic recovery. We believe minimal exposure to the health care sector is warranted, which tends to be viewed as more defensive given its longer lease duration, and thus may be more sensitive to interest rate changes.

▸ ***Europe – Neutral to Positive***

We believe stock selection will be essential throughout 2018. Our preference is towards growth-oriented property stocks with solid balance sheets and non-cyclical business models, as we believe they are in the most solid position against the current market backdrop. Furthermore, we favor companies that can use healthy balance sheets to spur organic growth, whether looking towards undersupplied markets or low-risk development opportunities.

Commodities

As the business cycle approaches the latter stages, commodities may outperform the broader equity market, providing support for the commodity space in 2018. Natural resource equities[8] have also historically provided additional diversification benefits and greater sensitivity to offset rising inflation, something that may become more of a factor in investors' decisions this year. Thus we are generally positive on the space in 2018 and are looking for opportunities in this vast corner of the liquid real asset investment universe.

From a commodity futures perspective, we maintain diversified exposure across the space with a bias towards industrial metals, precious metals, and energy. We do expect more turbulence from agriculture and livestock futures in 2018—following choppiness both of these areas experienced in 2017. Investors still need to be careful on a sector basis, even if the overall commodity market seems positive.

> *"From a commodity futures perspective, we maintain diversified exposure across the space with a bias towards industrial metals, precious metals, and energy."*

In the natural resource equity segment, we have a different approach and are not as negative on the agricultural market. In this area, we favor the agriculture chemicals, while we also are positive on other related equity segments such as paper/forestry, and developed oil/gas buckets.

▸ ***Agriculture – Positive***

The agriculture chemicals bucket may continue to benefit from the increased operating efficiency, organic growth, and innovation following heightened M&A activity in 2017.

Within the paper/forestry segment, our outlook is positive based on favorable supply and demand characteristics, but exposure is best pursued on a stock-specific basis. Lumber companies are poised to potentially deliver another year of decent earnings.

▸ ***Energy – Positive***

Within the energy segment, we like larger-cap, high-quality integrated oil companies, which may benefit in 2018 from attractive valuations, better balance sheets and large-scale projects coming online to spur organic cash flow growth.

Going forward, the energy market appears to have stabilized relative to prior volatility levels, and the worst may be behind us. In 2018, we expect to see oil and natural gas steadily recover from improving global supply and demand dynamics.

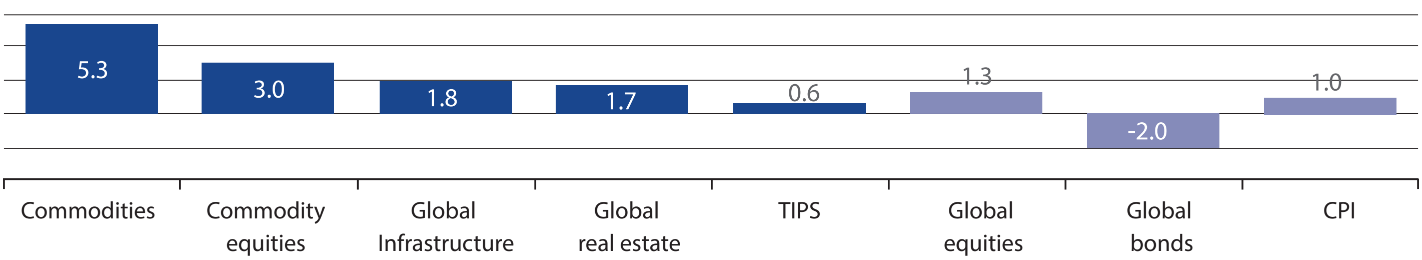
Bottom Line

Liquid real asset investing is by no means risk-free. Each component of the liquid real asset space carries unique risk factors and potential pitfalls that investors need to consider before allocating to the space. There are also several influential global macro issues—be it politics, currency wars, or other unforeseen hits to market confidence—which could limit the liquid real asset story in 2018.

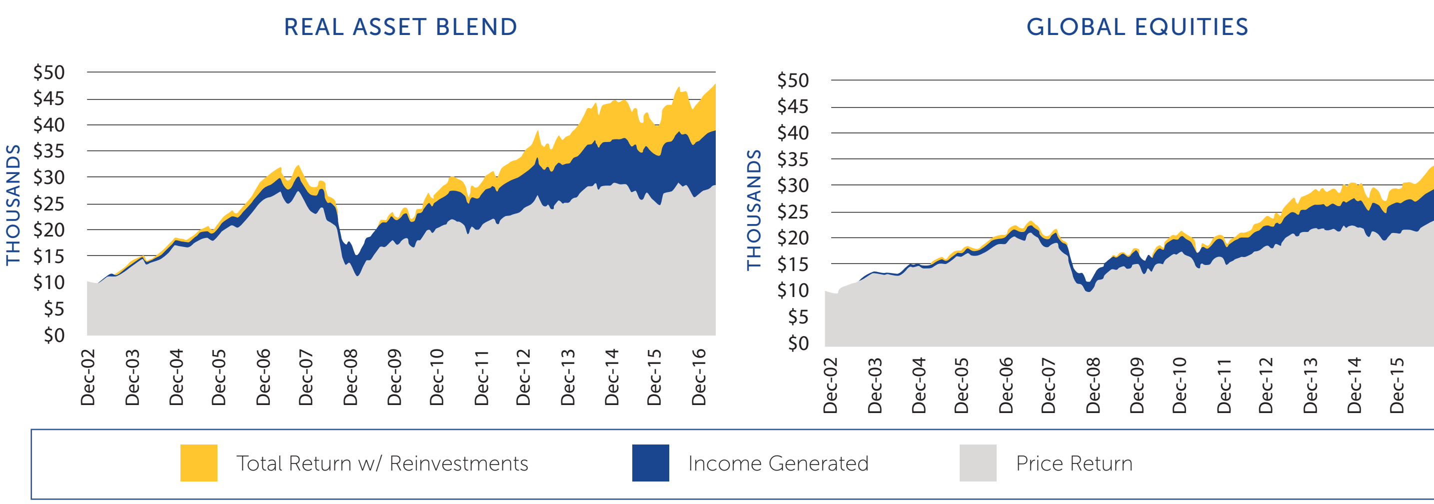
However, even amidst these potential risks, we believe that the macro picture is supportive of a strategic allocation to liquid real assets. There is a strong fundamental backdrop that has the potential to perform well, even when faced with two potential issues in the market this year: rising volatility and higher inflation. If broader equities sell off in 2018, liquid real assets may provide a solid ballast for a diversified portfolio.

Direct real asset exposure may be achieved through a multi-strategy portfolio approach, which may help to improve tradability in what is notoriously a relatively low liquidity market. This listed equities within a client's liquid real asset allocation may help to manage the inflows and outflows of the private segment of a portfolio, while still providing diversified exposure to the asset class[9].

FIGURE 2: INFLATION BETA



Source: Deutsche Asset Management, Bloomberg. For period 12/31/02 – 3/31/17. Asset class representation: **commodities**, Bloomberg Commodity Index; **commodity equities**, S&P Global Natural Resources Index; **global infrastructure**, DJ Brookfield Global Infrastructure Index; **global real estate**, FTSE EPRA/NAREIT Developed Index; **TIPS**, Bloomberg Barclays U.S. TIPS Index; **global equities**, MSCI World Index; **global bonds**, Bloomberg Barclays Global Aggregate Index

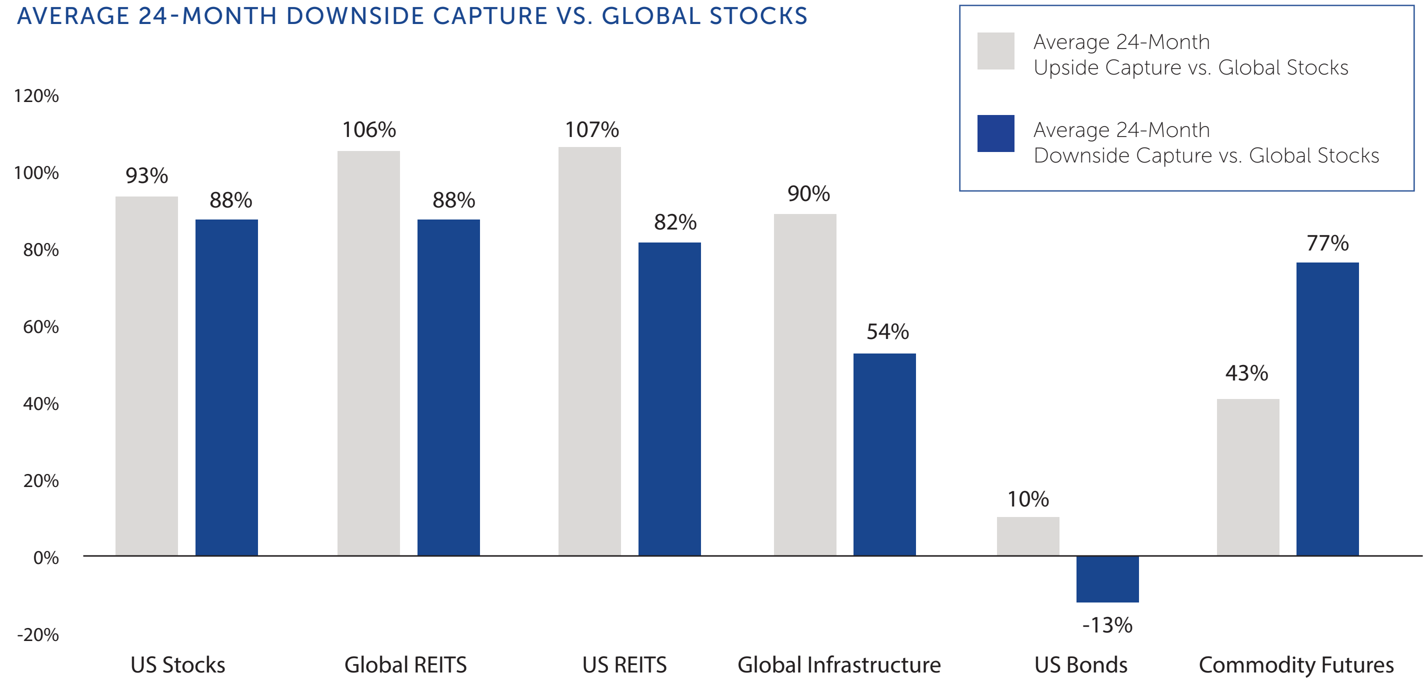


Sources: Bloomberg and Deutsche Asset Management as of June 30, 2017. Asset class representation: **global infrastructure**, DJ Brookfield Global Infrastructure Index; **global real estate**, FTSE EPRA/NAREIT Developed Index; **global equities**, MSCI World Index. Blend indicates 50/50 split. Equity index returns include reinvestment of all distributions. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. Diversification neither assures a profit nor guarantees against loss. For index definitions, please refer to important disclosures at the end of this presentation for further details. Please refer to "Back-tested Performance" for important disclosures at the end of this presentation. Back-tested performance is not a guarantee of future results.

