WINTER 2020

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CORPORATE GOVERNANCE ROUNDTABLE EVENT

WITH SPECIAL GUEST SPEAKER

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JUNE 16, 2020

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Legal counsel, trustees and pension plan fiduciaries are invited to join institutional investors and corporate governance professionals for a one-day educational event to discuss the evolving role of institutional investors, ESG risk and governance challenges, featuring remarks by President Bill Clinton.

As seating is limited, please reserve your place by emailing:
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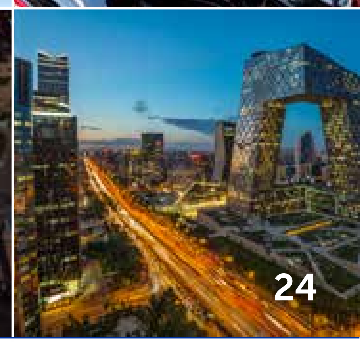
CONTENT

WINTER 2020



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SACRS

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PLEASE RECYCLE
THIS MAGAZINE

OUR PRINTER IS A CERTIFIED MEMBER
OF THE FOREST STEWARDSHIP COUNCIL

FROM THE EDITOR

COMMUNITY ENGAGEMENT: MAKING AN IMPACT TOGETHER

"Over the course of four days in Monterey for the 2019 SACRS Fall Conference, we collectively donated more than 217 pounds of food!"

Those of you that know me well know that one of the aspects of the conference that we work hard to make memorable is the food! Our meal breaks offer an opportunity to mingle together, get caught up with colleagues near and far, and make new connections. This networking time is invaluable, and we want to offer menus that are healthy, accommodate a wide range of diets, yet still be interesting and delish too. Did you ever happen to think about the food that remains in the buffet line, as we go hustling back to catch the next session?

During the Fall Conference in Monterey last November we enjoyed many beautiful meals together and while we did order just the right amount, we had leftovers. SACRS partnered with Genesis House/Community Human Services of Monterey to help feed the local hungry through its Food Recovery program. The Food Recovery program is an effort to rescue safe, edible surplus food that would otherwise go to waste by donating it to the hunger-fighting 501(c)(3) nonprofit organization that provides substance abuse and mental health counseling and recovery services to middle and low income individuals and families in Monterey County, California. Not only does the food benefit others in the local community where our conference took place, but it also reduces our carbon footprint, by diverted the surplus food from landfills where food waste produces methane, a potent greenhouse gas that contributes to global warming.

Genesis House/Community Human Services of Monterey helps their clients develop new skills and support networks, learn new behaviors, and learn how to utilize community resources. Ultimately, their services affect change in the community by reducing the need for social services, law enforcement, hospitals, jails and prisons, and by improving school attendance, performance and social outcomes for children.

Over the course of four days in Monterey for the 2019 SACRS Fall Conference, we collectively donated more than 217 pounds of food! That equals 177 meals! How gratifying to know we helped the community of Monterey, all while we learned, networked, and enjoyed the beautiful locale.

I hope you plan to join us for the upcoming 2020 Spring Conference in San Diego May 12 to 15 at Paradise Point Resort and Spa. If you go and you notice those buffet tables still have food left, know that once again SACRS will be ready to not let it go to waste. Locals will once again benefit from our presence, as we will be partnering with a San Diego Food Bank.

So come to San Diego, not only will you be helping yourself, but you will also be helping a local receive life-sustaining food!

Sulema H. Peterson

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

*P.S. This edition of SACRS magazine continues the tradition of articles shared by members. If you have ideas for a story, consider submitting an article! You can do that by contacting me at **sulema@sacrs.org**.*

A Bright Year Ahead for SACRS

Your SACRS program committee knows how to put on a great conference, but this time, they really hit it out of the park. This past November, we had one of the best-attended events with the most amazing lineup of speakers that we've ever had during a SACRS Fall Conference.

"We hope everyone will take advantage of the chance to visit San Diego during the SACRS 2020 Spring Conference."

From the very get-go, our keynote speaker Danny Glover did a remarkable job providing a unique lens and framework for the week's discussions. He gave historical insight about the diversity and economics in the San Francisco region from his own personal experience over the last 60 years. Known for his movies like "Lethal Weapon" and "The Color Purple," the actor remained steadfast in his public service values and has been a strong activist for housing, economic opportunities, justice and citizenship – all very applicable topics for public servants.

Mr. Glover was followed by an insightful look at disruptive technologies and their impact on pension plans from John D'Agostino, global head of investor engagement from DMC Governance; Tim McCusker, chief investment officer for NEPC; and Sam Austin, a partner with NEPC. Among their revelations: cryptocurrency is here to stay, but we won't see it take over institutional banking. AI and automation will become a bigger part of our daily lives, but humans will be critical for logical and ethical oversight. Emerging assets like ride and home sharing services are also an interesting area to consider for investment portfolios.

We had another intriguing talk called "Up in Smoke" from Robert Hunt, the founder of Linnaea. Their biggest takeaway is that moving marijuana to the legal market is going to take some time – at least five to 10 years. For money managers, it's a "not yet" investment.

The second day of the conference was equally compelling, starting with author and entrepreneur Suneel Gupta. He told the story of failure better than anyone could. He's failed a couple of times in efforts to start up companies, but he provided an inspiring talk that helped people focus on what it takes to make a startup work. He said you have to love whatever you're trying to push; have it in your heart and head. If you don't, venture capitalists won't come on board. Gupta credited some of his success to his strong parental support that he and his brother (Sanjay Gupta of CNN fame) received early in their lives.

This is just a sample of the great general sessions we had over the fall conference week, proving once again SACRS conferences are not to be missed.

Visit America's Finest City for Next SACRS Conference!

We hope everyone will take advantage of the chance to visit San Diego during the SACRS 2020 Spring Conference. We've been able to make this a value-added conference. Those who attend from all over the country say the same thing; this is one of the best pension conferences out there. We hope you'll join them and register now for the conference, taking place May 12 to 15 at Paradise Point Resort and Spa. Visit sacrs.org to sign up.

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

MANAGING EMERGING MARKET CURRENCY EXPOSURES

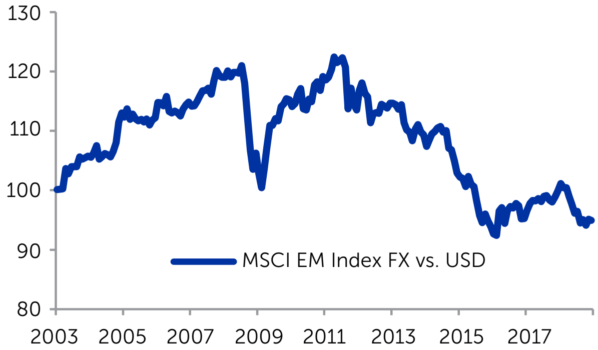
"Our analysis shows emerging market currencies have not, on average, appreciated against the U.S. dollar over the last decade."

Conventional wisdom says long-term investors in emerging market assets will benefit from the respective currencies appreciating as these economies grow. Hedging this risk makes little sense as it would wipe out a potential source of returns.

The same wisdom also argues that even if currency created a risk rather than a return for investors, it would be pointless to put hedging in place as the costs are too high and these markets are too illiquid.

Neither perception is as accurate today as it was just a few years ago. Our analysis shows emerging market currencies have not, on average, appreciated against the U.S. dollar over the last decade.

FIGURE 1: FX Contribution to EM Equity Returns



Source: Bloomberg, January 2003 to December 2018, based on the monthly returns of the currency exposure in the MSCI Emerging Market Index. This has been calculated by taking the difference between the MSCI EM Local Currency Index Returns and the MSCI EM USD Index Returns.

Instead emerging market currencies have exhibited long and large cycles, experienced extended periods of depreciation, and markets, but been negatively impacted by the financial crisis.

Hedging would have been beneficial for much of this period and it would have been relatively cost effective to have put this approach in place as the structure of developing nations' foreign exchange markets has changed over the last ten years.

Bid-offer spreads in U.S. dollar/emerging market currency pairs have compressed progressively and liquidity has increased. The Bank for International Settlement's Triennial Survey of foreign exchange turnover in April 2019 shows that daily turnover in Mexican Pesos and Korean Won is now comparable with the New Zealand Dollar and the Norwegian Krone for example. In addition, the Chinese Renminbi is now the eighth most traded currency in the world.

INCREASED RESEMBLANCE TO DEVELOPED MARKETS

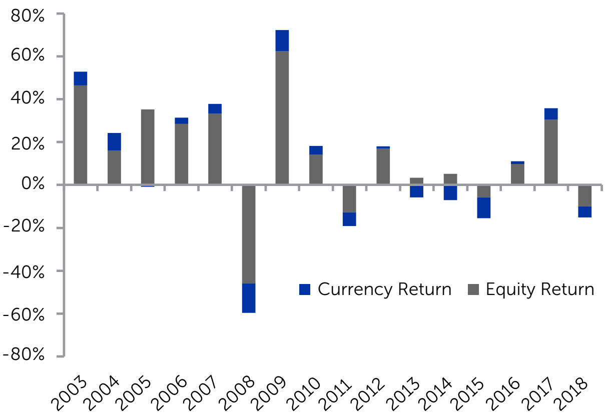
Not only has the behaviour of developing currencies started to resemble their developed counterparts but so too has the liquidity of these FX markets and the range of affordable hedging instruments.

These changes are not surprising: they reflect the success of the large emerging economies such as Korea, Taiwan, Mexico and Brazil. Fifteen years ago these nations could be accurately described as emerging markets, but that's probably no longer the correct term.

These economies used to behave as conventional wisdom predicts for emerging markets. Between 2003 and 2010 the average absolute annual return for the MSCI Emerging Market Equities Index – in US dollars – was 42 percent. In seven out of these eight years, EM currencies and EM equities moved in the same direction.

But since 2010, the relationship has changed. Annual emerging equity returns have been reduced and the impact of currency returns has frequently been negative. In other words, the asset class has started to behave more like a developed market index.

FIGURE 2: Equity and Currency Contribution to MSCI EM Index (2003 to 2018)



Source: Millennium Global and MSCI, January 2003 to December 2018. Currency Return calculated by taking the difference between the MSCI Emerging Market Local Currency Index Returns and the MSCI Emerging Market USD Index Returns.

INVESTOR DISSONANCE

Many investors now take a sophisticated approach to investing in emerging markets, for example by allocating to local-and hard-currency debt as well as using a variety of equity strategies. This attitude, however, is not reflected in their approach to foreign exchange.

