2018 SINGAPORE ASSET MANAGEMENT SURVEY

THE GATEWAY TO ASSET MANAGEMENT OPPORTUNITIES IN ASIA



Contents

Foreword	2
About the Survey	9
Survey Findings Assets Under Management Sources of Funds Investment of Funds Retail Investment Funds	10
Areas of Development Promote Enterprise Financing Catalyse Green Investments Anchor Fund Domiciliation Boost Technology and Innovation Capabilities	18

Foreword

2018 was a challenging year for global financial markets and the asset management industry. Global assets under management ("AUM") declined by 4% to US\$74 trillion¹, compared to an increase of 12% in 2017², weighed down by uncertain global growth prospects. Global net inflows for 2018 also slowed to US\$944 billion, below the record high of US\$2.2 trillion in 2017, reflecting investors' cautious stance amidst the uncertain outlook.

In contrast, Singapore's asset management industry registered a relatively good expansion of 5.4% to \$\$3.4 trillion, or US\$2.5 trillion. Singapore continues to serve as the Global-Asia gateway for asset managers and investors to tap the region's growth opportunities, with 75% of AUM sourced from outside of Singapore in 2018. 67% of total AUM was invested in the Asia Pacific, of which more than a third of Asia Pacific AUM were investments into ASEAN countries.

Singapore's AUM growth was uneven across the traditional and alternative asset management sectors. Strong inflows in traditional sector strategies managed or advised out of Singapore were more than offset by weaker valuations across major asset markets, in tandem with global trends. As a result, traditional AUM was sluggish and registered a 7% decline over the year.

¹ Source: BCG Global Asset Management 2019 "Will These '20s Roar?" (July 2019).

² Source: BCG Global Asset Management 2018 "The Digital Metamorphosis" (July 2018).

The alternatives sector, however, continued to expand strongly, with 15% growth to \$\$646 billion. In particular, private equity ("PE"), venture capital ("VC") and real estate ("RE") saw strong inflows and continued valuation gains as investors increased exposures to private assets for return enhancement and portfolio diversification. Singapore, as a leading private markets hub, serves as an attractive location for investment managers and an increasing number of global public investors, including sovereign wealth funds and pension funds.

The medium term prospects for Singapore's asset management industry remain favourable. Asia is a young, urbanising region and investment penetration levels remain low. AUM in Asia Pacific is expected to grow faster than any other region globally, almost doubling from 2017's AUM to about US\$30 trillion in 2025³. Singapore has built a vibrant asset management ecosystem that continues to grow and is well placed to serve this regional trend. Fresh demand from global investors for growing areas such as private markets, infrastructure and green investments will also fuel the growth and diversity of the Singapore ecosystem. Our focus on technology and innovation, and the deepening of skills and talent across the asset management industry, will be a key growth enabler. To further enhance Singapore's position as a fullservice Asian hub for fund management and fund domiciliation. we have undertaken the following initiatives:

³ Source: PWC Asset & Wealth Management 2025 "The Asian Awakening" (January 2019).

Promote Enterprise Financing

The Monetary Authority of Singapore ("MAS") introduced several initiatives in 2018 to strengthen Singapore's private markets financing channels, including a programme to place up to US\$5 billion for management with PE and infrastructure fund managers⁴. Under the private markets programme ("PMP"), MAS will fund PE and infrastructure fund managers who are committed to either deepen their existing presence or establish a significant presence in Singapore.

MAS also launched a deal making platform, Meet ASEAN's Talents & Champions ("MATCH"), to match promising next-generation ASEAN enterprises with investors seeking private market opportunities. Since its launch, MATCH has generated more than 17,000 matches between 380 participating investors and 840 enterprises⁵. This has been enhanced with a new "Deal Fridays" format in 2019, reflecting a joint partnership with Enterprise Singapore to connect a carefully curated list of growth-stage companies with investors. Since its launch in June 2019, 415 investors and 370 companies have connected through "Deal Fridays" as of August 2019.

The Singapore Academy of Law and the Singapore Venture Capital and Private Equity Association ("SVCA") jointly developed a set of standardised investment documentation launched in October 2018, known as the

⁴ Source: MAS "MAS to place up to US\$5 billion with private equity and infrastructure fund managers".