Deutsche Asset Management | Deutsche Real Assets Strategy, September 2017

Back-tested performance is NOT an indicator of future actual results. Back-tested results are calculated by the retroactive application of a model constructed on the basis of historical data and based on assumptions integral to the model which may or may not be testable and are subject to losses.

AVERAGE 24-MONTH DOWNSIDE CAPTURE VS. GLOBAL STOCKS



Asset class representation: US stocks; S&P 500, global REITs; FTSE EPRA/NAREIT Developed Index, US REITs; MSCI US REIT Index, Global Infrastructure; DJ Brookfield Global Infrastructure Index, US Bonds; Barclays US Aggregate Bond Index, Commodities; Bloomberg Commodity Index, global stocks; MSCI World Index.

> *"If broader equities sell off in 2018, liquid real assets may provide a solid ballast for a diversified portfolio."*

How best to implement? Many investors already have some exposure to real assets. Most are commonly manifested as separate "sub-strategies." One for real estate, one for infrastructure, and another for commodities. However, this construct introduces some single sector risk, may not have disciplined re-balancing principles, and investors may worry about the individual holdings rather than the larger picture. By using a centralized but well-diversified strategy, investors can streamline their exposure and worry less about potential gaps or unintended overlaps that can be introduced when cobbling together individual strategies. A one-stop-shopping 'best ideas'[10] approach to liquid real assets can focus the portfolio on high conviction investments which the portfolio managers feel have the best chance for potential returns.

Sometimes, the 'whole is greater than the sum of its parts'. This may be true in terms of maximizing return potential or upside capture. This may also be true for optimizing downside protection. As fiduciaries, it can be just as important to diversify the drivers of risk as the sources of return in your portfolio. By increasing exposure to liquid real assets you may potentially introduce a differentiated, beneficial driver of return and risk in your plan.

ENDNOTES

1 Broad equities is represented by the MSCI World Index.

2 Real Return is defined as percentage return on an investment that is adjusted for inflation.

3 Fixed income is represented by the Barclays Global Aggregate Index.

4 Natural gas liquid measurement.

5 Upstream market refers to oil and gas sector that is focused on exploration and production.

6 Midstream peers refers to the oil and gas sector that is focused on the transportation, storage and wholesale marketing of crude or refined petroleum products.

7 Private real estate is represented by the NCREIF Property Index.

8 Natural resource equities are represented by S&P Global Natural Resources Index.

9 Any sale may mean loss of principal.

10 Best ideas approach refers to a concentrated and holistic portfolio customized to maximize the benefits of a global real asset portfolio.

***Edward O'Donnell III**, CFA, CAIA is the head of Liquid Real Assets for the Americas at Deutsche Asset Management. He works with the liquid real assets platform to develop solutions for institutional clients.*

SUSTAINABILITY DISCLOSURE

Is Helping Drive INVESTMENT DECISIONS

"Over the past decade the number of asset managers and institutions that have become signatories of the U.N. Principles for Responsible Investing has grown from a few dozen to more than 1,600."

In recent years, the growth of investor interest in sustainable investing has been remarkable. Assets invested in environmental, social and governance (ESG) strategies grew by 33 percent to $8.7 trillion, for the two years ended December 31, 2016, according to the Forum for Sustainable and Responsible Investing. For such growth to continue, we believe it is crucial to develop corporate disclosure standards for ESG factors that investors find relevant to a company's growth prospects.

The Sustainability Accounting Standards Board (SASB) was created in 2011 to take the lead role in that effort. However, SASB's standards are still largely voluntary. Moreover, evidence is lacking about whether firms that voluntarily follow those standards are offering investors useful, firm-specific information. This paper seeks to begin providing such evidence: If the information is indeed material, then we would expect investors to use it in stock valuations and investment decisions. The results could provide a baseline for future required disclosure, and offer some clues as to how it may affect capital market pricing.

THE GROWTH IN ESG DISCLOSURE

The number of companies disclosing sustainability information has grown exponentially over the past few years – it is now common practice for companies to communicate the relevance of ESG information for their business strategy and operations.

Investors have also increasingly relied on ESG factors. Over the past decade the number of asset managers and institutions that have become signatories of the U.N. Principles for Responsible Investing has grown from a few dozen to more than 1,600.

As a further sign of the "mainstreaming" of ESG data, Bloomberg terminals integrated ESG data in 2010, dramatically increasing the diffusion of ESG information (Figure 1). For example, a Bloomberg screen will include data on total CO2 emissions, total energy consumption, percentage of women in management, and the percent of independent directors. As of 2016, more than 100 rating agencies provided ESG data, including large data providers such as Thomson Reuters and Morgan Stanley Capital International (MSCI).

In traditional financial reporting, investors have long been accustomed to well-established financial accounting standards, which are taken for granted as a key to efficient capital allocation. Despite the progress noted above, there is still a large gap between traditional financial reporting and the sustainable kind, which is based on non-financial data. Investors view the lack of reporting standards as "the major impediment" to using ESG factors in investment decision making. In a recent survey[1], institutional asset managers chiefly complained that the absence of uniform standards leads to:

- A lack of comparability of reported information across firms and time
- Higher costs for gathering and analyzing ESG information
- Increased probability of "boilerplate" language - disclosure that lacks enough company-specific information to be useful.

THE PUSH FOR SASB STANDARDS

In developing its standards, the SASB has sought a broad range of input, including an independent Standards Council[2], composed roughly of one-third corporations, one-third market participants and one-third other stakeholders. More than 3,000 experts representing more than $30 trillion in assets under management and $15 trillion in company market capitalization participated in SASB's industry working groups between 2013 and 2016.

But despite this impressive crowdsourcing, the standards-setting process involves no large-scale quantitative analysis of whether or how investors might use disclosed ESG factors in financial analysis.

The Serafeim study theorizes that if ESG factors prove to be useful, firm-specific information, then they should play a bigger role in driving stock performance for companies that disclose them. Conversely, the movement of market and company industry stock prices would explain less of the performance of the ESG-disclosing companies.

EXPLANATIONS FOR PRICE MOVEMENT

To test the theory, the study examines "synchronicity" – a measure closely related to the R-squared correlation statistic. R-squared is commonly used to determine how much of a stock's price variation is explained by movement of the overall market or industry rather than security-specific factors. (The "overall market" is typically represented by the S&P 500, or other broad benchmark, while "industry" is often shown as a sector index.) For example, a large-cap stock like Microsoft has more than half of its movement explained by the S&P 500, which is indicative of high synchronicity. In contrast, an asset like gold has none of its movement explained by the S&P 500, so it has low synchronicity with the S&P 500.

FIGURE 1. ESG DATA HAS GONE MAINSTREAM WITH INCLUSION IN BLOOMBERG ANALYSIS.

Bloomberg

Financial Statement Analysis

Ticker: IBM US Equity | Periodicity: Annuals | Currency: USD | Note: Years shown on the report are Fiscal Years | Company: International Business Machines Corp

