Performance Issue 33 September 2020 Finding your way into the chinese **IM** markets Value-at-Risk benchmarking during a crisis Implications of the covid-19 turmoil Sustainable capitalism Public and private combine to aid recovery **Deloitte**





WELCOME TO ISSUE No.33

Whole of portfolio view	08	A holistic approach for multi-asset management	
Finding your way into the chinese IM markets	14	Full of opportunities	
Directly from the source	24	Interviews with CEOs of leading chinese asset managers	
Breakthrough for China's listed REITs	32	Realities and directions	
Recent developments in the investment environment in Taïwan	38	Accelerated return of capital from overseas	
Value-at-Risk benchmarking during a crisis	44	Implications of the COVID-19 turmoil	
Banking services to PE/RE managers	52	Conversation on cash management from a PE/RE perspective with Laurent Leclef, Head of Transaction Services Sales at ING Luxembourg.	
Rethinking currency overlay	56	How to respond to 2020's new FX volatility regime	
A tale of two pillars	64	IFD/IFR introduces new capital requirements for investment firms	
Sustainable capitalism	72	Public and private combine to aid recovery	
CMU 2.0	78	What's next after CMU and Covid-19	
Sustainability corner	86	The rules of the game	



FOREWORD



VINCENT GOUVERNEUR
EMEA INVESTMENT MANAGEMENT CO-LEADER



TONY GAUGHAN
EMEA INVESTMENT MANAGEMENT CO-LEADER

Although this year's summer holiday plans were somewhat disrupted, the Performance team has continued its virtual travels and headed off to Asia to discover the exciting changes impacting foreign investors. Firstly we visited China and learned that as most recently as May 2020, they announced the lifting of investment quota restrictions for QFII and RQFII. Then we travelled to Taiwan to find out about the government's « five plus two » industry innovation plan to kick start its opening up to foreign investment.



Continuing our theme of buzzword abbreviations, we have a few new ones to discover - WPV, IFD and IFR - plus an old favourite to reacquaint ourselves with - CMU. Firstly, WPV or Whole of Portfolio View - as the name suggests, this could be a game changer for our industry by providing key stakeholders with a more timely, holistic and integrated view on exposures, risks and performance rather than the more traditional silo approach.

Turning to IFD and IFR, our article summarises the new Investment Firm Directive and related Regulation which will bring significant changes in determining capital requirements plus the key elements to ensure readiness for July 2021. Another change to the regulatory agenda is on its way for 2024/2025 in the form

of CMU 2.0 - a reboot of the original Capital Market Union; our experts examine what this means for our industry.

As COVID-19 continues to dominate the headlines leaving sanitary and economic turmoil in its wake, we considered its impact on the value-at-risk methodology. Despite its complexities and the fact that in times of utmost financial stress, market risk models overwhelmingly fail to forecast risk, we unsurprisingly conclude that objective validation of the model's appropriateness remains to be of paramount importance to mitigate model risk.

As ever, we encourage reader participation and this edition is no different. In China, we interviewed CEOs of three leading asset managers - China

Merchant Funds, ABC-CA Funds Management and Sinovation Ventures - on their thoughts post initial COVID-19 impact and future trends in digitalisation, innovation and growth. We then travelled back to Europe to discuss cash management and banking services for PE/RE managers with ING Luxembourg plus interview Goldman Sachs on management of non discretionary currency exposures. Finally we publish an extract from Fidelity International's Sustainability Report which confirms that sustainability is no longer a buzzword but a tangible requirement of an investor's decision making process.

We hope you will enjoying immersing yourself in this edition and conclude with the words of Margaret Fuller, « today a reader, tomorrow a leader. »

JENNIFER QIN ASIA PACIFIC INVESTMENT MANAGEMENT LEADER SIMON RAMOS **EDITORIALIST PLEASE CONTACT Simon Ramos** Partner Advisory & Consulting Deloitte Luxembourg 20 Boulevard de Kockelscheuer L-1821 Luxembourg **Grand Duchy of** Luxembourg Tel: +352 451 452 702 Mobile: +352 621 240 616 siramos@deloitte.lu www.deloitte.lu

EDITORIAL

As we write this, the news of Blackrock being granted permission to set up a 100 percent foreign-owned mutual fund management company in China has whipped up a media frenzy. After much anticipation, preparation and speculation, Blackrock is now the first organization to receive such a license from the China Securities Regulatory Commission (CSRC), representing the regulator's most significant step taken to address the continued capital markets reformation and opening-up policy.

Due to its sheer size, no global investment managers can afford to ignore the Chinese market. Also, when global capital markets experienced turbulence due to COVID-19, the Chinese economy and stock markets showed resilience and a speedy recovery even after a government-enforced national shutdown. The mutual fund segment experienced

unprecedented growth, and subscriptions for new funds are way over initial fund offerings. Due to cultural differences, the unique style of the regulators, and the nature of how the market is developing, many investment managers feel an urgent need to analyze the media reporting of the Chinese markets and identify the real opportunities.

We are delighted to present you with the latest insights and hot topics for the APAC investment management industry, with a particular focus on China as part of our 10th anniversary special edition. Executives of leading market institutions and our leaders and professionals in investment management have shared valuable and eye-opening insights that we hope will prove useful to you. We certainly look forward to continuing our discussions in future Performance publications.





WHOLE OF PORTFOLIO VIEW

A HOLISTIC APPROACH FOR MULTI-ASSET MANAGEMENT



KARTI MAHENDRAN DIRECTOR DELOITTE



LUKE HALPIN SENIOR MANAGER DELOITTE



GRAEME MILLER
SENIOR CONSULTANT
DELOITTE

In a world of constant disruption, access to information and the agility to act on that information for investment decisions have never been more important. COVID-19 is one of the key challenges investment management firms face today; pandemic related government policies in Australia for example have provided individuals with early access to their superannuation (pension). Meeting these drawdown commitments has led to investment managers seeking liquidity across their portfolios, with timely access to their 'whole of portfolio view' (WPV) — whether it is to meet their commitments, or to de-risk — being of increased importance.

While producing a WPV may sound like a straightforward concept, investment management firms have come to appreciate that it is a complex, ongoing challenge with no 'silver bullet' solution. With investment management firms increasingly moving into private markets, there is a growing impetus for establishing a WPV capability. For those not deterred, a WPV importantly presents opportunities to innovate and establish a data and reporting

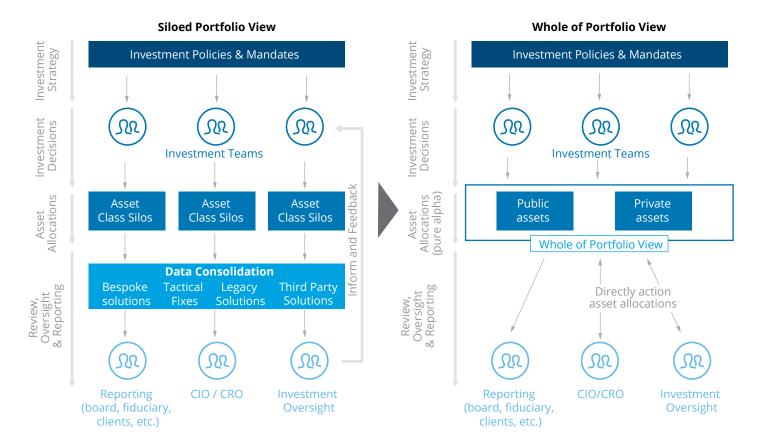
infrastructure that is fully integrated into the investment process.

So, what is a WPV, and is it really worth the effort and investment?

A WPV goes beyond reporting high-level asset allocation and can be described as the ability to seamlessly integrate all investment positions into an integrated view of exposures, risk, and performance.

WHO BENEFITS FROM A WPV?

- Asset owners
- Multi-asset investment managers
- Fund managers with a Chief Investment Officer (CIO) and/ or Chief Risk Officer (CRO) role for oversight



What are key aspects and benefits of a WPV?

- Access to position level data across both direct and managed, public and private assets, which can formulate new ideas (e.g. for strategic asset allocations)
- Portfolio-wide risk factor and scenario analysis – this provides investment management firms with a deeper understanding of risks, correlations and performance drivers across the portfolio, with reports and measures such as Value at Risk, Tracking Error, Style Factor exposures, and stress tests
- Multiple lenses to understand exposure (e.g. – geography, sector, asset class, currency), as well as new insights of assets and how they correlate, which increasingly includes alternative data sources

 Increased operational efficiency – once the systems, data flows, and processes are established, reports and further analysis can be performed from a single source of data for public and private markets

When framed this way, WPV has clear and compelling benefits for understanding portfolio exposures, risk contribution, and performance across public and private assets. Moreover, it can facilitate the provision of timely analytics across all key investment stakeholders - from the G-suite through to investment, risk, and performance teams in a more efficient and seamless way.

Given these benefits, why is a WPV preached more than practiced?

Over the past several decades, as the industry has matured, many of today's established investment management firms have grown in ways which has seen their system's architecture evolve into separate, disconnected silos:

- Mergers and acquisitions
- combining and integrating disparate systems in the absence of a well thoughtthrough post-merger integration plan and execution process
- Organizational structure as separate lines of reporting emerge, teams often develop bespoke solutions to bypass legacy systems and meet their unique needs
- Evolution over revolution gradual enhancements and tactical solutions are typically made to meet short term

requirements, which can create operational complexity over time

In investment management, the enablement and development of a WPV to support investment decisions and performance and risk analysis is becoming increasingly important. This is especially topical in light of the significant market dislocations and volatility experienced since the outbreak of the COVID-19 global pandemic.

WPV can facilitate the provision of timely portfolio-wide analytics to all key stakeholders in a more efficient and seamless way.

Why does a whole of portfolio view matter?

Market Volatility

Recent market conditions have underscored the value of having a WPV. The investment management industry has experienced significant volatility, dispersion, and changing liquidity conditions across all asset classes. Looking forward, how monetary and fiscal stimuli interact with the ongoing impact of COVID-19 will continue to be debated, with changing forecasts and estimates on key inputs such as inflation, correlations and asset class returns.

As such, to address market volatility and manage portfolios, investment teams are seeking ways to produce dynamic exposure and risk analysis. With a WPV capability in place, critical activities such as portfolio construction, portfolio rebalancing, scenario analysis, and stress testing that rely on accurate data across public and private markets become much more effective and insightful.

Reporting agility

A WPV relies on bringing together disparate asset classes with data sets that allow them to be combined and viewed as an integrated whole. Under legacy reporting structures this can be cumbersome and difficult to achieve, with limited look-through data that can be aggregated across the portfolio. Once a WPV is achieved, the production of these reports - which often can be accessed near realtime by investment teams is streamlined. This can create significant benefits when seeking to rebalance the portfolio and an up-to-date picture of liquidity is

Furthermore, with an integrated data and reporting platform in place, investment management firms can seamlessly draw new insights and 'slice and dice' portfolios in different ways to gain new perspectives on total exposures. This in turn can empower analysts and portfolio managers to perform analytics to complement existing reporting, and therefore quickly adapt to changing market conditions.

ESG and exposure management

Implementing a WPV can help manage portfolio alignment to meet fiduciary requirements and obligations. By moving away from siloed decision-making investors can view impacts across the portfolio as a whole.

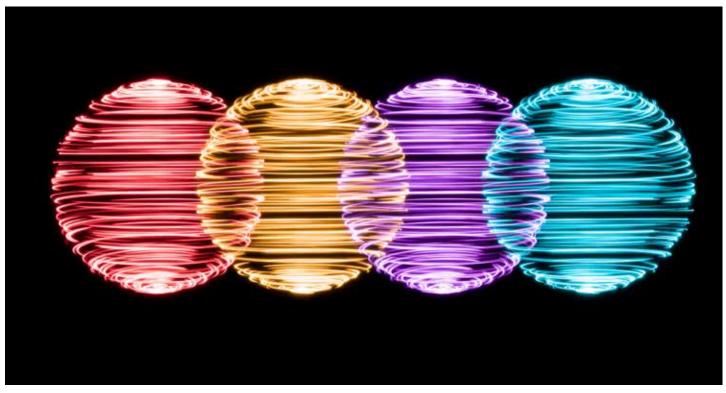
For example, in meeting ESG targets and objectives, exposures to certain companies and sectors can be assessed at the portfolio level, with a divestment decision modelled to see its impact on the portfolio's overall carbon footprint. Similarly, to manage specific exposures (e.g. countries, currencies, sectors), WPV presents a consolidated view to assess and rebalance across portfolios.

Cashflow forecasting

A WPV can also enable a real-time understanding of where cash is moving in and out of the portfolio, across asset classes. This improves lines of communication across teams managing multiple asset

classes, as it facilitates a clearer understanding of future liquidity requirements and enables investment teams to better anticipate these needs.

With WPV, critical activities such as scenario analysis and stress testing that rely on accurate data across public and private markets become much more effective and insightful.



One of the key obstacles for many firms considering a WPV are the technological challenges associated with having a mix of legacy, bespoke, and strategic systems that are not well integrated.

Total Portfolio Approach

Another key driver and trend behind WPV is the shift of many investment firms towards a Total Portfolio Approach (TPA). Under TPA investment opportunities are defined and managed by their contribution to total portfolio outcomes, rather than within separate asset class silos.

For TPA to be effective, investment teams require a holistic understanding of the portfolio and correlations between different assets classes and exposures. WPV is a key enabler of TPA, providing the data and insights necessary for informed and dynamic decision making.

While the trend to adopting a TPA is often seen as a key driver for implementing a WPV, its benefits are becoming increasingly clear, particularly so in recent months.

While every investment management firm has its unique characteristics, in our experience there are several common challenges that have emerged to achieving a WPV.

Challenges to achieving a whole of portfolio view

Looking at how investment management firms have evolved their investment approaches over time, the pursuit of a WPV is becoming more important due to several trends including:

 Diversification into alternative asset classes where data availability is limited, quality is highly variable, and there is a lack of standardization. Firms have typically found it difficult to source private market data due to reasons such as lack of transparency from underlying managers. Significant effort

- is often involved in sourcing and restructuring data into required, non-standard formats
- Internalization of investment functions creating separate investment platforms
- Implementation of Tactical and Dynamic Asset Allocation overlays that require WPV analytics to be fully effective

However, one of the key obstacles for many firms considering a WPV are the **technological challenges** associated with having a mix of legacy, bespoke, and strategic systems that are not well integrated.

In practical terms, solutions have been implemented in order to meet an immediate requirement, but they may not be compatible and consistent with the business processes and supporting technology architecture required to successfully implement and generate a WPV.

Some of the technology and data issues that firms typically encounter include:

- Assets sitting on different platforms without a common platform to bring these assets together, investment management firms are forced to create their own separate processes, often with manual steps required, to simulate a WPV
- Inefficient processes for creating aggregated reports
- collecting and verifying data can be a time-consuming process, and is subject to errors being made

- Offsetting positions when the fund has exposure to strategies that take both long and short positions, there will be an offsetting of active positions at a portfolio level
- Inconsistent data sets combining data from different asset classes and data sets typically requires data standardization
- Dated / unavailable data on illiquid assets – this can be unavoidable and therefore requires the use of third-party proxy data

While the challenges outlined above are numerous, they are certainly not insurmountable. It is important to identify and understand the requirements and considerations for implementing a WPV.

Implementing an action plan

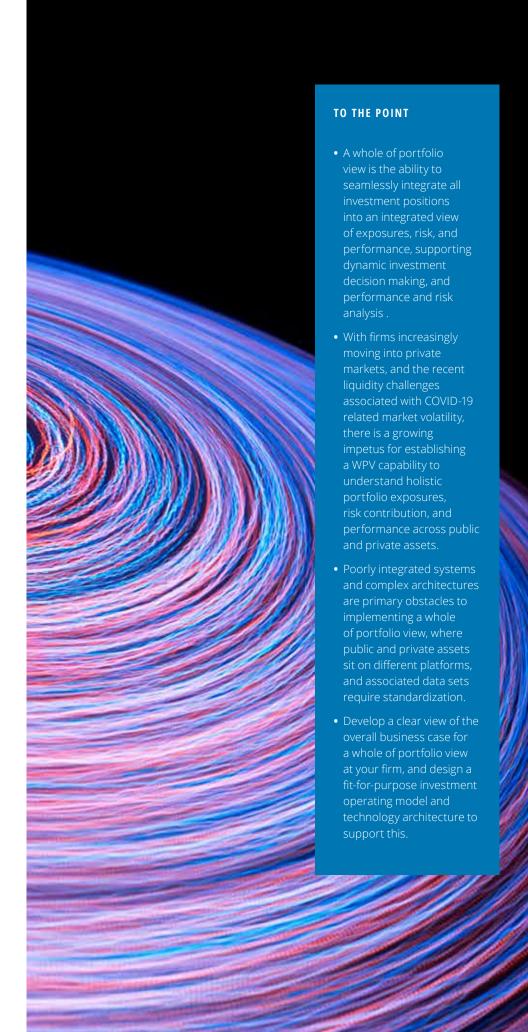
Our approach for investment firms that are considering, or are already on the journey towards enabling a WPV, could be summarized as follows:

- Assess the case for a WPV – identify use cases, understand where information and reporting gaps are, and validate the costs and benefits
- **2. Set the vision** articulate your vision, goals and how a WPV will contribute to your strategy
- 3. Review the investment operating model – clearly understand the impact and implications across the different people, processes and technology
- 4. **Define the target state architecture** design and
 refine fit-for-purpose interim
 states, and target state
 solution architecture to
 effectively support a WPV with
 minimal disruption

- **5. Plan and prioritize** determine the implementation critical path roadmap and identify potential quick wins on the way
- 6. Implementation define and execute business, technology, and support plans. Effective change management will be critical throughout the implementation process to take stakeholders along the journey
- 7. Evaluate and improve post implementation review of performance of WPV against KPIs and assess adoption by stakeholders, identifying potential opportunities for further enhancement

Conclusion

The ability to develop a WPV has the potential to be a game changer for investment management firms looking to seamlessly manage their portfolios across public and private assets. With market uncertainty and challenges such as COVID-19, the ability to dynamically analyze and respond to market movements and volatility will continue to be imperative. Although there are broad technical and financial obstacles involved with realizing a WPV, technology developments in the industry have brought this concept within reach. Firms who boldly invest in a WPV stand to benefit and create a differentiated competitive advantage.







FINDING YOUR WAY INTO THE CHINESE IM MARKETS

FULL OF OPPORTUNITIES

With China's financial opening-up, there are more channels available for the foreign investors to tap into China's capital market. This brief introduction provides an overview of rules and requirements under three schemes for establishment in China.



JENNIFER QINDELOITTE CHINA IMAA PARTNER



LILY WANGDELOITTE CHINA IMAA PARTNER



JACKRUN WANGDELOITTE CHINA IMAA PARTNER



ALEX HUANGDELOITTE CHINA IMAA PARTNER



ZELOS QUDELOITTE CHINA IMAA PARTNER

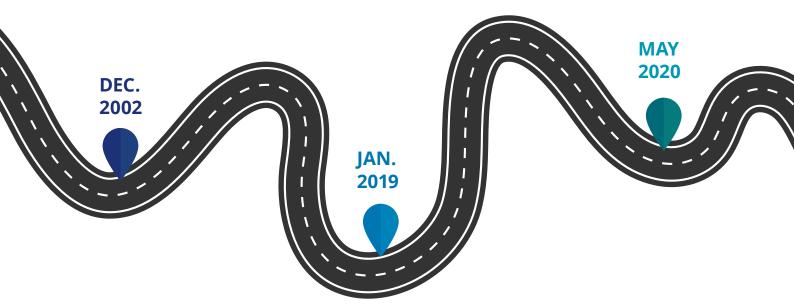


AUTHENTIC CHENDELOITTE CHINA IMAA MANAGER

THANKS TO:

Jiali Mao, Huajun Mi, Summer Guo, Wendy Hou, Gloria Ji, Leah Jiang, Betty Xu for their contribution to this article.

I. RMB QUALIFIED FOREIGN INSTITUTIONAL INVESTORS (QFII/RQFII)



In December 2002, the Trial Measures for the Administration of Domestic Securities Investment by Qualified Foreign Institutional Investors was issued.

- Opening-up policies for Qualified Foreign Institutional Investors
- Limited investment quota within the range of US\$20 million and US\$5 billion
- The applicant asset managers are required to have at least two years' operating histrory and a minimum of U\$\$500 million worth asset under management in the the latest accounting year

In January 2019, the Measures for Administration of Domestic Securities Investments by Qualified Foreign Institutional Investors and the Measures for Administration of Pilot of Domestic Securities Investment by RMB Qualified Foreign Institutional Investors were issued.

- Removed investment quota limits
- Abolished the restrictions on the operating history and size of asset under managemnet
- More products allowed for investments (including financial futures, commodity futures, options, bond repurchases and National Equities Exchange and Quotations (NEEQ) stocks, etc.)

In May 2020, the Provisions on the Administration of Domestic Securities and Futures Investment Funds of Foreign Institutional Investors were issued.

- Implemented the integrated management of domestic and foreign currencies
- Simplified remittance procedures for the investment proceeds from domestic securities
- Removed the restriction on the number of custodians can be appointed



The most significant difference between QFII and RQFII is that QFII program participants must convert their foreign currency into Renminbi before investing in Chinese securities.

