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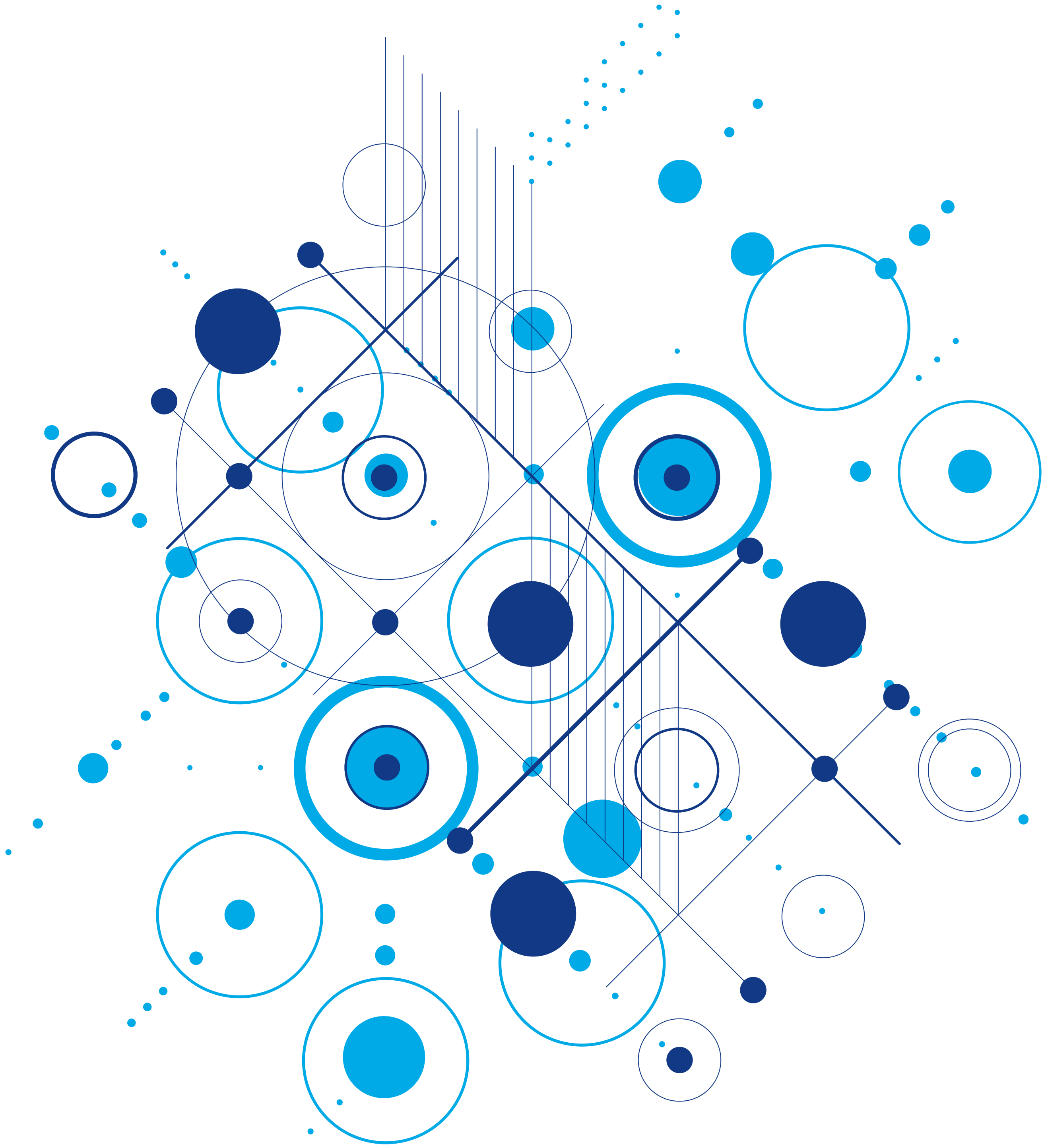
Enhanced asset utilization to improve portfolio returns



IFSWF
International Forum of Sovereign Wealth Funds

Executive summary

In the decade following the Global Financial Crisis, many sovereign wealth funds (SWFs) have continued to allocate to passive index strategies in both fixed-income and equity assets, typically for very lengthy investment horizons.

