

Hong Kong's Future as an Infrastructure Financing Hub

香港：未來的基建融資中心



Major proposed projects, such as the Northern Metropolis and Kau Yi Chau Artificial Islands Project, are iconic for the Hong Kong market and complement a wide range of other projects. Together, this pipeline of infrastructure projects presents a significant opportunity for Hong Kong's banking sector.

建議中的大型項目，例如北部都會區和交椅洲人工島，是香港市場的標誌性項目，而且與許多其他項目相輔相成。這些基建項目，為香港銀行界帶來龐大機遇。



Some of these are already under way, while others only exist on paper. They give us a sense of how Hong Kong will look in 2050 and how its residents will live and work.

The Northern Metropolis masterplan promotes integration between Shenzhen and the northern parts of the New Territories. This collection of projects will focus on developing R&D capabilities through: the Future Technology Park; an extension to the existing Hong Kong Science Park; the San Tin Technopole; and the Hong Kong-Shenzhen Innovation & Technology Park. The latter is housed in the Lok Ma Chau Loop and is at an advanced stage of construction – tenants are due to start moving in by the end of this year. The 87-hectare Loop sits within the 626 hectares of the San Tin Technopole.

Overall, there will be approximately 70 separate projects forming the Northern Metropolis, including several housing developments. The individual projects will range in value from around HKD1 billion to HKD100 billion, representing a total investment of HKD4 trillion. While the timing of the Kau Yi Chau Artificial Islands Project has been subject to uncertainty in the latest Hong Kong budget, the issues raised in this article still apply.

The Northern Metropolis will be much larger than the proposed Kau Yi Chau Artificial Islands (previously known as Lantau Tomorrow) – roughly 30 times the size. This will therefore require the installation of water and power plants, along with other supporting infrastructure.

項目規模

北部都會區和交椅洲人工島，是香港的標誌性項目，與許多其他基建項目相輔相成，構成大量發展機會。當中有些項目已經展開，有些仍然在籌劃階段。這眾多項目將完全重塑香港，展現2050年香港的面貌，以及香港居民未來的生活和工作方式。

北部都會區總體發展計劃假定深圳和新界北部有較緊密的融合。這一系列項目以發展研發能力為主，包括未來的科技園、現有香港科學園的擴建部分、新田科技城，以及港深創科園。後者位於落馬洲河套區，建設工作現正如火如荼，租戶可於今年底開始遷入。面積87公頃的創科園，座落於626公頃的新田科技城內。

北部都會區總共約有70個不同項目，包括幾個住宅發展項目。個別項目造價由約10億港元至1,000億港元不等，總投資40,000億港元。根據香港最近發布的財政預算，交椅洲人工島項目將延遲開展，但這不影響本文提出的論點。

北部都會區比建議中的交椅洲人工島（前稱明日大嶼）大得多，面積大約是後者的30倍，因此除了其他基礎設施外，還要建設濾水廠和發電站。因此，北部都會區項目的回報期將較長。

Scope of project

The Northern Metropolis and Kau Yi Chau Artificial Islands are landmark projects in Hong Kong – but are complemented by a range of other infrastructure projects that together form a comprehensive pipeline of development opportunities.

Funding

The scale of the proposed Northern Metropolis and Lantau Tomorrow projects will present significant opportunities for Hong Kong's capital markets, which have successfully funded strategically important and iconic projects in the past, often in collaboration and partnership with Government or wider public/private bodies. These include the third runway at Hong Kong International Airport, toll roads and tunnels, hospitals, schools and several extensions to the MTRC network.

While the scale, and nature of these projects is significant, they are at an early stage of development. Private financing could therefore be comparatively expensive, as revenue streams are far in the future. In the meantime, there is always the risk of unforeseen difficulties or technical problems leading to cost over-runs. Examples could be risks associated with reclamation and the implementation of enabling infrastructure.

Given the scale and duration of these projects, some degree of Government involvement in funding will likely be necessary to facilitate efficient funding solutions and optimise the cost of capital for all parties. Hong Kong is in a good position regionally when it comes to accessing the capital markets. Hong Kong's debt-to-GDP ratio stood at 4.3% in 2022, compared to more than 100% in Singapore and other advanced economies, according to the International Monetary Fund.

So, Hong Kong does have considerable headroom to raise debt to finance elements of these projects – to further economic and societal interests. Nevertheless, some form of Public-Private Partnership (PPP) will also likely play a role to unlock a wider base of private capital. One appealing aspect of PPP arrangements is that a portion of the investment

融資

建議中的北部都會區和明日大嶼項目規模宏大，難度甚高，卻為香港的資本市場帶來龐大機遇。香港資本市場曾為多個重要的策略性項目融資，包括香港國際機場第三跑道、收費道路、醫院，以及地鐵網絡的多條支線。

除了規模龐大外，這些項目的性質也帶來挑戰。項目處於最早期的發展階段，投資收益遙遙無期，私人融資成本因而較高昂。同時，未能遇見的困難或技術問題，往往導致超支，構成風險。

由於項目規模龐大，歷時長久，因此很可能有需要由政府在某程度上參與融資，從而攤分成本，達到最大效益。與其他經濟體相較，香港也有較佳條件善用債券市場。香港政府已發行的債券目前相當於國內生產總值大約四成，而在

“
Given the scale and duration of these projects, banks could have an important role to play in advising on rolling, dynamic financing options.”



comes from the developer/operator of an asset. They are therefore strongly incentivised to avoid cost and time overruns and innovate to generate value. An ideal balance could be for the Hong Kong Government to raise modest funding to enable early-stage reclamation and core enabling infrastructure, with the rest coming from private capital once the formative stage of the project has passed and risks are manageable and can be efficiently allocated between the parties. This is because many institutions, such as insurers, need to see cash flows to balance against their liabilities.