⁵ Source: MAS "Singapore FinTech Festival attracts US\$12 billion of capital for ASEAN enterprises".

Venture Capital Investment Model Agreements ("VIMA"), that can be used in seed and early-stage fund-raisings⁶. SVCA also partnered with Cambridge Associates in May 2019 to provide its members and industry participants with aggregated Southeast Asian PE and VC benchmark data and statistics. Together with the launch of a simplified regulatory framework by MAS for VC managers in 2017, these collective efforts will further complement the growth of the VC ecosystem in Singapore.

Catalyse Green Investments

MAS has been working closely with the financial sector and international counterparts to enhance the ability of the financial system to manage environmental risk and support the transition to a low-carbon economy. Together with the industry, we have taken some steps in this direction over the last few years through: (i) introducing industry guidance; (ii) incentivising green financing solutions; and (iii) capacity building.

In February 2019, MAS expanded the Green Bond Grant Scheme, first launched in June 2017, to include social and sustainability bonds. Recognising that social and sustainability projects in Asia could be smaller in scale and have lower capital needs than the minimum issuance size requirement of \$\$200 million under the Green Bond Grant Scheme, the minimum issuance size requirement was also lowered so that more issuers can avail to the grant. Issuers

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⁶ Source: SVCA "VIMA Kit".

can qualify by having a bond programme of at least \$\$200 million in size, with an initial issuance of at least \$\$20 million.

Anchor Fund Domiciliation

The Variable Capital Companies Act 2018 ("VCC Act") was passed by Parliament in October 2018. The VCC Act introduces the Variable Capital Company ("VCC"), a flexible corporate structure designed for investment funds, that complements the existing suite of fund structuring options in Singapore. Fund managers can use the VCC to structure open-ended and closed-end funds across both traditional and alternative strategies. The availability of the VCC will encourage fund managers to co-locate fund domiciliation in Singapore, alongside their existing fund management activities.

The VCC framework is expected to be operational by end 2019. Prior to that, MAS will collaborate with interested fund managers on a pilot programme to identify areas of improvement within the process of incorporating or redomiciling funds as VCCs.

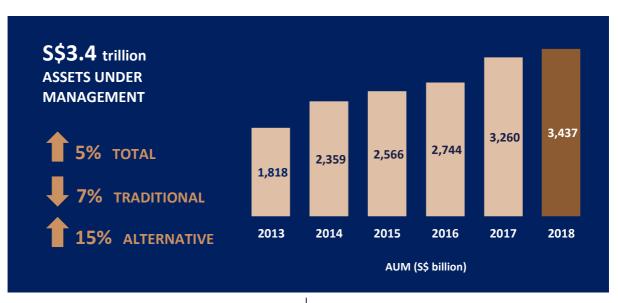
Boost Technology and Innovation Capabilities

The Investment Management Association of Singapore ("IMAS") introduced the Digital Accelerator Programme ("DAP") to provide selected FinTech start-ups with the opportunity to work with asset management firms in

Singapore to develop and test commercial solutions for the asset management industry. Asset managers are also increasingly choosing to base their technology hubs in Singapore, drawn by our vision to be a Smart Financial Centre and the initiatives to develop technology and innovation capabilities. In December 2018, MAS launched the new Cybersecurity Capability Grant ("CCG") to help strengthen the cyber resilience of Singapore's financial sector⁷.

⁷ Source: MAS "New S\$30 million grant to enhance cybersecurity capabilities in financial sector" (December 2018).

2018 Key Highlights



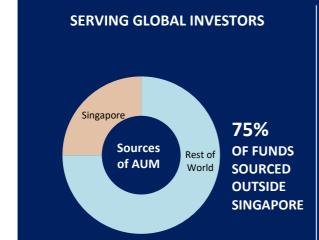
787REGISTERED & LICENSED FUND MANAGERS





ALTERNATIVE ASSETS UNDER MANAGEMENT (\$\\$\) billion)







About the Survey

MAS conducts an annual survey of the Singapore asset management industry. This report covers the survey findings for the year ending 31 December 2018.

Financial institutions surveyed included Banks, Finance and Treasury Centres, Capital Markets Services licensees (including REIT managers), Financial Advisers, Insurance Companies, Operational Headquarters and Exempt Entities, but excluded direct investments by government-related entities. 827 respondents participated in the 2018 MAS Asset Management Survey.

