HKVCA 私投募資
Hong Kong Venture Capital and Private Equity Association
香港創業及私募投資協會
The Association for Private Capital in Asia

The new era: Nowhere is safe?

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Foreword

This issue of HKVCA Journal will be remembered as a prelude to what Foreign Affairs calls “The Age of Uncertainty”. Few in our current generation of private equity practitioners have previously invested in a highly inflationary environment. We want to use this opportunity to explore private equity theses that are relevant as we are dealing with a confluence of risks in front of us: dilemma between energy security and climate change; pull-back of traditional bank lending; food and water shortages; healthcare overhaul; and supply chain upheavals.

As we gradually come out of COVID-19 restrictions, this is also the juncture to ask ourselves introspective questions about Hong Kong from an investor’s perspective: What is our future as Asia’s asset management hub, and, more fundamentally, what is investible about Hong Kong’s future? We hope this issue will give you some useful insights.

Meanwhile, buckle up and enjoy the ride.

Denis Tse, JP
Co-chairman of Education & Research Committee

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HKVCA Journal I 9th Issue

Investible HK

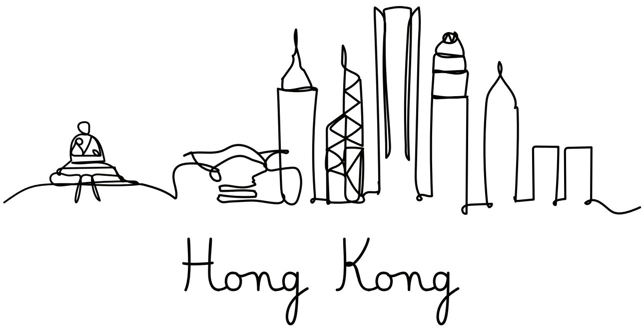
Interview with Duncan Chiu, Legislative Council Member (Technology & Innovation Constituency)

On the topic of what is investible at the current juncture in Hong Kong from a private equity perspective, Duncan Chiu is in a unique position to share his insights: he is a descendant of one of the large Hong Kong business family groups; a former venture capitalist investing in local start-ups; one of the most active advocates of Greater Bay Area integration in the community; and now a legislator representing the Innovation & Technology functional constituency. In sum, the message he wishes to convey in this interview is quite succinct: introspective honesty, a sense of purpose, and strategic clarity.

First off, Duncan did not evade from upfront questions about the current state of geopolitics on Hong Kong. “We just cannot worry too much”. Sensitive money has already pulled out. Hong Kong can only do the best it can with what it has at hand, reminding that Hong Kong, too, had its first major pivot, in the 1950s, owing to trade embargoes. There will always be market for products that excel. More importantly, rational market participants acknowledge that China is on track to be clearly world-leading in a few important new areas, most notably in the training of Artificial Intelligence, or A.I. These new areas can be the foundation around which Hong Kong build new core competencies.

Duncan recommends four growth areas to focus on as Hong Kong’s new core competencies, namely, fintech, life sciences, precision manufacturing, and the data economy. These four domains share two common traits. First, they capitalize on Hong Kong’s rigorous focus on professionalism, qualifications, and international standards. Second, they are about growing a bigger pie for the market, not a zero-sum game of scarce resources.

- **Fintech.** Hong Kong is an international financial center; the professional standard and the qualification of its talents in the financial industry are well recognized. Its regulator, HKMA, offers a sandbox approach to foster a safe testing ground for new technologies, and has to date tested 238 new technology products as the end of February 2022. People’s Bank of China has also signed an agreement to collaborate with HKMA to provide a “one-stop platform” to allow financial institutions and technology firms to pilot test their cross-boundary fintech initiatives. This collaboration offers a gateway for HK fintech firms to enter the Mainland China market, and for Mainland Chinese fintech companies to expand internationally by landing through Hong Kong.
- **Life sciences.** There are over 250 biotech companies based in Hong Kong, and many of them are nurtured by experienced biotech experts at local universities. Renowned researchers such as Dr Dennis Lo and Dr Nancy Ip not only established their own startups; they also advise a number of biotech companies and projects from Hong Kong. Furthermore, the intellectual properties of biotech companies are well robustly protected by the courts of Hong Kong.
- **Precision manufacturing.** This fits China’s strategy of self-sufficiency in critical materials and capital equipment. Certain precision manufacturing industries are land-efficient, which play to the advantage of Hong Kong vis-à-vis the rest of the Greater Bay Area.



- **The Data Economy.** China has the clear natural advantage internationally when it comes to accessing and collecting data to train for better and more powerful AI. The arrangement of cross-border mutual recognition of data between Hong Kong and Mainland China, which is well under way, can give rise to competitive Hong Kong-based analytic tool developers that can utilize such data, for example in derivative verticals such as medical discoveries and financial services.

For the four growth areas to work, however, Duncan cautioned that the Hong Kong Government's mindset must fundamentally change, and he in particular singled out five areas:

First, acknowledge it is undeniable that Hong Kong is now given the noble mission to nurture international Innovation & Technology industries. The new land parceled for the Technopole under the Northern Metropolis Development Strategy gives Hong Kong the factor input it is most short of, and the area will provide policy "green lanes" to connect to the Greater Bay Area, which will make it a competitive location for advanced technology production. This significant gift comes with the task that Hong Kong be a responsible steward of more synchronized policy objectives of China.

To ensure best use of the scarce resources, Hong Kong government bodies must be compelled to pick winners. If Hong Kong can be home to two to three players in each domain that are internationally competitive, it will be a big win for Hong Kong. Civil servants are in Hong Kong historically wired by their KPI's to be equitable; they now must learn to afford to make informed choices and lose in some cases.

Thirdly, the current Talent Visa program is a failure and needs to be overhauled. With 588 cases granted and each taking 6 to 9 months to approve, Hong Kong will have no way to compete for talents with the current scheme.

The role of InvestHK also needs to be reformed. Currently, InvestHK acts as a promotion agency to market to overseas companies to establish presence and invest in Hong Kong. Duncan recommended that the agency take a laser-focused approach and proactively recruit targeted companies to establish meaningful business in Hong Kong with land and Greater Bay Area green lane as incentives, in addition to possible funding from the newly announced HK$5 billion Strategic Technology Fund.

Finally, Duncan calls for the establishment of commercially principled sovereign investment institutions to pursue segregated strategic industry objectives, much like Singapore having Temasek, GIC and EDBI performing different roles. While the Strategic Technology Fund is a good start, having a dedicated strategic investment institution will enable Hong Kong to formulate and implement highly thematic industry-shaping investment strategies more effectively, in much the same way Singapore mobilizes Temasek to invest to shape its food-tech industry.

Duncan Chiu, Legislative Council Member (Technology & Innovation Constituency)

Duncan has committed to technology and innovation development for nearly 20 years. He is not only a tech entrepreneur but also a veteran investor, as well as an influential advocator of local technology and innovation policies. He often speaks at forums and conferences to promote start-up culture and helps young entrepreneurs with workshops and mentorship.

Duncan is the President of the Hong Kong Information Technology Joint Council (HKITJC) and the Convenor of Innovate for Future, a think tank representing some of the leading technology start-ups in Hong Kong. He is also the Chairman of HKTDC Information & Communications Technology (ICT) Services Advisory Committee, the Chairman of Information Technology Services Committee of the Hospital Authority, the Chairman of the Advisory Committee of the Department of Systems Engineering & Engineering Management of The Chinese University of Hong Kong, the Member of the Advisory Committee of The Hong Kong Polytechnic University and the Chairman of Lai Yuen Company Limited.

Private Credit Investing in an Uncertain World

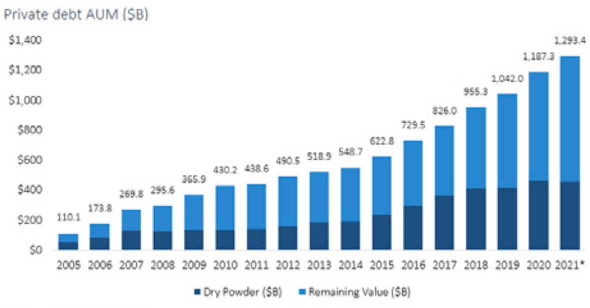
Ryan Chung, Managing Director and Head of Structured Finance and Principal Investment, Huatai International

Private credit is an asset class that is benefiting in the current environment when private credit is replacing banks in LBO transactions

Growing Private Credit Market amid Current Economic Conditions

Private credit funds provide an opportunity for investors to access non-public direct credit and special situation investments that are structured with appropriate downside risk-protection. They can generate favorable risk-adjusted return. This is particularly attractive in times of market dislocations when traditional bank lending and public debt markets are reducing.

Over the last 10 years, the global private credit market has grown rapidly, with the assets under management (“**AUM**”) increasing 3.7 fold to US$1.3tn in 2021 over this period[1]. This has largely been driven by the retreat of commercial banks due to increased regulation of deposit-taking banks after the Global Financial Crisis (“**GFC**”) and the subsequent introduction of Basel III and IV, which has tightened available liquidity.



*Returns data through 6/30/2021
Source: PitchBook, 2021 Annual Global Private Debt Report

Private credit has benefited from this as investors have increasingly been seeking stable long-term returns.