Investors often still assume emerging market currency performance will be homogeneous and ignore the increasingly diversified performance over the past decade. The currencies of larger economies have started to resemble those of developed countries while smaller ones still behave like old-fashioned emerging market economies.

This divergence means a one-size-fits-all approach is no longer fit for purpose. Many investors understand currency movements in developed markets are usually a source of risk rather than return and have well-established strategies to mitigate these impacts.

ADAPTING STRATEGIES TO EMERGING MARKETS

These strategies could be applied to emerging market currencies to ensure these risks do not erode returns on these assets.

While developed currency strategies can be applied to their emerging market counterparts, they need to be adapted. When establishing a hedging policy for developed markets, institutional investors assess whether a passive or a dynamic hedging strategy is preferable.

Both approaches have their merits, and different investors will reach different conclusions depending on the specific characteristics of each organisation and their portfolios.

Considerations may include a pension scheme's risk capacity and return objectives, the contribution of currencies to the overall risk budget and the ability to manage cash flows resulting from the hedging process.

> *"While developed currency strategies can be applied to their emerging market counterparts, they need to be adapted."*

Although volatility has abated over time, emerging market currencies do still experience significant swings in value. As a result, there will be periods when a static hedging strategy could be so costly it would more than wipe out any underlying asset returns.

DYNAMIC APPROACH

As a result there is an even stronger rationale for using an opportunistic and dynamic strategy in emerging market currencies. Ideally, this solution could be triggered when the value of a particular currency depreciates and then switched off when it appreciates or moves sideways.

For the best results, such an approach should do more than simply analysing momentum as is the case for many standard dynamic hedging strategies. Instead it should take into account forward-looking inputs such as option-market volatility and skew as well as past FX-price movements.

Recent academic studies have shown that option volatility surfaces can provide useful information about currency behaviour. In particular, there is evidence that changes in option volatility skews are good advance indicators of potential reversals and market gaps.

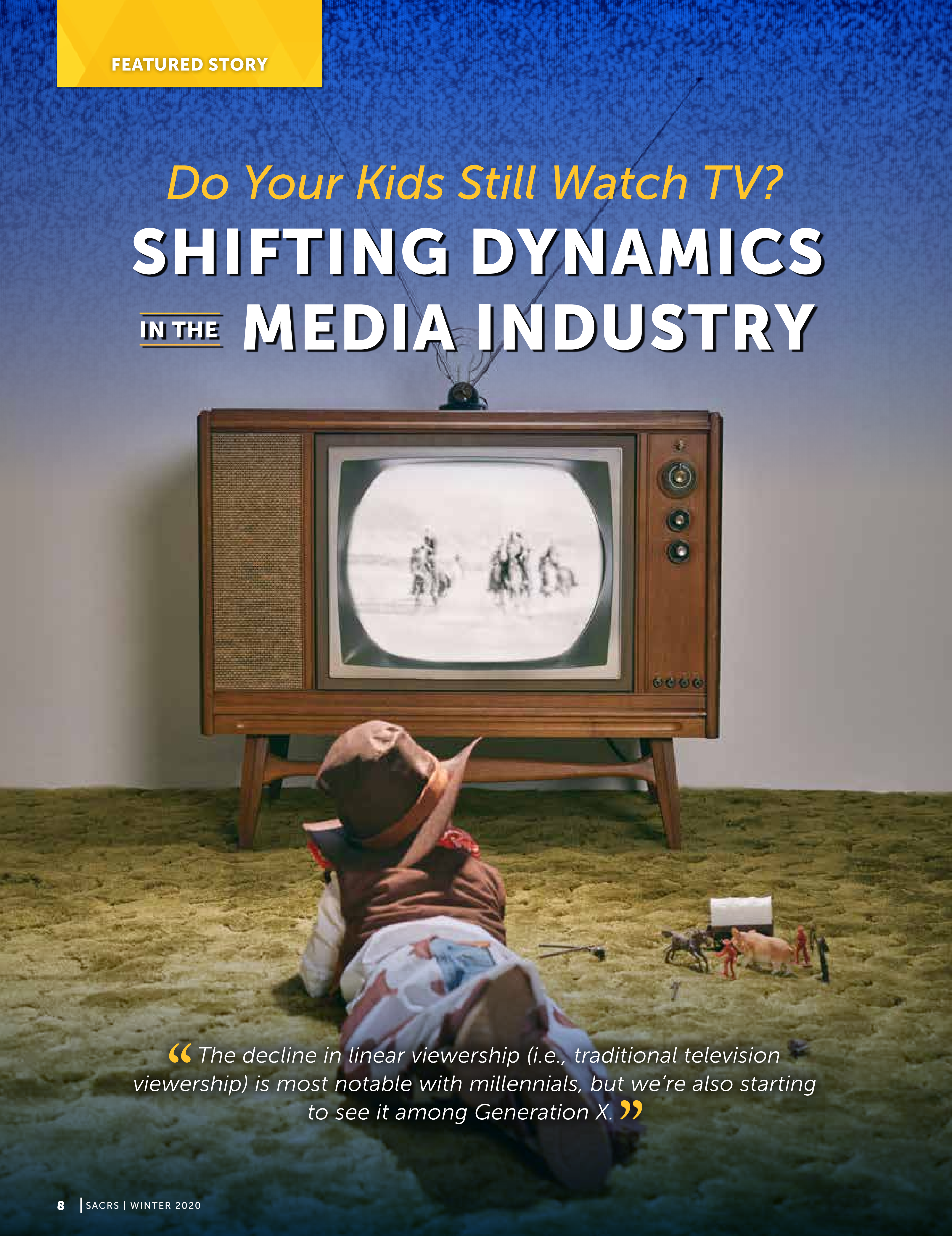
This type of dynamic hedging strategy potentially offers better results than a binary approach of either not hedging at all or maintaining a static hedge ratio. It enables investors to benefit from the appreciation of emerging currencies while being protected against their depreciation.

CONCLUSION

It is sensible and increasingly feasible in practice for investors to establish a risk management policy for their emerging market currency exposure. This is underlined by the sharp decline that has recently hit certain EM currencies. A dynamic hedging strategy can improve the return profile of unmanaged currencies and reduce drawdowns and volatility. This may be particularly effective and increasingly applicable for emerging market currencies.

***Mark Astley** is Chief Executive Officer and a member of the Board of Directors for Millennium Global Investments Limited. Millennium Global is focused solely on providing currency management products and solutions. Independent and owner-managed, the company was founded in 1994 and is one of the pioneers of currency investment management.*

FEATURED STORY



Do Your Kids Still Watch TV?

SHIFTING DYNAMICS IN THE MEDIA INDUSTRY

> *"The decline in linear viewership (i.e., traditional television viewership) is most notable with millennials, but we're also starting to see it among Generation X."*

There has been an unprecedented degree of change in the media industry, made clear by a recent research trip to Hollywood.

While the growth of streaming media is a big part of this change, we have also seen mergers, management changes, new entrants, and studios starting to withhold content from the market. In addition, the economics for new programming are changing. This new reality is shifting the investing landscape in the media industry.

After meeting with studios, talent agencies, and cable and broadcast networks, here are 6 key takeaways—all with implications for investors.

1 Viewers are migrating away from traditional television.

Broadcast networks haven't had a blockbuster hit show since NBC's *This is Us* reached blockbuster status three years ago. Not long before that, several shows reached blockbuster status every season.

Underlying this dynamic is growing fragmentation of the market as viewers migrate toward streaming content (which is distributed directly to viewers over the internet, bypassing the television platforms that traditionally act as a controller or distributor of such content). It also illustrates the role played by streaming services such as Netflix, Amazon Prime Video, and Hulu.

The decline in linear viewership (i.e., traditional television viewership) is most notable with millennials, but we're also starting to see it among Generation X. The trend will likely continue as new streaming services emerge.

Going forward, I believe that the only real value provided by linear television will be in live programming, such as sports and news.

2 Demand from streamers is creating opportunities for independent studios.

Studios, particularly smaller ones, are also gaining traction as barriers to entry have fallen. Production studios are typically on the hook for a significant portion of the production costs for new movies and shows. A broadcast network typically covers just 45 percent of production costs, while cable networks cover around 70 percent. The streaming services, however, are willing to pay around 125 percent of production costs.

However, there is a trade-off. The streaming services will pay that price in exchange for lengthy distribution rights (including international)—which could last five to 10 years. This limits upside potential for the production company. In contrast, a broadcast network is typically allowed to run a program a few times, after which the production studio gets the syndication and international rights. So while the studio absorbs more of the production cost risk associated with unsuccessful programming, the studio's economics improve dramatically for popular programming that can run for several years in syndication.

The effect will be new opportunities for smaller studios that can't cover up-front production costs on their own.

> *"Underlying this dynamic is growing fragmentation of the market as viewers migrate toward streaming content."*

"The days of paying upwards of $100 per month for 200 channels are numbered."

3 Studios could be more hesitant to launch new programs on traditional cable networks.

Cable networks are also concerned about their ability to stay relevant. A continued decline in subscribers could mean that the networks won't be able to generate enough advertising dollars to cover the costs of new programming. And studios could be more reluctant to launch new programs on cable networks given a falling number of subscribers.

As a result, there is a growing belief that cable networks will rely more on the syndication market than on new programming to fill hours.

Cable distribution companies will also have to be more creative in keeping subscribers with a la carte packages with networks that viewers actually want to watch. The days of paying upwards of $100 per month for 200 channels are numbered.

4 Studios will withhold content.

As distribution contacts come up for renewal, some studios will likely pull content off the market to support their own newly launched streaming services. For example, one studio could walk away from $1.5 billion to $2.0 billion of annual license revenue from cable networks in the near term to support future growth of its streaming services. Other studios, are hinting at withholding content to support their own streaming services.

As this happens, the value of remaining content libraries to streaming services should rise. Earlier this year, a streaming service paid an estimated $100 million for rights to stream one more season of *Friends*, a show that hasn't produced a new episode in 15 years, to satisfy subscribers.

Naturally, this will lead streaming services to place more emphasis on original programming. This could place traditional cable networks in a bind given that their strategy will likely rely increasingly on studio libraries (i.e., syndication). If studio libraries are pulled from the market, cable networks could find themselves disadvantaged in competing for the remaining libraries against streaming services.