Survey Findings

Assets Under Management

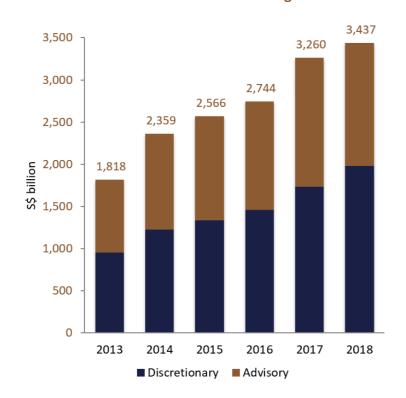
As at the end of 2018, total assets managed by Singapore-based asset managers grew by 5% year-on-year to reach \$\$3.4 trillion, up from \$\$3.3 trillion in 2017. Over the last five years, the industry's AUM expanded at a 14% compound annual growth rate ("CAGR").

Singapore remains a conducive place to conduct portfolio management activity with the share of discretionary AUM⁸ rising from 53% in 2017 to 58% in 2018. This further reflects Singapore's reputation as a safe and trusted financial centre with a stable political and economic environment. Singapore is also a thriving gateway to

S\$3.4
trillion

▲5%2018 AUM growth

Chart 1: Assets Under Management



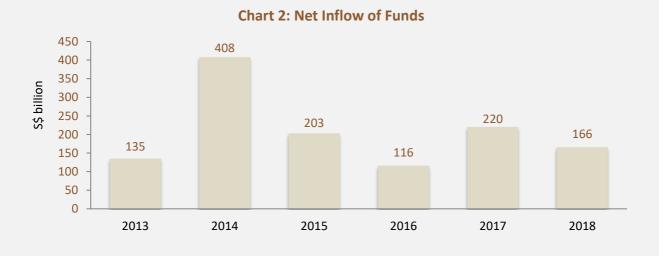
▲14%5-year
AUM CAGR

⁸ Discretionary AUM refers to funds managed in-house by the Singapore Office where the Singapore Office has substantial input in the investment management process, and where it has the authority to make investment decisions.

private market opportunities in Asia with an increasing number of start-ups from across the region raising capital for their expansion. In 2018, there was a net increase of 72 registered and licensed fund managers. This brings the total number of registered and licensed fund managers to 787.

AUM growth supported by net fund inflows

In 2018, the Singapore asset management industry saw net inflow of funds⁹ of S\$166 billion due to favourable demand for Asian investment strategies which are predominantly managed out of Singapore. Although this was slightly lower than net inflows recorded in 2017, both traditional and alternative asset managers continued to attract net fund inflows, with RE and PE managers the main contributors among alternative managers.



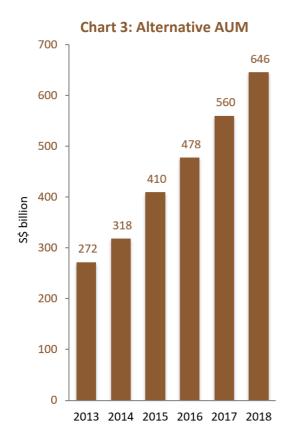
⁹ Net inflow of funds is equal to incoming funds less outgoing funds.

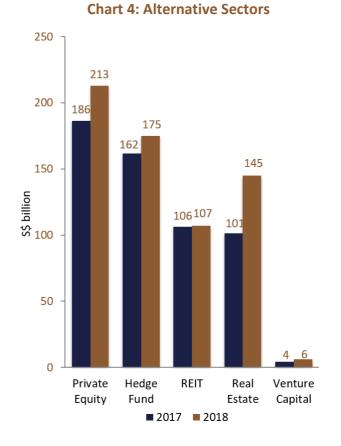
Traditional AUM declined by 7% in 2018 as net inflows were more than offset by weaker valuations. Smoothing out these fluctuations, the average growth rate over the past five years remained healthy at 12%. Within the alternatives sector, growth of PE and VC AUM¹⁰ was robust at 14% and 40% respectively as investors seek after private market investment opportunities in the Asia Pacific, and increasingly within ASEAN. Capital raising continued to be robust, with PE and VC managers reporting S\$20 billion and S\$3 billion of dry powder¹¹ respectively. This is equivalent to 9% and 49% of drawndown AUM respectively.