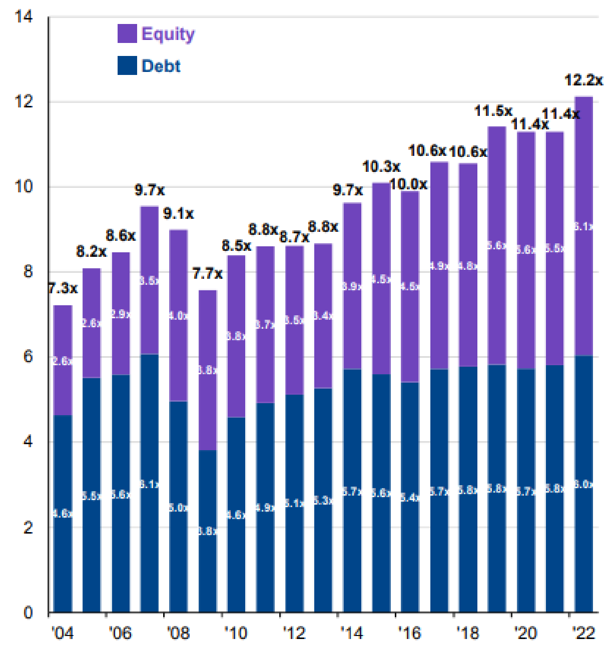
Private Credit Taking Larger Slice of the Pie of the Fast Growing LBO Market

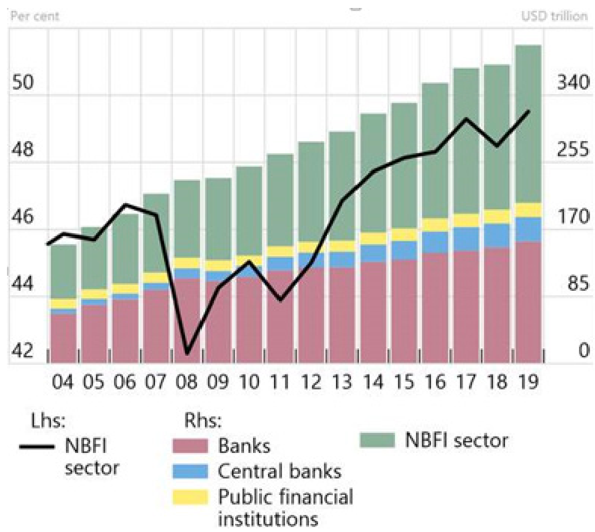
Private credit investments cover a myriad of different strategies including direct corporate lending, asset-backed financing and acquisition financings. One particular area which has seen significant growth in recent years is the leveraged buyout (“**LBO**”) financing space. Buyout purchasers tend to fund part of the purchase amount via debt in order to: (i) enhance their equity return; (ii) achieve a more efficient use of capital and (iii) lower overall cost of capital. Banks historically were the only providers of LBO financing. However, with their risk appetites trimmed back materially over the years, private credit has stepped into the void. Latest industry figures shows that LBO transactions used debt for over 50%[2] of the deal purchase price on average in the U.S. LBO market in 2021.

Since the introduction of Basel III and IV with higher capital charges and increased regulations, the abilities of traditional banks to provide financing for LBO transactions has been hindered. With a general pullback in LBO financing by the banks, institutional private credit lenders, with their greater flexibility, bespoke credit structures and higher tolerance for risk, have stepped in and are now major players in the LBO market. As

[1] Source: McKinsey’s Private Markets Annual Review, Mar 2022, McKinsey & Company
[2] Source: Guide to Alternatives 2022, May 2022, J.P. Morgan Asset Management

U.S. LBOs: purchase price multiples
Equity and debt over trailing EBTIDA



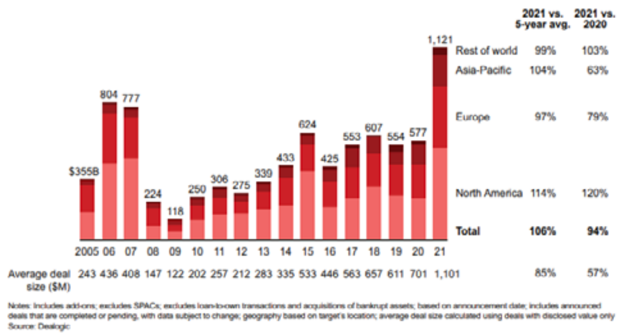


of Mar 2022, the share of non-bank participants in the U.S. leveraged loan market has increased to 84%, 5% higher than the average of 79% over the past 10 years[3]. The non-bank financial intermediation sector ("**NBFI**") has grown faster than the banking sector over the past decade. The financial assets of the NBFI sector amounted to US$200tn in 2019, accounting for nearly half of the global financial system in 2019, up from 42% in 2008.

The unitranche financing and mezzanine financing with global fundraising values across these markets have respectively reached US$4.1bn as of 2020 with a 3-year CAGR of 11.1%[4] and US$23.8bn as of 2020 with a 3-year CAGR 3.5%.[5]

With record fundraising by private equity funds in the last few years, the global buyout market has been booming. The strategy saw record activity in 2021 as 4,300 deals were closed, up 16% since 2020[6]. The average deal size of global buyouts also hit record highs in 2021, reaching over US$1tn for the first time, roughly doubled the 2020 deal value[7]. The Asia Pacific ("**APAC**") market recorded strong growth with buyout deal value recording an extraordinary growth of 104% in 2021 compared to the 5-year average[8].

Global buyout deal value (SB)



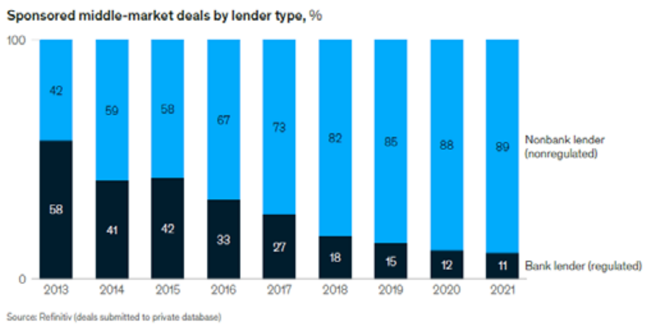
Private equity sponsors ("**PE Sponsors**") who are the most active participants in the LBO space, have raised a record number of 2,650 funds globally as of Q1 2022 , highest number over the last five years[9]. Meanwhile the number of funds raised by Asia-focused private equity vehicles reached 637 in 2021[10] with a record high amount of dry powder of about US$650bn[11]. Total dry powder of buyout funds set another record in 2021 at US$981bn globally, 23% higher

[3] Source: Guide to Alternatives 2022, May 2022, J.P. Morgan Asset Management
[4] Source: Fundraising Report Q1 2022, May 2022, Private Debt Investor
[5] Source: 2021 Annual Global Private Debt Report, February 2022, PitchBook
[6] Source: Global Private Equity Report 2022, March 2022, Bain's & Company
[7] Source: Global Private Equity Report 2022, March 2022, Bain's & Company
[8] Source: Global Private Equity Report 2022, March 2022, Bain's & Company
[9] Source: PE Fundraising at a Glance, Apr 2022, Paul, Weiss
[10] Source: News on "Asia-focused Private Equity Fundraising Slows in 2022, Jul 2022", S&P Global
[11] Source: Asia-Pacific Private Equity Report 2022, Mar 2022, Bain's & Company

than average over the last 5 years[12]. While LBO transaction sizes and volumes continue to grow, banks remain relatively conservative on the amount of financing they are willing to provide, typically providing up to 4.0x to 5.5x DEBT/EBITDA. The European Central Bank ("**ECB**") Banking Supervision issued guidance in 2017 called on lenders to limit the number of leveraged loans exceeding six times the borrower's earnings[13]. In Mar 2022, the regulator further warned banks to raise capital requirements, leading to a further reduction of the banks risk appetite[14]. Banks also tend to be more inflexible with their financing structures, usually requiring minimum debt amortization amounts and lower covenant headroom and ratios. This rapidly increasing gap in the market has provided a good opportunity for nimble private credit investors to fill the void.

While banks remain active within the LBO market through their coverage over a large portion of the traditional senior loan market they have largely retreated from the unitranche financing and mezzanine financing markets, accounting for just 11% of the sponsored middle-market financings in the US market in 2021, down from 73% in 2013[15].

Bank lenders have largely exited the sponsored middle-market.



Banks continue to be key providers of short–term revolving and working capital facilities which are more capital efficient. They are also predominantly being provided by the banks, demonstrating how the bank lending market and private credit market are not always mutually exclusive and can exist complementarily.

The current inflationary environment has forced many central banks to begin raising interest rates. Banks tend to only offer floating rate loans which are now being seen as less attractive. Private credit lenders are still willing to provide fixed rate loans as they are less sensitive to floating interest rates. Private credit is still usually more expensive than bank debt and the pricing gap between bank financing and private credit debt is slightly compressing.

Due to various macro-economic concerns such as increasing inflation, recessionary fears, global supply chain constraints and ongoing geopolitical tensions, the public markets have been extremely challenging for issuers. We have seen the bond market trading down to levels which make it very difficult for new issuance to be executed. Global high yield bond issuance slumps to its lowest in 13 years since the GFC. It totalled US$90bn between Jan to May this year[16], with companies hesitant to borrow at high interest rates given volatility in the current economic environment.

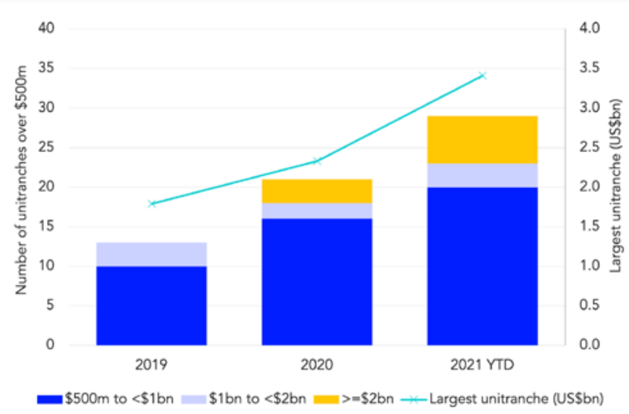
During these uncertain times, private credit is generally seen as a more resilient investment source of financing as it tends to have more downside protection measures and better security protections. Finally, private credit is also more fundamentally-driven (i.e. underlying company and asset performance) as compared to the public market which can be technically-driven (i.e. general debt market liquidity and demand/supply factors).

Increasing Demand from PE Sponsors/Borrowers

Private credit lenders have more flexibility in terms of financing structures and risk appetite. In fact, there has been a marked increase in the number of unitranche financing transactions in the market. As of 2021, the number of unitranche financing over US$500mm roughly doubled over the last 3 years, with 21% of the deals surpassing the US$2bn mark in the APAC unitrache market[17].

This is not a market which banks are typically willing to finance as it usually results in a higher overall leverage compared to the traditional senior bank loans. Yet these structures

[12] Source: Global Private Equity Report 2022, March 2022, Bain's & Company
[13] Source: Guidance on Leveraged Transactions, May 2017, ECB Banking Supervision
[14] Source: News on "ECB Warns Eurozone Lenders over Leveraged Loan Risk", March 2022, Financial Times
[15] Source: McKinsey Global Private Markets Review 2022, Mar 2022, McKinsey & Company
[16] Source: News on "Global High Yield Bond Issuance Slumps to Lowest in 13 Years", May 2022, Reuters
[17] Source: Leveraged Loan Insight & Analysis, Sep 2021, The Lead Left



significantly reduce the deal execution risk for PE Sponsors/purchasers as it involves negotiations with a smaller group of relatively sophisticated lenders. As a result, deal execution with private credit is relatively quicker compared to syndicated bank loans, which require a lengthy underwriting and syndication process, or in the public bond markets, which require roadshows, involvement of ratings agencies and deal uncertainties due to volatility of the bond markets.