5 The value of sports programming should continue to rise.

The value of live programming, driven by mass viewership and favorable audience demographics, makes sports programming an ideal place for broadcast networks to invest.

This is particularly true for the National Football League (NFL). The next round of NFL contract renewals, which starts in 2020, is expected to result in additional price increases. The size of the increase will be determined by whether new digital platforms, such as Facebook or Alphabet, enter the bidding or if Amazon becomes more aggressive. The NFL is savvy in carving out different programming packages and staggering renewal dates, which should allow it to capture attractive prices for its compelling programming.

6 Investment implications: Advertising dollars will need a new home.

With all of these shifts beginning to take place, it's hard to make the case that traditional linear television will remain an attractive platform for viewers.

The question is how these trends will affect advertising. We've seen a move toward digital advertising over the past several years, and linear television is the only media industry player that hasn't yet been meaningfully impacted. I think we're very close to a tipping point, where advertising dollars will start shifting away from traditional linear television to other platforms.

Broadcast networks should remain a solid venue for advertisers given live sports, news, and first-run programs; however, non-differentiated cable networks will likely struggle. Those left on cable/linear television in the coming years will likely be older viewers who are typically less technology savvy—not the ideal demographic for advertisers.

As a result, advertising dollars will have to find a new home, with possible beneficiaries being live programming (news and sports), digital, and streaming services.

"With all of these shifts beginning to take place, it's hard to make the case that traditional linear television will remain an attractive platform for viewers."

***Jim Golan**, CFA, partner, is a portfolio manager on William Blair's Large Cap Growth strategy and a research analyst covering U.S. large-cap technology stocks. From 2000 until 2005, when he assumed his current role, Jim was a research analyst focusing on financial, technology, industrial, and resource stocks. Before joining William Blair in 2000, he worked at Citigroup Global Asset Management, where he was a global research team leader for the telecommunications sector and a key member of the team that devised valuation metrics for standardizing the analysis of domestic and international companies. William Blair is based in Chicago with resources in London, Zurich, and Sydney. As of March 31, 2019, William Blair manages $54.5 billion in assets.*

> "In fact, strengthening risk management to incorporate cashflow risks can provide trustees and investment teams with greater confidence and freedom to focus on longer-term strategic objectives."

THE NEXT STEP FOR MATURING PENSION PLANS: CASHFLOW MANAGEMENT

Pension plans across the U.S. are maturing. Many have become net cashflow negative, meaning they are paying out more than they receive from sponsor contributions or investment returns.

This is leading them to consider adapting their investment strategies to cope. Generating long-term growth can no longer be their sole focus. If they do not manage their investment portfolio in light of their cash outflows, they could struggle to achieve their long-term goals.

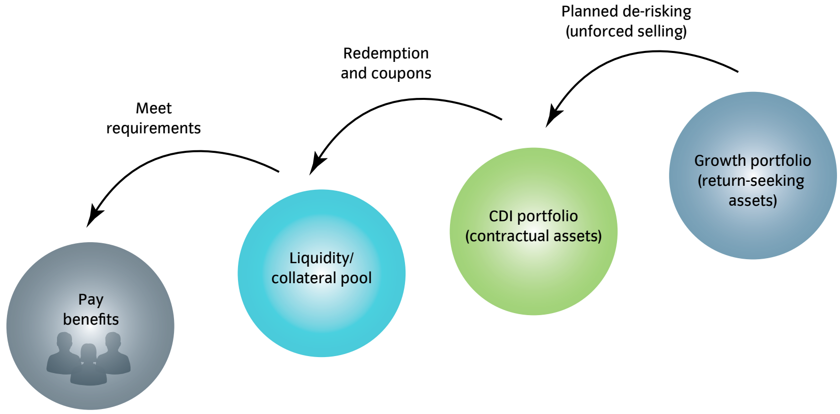
SACRS members face similar challenges. Most record net negative cashflows, as reflected in analysis by consulting actuaries at Cheiron (see the Winter 2019 issue of *SACRS* magazine).

This situation may deteriorate. Some plans have actuarially-determined contributions, meaning that if their funded status improves, their contributions fall – worsening their cashflow situation. Also, support ratios for most plans show that the proportion of inactive members is higher than active members, according to data compiled by investment consultancy Verus: another sign their cashflow situation is under pressure.

This is leading plans to consider adapting their investment strategies to generate cashflows to help cover short- to medium-term liability payments with greater certainty, while retaining potential for growth.

While this represents a shift in investment philosophy, once understood, we believe that the ongoing implications for governance are relatively minor. In fact, strengthening risk management to incorporate cashflow risks can provide trustees and investment teams with greater confidence and freedom to focus on longer-term strategic objectives.

FIGURE 1: A LIQUIDITY MANAGEMENT APPROACH THAT INCORPORATES A CDI PORTFOLIO[1]



INVESTMENT IMPLICATIONS OF CASHFLOW NEGATIVITY

There are potentially significant implications if you are net cash-flow negative, including the following:

- **Shorter timeframe to generate returns required:** Cashflow negativity means an investor's asset pool is shrinking over time. If the investor does not generate sufficient returns while the asset pool is still large, they may never be able to generate the returns they need. This means it is important to exercise greater control over the timing of returns.

- **Greater requirement to manage forced-selling risk:** As investors become cashflow negative, they may be forced to sell assets to meet benefit payments. This can reduce future returns, especially if they sell at an inopportune time, such as immediately after a sharp market correction – leaving fewer assets to benefit from any rebound in values. Therefore, investors need to be more aware of the path of projected future outflows, and how that relates to available liquidity. For investors with high allocations to illiquid assets, such as private equity, the pool of liquid assets is smaller, increasing the risk that forced selling could undermine the overall portfolio.

- **Index exposure is a blunt instrument:** As investors shift from focusing purely on long-term growth to seeking delivery of dollar-based outcomes within a specified time horizon, use of broad asset-class benchmarks will be less appropriate than portfolios tailored with targeted, investor-specific outcomes in mind.

ADDRESSING THE CHALLENGE USING CASHFLOW-DRIVEN INVESTMENT

To address these challenges, pension plans are implementing an approach to liquidity management incorporating cashflow-driven investment (CDI) solutions.

A CDI approach requires constructing a portfolio of contractual assets reflecting an investor's required cashflows through income and/or maturing assets. High-quality investment grade corporate credit and other fixed income assets will often a central role in such a solution.

Broadly speaking, there are three potential benefits of a liquidity management approach that incorporates a CDI portfolio:

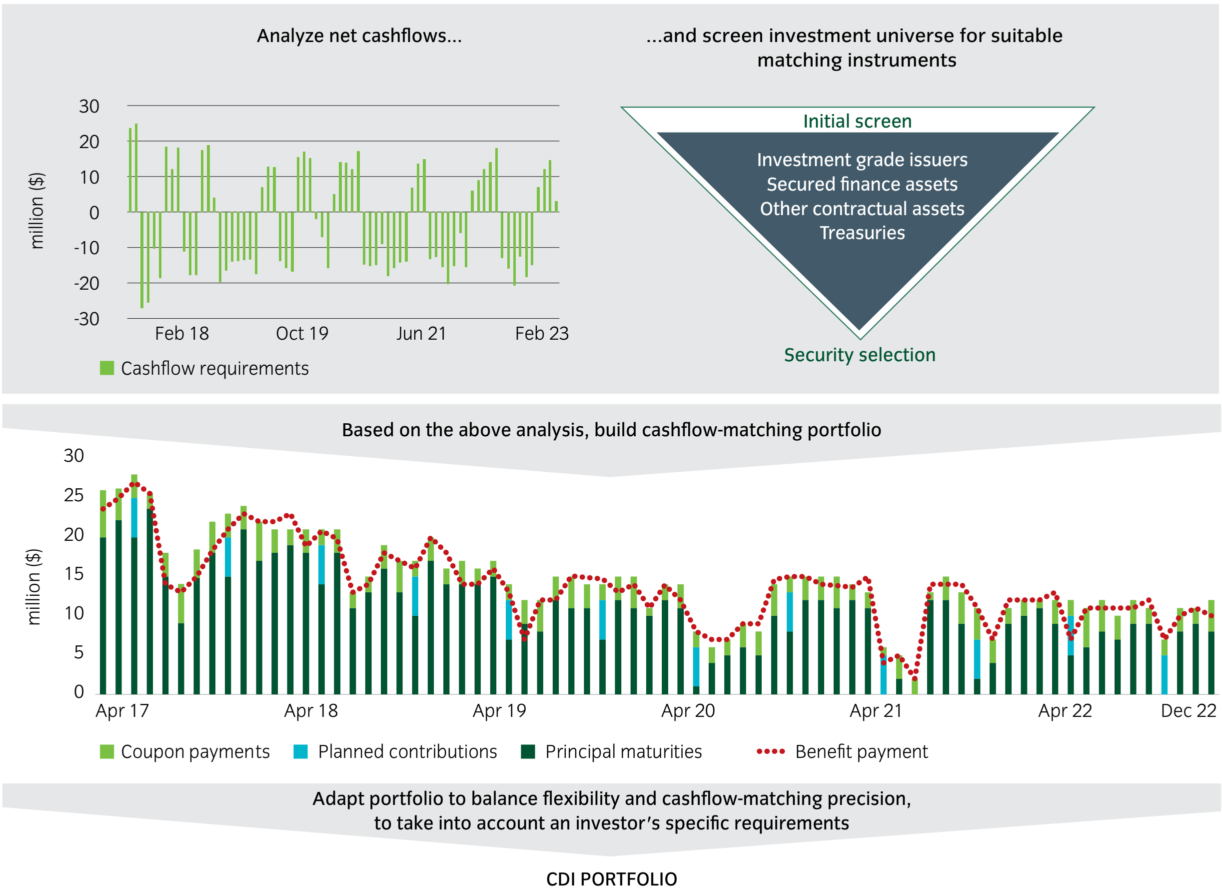
- **Generate cashflows required to pay obligations:** A CDI portfolio can increase the certainty that SACRS plans can make benefit payments as they fall due, by holding assets which generate contractual cashflows in line with anticipated cash outflows.

- **Secure returns with greater certainty:** Using a CDI portfolio can help SACRS plans to increase the certainty of achieving long-term financial objectives without being forced to sell assets. Typically, CDI does so by investing in assets higher up in the capital structure and by holding investments to maturity. This can also allow growth assets more time to help improve an investor's funding status.