▼7%Traditional

AUM growth

▲15%
Alternative
AUM growth





¹⁰ AUM of Private Equity and Venture Capital include only drawn-down capital.

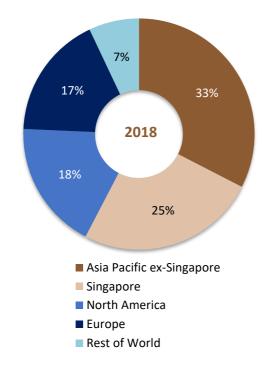
¹¹ Dry powder refers to capital that is contractually committed but undrawn.

Sources of Funds

In 2018, 75% of total AUM was sourced from outside Singapore, slightly below the three-year average of 77%. 33% was sourced from Asia Pacific excluding Singapore, 18% from North America, and 17% from Europe, further demonstrating Singapore's role in serving both regional and international investors.

75%AUM sourced from outside Singapore

Chart 5: Singapore's AUM – Source of Funds

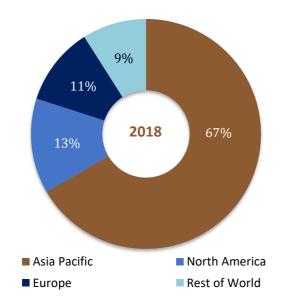


Investment of Funds

The Asia Pacific region continued to be a key investment destination for Singapore-based asset managers, accounting for approximately 67% of total AUM in 2018, similar to its three-year average. Within Asia Pacific, 38% of AUM was invested in ASEAN.

In 2018, respondents reported a rotation away from equities towards safe haven assets, including fixed income, as risk appetite remained low against a backdrop of general flight to safety. Allocation to equities declined from 44% of AUM in 2017 to 41% in 2018, with broadbased outflows across most regions. Comparatively, fixed income assets rose modestly from 21% of AUM in 2017 to 24% in 2018. The increase in fixed income allocation was

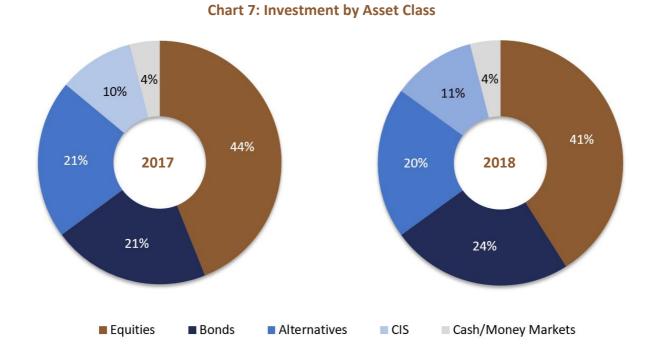
Chart 6: Singapore's AUM - Investment of Funds



67%
AUM
Invested in the Asia Pacific

driven by an increase in investments into sovereign bonds, which rose from 25% of fixed income AUM in 2017 to 33% in 2018. Consistent with the overall low risk stance, investments into corporate bonds decreased from 67% of fixed income AUM in 2017 to 59% in 2018.

Allocation to alternatives¹² remained a sizeable portion of investors' portfolios at 20% of AUM. Alternative investment strategies remained a core holding in investors' investment portfolios for risk diversification and return enhancement.



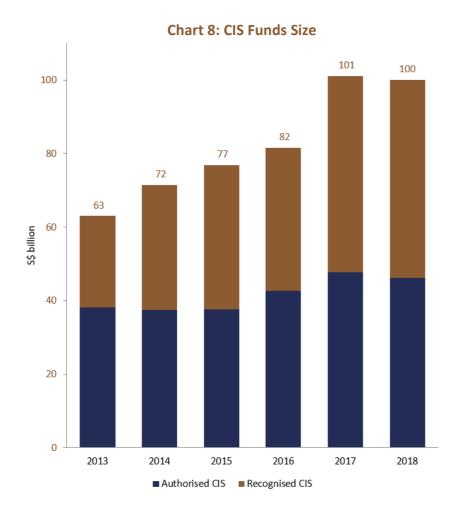
¹² Investments in alternatives include unlisted/private equity/venture capital, real estate and other investments.