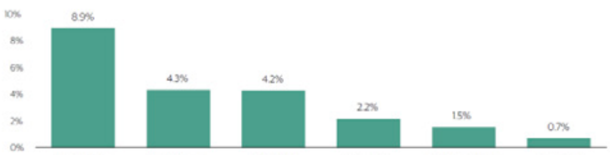
Moreover, private credit lenders tend to be longer-term investors and have the ability to hold investments for the same investment horizon of a private equity sponsor of around 3-6 years. Private credit lenders tend to have longer-term funding sources as more pension funds and insurers are allocating funds into this space, allowing private credit lenders to participate in larger transactions. PE Sponsors/purchasers therefore view private credit lenders as key investment partners with synergies with their underlying business model and are willing to hold their investments through industry cycles.

Due to the rapid growth of the private debt market, PE Sponsors/purchasers have developed very close working relationships with the private credit investors who understand the needs of their businesses and can be more collaborative when special business requirements arise. For example, private credit lenders are typically more willing to consider payment-in-kind interest structures if it is viewed as being more value accretive to all parties to help the business conserve cash during the early years or provide waivers and consents when the business is facing certain short-term headwinds.

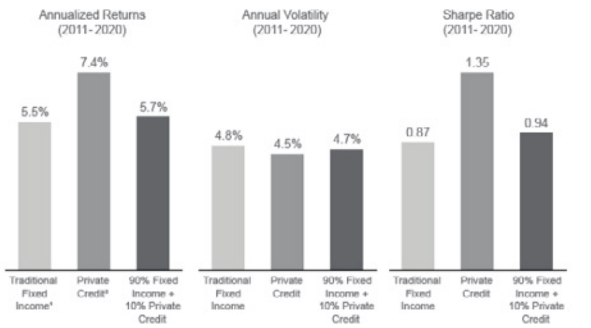
Benefits of Private Credit for LBO transactions: Increased Supply of Funds into Private Credit

Private credit investments tend to provide investors with a higher cash yield, lower volatility and loss rates as compared to public markets and even the traditional senior bank loan market. Private credit lenders negotiate the various financing terms and structures directly with the purchasers/sponsors and will usually benefit from asset security with tighter covenants as compared to public debt instruments, therefore offering a better return with more downside protection. Private credit investments are proven to be more resilient in market downturns. For example, during the GFC of 2007-2008, senior loans and high yield bonds experienced maximum drawdowns of -30.1% and -27.1%, respectively. Private credit, however, saw a maximum downturn of -7.7% during the same period[18]. Another piece of evidence is that the Cliffwater Direct Lending Index (CDLI), an asset weighted index of over 8,000 directly originated middle market loans, had a drawdown of just 6.5% as compared to 26.1% for the High Yield index in 2008[19]. This explains why demand for direct lending usually increases during times of tight liquidity in high-yield markets making available opportunities in key growth sectors of private credit.

Yield Comparison across Fixed Income Asset Classes (12-month annualized)



Comparison of risk / return between traditional fixed income and private credit



1. 1/3 Barclays US Corporate Bond Index, 1/3 Barclays Canada Corporate Bond Index, 1/3 Barclays US Corporate High Yield Bond Index.
2. 50% S&P LCD Leveraged Loan Index, 50% Cliffwater Direct Lending Index.

[18] Source: Data from Morningstar and Cliffwater, as of April 2022
[19] Source: Targeting Private Credit, Nov 2020, Altamar Capital Partners

Calendar Year Reture Comparison
2005 to 2019.
Source: Cliffwater. 2019

Calendar Year	CDLI	Bloomberg Barclays High Yield Bond Index	S&P/LSTA Leveraged Loan Index
2005	10.1%	2.7%	5.1%
2006	13.7%	11.9%	6.7%
2007	10.2%	1.9%	2.1%
2008	-6.5%	-26.1%	-29.1%
2009	13.2%	58.2%	51.6%
2010	15.8%	15.1%	10.1%
2011	9.7%	5.0%	1.5%
2012	14.0%	15.8%	9.7%
2013	12.7%	7.5%	5.3%
2014	9.6%	2.5%	1.6%
2015	5.5%	-4.5%	-0.7%
2016	11.2%	17.1%	10.1%
2017	8.6%	7.5%	4.1%
2018	8.1%	-2.1%	0.5%
2019	9.1%	14.2%	8.6%

Closing Remarks

Private credit has grown to establish itself as a key asset class with US$1.3tn[20] AUM globally. Private credit market in Asia has been growing in breadth and depth of investments opportunities and become a focus as a strategic asset class for LPs through the economic cycle. Asian direct private credit is developing along with strong interest from allocators focused on the region seeking diversification from fixed income public markets as well as consistent returns.

Private credit has sophisticated credit structures capturing unique lending opportunities for long term investors, as they tend to employ higher underwriting standards and are willing to spend more resources in the due diligence process of an investment which attracts more confidence from investors. It also provides investors with access to the LBO financing market which is usually not accessible via the public markets and will become a permanent feature of the financing toolkit for LBOs going forward.

Industry forecasts that private debt will continue to grow, with AUM more than doubling to US$2.69tn by 2026[21]. We see this only continuing to grow as LPs see the benefits of having a long-term credit investment view driven by business fundamentals and over the long run will continue to allocate more to private credit strategies.

Ryan Chung, Managing Director and Head of Structured Finance and Principal Investment, Huatai International

Huatai International is one of the key private credit investors in Asia that specializes in mezzanine and structured credit financings. It has invested in many prominent PE-backed LBO financings and currently manages an investment portfolio of over US$1.5 billion.

[20] Source: McKinsey's Private Markets Annual Review, Mar 2022, McKinsey & Company
[21] Source: Press Release, 14 Jun 2022, Preqin

Healthcare musings: the call for a health taxonomy

Vanessa Huang, General Partner, BVCF Management

The COVID-19 pandemic has heightened the urgency to ensure health for all and global health equity. To accelerate and drive responsible investments toward common health care goals, a health taxonomy with impactful and measurable health metrics is needed.

Overview

The UN Principles for Responsible Investment, which are often used as a gauge for ESG committed capital, have reached over 4,300 signatories representing US$120 trillion in assets under management in 2021. To date, the environmental component has dominated the prevailing ESG and sustainability reporting frameworks. Increased awareness of corporate responsibilities has mobilized significant investments from the private sector and ESG asset allocations from financial market participants into climate-positive projects. The social and governance categories have occupied less mindshare when compared to the environmental category.

Health is a theme as important to humanity as climate change is. Financing from both public and private means should be engaged to achieve health for all and global health equity. Health should naturally be part of the social category within ESG initiatives and investments, but currently health is seldom represented. The lack of globally accepted metrics for assessing "health" and health-related economic activities that are impactful and measurable is a key reason. A health taxonomy that identifies health-positive economic activities which contribute to a set of common health care goals can serve as a guideline in directing funding and intensify awareness for public health investment.

What does a health taxonomy do?

Experience from the climate movement shows that well-studied metrics that are consistently measurable in a straightforward manner, such as carbon emission reduction and water usage, are critical in highlighting the broader societal and population impact of a corporation's economic activities. The European Commission has developed the EU Taxonomy to define environmentally sustainable economic activities, which is intended to serve as a framework in directing funding toward desired projects and protect investors from greenwashing. Goldman Sachs research points to the EU Taxonomy increasingly becoming the "common standard", which will have enormous significance for the way investors allocate capital with implications for companies' cost of capital and valuations[1].

The current health-related metrics used in various sustainability reporting frameworks (if health is included) are mostly limited to company specifics, such as employee insurance coverage rate and employee injury rate. While these metrics are meaningful on a company level, they do not fully reflect the contribution, whether positive or negative, that the corporation's economic activities have on the broader societal and population health. There needs to be a set of impactful and measurable health metrics that define sustainable

[1] Evan Tylenda et al, Goldman Sachs Research. The EU Taxonomy – finalised and primed for adoption. December 9, 2021.

economic activities for public health. For example, reducing the use of chemicals in a food product supply chain may be more akin to that of carbon emission reduction – where it reflects the public health impact of a company's economic activities beyond the company's employees.

A health taxonomy can serve as a common language to define a set of common health targets. It can ensure that stakeholders have a more holistic appreciation of health positive as well as negative economic activities.

The challenges of defining health

"Health" is defined differently by different people, and health outcomes are impacted by many non-medical factors. Research shows that social factors can be more important than health care or lifestyle choices in influencing health, with some studies suggesting that social factors account for between 30-55% of health outcomes[2]. "Health" is in fact more than birth rate, insurance coverage, employee injury rate and acute event statistics, such as disease incidence and death rates.

The WHO sees health as impacted by various aspects, and accordingly, it has outlined the social determinants of health ("**SDH**") and its subset of commercial determinants of health ("**CDH**"). The CDH are the private sector activities that affect people's health positively or negatively. This list of activities can indeed be the groundwork for a health taxonomy. In addition, the health-related UN Sustainable Development Goals 2 (zero hunger), 3 (good health), and 6 (clean water) also cover some of the most urgent global health needs. A global panel of health experts should be mobilized to develop a health framework that considers macro and national level nuances and recommend a set of common health targets with measurable metrics.

Why is health taxonomy important?

Lessons should be drawn from the financing of climate initiatives for financing of health for all. In addition to defining what are sustainable health economic activities, there should be conscious efforts to prevent "healthwashing", similar to the current efforts to prevent "greenwashing".