Filing: Most Recent

Overview

	Original 2007 A	Original 2008 A	Original 2009 A	Original 2010 A	Original 2011 A	Original 2012 A	Restated 2013 A	Restated 2014 A	Original 2015 A	Original 2016 A
For the period ending	2007-12-31	2008-12-31	2009-12-31	2010-12-31	2011-12-31	2012-12-31	2013-12-31	2014-12-31	2015-12-31	2016-12-31
ESG Disclosure Score	43.80	44.21	40.50	42.98	51.24	59.50	62.40	66.53	62.81	
Environmental										
Environmental Disclosure Score	41.09	41.86	34.88	37.21	62.71	65.89	69.77	72.87	68.22	
Direct CO2 Emissions					197.91	220.85	225.51	226.19	187.55	
Total CO2 Emissions	2,541.00	2,502.00	2,406.00	2,156.00		2,196.00	2,186.00	2,092.00		
CO2 Intensity per Energy	0.37	0.38	0.39	0.34		0.34	0.35	0.34		
Total GHG Emissions	2,865.12	2,061.79			2,727.37	2,750.04	2,493.06	2,438.66	1,787.60	
NOx Emissions					0.21	0.21	0.21	0.22	0.17	
Total Energy Consumption	6,949.57	6,598.24	6,323.06	6,358.87	6,377.21	6,422.13	6,297.30	6,173.40	5,375.95	
Total Water Use					11,483.00	11,661.00	11,390.00	10,102.00	5,750.00	
Hazardous Waste	12.05	8.34	8.19	8.40	7.70	7.39	7.45	4.04	2.74	
Total Waste	119.05	103.13	87.33	79.50	77.73	76.25	72.51	110.73	56.23	
Environmental Fines #	1.00	0.00	2.00	0.00	0.00	3.00	0.00	4.00	0.00	
Environmental Fines $	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.01	0.00	
Social										
Social Disclosure Score	36.84	36.84	36.84	36.84	42.11	47.37	47.37	47.37	42.11	
Number of Employees	386,558.00	400,000.00	400,000.00	425,000.00	433,362.00	434,246.00	431,212.00	379,592.00	377,757.00	
% Women in Workforce	28.80	28.90	28.70	28.10	28.50	30.00	30.10	31.10	31.40	
% Women in Mgt	24.80	24.50	24.00	24.80	21.50	25.60	26.00	26.50	26.40	
Workforce Accidents						182.00	182.00	186.00		
Fatalities - Employees					2.00		0.00	0.00	0.00	
Community Spending	165.60	179.60	185.90	189.20	196.10	197.10	207.90	210.40	205.00	
Governance										
Governance Disclosure Score	57.14	57.14	57.14	62.50	57.14	57.14	60.71	71.43	71.43	
Size of the Board	13.00	12.00	13.00	14.00	12.00	13.00	13.00	13.00	14.00	14.00
Indep Directors	12.00	10.00	11.00	12.00	11.00	11.00	11.00	11.00	12.00	13.00
% Indep Directors	92.31	83.33	84.62	85.71	91.67	84.62	84.62	84.62	85.71	92.86
Board Duration (Years)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
# Board Meetings	10.00	10.00	10.00	10.00	10.00	10.00	9.00	9.00	9.00	9.00
Board Mtg Attendance	92.00	90.00	93.00	94.00	95.00	75.00	75.00	94.00	97.00	96.00
Political Donations				0.00						

Source: Bloomberg LLC. Used with permission. Data shown includes publicly available information as well as proprietary Bloomberg scores. For illustrative and educational purposes only.

The study looks at 1,333 U.S. companies derived from the Bloomberg ESG Index from 2007 to 2014, representing more than 80 percent of the market cap of U.S. firms with available data (excluding financial and utility firms[3]). The study confirmed a negative relationship: As ESG disclosure increased, stock price synchronicity with industry and market returns decreased. This indicates that ESG information yielded firm-specific insights, resulting in performance with increased variance from its industry peers and market, at a statistically significant level.

"We are in the early days of disclosure of nonfinancial data embodied in ESG factors, but the initial results of studies like this suggest that this information is already contributing to a more robust investment decision process."

The conclusion held true even when the Serafeim study controlled for potential correlated factors that could have been driving results, such as market cap, price-to-book ratio, profit variability, analyst revisions, insider trades, and degree of institutional ownership.

IMPACTS OF OTHER SUSTAINABLE DISCLOSURE

Similarly, the study also sought to determine whether generalized disclosure of sustainability information – as opposed to the specific data sought by the SASB standards – might be responsible for the lower synchronicity. For example, many firms comply with Global Reporting Initiative (GRI) standards, which also embrace sustainability reporting, and many also issue separate sustainability reports. Additionally, numerous companies disclose a wealth of sustainability information on their websites.

The Serafeim study showed that none of this other sustainability disclosure resulted in a meaningful change in synchronicity. This is an important distinction, because SASB standards focus specifically on information deemed to be material to investors. In contrast, GRI standards are aimed at a wider variety of stakeholders outside the investment community. These findings suggest that SASB has been on the right track in distinguishing between material and immaterial disclosure.

A related finding of the study indicates that in industries with high levels of sustainability disclosure, even firms that do not disclose ESG data tended to trade as if they did. In other words, performance of non-disclosing firms more closely tracked companies that had strong disclosure.

Other measures in the study underscored the key linkage between ESG disclosure and lower synchronicity. For example:

- The negative relation between stock price synchronicity and disclosures becomes stronger for firms when sustainability issues are more important. For example, a real estate company with properties in Miami Beach is more exposed to rising sea levels compared to a real estate company with properties in a non-coastal U.S. city. Thus, the same ESG disclosure might be material in the former case, but not so in the latter.
- The investor base told a similar story. The negative relation was stronger as institutional ownership increased – presumably because their analyses were more sophisticated in incorporating new sustainability information than decisions made by retail investors. This observation was also true as the ownership increased by socially responsible funds.

THE FUTURE OF RESPONSIBLE INVESTING

The history of traditional financial reporting demonstrates that as the quality and quantity of disclosed information increases, so does the ability of investors to understand the value creation process inside organizations. We are in the early days of disclosure of nonfinancial data embodied in ESG factors, but the initial results of studies like this suggest that this information is already contributing to a more robust investment decision process. As disclosure of ESG factors becomes more standardized and widespread, we believe that investors will become better equipped to identify risks and opportunities that are beyond the reach of traditional financial data.

ENDNOTES

1 Amel-Zadeh, A. and Serafeim, G. 2017. "Why and How Investors Use ESG Information: Evidence from a Global Survey." Harvard Business School Working Paper.

2 One of the authors, George Serafeim, has served on the Standards Council of the SASB.

3 Financial firms were excluded to avoid distortions in performance related to the 2008 financial crisis, while utilities were omitted because their performance has been primarily driven by regulatory rather than market factors.

George Serafeim *is the Jakurski Family Associate Professor of Business Administration at Harvard Business School. He has taught courses in the MBA and doctoral programs, chaired Executive Education programs, written more than 100 articles and business cases, and presented his research in more than 100 conferences and seminars in 20 countries around the world. He is one of the most popular business authors, according to rankings of the Social Science Research Network.*

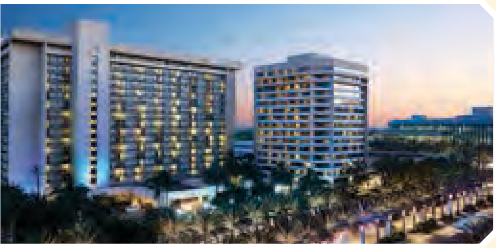
This article was adapted from the study "Stock Price Synchronicity and Material Sustainability Information" by Jody Grewal, Clarissa Hauptmann, and George Serafeim. Harvard Business School Working Paper, No. 17-098, May 2017

Calvert Research and Management *is a leader in Responsible Investing, with approximately $11.2 billion of mutual fund and separate account assets under management as of December 31, 2017. The company traces its roots to Calvert Investments, which was founded in 1976 and was the first to launch a socially responsible mutual fund that avoided investment in companies that did business in apartheid-era South Africa. Today, the Calvert Funds are one of the largest and most diversified families of responsibly invested strategies, encompassing actively and passively managed strategies, U.S. and international equity strategies, fixed-income strategies and asset allocation strategies.*

SACRS 2018 SPRING CONFERENCE

MAY 15-18, 2018

Marriott Anaheim | Anaheim, CA



ATTEND

EDUCATION AND INSIGHTS AWAIT

OUTSTANDING GENERAL SESSIONS

SACRS Spring Conference features special general sessions designed for System Members, Non-Profits, Affiliates, and Non-Members. Hot topic general sessions with expert speakers showcase out-of-box thinking including:

- *The Resource Efficiency Revolution: How It's Changing the Global Economy* that explores how new technologies and business models are creating the best investment opportunities presented by Former California State Controller Steve Westly
- *The Proof Is In the Results* which reveals the potential benefits to using Securities Litigation to protect Plan Assets with Darren Robbins and Jason Forge of Robbins Geller Rudman and Dowd, LLP
- *Can You Risk Ignoring the Biggest Risk* will investigate the rapidly expanding area of Environmental, Social, and Governance principles in the institutional investment community with panelists Kevin Parker, SICM; Laura Nishikawa, MSCI, Jason Barrett, GAF and moderator Steven Schueth, Responsible Investing Expert.
- *Don't Be A Bystander: Be the Spark That Ignites Change* presented by former Air Force Staff Sgt. Spencer Stone who garnered international headlines in 2015 when he and two of his childhood friends thwarted a major terrorist attack on a Paris-bound train.
- Plus sessions with international bestseller author, award-winning economist, former presidential advisor and Harvard professor Todd G. Buchholz and the Carlyle Group Co-Founder and Co-Executive Chairman David Rubenstein.

NETWORK NIGHT

Famed entertainment destination *House of Blues Anaheim* offers an evening of networking and fun with your SACRS friends. Attendees will enjoy music from The Boys of Summer, an Eagles tribute band and comedian Sammy Obeid.