The Qualified Foreign Institutional Investor (QFII) was introduced in 2002. It allows specified licensed international investors to participate in mainland China's stock exchanges. Before that, foreign investors were not allowed to buy or sell stocks on Chinese exchanges due to China's tight capital controls. In December 2011, the CSRC started the Renminbi Qualified Foreign Institutional Investor (RQFII) program. Similar to the QFII program, the RQFII program provides foreign investors direct access to the China's stock exchanges. The most significant difference between QFII and RQFII is that QFII program participants must convert their foreign currency into Renminbi before investing in Chinese securities. RQFII participants, however, do not need to convert their currency and can invest directly in China's domestic capital markets.

As of April 30, 2020, the total investment made by QFII reached US\$114.659 billion. The institutions with the highest cumulative approved investment quota included: Abu Dhabi Investment Authority (US\$5 billion), Bank of Korea (US\$3 billion), Societe Generale (US\$2.7 billion), Barclays Bank (US\$2.652 billion) and Union Bank of Switzerland (US\$2.19 billion). On the other hand, the total investment made by RQFII increased to RMB713.092 billion. The institutions with the highest cumulative approved investment quota include: China Southern Oriental Patron Asset Management Co., Ltd. (RMB46.1

billion), Vanguard Investments Australia Ltd. (RMB30 billion), E Fund Management (HK) Co., Ltd. (RMB27.2 billion), China Asset Management (Hong Kong) Ltd. (RMB21.8 billion), BlackRock (Singapore) Co., Ltd. (RMB20 billion).

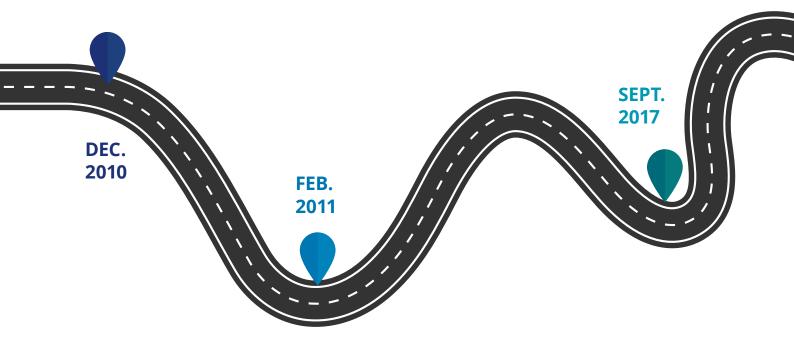
A QFII applicant should fall within the following criteria:

- 01. The applicant should meet the requirements of CSRC in terms of financial status, credit rating and asset size
- 02. Key members should have obtained appropriate professional qualifications as required by the regulators of its respective home country/region
- 03. Sound corporate governance and internal control system in place with no record of significant penalties by regulators over the last three years prior to application
- 04. The home country/region of the applicant should have a sound legal and regulatory system in place with cooperative relationship established with CSRC under Memorandum of Understanding
- 05. Other applicable requirements as stipulated by CSRC

In May 2020, China announced the lifting of investment quota restrictions for QFII, RQFII amid financial opening-up. In the future, qualified foreign institutional investors under the two programs only need to register to remit funds independently to carry out securities investment.



II. QUALIFIED FOREIGN LIMITED PARTNERSHIP (QFLP)



December 2010, Shanghai

Measures for Pilot Programs
 Implementation of Foreign-Invested
 Equity Investment Enterprises in the
 Municipality

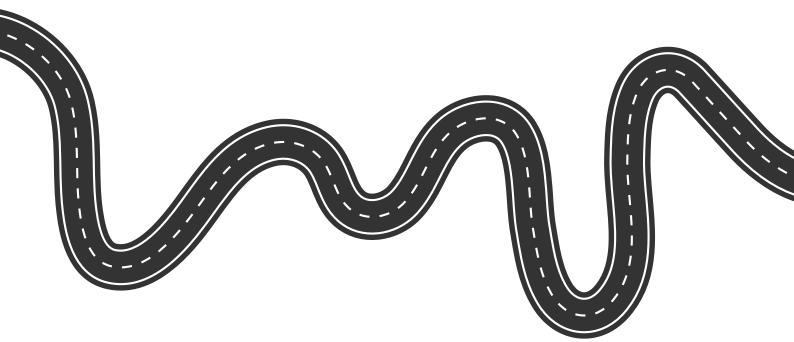
February 2011, Beijing

 Interim Administrative Measures for Pilot Programs Implementation of Equity Investment Funds and Their Management Enterprises in Beijing

September 2017, Shenzhen

• Interim Measures for Pilot Programme of Foreign-Invested Equity Investment Enterprises in Shenzhen





Whereas QFII provides access to investments in public trading, the Qualified Foreign Limited Partnership (QFLP) is established to facilitate the equity investment in the private market with the advantage of RMB settlement quota for direct RMB investments.

Shanghai was the pioneer city for QFLP scheme with its pilot program launched 2011, followed by the pilot introduced in Beijing, Tianjin, Chongqing, Shenzhen, Qingdao, Guizhou, Pingtan, Zhuhai and Guangzhou. The policy details may vary from one city to another, and

currently the QFLP policy has not been formed at national level. The introduction below takes reference from the policy of Beijing, Shanghai and Shenzhen. Since the launch of pilot program, more than 70 well-known international asset management institutions such

as TPG, Carlyle, Blackstone, Warburg Pincus, CBRE Global and Softbank have obtained pilot QFLP qualification and started investments in the fields of biomedical, Internet and technology, consumption, environmental protection and other fields.



Whereas QFII provides access to investments in public trading, the Qualified Foreign Limited Partnership (QFLP) is established to facilitate the equity investment in the private market with the advantage of RMB settlement quota for direct RMB investments.

I. Requirements for QFLP Manager (i.e. a foreigninvested equity investment management entity):

The legal form of a QFLP manager may either be a company or a partnership, with a wholly foreign-owned or a joint venture structure. The currency in which the foreign investors make the

investment shall be a type of freely convertible currency or with RMB legitimate earnings obtained by means of profit distribution, equity conversion or liquidation activities, etc. in China. Domestic investors shall make the investment in RMB. Other major requirements are as follows:



	Shanghai	Beijing	Shenzhen
Registered capital	Minimum requirement is US\$2 million, with the first 20% required to be paid within three months from the issuance date of the business license, and the remainder fully paid within two years	No specific requirement	Minimum requirement is US\$2 million, with the first 20% required to be paid within three months from the issuance date of the business license, and the remainder fully paid within two years
Shareholder	Minimum requirement is that the business scope of one shareholder or its affiliated entities includes equity investment or investment management	No specific requirement	Foreign shareholders or partners to meet one of the following conditions: 1. The net assets of the most recent fiscal year shall not be less than US\$100 million or the equivalent; or the assets under management shall not be less than US\$200 million or the equivalent; 2. Licenced asset manager with Hong Kong Securities and Futures Commission (SFC) or other overseas financial regulatory authorities. Domestic shareholders or partner shall satisfy one of the following conditions: 1. Licensed financial institutions, or their first-level subsidiary with over 50% shareholding; or 2. Large enterprises supported by the municipal party committee and the municipal government, with the net assets of minimum RMB500 million or the assets under management more than RMB1 billion in the most recent fiscal year with three years consecutive profits making; the total net profit is not less than RMB 60 million, and the total tax payment is not less than RMB 18 million
Senior executives	There shall be at least two senior executives who both meet the following requirements: 1. At least five years' experience in equity investment or equity investment management business; 2. More than two years' experience a senior executive; 3. Relevant work experience in equity investment in China or in Chinese Financial institutions; 4 No integrity issue over the past five years.		

II. Requirements for QFLP Fund (foreign-invested equity investment enterprises):

Asset custodian is mandatory for the QFLP funds. The foreign investor shall make capital contribution in a freely convertible currency or with RMB profits obtained from the activities such as share transfers and liquidation. Other major requirements are as follows:



	Shanghai	Beijing	Shenzhen		
Registered capital	Minimum of US\$15 million.	Minimum of RMB500 million (or equivalent foreign currencies)	Minimum of US\$15 million.		
Amount of contribution	Minimum LP's contribution of US\$1 million	Meet the requirements of qualified Investor	Single investment amount not less than US\$1 million equivalent currency;		
Scope of overseas investors	Overseas sovereign funds, pension funds, endowment funds, charitable funds, fund of funds (FOF), insurance companies, banks, securities firms and other approved foreign institutional investors.	No specific requirements	No specific requirements		
Requirements for investment	Prohibited investment: 1. Investment in fields prohibited by the state from foreign investment; 2. Listed stocks and corporate bonds other than those companies got listed after the QFLP investments; 3. Futures and other financial derivatives; 4. Direct or indirect real estate investments other than for the purpose of self-use; 5. Investments with debt funds; 6. Providing loans or guarantees to others; 7. Other matters prohibited by laws, regulations and the establishment documents of foreign-capital equity investment enterprises.				

At the beginning of 2020, Shanghai widened the scope of QFLP pilot enterprises, from the model of foreign-capital companies managing foreign funds, expanding to the model of foreign-capital companies managing domestic funds and the model of domestic companies managing foreign funds. At the same time, the pilot enterprises are supported

to expand from original single equity investment to the fields of investable preferred shares, private placement, and convertible bonds, mezzanine and non-performing assets, providing more convenience for foreign investors to participate in the operation of domestic capital market through QFLP funds.

The foreign investor shall make capital contribution in a freely convertible currency or with RMB profits obtained from the activities such as share transfers and liquidation.

III. WEALTH MANAGEMENT SUBSIDIARY COMPANIES OF COMMERCIAL BANKS



- Qualified commercial banks with custodian license need to establish subsidiaries for independent operation of asset management business. The head offices of those banks without such qualifications shall set up a specialized department for the wealth management business under centralized management.
- As a supplement policy to the Measures for the Supervision and Administration of the Wealth Management Business of Commercial Banks, the policies allow greater autonomy for the wealth management subsidiary companies.
- Encourages overseas financial institutions to participate and invest in the wealth management subsidiary companies of commercial banks.



On May 8, 2020, China Banking and Insurance Regulatory Commission (CBIRC) granted approval of the establishment of the wealth management subsidiary company in Shanghai jointly owned by Amundi Asset Management and Bank of China Wealth Management, which is the first joint venture wealth management subsidiary officially established in China.

With the acceleration of financial opening-up, a number of foreign investors have expressed their interest in setting up jointventure wealth management companies, and at least four banks out of the largest 5 banks - Industrial and Commercial Bank of China (ICBC), Agricultural Bank of China (ABC), Bank of China (BOC), China Construction Bank (CCB) and Bank of Communications (BCM) are preparing for the establishment of such companies. Global asset management giant BlackRock, Singapore's state-owned investment company Temasek and CCB have entered into a non-binding Memorandum of Understanding in 2019 to discuss the establishment of joint-venture wealth management companies. Meanwhile, it is understood that Goldman Sachs is also talking to ICBC for a new jointly owned wealth management company for expanding asset management business in China.

If a foreign commercial bank intends to establish a wealth management subsidiary company in China, the controlling shareholder shall meet the requirements in the following areas:

 Sound corporate governance structure, internal control mechanism and risk management system in place

- Financial status and major performance indicators need to satisfy the relevant requirements
- 3. Consecutive profit earning in the most recent three years
- 4. Status of regulatory rating and no series violation of law or regulation in the most recent two years, except for those having taken effective rectification measures and approved by the banking regulatory authority of the State Council
- 5. Operation of the wealth management business in a regulated manner
- More than three years' operation managed by specialized wealth management department with respective separation of duties for its front, middle and back offices
- 7. Specific development strategies and business plans for the wealth management subsidiary
- 8. Share capital payment not allowed to be made with debt or entrusted funds
- No share transfer within five years and no share pledge or entrustment unless approved by the banking regulatory authority of the State Council
- Other conditions and requirements prescribed in the rules of the banking regulatory authority of the State Council

The overseas asset management companies with no establishment in China may also participate in the wealth management through subsidiary companies. Any domestic or overseas institutional shareholder shall meet the

requirements in the following areas:

- 1. Sound corporate governance structure in place
- 2. Reputable institutions with good credit rating and tax records
- 3. No violation records of business operations in the most recent two years
- 4.Sound financial status and two consecutive year of profit making
- 5. Share capital payment not allowed to be made with debt or entrusted funds
- 6.No share transfer within five years and no share pledge or entrustment unless approved by the banking regulatory authority of the State Council
- 7. The financial regulatory authority of the respective home country/region of the overseas shareholder has established cooperative relationship with the financial regulatory authority of the State Council
- 8.Other conditions prescribed in the rules of the banking regulatory authority of the State Council

The global economy is undergoing a new round of major development with complications and readjustments. China's further financial opening-up is expected to boost investors' confidence in RMB assets and bring new breakthroughs for the world to share China's economic growth and bring new momentum to the China's financial market.

TO THE POINT

- QFII and RQFII
 are for
 exchange-traded
 bonds and
 equities.
- 2. QFLP allows investments in private equity and venture capital.
- 3. New foreign managers may enjoy expanded investment management services onshore by entering into joint venture wealth management subsidiaries of domestic Chinese banks.

DIRECTLY FROM THE SOURCE

INTERVIEWS WITH CEOS OF LEADING CHINESE ASSET MANAGERS

To many foreign fund managers, China presents many great opportunities, at the same time, many challenges. How do we view these opportunities and challenges? Deloitte China IMAA team is delighted to share with you the insights from the CEOs of two leading mutual fund managers—China Merchants Fund, and ABC-CA Fund Management Company, a joint venture of Agricultural Bank of China and Amundi Asset Management. In addition, we are grateful that Dr. Kai-Fu Lee, a world renowned scholar and investor in Al and high tech, as the founder of incubator Sinovation Ventures, shares his outlook for investment opportunities in China. We hope you find these interviews intriguing, and that these insights help to put things into perspective for you.







Wang, Xiaoqing Director and General Manager of China Merchants Fund

1. PLEASE TELL US ABOUT YOUR OBSERVATION OF HOW COVID-19 AND THE CURRENT REGULATORY AND ECONOMIC ENVIRONMENT ARE CHANGING THE FUND INDUSTRY?

The mutual fund industry has not only experienced challenges in this sudden public health crisis, but also faces rare development opportunities.

Firstly, the pandemic strengthens fund managers' experimentation with online sales and poses a greater test on our IT ability. Since the outbreak, fund managers made full use of digital distribution methods such as WeChat, SMS, online roadshows, and other social media, to keep connected with investors. We have benefited from our previous investment in IT and did not suffer any disruption from the pandemic. Secondly, the fund industry is going through a phase wherein "the winner takes it all". A fund manager should focus on the cultivation of the core competences in investment and research, striving for better customer experience, and creating a top market brand to survive

in the face of competition. Currently, we are experiencing a global economic environment characterized by low interest rates, low growth and a general overvaluation of assets. These factors make it difficult for fund managers to post sustainable returns.

2. AMONG OTHER PLAYERS IN THE MUTUAL FUND INDUSTRY, WE NOTICED THAT CHINA MERCHANTS FUND IS COMMITTED TO THE RESEARCH AND DEVELOPMENT OF NEW PRODUCTS. PLEASE TELL US WHY THIS IS IMPORTANT FOR YOU AND THE DIFFICULTIES IDENTIFIED IN THE RESEARCH AND DEVELOPMENT PROCESS AS WELL AS THE AREAS OF YOUR FOCUS AFTER LAUNCHING NEW PRODUCTS.

As one of the top-tier fund managers in Chinese markets,

we are always committed to product innovation and research and development. We have a very clear strategy to focus on new products such as Real Estate Investment Trusts (REITs), Inter-bank bond Exchange Traded Funds (ETF), National Equities Exchange and Quotations (NEEQ), and public offering, etc.

Our investment in research, and our competence in product design, risk control, and market insight give us a leading edge in product innovation. To avoid the risk of innovation for the sake of innovation, the company must place emphasis on the coordination of various business units, with a focus on risk control.



3. WHAT IS YOUR OPINION ON THE INVESTMENT OPPORTUNITIES FOR THE POST PANDEMIC ERA?

We are optimistic about the long-term outlook of equities investments. In specific, the following areas will benefit greatly from the post pandemic environment:

- 1. The high-tech industry supporting China's key economic development plan, such as 5G, Cloud computing,
- 2.The development of products and services to satisfy customers' needs from different demographic groups and different regions to boost domestic sales.
- 3.With focused research, one might find companies with solid performance portfolios in traditionally undervalued sectors in the search for

an Alpha return, these companies might enjoy a boost in valuation.

4. BASED ON YOUR EXPERIENCE AND GIVEN ITS UNIQUE COMPETITIVE ADVANTAGE, HOW DO YOU THINK CHINA MERCHANTS FUND WILL BE BEST POSITIONED FOR THE NEXT 3-5 YEARS?

Here are some thoughts on the investment industry for the next three-to-five years:

- 1. Investors will be more mature and sophisticated.
- 2. Distribution channels will be more diversified and established.
- 3. Product types will be more diversified with more Overthe-counter (OTC) structured products, derivatives, REITs supplementing traditional fixed income and equity products.

4.Regulators will continue to support for the opening-up of Chinese capital markets to international players to create a more level playing field.

So what does this mean for asset managers? The implications are the following:

- 1.1.SWOT analysis focusing on unique strengths combined with opportunities, to work with top institutions and service providers in every industry sub-section to expand core competencies.
- 2.Focus on long-term and sustainable return by effectively managing the rebalancing of portfolios on a regular basis.
- 3.Attract top talents, continue to focus on product innovation to create value for investors.

Since the outbreak, fund managers made full use of digital distribution methods such as WeChat, SMS, online roadshows, and other social media, to keep connected with investors.





Shi, Wei General Manager of ABC-CA Fund Management Co., Ltd.

1. WHAT IS YOUR OPINION OF THE IMPACT OF THE COVID-19 AND CURRENT DOMESTIC AND GLOBAL REGULATORY POLICIES AND ECONOMIC ENVIRONMENT ON FUND MANAGERS?

The outbreak of COVID-19 reminds us of the importance of the pursuit of health and happiness. The slogan of ABC-CA Fund Management is "We create value together", which means we try to achieve for long-term happiness through investments with sustainable and predictable returns for our investors.

For the past 12 years, rapid growth in AuM was not the top priority of ABC-CA Fund Management. Instead, we focused on building a more solid foundation by enhancing our core competences and sharpening our competitive edge. We are committed to making stable and predictable investment returns for our customers. After the short-term disruption caused by COVID-19, China is well on its way to economic recovery, and even economic expansion soon. With this in mind, fund managers must return to the basics with more proactive communications and stay connected with investors.

2. SINCE JUNE 2019, A
NUMBER OF BANKS HAVE
ESTABLISHED THEIR WEALTH
MANAGEMENT SUBSIDIARIES.
CAN YOU SHARE YOUR



OBSERVATION ON THE CHANGES THIS HAS BROUGHT TO THE PLAYFIELD OF ASSET MANAGEMENT INDUSTRY IN CHINA? HOW HAS ABC-CA FUND MANAGEMENT, AS A BANK-BACKED FUND MANAGER RESPONDED TO THIS CHANGE?

The establishment of the wealth management subsidiaries of the banks may hit the traditional mutual funds products such as fixed income products. However, we believe the markets still have huge potential. The wealth effect will continue to play a significant role in product design and customer-oriented service. Therefore, mutual fund must find ways to differentiate themselves by providing better services tailored for various customer groups.

Mutual fund managers and Banks' Wealth Management Subsidiaries have their differences. In the short-tomedium term, they have a deep-rooted interdependence with each other, as mutual fund managers rely on banks for product distribution, and banks' wealth management subsidiaries lack equity product research capabilities and expertise on net valuable products management and operations. Therefore, banks' wealth management subsidiaries will need time to be fully independently functional. Mutual fund managers should take advantage of this transition period to find differential strength and specialize in few areas. In the long run, the competition will be levelled as all investment management providers need to focus on the core basics of continuously providing customers with products of their choice.

Under the background that rigid cashing has been broken and interest rates are falling, the mutual fund industry is expected to become the main channel for residents' investment and wealth

management. We actively expand the distribution channels and provide valuable services to customers through the performance and layout advantages of our products. In recent years, we have increased investment in quantitative investment, pension investment and special account business. It improves the diversity of company's business and create more opportunities for growth.

3. WHAT IS YOUR OPINION ON INVESTMENT OPPORTUNITIES IN THE SECONDARY MARKET IN THE POST-PANDEMIC ERA?

Realistically speaking, the pandemic is not going to end very soon, which means we have to take it into consideration for every investment decision. However, we are still optimistic about the equity market in the post-pandemic era. As the current domestic pandemic situation is basically under control, we are confident to expect the economic growth in the second quarter of 2020

and overall recovery gradually to come. In the second half of 2020, based on the pattern of the economic recovery, it is expected that we will see restored valuation for the currently under-valued bluechip companies, specifically in sectors such as real estate, finance and infrastructure. In the long run, our equity team is optimistic about the growth in the technology innovation, especially 5G applications (cloud, video, etc.), IT applications, semiconductor chains, new energy automobile chains, and display panels, etc.

4. BASED ON YOUR
EXPERIENCE AND THE
DEVELOPMENT OF GIVEN
ITS UNIQUE COMPETITIVE
ADVANTAGE, HOW DO
YOU THINK ABC-CA FUND
MANAGEMENT WILL BE BEST
POSITIONED FOR THE NEXT
THREE-TO-FIVE YEARS?