Stakeholders now know to examine the broader impact of climate-oriented activities – while the intention can be good, the activities can potentially lead to negative externalities in some

Figure 1: WHO Commercial determinants of health ("CDH")

- Commercial determinants of health are the private sector activities that affect people's health positively or negatively
- The private sector influences the social, physical, and cultural environments through business actions and societal engagements; for example, supply chains, labor conditions, product design and packaging, research funding, lobbying, preference shaping and others
- Commercial determinants of health impact a wide range of health outcomes including obesity, diabetes, cardiovascular health, cancer, road traffic injuries, mental health, and malaria

Example of positive contributions by the private sector to public health:

- Reformulation of goods and products to reduce harm and injury, including the industry introduction of seat belts, as well as more recently salt reformulation
- Ensuring living wages, paid parental leave to improve child health outcomes, sick leave, and access to health insurance

Example of activities by the private sector that negatively impact the physical and social environments:

- Company choices in the production, price-setting and aggressive marketing of products such as ultra-processed foods, tobacco, sugar-sweetened beverages, and alcohol lead to non-communicable diseases such as hypertension, type 2 diabetes, certain cancers, cardiovascular disease, and obesity
- Factories emitting smoke pollute the air, causing and exacerbating respiratory diseases
- Mass removal of trees creates mosquito breeding sites, causing vector-borne disease outbreaks like malaria and chikungunya, with up to 20% of malaria risk in deforestation hotspots attributable to international trade of deforestation-implicated export commodities

[2] World Health Organization. Social determinants of health website. https://www.who.int/health-topics/social-determinants-of-health

part of the society. One example is the drive to shift to electric vehicles ("**EVs**") – increased demand in EVs has led to increased demand for rechargeable battery packs, as well as their key component cobalt. Reports of environmental damages, poor working conditions and human rights risks from cobalt extraction operations are well documented, with most of such issues arising in artisanal and small-scale mining ("**ASM**") settings. To add to the complexity, ASMs are often the only source of income for impoverished communities[3]. It is therefore unrealistic to undertake blanket curtailing of ASM. Instead, corporations are compelled to conduct a holistic examination of the battery supply chain and devise a new approach to the responsible sourcing of cobalt.

Similar to climate-oriented products and initiatives, the health care ecosystem and supply chain of products and services are complex and multifaceted. For example, generic pharmaceutical companies sometimes face criticism for not creating value because they lack R&D innovations. However, it is virtually impossible to supply a world of over seven billion people with drugs from only proprietary manufacturers. To scale up the supply of drugs and manage prices, generic pharmaceutical manufacturers play a critical role in the overall pharmaceutical supply chain. 90% of the prescriptions filled in the U.S. are generic medicines. According to IQVIA, affordable generics saved the U.S. health care system approximately US$2.4 trillion from 2011 to 2020[4]. These lessons accentuate the necessity to understand the sustainability of the entire supply chain and the broader accountability of each project.

Furthermore, as ESG investing becomes mainstream, it led to the development of many different "green standards" and "climate checklists". There are arrays of service providers that aim to help companies and financial market participants interpret and comply with various climate and sustainability regulations. The lack of common definition and potential of "greenwashing" have been the two major challenges for the development of climate/sustainable financing overtime. To effectively advocate for health investments, a globally accepted health taxonomy that sets common goals and clarity in communication will be crucial.

Leadership role of the WHO and the financial community

The EU Platform on Sustainable Finance ("PSF") proposed a social taxonomy as a follow-on to the EU Taxonomy in a recent report, in which access to quality healthcare is one of the "sub-objectives" while healthcare is listed as one of the "substantial contribution" sectors. The report calls for creation of qualitative and quantitative metrics[5]. There should be a formal and credible process to develop a health taxonomy with health at the center, whether as part of the social taxonomy or not. With the WHO as the only dedicated health entity under the UN and its work on the commercial determinants of health as a foundation, it is the best organization to spearhead the process and work with a consortium of stakeholders and health experts.

The WHO can seek to work with other global entities, such as the EU PSF, the World Bank/IFC, the International Sustainability Standards Board, the International Capital Market Association and stock exchanges, as well as private sector and financial market participants to develop a set of qualifying and continuing reporting health metrics that are impactful and measurable. Both public market and private market investors can actively include health metrics into their investment evaluation. Coordinated efforts among key stakeholders and organizations to develop a globally accepted health taxonomy will be imperative to effectively crowd in investments toward the common goals of health for all and global health equity.

Vanessa Huang, General Partner, BVCF Management

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"Energy Security vs Commitment to Climate – Crossroads or Innovation?" – a view from an energy GP

Jason Cheng, CEO & Managing Partner, Kerogen Capital

Will soaring energy prices persist? Is the resulting high inflation the new normal? How will the recent rotation away from growth impact energy transition investing? Will energy security concerns reignited by the war in Ukraine set back the energy transition? With high energy prices, strong energy performance and a need for an inflation hedge - should traditional energy be back in the portfolio?

How can investors navigate this environment from both an investments' and ESG perspective?

In Asia, import reliant economies have seen energy prices rise dramatically with gas prices 10 times higher than the previous year while sourcing energy supplies has become a challenge. In Asia, how do we meet climate change goals without turning back to coal?

I write this article while on holiday in Europe - the epicentre of high energy prices. Russia's war with Ukraine triggered Europe's response to reduce and ultimately eliminate imports of Russian oil and gas (currently supplying around 40% of natural gas and 25% of crude oil). The EU has plans to reduce Russian gas imports by two-thirds within a year and to eliminate oil and gas purchases entirely by 2027.

In the UK, the contest for Prime Minister was centred on tackling a forecast 13.6% CPI and a rapidly rising cost of living. Household annual electricity bills were forecast to reach over £4,300 next year (from £700 pre-crisis) and the new government announced a cap at £2,500, costing Treasury potentially up to £150 billion. Net zero carbon seems to have been eclipsed by energy security and cost of living concerns.

By contrast, in Australia, just a few months ago the "Teal" (green conservative) independents took precious seats contributing to the Liberal conservative party's loss in the Australian elections.

How has the debate shifted so rapidly? Will energy security put the world's climate goals further out of reach?

Whither Energy Transition?

These are attention grabbing headlines suited to an increasingly attention-span challenged world. This juxtaposition – energy security vs energy transition – is at best confusing, at worse, undermining society's progress.

It's a false juxtaposition because the path to a sustainable net zero carbon society was always going to be a transition, it wasn't going to happen overnight. The global economy's infrastructure has been developed around fossil fuels over the last 100 years. Ukraine is a visceral reminder that oil and gas will be required for quite some time. IRENA estimates $110 trillion of investment is required over three decades to reach net zero. Recognising that this is a transition is not a justification for complacency nor a defense of fossil fuels. The world has largely woken up to the challenge and tectonic changes that are required to reach net zero. Rather, this is a call to understand the facts upon which one can develop a clear strategy going forward – the conclusion is – we need both energy security and energy transition. There is no contradiction between the two.

Understanding that it is a transition means there is a time horizon where we will need traditional energy today and, over time, as new infrastructure is built, there will be a net zero energy system. Generally, government targets are to halve carbon emissions by 2030 and to achieve net zero carbon by 2050 (China 2060). We can expect therefore that traditional energy will still be a large part of the energy mix until 2030 and will continue in a material way to 2050.

Therefore, it should not be a juxtaposition of energy security (often including securing immediate sources of traditional energy in the short-term) or energy transition. We need both. Importantly, we need to decarbonise traditional energy during this transition to reduce immediate carbon impact while we are still consuming it. "Brown to green" strategies have significant immediate ESG impact and deserve as much attention as the acceleration of low carbon alternative energy sources for the long-term. This is not a "sell out" of climate goals, but in fact it is aiming to reducing the immediate carbon impact of energy during the transition, particularly as reaching 1.5 degrees continues to seem further away.

On the one hand, the "demonisation" of the sector on ESG grounds and calls to boycott traditional energy rather than engage has led to a severe lack of capital which, in turn, has led to significant under-investment over the past few years. The huge profits reported by oil majors due to high oil prices while consumers face unaffordable bills has become too easy a populist political target - where boycotts and vilification seem an easy reaction. In fact, under-investment and lack of supply is the underlying cause of high prices. Supply was expected to be tight with many in the oil and gas industry predicting this spike in energy prices well ahead of the war in Ukraine. The immediate solution in Europe? Burn more coal. Even with carbon prices, it's a cheap and immediate solution. Coal is around five times the carbon emissions of gas. This is not a good outcome for climate change.

On the other hand, there has also been tardiness in many quarters of the traditional energy sector in adopting climate goals and accepting change. This criticism is fair. Energy companies need to have a shift in thinking, a

change in their business models, and a tangible plan to halve emissions by 2030, and ultimately, a means to contribute to a net zero society. Engagement is important.

As a private equity GP we have the flexibility to invest across the energy spectrum and have no intrinsic bias to defend traditional energy. Rather, we have actively engaged with the oil and gas industry to put decarbonisation on the agenda and transform these businesses. In fact, many of the key pillars of a net zero society are likely to actually come out of the oil and gas industry, particularly when we look at the expertise needed for industries such as offshore wind, geothermal, hydrogen and carbon capture and storage. Let's not throw the baby out with the bathwater.

An Inflation hedge

The expectation is that high energy prices will persist over the next cycle and for some time until the energy transition, and its related infrastructure, can be put in place. The target to reduce carbon emissions by 50% by 2030 is an important time horizon in this respect. Together with the potential for new carbon pricing to be added to the system, it feels like we will all need to get used to higher energy prices for some time. Energy has been the major source of recent inflation and investing in energy has historically been a good inflation hedge.

Moreover, energy equities have been the best performing sector in the recent past, and if one is expecting a recession, then energy is a consumer and industrial staple, a strong defensive sector. As a result, investing in responsible energy production both renewable and brown to green can act both as an inflation hedge and a core part of any portfolio.

As the adage goes, the cure for high energy prices, is…high energy prices. Consumption adjusts, energy efficiency solutions are adopted, investment in new capacity increases. The only issue this time round is the last factor may not happen due to investor and lender preferences. As a result, higher prices may persist for much of the transition. A recession and further Covid lockdowns in China might reduce this pressure, but the underlying structural supply issue remains.

What about Asia?

The other often forgotten challenge is meeting the global growth in energy demand. As population and GDP grow, energy consumption and urbanisation increase, global demand for energy is set to increase by 50% to 2050 and nearly double in non-OECD Asia. Energy is a growth theme and energy security is particularly acute in our own geography. The energy crisis could come to Asia and investors will need to understand the impact on the broader economy, as we have seen in Europe.

What does energy security mean?

In addition to its tragic humanitarian consequences, the war in Ukraine has put energy security into the spotlight. Historically oil prices spikes have often resulted from geopolitical supply shocks: currently Russia's war against Ukraine; previously political tensions in the Middle East. Geopolitical tensions are unlikely to disappear any time soon and, in a post-Covid world that appears more focused on localisation of supply chains, look likely to set the tone for international commerce for some time to come.

These geopolitical tensions - reducing dependence on Russian energy or redefining relationships between China and the West - combined with the post-Covid desire to localise supply chains, are driving the desire for energy security with a greater protectionist outlook. This is ultimately inflationary but also creates investment opportunities, particularly as governments look to subsidise these new, local supply chains and energy infrastructure.