Tuesday, May 15, 2018

1:00PM - 6:30PM **SACRS Registration**
▶ **LOCATION:** Marquis Registration Desk

3:00PM - 5:00PM **3 P's of Disability: Policy, Procedure and Processability**
▶ **LOCATION:** Orange County Ballroom 1

SPEAKERS: Ricki Contreras, Los Angeles CERA; Suzanne Jenike, Orange CERS; and Jackie Purter, Sonoma CERA

MODERATOR: Christie Porter, San Bernardino CERA

3:00PM - 5:00PM **#MeToo/Time's UP/It's On Us!!! Sexual Harassment Prevention Training for Local Agency Officials (AB 1661)**
▶ **LOCATION:** Marquis Northwest

SPEAKERS: Veronica Gray and John Kennedy, Nossaman LLP

MODERATOR: Dave Nelsen, Alameda CERA

3:00PM - 5:00PM **Ethics for Public Officials – What Public Retirement System Officials Need to Know (AB 1234 Training)**
▶ **LOCATION:** Orange County Ballroom 3-4

SPEAKER: Ashley Dunning, Nossaman LLP

MODERATOR: Maya Gladstern, Marin CERA

5:30PM - 6:30PM **SACRS Welcome Reception**
▶ **LOCATION:** Marquis Northeast

Wednesday, May 16, 2018

6:45AM - 7:45AM **SACRS Yoga**
▶ **LOCATION:** Marquis Northeast

7:30AM - 8:30AM **SACRS Breakfast**
▶ **LOCATION:** Marquis South

7:30AM - 5:00PM **SACRS Registration**
▶ **LOCATION:** Marquis Registration Desk

8:30AM - 9:00AM **General Session**
Welcome Remarks
▶ **LOCATION:** Marquis Center

SPEAKERS: Dan McAllister, SACRS President and the Anaheim Police Department Honor Guard

9:00AM - 10:00AM **General Session**
The Resource Efficiency Revolution: How It's Changing The Global Economy
▶ **LOCATION:** Marquis Center

SPEAKER: Steve Westly, Former California State Controller

MODERATOR: Frank Mottek, Broadcast Journalist, CBS stations KNX 1070 Newsradio and KCAL-TV Channel 9

10:00AM - 10:30AM **Networking Break**
▶ **LOCATION:** Marquis Foyer

10:30AM - 11:30AM **General Session**
The David Rubenstein Show
▶ **LOCATION:** Marquis Center

SPEAKER: David Rubenstein, Carlyle Group

MODERATOR: Frank Mottek, Broadcast Journalist, CBS stations KNX 1070 Newsradio and KCAL-TV Channel 9

Wednesday, May 16, 2018
CONTINUED

11:40AM - 12:40PM **General Session**
Waiting For The Next Tweet: Financial Markets And The Economy Under President Trump
▶ **LOCATION:** Marquis Center

SPEAKER: Todd G. Buchholz, Award-Winning Economist, Former Presidential Advisor and Harvard Professor; Author of International Bestseller *Market Shock*

MODERATOR: Frank Mottek, Broadcast Journalist, CBS stations KNX 1070 Newsradio and KCAL-TV Channel 9

12:40PM - 1:50PM **SACRS Lunch**
▶ **LOCATION:** Marquis South

2:00PM - 5:30PM **BREAKOUT SESSIONS**

▶ Ops/Benefits & Disability Breakout
▶ **LOCATION:** Platinum 1 & 2
SPEAKER: In-Hei Hahn, MD, FACEP, FACMT
MODERATOR: Carlos Barrios and Tamara Caldwell, Los Angles CERA

▶ Affiliate Breakout
▶ **LOCATION:** Marquis Northeast
SPEAKERS: Tim Price, Contra Costa CERA; Daryn Miller, Kern CERA; Molly Murphy, Shanta Chary and David Beeson, Orange CERS; Steve Davis, Sacramento CERS; Don Pierce, San Bernardino CERA and Nancy Calkins, San Joaquin CERA
MODERATOR: Lesley Nettles, Fairview Capital Partners

▶ Attorney Breakout
▶ **LOCATION:** Marquis Center
MODERATOR: Gina Ratto, Orange CERS

▶ Internal Auditors Breakout | Round-table discussion
▶ **LOCATION:** Platinum 4
MODERATOR: Harsh Jadhav, Alameda CERA

▶ Administrators Breakout | Round-table discussion
▶ **LOCATION:** Platinum 3
MODERATOR: Scott Jarvis, Imperial CERS

▶ Investment Breakout | Closed round-table session for CIO's and staff between 3:30 pm - 5:30 pm
▶ **LOCATION:** Platinum 9
MODERATOR: Don Pierce, San Bernardino CERA

▶ Trustee Breakout | Round-table discussion
▶ **LOCATION:** Platinum 8
MODERATOR: Rich White, SACRS Past President

▶ Safety Breakout | Round-table discussion
▶ **LOCATION:** Platinum 7
MODERATOR: Gabe Rodrigues, Contra Costa CERA and SACRS Vice President

▶ Administrative Staff Breakout | Round-table discussion
▶ **LOCATION:** Platinum 10
MODERATOR: Sulema H. Peterson, SACRS Administrator

6:30PM - 10:00PM **SACRS Annual Wednesday Night Event**
▶ **LOCATION:** Anaheim House of Blues

Thursday, May 17, 2018

6:45AM - 7:45AM **SACRS 5K Fun Run**
▶ **LOCATION:** Marquis Registration Desk

7:30AM - 8:30AM **SACRS Breakfast**
▶ **LOCATION:** Marquis South

7:30AM - 5:00PM **SACRS Registration**
▶ **LOCATION:** Marquis Registration Desk

7:30AM - 8:30AM **Legislative Committee Meeting**
▶ **LOCATION:** Elite 1

SPEAKERS: Mike Robson and Trent Smith, SACRS Legislative Advocates

8:45AM - 9:00AM **General Session**
Welcome
▶ **LOCATION:** Marquis Center

SPEAKER: Dan McAllister, SACRS President

9:00AM - 10:00AM **General Session**
Don't Be A Bystander: Be the Spark That Ignites Change
▶ **LOCATION:** Marquis Center

SPEAKER: Spencer Stone, Former Air Force Staff Sgt. and recipient of the Airman's Medal and a Purple Heart

MODERATOR: Frank Mottek, Broadcast Journalist, CBS stations KNX 1070 Newsradio and KCAL-TV Channel 9

10:00AM - 10:30AM **Networking Break**
▶ **LOCATION:** Marquis Foyer

10:30AM - 11:30AM **General Session**
The Proof Is In The Results!
▶ **LOCATION:** Marquis Center

SPEAKERS: Darren Robbins and Jason Forge, Robbins Geller Rudman and Dowd, LLP

MODERATOR: Frank Mottek, Broadcast Journalist, CBS stations KNX 1070 Newsradio and KCAL-TV Channel 9

11:40AM - 12:40PM **Is Goldilocks In For Some Cold Porridge?**
▶ **LOCATION:** Marquis Center

SPEAKERS: Lisa Emsbo-Mattingly, Fidelity Institutional Investments and Gina Sanchez, Los Angeles CERA and CEO of Chantico Global, LLC

MODERATOR: Frank Mottek, Broadcast Journalist, CBS stations KNX 1070 Newsradio and KCAL-TV Channel 9

12:40PM - 1:50PM **SACRS Lunch**
▶ **LOCATION:** Marquis South

2:00PM - 3:00PM **CONCURRENT SESSIONS**

▶ **Concurrent Session A**
Managing Investment Consultant Conflicts of Interest
▶ **LOCATION:** Marquis Center
SPEAKER: Mark Higgins, RVK, Inc.
MODERATOR: Greg Levin, Santa Barbara CERA

▶ **Concurrent Session B**
Disruptive Innovation: The Greatest Opportunity & Risk in Our Lifetime
▶ **LOCATION:** Marquis Northeast
SPEAKER: Catherine Wood, ARK Invest
MODERATOR: Bill Coaker, San Francisco City and County ERS

Thursday, May 17, 2018
CONTINUED

▶ **Concurrent Session C**
Regulation to Operation
▶ **LOCATION:** Orange County Ballroom 3 & 4
SPEAKERS: JJ Popowich and Karen Freire, Los Angeles CERA
MODERATOR: Christie Porter, San Bernardino CERA

3:00PM - 3:30PM **Networking Break**
▶ **LOCATION:** Marquis Foyer

3:30PM - 4:30PM **CONCURRENT SESSIONS**

▶ **Concurrent Session A**
Truth Tellers
▶ **LOCATION:** Marquis Center
SPEAKERS: Paul Yett,Hamilton Lane; Valerie A. Ruddick, Pathway Capital Mgmt. and Don Pierce, San Bernardino CERA
MODERATOR: Steven K. Hartt, Meketa Group

▶ **Concurrent Session B**
Legislative Update 2018
▶ **LOCATION:** Marquis Northeast
SPEAKERS: Mike Robson and Trent Smith, SACRS Legislative Advocates

4:00PM - 5:00PM **SACRS Education Committee Meeting**
▶ **LOCATION:** Elite 1

SPEAKER: Christie Porter, Education Committee Chair

4:00PM - 5:00PM **SACRS Nominating Committee Meeting**
▶ **LOCATION:** Elite 2

SPEAKER: Ray McCray, Nominating Committee Chair

5:00PM - 6:00PM **SACRS Reception**
▶ **LOCATION:** Marquis Northwest

Friday, May 18, 2018

7:00AM - 8:00AM **SACRS Breakfast**
▶ **LOCATION:** Marquis South

8:30AM - 8:45AM **General Session Welcome**
▶ **LOCATION:** Marquis Center

SPEAKER: Dan McAllister, SACRS President

8:45AM - 9:45AM **General Session**
Can You Risk Ignoring the Biggest Risk
▶ **LOCATION:** Marquis Center

PANEL: Kevin Parker, SICM; Laura Nishikawa, MSCI, and Jason Barrett, GAF

MODERATOR: Steven Schueth, Responsible Investing Expert

9:45AM - 10:00AM **Networking Break**
▶ **LOCATION:** Marquis Foyer

10:00AM- Adj **SACRS Business Meeting**
▶ **LOCATION:** Marquis Center

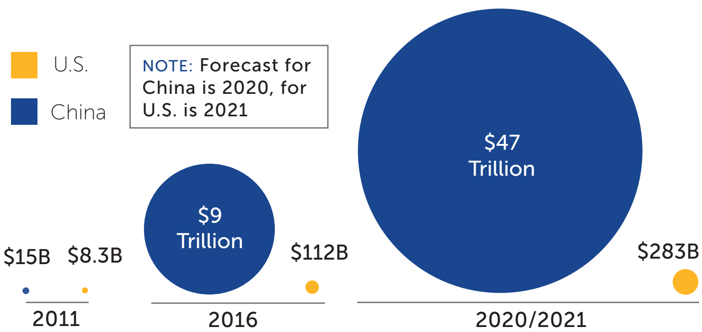
“What’s noteworthy for investors is the powerful secular trend in mobile payments that’s still arguably in its infancy—and appears to have the makings of a potential global megatrend.”