Holdings within these passive portfolios are often perceived to be under-utilized, and SWFs are increasingly looking to new avenues to extract increased portfolio yields and to introduce greater efficiencies in their investment management activities. In particular, a sustained period of low interest rates in key fixed-income markets has accelerated the adoption of novel asset utilization techniques from which SWFs are uniquely well-placed to benefit given their long-term investment horizons and large holdings of high-quality assets. Furthermore, regulatory reform has increased the demand from market participants for such assets for use as collateral, while driving fragmentation of the sources of liquidity. As a result, the landscape of trading venues is being transformed through growth in electronic and algorithmic trading, to which SWFs will also need to pay attention to ensure continued optimal execution and reduction of trading costs. Among the most commonly employed and widely adopted techniques for improving asset utilization and portfolio efficiency include:

1. **Securities lending,**
2. **Enhanced cash utilization,**
3. **Collateral transformation,**
4. **Margin optimization for OTC-traded securities, and**
5. **Electronic and/or algorithmic trading.**

This paper endeavours to offer (a) a primer on enhanced asset utilization to help SWFs acquaint themselves with associated challenges and opportunities and assess suitability and program implementation for their own institutions, and (b) experiences from other SWFs that have already evaluated and/or implemented these programs. To focus our efforts on the activities of most interest to SWFs, we undertook a survey of the member organizations of the International Forum of Sovereign Wealth Funds ("IFSWF"). Additionally, we conducted interviews with representatives of the investment teams at seven IFSWF members, to gather insights into their experiences in these areas of activity.

The paper is organized as follows:

- **Section 1** reviews the major avenues for improved asset utilization and cost reduction that are available to institutional investors today, and highlights key findings from our survey of IFSWF members on these activities.
- **Section 2** offers a deeper dive into three of these categories that we have identified as being most relevant to a broad spectrum of SWFs in light of our conversations with IFSWF members: securities lending, collateral transformation, and enhanced cash utilization (with a focus on the repurchase agreement, or "repo", market). We also review best practices for defining and implementing these programs, along with the unique challenges and opportunities associated with each.
- **Section 3** provides an overview of recent and forthcoming regulatory changes in the marketplace and their impact on these activities.
- **Section 4** concludes with some notable advice offered by SWFs experienced in these activities to those newly engaging in enhanced asset utilization programs.

In our view, SWFs are well-placed to take advantage of these increasingly mature yield enhancement opportunities given their investment horizons and typical portfolio holdings. Indeed, many SWFs already have long-standing programs in place. Given their unique investment objectives, each institution must consider several factors when determining the suitability of these activities and in implementing individual programs. However, it is worth noting that persistently low yields in many asset markets and increased demand for high-quality assets continue to make enhanced asset utilization an increasingly attractive source of additional yield and cost reduction for SWFs.

The views expressed herein are the views of one or more of the authors and do not necessarily reflect the views of any individual SWF, the IFSWF or of State Street Corporation.

Contributors

About the International Forum of Sovereign Wealth Funds (IFSWF)

The International Forum of Sovereign Wealth Funds (IFSWF) is a global network of sovereign wealth funds (SWFs) established in 2009 to enhance collaboration, promote a deeper understanding of SWF activity, and raise the industry standard for best practice and governance.

About State Street Associates

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Acknowledgements

Research for this paper was made possible by the contributions of the IFSWF members who participated in the member survey and shared their experiences and insights. We would like to especially thank the following members, who contributed their time for interviews to support our research effort:

- Australian Government Future Fund
- Fondo de Ahorro de Panamá
- GIC
- Heritage and Stabilization Fund of Trinidad and Tobago
- Pula Fund of the Bank of Botswana
- State Oil Fund of Azerbaijan
- Timor-Leste Petroleum Fund

We are also grateful to Jamilla Jeffcoate, Senior Vice President at State Street Global Markets, who made significant contributions in helping provide an overview of, and recent trends within, the securities lending market.

Finally, we thank the IFSWF Secretariat for its invaluable support and input as we undertook this study, and for their tireless efforts in coordinating membership participation in the research work program.