Mutual fund managers' professional duty is to create long-term sustainable and stable returns for their investors, which has been our mission for the past 12 years. We have industry leading fund managers, with top named fund products in both fixed income and equities.

Firstly, as a Sino-foreign joint venture company, ABC-CA Fund Management has started its overseas investment business many years ago with the support of our foreign shareholders. Secondly, we focused on the development of quantitative and index investment, pension investment for future growth. Third, our company leveraged the technological advancement of mobile Internet and social media, providing investors with more convenient access to our professional services through WeChat, Weibo and other

social media platforms. Fourth, mutual funds have the mission to promote the value of long-term investment, and therefore we shall continue to welcome institutional investors and play the anchor role of the capital market.

With the technology advancement of the mobile Internet, fin-tech plays an integral role to asset management industry, which also rapidly promoted the development of robo-advisors. We actively embrace the new wave of financial technology and carry out comprehensive cooperation with technology companies. Our Fund of Fund (FOF) team also built investment portfolio on Qie Man platform, Ant Financial and Tian Tian Fund Network with easier access for investors.

Mutual fund managers and Banks' Wealth
Management Subsidiaries have their differences. In
the short-to-medium term, they have a deep-rooted
interdependence with each other, as mutual fund
managers rely on banks for product distribution, and
banks' wealth management subsidiaries lack equity
product research capabilities and expertise on net
valuable products management and operations.





Kai-Fu Lee Chairman & CEO, Sinovation Ventures

1. PLEASE TELL US ABOUT YOUR OBSERVATION OF HOW COVID-19 AND THE CURRENT REGULATORY AND ECONOMIC ENVIRONMENT ARE CHANGING THE ASSET MANAGERS?

I feel rather pessimistic about quite a few challenges faced by the global capital markets. However, I am cautiously optimistic about the opportunities in China. Many countries and regions benefited from globalization, including China. China enjoyed rapid economic expansion influenced by improved productivity and collaborations not only domestically but internationally. The emerging trend of de-globalization separating the world into two or more ecosystems would cause counter productivity at a global scale. .

I am also concerned that if U.S. and some major countries lose control on containing the epidemic, we may face a global economic crisis that is potentially worse than any crisis in the past two hundred years. We need to be prepared. Recently, we have seen significant recovery in China's economy with people going back to work and life returning to normal given the effective control of the virus spread in China. Therefore, I am relatively optimistic about China as market expects GDP to slowly get back on track. The overall trend indicates positive signs.

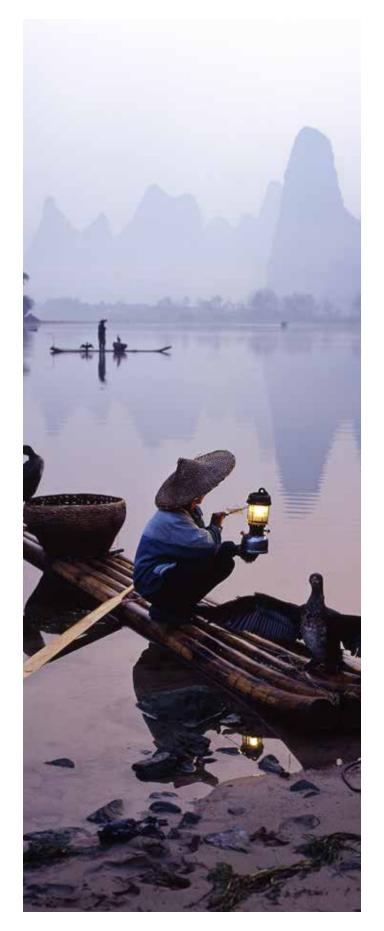
China will suffer from decreasing demand from Europe and the U.S. for goods made in China. I have three pieces of advice for you as we are facing an unprecedented global dynamics:

- 1. Choose China if you need to decide on a place to work, at least for certain part of your career, to experience the relatively vibrant economy.
- 2. Choose early stage, or growth stage enterprise if you wish to find a place to invest.
- 3. Choose science and technology if you wish to choose a field to specialize in.

2. WHAT IS YOUR VIEW THE INVESTMENT OPPORTUNITIES FOR THE POST PANDEMIC ERA?

Artificial Intelligence ("AI") is evolving from "AI +" to "+ AI". "AI +" takes AI technology as the core, around which engineers and scientists lead the research for business opportunities. Putting plus in the front, "+ AI" is centered around traditional companies. Al will be the next empowering technology to help traditional industries create further value. A Big Four accounting firm predicts that Al will bring an incremental \$14.7 trillion GDP globally by year 2030. Those additional value will large come from traditional industries such as manufacturing, finance, healthcare, retail, automotive and more

Al is now moving from age of discovery to age of implementation. In the "Al +" era, Al companies are mainly technology-based, with talented scientists being the core competitive advantage. Approximately five years ago, the traditional companies started to think how to integrate



Al into their existing operations, which gradually led the industry to the new era of "+ Al" model. For example, "Al +" companies in the early stage mainly focused on voice, vision and chips, while "+ Al" companies could apply Al to retail, finance, manufacturing, transportation, energy and other traditional fields.

The coronavirus outbreak is a disaster for mankind, but it also brings many opportunities. It changed the way we connect and helped accelerate the development of digitization, automation and Al. In the past, many traditional industries resist new technology. Today however, your business cannot survive if you have not made an effort to try how technology might enhance efficiency and generate productivity. The epidemic is forcing traditional industries to embrace Al. Not just in China, it is happening all over the world.

3. IN SUCH A COMPLEX SITUATION, HOW DOES SINOVATION VENTURES LAY OUT ITS INVESTMENT STRATEGY TO COPE WITH CHANGES AND CHALLENGES? **HOW DOES SINOVATION VENTURES CARRY OUT WORK LINKAGE AFTER INVESTMENT?** Sinovation Sinovation Ventures is a tech Venture Capital (VC) that focuses on cutting-edge technology investment. Our specialty is to find investment opportunities in technological innovation and industry transformation.

First of all, we are optimistic about the emerging new technology field, especially the top companies of artificial intelligence, such as Momenta, 4 Paradigm, WeRide, UISEE, etc., and will also focus on investment

targets in other scientific and technological areas, including semiconductors. Secondly, I am very optimistic about the application of new technology in healthcare. The government is pushing forward the new medical reform, which will bring shuffling opportunities for the whole industry. This field is also a great opportunity that will benefit mankind with AI. We look forward to more digital hospital systems and more intelligent medical services in the future. Big data and artificial intelligence can play an important role in driving medical innovation. Finally, we have been a committed education investor in the market. Since we invested in VIPKID seven years ago, we have successively invested in more than 30 education companies. With the pandemic putting hundreds of millions of children to learn from home, we saw robust growth from our edtech portfolios. Both healthcare and education are areas we embed our impact investment perspective, investing in technology for good.

Sinovation Ventures established our own industry research team with more than ten experts in their respective industries to focus on research in industries impacting economy and lifestyle. After investing, our professional portfolio management teams including legal, finance, HR and marketing would help start-ups to grow and consult them on critical milestones. Further, we have in-house technology experts on our Al Institute side that can work with businesses to consult them on new technology research and adoption. With the VC + Al combined capabilities, we bring differentiated value while making investments

4. HOW DO YOU SEE THE ROLE OF ESG IN INVESTMENT INSTITUTIONS?

The Sinovation Ventures integrates the principles of ESG into investment standards, and regularly provided training to investment teams on the awareness and best practices roughly every 6 months. ESG is highly recognized by the company from partner to investment managers, and we discuss relevant issues regularly. For our invested companies, we strongly encourage their management team to practice ESG in the early stage of the

company's development setting up the right fundamentals, such as the establishment of employee benefits, fair recruitment, or employee stock plan. When the companies move into growth stage, we would continue to raise the bar for their various compliance and governance requirements in managing growing business. Our Partners team share collective responsibility to make conscious decisions that are good for environment and society. ESG is also our sincere commitment to Limited Partners.



TO THE POINT

- Fund managers should focus on cultivating core competencies in investment and research, striving for better customer experiences, and creating a top market brand (Wang, Xiaoqing).
- 2. Fund managers should leverage technological advancements in mobile internet and social media to provide investors with a more convenient investment service (Shi, Wei).
- 3. Artificial intelligence (AI) is evolving from "AI+" to "+AI". AI+ places AI at the core around which engineers and scientists lead the research for business opportunities. +AI is dominated by traditional companies, where AI empowers traditional industries to create value. Companies could apply AI to retail, finance, manufacturing, transportation, energy and other traditional fields to create more valuable products and services (Kai-Fu Lee).



BREAKTHROUGH FOR CHINA'S LISTED REITS

REALITIES AND DIRECTIONS



ZHOU, DAIXI
DEPUTY GENERAL MANAGER
OF ORIENT SECURITIES ASSET
MANAGEMENT COMPANY
LIMITED AND CO-CHAIRMAN
OF THE ASSET SECURITIZATION
COMMITTEE OF ASSET
MANAGEMENT ASSOCIATION
OF CHINA



HE, LIYA

MANAGING DIRECTOR, ORIENT
SECURITIES ASSET MANAGEMENT
COMPANY LIMITED AND
DIRECTOR OF STRUCTURED AND
ALTERNATIVE FINANCE



On 30 April 2020, the China Securities Regulatory Commission (CSRC) and the National Development and Reform Commission (NDRC) jointly issued a circular to promote the pilot program of infrastructure real estate investment trusts (REITs). The soliciting process for public opinions by the CSRC officially marks a breakthrough for listed REITs in China.

With the opening up of China's financial market accelerating, foreign investors now have their pick of convenient and diversified channels to invest in the domestic market like Shanghai-Hong Kong Stock Connect, Shenzhen-Hong Kong Stock Connect, Bond Connect, QFII and RQFII. On 5 May 2020, the People's Bank of China

and the State Administration of Foreign Exchange issued the Administrative Provisions on Funds Used by Foreign Institutional Investors for Domestic Securities and Futures Investment. This new regulation officially abolishes the QFII and RQFII quota restriction, simplifies the capital remittance requirement, and enables

foreign financial institutions and fund managers to steadily increase their holdings of financial assets in China, making China's financial market more attractive to medium and long-term global investors. As a new equity investment product, listed REITs have captured global attention as a new way to tap into the Chinese market.

After a long and reflective process, listed REITs are to be launched in 2020

The research and development of REITs in China started more than 15 years ago. Since 2014, around 60 private REIT products have been listed on Shanghai/ Shenzhen Stock Exchanges (SSE and SZSE) through private placement for institutional investors only. The asset types cover office buildings, shopping malls, warehousing and logistics, long-term apartments and expressways, with an accumulated issuance scale of about RMB120 billion¹. The performance of these products was well-recognized in the market.

Building on the above, the pilot program aims to raise investors' funds by adding mutual funds to the transaction structure. Mutual funds hold the single asset securitization by special purpose vehicles (SPV) and the ownership or franchise right of infrastructure projects. With this arrangement, the CSRC and the NDRC can implement the pilot program without needing to formulate or amend any laws. This is to minimize legal costs and promote innovation.

After the formal release of business rules, the CSRC and the NDRC will carry out infrastructure REITs pilot projects in key areas and then summarize the experience for further promotion. According to the pilot arrangement, based on the approval of the provincial Development and Reform Commission, the NDRC will recommend the qualified projects to the CSRC and then the SSE and the SZSE will perform the registration and examination procedures. At the pilot project's initial stage, qualified securities companies or fund management companies that have obtained the management qualification of public funds will act as fund managers. It is understood that the first batch of pilot products are expected to be publicly issued and listed this year.

Investors in infrastructure REITs can be divided into three categories: strategic investors, professional institutional investors, and public investors. The issue price of the infrastructure REITs will be evaluated offline by the professional institutional investors. The proportion of the institutional placement must account for at least 70 percent after deducting the part rationed to strategic investors. The regulation will form a pricing mechanism and holding structure dominated by professional institutional investors and find a reasonable "anchor" for product pricing with the help of their professional analysis and judgment.

Professional institutional investors are limited to financial institutions, such as securities firms, fund management companies, banks' wealth management subsidiaries, social security funds, infrastructure investment institutions, government-backed funds, and industrial investment funds. The investment logic behind private REITs currently leans towards that for investing in bonds rather than equity. In the future, it will be an important proposition to guide and cultivate financial institutions and industrial capital to participate in infrastructure REITs through equity investment.

Starting the REIT pilot with infrastructure—A pragmatic choice

From a global perspective, commercial properties like office buildings, retail properties and shopping centers are the mainstream asset types of public REITs in mature markets.

However, in terms of traditional commercial properties, the stability of asset prices and rental returns is facing greater pressure under the influences of macroeconomic factors, the balance of supply and demand, and the outbreak of public health crises.

According to the article "Commercial property: Like a ton of bricks"2, the global stock of investible commercial property—hotels, shops, offices and warehouses—has quadrupled since 2000 to US\$32 trillion. Both offices and industrial properties (chiefly warehouses) reached record prices whilst retail property prices had already peaked in 2018. The COVID-19 outbreak greatly accelerated asset price adjustments. Analysts quoted in the article estimate that property values will fall by about 20 percent overall this year and rents by 5–10 percent.



- 1. Data source: Wind Information Technology Co., Ltd (WIND), as of the end of June 2020.
- 2. "Commercial property: Like a ton of bricks," The Economist, 25 June 2020.

Going forward, the significant factors affecting the industry will be changes in people's habits and behaviors regarding the office, travel, mobile internet, and virus prevention measures that will have a long-term impact on the value of commercial property. Historically, investment in domestic commercial property in China tended to provide a low return. Therefore, until asset prices are readjusted to the new trends, commercial property will not top the list of underlying asset choices for listed REITs.

The efficiency and quality of China's infrastructure construction have always attracted the world's attention, and it is also an area with a mature technology export capacity. The pilot program specifically requires highquality underlying assets, stable investment returns, and effective operational management. The listed REITs on infrastructure projects with steady cash flows will better match investors' requirements for high returns. It is understood that the regulators will also include return on investment as a criterion in its quality assessment during the selection process.

Compared with commercial properties, infrastructure listed REITs would normally select underlying assets in transportation facilities, municipal facilities, etc.

The efficiency and quality of China's infrastructure construction have always attracted the world's attention, and it is also an area with a mature technology export capacity.

Investors in infrastructure listed REITs must keep a close eye on the following areas.

Pricing of initial issuance

Pricing is at the core of the trading process. The value of franchised assets is based on the cash-flow forecast of franchise fees in a given period. Taking toll roads as an example, the status of the region's economy, road diversions, toll policy and the outbreak of public health crises such as COVID-19 all impose a significant impact on cash flow. Investors can only make an informed decision by considering all these factors.

Given their cash-flow uncertainty, the pricing of REITs on toll road projects will require a long negotiation process before a deal can be made. On the contrary, it may be easier to price underlying assets in municipal energy facilities with a stable and transparent price and cash flow. Whether this type of infrastructure REITs can make a breakthrough in quantity will depend on the infrastructure asset holders' willingness to offer assets with high yields.

Potential for future growth

Investors should also pay attention to whether the rate of return can be boosted through improving the professional ability of both the management team and the operation team, and whether they can continuously explore and exploit high-quality assets to achieve an extensive and continued growth. At present, traditional infrastructure in China is dominated by state-owned enterprises. Those that are capable and willing to participate in listed REITs tend to have high credit ratings with sound financing capabilities in the domestic

market. After a successful initial offering, it will be challenging for fund managers to keep the momentum going with a continuous supply of high-return assets into the REITs. This is especially the case with franchised infrastructure that may lack market competition.

"New infrastructure"—a hot spot of technology-enabled real estate

On 22 May this year, the "Report on the Work of the Government 2020" proposed strengthening the construction

of new infrastructure, including next-generation information networks, 5G applications, internet data centers (IDCs), charging pile and power stations, new energy vehicles, etc. In addition to traditional infrastructure projects, the pilot program of listed REITs also includes these new infrastructure areas. New infrastructure construction will stimulate new consumer demand and help with industrial upgrading. And, as this new infrastructure combines science and technology with real estate,





it can benefit from increasing demand as these areas evolve and progress. Therefore, in the future, new infrastructure will be the high-quality assets that are most likely to bring high returns in the REITs market.

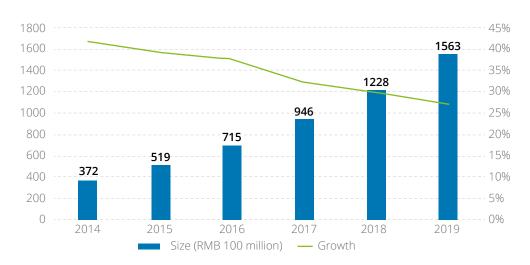
Take IDCs as an example.
These infrastructure projects are important to the national information strategy and a driving force of the new economy. Leveraged by the rapid technological advancement of the internet industry, the market

size of China's IDC business has maintained a high growth rate of over 27 percent since 2014 (Figure 1, market size is the revenue generated by hosting operations and cloud computing). In recent years, the growth rate of the income scale has declined to a certain extent (from 41.8 percent to 27.2 percent), mainly due to the energy consumption restriction policies of local governments. However, since the COVID-19 outbreak, the public's ways of working and lifestyles have been changed by telecommuting, e-commerce, and scientific and technological epidemic prevention. This will stimulate the demand of many emerging customers, driving a new round of high growth in China's IDC industry market.

Compared with commercial properties, infrastructure listed REITs would normally select underlying assets in transportation facilities, municipal facilities, etc.



Figure 1: China's IDC business market size



Data source: research report on China's IDC industry development in 2019–2020 by Kezhi consulting (http://www.idcquan.com)

Figure 2: Growth trend and country share of worldwide hyperscale IDCs

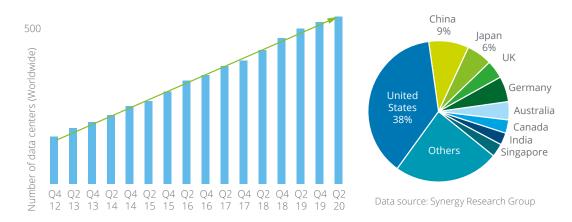
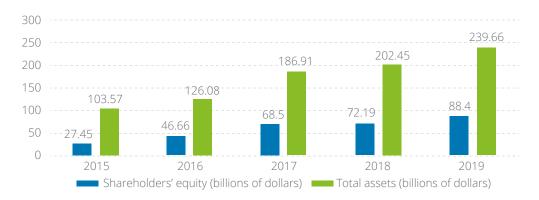


Figure 3: Growth of EQIX total assets/shareholders' equity



Data source: Wind Information Technology Co., Ltd, (WIND).

In the future, we expect to see more capital requirements for IDC development towards large scale, low energy consumption, and high performance. Benchmarked to the United States (US) market, there is a huge potential for China to build hyperscale IDCs. Synergy research shows that the number of hyperscale IDCs worldwide has grown to 541 in the first half of 2020, double the number in the same period in 2015. Thirty-eight percent of the major cloud computing centers and IDCs are in the US, more than China, Japan, the United Kingdom, Germany and Australia combined (Figure 2).

REITs are the mainstream platform for the capitalization of IDCs in mature markets. Taking US-listed EQUINIX (EQIX) as an example: with a successful move to REITs since 2015, both its total assets and shareholders' equity experienced rapid growth (Figure 3). EQIX has continuously acquired and established new IDCs around the world, and the number of their centers increased from about 125,000 at the end of 2014 to 297,000 by the end of 2019, reflecting a doubled share price over the same period.

Since the beginning of this year, some commercial property REITs have declined in the US. However, the REITs of listed IDCs in the US have been recognized by investors and achieved growth against the market (during the first half of 2020, all five US-listed IDC REITs increased from 9 percent to 22 percent).



RECENT DEVELOPMENTS IN THE INVESTMENT ENVIRONMENT IN TAIWAN

ACCELERATED RETURN OF CAPITAL FROM OVERSEAS

The ways in which foreign capital can invest in domestic Taiwanese companies have seen significant growth in recent years. In addition to methods such as direct investment or FINI accounts, indirectly investing in Taiwanese companies through ownerships in domestic private equity funds established by Taiwanese securities investment trust enterprises or securities companies could be a new channel to consider.