A MEGATREND IS UNDERWAY

Lately, investors have been focused on headlines about China’s twice-a-decade congress reshuffling, looking for signs of leadership changes to come in the world’s second-largest economy. But a different kind of leadership change in China is well underway—and investors should take note.

Four-hundred million Chinese millennials will soon account for more than half of China’s domestic consumption. As a group, they are larger than the working populations of the U.S. and Western Europe *combined*. Some believe they will become the main engine for global growth. This generation leapfrogged personal computers and tablets and went straight to smartphones. In 2016, the percentage of 18- to 34-year-old Chinese who owned a smartphone was at a decisive 94 percent.[1] What’s noteworthy for investors is the powerful secular trend in mobile payments that’s still arguably in its infancy—and appears to have the makings of a potential global megatrend.

CHART 1: NOT EVEN CLOSE
CHINA IS CRUSHING THE U.S. IN MOBILE PAYMENTS



Source: iResearch (China); Forrester (U.S.); The Wall Street Journal

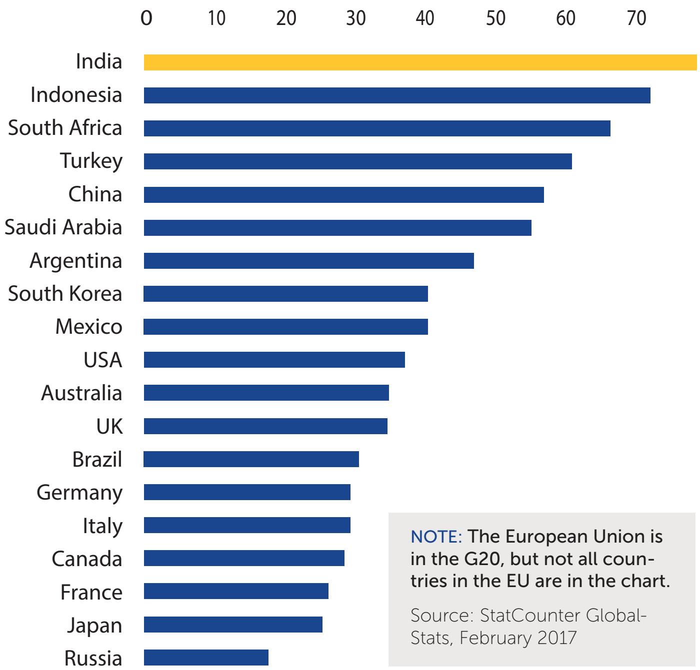
Unlike the U.S., China does not have an entrenched credit card culture. As such, China jumped right from cash to mobile payments. The leap to mobile payments appears to be happening in many frontier and emerging markets as well. The World Bank famously stated that the world’s poorest people are more likely to have access to a mobile phone than a toilet. Moreover, it was estimated in 2015 that the number of mobile phone users in the world may have eclipsed the number of people who had bank accounts.[2] All the while, an ever-growing number of people in less developed countries have been transitioning from basic mobile phones to smartphones. And many are being used as e-wallets to pay for goods, services, utilities and more. You can exchange money for almost anything, anywhere—just by using a payment app on a smartphone.

Upside potential is significant

In China, 68 percent of the total adult population, from all generations, reported having a smartphone in 2016, up from 58 percent in 2015.[3] As more and more people transition from basic mobile phones to smartphones, mobile payments should continue to climb accordingly.

There are two main players dominating the mobile payments landscape in China: Alibaba and Tencent. Both of them started expanding overseas about two years ago, by following approximately 120 million Chinese who travel abroad each year. They are starting to sign partnerships with foreign merchants and investing in payment systems in other countries—India being one of them. India has the highest percent of mobile internet usage among G20 nations. And the Indian government recently banned the use of old high-value notes, effectively eliminating 86 percent of the country’s currency in circulation.[4] Mobile payments are exploding in popularity as a result, particularly since most Indian merchants do not have credit-card swiping machines.

CHART 2: INDIA LEADS MOBILE INTERNET USAGE AMONG G20 NATIONS % OF INTERNET USERS ACCESSING THE INTERNET WITH SMARTPHONES

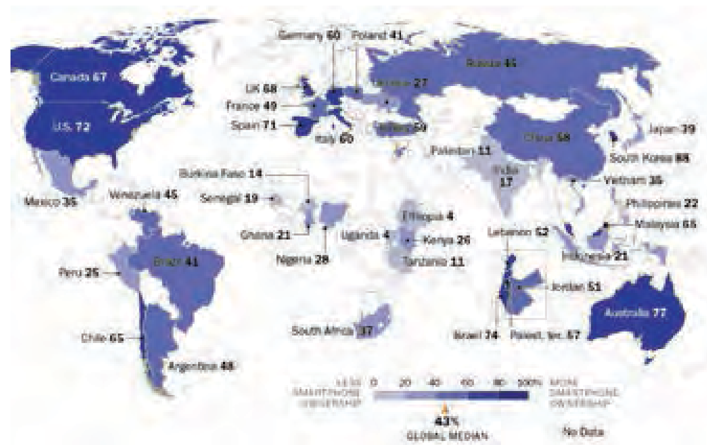


NOTE: The European Union is in the G20, but not all countries in the EU are in the chart.

Source: StatCounter Global-Stats, February 2017

CHART 3: SMARTPHONES ARE MORE COMMON IN EUROPE, U.S., LESS SO IN DEVELOPING COUNTRIES

PERCENT OF ADULTS WHO REPORT OWNING A SMARTPHONE



NOTE: Percent based on total sample.

Source: Spring 2015 Global Attitudes survey, Q71 & Q72. Pew Research Center

The key for mobile payment companies is global smartphone penetration, which still has a long way to go in emerging and frontier markets. For example, despite the fact that 79 percent of internet users in India are accessing the internet with a smartphone, only 17 percent of the adult Indian population had a smartphone to begin with in 2015, and only 18 percent in 2016. However, the banning of large notes may accelerate smartphone usage.

The Pew Research Center graphic below illustrates that global median smartphone penetration was at 43 percent in 2015 (2016 estimates are above 45 percent). Since 85 percent of the world's population is in frontier and emerging markets (representing 60 percent of global GDP), and most developed markets already have high smartphone penetration and traditional bank accounts—the majority of growth for mobile payments will likely continue to come from less developed nations.[5] Growth may be significant in these markets if smartphone prices come down and wages go up. The International Monetary Fund is currently estimating that economic output in emerging markets and developing economies will accelerate from a 4.6 percent growth rate this year to 4.9 pecent in 2018. That's a positive backdrop.

> *“The key for mobile payment companies is global smartphone penetration, which still has a long way to go in emerging and frontier markets.”*

China's millennials have the potential to become the main driving force for global growth for decades to come. Their ability to skip steps that developed economies have taken, combined with their population size, is nothing short of powerful. When you consider China's ambitious, multi-decade Belt and Road Initiative—to reopen and extend the ancient Silk Road and establish new maritime shipping lanes—you have to take note of the opportunities in mobile payment companies that will continue to increase financial inclusion in less developed economies in Asia, Africa, Europe, and beyond. Mobile payment technologies could become a disruptive global megatrend as a result. As usual, there will be risks along the way, such as the formidable debt challenges in China.

ENDNOTES

1 Pew Research Center, Spring 2016 Global Attitudes Survey. Q79, Q80 & Q81

2 World Bank Inclusion Database 2015 estimated that 61% of world population had a bank account. In 2015, 4.43 billion people (61.5%) had a mobile phone, according to Statista. World population was 7.2 billion in 2015.

3 Pew Research Center, Spring 2016 Global Attitudes Survey. Q79, Q80 & Q81

4 On November 8, 2016, Indian Prime Minister Narendra Modi demonetized 500 and 1,000 rupee notes. The equivalent of US$7.34 and US$14.68, respectively, as of November 2016.

5 International Monetary Fund (IMF), October 2016. GDP measured at purchasing power parity.

Founded in 1982 by Garrett Thornburg, ***Thornburg Investment Management*** *(Thornburg) is an independent global investment management firm that provides a range of active investment strategies to serve a broad spectrum of client needs. Information in this article should not be relied upon as a recommendation or investment advice and is not intended to predict the performance of any investment or market. Any securities, sectors, or countries mentioned are for illustration purposes only. Holdings are subject to change. Under no circumstances does the information contained within represent a recommendation to buy or sell any security.*

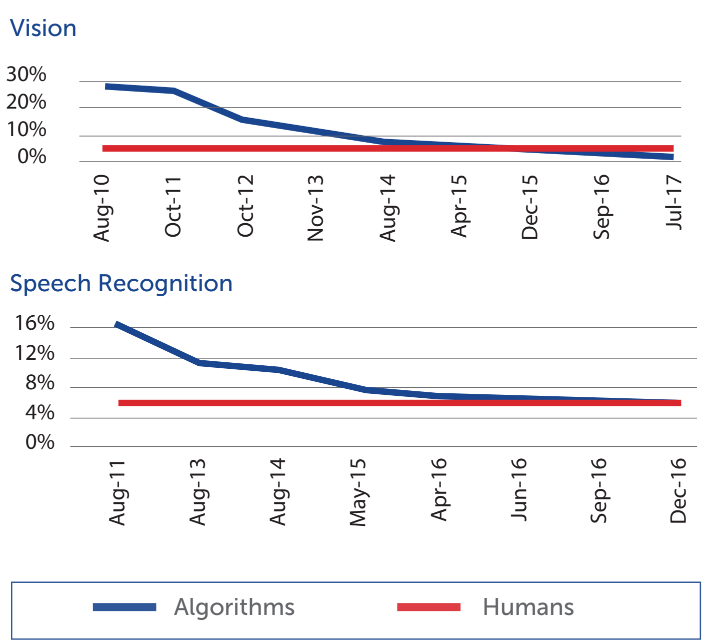
"Still, most of the potential from artificial intelligence remains largely untapped."