1. Enhanced asset utilization: common approaches

Institutional investors can engage in a variety of activities to help maximize utilization of their portfolio holdings with a view to increasing portfolio returns while minimizing costs associated with the implementation of investment decisions. Broadly speaking, these can be classified among the following five categories:

- Securities lending,
- Enhanced cash utilization,
- Collateral transformation,
- Margin optimization for OTC-traded securities, and
- Electronic and/or algorithmic trading.

Our survey of IFSWF members on their current and planned activities highlighted the following key trends:

- One-half of the responding institutions indicated that they are currently engaged in securities lending, and a further 10% would like to initiate a lending program.
- Only 20% of the responding institutions currently use collateral transformation in their current investment activities, but over 50% indicated that they see this as of high or moderate importance to their organizations in the near future.
- Enhanced cash utilization is being practiced by 30% of respondents, with a further 30% evaluating this activity for implementation in the future. Over two-thirds of the respondents described enhanced cash utilization as being of high importance to their institutions.
- Most participants (80%) did not directly use electronic or algorithmic trading tools, typically because their assets are externally managed. This, however, remains a topic of moderate or high importance to 50% of the respondents suggesting that they remain engaged with their external managers on use of these tools to enhance trading efficiency and lower execution costs where possible.

We have therefore chosen to focus our discussion on the three areas of activity that appear to be of most relevance to SWFs—securities lending and the related subjects of cash utilization and collateral optimization.

2. Most commonly employed asset utilization programs

Securities Lending

What is securities lending?

Securities lending is a common form of collateralized financing which offers low-risk incremental returns. It involves the offering of marketable securities held dormant by beneficial owners in their custody accounts to borrowers on loan, in return for a basis point fee for the term of the loan. The borrower also provides other securities or cash to the lender as collateral against the loaned security. Securities lending is today a US$2.4 trillion[1] industry that helps generate liquidity for financial markets and can help generate additional returns for owners of lendable securities.

How is a typical securities lending program structured?

Most asset owners retain an agency lender as an intermediary. In this operating model, securities move from the owner's custody account to the end borrower. The agency lender has discretionary control on the movement of these assets, as dictated in the agreed program guidelines. Collateral moves back in the form of equities or fixed-income securities or in the form of cash. In the latter case, the cash is re-invested by a cash investment manager.

How is it implemented?

The agent-lender is responsible for managing all the trade activity and related functions in lending transactions. The agent will have a standard form of legal agreement with the beneficial owner and the market participant (i.e. the borrower). This legal agreement defines all parameters of the lending program—including collateral eligibility, fee splits and any standing instructions regarding caps or other parameters. When implemented in this manner, the securities-lending transaction is invisible to the portfolio manager of the beneficial owner, meaning they can continue their investment management activity as normal, while the lending of invested securities occurs in the background. The lendable assets remain in the custody account until the agent-lender has sourced a borrower for those securities, and only then do they move out of the custody account and collateral is taken in their place. A discount, known as a "haircut", is applied to the collateral valuation to create an additional collateral buffer to protect against loan default in the event of market volatility. Typically, this can range between 2% to 10% depending on differences in the lent security and collateral provided. The borrower pays a monthly fee based on an annualized rate determined using the market value of the loaned securities. The agent-lender charges a percentage of the fee to arrange the transaction on behalf of the beneficial owner, thereby aligning their interests with that of the beneficial owner.

1 See: DataLend, Global Assets on Loan, August 2018.

Who are the main participants?

The beneficial owners are usually large institutional asset owners such as SWFs, central banks, mutual funds, pension funds, and insurance companies with long-term investment horizons. Mutual funds and pension funds are often the largest participants, estimated to represent approximately two-thirds of the global lending pools.[2]

The major lenders are typically large global custodians, who have access to broad pools of assets across many clients. However, agency securities lending is not predicated on whether assets are held in custody with the associated custodian, and some market activity is also carried out by third-party agents. A few large asset managers choose to run their own securities lending program on behalf of their funds.

Borrowers range from banks, broker/dealers and prime brokers that borrow securities on behalf of their hedge-fund clients. Some sophisticated asset owners also borrow securities to implement short strategies. Occasionally hedge funds enter the market directly and borrow securities without the use of prime brokers.