- **Reduce mismatch risk:** Managing liquidity in this way can help increase funding certainty by facilitating closer integration of the pension plan's investment strategy with an investor's funding strategy, managing the risk of any mismatch by investing directly against liability cashflows. For example, for some pension plans, the cashflows offered by high-quality credit assets are, based on our observations, generally deemed reasonably certain by actuaries. Therefore, they can link liability discount rates to the expected returns from these assets, helping to reduce funding-level volatility and increase the certainty of achieving the target funding level. This may be the case for a SACRS plan, depending on its actuaries determine the plan's assumed rate of return. This may also serve to simplify the portfolio rebalancing process.

As a result of these potential benefits, a CDI portfolio may help investors to achieve their objectives with greater certainty, both in relation to paying obligations as they fall due and achieving long-term funding outcomes.

FIGURE 2: BUILDING A CDI PORTFOLIO[2]



CDI IMPLEMENTATION CONSIDERATIONS FOR INVESTORS

In our experience, an effective CDI portfolio will have four key characteristics that investors should take into account when implementing their strategy.

1. Access to a broad fixed income opportunity set.

The opportunity set for CDI can be defined as assets with contractual cashflows. High-quality (typically investment grade) bonds are likely to form the bedrock of most CDI strategies.

Investors seeking to maximize expected portfolio yield and diversification can choose to blend a broader universe of high-quality fixed income assets into their CDI portfolio. For example, we have observed that 'secured finance' assets (defined as contractual assets secured by hard collateral and other structural protections) can provide access to an illiquidity premium, with a large proportion of the secured finance market being of investment grade quality.[3]

Accessing a wide investment universe can help maximize the potential yield without increasing risk, and also increase flexibility.

2. Balance flexibility and cashflow-matching precision.

A close match of investment income to future cashflows intuitively appeals as being low risk, but can remove flexibility and may be suboptimal. We believe investors could benefit by adopting a framework that allows for dynamic management through allowing a 'tolerable' cashflow mismatch.

This can help investors deal with unforeseen cash requirements, and offers flexibility to invest in new issues that come to the market on attractive terms.

3. Rigorous portfolio construction and credit risk-management techniques.

There are three primary risks involved in the construction of CDI portfolios: default risk, reinvestment risk (meaning the risk that cashflows in excess of required payments are reinvested at lower

yields than previously available), and forced-selling risk (whereby cashflow mismatches mean investors need to sell assets to meet required payments at inopportune times).

A skillful investment manager can add material value through effective portfolio construction, which reflects all required restrictions while balancing yield capture and other principles, and credit selection, focusing on selecting bonds with better default risk-adjusted returns versus the broad market.

"A cashflow-driven investment approach requires constructing a portfolio of contractual assets reflecting an investor's required cashflows through income and/or maturing assets."

4. Addressing an investor's specific needs.

An effective liquidity management approach will take into account an investor's specific requirements – including its cashflow profile, long-term objectives and its existing portfolio and income streams. It is important to provide effective and transparent reporting metrics to measure how the manager is performing relative to predefined objectives. Ultimately, success is defined by whether or not the required cashflows were delivered as expected, and what, if any, additional cash was generated by outperforming expectations.

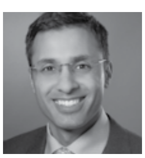
WHY NOT SIMPLY HOLD MORE TREASURIES TO MEET CASHFLOW OBLIGATIONS?

An allocation to short-dated Treasuries can help ensure an investor meets short-term cashflow obligations without having to sell other assets, mitigating forced-selling risk. But this can lead to a substantial opportunity cost as the assets could have been allocated to higher-yielding investments.

Allocating instead to longer-dated Treasuries can help an investor take advantage of the term risk premium, but there is a risk that when they sell these Treasuries to fulfil cashflow obligations, market movements over the intervening period could lead to a material loss.

By following a liquidity management approach supported by a CDI portfolio, an investor can pay cashflows on time, mitigating forced-selling risk, while also seeking returns above those available from short-dated Treasuries.

For investors seeking to manage liquidity risk over a long timeframe – five to 10 years, for example – this can lead to a material gain in potential returns relative to a portfolio of Treasuries, without materially increasing forced-selling risk.



*At Insight Investment, **Jeremy King** is Head of Business Development and **Shivin Kwatra** is Head of Portfolio Management, Solutions. Insight Investments partners with clients and their advisors to build portfolios that are designed to reflect their objectives, risk tolerance and time horizons. The company typically deals with large institutions that require sophisticated solutions to address a complex range of investment needs.*

ENDNOTES

1 For illustrative purposes only.

2 For illustrative purposes only. Does not represent any strategy, composite, or client account managed by Insight.

3 Past observations may not be indicative of future results.

4 For illustrative purposes only. Information is to show Insight capabilities assisting retirement plans with meeting cashflow obligations, and does not depict the performance or profitability of any specific investments. Information is based on a representative scenario of a retirement plan. Each account is individually managed, and could differ from what is presented herein.

A CDI CASE STUDY[4]

A SACRS plan with over $8 billion in assets under management was seeking to meet its cashflow obligations for several years, using a portfolio of cashflow-generating assets that it would periodically replenish.

The plan was seeking to meet its short-term requirements while investing other assets to close its funding deficit. It had decided on a structure with three broad portfolios: one would seek to invest for growth, one would seek to diversify investments, and one would focus on ensuring short-term payment obligations were met.

INITIAL DISCUSSIONS

The plan provided actuarial projections for its benefit payments for several years, and stated it was seeking a portfolio that would help to maintain a tight match between asset and liability cashflows.

Options were provided for the portfolio including one that invested only in Treasuries, alongside alternatives with larger allocations to credit and other spread assets, and varying cost and yield projections.

PORTFOLIO DESIGN

Based on this initial proposal, we worked closely with the plan and its consultant to decide on the characteristics of the initial portfolio. The aim was to build a portfolio that would meet the plan's liquidity objectives and remain within their preferred risk limits, while achieving an attractive yield. This would help to support the plan's broader objective of improving its funding position.

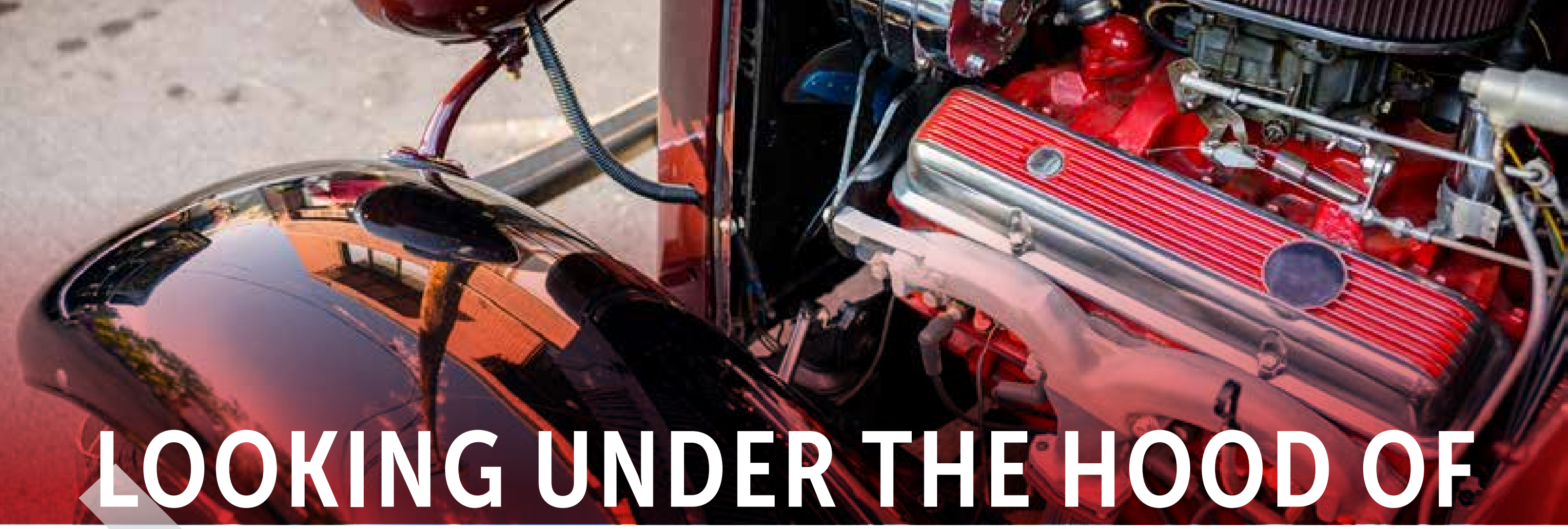
IMPLEMENTATION

The plan provided the relevant cash and securities on an agreed date. As it was a substantial portfolio, duration hedges were implemented to lock in benchmark rates on that day, and over the following weeks the portfolio manager bought suitable bonds and sold the corresponding hedges as required until the CDI portfolio was fully in place.

ONGOING SUPPORT AND MONITORING

Once the plan had decided on the preferred initial portfolio, we proposed a structure to accommodate future top-up contributions from the plan. The plan had an annual funding cycle, at which point they expected to replenish the portfolio, as well as reconsider broader questions around the scope of the strategy – this provided flexibility and meant the initial portfolio was not expected or required to match all projected cashflows over the full time period.

The plan receives regular reporting on the CDI portfolio that aims to demonstrate the portfolio has delivered cashflows that enable the investor to meet projected liability payments, along with other relevant metrics.



LOOKING UNDER THE HOOD OF *Fund-Level Leverage*

Investors considering a new fund always investigate its risk and return characteristics, the manager's track record, deal sourcing and underwriting processes, and reporting and controls.

For levered funds, investors also evaluate the nature, use and terms of the fund-level financing. Or do they? When it comes to levered funds, these factors tend to take a back seat to the maximum leverage outlined in the placement memo. Considering this 'sticker' leverage is certainly one important measure of risk, but it doesn't tell the whole story.

Fund leverage deserves a closer look under the hood.

There are various forms of fund-level leverage and no single right way to use them. Each approach offers benefits, but also has inherent potential risks that investors should understand.

START WITH THE BASICS

There are two primary forms of fund-level leverage: asset-backed credit facilities and subscription facilities. Each is secured by different collateral and is often used for different purposes.

Today, a levered fund is likely to include both long-term subscription and asset-backed facilities.