ARTIFICIAL INTELLIGENCE'S Coming of Age

Any discussion of innovation would be incomplete without touching on artificial intelligence. Perception, cognition, visualization, and language processing are all becoming central to corporate innovation. That is disrupting existing business models, placing new demands on infrastructure, and even breaking down societal institutions. Not all of these changes are positive, but understanding artificial intelligence is important for us as investors.

We see artificial intelligence everywhere. In energy, it is helping us understand how we can use the grid more efficiently. In manufacturing, it is increasing use of 3-D printing. And consider that machines can already detect errors in vision and speech faster than humans can, as Figure 1, "Error Rates," illustrates. This has vast implications in areas such as medicine, where the visual element of cancer diagnosis could no longer be conducted by humans. Even at William Blair, we look to machine learning to try to help us understand moves in markets and to make us better investors.

FIGURE 1 | ERROR RATES



Source: Electronic Frontier Foundation, as of November 30, 2017.

Artificial intelligence requires exponentially more processing power, and that is one reason we have seen semiconductors and equipment rewarded by the market. But valuation is important. The pixie dust from Silicon Valley is very influential, and we do not want to get carried away in pursuing investment opportunities.

Still, most of the potential from artificial intelligence remains largely untapped. What we are living through today is not unlike the machinery revolutions we have experienced in the past. Consider electricity, the steam engine, and more recently the proliferation of desktop computing in the 1980s. With artificial intelligence, the level and breadth of change across global industries are likely to be similar. Competitive sets will change drastically.

But there is no accepted blueprint. Every industry, every company, every manager must find a way to adopt and adapt to artificial intelligence. As a result, the process will be slow. This is one reason, from an economic perspective, we are seeing low productivity and low wage growth even though economic growth is strong.

Again, this is not an accident. We have seen it before, during the industrial revolution. Once the proliferation of a technology is substantial enough—when more than 50 percent of companies have adopted it—productivity growth emerges in spades, and with that, wage growth appears.

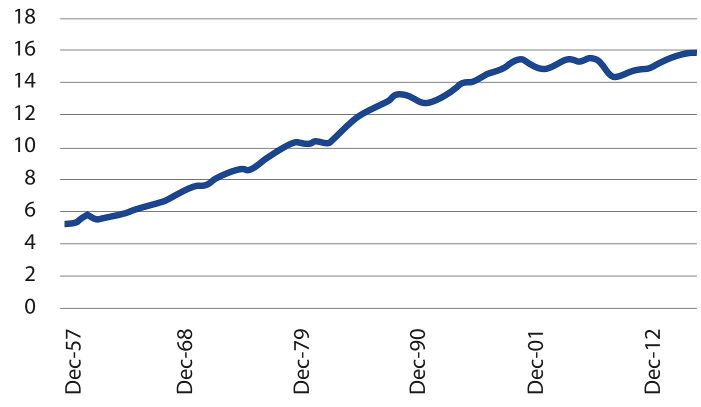
But we are not there yet. The share of artificial intelligence's potential value captured is just 5 percent in manufacturing, 10 percent in U.S. healthcare, 15 percent in the European Union public sector, 25 percent in location-targeted mobile advertising services, and 30 percent in U.S. retail.

As excited as we are about artificial intelligence, we do not want to overhype it. There are definitive and lasting limitations. For example, machines trained to perform detail-specific tasks already perform better than humans. But their knowledge does not generalize. A machine may perform one task well, but that does not mean it will perform 10 other tasks well. There is something in the human brain that will not go away anytime soon.

Pablo Picasso expressed it as, "[Computers] are useless. They only give you answers." We do not believe that computers are useless, but agree that they cannot pose questions. And progress, throughout history, has been driven by questions—by people probing for the next exciting topic to explore. So entrepreneurs, innovators, scientists, and creators will continue to prosper. Technology will simply help answer their questions and free them to begin asking new ones.

Robots also cannot replace human connection. You may have seen Sophia, the latest empathetic robot, in YouTube videos. Clearly, robots today can recognize the human state—whether we are happy or sad—increasingly well. But they can do little to change that state. We are a social species: we rely on others to motivate us, shame us, propel us forward. That, certainly, will remain in the purview of human endeavors.

FIGURE 2 | TOTAL EMPLOYMENT (IN MILLIONS)



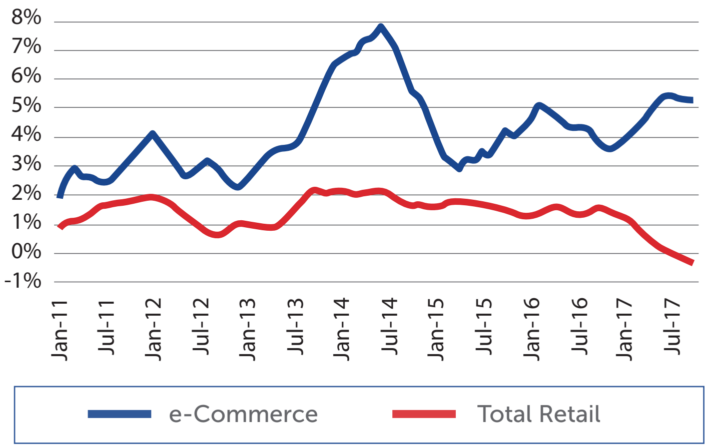
Source: Bloomberg, as of October 30, 2017.

> *"A machine may perform one task well, but that does not mean it will perform 10 other tasks well.* ***There is something in the human brain that will not go away anytime soon."***

U.S. retail, one of the first industries to be disrupted by artificial intelligence, provides a good example of how unlikely humans are to be replaced by machines is. Employment in U.S. retail is at a seven-decade high, as Figure 2, "Total Retail Employment," illustrates. Employment in e-commerce sectors—those supposedly dominated by artificial intelligence—is growing much faster than general retail, as Figure 3, "Employment Growth," illustrates. However mechanized a retail company is, it still relies on people, and these people are much more productive than they would be in the absence of the machines. That is why, despite rapid employment growth in e-commerce, we are also seeing significantly higher wage growth compared to general retail, as figure 4, "Inflation-Adjusted Wages," illustrates. This suggests that machines will not make us redundant, but will enhance our capabilities and make us more productive.

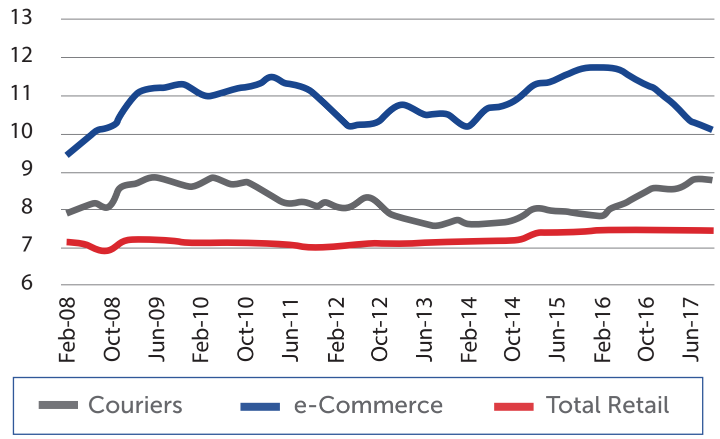
Still, there is a darker side to artificial intelligence, the ramifications of which we are just now experiencing. Earlier in the decade, there was much discussion about ground-up democracy in the form of social media galvanizing popular movements and making political change possible in Egypt and Ukraine. More recently we have experienced similar societal trends with the Trump campaign and Brexit.

FIGURE 3 | EMPLOYMENT GROWTH (YEAR-OVER-YEAR CHANGE, 3-MONTH MOVING AVERAGE)



Source: Bloomberg, as of October 30, 2017.

FIGURE 4 | INFLATION-ADJUSTED WAGES



Source: Bloomberg, as of October 30, 2017.

Social media companies gather and generate a tremendous amount of data, and they use that data to tweak and promote content so it goes viral. They are happy to monetize that knowledge by selling it to advertisers and political campaigns. It is not an accident that during the Brexit referendum this methodology was used extensively by the "Leave" campaign, which generated more than 1 billion Facebook messages designed to drive its desired outcome. The Trump campaign took this strategy to another level, averaging between 50,000 and 60,000 messages per day. Targeting is so specific, it can pinpoint a dozen people in a particular jurisdiction who are likely to respond to a message. This is affecting the information we consume, and ultimately, the decisions we make.

Not surprisingly, we are beginning to see a backlash against the way social media companies use data. A bill currently in Congress, the Honest Ads Act, would require internet companies to disclose more about their advertisers and store copies of all political ads for the public to view. Essentially, it wants social media to be held to the same standards as other forms of media, be it print, television, or radio. But many people believe that does not go far enough. In Germany, for example, social media sites must either take down fake news and hateful content within 24 hours of its appearance or pay a €50 million fine.