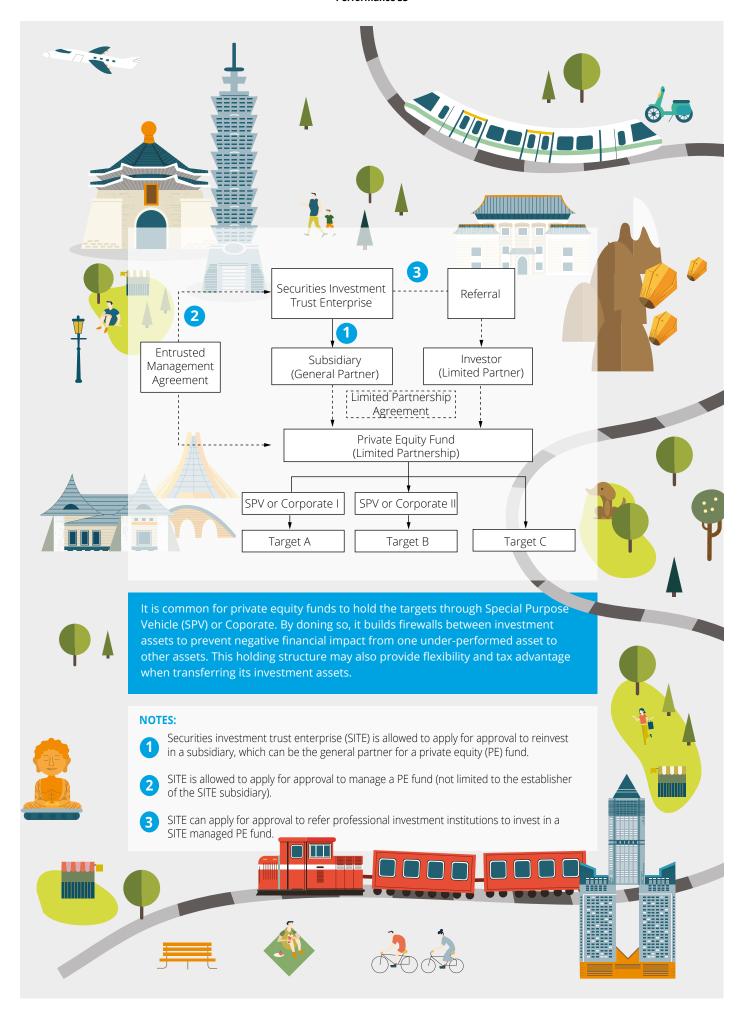
ALICE HUANG
PARTNER - IM LEADER
Deloitte



MAGGIE PAN
PARTNER - TS LEADER
DELOITTE

In order to encourage more foreign capital, and to create an open investment environment, the Financial Supervisory Commission R.O.C. (Taiwan) (hereinafter referred to as the "FSC") has gradually loosened related financial regulations for foreign investors as detailed below:

Securities Investment Trust Enterprises: In 2017, the FSC permitted securities investment trust enterprises to (1) set-up a subsidiary and become a General Partner ("GP") of the private equity fund (a limited partnership), (2) become a trustee of the private equity fund, and (3) refer to professional investment institutions as Limited Partners ("LPs") of its private equity fund under management. Recent cases include Cathay Private Equity under Cathay Securities Investment Trust, Franklin Templeton SinoAm Securities Investment Management, and Fuh Hwa Securities Investment Trust.



Securities companies:

In 2018, the FSC permitted securities companies to invest in private equity funds and to become a GP of a venture capital fund or a private equity fund in the form of limited partnerships. In April 2020, the FSC further permitted securities companies to become a trustee of a private equity fund and to introduce professional investment institutions as the LPs of private equity funds under management.

The gradual loosening of financial regulations mentioned above was meant to encourage foreign capital investments in the key "five plus two" industries through private equity vehicles explained below.

The "five plus two" industry innovation plan is a commitment by President Tsai Ing-wen's administration to advance developments and bolster investments in the nation's application services industries, building upon the nation's existing success in the area of Information and Communications Technology (ICT). The industries outlined in the plan are highly interconnected and the success of any one industry will have a ripple effect across many. An introduction to the key industries listed in the "five plus two" plan is as follows:



5	IoT	Relax regulations, cultivate talents and encourage local innovation to drive economic growth through innovation and entrepreneurship, and deepen domestic and international links to promote industrial transformation and upgrading through the Internet of Things (IoT) industry.
	Smart machinery	Facilitate the introduction of smart technology into precision machinery in domestic sectors, and export turnkey plant solutions to establish a smart machinery industry ecosystem.
	Green energy	Develop wind power and PV (Photovoltaic) industries to attract large-scale foreign and domestic investments as well as increase high-quality job opportunities to upgrade Taiwan's green energy industry and technology.
	Biotech pharmaceutical industry	Encourage manufacturers to invest in modified new drug development, integrate special formulation design and drug delivery technology and patent portfolios, and to seize opportunities to organize international teams to expand pharmaceutical sales to overseas markets, such as the United States, Japan, etc.
	Defense industry	Establish independent design, manufacturing, assembly and key technologies to construct an independent military aircraft and ship supply chain, and to expand application to the civilian market. At the same time, promote the optimization of information security industry structure to create an innovative and entrepreneurial ecosystem for the information security industry.
2	New agriculture	Six strategies fall under the new paradigm umbrella, namely implementing the Green Environmental Payment Program, stabilizing agricultural incomes, enhancing the competitiveness of livestock and poultry in Taiwan, popularizing eco-friendly farming practices, promoting the sustainable use of resources, and capitalizing on new technology and recent innovations.
	Circular economy	Create green consumption models while cutting down on the use of disposable products. Promote green procurement in government. Use recycled aggregates in public construction projects.

In recent years, global events such as US-China trade war and the rise of protectionism have not only accelerated the return of capital from overseas Taiwanese companies, but also attracted foreign capital interest in domestic Taiwanese companies.

Another example is "The Management, Utilization, and Taxation of Repatriated Offshore Funds Act" approved by the Executive Yuan in 2018 combined with the "The Regulations on Industries Investment from Repatriated Offshore Funds" revised by the Ministry of Economic Affairs. This act (along with related regulations) for overseas funds repatriation provides a preferential tax rate of 8

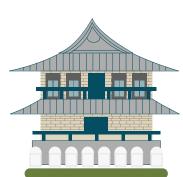
percent in the first year and 10 percent in the second year. For any direct investments defined as "substantive investment" completed (see definition below), investors can apply for a refund of 50 percent of the tax paid related to the completed substantive investment. Additionally, for any indirect investments defined as "substantial investment" with venture capitals or private equity funds in the following

industries is also applicable to preferential tax rate: "five plus two" industries, IC design, ICT, electronics, electric power supply, long-term care, as well as cultural and creative.

The definition of a "Substantial Investment" under "The Management, Utilization, and Taxation of Repatriated Offshore Funds Act" is as follows:

Application of the Management, Utilization, and Taxation of Repatriated Offshore Funds Act





Source: Consolidated public information by Deloitte

The eligibilities and requirements of applicable taxation benefits under "The Management, Utilization, and Taxation of Repatriated Offshore Funds Act" are listed as follows:

Investment time • Held for at least four years • Investment limit • Investment in financial sector may not surpass 25 percent of the entire funding, substantial investment needs to reach at least 70 percent • Domestic investment needs to reach at least 30 percent of the entire funding at the third year, 50 percent at the fourth year • Prohibited to invest in foreign financial derivatives, and foreign investment may not surpass 25 percent of the entire funding • Prohibited to invest in any listed company and real estate

In fact, FSC's decision to relax investment rules was not only intended to encourage capitals from foreign investors but also attract local funding from sources such as insurance companies. The amended regulation, "The Self-regulation of Insurance Companies' Investments in Limited Partnership", released in 2018 enables Taiwanese insurance companies to invest in the following two types of private equity funds:

- A domestic private equity fund established by the National Investment Company (also known as Taiwania Capital Management Corporation), and the fund must invest in "five plus two" industries
- A domestic private equity fund established by a securities investment trust enterprise or by a securities company's

subsidiary, and the fund must invest in the "five plus two" industries

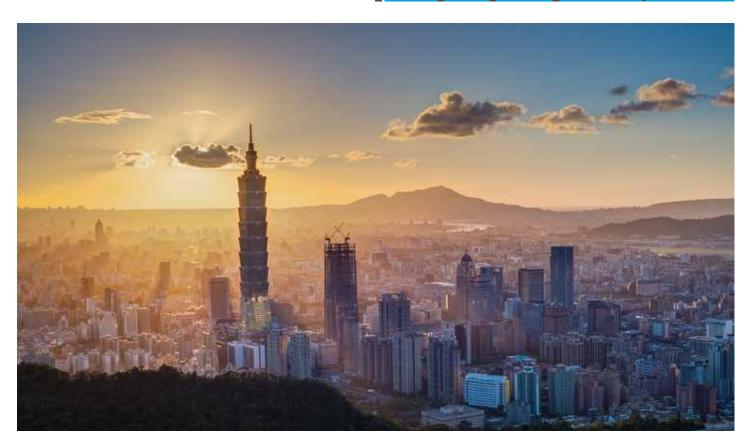
In recent years, global events such as US-China trade war and the rise of protectionism have not only accelerated the return of capital from overseas Taiwanese companies, but also attracted foreign capital interest in domestic Taiwanese companies. In the meantime, the Taiwanese government hopes to capitalize on the opportunity to guide more funds, foreign or local, to invest in Taiwan's "five plus two" industries, so as to achieve the nation's strategic priorities in industrial transformations and economic growth. Therefore, we would expect a progressive loosening of financial regulations and the promotion of a friendlier capital investment environment in Taiwan going forward.

TO THE POINT

If the repatriated offshore funds were subject to Taiwanese Income Tax Law, which may be applied for 20% tax rate, Management, Utilization, and Taxation of Repatriated Offshore Funds Act (new "Act") effective since 2019.08.15 can be applied for tax advantage. In accordance with new "Act", 8% in the first year and 10% in the second year for that overseas fund repatriation. In addition, investors can apply for a refund of 50% of the tax paid related to the completed substantial investment.

The substantial investment mainly includes "Five plus two" industry, specified manufacturing industry, specified Service Industry, energy industry & natural gas, Long-term Care & Cultural and Creative, etc. Therefore, we would expect a progressive loosening of financial regulation to achieve the nation's strategic priorities in industrial transformations and economic growth.





VALUE-AT-RISK BENCHMARKING DURING A CRISIS

IMPLICATIONS OF THE COVID-19 TURMOIL



SYLVAIN CRÉPIN
PARTNER - CONSULTING IM & PERE



GILDAS BLANCHARD
SENIOR MANAGER - CONSULTING IM & PERE

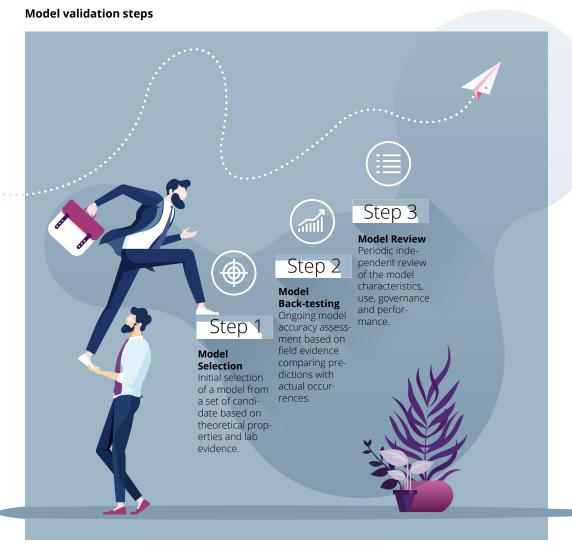
The COVID-19 crisis has highlighted the limits of our standard frameworks for estimating financial risks in an unprecedented way. Value at Risk ("VaR") models rely on historical data to estimate future risks, which fails—by nature—to capture the unpredictable character of large scale events impacting the overall economy, but they are expected to adapt quickly as such events unfold. Finding the right balance between reactivity and stability of VaR models is part of the objectives of modern model risk management. Model risk is usually mitigated by a validation framework involving back-testing; a technique aimed at assessing statistically the ability of a VaR model to accurately forecast risks, completed by analysis of VaR forecast overshootings. When too many overshootings occur, is back-testing still useful? How would another VaR model have performed in the same period? Relying on a range of models with diverging assumptions and a benchmarking approach can provide key insights.

2016



The computation of a portfolio VaR¹ remains a prediction exercise. Consequently, the VaR, as a model-based metric, is only as good as the model it is estimated with. Due to the "potential for adverse consequences from decisions based on incorrect or misused model outputs"², the accuracy of the VaR model ought to be objectively assessed and validated. Model validation relies on three essential and complementary pillars: model selection, model back-testing and model review.

The principle of VaR model testing largely relies on the comparison of the VaR estimate with the subsequent portfolio return in order to identify occurrences of so called overshootings



1. Since the Value at Risk is equivalent to establishing the statement that one is (1- α)% certain that she will not lose more than VaR \in of a portfolio in n days, this directly refers to the α quantile of the return distribution.

2. SR Letter 11-7, "Guidance on Model Risk Management", Board of Governors of the Federal Reserve System, April 4, 2011

3. See for example Pelletier, D., & Wei, W. (2016). The geometric-VaR back-testing method. Journal of financial econometrics, 14(4), 725-745.

The next paragraphs focus on empirical techniques used to assess a VaR model's performance and gather factual evidence, which is relevant to all three pillars above.

The principle of VaR model testing largely relies on the comparison of the VaR estimate with the subsequent portfolio return in order to identify occurrences of so called overshootings. The overshootings are observations characterized by the portfolio loss being larger than the VaR forecast. Some key characteristics of the empirically observed overshootings are identified

in order to validate or reject the model. Most of the tests available are built around the following criteria:

 The frequency of overshootings generated by the model should be in line with the VaR confidence interval.

Illustrative test – Probability of Failure test (Kupiec, 1995)

 The overshootings generated by the model should be occurring in a random fashion and must therefore not be clustered.

Illustrative test – Conditional Coverage test (Christoffersen, 1998) The overshootings generated by the model should be occurring in a random fashion and therefore the probability of occurrence of overshooting should be independent from any factor (e.g. VaR estimate level).

Illustrative test – Dynamic Quantile test (Engle and Manganelli, 2004)

Different econometric approaches can be adopted to evaluate those criteria which may further be jointly tested³.

All these classical backtesting techniques share the same paradigm, their implicit common objective to identify the right model. As a consequence, classical back-tests assess models individually in a vacuum.

This approach only holds as long as there is a 'perfect model'. In practice, "all model are wrong"4, and the reality of the economic and risk data generating process is far too complicated to be fully captured by a single model. Furthermore, even if a perfect model existed it would have to be calibrated on imperfect data resulting in potentially poor predictions⁵. Confessing this modelling reality, the new objective becomes to identify the best model among a set of wrong models ranging from very useful to useless. In order to meet this target, a testing paradigm shift from VaR model back-testing to VaR model benchmarking is required.

The greater the diversity of models in term of underlying assumptions, the deeper the information content of the range.

- 4. Box, G. E. (1976). Science and statistics. Journal of the American Statistical Association, 71(356), 791-799.
- 5. Due to model risk. See for example Bams, D., Lehnert, T., & Wolff, C. C. (2005). An evaluation framework for alternative VaR-models. Journal of International Money and Finance, 24(6), 944-958.
- 6. Danielsson, J., James, K. R., Valenzuela, M., & Zer, I. (2016). Model risk of risk models. Journal of Financial Stability, 23, 79-91.

Fortunately, the emergence of new tools and approaches answer this need and complement more standard techniques. Within this framework, the two following benchmarking procedures have the desirable properties of being easily implementable and informative.

The range VaR approach

This approach consists of using a range of VaR figures estimated with alternative model candidates instead of relying on a single VaR model. The benefits are multiple. Firstly, as highlighted by Danielsson et al. (2016)⁶ the scope in VaR estimates help to monitor the disagreement among models. An increase of the range indicates a high sensitivity of the VaR result to the choice of a model. Secondly, applying and comparing the classical back-testing techniques simultaneously to several candidates already gives some indication on the group of poor and well performing models. Thirdly, VaR model validation should also be supplemented with a qualitative analysis of the overshootings. Since an overshooting is a single observation, no statistical method can be employed. However, on a given date, comparing whether the occurrence of an overshoot is systematic across the candidates or concentrated within certain models with similar characteristics is an extremely valuable insight. The greater the diversity of models in term of underlying assumptions, the deeper the information content of the range.

A range-based VaR approach compares candidates without allowing for a pairwise and statistical comparison of the models. A solution is to adopt a loss function to measure how well each model does in forecasting the quantile of the return distribution. The following 'Tick Loss Function'7 has been widely adopted as a performance measure for VaR models.

Loss Function=
$$\sum_{t=1}^{N} (r_t - VaR_{t-1}^{1-\alpha})(\alpha - l_t)$$

 r_{t} = return betwen t-1 and t

 $VaR_{t-1}^{1-\alpha} = VaR$ estimated for t based on t-1 holdings with a 1- α confidence level



The best model should minimize the function, which penalizes both abnormal overshooting frequency (blue part of the equation) and overshooting magnitude (green part of the equation). In order to account for Tick Loss Function uncertainty and sample peculiarities, a statistical test can be performed via a bootstrapping⁸ procedure to ensure that the difference in loss function is not resulting from a sampling artifact.

In crisis time, VaR models performance overwhelmingly deteriorates leading risk managers to complacently conclude that their own model failure is only driven by a market phenomenon without counterfactual evidence.

Relying on a range of VaR models instead of a single one can provide such evidence. In highly volatile markets, the observations are even more informative for benchmarking purposes and create an opportunity to distinguish relatively higher performing VaR models from non-performing ones.

In the context of the COVID-19 crisis, six VaR models are benchmarked, representative of available risk solutions. Their heterogeneity in terms of modelling and assumptions, summarized in the table below, reflects the different capabilities of each model to capture the non-normality and reactiveness of financial asset prices returns.



		Main Assumptions		Main Features		
	Returns or Innovations Distribution	Volatility Specification	Observation Weighting	Non-normality	Reactiveness	
Gaussian	Normal	Static				
(Gauss)	Norman	Historical Volatility				
Historical Simulation (HS)	Non-parametric		None			
Exponentially Weighted Moving		Time-varying				
Average (EWMA)	Locally normal	Decay factor – 94%				
Weighted Historical Simulations (BRW)	Non-parametric		Half-life - 120 days	•	•	
Filtered Historical		Time-varying	N.			
Simulations (FHS)	Non-parametric	Decay factor – 94%	None			
Filtered Extreme	Generalized Pareto	Time-varying				
Value Theory (FEVT)	Distribution	Decay factor – 94%				

^{7.} Chen, Q., & Gerlach, R. H. (2013). The two-sided Weibull distribution and forecasting financial tail risk. International Journal of Forecasting, 29(4), 527-540.

^{8.} Referring to a re-sampling technique with replacement by block of observations.

^{9.} Based a selected representative sample of securities, excluding financial derivatives instruments, loans, securitizations, structured products, convertibles.

Over a period of a year, encompassing the crisis, all six models have been estimated on a daily basis for world equity, investment grade and high yield markets⁹. In the table below are presented the statistics along with the Kupiec test to verify the adequacy of the empirical frequency of overshootings with the 99% VaR confidence interval.



World Equities

Global Investment Grade Bonds

Global High Yield Bonds

VaR Model	# Hits	Frequency	Kupiec p-value	# Hits	Frequency	Kupiec p-value	# Hits	Frequency	Kupiec p-value
GAUSS	15	6.00%	0.00%	11	4.40%	0.01%	17	6.80%	0.00%
HS	9	3.60%	0.14%	12	4.80%	0.00%	13	5.20%	0.00%
EWMA	11	4.40%	0.01%	5	2.00%	16.19%	11	4.40%	0.01%
BRW	7	2.80%	1.90%	7	2.80%	1.90%	8	3.20%	0.54%
FHS	3	1.20%	75.80%	4	1.60%	38.05%	5	2.00%	16.19%
FEVT	4	1.60%	38.05%	3	1.20%	75.80%	6	2.40%	5.94%

^{*}Red and green numbers represent the status of the Kupiec test with a 95% confidence level. Red numbers mean the hypothesis of the model being adequate can be rejected with 95% confidence, while green numbers mean it cannot.

As expected, VaR models performance significantly deteriorated following the start of the COVID-19 crisis where many clustered overshootings occurred. On average and across asset classes, the models experienced more than

five overshoots over this period of only 49 days. This figure represents approximatively 60 percent of the total number of overshoots over 250 days. However, this statistic conceals the disparity of the back-testing results across competing

models during the crisis, as shown in the graph below. This disagreement among models highlights the rising model risk and underlines the growing importance of selecting the appropriate and adequate model in turbulent times.

In highly volatile markets, the observations are even more informative for benchmarking purposes and create an opportunity to distinguish relatively higher performing VaR models from non-performing ones.

VaR models disagement - World Equities



Interestingly, the two models displaying the most appropriate number of overshootings over the 1-year observation period, across all three asset classes, are the Filtered Historical Simulation and Filtered Extreme Value Theory ones.

This result is confirmed when the performance is assessed through the Tick Loss Function mentioned above, indicating that models achieve to striking an adequate balance between the number and the magnitude of overshootings. In order to provide a statistical reference point, non-parametric simulations have been performed to determine how often the two models are outperforming their peers, illustrated in the table below. Across all pairwise comparison, over a 1-year period, the FHS

and FEVT outperform the other models in more than 76 percent and 85 percent of the cases respectively.

The benchmarking exercise evidences that sophisticated models capturing both the non-normality of returns and the rapid time-variation of financial market conditions were needed during the crisis to accurately forecast market risks.

This disagreement among models highlights the rising model risk and underlines the growing importance of selecting the appropriate and adequate model in turbulent times.

Outperformance likelihood of FHS & FEVT models

World Equities

VaR Model	HS	EWMA	BRW	Gaussian
FHS	69%	72%	67%	80%
FEVT	78%	88%	79%	88%

Global Investment Grade Bonds

VaR Model	HS	EWMA	BRW	Gaussian
FHS	85%	52%	82%	71%
FEVT	94%	69%	94%	78%

Global High Yield Bonds

VaR Model	HS	EWMA	BRW	Gaussian
FHS	84%	81%	78%	92%
FEVT	90%	87%	84%	95%

^{*}Each element of the above matrix corresponds to the probability of the model in the row header performing better than the model in the column header.