ASSET-BACKED CREDIT FACILITIES

Asset-backed credit facilities are secured by a fund's loans. Borrowing availability increases over time, generally in lockstep with the size of the investment portfolio.

There are two common types of asset-backed credit facilities that have some important differences:

Approval Rights

The credit facility agent reviews and approves each loan's eligibility as collateral. Once eligibility has been determined, the agent assigns it an advance rate based on the underlying risk, which is typically measured by leverage and debt service coverage. The agent retains the right to alter the advance rate as these metrics change over time.

Approval rights facilities have fewer and more generous portfolio-level tests – for example, high concentration limits – which can give managers added flexibility in constructing a portfolio. The ability to work with the agent can also be beneficial if loan-level performance declines, allowing the agent to consider all relevant facts and adjust advance rates as the loan is rehabilitated.

As added protection, the facilities typically have loan-level performance measures that must be triggered before the advance rate can be reduced, rather than changes in the broader credit markets.

When considering a fund that uses approval rights leverage, it's a good idea to investigate the length and nature of the manager's relationship with the agent, and request details on historic approval rates and the nature of advance rate reductions.

> *"There are various forms of fund-level leverage and no single right way to use them."*

Non-Approval Rights

These facilities operate similarly to a CLO. A manager can contribute a loan to the pool at a defined advance rate if the loan meets specific characteristics. The pool of loans must also satisfy certain additional concentration tests and other collateral quality tests to obtain a full advance. These facilities can offer greater certainty, but they may also present obstacles to making investments or optimizing leverage if they don't 'fit the box.' Similarly, if a loan runs into difficulty, reductions in advance rates or eligibility tends to be hardbaked and may not allow for consideration of additional facts.

SUBSCRIPTION FACILITIES

Subscription facilities are secured by the fund's equity capital commitments and are generally less expensive than asset-backed credit facilities. They are most helpful early in a fund's life when uncalled commitments are substantial, because the size of a subscription facility decreases as capital is called.

"Fund-level leverage facilities can seem complex, but by asking a few of the right questions, investors can quickly come to grips with the most important elements."

Today, many managers maintain a subscription facility to finance the portfolio's initial ramp, as it provides a lower borrowing cost and more immediate access to debt than an asset-backed facility. Once a larger diversified portfolio has been built and the amount of uncalled capital has declined, these loans are then rolled into an asset-backed facility.

As long as there is uncalled capital, managers often retain a subscription facility to avoid the time-consuming process of calling capital for short-term expenses or funding loans. Having a subscription facility available also reduces the need to maintain a large liquidity cushion, which could otherwise depress fund returns.

Recent press has put subscription facilities under the spotlight due to occasional abuses. Investors should definitely talk to a prospective manager about a fund's fee structure and the impact of the planned use of a subscription facility on manager fees or carried interest.

UNDERSTANDING A FUND'S LEVERAGE STRATEGY

Fund-level leverage facilities can seem complex, but by asking a few of the right questions, investors can quickly come to grips with the most important elements.

What fund-level leverage are you planning to use?

Why is that facility best suited to the fund? What is your experience managing this type of facility? These questions may seem obvious, but in our experience, investors do not always ask them. Without this information, it's challenging to establish a full picture of a fund's potential risks and a manager's ability to mitigate those risks.

If more than one lender is required to round out the facility, what is your syndication strategy?

Fund managers need to balance the certainty of having credit available with the costs of assuming debt before it is needed. Taking down debt on a real-time basis reduces costs and optimizes returns, yet also creates the risk that lenders may be reluctant to provide expanded capacity when needed due to a shift in the cycle or other institutional reasons. Credit terms may also be less favorable than those available today. This can constrain a fund's capacity and leverage, and thus, its returns.

It's helpful to ask a manager about the size of its bank group, the quality of relationships with these lenders and whether they have established exposure limits for the manager that may come into play.

How will you avoid hitting a 'maturity wall'? A fund life of six years or longer is not uncommon, but most banks will not provide a credit facility for more than five years. In addition, managers may choose less expensive short-term financing with the intention of extending it throughout the fund life.

If the market changes materially, a lender may be unwilling to extend the financing and require the manager to accelerate amortization or pay off the credit facility. This may reduce or even shut off cash flow to investors, force asset sales or require additional capital calls to avoid a payment default.

A discussion with the manager can help investors understand how it intends to mitigate the risk of a maturity wall and balance the fund life with the financing time horizon.

What systems and controls do you use to track and fulfill the facility's requirements? These facilities are complicated instruments with substantial compliance and reporting provisions. Many credit facilities require notification every time loans trigger certain credit thresholds (specified increases in leverage, for instance).

Financial reports and portfolio models are usually submitted every quarter. The facility may also require financial covenant certifications, all of which must be tracked and delivered in a timely manner.

Inadvertently failing to meet these requirements can trigger liability or even escalate to default. The risk may be higher for managers that have not operated levered funds in the past and have not built the infrastructure to manage the requirements, or for a manager that is working with a new lender that may have different processes.

LOOK UNDER THE HOOD

Each form of fund-level leverage offers benefits and risks. Asking questions about a manager's leverage strategy and ability to execute it effectively should become a standard part of investor due diligence. Looking under the hood to understand fund-level leverage is a prudent step in making fully informed decisions about levered funds and their potential returns.

***Neil Rudd**, Chief Operating Officer, oversees NXT Capital's asset management platform and leads the company's strategy and corporate development effort, focusing on accelerating product development initiatives, M&A, strategic planning, and expanding connectivity with other ORIX businesses. He also manages the legal, HR and marketing services needed to support the operation and growth of the business. He formerly held the position of Chief Financial Officer and Chief Administrative Officer.*

LEGISLATIVE REPORT

The Legislature returned to Sacramento on January 6, marking the end of interim recess and the beginning of the second year of session. Legislators will begin introducing new bills and moving their two-year bills. The bill introduction deadline is February 21.

The two-year bills that did not make it out of their first house last year will need to pass out and be transmitted to their second house by January 31, meaning they will move quickly. The two-year bills that made it into the second house before the first-year of session closed will follow the normal legislative calendar for passage.

TWO-YEAR BILLS OF INTEREST

SB 783 (Committee on Labor, Public Employment and Retirement) – SACRS Sponsored Bill.

This cleanup bill makes technical changes to withdrawn employer liabilities, service purchase for parental leave, military leave, board approval of retirements, 60-day advance application windows, reinstatement from retirement, and lump sum payments for minimum age distribution.

New language for SB 783 was drafted by the SACRS Legislative Committee and approved by the SACRS board and membership. The consultants for the Senate Labor, Public Employment and Retirement Committee are reviewing the language before it is amended into the bill.

This bill is in its second house and will likely be heard in the spring.

AB 315 (C. Garcia) – Government Lobbying Associations. This bill limits how associations funded by local governments/special districts can use their funds. Specifically, the bill would prevent

“Legislators will begin introducing new bills and moving their two-year bills.”

local agency associations from using funds for activities that are not lobbying or strictly educational activities. Further, the bill would require that an association publicly disclose the amount of money spent on these activities and prohibits an association from incurring travel-related expenses except for the association to hold an annual conference or send its members to attend educational activities.

The bill will be heard next in the Assembly Local Government Committee.

CHAPTERED LEGISLATION OF INTEREST

Several bills monitored by SACRS in 2019 became law in 2020. Although none of the bills below apply to County retirement systems, it is worthwhile to follow the development of bills that affect CalPERS, CalSTRS and local government, as they reflect trends in the Legislature. Below is a brief overview of key bills that went into effect on January 1 of this year.

AB 672 (Cervantes) - Reinstatement from Disability Retirement. This bill prohibits a person who has retired for disability from being employed by any employer without reinstatement, if the position is the same position that the person retired from or has similar duties to the position the person retired from.

AB 672 was sponsored by CalPERS and was signed by the Governor on July 12.

AB 931 (Boerner Horvath) - Local Board Representation. This bill prohibits the membership of appointed boards and commissions in cities with a population of 50,000 from having more than 60 percent of the same gender identity. Smaller boards are prohibited from being comprised only of members of one gender.

The Governor signed AB 931 on October 12.

AB 1320 (Nazarian) – Turkey Divestment. This bill prohibits CalPERS and CalSTRS from making or renewing investments in vehicles owned, issued, controlled or managed by the government of Turkey, if the federal government imposes sanctions on the government of Turkey for failing to officially acknowledge its responsibility for the Armenian Genocide.

AB 1320 was signed into law by the Governor on October 2.

The U.S. House of Representatives and U.S. Senate recently voted to recognize the Armenian genocide. However, sanctions were not imposed, so AB 1320 was not triggered in California.

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

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

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

IN THE NEXT CHAPTER OF YOUR LIFE, WILL YOU BE A COBOT?

> *"Each transformation has created opportunities and challenges, not just for industry, but also for society and the environment."*

Advances in technology are changing the world of work. The challenges of greater automation and the ever-rising scope of artificial intelligence are well known. The positive case is less often heard. Here, Walter Scott's research team considers the emerging environmental and social benefits to come from this latest industrial revolution.

> *"Just one turn of an eight-megawatt turbine is enough to power a house for 24 hours."*

In the story of human endeavor and innovation, it's almost a given that science fiction becomes science fact. From smart homes, smart cars, to the ubiquitous smart phone, our daily lives are filled with technology that not that many years ago purely existed in the realms of the imagination.

The history of industrial production is marked by step changes in the way goods are manufactured. From the first industrial revolution in the 18th century to the recent development of collaborative robotics (or cobots), each transformation has created opportunities and challenges, not just for industry, but also for society and the environment.

Industry 4.0, the now familiar label of the present-day industrial revolution, has been marked by the advent of ground-breaking technologies such as cloud computing, 3D printing, smart sensors, big data analytics and advanced algorithms. It is altering the way products are developed, made and sold. Advances in areas such as artificial intelligence (AI) have propelled corporate operational efficiency and enhanced productivity. Less heralded have been the Environmental, Social and Governance (ESG) benefits that have arisen from these advances.

Employing Industry 4.0 technologies to enhance efficiency, for example through reducing energy consumption, aligns the pursuit of profitability with sound ESG practice. It's good for the environment, as well as being good for the bottom line.