The short-term plan therefore means securing more oil and gas resources in a low carbon manner and accelerating the investment in domestic renewable energy resources.

The longer-term energy security plan is to move away from fossil fuels to electrification using green power (and heat) sources as well as green hydrogen (or ammonia). This shifts energy security from oil and gas resources to mineral resources required for electrification and batteries such as copper, lithium, nickel, cobalt, rare earths, etc. The geopolitical axis shifts again according to which countries are endowed with these minerals as well as processing capacity for lithium, graphite, nickel etc. This was echoed in Biden's recent inflation Reduction Act – providing rebates only to EVs manufactured in North America and eventually only EVs with minerals sourced and processed in

North America. Green hydrogen using today's technology favours geographies with large low-cost renewable resources to create the hydrogen, shifting the geopolitical footprint once more.

What investment themes arise?

- Accelerating renewable power generation and energy storage solutions
- Continuing the electrification of transport and use of renewable fuels
- "Black to green" decarbonisation of the traditional energy and industry during the transition including repurposing infrastructure for renewable resources like offshore wind, geothermal, biorefineries, hydrogen and carbon capture and storage, etc.
- Energy efficiency. Reducing the growth in energy intensity and utilising resources better can potentially deliver 40% of the abatement required for the Paris Agreement
- Developing circular business models, recycling and business models that reduce waste and consumption in both consumer and industrial sectors

Conclusions

Given the long-term reduction in monetary stimulus, more traditional profitable cash flow businesses are back in favour. Much of the multiple expansion fed by quantitative easing led to a focus on hyper growth business models including many energy transition businesses. Indeed, many of these businesses and valuations are finding an adjustment, and that is healthy in the long-term. However, none of this takes away from the transformative potential of net zero across industries.

For example, the governments' bans on sale of new ICE (internal combustion engine) vehicles after 2030-2040 across most advanced economies is a fact. It creates a requirement for electric vehicles and the new supply chains supporting them. EVs and related companies traded at heady valuations over the last couple of years but today valuations have come off. However, the overall thesis remains: EVs will grow at the expense of ICE vehicles and government regulation is underwriting that scenario.

Of course, there are a lot of "Powerpoint companies", with high-risk blue sky business propositions, but there are also strategically disruptive business models, talented teams and innovative products that have a real chance of transforming industries during the transition. As always it is for investors, GPs and LPs alike to figure out how to distinguish these.

In concluding, it is advisable to look beyond sensationalist headlines, get up to speed, and work with those with the expertise to navigate this changing and dynamic landscape. Energy transition is one of the multi-decade megatrends that threads through many investment themes and will define portfolios for the next generation. And in Asia in particular, it will be pivotal.

Jason Cheng, CEO & Managing Partner, Kerogen Capital

Jason is the CEO and Co-Founder of Kerogen Capital, a global energy GP based in Asia with over US$2 billion in funds under management and Founder of CelerateX, its affiliated energy transition platform.

Managing Water Risk
Ensuring sustainable water for the planet demands investment in innovative, resilient solutions.

David Henderson, Managing Partner, XPV Water Partners

For much of the Western nations, this past summer brought intense heat and devastating drought. As a result, many regions in Europe and the American Southwest faced the realities of serious water scarcity for the first time. Local governments were forced to make very difficult decisions. They have had to prioritize who gets to use water, place limits and restrictions on how it is used, and provide aid where there isn't enough – or what's available is too polluted – to meet critical needs.

Water scarcity, while often localized, has widespread impacts. For example, when farmers in California lose a season of crops due to drought, the entire U.S. food system (and beyond) is impacted – the state is the country's largest producer and exporter of agriculture, dairy products, fruits, and nuts. When a river's water levels run low, it can reduce our ability to generate hydropower, or to manufacture and ship goods. And scarcity isn't only about how much water we have; it's also about the level of access we have to the water we can use. Only 3% of the world's water is freshwater, and much of this water is polluted, inaccessible, or unusable.

For these reasons and more, it's easy to see why water risk is becoming a priority for investors. When water is vulnerable, we're all vulnerable.

Investing in resilience

Sustainable water – and its intrinsic connections to food and energy – is at the core of a healthy global economy and thriving ecosystems. Whether we're dealing with drought, flooding, or loss of biodiversity, water (or a lack of water) is how we see and feel many of the impacts of climate change, pollution, and growing demand for resources. That makes investing in solutions for water and its sustainability one of the best things the world can do to mitigate the risks and build resilience.

The good news is that it's happening. While climate change is not the only threat to water sustainability, it is currently one of the biggest drivers for investment in solutions. In recent years, both the COP26 Agreement and the International Panel on Climate Change issued urgent calls for the world to mitigate and adapt. Many of the wealthier countries are responding with mandates and funding that focus on resilience, especially in regions that have experienced the very real, and costly, impacts.

As a result, we are finally starting to see the money flow to improve infrastructure, tackle sewage pollution and contaminants, and use water more efficiently. The United States government, for example, recently passed an historic US $1.2 trillion infrastructure bill, which includes $55 billion to expand access to clean

drinking water for households, businesses, schools, and childcare centres across the country. It also includes a significant allocation to further accelerate the adoption of innovative technologies in the country's water and wastewater market. The companion Inflation Reduction Act directs $10 billion to drought relief, flood mitigation, and climate resiliency.

Water risk as an opportunity

By managing water risk, the private sector can also play a critical role in building global resilience. In fact, making the corporate and financial world aware of water risk and encouraging leaders to put into place sustainable water practices is one of the biggest opportunities to move the needle.

The global microchip shortage, which is impacting supply chains across industries, begins to illustrate the magnitude of the problem – and the opportunity to innovate. We use microchips to manufacture everything from phones to fridges to cars, but making chips requires a huge volume of treated water. Taiwan, one of the world's top chip producers, is currently facing one of the worst droughts in its history. As part of efforts to manage the country's water shortage, Taiwan Semiconductor Manufacturing Co. is spending millions on water recycling solutions to avoid relying on trucking in water to keep its plants running. Other manufacturers, including Intel and its plants in the United States, are also announcing initiatives to make more efficient use of water resources.

While government and industry have never been more motivated to adopt innovative solutions to help manage acute and future risks, water and wastewater utilities are also beginning to meet these demands with new solutions. At XPV Water Partners, we are thrilled to see further promising shifts toward building resilience in the water sector. Here are some of the top technology trends we're observing.

1. Making big moves toward net zero.

Utilities are realizing the value of working together with innovative technology companies to manage and lower their emissions. This work is not limited to reducing the amount of energy we use to treat water; it also includes supporting healthy water bodies and reducing pollution from sewage spills, which can release significant levels of greenhouse gas emissions into the environment.

Companies such as UK-based Metasphere are working closely with many of the United Kingdom's utilities to demonstrate the incredible value of high-density monitoring of extensive wastewater collection systems, understanding the risk of spills in real time, and using data analytics to make better, more effective decisions to prevent them.

Another XPV portfolio company, Axius Water, helps its utility customers achieve some of the lowest phosphorous and nitrogen limits in North America and globally, including in countries like China. The Axius portfolio of technologies includes a non-hazardous replacement to methanol for nutrient removal, which helps significantly reduce a utility's carbon footprint.

In the traditionally conservative water sector, removing the risks and barriers associated with trying new technologies is also part of making a solid investment. Isle Utilities' evergreen fund, The Trial Reservoir, is a new model that empowers utilities to trial new or innovative solutions that can help them achieve net zero.

2. Doing more with less.

With shrinking budgets, new demand, and the rising costs of building and rehabilitating infrastructure, utilities are constantly under pressure to introduce efficiencies and "do more with less." For this reason and others, we're seeing the water sector accelerate the shift to digital solutions. In fact, companies in XPV's portfolio that offer digital technologies, such as SmartCover and Metron-Farnier, are having record years.

In its earlier stages, SmartCover was helping utilities solve very specific problems at sites that had frequent sewer overflows. Today, customers are deploying SmartCover's technology much faster and existing customers are putting the technology to work more broadly, to identify I&I (inflow and infiltration), optimize sewer cleaning and maintenance schedules, or manage chemical consumption, for instance. SmartCover has also recently onboarded some influential utilities to its platform, including DC Water and several leading Investor-Owned Utilities.

Many utilities are faced with managing new restrictions and limits for water use due to drought. With its powerful cloud-based analytics platform, Metron-Farnier is helping them precisely pinpoint and identify water use at the point of use – whether it is inside or outside a home or business. Achieving a first for the industry with a simple retrofit to existing meters, the platform collects water use data in one-minute intervals, making it possible for its users to act on precise, actionable insights. Utilities are using this data to manage water conservation programs in real time, improve customer service, and save water by eliminating costly leaks.

3. Seeing the value in waste.

If there's one thing that COVID has driven home for the water sector, it's that waste – or, more specifically, our wastewater – has untapped value. While the world worked from home to control the spread, we learned that tracking indicators in local wastewater streams could help us detect infection and predict outbreaks. Many governments turned to LuminUltra's expertise in microbiology to help track and predict outbreaks by testing and analyzing wastewater from different neighbourhoods.

Beyond the pandemic, we can apply similar principles and continue to study wastewater to identify and track outbreaks or other challenges. Protecting and improving global health and safety is also part of building a resilient future.

Utilities are also making huge strides toward water recycling and onsite reuse. Recently, for example, Natural Systems Utilities worked with Microsoft to install an integrated water management system at the award-winning Silicon Valley Campus. The system recycles and reuses 100% of the non-potable water on campus, combining an onsite wastewater treatment plant with rainwater harvesting, opening up 25% more campus square footage and three times more campus landscaped area, and halving potable water use.

Change is happening

The indicators are loud and clear. Governments and the private sector are waking up to urgent, global calls for action on climate. They are beginning to understand the importance of water sustainability and its role in mitigation and resilience. While there is a lot of work to be done, we're finally seeing the world acknowledge water risk, understand the threats, and plan for a resilient future. There has never been a better time to seek out, support, and scale solutions for the world's water crisis.

David Henderson, Managing Partner, XPV Water Partners

David Henderson is the managing partner of XPV Water Partners. David is a thought leader and sought-after advisor, speaker, and expert contributor in the areas of water innovation, policy, and investing. In addition to leading the firm, David uses his industry network and knowledge to invest in and rapidly scale water-related companies.