For example, the "FHS" model has a probability of 69 % to perform better than the "HS" model, when applied to the "World equities" portfolio, considering 3800 data points, up to April 30 2020.

CONCLUSION

Adopting a VaR model benchmarking approach provides a systemic framework for analyzing VaR overshooting and VaR model performance relative to other models. Benchmarking puts one's VaR model in perspective and gives valuable insight for reviewing its adequacy, as part of risk management responsibilities.



BANKING SERVICES TO PE/RE MANAGERS

Arnaud Bon, Director at Deloitte Luxembourg had an interesting conversation on cash management from a PE/RE perspective with Laurent Leclef, Head of Transaction Services Sales at ING Luxembourg.



ARNAUD BON DIRECTOR DELOITTE



LAURENT LECLEF
HEAD OF TRANSACTION
SERVICES
ING LUXEMBOURG

1. WHAT ARE THE TRENDS IMPACTING THE TRANSACTION BANKING LANDSCAPE?

As is widely acknowledged, the low interest rate environment that has been apparent for a while now, the arrival of new competitors, particularly FinTechs, and increasing compliance costs are continually pushing the banking sector to be creative and innovative when rolling out new products and services. Remaining competitive in the future means predicting the most profitable products, clients and regions, this will be one of the main drivers of the European and Luxemburg banking sector.

As an example, product design within a leading company in the European banking industry is now conducted using a dynamic and more agile approach, based on an innovative methodology (PACE), working closely with FinTech companies. The aim is to end the traditional way of working in favor of a positioning

that is beyond banking, anchored in innovation, and to remain competitive in a fast-moving environment. The ambition is to create an individual customer experience that helps clients to stay a step ahead in life, and in business. The Virtual Cash Management solution is one of the many solutions offered in response to the challenges corporate clients face.

2. WHAT ARE THE TOP PRIORITIES ON PE/RE MANAGERS' AGENDA IN TERMS OF TREASURY MANAGEMENT?

Based on multiple interactions with PE/RE clients in the last decade, the top priorities remain to keep control of their financial activity and to ease their operational process as much as possible. Digitization is a key driver in this rapidly evolving world and it is essential to keep doing business efficiently and to absorb growth in a sustainable way. One important challenge remains dealing with high volumes and

cash optimization within their sprawling fund structures.

3. WHAT ARE VIRTUAL ACCOUNTS AND HOW DO VIRTUAL BANK ACCOUNTS WORK?

Virtual Cash Management (VCM) is a comprehensive digital cash management solution for corporations and is designed to help treasury functions reach the next level of optimization. The solution does this by facilitating centralized cash management with high cash visibility, access and control through a combination of virtual bank accounts (VBAs) and virtual ledger accounts (VLAs). In a nutshell, VCM is a unique tool that offers treasurers the ease of one single bank account across Europe while maintaining the benefits of local payments.

4. WHAT DO YOU SEE AS THE MAIN BENEFITS THAT PE/RE MANAGERS CAN DERIVE FROM USING VIRTUAL ACCOUNTS? VCM enables treasurers to



significantly rationalize and simplify account structures and to enhance in-house bank structures that not only facilitate payments-on-behalf-of subsidiaries (POBO), but also introduce true collections-onbehalf-of subsidiaries (COBO). Both incoming and outgoing payments are done out of a central account but routed through virtual IBANs that a company holds in different countries. Other benefits for the treasurer include invoice matching and reporting, optimized reconciliation, internal transfers, and an intercompany loan administration. As such, VCM means that a corporation's administrative footprint can be vastly reduced, should they so wish. But the solution is built in such a way that the client can pick and choose precisely how they want to gain operational efficiencies. A client could, for example, make use of the centralized cash position but still allow local entities to initiate their payments, as well as giving them the full reporting.

5. WHAT ARE THE TARGET CLIENT SEGMENTS MOST LIKELY TO BE INTERESTED IN VIRTUAL ACCOUNTS?

By definition, VCM is designed for corporate clients with an international footprint; however, we see high interest from the fund industry and in particular from PE/RE clients. One reason for this is that they have now adopted a more structured approach to treasury management. Following this trend, treasurers active in PE/RE are seeking to optimize treasury processes and naturally implement cash management solutions wherever possible. Their challenge is to continue to keep control of a complex fund structure including sometimes thousands of IBAN accounts opened in different jurisdictions. Managing such volumes with multiple banking partners can become a mess if processes are not automated or financial information is not correctly structured. For many PE/RE professionals and clients, VCM is an innovative cash management

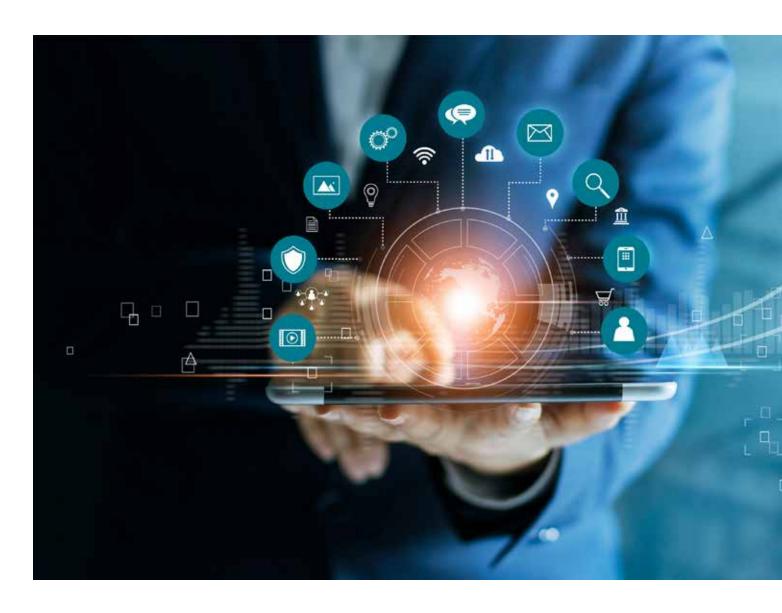
solution that can help them meet their needs.

6. WHAT SHOULD A CORPORATION TAKE INTO ACCOUNT BEFORE CONSIDERING A VIRTUAL ACCOUNT MANAGEMENT SOLUTION TO MEET THEIR OPERATIONAL NEEDS?

There is still a need for current accounts in a virtual account world. If you are a global company dealing with many different foreign currency flows, you do need to open current accounts in the foreign currency, but there are still questions that you can ask yourself. One is around volumes - typically smaller companies with smaller FX volumes will not have an appetite for an additional foreign currency account because they will not want to deal with the exposure. They will typically do spot conversions for incoming and outgoing flows on one account. As the flows grow, they will tend to open a foreign currency account

separately as the charges will increase. Additionally, if you have incoming and outgoing cash flows in one single foreign currency, it may be wise to offset them and create a natural hedge for which it may be wise to open a foreign currency account as well. Other considerations include whether you really want to deal with a foreign currency account with a bank that is far away? Also, are there any other conditions or fees involved that you do not want to pay?

If your company decides to open a foreign currency account, there are three basic location options that you can choose from. The first one of these is in the currency center, so for example all GBP accounts would be opened in the UK, all JPY accounts in Japan, etc. The second option is to have all of your accounts with the bank that is in your headquarters' home location. The third option is to open all the accounts with a bank in the same country



as your treasury hub or shared service center. Other things should be considered when making this decision. For example, understanding where you may have favorable cut off times. Do you have clients that only want to pay into a local account? Does the location match with the banking relationships that you already have? All of these questions should help you design the most appropriate solution that will meet your needs.

Beside foreign currency accounts management, the number of accounts opened and volumes of transactions are definitely a trigger to think about VCM. Furthermore, the need to facilitate invoice reconciliation processes could

be an additional trigger.
Because VCM allows for the centralization of solutions, this may trigger fiscal, legal or operational implications.
Some issues that individuals may run into are differences in treatment of withholding tax triggered by interest payments and this should be taken into account if they decide to move forward with our Virtual Cash Management offering.

7. HOW CAN THE VIRTUAL ACCOUNT MANAGEMENT SOLUTION FACILITATE THE FINANCING, FORECASTING AND PLACEMENT OPPORTUNITIES FOR THE PE/RE MANAGERS?

If one looks at VLAs, there is an unlimited way of structuring the allocation of cash flows, to a very detailed level. Looking at a company that is forecasting its cash, typically there may be a difference between the actual in- and outgoing cash and the forecast. If one would like to identify where the difference comes from, it will help greatly if one has the possibility to drill down to the smallest level of detail to identify what is causing the difference. Only if one can identify what is causing the difference in the forecast will one be able to further optimize any forecast for the next period. This is one way that the VLA system and the greater availability of data will help in further optimizing the cash forecast.

8. WHAT ARE LESSONS LEARNED AND CHALLENGES

WHILE WORKING WITH CUSTOMERS ON VAM PROOFOF-CONCEPTS? CAN YOU HIGHLIGHT SOME SUCCESS STORIES?

Our clients who have acquired the VCM solution in recent months are quick to agree. According to an Accounting Manager at a market-leading global maritime community, "The biggest win with VCM is to have your cash centralized into a master account. This enables 100 percent insight across the company, and all of your banking networks, as to when cash is coming in and going out. Plus, on a daily basis, we now have access to the complete cash of the entire group." Similarly, for a treasurer from an industrial group in The Netherlands, the



driver for getting on board with VCM was to ensure that the company was able to use its liquidity in the most efficient manner. This was previously a challenge due to having "around 450 bank accounts and being provided with limited daily insight into cash and liquidity positions," he explains. Through his experiences of VCM thus far, he believes that the solution will "eliminate the restrictions of cash sitting in one country and not being able to be fully utilized in another country." He says it also gives the company more flexibility in its cash management, whilst taking into account compliance and KYC requirements, improving quality and accuracy. Others were keen to find a solution that would help automate the

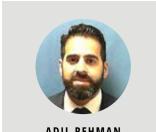
matching of incoming payments with outstanding invoices. They can now simply load their invoices into VCM and incoming payments are then automatically matched to those invoices. Not only does matching take place automatically, but at the same time a journal entry can be created that can be automatically posted into the ERP environment. The accounting manager is also looking to reduce his team's workload around reconciliations, by up to 50 percent, using VCM. "This will mean they can spend more time on reporting and controlling, making sure they have the complete picture of where the company's cash is - and how it is being used," he notes.

To summarize, there is a wide range of benefits to virtual cash management from a PE/RE perspective. There is increased visibility and control of cash, which is definitely beneficial for risk management. Still on the theme of risk, the possible reduction of cyber fraud risk exists through the centralization of the process. Other benefits include the cost reduction opportunities as there is less manual work. It will also probably facilitate the movement from a decentralized structure towards a centralized structure in line with the pace and configuration of their business.

Beside foreign currency accounts management, the number of accounts opened and volumes of transactions are definitely a trigger to think about VCM.

RETHINKING CURRENCY OVERLAY

HOW TO RESPOND TO 2020'S NEW FX VOLATILITY REGIME



ADIL REHMAN
GLOBAL HEAD OF FX ENTERPRISE
SOLUTIONS GROUP
GOLDMAN SACHS



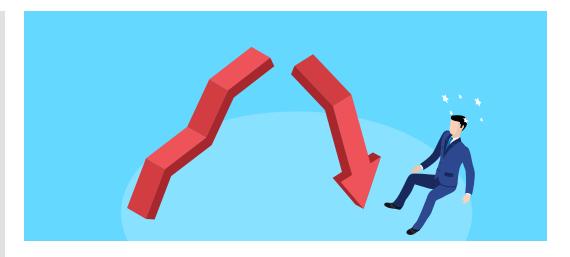
CONOR DALY
EMEA HEAD-EFX SALES
GOLDMAN SACHS



XAVIER ZAEGEL
PARTNER- INVEST. MANAGEMENT



JULIEN BAGUET
SENIOR MANAGER- INVEST.
MANAGEMENT
DELOITTE



The fallout from COVID-19, which has roiled global financial markets, has presented significant challenges for treasurers and COOs in their attempts to manage non-discretionary currency exposure. In this interview, Conor Daly and Adil Rehman from Goldman Sachs, and Xavier Zaegel and Julien Baguet from Deloitte Luxembourg, discuss the risks that a landscape transformed by volatility brings, solutions that can help the buy-side optimize their risk management and how they think market practitioners should respond by reforming their existing processes.

INCREASED VOLATILITY BRINGS INCREASED RISKS

BEFORE WE ASK YOU TO PROVIDE SOME INSIGHT REGARDING THE PRACTICAL DAY-TO-DAY REALITIES OF OPERATING YOUR BUSINESSES GIVEN THE CURRENT DISRUPTION, MAYBE WE CAN BEGIN BY ASKING YOU TO DISCUSS HOW YOU HAVE SEEN CLIENTS NAVIGATE RECENT PERIODS OF HIGH FX VOLATILITY?

GOLDMAN SACHS: One has to go back nearly a decade, to the summer of 2011, to find the last time that we experienced a broad-based increase in developed markets currency volatility similar to that which we saw in March this year. Back then, concerns over the contagion of the European sovereign debt crisis, slowing global growth and a US downgrade were to blame; the trigger this year was a threat altogether different in nature. At the height of the volatility

in the first quarter of this year, investors were confronted with large moves in spot FX markets and significantly wider touch spreads. Some of the moves were exacerbated by thinner order books and higher equity volatility which resulted in outsized quarter-end hedge rebalancing activity. FX swaps and forwards markets were also impacted by the same risks, compounded by a dollar funding squeeze and wider money market stress.

At a time of widespread investor, professional and personal distress, it was critical to us that our clients knew that they could rely on both Goldman Sachs people and products to weather the storm. Since launching our Passive Currency Overlay platform externally in 2017, we have been working with institutions to harness new technology to increase automation, reduce operational risks and raise transparency levels around the management of any non-discretionary FX hedging program. Having a robust end-to-end process in place enabled our clients to focus on other tasks that required a higher-touch or more timecritical, personal response.

DELOITTE: In our case, we observed that the increase in the volatility of financial markets has triggered more

activity for our clients willing to rebalance their hedge to cover new exposures. Product manufacturers also saw a jump in capital activity, which required adjustments in their hedging program. This increase in overall activity and monitoring has shed new light on currency overlay challenges and the risks inherent to maintaining an inefficient process. Indeed, some manufacturers observed large impacts on their portfolio or share class performance resulting from an inefficient hedging program. As an illustration, the comparative FX hedging performance of some of the largest asset managers on a Global Credit Bond strategy is depicted below. This analysis, run with our Deloitte Hedging Analytics tool based on publicly-available Net Asset Value data, shows that some

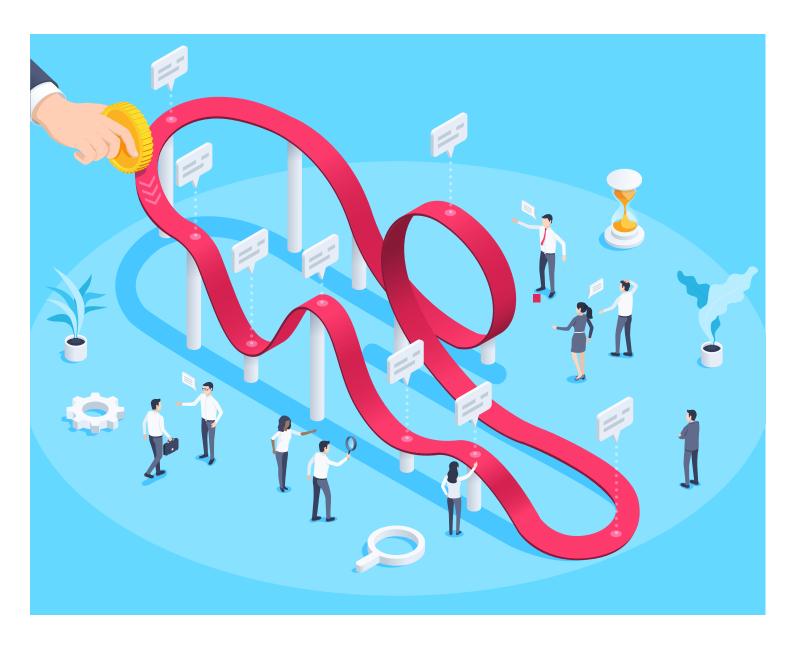
Asset Managers managed to reduce their tracking errors while others experienced high levels of cumulative hedging impacts at the end of April 2020.

"One has to go back nearly a decade, to the summer of 2011, to find the last time that we experienced a broad-based increase in developed markets currency volatility similar to that which we saw in March this year."

Performance gained or lost due to inefficient hedging programs for representative global Credit Bond funds



Source: Deloitte Hedging Analytics



"When we talk to clients about what they are fundamentally trying to achieve with a reformed process, the strength of the principal route becomes obvious."

AN ONGOING DEBATE,
PRIOR TO THIS LOCKDOWN,
HAS BEEN THE RESPECTIVE
STRENGTHS AND WEAKNESSES
IN PRINCIPAL VERSUS
AGENCY SOLUTIONS; HAS THE
RECENT BOUT OF VOLATILITY
CHANGED OPINIONS ON THE
BUY-SIDE AND SELL-SIDE ON
THIS ISSUE?

D: Most of our buy-side clients are not there yet. Their main focus in the immediate aftermath of the COVID-19 volatility spike was to stabilize their process and minimize the tracking error. We sense that their focus will shift at the end of the year towards operational model review, costs and transparency for their investors.

GS: We see increasingly limited interest in agency-based solutions and we think that the full focus on principal solutions is likely to stay given prior complacency in what had been a persistently low FX volatility regime in developed markets.

When we talk to clients about what they are fundamentally trying to achieve with a reformed process, the strength of the principal route becomes obvious. Firstly, the ability to agree on fixed execution costs upfront and transfer that risk to a single counterparty has only come into renewed focus given the extent of the volatility in March and April in FX funding markets; that episode proved to be a reminder to market

participants both as to how quickly costs can change as well as that the genuine FX liquidity providers had a responsibility to insulate their principal clients first. The agency model of fluctuating execution costs, particularly in emerging markets currencies, on top of intermediary and service fees, creates uncertainty that the buy-side understandably does not want to have to absorb. The other major benefit to clients has been that they can centralize the complexities of credit risk management in one place and ensure that they benefit from both the execution savings delivered by sophisticated netting and collateral efficiencies.

CAN YOU TALK A LITTLE ABOUT PROCESSING CAPACITY, PLATFORM STABILITY AND UPTIME AND HOW THE BROADER GS FRANCHISE NAVIGATED THAT THROUGH THE VOLATILITY?

GS: Our Passive Currency Overlay product sits within Marquee, our digital storefront. One significant benefit of this is that it ensures that there is a high level of constant investment and development in the product.

We were delighted to see how our trading, technology and operational infrastructure stood up to the challenge. Extremely high levels of straight through processing of trading activities are a prerequisite when you operate a franchise at the scale we do. Our Systematic Market Making unit posted multiple new record volume days in FX, with zero capacity-related outages whilst uptime on our Marquee execution platforms averaged 99.99% in March. Finally, perhaps the most impressive response came from colleagues in our Salt Lake City office who also had to navigate a 5.7 magnitude earthquake on the critical March IMM roll day!

HAS THE RECENT VOLATILITY CHANGED YOUR MIND WITH REGARDS TO ADDITIONAL TOOLS AND CONTROLS THAT YOU WANT TO BUILD AND PROVIDE TO THE BUY-SIDE?

GS: Firstly, it is clear to us that clients want the ability to add a greater level of dynamism into their risk management. This is less about a demand for derivatization or adding

needless complexity but rather more about helping empower clients by giving them the tools to run an FX hedging programme that responds to volatility-based measures as well as those tools that we already offer with linear FX.

The second major area of product releases pertains to increasing the transparency and granularity of performance metrics. To do this effectively and in a way that ensures high levels of governance, we support a hybrid model with external service providers likely to lead the way in terms of delivering TCA and hedging analytics with GS performing a consultative role to help optimize a client's activity.

WE HAVE HEARD ABOUT HOW THE GLOBAL EXPERIENCE OF COVID-19 IS LIKELY TO ACCELERATE PRE-EXISTING 'MEGA-TRENDS' AROUND DIGITALIZATION AND CONSUMPTION PREFERENCES; HOW DO YOU SEE IT AFFECTING THE MANAGEMENT OF FX HEDGING PROGRAMS?

D: Digitalization is a key focus for us in order to provide added-value to our clients. We no longer provide independent reporting and analysis on this topic as we did 10 years ago. The recent switch to homeworking has only accelerated this trend. Our clients want to access tools online, have better views on drivers of hedging performance and be able to optimize results themselves through interactive tools. Visualization through our analytics is thus a key area of development.

"The other major benefit to clients has been that they can centralize the complexities of credit risk management in one place and ensure that they benefit from both the execution savings delivered by sophisticated netting and collateral efficiencies.' **GOLDMAN SACHS**

"Our model is flexible as we can either use our own TCA data or source TCA data from our clients, if they have a preferred provider for such services. "

HOW CAN DELOITTE HEDGING ANALYTICS HELP?