REVOLUTIONIZING PRODUCTION

The application of Industry 4.0 is not uniform in its extent and pace however. It will take some time for the environmental benefits to accrue. Some industries, such as semiconductor manufacturing, have employed these technologies for years, but there are many that are less travelled down this new path. That said, as technologies develop, the opportunities presented by Industry 4.0 have the potential to increase flexibility in manufacturing across a wider range of businesses. Most factories are limited in the variety of goods they can produce because machinery is usually tailored for a specific purpose or process. Using new automation technologies gives factories the potential to manufacture a greater variety of products. If factory capacity utilization rises and there is less capital going into production equipment over time, superior profitability should come.

Industry 4.0 has further advanced the integration of automation into production lines. The vast majority of automobile plants already use robots but, as a sign of wider adoption, robotics and automation have found their way into an increasing number of businesses that have historically been more labor intensive. The footwear industry provides a perhaps surprising example. Nike has employed Industry 4.0-based initiatives that have revolutionized its production process. These incorporate a whole range of technologies including 3D printing, laser cutting, and robotic knitting machines, giving it the ability to produce a pair of shoes without it ever being touched by a human. These new processes allow the company to be more flexible and improve speed to market. The environmental benefits are also notable. The shipping intensity associated with transporting products to consumers is reduced, which diminishes the environmental costs of transporting goods. There is also the benefit of less waste. Shoes manufactured using 3D printing or that utilize laser cutting machines generate less leftover material. This enables the company to use less raw materials and a lot less energy.[1]

As another example, it is of little surprise that the renewable energy sector should be an early adopter of this ongoing industrial revolution. We recently visited an offshore wind farm in Liverpool Bay in the UK and were impressed by the way the operator, Ørsted, was implementing predictive maintenance. Using a blend of sensors, data communication, central data storage and predictive analysis, breakdowns can be avoided before they occur. Wind turbines can be prone to problems relating to gearboxes and faulty cooling systems. Using data from the sensors to predict turbine failure means that outage time can be reduced. Just one turn of an eight-megawatt turbine is enough to power a house for 24 hours.[2] Smart technology also enables wind farms to optimize the direction of turbines, as well as the pitch of their blades to maximize electricity generation according to wind speed and direction. Furthermore, all the turbines, which at the time of installation in 2017 were the largest offshore turbines in the world, can be controlled remotely from the company's operation and maintenance base over 140 miles away.

ENVIRONMENTAL CONSIDERATIONS

Industry 4.0 is without doubt a global phenomenon and so too are the environmental steps forward. In many developing nations, environmental considerations are increasingly enmeshed in economic development strategies. This is particularly the case in China. The aim of the government's "Made in China 2025" initiative is representative of the country's efforts to hoist China up the economic value-added ladder, to be more self-reliant, and become a competitor in areas of industry currently occupied by Western companies. These efforts have been given extra impetus by the ongoing Sino-U.S. trade dispute.

Reconfiguration of the economy has been going on for a number of years. In 2016, China's State Council issued two guidelines to mitigate excess steel and coal production, demanding a reduction of nearly 500 million metric tons of coal and 100-150 million tons of steel over a three-to-five-year timespan.[3] While

> These changes highlight the need for investment in education. Lifelong vocational learning.

such policies are founded on economic grounds, they also reflect environmental concerns. Any visitor to the more industrialized parts of China will be aware of the very tangible consequences of the proliferation of smokestack industries. China wants to be at the forefront of this newest industrial revolution. As well as representing a new avenue of growth, it is an opportunity for the country to 'clean up' its manufacturing capacity.

Moving beyond the environmental to social implications, Industry 4.0 brings fundamental challenges and consequences for governments and society. There have been highly publicized concerns that lower-skilled jobs might be automated out of existence and that, such are the advances in technology, an increasing number of professions will come under the threat of being supplanted. Those whose jobs are vulnerable to the changing dynamics of the labor market may not have the skillset or necessary training to fill positions created by new technologies.

These changes highlight the need for investment in education, not just at the pre-employment stage, but also in lifelong vocational learning. The economic system has to accommodate greater flexibility in the labor market, and remove some of the bureaucratic hurdles that inhibit job movement. The idea of pursuing a linear career path with one company has less currency in the present-day employment market. To a large extent, none of this is new. Throughout centuries of economic history, technological advances have engendered changes in the labor market.

In early 19th century England, the Luddite movement saw textile workers revolt in the face of the automated machinery that came with the first Industrial Revolution, such were the fears of jobs being supplanted. Yet that period spawned a vast array of new industries that created countless jobs. Each stage in the evolution of industries and employment markets has brought a degree of short-term disruption and dislocation. However, it has also generated opportunities through the creation of new occupations, as well as growth in new products and services.

COBOTS

Looking to the future, we can expect to see closer collaboration between ever-smarter machines and humans; the emergence of 'cobots' designed to work in tandem with workers to produce, for example, more mass-customized products. The technology is at an early stage of its evolution, and it remains to be seen how these machines proliferate through the industrial structure. There are those that fear the prospect of job displacement, yet 'cobotification' has the potential to be a boon to smaller companies, which represent the majority of global manufacturing. Often competing with rivals from low-cost markets, the enhanced efficiency that man and machine working together brings may allow jobs to remain local.

History and human ingenuity suggest that such revolutions need not result in the utter displacement the Luddites feared. Changes, yes, in the way we think about work and retirement, but each industrial revolution brings opportunity for people, as well as profits. What is clear is that Industry 4.0 and its next iteration will generate gains in efficiency from a cost, energy and waste perspective, and will be good for profitability in a world now increasingly focused on sustainability.

SOURCES

1 https://purpose.nike.com/waste

2 Conversation with Ørsted management representative during site visit on 27 June 2019

3 http://english.www.gov.cn/policies/latest_releases/2016/02/05/content_281475284701738.htm

Alan Lander *is an Investment Manager and member of the research team at Walter Scott. He joined the firm in 2006 and holds a BSc (Hons) in Mathematics from the University of Nottingham and an MSc in Financial Mathematics awarded jointly by the University of Edinburgh and Heriot-Watt University, Edinburgh. Also a member of the research team,* ***Tom Miedema*** *is an Investment Manager at Walter Scott, who joined the firm in 2007. Prior to this, he lived and worked in Taiwan, having previously worked at Baillie Gifford. He holds an MA in Business and Economics from Heriot-Watt University, Edinburgh and an MFin in International Finance from the University of Glasgow. Alan and Tom are both CFA charterholders.*

> Each industrial revolution brings opportunity for people as well as profits.

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> “On balance, we believe that SOEs should still be an intrinsic part of a China equity strategy.”

INVESTING IN CHINA:

How State-Owned Enterprises Can Impact Performance

As interest in Chinese equities increases, we believe it is crucial for institutional investors to explore the role in portfolios of a large—yet often misunderstood—set of companies in the country's investment landscape: State-Owned Enterprises (SOEs). Why? Because "getting SOEs wrong" can, in our view, add significant unwanted volatility to any China equity strategy.

When it comes to SOEs, we see a significant gap between perception and reality among investors. That's understandable because, to many, SOEs are considered dinosaurs, old-style companies absorbing economic resources but adding little economic value. They have idiosyncratic growth drivers due to their critical role in the country's strategic sectors, and are synonymous with inefficiency, questionable corporate governance standards and lackluster shareholder returns.

The reality, however, is that China's SOEs have undergone significant reform during the past 40 years. They have taken on different roles in the economy and are also now managed in very diverse ways. Further, although the absolute number of SOEs has declined, they still remain firmly in control of key strategic sectors of the economy and make up almost half the market capitalization of Chinese equities.

Against this backdrop, this article seeks to dispel persistent misunderstandings about SOEs. We present our research, document the latest enhancements experienced by these organizations, and share knowledge gained through interacting with the executive leadership of these companies. We also highlight the importance of selectivity when investing in these enterprises, as recent enhancements have not impacted all SOEs equally.

On balance, we believe that SOEs should still be an intrinsic part of a China equity strategy. But the way one deploys them in a portfolio is critical to establishing a higher or lower likelihood of outperformance. In essence, we think investors should underweight SOEs relative to benchmarks while realizing that some SOEs, often those operating in non-strategic sectors, are historically among the strongest stock performers.

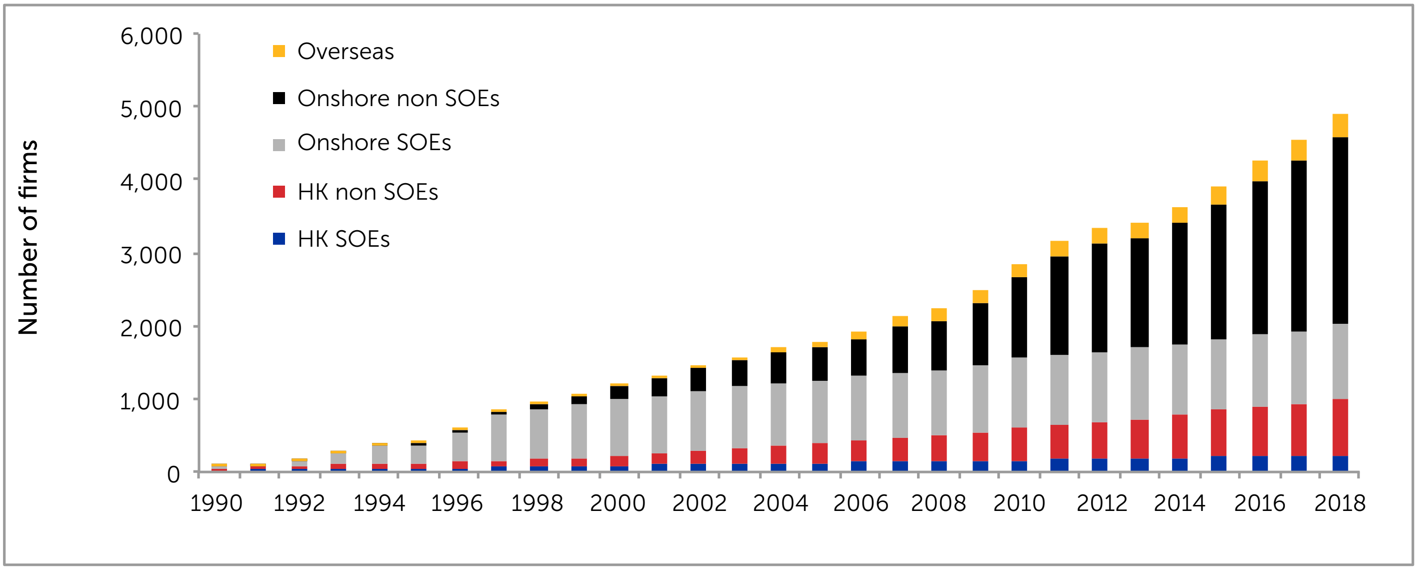
SOEs Still Dominate Critical Economic Sectors

Since economic liberalization policies began in 1978, China's SOEs have undertaken a process of gradual, progressive transformation. Today, SOEs are leaner. The number of enterprises, assets and employees is fewer, as evidenced by their share of GDP relative to private companies falling over the past 15 years to less than 30 percent from more than 50 percent. In 2003, SOEs accounted for 18 percent of all industrial enterprises. That figure has now fallen to 5 percent.[1]

This change has also been reflected in stock markets, where the overwhelming dominance of SOEs began to decline as private sector initial public offerings accelerated in the late 1990s, as seen in **Exhibit 1**. Today, there are far more privately owned companies than SOEs within the Chinese listed equity universe, although SOEs still account for around half of overall market capitalization.