Retail Investment Funds

In 2018, the size of Authorised Collective Investment Schemes¹³ ("CIS") and Recognised CIS¹⁴ offered in Singapore remained stable at around S\$100 billion, representing a five-year CAGR of 10%. Recognised CIS stood at S\$54 billion, while Authorised CIS stood at S\$46 billion.

10%

5-year Total CIS AUM CAGR

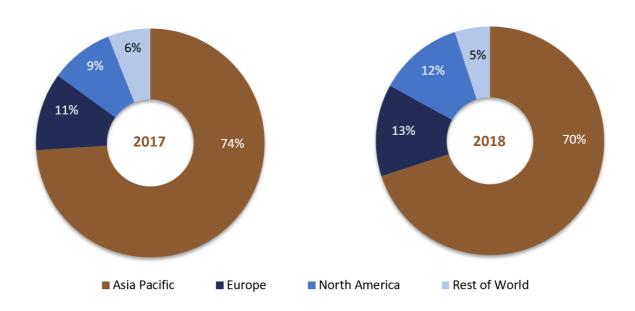


¹³ Authorised CIS are schemes constituted in Singapore and offered to retail investors in Singapore.

¹⁴Recognised CIS are schemes constituted outside Singapore and offered to retail investors in Singapore.

Investments from Authorised CIS into the Asia Pacific region continued to dominate at 70% of AUM, while allocations to Europe and North America were stable at 13% and 12% respectively.

Chart 9: Investment of Authorised CIS by region



Areas of Development

Promote Enterprise Financing

The PE and VC industry continues to grow at a rapid pace in Asia Pacific, registering a 22% five-year CAGR to reach nearly US\$883 billion in 2018¹⁵. The region also reached new highs both in terms of deal and exit value after a record-breaking 2017. In 2018, Bain & Company ("Bain") reported that deal value in the region reached US\$165 billion, up 4% from 2017's all-time high of US\$159 billion, while exit value reached a record US\$142 billion.

240 VC and PE managers

Although China and India remain key investment markets, investors are increasingly looking towards ASEAN for potential opportunities. Deal value in ASEAN also experienced notable increase, up 38% over the five-year average to reach US\$13 billion while deal activity rose to 76, up 18% over the five-year average¹⁶. This was propelled by mega deals such as Grab, Go-jek, and Tokopedia. Much of ASEAN's growing appeal is due to continued rapid consumption and urbanisation, and increased demand for private financing across start-ups to growth and large enterprises as firms stay private for longer. Looking forward, Bain expects the region's total deal value to reach US\$70 billion with the birth of at least 10 new unicorns by 2024¹⁷.

^24%

5-year PE and VC AUM CAGR

Singapore's PE and VC landscape

Singapore is well-placed to ride the momentum of these developments and serves as the natural gateway to the region's private market opportunities. Over the past five

¹⁵ Source: Bain & Company "Asia-Pacific Private Equity Report 2019" (March 2019).

¹⁶ Ibid

¹⁷ Source: Bain & Company "Investing in Southeast Asia: What's Behind the Boom" (November 2018).

years, Singapore's PE and VC AUM grew at a CAGR of 24%, to \$\$219 billion in 2018. Our diverse ecosystem of more than 240 global and regional PE and VC managers continues to attract Asian enterprises looking to raise capital for their growth plans. As such, Singapore has become a thriving launch pad for tech start-ups and continues to anchor global players such as SoftBank Ventures Asia¹⁸.

Anchoring PE and VC capabilities

To deepen the pool of private market players in Singapore, MAS launched the US\$5 billion PMP in November 2018 to fund global PE and infrastructure fund managers that have demonstrated commitment to either enhancing their existing presence locally or developing a significant presence in Singapore. Since its launch, there has been keen interest from PE and infrastructure managers alike, with MAS deploying just over US\$550 million¹⁹ in managers that have met our investment and developmental objectives. This of pace commitments is aligned with our multi-year deployment plan to ensure that we achieve a good diversity of funds and vintages for the PMP.