What are the main reasons for borrowing securities?

Counterparties may borrow securities for a variety of reasons, all of which are driven by a need to deliver a security the investor does not possess. Key amongst these use cases are:

- **Fail coverage:** A very common use case for borrowing is settlement fail coverage. Where an investor has sold securities, they have an obligation to physically deliver these securities. If they are unable to do so, perhaps because of a failed purchase, they may borrow the security for a short period of time to meet these obligations.
- **Corporate event arbitrage:** On behalf of a hedge-fund client, a prime broker may borrow securities for corporate event arbitrage—for example, merger and acquisition events or stock split elections represent optionality that give rise to arbitrage opportunities for hedge funds that can be implemented via borrowed securities.
- **Hedging:** Hedging is another driver of borrowing activity, for example hedging a derivative total return swap position on an underlying.
- **Short selling:** One of the more commonly cited reasons for borrowing securities, this use case involves the borrowing of a security to provide physical delivery on a short sale.
- **Collateral optimization:** A borrower may choose to post relatively illiquid securities.

How can securities lending help to maximize portfolio returns?

Securities lending offers an owner the ability to extract enhanced yield from assets that may be lying dormant in a custody account. The fees generated from a lending program can help to offset custody fees, management fees or operational expenses. In many cases, the fees generated can not only cover operational expenses, but also offer surplus returns that can result in outperformance vis-à-vis market peers. Portfolio managers may also be interested in securities lending activity because it can reveal valuable information on negative market sentiment, which may be difficult for long-only managers to ascertain otherwise. In aggregate, securities lending is a source of liquidity that can help improve efficiency of secondary markets via improved price transparency and prevention of artificial bubbles in asset prices.

2 See: International Securities Lending Association, "Securities Lending Market Report," December 2015.

What are some of the challenges associated with securities lending activity and how can SWFs mitigate these risks?

- **Credit risk:** the risk of a borrower defaulting is the primary risk that must be controlled for in a securities lending program. This is typically done in a consultative fashion between the lender and their agent via an approved borrower list. The quality of this list can be controlled by the beneficial owner via credit quality thresholds, as well as through continuous review and monitoring of individual borrowers in the program by the agent lender. In some cases, agent-lenders bear all the credit risk by offering borrower default indemnities that protect the owner against counterparty default and any resulting shortfall between the market value of the collateral and that of the lent securities.
- **Market risk:** lenders should minimize any shortfalls resulting from market volatility by implementing daily mark-to-market of loaned securities and associated collateral and maintaining a positive margin in the value of the collateral. Value-at-risk estimation in addition to scenario stress-testing can further help ensure adequacy of collateral margins during periods of market distress.
- **Operational risk:** Dedicated resources are needed to ensure that settlements occur on time, collateral is received and in line with lending program guidelines, and appropriate security-level illiquidity buffers exist to ensure timely recalls of illiquid securities (often through facilitation of sales through reallocations with other lending clients).
- **Legal risk:** Implementation of programs using industry-standard documentation can help mitigate legal risk. Beneficial owners will typically enter into a Securities Lending Agency Agreement, which outlines all the parameters of the loan transactions that accurately reflect the owner's risk appetite. The Agreement should be regularly reviewed to ensure it reflects changes to the owner's risk tolerance. Similarly, agreements with counterparties must appropriately protect the owner against borrower default and be reviewed periodically.
- **Re-investment risk:** This risk manifests in situations where cash is accepted as collateral against borrowed securities and is re-invested. Depending on the guidelines issued by the owner with respect to duration, counterparty and product type, cash re-investment may produce losses, as experienced by some lenders in the aftermath of the financial crisis in 2008. However, over the past decade regulation has improved transparency and market participants have a greater understanding on the impacts of duration, counterparty and product type in respect to re-investment risk available to securities lending participants. The shift into a rising rate environment in the US has also reignited interest in the use of cash collateral, albeit it with much tighter controls and oversight.

What are the key implementation considerations for an SWF when building a new securities lending program?

If outsourced to an agency lender, there are typically no technology requirements for the owner when implementing a new lending program. Working with the custodian, the agent provides daily reports, which include key metrics such as securities out on loan and counterparty exposures. It is important, however, that the asset owner works closely with the agent in ensuring that their institutional risk/return appetite is accurately reflected in the agreed program guidelines within which the agent will operate.