> “Since economic liberalization policies began in 1978, China's SOEs have undertaken a process of gradual, progressive transformation. Today, SOEs are leaner.”

Exhibit 1: The dominance of SOEs among publicly listed firms has diminished since the early 1990s



As of December 31, 2018

Source: Wind Data Service, Gavekal, Macrobond Financial

Nevertheless, SOEs still dominate strategic industries. As shown in **Exhibit 2**, SOEs represent over 80 percent of banks, energy, telecoms and utilities included in the MSCI All China Index. Put simply, critical factors of production including bank loans, oil, electricity and telecom networks remain mostly state controlled, making SOEs highly influential within China's economy.

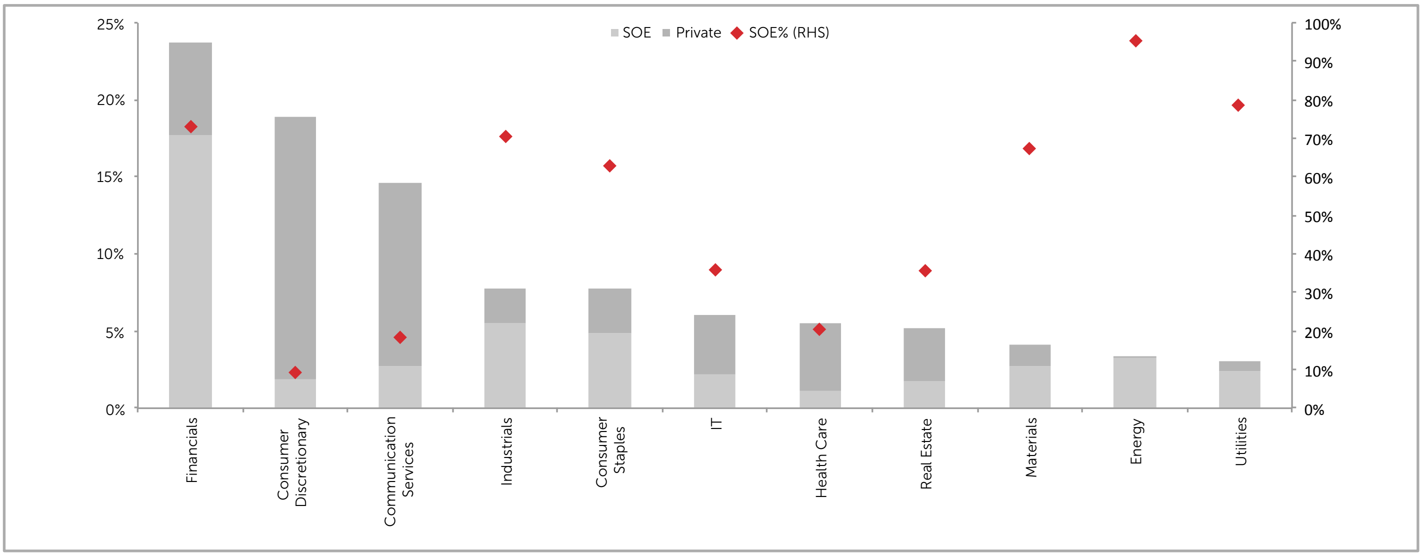
SOEs Come In Two Distinct Flavors

Reform of SOEs in China is very different from the concept of deregulation and privatization: SOE reforms in China are usually incremental and pragmatic, aimed at advancing the country's long-term economic goals.

To understand China's SOE reform policies, it is helpful to consider the role of these companies from the government's perspective: SOEs should advance national policy goals, especially technological self-reliance and global influence, and assume responsibility for providing a national service, such as providing public goods, supporting employment and, when necessary, helping stabilizing the economy and markets. Parallel to these obligations are the goals of sustainable profit growth and enhanced competitiveness.

We can divide SOEs into two broad categories: Companies operating in strategic industries and those in non-strategic sectors. This distinction, as we shall explain, can help investors separate the best prospects from firms less likely to produce excess returns.

Exhibit 2: SOEs still dominate crucial sectors, including banks, energy, telecoms and utilities



As of October 31, 2019

Source: Bloomberg, HSBC, Allianz Global Investors

SOEs operating in non-strategic industries—such as consumer products and services, healthcare, construction machinery, etc.—are more market orientated and enjoy a more level playing field with private companies.

SOEs operating in strategic industries include companies in the energy, transportation, and even semiconductor sectors. In these industries, the state's ability to control and mobilize resources is considered crucial to helping Chinese firms attain global competitiveness. Toward that end, the government's State-owned Assets Supervision and Administration Commission (SASAC) has encouraged consolidation through mergers and acquisitions, facilitating already-large SOEs becoming even bigger in order to effectively compete internationally. The number of centrally controlled SOEs has fallen to 95 from nearly 200 in 2002.[2]

In some industries—such as cement, glass and steel fabrication—consolidation has cut excess production capacity, helping stabilize prices and boost profit margins. However, bigger is not always better. Giant SOEs produced by consolidation have not always delivered the hoped-for synergies and cost reductions. And, often, the national service demands placed on SOEs (to provide jobs and support social stability) combined with a lack of incentives for executives to make tough decisions are obstacles to more meaningful restructuring.

SOEs operating in non-strategic industries—such as consumer products and services, healthcare, construction machinery, etc.—are more market orientated and enjoy a more level playing field with private companies. Successful SOEs in non-strategic industries often share some common traits; workforce incentives (often through employee stock ownership plans), a professional management team with strong industry background, independent board members, well-established brand names and distribution networks as well as limited state influence. Some of these firms have also benefitted from the government's mixed-ownership reform program, where private companies invest in SOEs to make them more dynamic.

Many successful SOEs use incentives such as employee stock ownership plans (ESOPs) to better align the interests of management with shareholders. While an ESOP is not a silver bullet to solve all problems, a properly designed plan can be an important indicator of the right type of corporate governance and business culture. As shown in **Exhibit 3**, the use of ESOPs has risen dramatically in the past few years.

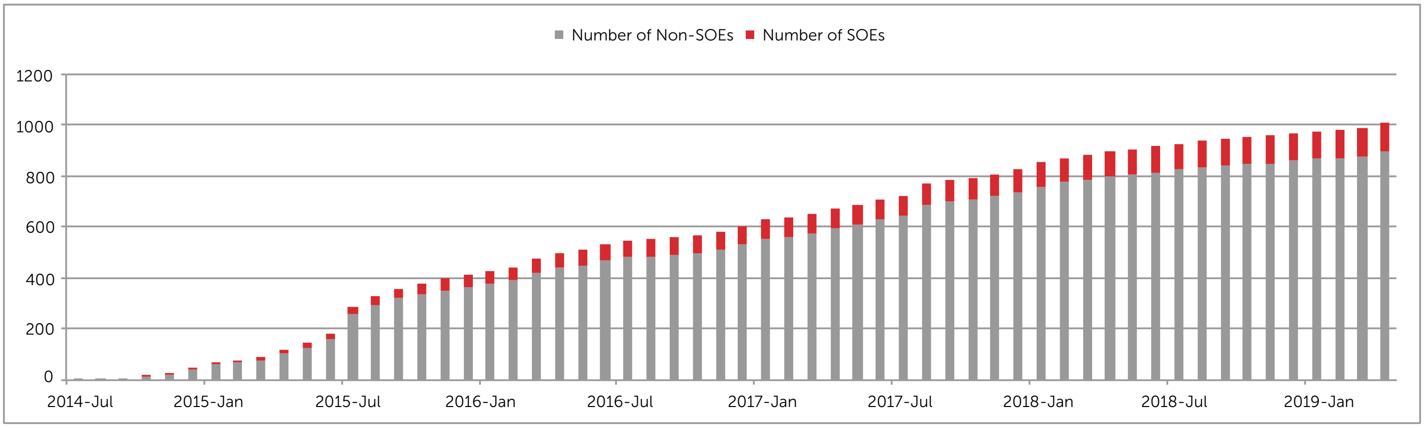
Bottom-Up Research Reveals Improving SOE Profitability

Over the past five years, there has been a recovery in SOE return-on-equity and a drop in leverage among SOEs, closing the gap compared to listed privately owned companies, as shown in **Exhibit 4.** Apart from the impact of SOE reform, the recovery in commodity prices has also helped boost margins especially for SOEs operating in upstream industries.

An examination of the performance of SOE stocks compared to their private counterparts reveals that SOEs have outperformed in three of the last seven years, including two of the last three years. This suggests that not all SOEs are bad investments. Our research suggests that certain SOEs have traded at discounted valuations

While there are certainly success stories among SOEs, these companies carry some unique risks, not least that advancing China's long term strategic goals can conflict with the interests of private shareholders.