Facilitating deal process

To lower costs for start-ups as well as PE and VC managers, the Singapore Academy of Law and SVCA jointly developed VIMA in October 2018²⁰. The VIMA kit

¹⁸ Source: Reuters "Softbank's Son finds more love for early-stage investing, new fund planned" (March 2019).

¹⁹ As of March 2019.

²⁰ Source: SVCA "VIMA Kit".

provides a set of standardised documents and contracts that can be used in seed rounds and early-stage financings. Each document has been drafted based on Singapore law and includes explanatory notes on the various clauses within the documents. This will allow start-ups to focus their time on their business, reduce transaction costs and shorten the time needed to close investment rounds. This also complements the simplified regulatory regime for VC managers introduced in 2017, and strengthens the overall enterprise financing ecosystem in Singapore.

Promoting regional deal flow

To connect start-ups to growth-stage enterprises, MAS and Enterprise Singapore launched "Deal Fridays", as a continuation of the 2018 MATCH exercise. "Deal Fridays" is a series of curated investor-company match-making events in Singapore which takes place every Friday from June till November 2019. As of August 2019, 415 investors and 370 companies have already engaged with "Deal Fridays", working with MAS and Enterprise Singapore to explore investment opportunities through its digital platform and face-to-face meetings.

To further mainstream PE and VC as an asset class, and crowd in private capital, SVCA has executed a partnership with Cambridge Associates to construct a repository on Southeast Asian PE and VC investment performance

statistics as well as develop reliable benchmarks for the industry. Once developed, reports which will include PE and VC industry returns compared against other market statistics, will be issued every quarter. This initiative will allow investors to gain deeper insights into attractive private investment opportunities in the region while raising the profile of Southeast Asian PE and VC investment as an asset class.

Expanding private market platforms

Given that companies are staying private for a longer period of time, MAS recognised the need for having private market platforms in Singapore that will provide regional and domestic high growth enterprises access to a wider network of investors for growth capital and expertise, so as to support their business expansion plans. As such, to facilitate a recycling of capital and provide PE and VC managers with more exit options, two market players, Capbridge Platform and Sharespost Asia, have since received their Recognised Market Operator ("RMO") licenses to conduct private market platform activities. There has also been continued interest by the industry to set up trading venues for private markets, including submissions for experiments under MAS' Regulatory Sandbox and the recently launched Sandbox Express²¹. In May 2019, ICHX Tech's blockchain-based capital markets platform, iSTOX, was admitted into Sandbox Express to experiment its product in a secure environment.

²¹ The Sandbox Express aims to provide firms with a faster option to test innovative financial products and services in the market.

Catalyse Green Investments

Globally, Environment, Social and Governance ("ESG") investments have grown to US\$30.7 trillion²², representing a 34% increase in two years. Accordingly, asset managers and institutional investors have since increased their efforts to integrate ESG considerations into their investments, with a view to safeguard reputation risks and also generate long-term value through better alignment of their portfolios with global developments on climate and sustainable policies.

Building a green financial ecosystem

Climate change poses a clear and pressing concern that requires a collective solution. Globally, there has been a growing call for financial institutions to be a force for good and to promote green finance, while effectively managing their exposure to environmental risk in the transition to a low-carbon economy. Singapore has also taken concrete steps to incentivise and implement sustainable practices. MAS is actively supporting sustainability efforts by working with the financial industry to direct capital towards effective investments in climate action and sustainable activity. As a founding member of the Network of Central Banks and Supervisors for Greening the Financial System ("NGFS"), MAS, together with other international partners, seeks to enhance the role of the financial system to manage risks and mobilise capital for green and low-carbon investments in the broader context of environmentally sustainable development.

²² Source: Global Sustainable Investment Alliance "2018 Global Sustainable Investment Review" (April 2019).

In 2018, Singapore's share of ESG managed assets stood at 27% of total AUM, up from 23% in 2017. S\$6 billion worth of green bonds have also been issued by local and foreign companies since the introduction of the Green Bond Grant scheme in June 2017. The Green Bond Grant scheme was enhanced and renamed as the Sustainable Bond Grant Scheme in February 2019 to include social and sustainability bonds while also lowering the minimum issuance size requirement.