FROM YOUR PERSPECTIVE,
HOW DO YOU FEEL DELOITTE
HEDGING ANALYTICS CAN
PROVIDE ADDED-VALUE TO
ASSET MANAGERS AT THIS
TIME? WHAT KINDS OF
HEDGING PERFORMANCE
ENQUIRIES HAVE YOU BEEN
SERVICING?

D: As investors' queries increase over such period, we have observed that our clients were concentrating on hedging issues and how these will impact the performance of their hedged portfolios and share classes. We recommend putting in place daily controls on the tracking error between the hedged and unhedged portfolio or share class in order to identify the sources that lead to any performance

divergence. Deloitte Hedging Analytics is a tool that we have developed with this goal in mind: helping asset managers to track their hedging performance and providing independent reporting on the sources of tracking error. The tool enables the tracking of various sources of hedging risk on operations, execution, monitoring of the hedging ratio and accounting.

HOW FAR DOES THE DELOITTE HEDGING ANALYTICS GO TOWARDS MEETING A FIRM'S BEST EXECUTION REQUIREMENTS?

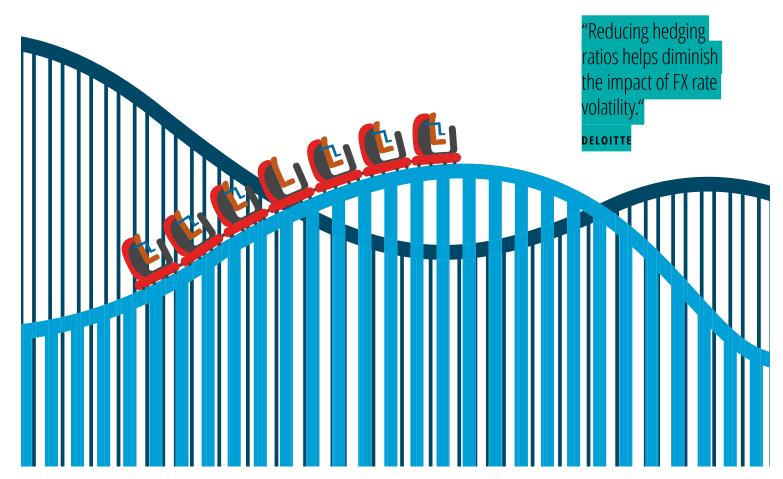
DELOITTE: In light of PRIIPs and MiFID II European regulations, which increased the focus on trading and cost transparency, we implemented a TCA module within Deloitte Hedging Analytics to provide a view on the compliance with best

execution requirements. Our model is flexible as we can either use our own TCA data or source TCA data from our clients, if they have a preferred provider for such services.

GS: Deloitte Hedging Analytics can be a very important part of meeting a firm's best execution requirements; these are best thought of as a process that encompasses many aspects. Goldman Sachs is committed to delivering this connectivity to any of our clients who are interested in making use of the product.

ARE FIRMS SPECIFICALLY LOOKING AT REDUCING THEIR HEDGING RATIO THRESHOLDS IN THIS PERIOD?

DELOITTE: We have observed that overall the market is tightening the hedging ratio



thresholds in order to remove this additional source of performance drag. The hedging ratio is the part of the Net Asset Value of the share classes that is covered by a forward contract in order to reduce FX exposure for a foreign currency investor. Reducing hedging ratios helps diminish the impact of FX rate volatility. This leads to a decrease of tracking error in this difficult period for hedged products. While more trades will be required to adjust the hedging ratio, the transaction costs associated with such trades are nevertheless much lower than the potential impacts of an inefficient hedging ratio.

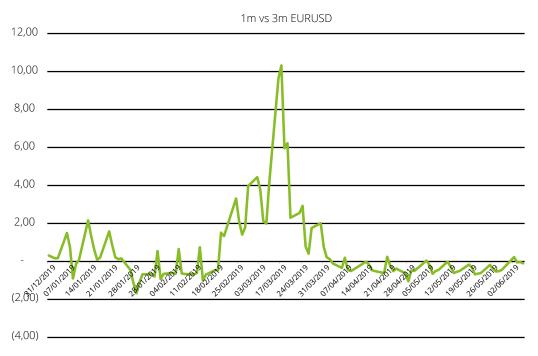
The only exception to this rule is for funds with swing pricing. Indeed, the use of frequent swing pricing shifts the Net Asset Value of a fund upwards or downwards, depending on its capital activity to reduce

dilution. However, frequent swing pricing triggers can lead to hedging adjustment based only on capital activity without underlying portfolio variations. Counterintuitively, we have observed Asset Managers increasing their hedging ratio thresholds in the period of high volatility to avoid being negatively impacted by the swing adjustments.

HAVE YOU OBSERVED ANY CHANGE IN HEDGING COSTS FOR ASSET MANAGERS?

D: In the most volatile days of March 2020, we observed Asset Managers managing the maturity of their trades to benefit from inefficiencies in the swap curves. Indeed, we can observe below the difference in pips between EURUSD 1-month and 3-month forwards. This chart shows that it was more costly to take a 1-month hedging

contract to sell US\$ against EUR in the middle of March than a 3-month contract. It could have cost up to 10 pips on the equivalent of a one-month contract on March 17, 2020. Our clients have therefore selected longer maturities, in order to avoid this kind of impact on shorter durations.



Source: Bloomberg

"In our conversations with clients, it becomes clearer every day that the topic of FX hedging is coming back to the forefront of discussions among top management."

HOW SHOULD MARKET PRACTITIONERS RESPOND?

THE PAST COUPLE OF MONTHS HAVE SEEN HIGH LEVELS OF VOLATILITY IN FUND PERFORMANCE AND AUM. HOW MUCH OF A SPUR TO REVIEW EXISTING PROCESSES AND SYSTEMS DO YOU THINK THE RECENT MARKET MOVES WILL BRING?

GS: The recent bout of volatility has been a spur for the buy-side to review their current providers and some have been found wanting. It is never easy when an out-trade or breakdown of provision is the trigger for reviewing a firm's current set-up but 'things going wrong' remains a common spur to action. We would encourage the buy-side to engage with alternative service providers, either directly or by working with specialist consultants like Deloitte regularly as part of their firm's best execution policy.

D: Apart from operational errors, such levels of volatility will bring greater focus to inefficient processes and systems. For instance, a hedging ratio of 105% is not far from market practice and within the acccepted thresholds for UCITS share classes in Europe. However, such a ratio can lead to an impact of 10bps on the performance of the product if the FX rates move by only 2% on a given day, a situation which actually occurred during March 2020 on the EUR/US\$ spot.

In our conversations with clients, it becomes clearer every day that the topic of FX hedging is coming back to the forefront of discussions among top management. Some of our clients have already started process improvement projects in order to fix the tracking errors observed in March and April 2020.

IN CONCLUSION, WHAT LONGER-TERM TRENDS DO YOU THINK WILL BE UNAFFECTED BY RECENT DEVELOPMENTS AND WOULD YOU EXPECT TO CONTINUE TO DEVELOP IN THE COMING MONTHS?

DELOITTE: Even though some spreads might have widened recently due to a lack of liquidity, we still expect transaction costs for FX hedging services to decrease in the months and years to come in light of current transparency trends, driven by regulatory and commercial pressures.

GS: In terms of longer-term trends, we think principal solutions will continue to be preferred over agency ones, that more funds will diversify away from FX hedging with their custodian as a result of the emancipatory influence of technology and that a greater range of different FX hedging processes will be imbued with higher levels of automation.



TO THE POINT

In this period of high volatility, the choice of currency overlay service provider and the process selected is more critical than ever. **Goldman Sachs and Deloitte have observed** some pressure on FX market liquidity which has had adverse effects on the costs incurred by clients. It is for this reason that TCA analysis has been integrated into **both Goldman Sachs** and Deloitte systems, as investors are requesting higher transparency on best execution practices.

The need to use highly automated platforms for calculations as well as managing a currency overlay program is key for dealing with the increased activity generated by the recent spike in volatility. Market professionals should lean on best in-class liquidity and technology providers to implement turnkey solutions that fit their existing operational and technological workflows.

It has never been more operationally simple to trade FX independent of a custodian relationship; treasurers and COOs should ensure that they regularly review their liquidity and technology provider set-ups to ensure that they take advantage of the latest products and advancements.

A TALE OF TWO PILLARS

IFD/IFR INTRODUCES NEW CAPITAL REQUIREMENTS FOR INVESTMENT FIRMS

Investment firms provide a range of services and activities to investors in financial markets that are crucial for the functioning of the financial markets and include, among others, the reception and transmission of orders, the provision of investment advice, discretionary portfolio management and trading on own account.

The specific risk profiles of investment firms are not always properly captured by the banking prudential framework (CRD IV¹/ CRR²). Taking this diversity into account, the European Parliament has adopted the Investment Firm Directive (IFD³) and the Investment Firm Regulation (IFR⁴).

Among other things, the IFD/IFR framework introduces a whole new way to determine capital requirements for investment firms. This article summarizes the key elements of these new requirements and provides an initial assessment of their impact for the investment firms







MARIEKE VAN EENENNAAM PARTNER - RISK ADVISORY DELOITTE



ARNAUD DUCHESNE DIRECTOR - RISK ADVISORY DELOITTE



JEAN-PHILIPPE PETERSPARTNER - RISK ADVISORY
DELOITTE



MAURICE WESTMAAS MANAGER - RISK ADVISORY DELOITTE

Categorization of investment firms

The new IFR/IFD framework is built upon the principle of proportionality and classifies investment firms alongside four categories:

- "Class 1": Investment firms that have over €30 billion in assets and perform services that carry bank-like exposures, such as underwriting or dealing on own account will be required to apply for a banking license and will be subject to the CRD IV/CRR rules;
- "Class 1 minus": Similar to Class 1 firms, but with balance sheet sizes between €15 billion and €30 billion. These firms will also be subject to the CRD IV/CRR regime but will remain authorized as investment firms:
- "Class 2": All investment firms that do not meet the criteria for the other categories. They will fall under the remit of the new IFR/IFD framework;
- "Class 3": These are the "small and non-interconnected firms" which do not undertake any high-risk activities and whose activities fall below relevant thresholds. Firms in these categories will be subject to the new IFR/IFD, but with lighter requirements and exemptions (proportionality).

Introducing new capital and liquidity requirements

The new regime will introduce rules related to minimum regulatory capital and liquidity requirements. The framework introduces a minimum liquidity requirement of one-third of the fixed overheads requirement. Competent authorities may exempt Class 3 firms from this requirement. For regulatory capital requirements (Pillar I), firms should use the highest of the following:

 A permanent minimum (determined by services provided) - the permanent minimum capital (PMC) is the minimum to obtain and maintain authorization;

- 25% of fixed overheads of the preceding year. This is in line with the current requirement to support an orderly winddown;
- The requirement determined by a new risk-sensitive approach, known as K-factor methodology (only for Class 2), to better fit the impact that investment firms can have on customers and markets.

Among other things, the IFD/IFR framework introduces a whole new way to determine capital requirements for investment firms. This article summarizes the key elements of these new requirements and provides an initial assessment of their impact for the investment firms.

	Permanent Minimum Capital requirement	Fixed overheads cost	K-factor
Class 2 firm	\checkmark	√	√
Class 3 firm	√	√	N.A.



A closer look at the K-factors

The K-factor requirement is deemed to be a closer fit for the risks typically incurred by the broad range of investment firms. The K-factor requirement will lead to different capital requirements than those observed under CRD IV/CRR, as the three Pillar I blocks (credit, market and operational risk) are replaced by quantitative indicators that represent the risks that an investment firm can pose to customers, the wider markets and the firm itself:



There are three categories of K-factors: (i) Risk-to-Client (K-RtC), (ii) Risk-to-Market (K-RtM), and (iii) Risk-to-Firm (K-RtF). The K-factor capital requirement is the sum of the values of the individual K-factors, with one exception: Firms can use either K-CMG or K-NPR to determine the K-RtM requirement.

Category	K-Factor ⁵	Description		
K-RtC	K-AUM	0,02% of the arithmetic mean of assets under management, measured as a rolling average of the past 15 months, excluding the last three months.		
	K-CMH	A percentage of the rolling arithmetic average of daily balances of client money held (CMH) over the past nine months, excluding the last three months. The percentage is dependent on whether client funds are held on segregated accounts. Firms will hold 0,4% of CMH in capital for segregated client accounts, 0,5% for non-segregated accounts.		
	K-ASA	0,04% of the rolling arithmetic average of daily balances of client assets safeguarded and administered, measured over the past nine months, excluding the three most recent months.		
	K-COH	A percentage of the rolling arithmetic average of the daily value of client orders handled over the previous six months, excluding the last three months. The percentage depends on the instruments traded: It is 0,01% for derivatives, 0,1% for other instruments.		
K-RtM	K-NPR	K-NPR is identical to the CRR own funds requirement for market risk, using the standardized approach, the alternative standardized approach or the alternative internal model approach. Firms may use K-NPR, K-CMG, or both to determine K-RtM.		
	K-CMG	The third highest amount of total margin required on a daily basis over the preceding three months, multiplied by 1,3. K-CMG may only be used for cleared trades or portfolios, for non-cleared trades K-NPR must be used.		
K-RtF	K-TCD	The required capital for trading counterparty exposure depends on the replacement cost of the portfolio, the type of counterparty, the adjusted amount of collateral posted, the potential future exposure of derivatives and the type of transaction. Netting is allowed.		
	K-DTF	A percentage of the rolling average of the sum of the absolute value of daily buy and sell orders (amount paid or received for cash trades, notional amount for derivatives) over the previous nine months excluding the last three months. There is a duration correction for interest rate derivatives. The percentage is 0,01% for derivatives, and 0,1% for cash trades. In periods of extreme volatility, the percentages are adjusted.		
	K-CON	K-CON refers to concentration risk with respect to counterparts, not just clients. It uses elements of the methodologies to calculate K-NPR and K-TCD, to calculate an exposure value per counterpart, or group of closely connected counterparts. Only positions in specific types of instruments are considered for calculating the exposure value. Where this exposure value exceeds 25% of own funds, a capital requirement exists. The size of the capital requirement depends on the duration and size of the excess.		

Contribution to the capital requirement and comparison with CRD IV/CRR

When assessing the application of the K-factors to class 2 firms and comparing the results with the current pillar one requirements, we notice that the impact can vary significantly across business lines as outlined in the below tables.

Business Model	Change in pillar 1 capital requirement
Custodians	26%
Execution Brokers	48%
Underwriters	42%
Investment Advisors	306%
MTF	0%
Multi-service Investment Firms	14%
Portfolio Managers	31%
Trading Firms	-14%
Wholesale Brokers	12%

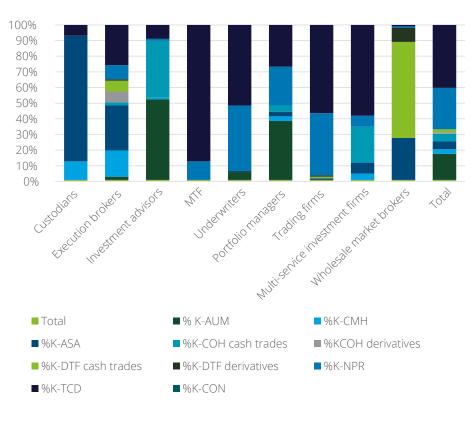


Except for trading firms for which the application of the k-factor methodology suggests a decrease of the capital requirements, all other type of business model will be subject to higher capital:

- Trading firms, on average, see reduced own funds requirements. Firms trading on own account often use the exemption for operational risk under CRR and are required to hold funds based on fixed overhead instead. The closest proxy for operational risk under IFR is K-DTF. From the small marginal contribution of K-DTF to the K-factor requirement, we might expect this to work to the advantage of trading firms, and indeed this is in line with what clients tell us.
- Investment advisors display a substantial overall increase driven by large advisory firms, as the K-factor requirement is dominated by K-AUM, which applies to assets managed under advisory arrangements, and K-COH.

 The other types of business model will also support a capital requirement increase because of the calibration of the k-factors. As part of its opinion paper ⁶ on the topic, the EBA published an analysis of the contribution of the different K-factors to the total K-factor requirement for different business models.

Contribution to K-factor requirement



The EBA analysis yields some interesting results:

- First, K-TCD is the biggest contributing factor for almost all investment firms. K-CON does not appear to contribute noticeably to the total K-factor requirement, indicating that investment firms in the sample did not exceed the exposure limit of 25% of own funds to a single counterparty or group of connected counterparties.
- Secondly, the K-factors related to derivatives trading (K-DTF and K-COH) also do not appear to contribute significantly to the K-factor requirement for any of the business models reviewed in contrast to the same K-factors for cash instruments.
- Also note that K-CMG, based on margin requirements for cleared trades is absent from the analysis.

The challenges introduced by the IFR

Capital & Business Model

While many investment firms will see a tailored regime as a positive step, the implications of the new regime will differ from firm to firm. Each firm will need to assess what the regime change means for it and take action accordingly.

As outlined in the previous section of this article, many Class 2 investment firms will be subject to higher capital requirements. There will be a 5 year transition period where IFD/IFR capital requirements are capped to allow the hardest hit firms to increase their capital. Most importantly, investment firms should use that period to review and assess the sustainability of their business models as the new capital regime might put their revenue

under pressure. To illustrate our comment, let's consider an entity authorised to provide a range of MIFID services (see figure 2) that is running a business model presenting the characteristics displayed in figure 1. Under the new framework, this entity will be subject to capital requirement corresponding to 6 bps of the asset under management held by this entity.

When comparing this figure with the net revenue that the entity should generate to overcome the capital requirement, we estimate that a service fees above 20 bps should be collected. This figure suggests the followings:

 investment firms charging 5 bps for the delivery of the service would need four years to reach the targeted level of capital; • investment firms running a strategy based on the volumes rather than on the fees will be more impacted by the IFR/ IFD framework and might not have enough time during the transition period to reach the new capital level. In this situation, the investment firm will need to adjust its business model to ensure a sustainable evolution.

Figure 1 - Business model characteristics

- Cost/Income ratio 60%
- Tax rate of 20%
- 50% of client assets are reinvested over a 1-year cycle
- 5% of client assets are in the rom of "client money held"

Figure 2 - MiFID Services

- Reception and transmission of orders in relation to one or more financial instruments
- Execution of orders on behalf of clients and the ancillary services
- Safekeeping and administration of financial instruments for the account of clients, including custodianship and related services such as cash/ collateral management



While many investment firms will see a tailored regime as a positive step, the implications of the new regime will differ from firm to firm. Each firm will need to assess what the regime change means for it and take action accordingly.



Consolidation

Similar to the CRD IV/CRR, Union investment firm groups will have to apply the Regulation on a consolidated basis. This will lead to the following challenges

- Under the consolidation perspective, the group might be subject to higher capital requirement by application of the k-factor methodology to all group entities;
- Applying EU rules on operating entities located in third countries where local rules are less stringent will create profound competitive challenges for EU groups.

Nevertheless, as long as an investment firm group is sufficiently simple, and there are no significant risks to clients or to the market due to the group structure, group members may opt for one of the proposed simplified approaches which consist, among others, of the application of the own funds requirements on an individual basis. The application of those consolidation rules will have to be carefully managed in order to avoid an over-complexification of the capital management From a liquidity perspective, a competent authority may exempt groups from meeting the liquidity requirements on a consolidated basis when it deems appropriate.

Pillar 2 Requirements

IFD/IFR contains an internal capital adequacy assessment (ICAAP) and supervisory review process (SREP) similar to the one under CRD IV/CRR. Based on the outcome of this review, the competent authority may require the firm to hold

additional own funds.
Additional own funds may be imposed if:

- The firm is exposed to risks not properly covered by the K-factor requirements
- The firm has insufficient measures in place to monitor and manage risk exposures, and is unlikely to be able to improve this within a reasonable timeframe
- The valuation of trading book positions is such that these cannot be sold or hedged in normal market conditions without material losses
- Internal models used are inadequate
- Own funds are considered insufficient to absorb cyclical economic fluctuations
- There are insufficient own funds for an orderly wind down if needed
- Interest rate risks emerge through the holding of a liquid portfolio

As the K-factor requirements are expected to be a closer match to the risk exposures resulting from the plethora of activities deployed by investment firms, we expect competent authorities will, on the whole, impose smaller pillar 2 related add-ons to own funds requirements. As competent authorities tend to err on the side of caution, we expect the reduction in pillar 2 add-ons to exceed the pillar 1 increase, and lead to a slight overall reduction in total own funds requirement.7

CONCLUSION

- The IFD/IFR regime represents a significant change in the way capital requirements are calculated for investment firms
- Several exemptions apply for small and non-interconnected firms
- Business models like investment advisory and execution brokerage incur much higher pillar 1 capital requirements than in the current regime. Conversely trading firms and custodians incur lower pillar 1 capital requirements
- IFD/IFR contains an ICAAP and SREP similar to the one under CRD IV/ CRR. Based on the outcome of this review, the competent authority may require the firm to hold additional own funds
- Overall, we expect the pillar 1 requirements to be higher under IFD/IFR, and the pillar 2 requirements to be lower
- Investment firms will need to determine the impact of the IFD/IFR regime, and create a transition roadmap to be ready in July 2021

TO THE POINT

As of July 2021, the new IFD/IFR regime transforms the way capital requirements for investment firms are calculated.
Depending on business model, the impact on the Tier 1 capital requirement can be significant (up to 300%!). Updated capital requirements may have an impact on the cost structure.