If, on the other hand, an asset owner chooses to build an in-house program, one of the most critical components of the infrastructure would be a robust risk-management program that allows for dynamic real-time measurement and monitoring of asset and collateral mark-to-market valuations, as well as counterparty risks. This is particularly important given that the owner would be carrying all operational and credit risk in such an implementation, rather than being able to rely on a third-party indemnity to mitigate risk as they would in an out-sourced agency model. The asset owner would also need to invest in technology solutions that allow for efficient matching of lendable assets with prospective borrowers to maximize the utilization of the lendable portfolio.

Collateral transformation

The evolution of the securities lending industry, from primarily utilizing US-dollar denominated cash collateral a decade ago, to the widespread use of non-cash collateral today, has been accompanied by an unintended tightening of collateral availability. The primary cause of the shrinking pool of assets has been changes to regulatory capital requirements on banks and broker-dealers under the Dodd-Frank Act in the US and Basel III regime in the European Union. As banks have shifted towards collateralization using scarce in-house collateral positions, there has been a significant reduction in the amount of securities lending transactions over the last decade.

Collateral optimization, involving transformation of illiquid securities into High Quality Liquid Assets (HQLA) for use as collateral, has become common practice and thereby allows for continued utilization of relatively illiquid assets. Market participants and borrowers are increasingly reliant on collateral management agents who facilitate provision of appropriate intra-day collateral and funding requirements. These agents can help improve efficiency of collateral delivery and reduce financing costs through automated initial allocation and substitution based on actual or forecasted cash flows or settlement needs, and reduce operational risks associated with posting and recalls of collateral.

Furthermore, rapid technological changes have created new trading venues that are altering how market participants transact. These new platforms can match lenders and borrowers across venues and regions more efficiently, thereby reducing costs and improving counterparty diversification. If enough investors adopt emerging technologies such as pledge structures, central counterparty clearing houses (CCPs—particularly in Europe), and peer-to-peer buy-side platforms there may be further efficiencies and improved liquidity in the marketplace. Those SWFs that do not possess internal infrastructure and expertise required to manage collateral risks, may benefit from using the services of third-party agents who can deploy scalable infrastructure and manage these risks on their behalf.

Enhanced cash utilization

Enhanced cash utilization can take many forms, but for this paper we focus our attention briefly on a common tool – the repurchase agreement (or "repo")—that is most closely associated with securities lending and collateral transformation activities.

Repos are money market instruments that are like secured deposits, and often used by investors to generate incremental yields from short-term operating cash flows or strategic cash reserves. Repos are commonly used to re-invest cash collateral posted against borrowed securities in a securities lending program. Repos are collateralized, and typically offer greater yield than traditional unsecured cash instruments such as money market products. They also exhibit a reduced risk profile because of the provision of secured collateral to protect against default. A typical repo trade involves provision of cash from a lender to a borrower on the settlement date, against a sale of collateral from the borrower to the lender with an obligation to repurchase the collateral at a future maturity date. At this maturity date, the borrower also pays interest on the cash loan to the lender. Note, however, that despite the transaction involving an actual purchase and sale of securities over its full term, it is typically treated as a loan for tax purposes given the temporary nature of the transfer of ownership.

The bespoke nature of these instruments allows for a wide-range of durations, ranging from (most commonly) overnight to more than a year, as well as tailored risk profiles in the form of varying collateral types. The dominant collateral type in repo markets remain US government bonds and mortgage-backed securities, with equities, corporate bonds and other collateral types backing less than 15% of the market today.

The key risks associated with repo trades are not dissimilar from those discussed in securities lending: a) operational risk in ensuring efficient and timely flows of cash and collateral, b) daily mark-to-market of collateral to ensure collateral and margin requirements are met on a continuous basis; and c) robust technology infrastructure requirements to ensure compliance with program-specific guidelines on diversification, duration and collateral types etc. An important differentiator with traditional debt instruments is that repos cannot be sold before the maturity date and must be held to maturity. Many of these risks are managed within the common tri-party repo model, wherein an intermediary, typically a clearing agent or bank, acts between the lender and borrower, thereby offering escrowed security protection to both parties.