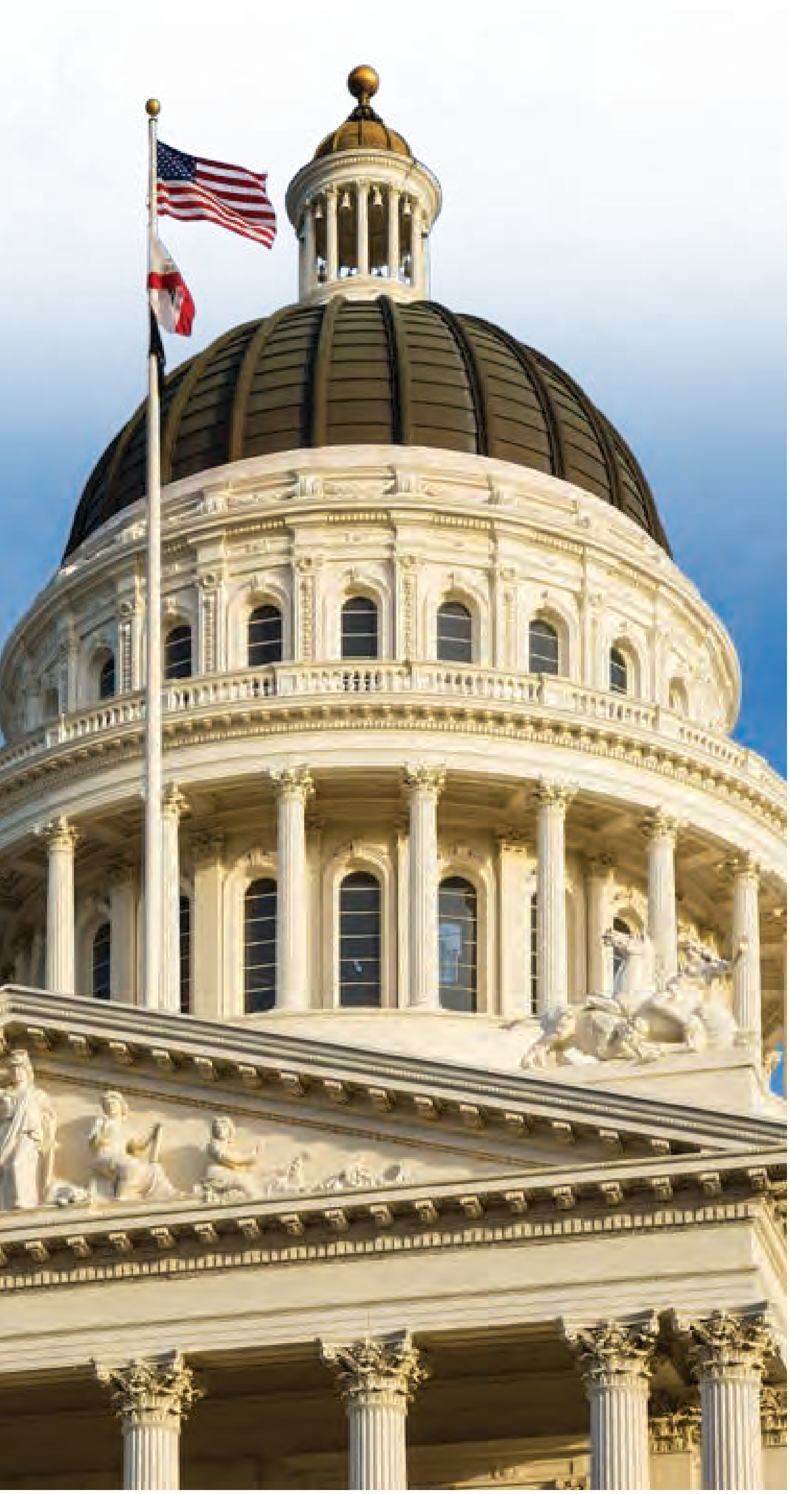
There are even more radical proposals on the table, such as social media companies changing their business models so they receive revenue not from advertisers and purchasers of proprietary information but subscriptions. Some even want social media companies to be regulated like public utilities. We are likely to hear more about this in the years to come.

***Simon Fennell** is a portfolio manager for the International Growth, International Small Cap Growth, and International Leaders strategies at William Blair. He joined William Blair in 2011 as a TMT research analyst focusing on idea generation and strategy more broadly. Before joining William Blair, Fennell was a managing director in the equities division at Goldman Sachs in London and Boston, where he was responsible for institutional equity research coverage for European and international stocks. Previously, Fennell was in the corporate finance group at Lehman Brothers in London and Hong Kong, working in the M&A and debt capital markets groups. Education: M.A., University of Edinburgh; MBA, Johnson Graduate School of Management, Cornell University.*

***Olga Bitel** joined William Blair in 2009. As Investment Management's global strategist, she is responsible for economic research and analysis across all regions and sectors. She distills macroeconomic and geopolitical developments into actionable insights for global, international, and emerging market equity portfolios within a multifaceted strategic framework. Additionally, she provides insight on cyclical turning points and structural trends as inputs into portfolio construction in predominantly bottom-up investment approaches. Bitel represents the firm with current and prospective clients in one-on-one settings, conference calls, and written communications. With her contributions to the William Blair "Investing Insights" blog, she is regularly quoted in the media. She is also a frequent speaker at major global investment conferences along with influential colleagues in the industry, heads of state, and global political figures.*

This article is adapted from the William Blair white paper, "Global Market Outlook for 2018: An End or a Beginning?" and is for informational and educational purposes only and not intended as investment advice or a recommendation to buy or sell any security.

STATE ASSOCIATION OF COUNTY RETIREMENT SYSTEMS LEGISLATIVE UPDATE



OVERVIEW

The Legislature returned in January to commence business in the 2018 Legislative Session. Most legislative activity is driven by constitutional and self-imposed deadlines and the first significant deadline occurred on February 16, which was the bill introduction deadline. That deadline drove the introduction of over 700 bills on that Friday alone. Overall, the Legislature has submitted approximately 2200 new bills for consideration in the 2018 Legislative Session.

With such a large number of bills submitted, many of which only currently state legislative intent, the SACRS Legislative Committee is still reviewing those bills which may be of importance to county retirement systems.

SACRS SPONSORED LEGISLATION

SACRS is the sponsor of AB 2085 by Assemblyman Cooley of Sacramento. AB 2085 is legislation to clarify the definition of a "surviving spouse" in the County Employee Retirement Law (CERL). This bill was put forward to SACRS by the Ventura County Retirement System for the purpose of reconciling published appellate case law which concluded that a legally separated spouse qualifies for a survivor continuance as the member's "surviving spouse". This opinion was contrary to the practices of at least eight CERL systems and three prior decisions issued by the superior courts in Santa Barbara, Contra Costa and Ventura counties. Prior to the Opinion, none of those systems treated a legally separated spouse as the member's surviving spouse, primarily because a survivor continuance is not among the benefits payable to the nonmember and any benefits not awarded to the spouse are the sole and separate property of the member's. AB 2085 would clarify that a "surviving spouse" means a person who has legally married the member, is neither divorced

“Overall, the Legislature has submitted approximately 2200 new bills for consideration in the 2018 Legislative Session.”

nor legally separated from the member and is the spouse of the member at the time of the member’s death.

AB 2085 will most likely be heard in the Assembly Public Employee, Retirement and Social Security Committee in April.

TULARE COUNTY RETIREMENT SPONSORED LEGISLATION

The Tulare County Retirement System has sponsored SB 1270 by Senator Andy Vidak who represents Tulare County in the State Senate. This bill would allow any CERL Board to hire, dismiss, and set compensation for assistant administrators and chief investment officers upon agreement with Board of Supervisors in that county. This authority already exists for a number of systems, which have been given this statutory authority on a case-by-case basis. This bill would eliminate the need to go back to the Legislature every time a county and a retirement system agree to this practice.

This bill is consistent with previous SACRS supported and sponsored legislation. SB 1270 will be considered for co-sponsorship at the SACRS Spring Meeting.

OTHER COUNTY RETIREMENT LEGISLATION

AB 2076 (Rodriguez) – This bill would authorize the Los Angeles County Employee Retirement Association to correct a prior board decision determining the date of retirement for a member permanently incapacitated for disability that was made between January 1, 2013, and December 31, 2015, and was based upon an error of law existing at the time of the decision. The bill would further authorize a member seeking correction under these provisions to file an application with the board no later than one year from the date these provisions become operative.

SB 1031 (Moorlach) – This bill would prohibit a cost of living adjustment to beneficiaries or survivors if the unfunded liability for that retirement system is greater than 20 percent. This is one of a handful of new bills authored by Senator Moorlach for the purpose of reducing the unfunded liabilities of retirement systems.

PENSION REFORM

Senator Moorlach’s above mentioned bill is one aspect of a much larger story that is being reported on weekly in the media. In recent weeks, there have been a number of press reports on the overall unfunded liability of the California Public Employees Retirement System (CalPERS) and the impact that increased contributions from cities, counties, and special districts are having on the delivery of services at the local level. The League of California Cities continues to highlight pension costs as a major factor in the reduction of services and as a driver for the need to increase revenues at the local level. It remains to be seen whether the general public is reacting negatively to reduced services or increased taxes.

We will continue to monitor these developments and keep the SACRS membership apprised of any legislative or ballot measures in response.

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.*

When One Share Does Not Mean One Vote: The Fight Against Dual-Class Capital Structures

Over the past decade, companies have increasingly adopted “dual-class” capital structures, which concentrate control in a small group of company insiders by providing them with stock that has super-sized voting rights. Dual-class structures inherently create a divergence between the insiders’ relative economic ownership of a company and their voting power, which results in a heightened risk of self-dealing, while limiting public shareholders’ ability to influence the direction of those companies. Regulators, institutional investor groups, and equity index providers have voiced serious concerns with these dual-class capital structures, yet they remain popular today among many company founders and insiders, with numerous high-profile companies announcing their intention to adopt them when they go public in the near future. Institutional investors should be well-informed about the risks associated with dual-class capital structures and consider their options for current or future investments in those companies.