SUSTAINABLE CAPITALISM

PUBLIC AND PRIVATE COMBINE TO AID RECOVERY



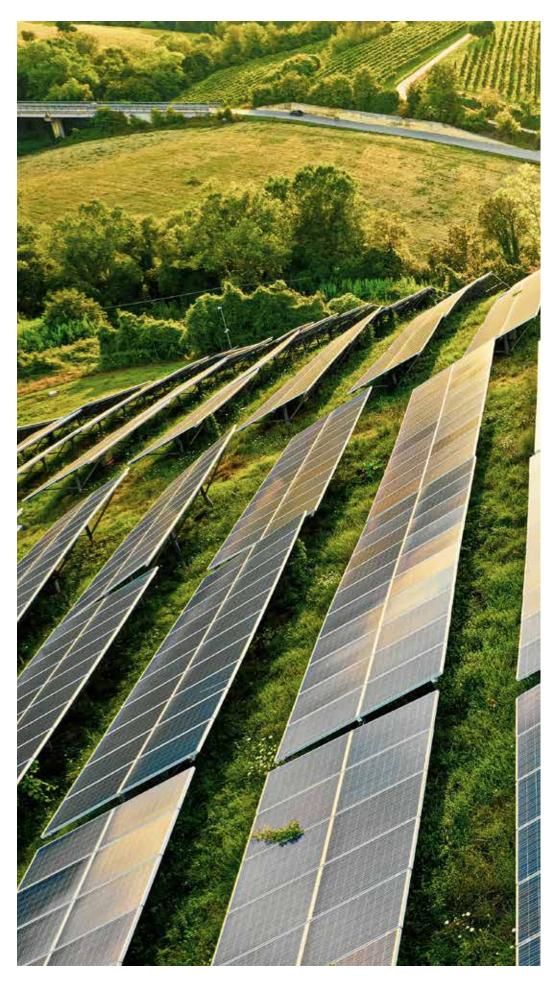
JENN-HUI TANGLOBAL HEAD OF SUSTAINABLE INVESTING
FIDELITY INTERNATIONAL

The Covid-19 pandemic has accelerated a shift in public discourse, normalizing ideas that were once thought radical. Among these is the move towards sustainable capitalism. Sustainability has gone from being a fashionable buzzword to a tangible requirement.

NOTE: The below article was prepared for publication in Deloitte Performance Magazine #33. It is adapted from an article that appeared in Fidelity International's "Sustainability Report 2020"; the full report is available at this link: https://www.fidelityinternational.com/editorial/fidelity-answers/sustainability-report-2020-sustainable-capitalism-in-a-post-covid-world-en5/







Public and private spheres intertwine

In the summer of 2019, the influential Business Roundtable of US top executives rejected the idea of shareholder primacy and advocated embracing wider stakeholder interests. This was largely a statement of intent - until the outbreak of COVID-19.

Customers are now demanding greater articulation of values in action on the part of corporations, and companies now see the health of employees, communities and suppliers as vitally important in their decision making, and are seeking to promote their own social value. This is especially true where governments have taken stakes in private firms, or where companies have benefited from employee furlough schemes.

Governments have introduced these interventions, together with measures such as grants, loans, and tax relief, in a rush of fiscal activism that, alongside huge monetary stimulus, aims to combat the economic fallout from the outbreak. However, the longer-term risks from these actions are significant given the enormous debt overhang globally - which is at a level not seen since WWII - the record money supply growth, and the extended social welfare for a labour force still wary of returning to work.

Governments therefore have to think carefully about how to extract themselves from these commitments and get their economies moving again. To remain in power, they need to address the inequalities laid bare by the pandemic and

mitigate climate change so as to avoid future instances of widespread disruption. Key to achieving this would be a closer relationship with the private sector.

Green Deal for the EU

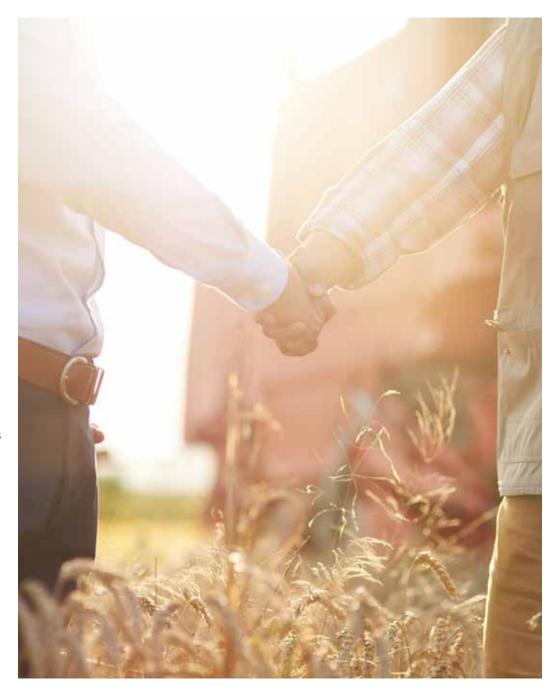
In the wake of COVID-19, some countries and regions have chosen to accelerate investment plans in public/ private programs that support job creation and sustainability goals. The European Union, for example, has re-committed to rolling out its €1 trillion Green Deal over the next decade and becoming carbon-neutral by 2050. The plan - which has been explicitly linked to the €750 million EU Recovery Fund designed to help countries rebound from COVID-19 - will be directed at reducing carbon emissions while promoting renewables, electric transport, sustainable farming, and other emerging sectors.

The program will be funded by the European Investment Bank (EIB) and a combination of public and private sector co-investments. While there is broad consensus among member states on the overall deal, agreeing how to apportion funds will require compromise. Countries with higher emissions and fewer skilled workers in cleaner industries, for example, will need more funds to make the transition than those that have already done so.

While investing in green projects is necessary to tackle climate change, defining what is and is not truly 'green' can be difficult. To help clarify this, and prevent instances of "greenwashing", the EU has created a Taxonomy on Sustainable Activities that sits

alongside the Green Deal. This detailed classification aims to capture how projects align with positive environmental objectives and avoid negative effects and is designed to ensure that investors can gear their funds appropriately to what is categorically defined as green.

Customers are now demanding greater articulation of values in action on the part of corporations, and companies now see the health of employees, communities and suppliers as vitally important in their decision making, and are seeking to promote their own social value.





Employment as well as sustainability

In many parts of the world, governments have chosen to concentrate first and foremost on employment after devastating job losses and sharp falls in GDP growth. Nonetheless, political and societal pressure is mounting for these governments (and companies) to act sustainably and in a fairer way. In the US, the Democratic campaign platform will likely include a comprehensive green investment and jobs program. Furthermore, following the tragic death of George Floyd and the Black Lives Matter protests, the damage caused by racial inequality is being discussed directly and constructively for the first time by policy-making bodies such as the US Federal Reserve, as well as at corporate board level.

Better disclosure

Meanwhile, policy-makers such as Mark Carney, the former Governor of the Bank of England (BoE), and Andy Haldane, Chief Economist of the Bank, have publicly called for society to adopt a more sustainable and equitable form of capitalism.1 Carney is a co-founder and vocal proponent of the Taskforce for Climate-Related Financial Disclosure (TCFD), an attempt to improve the quality and consistency of disclosure from companies in relation to their climate-related financial risk.

At Fidelity, we see better disclosure as fundamental to improving sustainability within companies. We take the opportunity whenever we engage with companies to recommend that they consider TCFD-aligned disclosure, while also developing our own inaugural TCFD report, due for publication later this year.

Meanwhile, the European Union has launched its Sustainable Finance Disclosure Regulation (SFDR), containing detailed and robust requirements for asset managers (among other financial firms) to report sustainability risks, policies and fund classifications. Such initiatives will only help to embed sustainable capitalism further into our economic and social structures. For these changes to be authentically adopted, however, public markets will have to take a longer-term view of the kind typically associated with private markets.

Ultimately, sustainable capitalism is coming of age because it matters to voters, customers and investors, and is likely to determine forthcoming elections. This leads us to believe that the move by businesses to consider the interests of all stakeholders,

not just shareholders, is more than just a passing trend. And that sustainable capitalism will increasingly receive attention from all sides, as a means of driving the global recovery and ensuring resilience for economies and companies.

At Fidelity, we see better disclosure as fundamental to improving sustainability within companies.

^{1.} Source: https://www.economist.com/by-invitation/2020/04/16/mark-carney-on-how-the-economy-must-yield-to-human-values; https://www.ft.com/content/fbb1ef1c-7ff8-11ea-b0fb-13524ae1056b



SIMON RAMOS

PARTNER

IM ADVISORY & CONSULTING

DELOITTE



LIZE GRIFFITHS

PARTNER

RE LEADER

DELOITTE



JEAN-PHILIPPE PETERS
PARTNER
RISK ADVISORY LEADER
DELOITTE



LAURENT COLLET

PARTNER

CONSULTING BANKING

DELOITTE



BENOIT SAUVAGE
DIRECTOR
RISK ADVISORY
DELOITTE

CMU 2.0 WHAT'S NEXT AFTER CMU AND COVID-19?

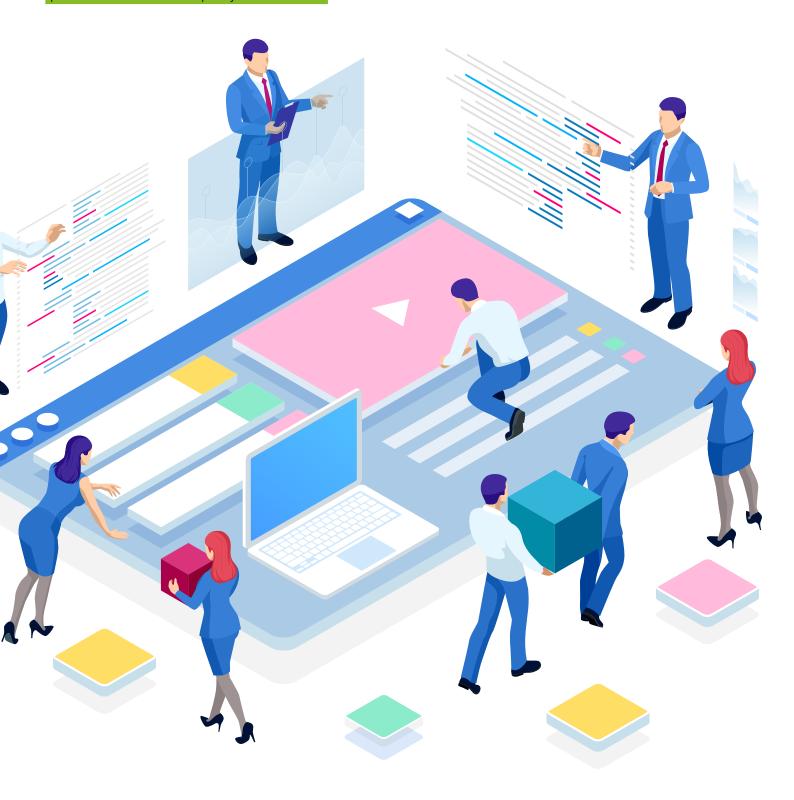
Discussing the Capital Market Union 2.0 (CMU) first requires a return to the original and still current version of the Capital Market Union. CMU was a plan led by the European Commission under Commission President Junker to better integrate capital markets across EU Member States. It was also cast as a counterweight to the post-financial crisis regulations and aimed at making business life a bit simpler without being deregulated. A core assumption of the original CMU was that, in order to have the EU economy thrive, it needed some flexibility to expand. In that respect, the CMU was inspired by the example of the US, where after 2007-09 the economy jumped back to quasi-normal much more quickly than in the EU. The underlying reason was a better equilibrium between bank- and market-based financing, with close to a 50-50 balance between these in the US compared to an 80 – 20 split in the EU.

the development of a CMU 2.0

The CMU delivered several new regulations: securitization, review of the prospectus directive, the ELTIF (European long term investment funds) and an embryo of covered bond regulation, as well as a review of EU supervisory authorities' powers and, specifically of interest for Luxembourg, a double regulation on crossborder fund distribution that will be live August 2021. This progress notwithstanding, the CMU was still dogged by concerns about Brexit. Hence, since autumn 2019, the new EU Commission, and some Member States have wanted to up the ante and accelerate

with three objectives in mind:
promoting ESG and sustainable
strategies across new financial
regulations, digitalizing the EU
and improving the access to
finance balance between market
and bank based.

The CMU was inspired by the example of the US, where after 2007-09 the economy jumped back to quasi-normal much more quickly than in the EU.





CMU 2.0 - the beginning

There are, like the river Nile, two official sources of the new CMU, one from a group of Member States led by France and Germany at the end of the summer 2019, the second by the European Commission launched in November 2019. There is a third initiative from the private sector that aims to inspire and feed the European Commission work and Member States' capital in the form of the European Banking Federation initiative called Market 4 Europe.

These new CMU initiatives largely seek better integration of EU markets and a change in

the balance of financing of the economy to tilt it toward capital markets with:

- A review of the long term savings incentives, balancing saving accounts with other tools;
- The facilitation of crossborder investments;
- The improvement of access to markets financing by firms of any size directly or indirectly (via securitization);
- The improvement of tax processing on a cross-border basis;
- An increase in financial literacy and the place of the EU in the international finance.

There might be a sixth objective which is more political, that of offering a counter weight to

populist calls through a better EU. All this should be translated into concrete measures, reviews of current texts and where possible simplification and increased cohesion of these texts.

CMU 2.0 focus on key measures

The CMU is first and foremost a roadmap or a guiding light in the EU regulatory process, it is not a regulation in itself. The European Commission experts group finalized its report in mid-June and proposed 17 measures.

They covers aspects of better market organization on a cross-border basis through reorganization of issuance and dealing in securities, new products with the review of the securitization framework and

access to financing opportunities for investors by redefining the scope of profiles and the risks of investors.

There is a third initiative from the private sector that aims to inspire and feed the European Commission work and Member States' capital in the form of the European Banking Federation initiative called Market 4 Europe.

Creating investment opportunities

Among the measures proposed by the high level group, are measures to facilitate SMEs' access to financial markets, through, for example, a passport for CSDs (central securities depositories) and the definition of standardised criteria for listing and trading for the segment of SMEs, which is proposed to be defined as companies with capital of less than €1 billion.

Securitization should be reviewed to improve the position of financial intermediaries and free balance sheet space so as to lend more, which might be helpful in light of COVID-19.

On the investors' side, the help of digitalization and an ambitious review of the risk definitions under MIFID should enable greater market access. This would be done through the creation of a new MIFID investor category, that one could call 'super retail' for private banking clients who are able to withstand risk and willing to support EU companies. The expert group proposed as well to push for mandatory private pension schemes which should mobilize part of the current savings locked on savings accounts.

If the investing side is core to the CMU proposals, the financing/loan side is not forgotten either. The CMU experts mandated by the EU Commission propose to streamline insolvency regimes and proceedings across the EU. The idea behind this is to facilitate lending and private investment on a cross-Member State basis, which has, until now, been contained at subpart level notably due to the risk of potential insolvency processes.

Another interesting perspective in the CMU report is that a difference should be made between information. Good information does not necessarily mean giving away all information, hence any review of PRIIPS, information under MIFID or IDD should focus on adequate information to help investors, not submerge it with details nearly impossible to understand for non-financial experts.

Modernizing the EU financial regulatory framework

Among the proposals presented, the transformation of EU regulations into their digital selves is a core component. That will translate into converting paper to digital first, but also to facilitate the use of cloud based services, as well as promoting the use and recognition of digital assets, or artificial intelligence. This trend is already underway in other strategic streams and will be supported through the CMU agenda.

There are other interesting ideas presented, notably a will to push for passporting where it does not appear to work properly. This could be the area of issuance of securities (equity shares) that might be delinked from the original place of incorporation and trading and issued to the CSD of another member state, hence reinforcing the passporting of services for CSDs. This could also be the case for funds UCITS/AIFs, in line with the idea to remove all local barriers not only from within a regulation, but across regulations both EU level and local.

Among the ideas raised, one might mark a big U-turn over the last 20 years, namely the recourse to a withholding tax principle instead of the

transparency and reporting mechanism as known since 2003 and the Savings Directive. The underlying idea would be to retain tax at the level of the countries instead of sharing sometimes-inefficient ex post information.

Will CMU II take off?

There might be several ways to answer this question. One is that regulatory measures envisaged are targeted and part of a reasonable agenda to stimulate and adapt the EU to its current time. In some cases the measures envisaged are much needed and make a wide consensus among the financial services stakeholders. This said, a generic policy to stimulate interest in the EU does not immediately spring to mind. If you are an entrepreneur or investor in Luxembourg, Spain or Latvia, it is not clear if an elusive name speaks to you, accordingly this might not help mark points against anti-EU or populist sentiment.

To shed some external views on this topic we have asked four questions to **Burcak Inel** from the EBF (European Banking Federation) who, together with the CEOs, officials and her team, is an architect of the Market 4 EU¹ proposals.

1. Deloitte is sponsor of this Market 4 EU initiative.

02

WHERE SHOULD THE EU COMMISSION PUT ITS EFFORTS WHEN READING THE HLF REPORT?

01

CMU II, IS IT A NECESSITY FOR THE EU?

CMU II is an absolute necessity. As a complement to bank lending, our companies and investors need the products and services available in capital markets, such as risk capital, risk management tools, and diverse products that allow investors to benefit from the fruits of innovation. To remain competitive at a global level, the EU needs efficient, liquid and autonomous financial markets. Channeling savings into their best uses, taking into account sustainability, will also work better with more developed capital markets and will complement the EU's global leadership in this regard. The context of recovery and Brexit makes this goal even more urgent. Hence we should not only complete the Banking Union but also finalize the Capital Markets Union. This is why we set up an EU-wide campaign, Markets4Europe, which gathers former politicians and central bankers with active CEOs, and put forward a Roadmap highlighting the game-changing reforms to achieve this objective. We are grateful to the sponsors of our campaign, especially Deloitte, for sharing our ambition.

First of all, in our Markets4Europe work, we emphasize that regulations can't create a market. A market deepens, and integrates, if supply and demand exist. For this, you need a mix of actions: regulatory reforms, best practice among governments, and industry standardization and initiatives. Within that mix, no doubt, removing regulatory obstacles comes at the top, because, without this action, supply and demand are constrained.

In this regard, we think the HLF report nails it on the head with a lot of its recommendations. In line with our own campaign recommendations, we especially support:

- Harmonization of targeted key elements of insolvency laws;
- Common definitions, common processes, and one single format relating to withholding tax relief for cross-border investors;
- Measures to foster retail investor participation as well as long-term Investment by pensioners and companies' direct (via IPO) and indirect (via securitization) access to financial markets:
- Further harmonization of post-trade services; and
- Recognition of financial knowledge and skills as a priority.



04

FINALLY, HOW SHOULD COVID-19, IMPACT THE PLAN, COULD IT BE AN ACCELERATOR OR A BREAK ON THE DIFFERENT MEASURES PROPOSED?

03

MARKETS4EUROPE AIMS TO SUPPORT A REVIEW OF EU FINANCIAL SERVICE ORGANIZATION AND REGULATIONS, COULD YOU GIVE US THE ESSENCE OF THE PROJECT?

Following the CMU project initiated by the European Commission between 2015 and 2019, by definition the remaining obstacles were the more complex issues, which would require a greater political willingness from Member States to change their own systems for the sake of a deeper and more integrated CMU. For example, many Member States may think that their own insolvency rules or cross border tax procedures are perfect for their own purposes, but everyone would be better off with further harmonization. National governments may not also always realize the impact of their national choices – e.g. in terms of pension system – on the availability of capital for investing in capital markets. So we decided that we needed a campaign to promote a greater awareness of these issues across the EU. If more people in governments and on the street know about the benefits of capital markets for the economy, we will have better, more far-reaching reforms on the ground. This is also why the campaign does not push for the specific banking angle but rather brought together investors, market infrastructure, banks and corporates as well as senior public officials united by the desire to convince EU institutions and Member States to finally complete the remaining reforms.

Banks, in cooperation with EU authorities and national governments, have mostly met the immediate needs of their clients (corporates and retail) in the acute phase of the crisis, which we all hope to be leaving behind.

Looking ahead, we know that equity funding will be useful for the re-capitalization of overly indebted firms; capital markets in general will be useful for the financing of innovative sectors (eg pharmaceuticals) that will make the EU more resilient in the future. Already in April, the European Council highlighted the importance of such strategic sectors. This is why a deeper and more integrated CMU is needed even more now than before.

And we do see this point being understood widely. The recently published Capital Markets Recovery Package introduces consensual quick fixes to facilitate the access to capital markets during recovery. These small short-term improvements are welcome; however, for a truly functioning CMU, they are not enough. The further development of the CMU through structural reforms is a high priority for EU citizens. In this sense, we welcome the retention of the CMU in the re-adjusted Work Programme within Q4 and the fact the German Presidency sees it as a priority.

However, the crisis also complicates the reform process by potentially distracting Member States' attention away from difficult national reforms that will pay off only in the future and by confronting them with immediate economic problems. There is a risk that the resulting Action Plan could skirt some of the big problems and pass the buck. We need to do better than that. To build a stronger, more innovative, more resilient Europe, we need not just any CMU, but a really strong, courageous CMU that solves the concrete problems identified by the HLF, Markets4Europe and others. Now is the time to be ambitious.