Food Security: An Impending Crisis

Alex Zhang, Co-founding Partner, Hosen Capital

While food prices are on the rise all over the world, and food supply chain disruptions caused by the Russia-Ukraine war become hot media topics, the long-term food crisis that is wider in scope and more devastating in effect is less discussed and understood. Supply chain disruptions are causing short-term price fluctuations, but severe climate change and stagnant productivity are posing structural threats to global food production. In the next decade, we are certain to see a rapidly escalating likelihood of pervasive food crises in the world and dire consequences thereof.

In the 2022 Goalkeepers Report from the Bill & Melinda Gates Foundation, Bill Gates urged policy makers to rethink world hunger, as he foresees exploding needs for food aids and two third of Africa's agriculture under stress due to climate change. In my view, the upcoming food security crisis could reach such a magnitude that no single country or single technology would be capable of mitigating the impacts. Global collaboration must reach a much higher level to fight climate change, the impact of which easily outweighs most geopolitical tensions. At the same time, we must also allocate resources and capital on fundamental technology investments to drive long-term productivity gains in global food production.

What Causes the Food Security Crisis?

After enjoying decades of balance between supply and demand of food, serious price inflation and shortage of supply in the last three years was certainly a huge awakening call. Now, all of a sudden, fourteen African countries face severe food shortages, while consumers across the US, Europe and Asia suffer unforeseen inflation of food prices. More worrisome is that these dynamics will not be short-lived phenomena. On the one hand, we are approaching the productivity ceiling of various grain and protein productions, the growth of which has improved steadily but now stagnating at just over 1% annually. On the other hand, we are facing an increasingly serious strain of natural resources for the use of agri-production.

Long-term food production has been steadily rising since the end of World War II, meeting the demand of a rapidly growing global population, from 2.5 billion in 1950 to 7.7 billion in 2021. However, while global population is projected to steadily rise and reach 9.2 billion by 2050, food production is facing an unfortunate stagnation in productivity. Global farming, after decades of robust improvements across most key areas from micro-irrigation, high-yield genetics, high performance fertilizers, to farming management, is seeing a slowdown of its pace of innovation and a dry-up of pipeline of high-impact innovations.

In the last forty years we have also converted and exploited most of the available arable land on Earth It is now increasing difficulty to find virgin land and water for further expansion. Worse, climate change is reducing yields while reducing arable lands. As we have seen this year, repeated high heats above 30 degree Celsius can lead to yield shrinkage of 30% or more in both grain and oil production. At the same time, extreme weathers could raise sea level and potentially wipe out 10-20% of arable land in the next two decades.

In summary, within the next two decades, global food demand will rise around 15% while the overall food production stands to lose up to 30% in volume, driven by the extremity of weather

conditions. It's evident that we are faced with both a pressing risk of global food security crisis and a heightening of the magnitudes of the crisis when it does occur.

Why Is the Crisis a Complex Problem?

Mitigating the food crisis will be no simple feat, as the food production ecosystem is extremely large and complex. Food production is heavily intertwined with climate conditions, energy and commodity supply, demographic trends, and often unpredictable geopolitical impacts. Another crucial but less understood fact is that the processes of food production, unlike that of manufacturing, are not predictable, industrialized or standardized Instead, they encompass multi-step biological processes such as photosynthesis and animal husbandry that are hard to substitute or modify.

Let's take a look at food production value chains. From grain / vegetables farming, meat and dairy production to shelf-stable packaged foods, this extended production process incorporates and integrates large input sectors as well as a number of secondary sectors. Consider grain production, for example: on top of the need for rich and well-irrigated soil, it also requires high quality inputs, notably seeds, fertilizer, pesticides and so on. Each of these inputs has evolved into a large industry sector, becoming a critical component of the overall ecosystem. Each, however, has its own challenges. For instance, potash and phosphate, two very important fertilizers, both have limited global mining reserves and are unevenly distributed. Morocco controls 75% of the world's best phosphate, while Russia and Belarus account for 45% of the global mining for potash. As a result, the two critical components of the food production value chain are quite fragile and in fact have suffered serious supply chain disruptions as a consequence of the Russia-Ukraine war.

In addition to extensive land and water needs, meat and dairy productions take in a huge amount of grain and food additives to produce essential proteins for life. They also create a large amount of bio-waste hazardous to the environment. These industries have strived to set and pursue carbon neutral goals due to climate change. As a result, they are faced with, on the one hand, a growing population that demands more and better-quality proteins, while, on the other hand, they are struggling to meet goals in carbon reduction. Though we may expect this tension to eventually play out, it will inevitably persist in the short to medium term and lead to rising protein prices and shortage of supply in the longer-term.

Downstream of the supply system, there are complex but efficient multilateral trades and delivery networks which move grains, meats and other foods across the world, matching demand with supplies. This global trade and logistics network took decades if not centuries to evolve in its efficiency for benefiting both consumers and farmers. As an example, despite all the tensions between US and China, China remains the largest buyer of US agriculture produce. Globally, food importing countries are not just China, Japan, or other Asian countries: Africa as a whole, surprisingly, is only 30% self-sufficient in its grain supply! It is therefore unfortunate that the tested balance of food trades and logistics is recently at risk of sliding towards inefficiency and fragility. Ranging from the higher costs of container transportation, pandemic-induced custom procedures to outright export restrictions, global food distribution is facing unprecedented tension and shocks. Food trades are being politicized and contributing to real crises.

Why Is Food Production So Hard to Plan and Manage?

The complexity of the large food ecosystem also makes its output volumes and pricing movements difficult to predict. From a planning perspective, we should at least understand and plan for its various cycles. The short-term cycle, driven by annual seasonal weather and harvests, is relatively easy to assess and plan for. The mid-term cycle, driven by the infamous El Niño and La Niña weather phenomena, occurs every seven or eight years and is much harder to manage against. It causes severe droughts and floods, and consequently leads to large bio-inventory movements, particularly that of marine animals and cattle herds, beyond the ability of a company or even a country to cope with. And lastly, the long-term cycle is driven by the demand and supply dynamics over decades, reflecting the balance between the growing demands and the available resources and productivity of the supply side.

It's indeed hard to manage these intertwined short-term, mid-term and long-term cycles. In the last two years, wheat, corn, and soybean prices rose by more than 50%. On the surface, this was caused by geopolitical tensions and factors in the short-term cycle. A closer look, however, would reveal the impacts from climate change, a part of mid-term cycle. And yet, a look even further out would reveal the long-term challenge of capacity limits and stagnant productivity.

Like it or not, these food production cycles are intertwined over different time horizons and across different countries and continents. Without systemic comprehension, careful planning and long-term commitments, mismanagement of these cycles could lead to human disasters. Global cooperation, international bodies and nearly all governments must come together to forge close and truthful collaborations.

What Actions Do We Need to Take?

To cope with the upcoming food crisis, a multitude of actions is needed. Among them, we see three large initiatives being most critical and necessitating global consensus: reducing climate change, investing in foundational technologies and strengthening global food collaboration.

First, without any doubt, global warming has increasingly demonstrated the potential to bring devastation to human life, and therefore must be thwarted and eventually put an end to. Unfortunately, though there have been considerable efforts in this regard, the risk is that we are simply relocating the carbon emissions without true reduction. For instance, reducing dairy production in one European region can bring down carbon emissions, but not in a meaningful way if it was simply moving the production to an Asian region where carbon emissions are even higher for the same output. Reducing carbon emissions must be coordinated globally so that it is reduced at the global aggregate level.

Secondly, we desperately need more technological breakthroughs to improve short-term and long-term productivity. It's very clear that we need to rethink where and how we make investments for technological transformation. Instead of hyping piecemeal innovations such as plant protein, investments must address the fundamental dimensions of food production, including soil improvement, high quality genetics, environmental protection, yield improvement, shelf-life efficiency and so on. We need radical breakthroughs which truly push the biological or physical limits of food production.

Lastly, we need to protect and strengthen the global collaboration of food production and distribution in a meaningful way. While now, faced with supply shortages and frustrations, countries and businesses are rushing to reconfigure supply chain for their respective constituents, global food production needs a different perspective. With uneven natural resources and highly diverse demand profiles globally, a global perspective in food supply and distribution is critical to fight against hunger and to improve collective food safety and quality. Not only should food production and trades be made "exempt" from geopolitical tensions. Instead, geopolitical relations must be strengthened with common goals and positive policy incentives.

In summary, a series of crises in food security are being brewed through a range of factors including climate change, population growth, and technological stagnation, and the factors over time compound the severity and scale of the crises. Nations, economies, and industries must address the factors in a collaborative and decisive way, if we were to stand a chance to countering or even mitigating the crises.

Alex Zhang, Co-founding Partner, Hosen Capital

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Emerging Supply Chain Investment Theses

Shirley Liu, Partner, Soul Capital

Since the outbreak of Covid-19, the world's supply chain has experienced unprecedented challenges. It pushes us to rethink the importance of investing in the innovations in the supply chain sector.

For all the dizzying new buzzwords that investors may have come across in the past three years, the name of the game is to ensure better control over the reliability and cost efficiency of the supply chain end to end, using technology and data.

In this article, I would attempt to provide a context on the magnitude and level of sophistication of the China supply chain market of as a leading proxy, and highlight what emerging investment theses may arise for the global supply chain sector at large.

To give readers a perspective, today's China supply chain sector can be characterized with three important high-level observations, all thanks to the training-up of the vigorously competitive e-commerce industry there:

- First, China now has arguably the world's fastest and most cost-efficient end-to-end parcel delivery network to the last mile for consumers, and it has been rapidly developed over a short period of time.
- Second, China's cross-border e-commerce is growing even faster than domestic e-commerce. In the first half of 2022, out of the US$2.9 trillion import and export trade of China, cross-border e-commerce already accounts for 36%[1].

[1] According to 《2022 年 (上) 中国跨境电商市场数据报告》网经社 http://www.100ec.cn/zt/2022Skjds/

- Thirdly, while the vibrancy of China's B2C logistics is vividly felt on the streets, it is the less visible B2B e-commerce that dominates – to the tune of 70% of monetary value – its cross-border e-commerce.