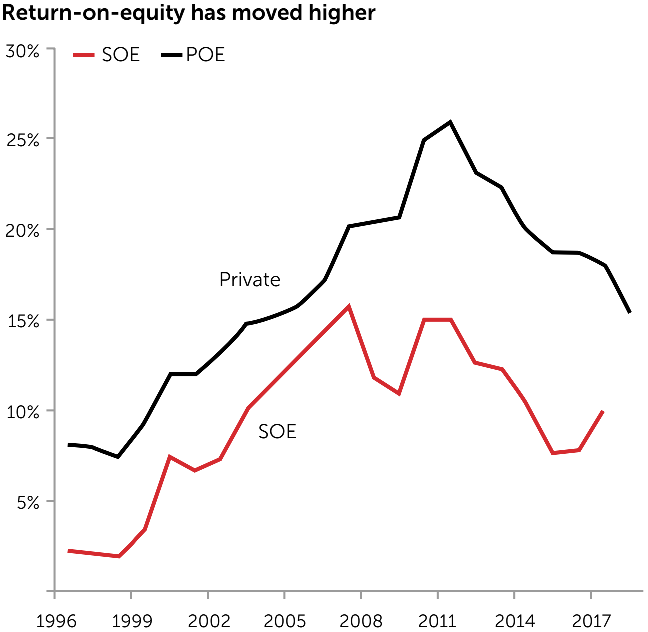
Exhibit 3: **The number of China A-shares firms, including SOEs, adopting ESOP plans is rapidly rising**

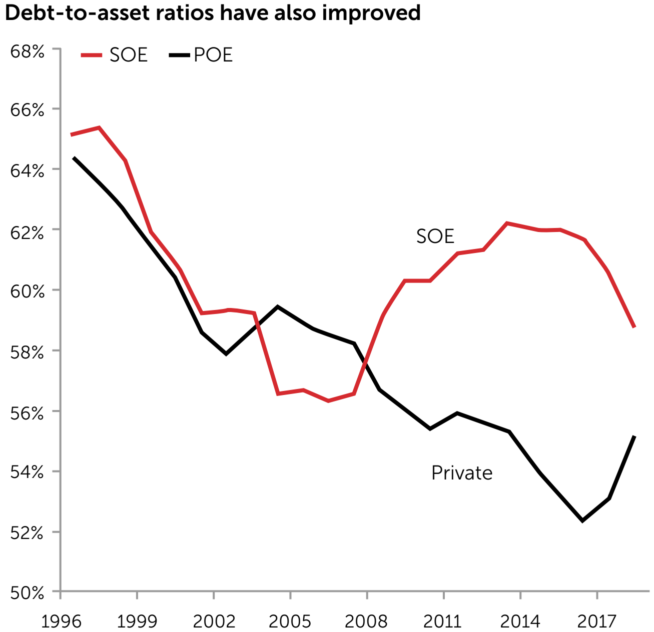


As of March 31, 2019

Source: Wind Data Service, HSBC Equity Strategy

Exhibit 4: SOEs have improved financial metrics in recent years





As of December 31, 2018

Source: Wind Data Service, HSBC

because of the SOE label, which fails to price in the potential future benefits of reform.

A great example of a non-strategic SOE is one of China's largest white liquor producers. This consumer-related stock is a far cry from the mega-cap, strategic bank or utility an international investor might think of when considering SOEs, but is indeed a government-owned firm. White liquor, the national drink of China, is drunk almost exclusively at meals and during toasts to show respect and build relationships. In mid-2016, the company's management introduced an employee stock-ownership scheme based on profit targets to both top and middle management.[3] Since then, management has made significant efforts to enhance productivity, reflected in a sizeable reduction of the firm's operational expense ratio in the subsequent two years. There has also been a notable cultural change in management's more transparent and market-oriented communications with shareholders. This is in sharp contrast to how most overseas investors view SOEs.

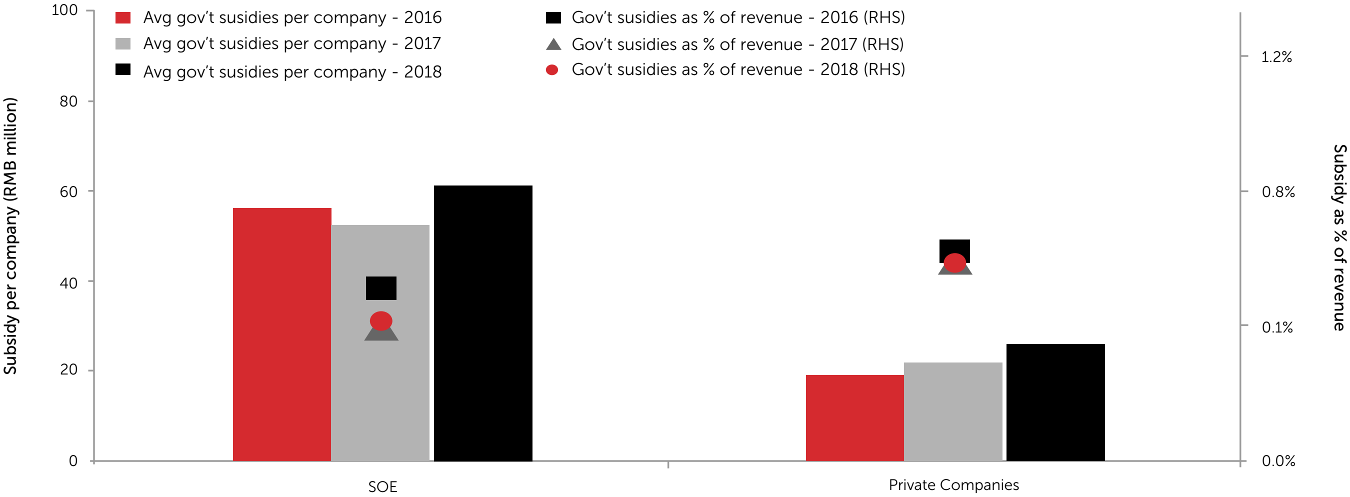
While our research generally finds superior investment opportunities among non-strategic SOEs, there are also some good opportunities among strategic SOEs. Although reform has generally been slower among these firms, some SOEs nevertheless stand out. For example, one nationwide SOE bank differentiates itself by building a strong brand as a bank with a business-oriented, highly experienced management team. That management includes a chief executive that is one of the few overseas educated leaders within the Chinese banking industry. Analysts regularly cite his long tenure and strategic thinking as a key reason behind the bank delivering successful growth for the past five years.

SOEs Carry Unique Risks

While there are certainly success stories among SOEs, these companies carry some unique risks, not least that advancing China's long term strategic goals can conflict with the interests of private shareholders. For example, after the global financial crisis, China's fiscal stimulus and credit expansion policies were a driving factor behind the sharp increase in leverage among SOEs. And when it comes to China's international ambitions, such as its Belt and Road initiative, state-owned construction companies are typically forced to advance the government's agenda under terms that can amount to an unpalatable mix of low margins and high geopolitical and execution risk.

Another commonly cited risk is the dependence of SOEs on government support. On average, listed A-share SOEs received RMB 82.6 million ($12 million) of subsidies in 2018, which is significantly higher than their private peers (see **Exhibit 5**). Heavy industry, utilities, materials and auto companies are the biggest recipients of such aid. However, as a percentage of revenue, the subsidies received by private companies are actually higher than those given to SOEs. In other words, the perception that SOEs are zombie companies that only survive thanks to government support is incorrect. Clearly some SOEs are subsidy- and policy-dependent, but many others have become significantly more market-oriented.

Exhibit 5: **Government subsidies as a percentage of profits are lower at SOEs than private firms**



As of December 31 2018

Source: HSBC, Allianz Global Investors

A Selective Approach

Despite skepticism from some investors over SOE reforms, meaningful progress has been achieved in recent years: Overcapacity has been slashed across a range of industries, debt burdens have eased, and stock incentive schemes have become more popular. While there is still a long way to go and many SOEs still face challenges including low-efficiency and questionable governance, the perception that SOEs are old-style companies that add little economic value is misguided and can lead to valuation anomalies.

In summary, we believe that investing selectively in SOEs is an important way to access parts of the Chinese economy. However, given the disparity between the best SOEs and underperformers, we believe that active investors hoping to generate excess returns should be underweight SOEs. Specifically, we believe that the allocations to SOEs in both the MSCI China A Onshore Index (58.8 percent[4]) and the MSCI All China Index (49.6 percent[5]) are too high because that cohort includes many SOEs that are likely to underperform the broader peer group for the reasons outlined above, underscoring the potential benefit of an active approach to portfolio construction. On balance, we believe a selective approach with SOE exposure that is lower relative to the respective benchmarks makes sense.

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ENDNOTES

1 Source: HSBC, SOE reform in China, as of November 2018.
2 Source: SASAC, as of November 8th, 2019.
3 Source: World Bank Database, as of December 31, 2015.
4 As of April 30, 2019
5 As of April 30, 2019

STATE-OWNED ENTERPRISES

Key Takeaways

- Understanding the idiosyncrasies of China's State-Owned Enterprises (SOEs) is crucial in order to avoid adding significant unwanted volatility to any China equity strategy.
- Chinese SOEs have been synonymous with inefficiency, questionable governance and lackluster shareholder returns. However, the reality is that SOEs have undertaken significant reform and, over the past 15 years, their share of GDP has fallen to 30 percent from 50 percent.
- It is important for institutional investors to differentiate between 'strategic' and 'non-strategic' SOEs as a starting point to identifying SOEs that are likely to produce excess returns.
- We believe that investors should underweight SOEs relative to benchmark indices while realizing that some SOEs, often those operating in non-strategic sectors, are historically among the strongest stock performers.

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

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SACRS 2019 FALL CONFERENCE PHOTO REPLAY

The SACRS 2019 Fall Conference took place in beautiful Monterey, California November 12-15 and included keynote and general session presentations, training sessions, breakout sessions, networking events, and more. Here's a visual look back at a few of the activities and events.













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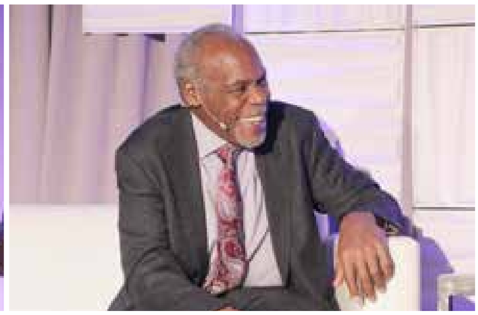












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FALL 2020
November 10-13
Renaissance Indian Wells
Resort & Spa
Indian Wells, CA

SPRING 2021
May 11-14
Hyatt Regency Long Beach
Long Beach, CA

FALL 2021
November 9-12
Loews Hollywood Hotel
Hollywood, CA

SPRING 2022
May 10-13
Omni Rancho Las Palmas
Resort & Spa
Rancho Mirage, CA

FALL 2022
November 8-11
Hyatt Regency Long Beach
Long Beach, CA

SPRING 2023
May 9-12
Paradise Point Resort & Spa
San Diego, CA

FALL 2023
November 5-11
Omni Rancho Las Palmas
Resort & Spa
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