Next steps

After the publication of the CMU report by the experts, the EU Commission should prepare legislation to respond to the different proposals, and draft regulations that will then take the route of the other EU institutions to be finalized. Once done, most likely over a period of 24 months, the Commission should then transition to prepare for the CMU to go live, which should take an additional 18 to 24 months, hence all-in-all, if the full effect will only be felt around 2024/25, we need to stay vigilant during the journey so that regulatory objectives and results stay aligned. Follow Deloitte news to know more and stay tuned.

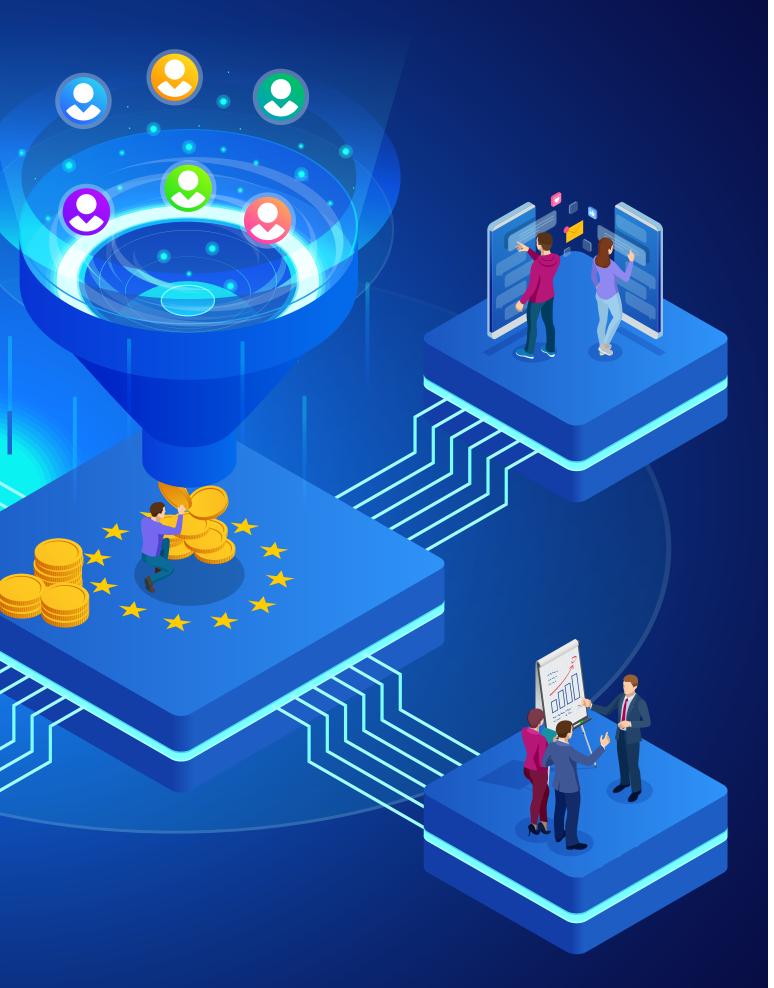
TO-THE-POINT

CMU II, is a wide-ranging plan to be drafted by the EU Commission to improve internal market functioning.

CMU II is a regulatory agenda that will contribute to digitalization and make the EU financial eco-system more sustainable.

CMU II aims to facilitate connections between investors and companies across EU Member States.





SUSTAINABILITY CORNER

THE RULES OF THE GAME



FRANCESCA MESSINI
DELOITTE - FINTECH & SUSTAINABLE FINANCE LEADER
SUSTAINABILITY LEADER

News about sustainable finance has never been coming at such rapid pace. An avalanche of consultation and regulatory updates has characterized past weeks and months and clearly we have not seen the end of it.

This is great news, of course. It puts to work policymakers and specialists in sustainability and finance as well as the wider industry. Changes in this field are, to a great extent, foreseen. The way finance works has been a major focus of the EC for the past 4 years. Few of the people involved actually believed we would get this far and now even those who were most sceptical at first, have become believers in a new way to conceive of finance and support these changes. The European Commission has been supported by expert groups who have taken turns to advise on how to embed sustainability in the Capital Markets Union. The latest one, a Technical Expert Group, ends its mandate in September after having supported the development of a green taxonomy, specific corporate disclosure of climate-related

information, new EU climate

benchmarks and an EU green bond standard.

Soon a new body will be set up to continue where the others have left off, in continuing to assist the European regulatory community with a renewed sustainable finance strategy. A platform for sustainable finance will continue to shape the taxonomy by devising further technical criteria and enlarging their scope to include other issues relevant to sustainable finance. This new chapter is planned to fuel the realisation of the Commission's 'Green Deal', accomplish the grand plan of the EU and redefine investments giving them a sense of purpose in line with the needs of the economy and the environment, in a sustainable way. The next chapters will tackle the most important pieces of the sustainable finance framework to ensure all the actors involved

will be enabled to move forward according to the 'new rules of the game'. Recently entered into force, the taxonomy is to be considered as a 'guide to investments'. What is needed now is an appropriate vehicle to support the architecture of all this - clear rules of engagement. This parallel is meant to determine what is needed from and for the parties involved and the right course of action. Translated in sustainable finance terms, this refers to pure and simple data. It is for data that all the battles will be fought; to get low-cost access to quality uniform and consistent data from companies that will allow investors to efficiently evaluate the extent to which their portfolio is 'taxonomycompliant'.

Stakeholders are already lobbying the Commission to take the lead in the set-up of such work and develop an

EU (or international) digital database of companies which are going to be screened alongside their industries' peers to allow investors to determine easily where each player is in its sustainability trajectory. The Commission is also reworking its regulation to support better disclosure. The Non-Financial Reporting Directive (NFRD)

is the legislative piece able to tie everything together. It is the legislation that determine how European companies of a certain size elaborate their non-financial reporting. This legislation is currently under revision and now the timing is perfect for the Commission to 'close the circle' and ensure that this directive can truly meet the needs of all the parties involved (investors, civil society, regulators...) and connect the dots between what investors really want to know about the companies they invest in. Naturally, that will

The European
Commission has been supported by expert groups who have taken turns to advise on how to embed sustainability in the Capital Markets Union.

enable companies to interact with investors on clearer grounds and use the taxonomy as the preferred mean of exchange.

Investors on their part are also being asked to disclose how they approach their sustainable investments, defining these investments both at product and entity level. This is the result of a new EU law (DSR) which determines the way all investors need to disclose how sustainable their investments are. Investors will have up to three years since the law comes into force, from now, to explain their level of compliance. The sustainable investment panorama has been characterized since inception by a general lack of standards and definitions, which has helped spur growth over the years. Times are now ripe to take things to the next level and toughen the rules of the game. The European Supervisory

Authorities (ESAs) are currently in the process of determining templates and guidelines that will make up the rules all financial players will have to abide by with their disclosures going forward. A consultation is out until September to determine just that, a major milestone in the world of finance deemed to change the way in which investors choose their portfolios and communicate with their clients.

At Deloitte we take note of important changes in the market and devise solutions to support our clients in the transition of their business. On the back of the ESAs' consultation we launched a survey few months back, to gather input on where financial players are in their sustainability journey and determine what are their expectations. We will be releasing the results soon, so stay tuned!



Webinars Programme 2020

Since 2009, Deloitte has decided to open its knowledge resources to the professionals of the Financial Services Industries community. We are happy to present to you the calendar of our new Link'n Learn season which, as in previous years, will be moderated by our leading industry experts. These sessions are specifically designed to provide you with valuable insight on today's critical trends and the latest regulations impacting your business. An hour of your time is all you need to log on and tune into each informative webinar.



Investment Funds



Regulatory

- when analysing the waterfall
- 24 September
- From outsourcing to smartsourcing, a key step to create value in the IM industry
 - 01 October
- Data is king 15 October
- Introduction to Money Market Fund
 - 29 October
- Valuation of illiquid assets **26 November**
- Delegation, Oversight & Due diligence 03 December

• Trends on NAV errors and compliance breaches 12 November

Contacts

Africa - East, West, Central and South



Dinesh MunuPartner - Audit
+27 011 806 5767
dmunu@deloitte.co.za



David Nchimbi Partner - Audit +255 222 169 000 dnchimbi@deloitte.co.tz



Joshua Ojo Partner - Audit +234 190 421 30 jojo@deloitte.com.ng

Australia



Neil Brown Partner - Assurance & Advisory Wealth Management +61 3 967 171 54 nbrown@deloitte.com.au



Siew-Kee Chen Partner - Tax +61 2 9322 3823 skchen@deloitte.com.au



Declan O'Callaghan Partner - Assurance & Advisory +61 2 932 273 66 deocallaghan@deloitte.com.au



James Oliver Partner - Assurance & Advisory +61 3 9671 7969 joliver@deloitte.com.au

Austria



Dominik DammPartner - Advisory
+431 537 005 400
dodamm@deloitte.at



Nora Engel-Kazemi Partner – Tax +431537005420 nengel@deloitte.at



Robert Pejhovsky Partner - Tax & Audit +431 537 004 700 rpejhovsky@deloitte.at

Bahamas



Lawrence Lewis
Partner - ERS
+1 242 302 4898
Ilewis@deloitte.com

Belgium



Maurice Vrolix Partner - Audit +32 2 800 2145 mvrolix@deloitte.com

Bermuda



Mark Baumgartner
Partner - Audit
+1 441 299 1322
mark.baumgartner@deloitte.com



James Dockeray Partner - Tax +1 441 299 1399 james.dockeray@deloitte.com



Muhammad Khan Partner - Audit +1 441 299 1357 muhammad.khan@deloitte.com

Brazil



Cristina Yong Hae Soh Partner - Consulting +55 11 5186 1305 csoh@deloitte.com

British Virgin Islands



Carlene A. Romney
Partner - Audit
+1 284 494 2868
cromney@deloitte.com

Central Europe



Grzegorz Cimochowski
Partner - Consulting
+48 22 511 0018
gcimochowski@deloittece.com

Chile



Ricardo BriggsPartner - Consulting +56 2 2729 7152 rbriggs@deloitte.com



Pablo Herrera Partner - Financial Advisory Services +56 2 2729 8150 paherrera@deloitte.com



Alberto Kulenkampff Partner - Audit + 56 22729 7368 akulenkampff@deloitte.com

China (Southern)



Sharon Lam Partner - International Tax Services +852 28 52 65 36 shalam@deloitte.com.hk



Anthony Lau
Partner - International Tax
Services
+852 2852 1082
antlau@deloitte.com.hk

China (Easter and Northern)



Natalie Na Yu Partner - Tax Services +86 10 85207567 natyu@deloitte.com.cn



Lily Fang Wang Partner - Audit +86 2161412431 lilyfwang@deloitte.com.cn

Colombia



Ricardo Rubio Partner - Financial Advisory Services +57 1 546 1818 rrubio@deloitte.com

Cyprus



Panikos Teklos
Partner - Consulting
+ 357 994 917 61
pteklos@deloitte.com

Denmark



John Ladekarl Partner - Audit +45 36 10 20 78 jladekarl@deloitte.dk



Anders Oldau Gjelstrup Partner - Audit +45 20 41 68 02 agjelstrup@deloitte.dk

Finland



Ilkka Huikko Partner - Consulting +358 40 740 3529 ilkka.huikko@deloitte.fi



Sami Toivoniemi Director - Regulatory Risk +358 207 555 808 sami.toivoniemi@deloitte.fi



Juha Hyttinen Senior Manager - Strategy and Operations +358 207 555 653 juha.hyttinen@deloitte.fi

France



Hélène Alston Partner - Tax +33 1 55 61 60 32 healston@taj.fr



Yoan Chazal Partner - Risk Advisory +33 1 40 88 72 19 ychazal@deloitte.fr



Stéphane Collas Partner - Audit +33 1 55 61 61 36 scollas@deloitte.fr



Jean-Marc Lecat Partner - Audit +33 1 55 61 66 68 jlecat@deloitte.fr

Germany



Andreas Koch

Partner - Audit +49 892 903 687 39 akoch@deloitte.de



Dorothea Schmidt

Partner - Consulting +49 699 713 734 6 dschmidt@deloitte.de



Nina Schrader

Director - Consulting +49 173 258 5554 nschrader@deloitte.de



Christof Stadter

Partner - Audit +49 89 29036 8269 cstadter@deloitte.de



Alexander Wenzel

Partner - Tax & Legal +49 69 75695 6111 alwenzel@deloitte.de

Greece



Alexandra Kostara

Partner - Audit +30 210 67 81 152 akostara@deloitte.gr



Despina Xenaki

Partner - Audit +30 210 67 81 100 dxenaki@deloitte.gr

Hong Kong



Anthony Ming Young

Partner - International Tax Services +852 285 210 82 antlau@deloitte.com.hk

Guernsey



John Clacy

Partner - Audit +44 1 481 703 210 jclacy@deloitte.co.uk

Iceland



Gunnar Thorvardarson

Partner - Audit +354 580 3031 gthorvardarson@deloitte.is

India



Rajesh Gandhi

Partner - Tax Leader +91 22 6185 4380 rajegandhi@deloitte.com



Bimal Modi

Partner - IM Leader +91 22 6185 5080 bimalmodi@deloitte.com

Indonesia



Rosita Sinaga

Partner - Audit +62 21 2992 3100 rsinaga@deloitte.com

Ireland



David Dalton

Partner - Consulting +353 140 748 01 ddalton@deloitte.ie



Brian Forrester

Partner - Audit +353 141 726 14 bforrester@deloitte.ie



Mike Hartwell

Partner - Audit +353 141 723 03 mhartwell@deloitte.ie



Brian Jackson

Partner - Audit + 353 141 729 75 brijackson@deloitte.ie



Christian MacManus

Partner - Audit +353 141 785 67 chmacmanus@deloitte.ie



Deirdre Power

Partner - Tax +353 141 724 48 depower@deloitte.ie

Israel



Ran Feldboy

Partner - Audit +972 3 6085478 rfeldboy@deloitte.co.il

Italy



Marco De Ponti

Partner - Audit +390 283 322 149 mdeponti@deloitte.it



Maurizio Ferrero

Partner - Audit +390 283 322 182 mferrero@deloitte.it



Paolo Gibello-Ribatto

Partner - Audit +390 283 322 226 pgibello@deloitte.it



Marco Miccoli

Partner - Audit +390 283 322 308 mmiccoli@deloitte.it



Riccardo Motta

Partner - Audit +390 283 322 323 rmotta@deloitte.it

Japan



Yang Ho Kim

Partner - Tax +81 3 621 338 41 yangho.kim@tohmatsu.co.jp



Nobuyuki Yamada

Partner - Audit +81 90 650 345 34 nobuyuki.yamada@tohmatsu.co.jp

Kazakhstan



Roman Sattarov

Partner - Audit +7 7272 581340 rsattarov@Deloitte.kz

Luxembourg



Eric Centi

Partner - Cross-Border Tax +352 451 452 162 ecenti@deloitte.lu



Laurent Fedrigo

Partner - Audit +352 451 452 023 lafedrigo@deloitte.lu



Nicolas Hennebert

Partner - Audit +352 451 454 911 nhennebert@deloitte.lu



Lou Kiesch

Partner - Regulatory Consulting +352 451 452 456 lkiesch@deloitte.lu



Benjamin Lam

Partner - Audit +352 451 452 429 blam@deloitte.lu

Malaysia



Anthony Tai

Executive Director - Enterprise Risk Services +60 3 7610 8853 yktai@deloitte.com

Malta



Michael Bianchi

Partner - Audit +356 2343 2879 mibianchi@deloitte.com.mt

Mexico



Ernesto Pineda

Partner - Financial Services +52 55 5080 6098 epineda@deloittemx.com

Monaco



Julien Le Marrec

Director – Risk Advisory +377 97 77 27 41 jlemarrec@deloitte.mc



Pascal Noël

Director – Risk Advisory +377 97 77 47 37 pasnoel@deloitte.mc

Netherlands



Jan-Wouter Bloos Partner - Consulting +31 88 288 2768 JBloos@deloitte.nl



Bas Castelijn Partner - Tax +38 288 6770 BCastelijn@deloitte.nl



Marieke van Eenennaam Partner - Risk Advisory mvaneenennaam@deloitte.nl +31 88 288 2500



Remy Maarschalk Partner - Audit +31 88 288 1962 RMaarschalk@deloitte.nl



Evert van der Steen Partner - Enterprise Risk Services +31 62 078 9545 evandersteen@deloitte.nl

Norway



Sverre Danielsen Partner - Enterprise Risk Services +47 99 517 686 sdanielsen@deloitte.no



Henrik Woxholt Partner - Audit & Advisory +47 23 27 90 00 hwoxholt@deloitte.no

Philippines



Bonifacio Lumacang Partner - Audit +63 2 581 9000 blumacang@deloitte.com

Portugal



Maria Augusta Francisco Partner - Audit +351 21 042 7508 mafrancisco@deloitte.pt

Singapore



Ei Leen Giam Partner - Global Financial Services Industry + 65 62 163 296 eilgiam@deloitte.com



Ho Kok Yong Partner - Global Financial Services Industry +65 621 632 60 kho@deloitte.com



Michael Velten Partner – Tax +65 6531 5039 mvelten@deloitte.com

Slovakia



Peter Longauer Partner - Audit +421 2 582 49 411 plongauer@deloitte.com

Spain



Rodrigo Diaz Partner - Audit +349 144 320 21 rodiaz@deloitte.es



Francisco Rámirez Arbues Partner - Tax +34 606289571 framirezarbues@deloitte.es



Antonio Rios Cid Partner - Audit +349 915 141 492 arioscid@deloitte.es



Alberto Torija Partner - Audit +349 143 814 91 atorija@deloitte.es



José María Grande Esturo Partner - M&A Consulting +34 944 447 000 jgrande@deloitte.es



Ignacio García Alonso Partner - Tax +34 67 952 180 igarciaalonso@deloitte.es

Switzerland



Marcel Meyer Partner - Audit +41 58 279 7356 marcelmeyer@deloitte.ch



Simona Terranova Partner - Audit +41 58 279 8454 sterranova@deloitte.ch



Andreas Timpert Partner - Consulting +41 58 279 6858 antimpert@deloitte.ch



André Kuhn Director - Tax +41 58 279 6328 akuhn@deloitte.ch



Markus Weber Partner - Tax +41 58 279 7527 markweber@deloitte.ch

Taiwan



Vincent Hsu Partner - Audit +886 2 545 9988 1436 vhsu@deloitte.com.tw



Olivia Kuo Partner - Audit +886 2 25459988 oliviakuo@deloitte.com.tw



Jimmy S. Wu Partner - Audit +886 2 2545 9988 7198 jimmyswu@deloitte.com.tw

Thailand



Somkrit Krishnamra Partner - Risk Advisory +66 2 676 5700 somkrishnamra@deloitte.com

Turkey



Hasan Kiliç Partner - Audit +90 212 366 60 49 hkilic@deloitte.com

United Kingdom



Allee Bonnard Partner - Audit +44 20 7303 0472 abonnard@deloitte.co.uk



Gavin J Bullock Partner - Tax +44 20 7007 0663 gbullock@deloitte.co.uk



Andrew McNeill Partner - Consulting +44 20 7007 6151 amcneill@deloitte.co.uk



Jamie Partridge Partner - Audit +44 14 1314 5956 jpartridge@deloitte.co.uk

United States



Patrick Henry Partner - Vice Chairman +1 212 436 4853 phenry@deloitte.com



Kristina Davis Partner - Advisory +1 617 437 2648 kbdavis@deloitte.com



Ted Dougherty Partner - Tax +1 212 436 2165 edwdougherty@deloitte.com



Paul Kraft Partner - Audit +1 617 437 2175 pkraft@deloitte.com



Liliana Robu Partner - Consulting +1 646 673 2511 lrobu@deloitte.com

Venezuela



Fatima De Andrade Partner - Audit +58 212 206 8548 fdeandrade@deloitte.com

Vietnam



Thinh Pham Managing Partner +84 839100751 thpham@deloitte.com

Contacts



Cary Stier
Partner - Global Investment
Management Leader
+1 212 436 7371
cstier@deloitte.com



Vincent Gouverneur Partner - EMEA Investment Management Co-Leader +352 451 452 451 vgouverneur@deloitte.lu



Tony Gaughan
Partner - EMEA Investment
Management Co-Leader
+44 20 7303 2790
tgaughan@deloitte.co.uk



Jennifer Qin
Partner - Asia Pacific Investment
Management Leader
+86 21 61 411 998
jqin@deloitte.com

Please do not hesitate to contact your relevant country experts listed in the magazine.

Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms, and their related entities (collectively, the "Deloitte organization"). DTTL (also referred to as "Deloitte Global") and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see www. deloitte com/about to learn more

Deloitte is a leading global provider of audit and assurance, consulting, financial advisory, risk advisory, tax and related services. Our global network of member firms and related entities in more than 150 countries and territories (collectively, the "Deloitte organization") serves four out of five Fortune Global 500® companies. Learn how Deloitte's approximately 312,000 people make an impact that matters at

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms or their related entities (collectively, the "Deloitte organization") is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication. DTTL and each of its member firms, and their related entities, are legally separate and independent entities.