Correspondingly, a number of investment theses can emerge in the China supply chain market:

1. The market is ripe and deep enough for specialized and vertical-specific solutions in China, just like in the US, with opportunities such as cold-chain, time-definite delivery, and green delivery as required by the government's carbon-neutral plan. One can also look for opportunities in specific verticals as the so-called chain-owners, which provide industry solutions, such as FMGC, luxury, medical, furniture, auto, etc.
2. The B2B and B2C supply chain infrastructure and technology in China is conducive for end-to-end "B2B2C" supply chain and logistics solutions. On-demand manufacturing, for example, is a result of the convergence of such industry development, which allows decentralized production and less inventory investments. SheIn, a company that investors may be familiar with, is a perfect case in point in which it puts together e-commerce, on-demand manufacturing and cross-border logistics and supply chain management under one roof.
3. The shifting demand-supply dynamics, partly caused by the pandemic-induced disruptions, also gives rise to the juggling for control and influence among different incumbent participants of the supply chain, and to the emergence of new supply chain platforms, on the back of a few key core competencies, be it more efficient process management, a more visible and smarter control tower, and more automatic and innovative applications. It remains to be seen who will win out, whether those controls critical assets, such as air/ocean vessels or vehicles; those who bears closer proximity to end-customers; or new comers that have no legacy burdens but build around technology. On the newcomer side as an example, Cainiao Network, the logistics arm of Alibaba Group, leverages its strong Internet DNA and technology capabilities to provide e-parcel and e-freight forwarding services with transparent price and reliable time/service, to SMEs who transact over AliExpress or Alibaba.com, by efficiently integrating critical components which used to be mannually processed, such as e-booking, smart custom clearance, e-ports, trucking and overseas warehouse fulfillment. On the traditional incumbent side, as an example, Worldwide Logistics, a leading ocean freight forwarder, has been investing heavily into process digitization, which enables it to directly be connected to its overseas counterparties and hence be able to innovatively offer more controllable end-to-end services, such as port-to-trucking and overseas warehouse fulfillment and last-mile delivery. The end to end cross-border logistics service is a more comprehensive supply chain capability as compared to the port-to-port service provided by other traditional freight forwarders.
4. In terms of specific IT technologies, visibility and analytical services will be an important area for investment. Thanks to the wide internet development across all industries and functions, we now obtain vast data. The key is to produce or filter usable and effective data and use it to train machine learning for analytical, predictable and intellectual purposes. For cross-border supply chain, it is still challenging to even obtain complete data from all checkpoints along the value chain, from demand end, manufacturing, warehousing, transportation and delivery, due to complexity of multi-parties involment from government agencies, to ports to various logistic players in multi-countries. International trade compliance is another complex function to tackle, and smart algorithm cannot be applied unless useful data is available in the first place. Hence, there are opportunities in technology-enabled visibility, analytics and prediction, and compliance services, which could be a spin-off from the ecosystem of a large platform, or could develop as a standalone service.
5. Process optimization is another area to watch for. In Web 1.0 era, companies adopted ERPs and in Web 2.0, companies use SaaS for process management. In Web 3.0 era, a more sophisticated and intelligent management

system is required. Machine learning, artificial intelligence (AI) and advanced analytics help drive automation and delivery insights that promote efficiency and reliability. OCR (Optical Character Recognition), NPL (Natural Language Processing), RPA (Robotic Process Automation) or digital employees may not only save manpower but also is likely to disrupt the "old" ways of processing in a series order by several individuals by a centralized, 24x7 working mid-/back-end digital brain and free humans from tedious paperwork to more creative customer-facing and innovative functions. We have already seen some RPA start-ups drawing investors and industry attention. Of course, the end-game is not to just optimize one function along the supply chain but to improve the entire node-to-node connections, which may require the involvement of new hardware, as we will discuss in the final point.

6. Hardware innovations are essential to the improvements in the physical handling of goods and materials. Tremendous technology progress over the past few years in automation, IoT and robotics has made possible more advanced commercial use-cases. For example, sensors that can track inventory along its journey and monitor traffic patterns and weather conditions have become significantly more affordable. They are in great need to provide accurate and timely data which enables better supply chain planning, logistics arrangement, emergency planning and even financial support. As AI technologies mature and more precise sensors emerge, robots become more sophisticated and are able to work alongside with human. The potential of human-robot collaboration is pushing larger scale of deployment throughout the supply chain, offering competitive advantages for early adopters over traditional labor-intensive players. Again, one should be mindful in selecting the suitable robotic solutions to industry specific use-cases.

While the future becomes more unpredictable probably more so today than before, I am optimistic to believe that new platforms and chain owners in the supply chain will emerge, and companies that dive deep in their areas to improve data application, process optimization, and hardware automation will thrive, as the world's supply chain is being reshaped.

Shirley Liu, Partner, Soul Capital

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Shirley Liu is a Partner with Soul Capital. Liu was previously the investment director with Cainiao Network, the logistics arm of Alibaba Group, since 2017. She holds an MBA with Honors from the University of Chicago Booth School of Business and a BBA with First Class Honors from City University of Hong Kong.

Outside of the Cayman Islands, Where Else Can Funds Choose to Domicile?

Lorna Chen, Asia Regional Managing Partner and Head of Greater China, Shearman & Sterling
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When private equity fund and venture capital fund sponsors think about where to domicile their next fund structure, the Cayman Islands has long been a popular choice. This may no longer be the case. The Cayman Islands has been facing continued pressure from the Organization for Economic Co-operation and Development to require demonstrable economic substance from fund managers and other business operators. With the International Tax Co-operation (Economic Substance) Act firmly in effect, the Cayman Islands now has a comprehensive framework requiring legal entities domiciled or registered therein to demonstrate economic substance, with various notification and filing obligations. This has created additional legal and compliance burdens as well as extra cost for many fund sponsors because, without setting up offices in and moving staff to the Cayman Islands, the economic substance requirement is often managed by either outsourcing or relying on available exemptions. In the meantime, investors from many jurisdictions continue to be concerned with the current regime in the Cayman Islands.

In light of the above trend, we are seeing a gradual shift away from the Cayman Islands toward alternative jurisdictions with similarly flexible and accommodative legal structures. For instance, fund sponsors based in the European Union may domicile funds in Luxembourg. Fund sponsors based in Asia or with Asia-focused investment strategies may also consider Luxembourg to accommodate policy requirements of European investors, in addition to domiciling parallel or other funds locally in Asia, namely in Hong Kong or Singapore. Moreover, whereas earlier practice saw funds domiciling in the Cayman Islands but managed elsewhere, the ability to vertically align fund management and operation in one jurisdiction has emerged as an attractive and logical option, as compared with the growing cost and efforts involved in complying with substance and other relevant requirements across different jurisdictions.

Outside of Asia, apart from Luxembourg, other common domiciles for consideration include Delaware and England, but they are rarely used by Asia based sponsors due to lack of proximity.

We provide a brief summary of a few jurisdictions that can be considered as alternative options for Asia based investment fund sponsors. These jurisdictions include Hong Kong, Singapore, and Luxembourg.

Hong Kong

The Hong Kong Limited Partnership Fund (HKLPF) was introduced through the Limited Partnership Fund Ordinance, which took effect

on August 31, 2020. The HKLPF does not have separate legal personality, meaning that it acts (and holds assets) through its general partner (GP). The GP must appoint an investment manager (which can be the GP itself) and an independent auditor. A responsible person also needs to be appointed to cover anti-money laundering obligations. Where applicable conditions are satisfied, funds managed from Hong Kong may be exempted from profits tax under the Unified Fund Exemption, and carried interest may be taxed at a rate of 0% under the Inland Revenue (Amendment) (Tax Concessions for Carried Interest) Ordinance 2021. Hong Kong has an extensive list of tax treaties throughout Northeast Asia and other parts of the world. Effective on November 1, 2021, a foreign investment fund may redomicile to Hong Kong via submission of a straightforward application.

Singapore

The Singapore Limited Partnership (SGLP) was introduced through the Limited Partnership Act in 2008 and came into effect on May 4, 2009. The SGLP does not have a separate legal personality. The GP must appoint a Singaporean licensed fund manager (which can be the GP itself) and a local manager if none of the GPs are locally resident in Singapore (e.g., Singapore citizens, permanent residents, or holders of an EntrePass/Employment Pass). An SGLP is exempted from income tax, but the fund manager would be subject to a 10% tax rate on carried interest. Singapore's extensive list of double-taxation treaties with other countries are available for use, which may be important considerations in fund managers running India or Southeast Asia-focused investment strategies.

In 2020, Singapore introduced the Variable Capital Company (VCC) regime, providing another structuring option for investment funds. The VCC provides flexibility for being set up either as a stand-alone structure or as an umbrella structure with multiple sub-funds. Compared with a typical limited partnership structure, a VCC structure can be set up faster and in a more cost-effective way. A VCC requires a Singapore-based licensed fund manager as well as a Singapore-based auditor. The VCC must keep segregated the assets and liabilities of each sub-fund. The assets of one sub-fund may not be used by the VCC to discharge the liabilities of another. Despite the legal features for asset and liability segregation, there could still be cross-contagion risks, especially in jurisdictions that might not fully respect such segregation. Because of these risks, similar to other structures of the same nature in other jurisdictions (e.g., the segregated portfolio company regime in the Cayman Islands), the VCC umbrella would not be the first choice for fund structuring for private equity and venture capital sponsors.

Luxembourg

While there are several types of fund entities available in Luxembourg, we focus on the Special Limited Partnership (or société en commandite spéciale, "SCSp") here because its simple framework aligns most closely with the limited partnership regimes of comparable jurisdictions such as the Cayman Islands, Hong Kong, and Singapore. The Luxembourg SCSp was introduced in 2013 as part of amendments to the Luxembourg Law of 10 August 1915. To form an SCSp, there must be a notarial deed or other private instrument that is registered with the Luxembourg Trade and Companies Register. An SCSp does not have a separate legal personality. An SCSp must designate at least one manager to manage the fund, which may be the GP. An independent auditor is not required. Taxation arrangements can be complicated, depending on whether an SCSp is regulated by the Luxembourg financial regulator (i.e., the Commission de Surveillance du Secteur Financier). An SCSp neither benefits from Luxembourg's double-tax treaty network nor from the EU's tax directives, such as the EU's Parent-Subsidiary Directive (2011/96/EU).