Green finance partnership and capacity building

In June 2019, MAS and the City of London agreed on a Partnership Arrangement on green finance to promote and apply the principles of green and sustainable finance within both Singapore and UK's financial systems. MAS is also working with the Institute of Banking and Finance ("IBF"), the Singapore Exchange ("SGX"), the Asia Sustainable Finance Initiative ("ASFI") and universities, such as the Singapore Management University ("SMU"), to introduce capacity building courses in sustainability with a view to enhance the level of knowledge and expertise in sustainable finance amongst industry professionals.

Anchor Fund Domiciliation

MAS is planning to launch the VCC framework by end-2019 to encourage the co-location of fund management and domiciliation activities in Singapore. The VCC is a bespoke corporate structure which has features specifically tailored to facilitate its use as an investment fund vehicle, including:

- a variable capital structure that facilitates the issuance and redemption of shares without having to seek shareholders' approval;
- **flexibility for use** by both open-ended and closedend investment funds, across traditional and alternative strategies; and
- the ability to be structured as a standalone or umbrella fund with multiple sub-funds. This allows fund managers to enjoy cost economies, as sub-funds can share service providers, a common board of directors and consolidate certain administrative functions.

Key developments to VCC

A VCC may be incorporated in Singapore under a new legislative framework known as the VCC Act, which was passed in Parliament in October 2018. MAS has also concluded three public consultations on the operational framework for VCCs²³, set out in the proposed subsidiary legislation.

²³ Source: MAS "Consultation Paper on the Proposed AML/CFT Notice for Variable Capital Companies" (30 April 2019), "Consultation Paper on the Proposed Framework for Variable Capital Companies Part 2" (30 April 2019), "Consultation Paper on the Proposed Framework for Variable Capital Companies Part 3" (24 July 2019).

The VCC framework will complement the existing suite of local fund structuring options, giving fund managers and investors more choice when domiciling their funds in Singapore. In addition, the VCC framework also provides a legislative mechanism for investment funds that are domiciled overseas to be re-domiciled to Singapore as VCCs. The VCC framework will put Singapore on par with other international fund domiciles and will encourage fund managers to further consolidate their existing fund management capabilities alongside their fund domiciliation activities in Singapore.

The introduction of the VCC framework will provide new opportunities and demand for local fund service providers such as lawyers, accountants, fund administrators and custodians. Prior to the operationalisation of the VCC framework, MAS will introduce a pilot programme to collaborate with interested fund managers with plans to either launch or re-domicile funds as VCCs. The aim of the pilot programme is to identify areas that may require further development as MAS gathers feedback from participants undergoing the process of incorporating or re-domiciling their funds as VCCs.

Boost Technology and Innovation Capabilities

To accelerate digitalisation and technological adoption in the asset management industry, IMAS introduced the DAP in February 2019 to serve as a platform to uncover innovative solutions to help tackle industry problem statements, crowd-sourced from industry players in seven key areas, namely: regulatory, risk and performance, investment and data, cost and efficiency, education and learning, customer and cybersecurity.

Singapore continues to provide a conducive environment to run proofs of concept with innovation clusters and regulatory sandboxes to promote innovation. As such, asset managers are increasingly recognising the benefits of strengthening and anchoring their technology hubs in Singapore. In 2017, Schroders established its Cognitive Science & Automation ("CSA") Global Practice in Singapore that is responsible for the implementation of Robotic Process Automation ("RPA") and extending into the use of other intelligent solutions for the business. Singapore is also a regional hub in Asia for BlackRock Solutions® and Aladdin®, its proprietary investment and risk management technology business, and a global hub for Technology & Operations at BlackRock. In September 2018, Ping An Group's Lu International based its online wealth management platform, Lu Global, in Singapore²⁴.

Developing cybersecurity capabilities

In December 2018, MAS launched the CCG to help strengthen the cyber resilience of Singapore's financial

²⁴ Source: MAS "New S\$30 million grant to enhance cybersecurity capabilities in financial sector" (December 2018).

sector and to support financial institutions in developing local talent in cybersecurity²⁵. Key cybersecurity functions that the grant would cover include cyber fusion team and centre, cyber threat intelligence team, malware analysis team, cyber threat hunting team, cyber forensics and security operations centre.

²⁵ Source: MAS "New S\$30 million grant to enhance cybersecurity capabilities in financial sector" (December 2018).



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