3. Impact of regulatory reform

To help investors understand how regulatory reform is impacting asset utilization activities, we provide below an overview of key recent changes in the marketplace that are being seen, as well as those that are likely to manifest in the coming years as new regulations come into force:

- **Increased Transparency:** To increase transparency in the use and re-use of collateral, the EU Commission plans to introduce the Securities Finance Transaction Reporting (SFTR) regime in Q3 2019, which will require reporting of any securities lending transaction involving an EU counterparty or branch to a central trade repository by the end of the day following the trade date (T+1). Agent-lenders are likely to be permitted to provide this reporting on behalf of the beneficial owners. However, the mechanism for such reporting is still being developed. While SFTR may increase the costs of operating a lending program, it is expected it will also improve lending opportunities for owners through enhanced transparency of transactions to prospective borrowers.
- **Efficient Utilization of Collateral:** Regulations such as the Third Basel Accord (Basel III, effective Q1 2019) and the Dodd–Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank, staggered effective dates Q3 2010 onwards) have imposed additional capital requirements on market counterparties where margin is provided in a security-lending transaction. Through the assignment of variable risk weightings on the capital depending on the counterparty type, these regulations have compelled borrowers to become more efficient in utilization of balance sheet assets, thereby reducing demand for securities lending over the last decade.
- **Shrinkage of the Repo Market:** These regulations have shrunk the total repo market and will potentially lead to consolidation amongst participants. Competitive differences have emerged due to the implementation of Basel III and Dodd-Frank, offering advantages to participants who are able to invest in the infrastructure required to meet these new regulatory requirements.
- **Introduction of Best Execution:** The Markets for Financial Instruments Directive (MiFID II, effective 3 January 2018) is an EU regulation designed to increase market efficiency, choice, and investor protections. This regulation has impacted agency lenders by requiring them to offer best execution to ensure fair treatment of all clients in the program.
- **Operating Model & Legal Entity Changes:** Following the UK's imminent departure from the EU in March 2019, agent-lenders operating in the UK and Europe will likely lose their respective MiFID passporting rights in Q1 2019. Consequently, they will need to alter legal agreements to ensure servicing of UK market participants from within the UK, and EU market participants from within the EU respectively. It is possible that UK borrowers may also need to change their operating model, involving relocation of some of their operating entities.
- **Improved Settlement Outcomes:** The Central Securities Depository Regulation (CSD, staggered implementation from Q1 2017 through Q2 2020) was introduced to help limit settlement fails, by requiring mandatory buy-in for any securities not settled within the contractual settlement date timeframe and may impact non-CSDs both directly and indirectly. This change may create competitive advantages for agent lenders who are able to readily reallocate lent securities to other clients in their lending programs.

4. Key takeaways

Finally, we highlight some key pieces of advice offered by the experienced SWF investors to whom we spoke during the research for this paper, to their peers considering new implementations of asset utilization programs. They suggest that investors:

- Ensure that marginal yield generation activities do not distract your organization from the long-term investment objectives of your fund.
- Select the right securities lending agent for your program. This is as important as the guidelines you use to define your program. Look for a partner with proven track records in both the back-end work-flow (i.e. operating experience and technological infrastructure required in the implementation of the program), as well as the front-end workflow (i.e. how they interact with you as a client and the detailed, regular reporting they will need to provide to you). Ensure your agent has robust program monitoring and credit review processes for counterparties, and a dedicated and accessible client servicing team available to answer questions especially as you are first implementing the program.
- If you outsource these activities to external agents, ensure you hire a lean team of very experienced staff to oversee these activities—while an agent may be acting on your behalf, it is important that you have the expertise to help define parameters for the program that are aligned with your individual institutional needs, and are able to periodically review and adapt these guidelines with your lending partner to achieve your yield and risk profile objectives.
- Make sure you fully understand four key attributes of any yield enhancement strategy: liquidity risk, credit risk, market risk and structuring risk, and how these risk characteristics might vary through different market regimes. Pick only those that offer stable risk profiles across varying market conditions that are within your organization's risk tolerance.

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