Conclusion

The jurisdictions outlined above represent a few of the available alternatives to traditional offshore centers. While Luxembourg has often been requested by investors from the European Union as an ideal jurisdiction for fund structures, Asia based managers' lack of familiarity with the regime and the relatively high cost to set the whole structure up in Luxembourg may have deterred many sponsors. For funds with an Asia-focused strategy, the HKLPF regime and the SGLP regime may eventually be well-suited options. Setting up parallel fund or feeder/master fund structures to accommodate different considerations of investors and sponsors may also be a good option. Singapore has been a hub for Southeast Asia and India-focused strategies. Hong Kong carries out a large volume of Northeast Asia-focused strategies, particularly those which benefit from Hong Kong's proximity to Mainland China and the development of the Greater Bay Area. Although the HKLPF regime and the SGLP regime are relatively new, with resulting uncertainties that may continue till a longer track record is established, only time will tell whether and to what extent these regimes will flourish like others before them and become "go-to" jurisdictions in the future. A new trend is definitely being formed.

Lorna Chen, Asia Regional Managing Partner and Head of Greater China, Shearman & Sterling

Apart from serving as regional leader, Lorna Chen is also a member of the firm's Executive Group. Lorna founded and leads our asset management and investment funds practice in Asia. Lorna has 25 years of experience across the United States, Europe and Asia in the corporate law area, including 20 years in the investment funds and private equity field. She advises clients in the structuring, restructuring, formation and operation of alternative investment products. Lorna is a panel member of the Securities and Futures Appeals Tribunal.

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Hong Kong's Future as Asia's Leading Asset Management Hub

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Hong Kong has long been seen as Asia's leading asset management hub and a gateway for capital to and from China. It has also been recognised as one of the three global financial centres, along with London and New York. Hong Kong's success as an asset management hub can be attributed to a few key factors, including but not limited to its favourable tax system; having a well understood and robust legal a regulatory framework; as well as importantly a deep talent pool that has underpinned the growth ambitions of asset managers for many years. It has also benefited greatly from its geographic location and, as a gateway for capital to and from mainland China.

However, Hong Kong's status as Asia's leading asset management hub may be under threat as it faces unprecedented competition from other financial centres, and most notably from Singapore in the Asia region. Competition could be described as fierce as jurisdictions look at various ways to attract talent and foreign investment within the asset management industry.

Amongst the challenges in recent years, the pandemic has had a particularly devastating impact on Hong Kong's economy and outlook. This has given Singapore the opportunity to emerge as a serious competitor to Hong Kong's role and its positioning as Asia's leading asset management hub. The last year or so has seen much talent in the asset management industry leave Hong Kong for Singapore and other financial centres. Whether such moves are permanent or temporary remains to be seen, but what has become apparent over the last year, is the emerging strength of Singapore's status as a financial services and assets management hub.

Many private equity and other alternative asset managers have moved operations and people to Singapore taking advantage of the incentives applicable to funds established or managed from Singapore. Singapore has long used such incentives to attract foreign investment and asset managers using the incentives to consolidate their fund vehicles and investment holding structures in Singapore.

How does Hong Kong compete going forward?

Hong Kong is not resting on its historical strengths to hold on to its status as global financial center. The asset management industry remains a significantly important component of Hong Kong's finance services economy and as such, the government continues to consider a range of reforms to ensure that it remains the leading asset management hub in the region.

Hong Kong has continued to review its asset management tax incentives to ensure that they are competitive. The funds tax incentives in Hong Kong are similar to Singapore's, but there are still some notable differences. The main difference perhaps is the application procedures in Singapore to benefit from the incentives, versus the self-assessment tax system in Hong Kong. In Hong Kong, there is no application to determine whether the fund and its investment holding companies qualify for the tax incentive. In Singapore, in contrast, a fund manager

is required to apply for the incentive, but in doing so, obtains certainty that the fund or investment platforms qualify as exempt on their investment gains.

Given the popularity of Singapore's funds incentives, the Hong Kong funds industry has been advocating for further changes to Hong Kong's tax treatment for the sector, so that its rules are on par with Singapore. On this, the industry has had some success. The funds industry has been successful in getting Hong Kong to amend its tax rules to apply to investment holding group companies held by Funds, as well as introducing a new carried interest incentive, which is the first of its kind in Asia.

There are also further incentives in the pipeline, with a new family office incentive to be effective retrospectively from 1 April 2022.

These changes are all designed to ensure that Hong Kong remains competitive, but there remains more to be done. We highlight a few proposals below.

Funds exemption

Hong Kong updated its funds exemption regime to ensure that investment returns on the disposal of public companies (SPVs) by investment holding companies held by a fund was clearly covered by the fund exemption. This updated was important to ensure that the investment holding companies established funds were afforded the same treatment as the fund itself with respect to gains from disposing of public companies.

However, there are other investment types which still do not qualify clearly under the fund exemption rules. These include certain contractual and debt type investments, as well investments in emerging asset classes such as digital assets and virtual currencies. As the asset management industry continues to evolve into newer asset classes, it's important that Hong Kong's funds regimes continue to keep abreast of these investment types. Hong Kong will therefore need to continue to expand its list of eligible investments to capture these emerging asset classes, on risk losing out to other asset management hubs.

Private credit and debt

There has been a lot of focus on the tax treatment of private credit and debt funds operating in Hong Kong given the explosive growth in this particular asset class in Asia over the last few years. Unlike in Singapore, private credit and debt funds also do not fall clearly under the fund exemption in Hong Kong. This therefore potentially exposes private credit and debt funds to tax in Hong Kong on interest returns flowing back to the funds.

The HKVCA has been actively advocating for a change in the tax rules for private credit and debt funds to align the tax treatment for interest income in Hong Kong with that of how private credit funds are treated in Singapore.

In Hong Kong, the problem for private credit and debt funds lies in the interpretation of an investment return from a qualifying investment gain. Under the Inland Revenue's interpretation of the fund rules, they take the view that interest from holding a debt investment is not a qualifying investment return under the exemption. As such, if the interest is considered to be Hong Kong sourced, then the fund could be exposed to tax on the interest income in Hong Kong.

In practice, the risk of such interest being taxed is low, as the investment can be structured as offshore sourced so that it is not subject to tax at the fund level. However, this does require more onerous or complex operating and investment protocols than what would be the case if the manager was operating in Singapore. In Singapore, such interest income would clearly qualify as exempt under their incentive rules.

The funds industry continues to advocate for a change in Hong Kong so it can better compete with Singapore. The private credit and debt fund sector continues to develop at a breakneck pace, as corporate groups in Asia look to alternative credit providers for their much-needed financing needs. It will be particularly important that Hong Kong updates its fund rules to address the tax treatment of interest income, especially given that Hong Kong looks to introduce new rules on the taxation of passive investment income such as interest from 2023.

Carried interest

Another important development in Hong Kong has been the introduction of the new carried interest tax incentive. This, as we highlight above, is the first such incentive in Asia and was the culmination of a great deal of discussion between the industry and the government over how Hong Kong should treat carried interest.

The tax treatment of carried interest in Hong Kong has been somewhat contentious over the last several years. Put simply, the Inland Revenue in Hong Kong treated carried interest as similar to management fees. Industry, on the other hand, is of the view that carried interest is fundamentally different. Carried interest represents a share of the underlying investment gains to the GP and the investors in the fund. Such investment returns should therefore be treated on the same basis as are returns to LPs.

After much lobbying, the government introduced a new 0% tax incentive for qualifying carried interest. This was designed to further cement Hong Kong's status as Asia's leading private equity hub.

However, it seems that many fund managers have yet to embrace the incentive due to the onerous conditions that need to be satisfied. One of the main concerns has been a requirement for all of the carried interest to be paid through Hong Kong in order to qualify for the incentive. This is practically very difficult for many funds, as it would require structural change to the fund structure and documentation in order to comply with carried interest flowing through Hong Kong.

To date, there has been a sense that most fund managers are taking a wait-and-see approach as to how the incentive will be applied in practice. Nevertheless, the industry is continuing to lobby for a change to the requirement to have the carried interest paid into Hong Kong in order to satisfy the tax incentive. This may require a slight amendment to the tax concession framework, but there is hope that the change can be addressed by way of guidance to be released by the IRD.

New foreign sourced income regime

Asset managers and funds need to be aware of some important changes which may not directly impact funds, but indirectly will have an impact on them through their portfolio companies.

In 2022, Hong Kong released its consultation on a new foreign income exemption regime (FSIE), which is designed to ensure that Hong Kong is removed from the EU watchlist of harmful tax regimes. The proposed updates constitute one of the most important changes to Hong Kong's tax system with respect to passive income.

The proposals outline new rules for the tax treatment of offshore passive income -- dividends, interest, capital gains and royalty income. Broadly, under this more complex FSIE regime, offshore passive income "received or deemed received in Hong Kong" will be taxable unless it satisfies new economic substance requirements.

Further, with respect to dividends and capital gains, a new participation exemption will apply to companies that fail to satisfy the economic substance condition. The participation exemption contains a number of conditions, such as an equity ownership of at least 5%; a less than 50% passive income threshold; and a headline rate of tax requirement of at least 15%. The rules are complex and there will also be anti-abuse provisions.

Given the significance of these changes to Hong Kong's treatment of passive income such as offshore dividends, interest and capital gains, it will be important that there is clear guidance that ensures little uncertainty or ambiguity over how they will be implemented and enforced. For the funds sector, there is an expectation that many funds will be carved out of the new rules, but they will need to consider the impact of the changes, either directly or indirectly. The rules are likely to impact their portfolio investments as well as the management of their funds.

However, investors need to be certain that the changes to the tax treatment of capital gains, dividends and interest will not affect Hong Kong's overall competitiveness, especially when compared to its main competitor in the region, Singapore.

Family office incentive

Finally, to promote Hong Kong as a family office hub for the region, Hong Kong is planning to introduce an incentive effective from 1 April 2022 that will allow qualified family officers to operate from Hong Kong and manage their investments without exposing the investment returns to tax in Hong Kong.

The incentive is modelled on the private equity fund exception that has been operating for a number of years, expect that it will apply to an investment holding vehicle established by a Family Office. There will be conditions attached to the incentive, including conditions relating to a minimum investment holding value, a separate management entity to manage the single-family office and the eligible family beneficiaries.

The incentive has yet to be legislated, but it is hoped that it will position Hong Kong as the pre-eminent family office hub in Asia. However, as with the fund's exemption above, we can expect that Singapore will be looking to also position itself as a competitive alternative.

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Darren has been involved in developing appropriate structures for investing in the Asia Pacific region, conducting tax and financial due diligence reviews in connection with M&A transactions, and advising on cross-border transactions. Many of these projects comprise tax effective regional planning, including the consideration of direct and indirect taxes, capital and stamp duties, withholding taxes, and the effective use of double taxation agreements. He also advises clients in a wide range of industries on establishing direct investment, private equity and other investment funds in Hong Kong.

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