> *“Institutional investors should be well-informed about the risks associated with dual-class capital structures and consider their options for current or future investments in those companies.”*

THE TROUBLING INCREASE IN PUBLIC COMPANY DUAL-CLASS STRUCTURES

Dual-class capital structures contradict the traditional “one share, one vote” principle of corporate governance, which is the simple premise that a shareholder’s voting power should reflect its economic ownership of the company. Under the typical one-class capital structure, if a majority of a company’s equity shares are owned by outside investors, then the company’s management is accountable to its board of directors, which, in turn, must answer for poor performance to a majority of voting shareholders. This traditional structure lies at the heart of trillions of dollars of value creation through the corporate form.

A core economic conflict emerges when companies adopt dual-class structures. Under such arrangements, company insiders holding a relatively small minority of the economic interests in the company (and therefore who enjoy only a small percentage of gains from its business successes and suffer only a small percentage of losses from its failures) end up wielding a majority of the voting power. This presents an opportunity for abusive conduct and self-dealing, as company insiders holding super-sized voting power are personally incentivized to use their votes to expropriate personal gains, even if at the expense of the company and other shareholders. When the corporate insiders holding super-voting shares are also senior executives of their companies – which is often the case – they effectively get to select their own bosses (i.e., the company’s directors) and thereby determine their own pay (i.e., executive compensation). Through their high-voting shares, these insiders also may effectively drive innumerable other mundane or significant decisions in directions that may not maximize shareholder welfare generally.

Between 2005 and 2017, the number of newly-public companies adopting dual-class share structures increased dramatically. In 2005, just 1 percent of U.S. companies went public with dual-class shares, yet in 2017, nearly 20 percent of U.S. companies going public employed a dual-class share structure.

Insiders at start-up technology companies appear particularly attracted to the personal benefits of dual-class capital structures. When taking their company public in March 2017, the founders of the popular social media company, Snap, Inc., issued over $3.5 billion in stock – none of which had any voting rights. Instead of granting shares with voting power, Snap’s 27-year old CEO Evan Spiegel and his co-founder kept nearly 90 percent of the company’s voting power to themselves, with the other 10 percent going to additional company insiders. Dual-class share critics have pointed out that since taking the company public, Snap’s founders holding voting control completely out of proportion with their economic interests have personally benefited while the economic owners of the company have suffered. Indeed, while Snap lost over $700 million in its first year as a public company, Snap’s CEO Spiegel received a $638 million annual bonus – the largest of any technology chief executive officer.

The uptick in companies’ use of dual-class shares is not limited to the technology sector. A variety of companies have turned to dual-class structures in an effort to concentrate control in the hands of a founder or select corporate insiders. These include, among others, Maryland real estate investment trusts, which have a high frequency of dual-class capital structures and also – not coincidentally – have presented some of the more egregious governance failures and instances of corporate misconduct over the past few years.

Defenders of dual-class capital structures contend that corporate insiders are supposedly more focused than other shareholders on the company’s long-term health, so giving them outsized voting rights makes long-term sense. We believe this contention is unfounded. Investors, including public pension funds and other institutional investors, are keenly focused on long-term returns. Indeed, company insiders too often are not focused on long-term results, but rather are concerned with short-term performance that directly impacts their annual bonuses.

MOUNTING CRITICISMS OF DUAL-CLASS STRUCTURES

Over the past few months, government regulators, investor advocacy groups, and major institutional investors have increasingly questioned the utility of dual-class share structures. During a February 13, 2018 presentation, SEC Commissioner Kara Stein criticized dual-class companies as “inherently undemocratic, disconnecting the interests of a company’s controlling shareholders from its other shareholders." Commissioner Stein further warned that dual-class shares "provide a means to evade management and board accountability" and are "harmful not just for those companies, their shareholders, and their employees, but for the economy as a whole." She concluded that dual-class capital structures, in effect, "turn the mutualism underlying the corporation-shareholder relationship on its head."

Just a few days later, in his first speech as an SEC commissioner, Robert Jackson Jr. echoed these observations. He explained that "more and more companies choose today to go public with dual-class," which now account for over $5 trillion of investor capital. Commissioner Jackson warned that these dual-class share structures "undermine accountability" and highlighted "the costs for investors – who are left with no way to hold management's feet to the fire while dual-class is in place." He noted that many of these dual-class structures provide insiders and their heirs with a right to dictate the company's voting outcomes in perpetuity. As he explained, these "companies are asking shareholders to trust management's business judgment – not just for five years, or 10 years, or even 50 years. *Forever.*"

Institutional investor groups have also increasingly advocated against dual-class structures. Investor Stewardship Group, a coalition of 16 major institutional investors – including BlackRock, Vanguard Group, State Street, and certain public pension funds – has publicly denounced dual-class governance structures. The group proposed a comprehensive "stewardship code" that memorializes the "one share, one vote" principle and prohibits dual-class shares. The Council of Institutional Investors ("CII") has also voiced strong opposition to dual-class capital structures, explaining that they reflect "bad governance" and lamenting that their continued use is "disappointing."

Prominent institutional investors have also sought relief from the courts in opposing dual-class capital structures used by heavy-handed corporate executives for personal gain. For example, CalPERS succeeded last year in blocking InterActiveCorp ("IAC") from granting its founder, Barry Diller, and his family perpetual control of IAC through the issuance of a class of nonvoting shares. In response to Diller's effort to entrench himself and his family atop IAC's corporate hierarchy, CalPERS filed a class action in the Delaware Chancery Court alleging breaches of fiduciary duty and seeking an order to prevent IAC from diluting voting rights through the issuance of an additional nonvoting class of stock. After contentious litigation, IAC abandoned its plan to issue nonvoting stock.

The major equity index providers also have recently taken a stance against dual-class shares. On July 26, 2017, FTSE Russell, a unit of London Stock Exchange Group PLC, announced that it would begin excluding from its indexes companies that issue shares without voting rights. Under FTSE Russell's new policy, companies that do not issue voting shares, like Snap Inc., are no longer eligible to participate on its indexes. The S&P Dow Jones followed course five days later when it announced that, going forward, companies that adopt dual-class structures in the future were no longer eligible to participate on the S&P 500, as well as its medium and small-stock counterparts.

ADDITIONAL INVESTOR ACTION IS REQUIRED TO CHALLENGE DUAL-CLASS STRUCTURES

Corporate insiders are continuing to adopt dual-class capital structures, notwithstanding opposition from regulators, investors, and other market participants. Just last month, Dropbox Inc., the cloud storage company, unveiled its plan to issue dual-class shares when it goes public later this year. According to its plan, Dropbox's CEO, Drew Houston, and his fellow insiders will receive "high vote" shares that provide 10-times the voting power of a single common share. Through these shares, CEO Houston and a handful of other insiders will effectively retain complete control over the company's affairs despite funding it with public investor capital. Similarly, Spotify Inc., the digital music service provider expected to go public later this year, has announced its intention to adopt a dual-class capital structure that grants super-voting shares to its co-founders and other insiders.

In light of opposition in the U.S., companies and their insiders seeking to implement dual-class capital structures are also now turning their attention abroad. Foreign exchanges have recently begun embracing companies with dual-class capital structures. Most notably, the Hong Kong Stock Exchange late last year announced that it was reversing its longstanding ban on dual-class shares to, among other things, attract Alibaba Group Holding Limited to conduct a secondary offering on its exchange. And in mid-January 2018, the Singapore Stock Exchange followed course and announced that it too will now allow dual-class companies to list on its exchange. Other exchanges, including those in the United Kingdom, are also currently contemplating reforms that will ease or eliminate restrictions on dual-class firms, which (if adopted) may spark a "race-to-the-bottom" among market regulators across the globe.

Signs indicate that company founders and insiders will continue to attempt to adopt dual-share capital structures that threaten institutional investors' right to vote.

Institutional investors wishing to protect their voting rights may want to take action, including by:

- Identifying and refusing to invest in companies that adopt dual-class share structures;
- Encouraging the SEC and other regulators to prohibit or restrict dual-class share structures;
- Petitioning U.S. and foreign stock exchanges and indexes to exclude or limit companies with dual-class share structures; and
- Taking legal action, when necessary, against executives and boards that attempt to dilute shareholder rights by creating non-voting share classes.

***Mark Lebovitch** is a partner at Bernstein Litowitz Berger & Grossmann LLP (BLB&G) and the head of the firm's corporate governance litigation practice.*

***Jonathan Uslaner** is also a partner of BLB&G and prosecutes securities class actions, individual investor actions, and shareholder derivative litigation on behalf of the firm's clients.*

***Julia Johnson** is an associate at BLB&G and focuses her practice on securities fraud, corporate governance and shareholder rights litigation.*

BLB&G represented California Public Employees' Retirement System ("CalPERS") in litigation against InterActiveCorp blocking a proposed dual-class capital structure.

STATE ASSOCIATION *of*
COUNTY RETIREMENT SYSTEMS

1415 L Street, Suite 1000
Sacramento, CA 95814
(916) 441–1850

SACRS™

UPCOMING CONFERENCE SCHEDULE

FALL 2018

November 13-16, 2018
Renaissance Indian Wells
Resort & Spa
Indian Wells, CA

SPRING 2019

May 7-10, 2019
Resort at Squaw Creek
Lake Tahoe, CA

FALL 2019

November 12-15, 2019
Hyatt Regency Monterey
Hotel & Spa
Monterey, CA

SPRING 2020

May 12-15, 2020
Paradise Point Resort & Spa
San Diego, Ca

FALL 2020

November 10-13, 2020
Renaissance Indian Wells
Resort & Spa
Indian Wells, CA