A possible solution is that the developers of the projects could be granted title to some of the land. They can then determine if they can meet their target ROI either by selling on the land directly to other developers or by building commercial or residential property and then generating revenue through a combination of rentals and sales.

其他地區，以新加坡為例，債券發行量已接近國內生產總值的110%。

因此香港有很大空間以發債形式為這些項目融資。另一方面，某種形式的公私營合作也有可能出現，以擴大私人資本的參與。公私營合作安排的一個吸引之處，是有部分投資來自發展商／營運者，令他們有更大動力避免超支和延誤。最理想的比例，是由香港政府籌集總資金的大約兩成，為早期的填海和核心基建融資，其餘部分則由國際資本承擔。不過，許多機構如保險公司等，都期望未來有現金流，以平衡其負債。

一個可能的解決方案，是向項目發展商批給部分土地業權，好讓他們斷定能否透過直接向其他發展商賣地，或興建商業或住宅物業賺取租金及售樓收益，達到目標投資回報。



“
這些項目規模龐大，為期長久，在如何安排持續而靈活的融資方案方面，銀行擔當重要的諮詢角色。”

This is a commonly used method and is perhaps best known in Hong Kong through the ‘Rail plus Property’ (R+P) model adopted by the MTR Corporation. Under this system, the MTR pays the Hong Kong Government an up-front premium based on the market value of the land without the railway. The MTRC then partners with developers through competitive tendering to develop properties from which it receives a share of revenues.

Another important measure to attract international capital will be to package the various components of both Lantau Tomorrow and the Northern Metropolis as part of a wider pipeline of development projects. This would present a compelling proposition for international institutions seeking a clear pipeline of opportunities. Projects can also be bundled together to promote viability – for example, a marginal road project that has uncertainty around traffic and revenue generation, could be packaged with a revenue-generating asset to promote viability and hence attract investors.

Human capital also needs to be considered. Just as the scale of funding requires different sources of financial capital, many of these projects can only be realised if there is sufficient manpower, given resource constraints in Hong Kong which are evident in the construction sector. The availability of Mainland resources could be of critical importance in this regard.

Once physical assets are in place, the Government could also consider the creation of Authorities or Corporations to manage the ongoing funding and financing of these projects. The MTR Corporation or the West Kowloon Cultural District are models that could be followed. These have the advantage of facilitating the allocation of delivery risk to parties best placed to manage these risks.

The role of Sovereign Wealth Funds is still to be determined. Another important source of funding will be Chinese State-Owned Enterprises (SOEs). RMB funding



這是個常用的方案，港鐵公司採用的「鐵路加物業」經營模式便是香港人熟悉的例子。在這模式下，港鐵公司按土地在未有鐵路時的市價向香港政府補地價，然後與競投成功的發展商合作興建物業，從中分享利潤。

吸引國際資金的另一重要方法，是把明日大嶼和北部都會區各組成部分包裝為一系列源源推出的項目；這可吸引一些尋求規模較小、較長期的投資機會的機構。例如非收費道路項目，可包裝為可產生收益的資產，以吸引投資者。

人力資本也是需要考慮的因素。由於香港的資源有限，正如不同的資金規模需要不同的資金來源，許多項目只有在有足夠的人力的情況下才能實現。在這方面，能夠獲得內地資源至關重要。

在有形資產建成後，政府可考慮成立管理局或公司，管理這些項目的持續融資。港鐵公司或西九龍文化區，都是可以借鑑的模式。



could also play a big role in both projects as most supplies will be procured in RMB. Some will also be able to leverage expertise gained through projects under the Belt & Road Initiative.

Smart City initiatives

A key expectation is that these new developments fully leverage the Smart City features that have been showcased in Shenzhen and in other parts of the world. The frictionless flow of data will be critical to enabling a vibrant business ecosystem between the Northern Metropolis and Shenzhen. An important development occurred in June last year when Hong Kong's Innovation, Technology and Industry Bureau and the Cyberspace Administration of China signed a Memorandum of Understanding on facilitating the flow of data within the GBA.

Sustainability and environmental protection are also central to the Smart City vision. The Hong Kong Energy Efficiency Registration Scheme for Buildings is a recent initiative which can help mitigate the impact of commercial buildings as Hong Kong's largest consumers of energy.^[1]

主權財富基金可擔當什麼角色，仍有待決定。另一個重要的資金來源，是國有企業。由於大部分原料都以人民幣採購，人民幣資金在兩個項目中都佔有重要的席位，而國有企業相對容易取得人民幣貸款。一些國有企業還能把在「一帶一路」項目中取得的專業技能應用在香港項目中。

智慧城市措施

人們期望新項目能充分發揮智慧城市的特色，如同深圳和世界其他地方智慧城市所展示的那樣。維持數據流動暢通無阻，是在北部都會區和深圳之間形成生機勃勃的商業生態系統的必要條件。去年6月，香港創新科技及工業局與國家互聯網信息辦公室簽署了促進粵港澳大灣區數據跨境流動的合作備忘錄，就是一項重要的發展。

可持續發展和環境保護，也是智慧城市願景的重要內容。商業樓宇是香港能源消耗量最大的用戶，近年的香港建築物能源效益註冊計劃，有助減輕商業樓宇對環境的影響。^[1]

Banks' advisory role

Given the scale and duration of these projects, banks will have an important role to play in advising on rolling, dynamic financing options. They may also lead consortia, pulling together different sources of finance. There will be opportunities for banks to act as book runners for the issuance of bonds, as has occurred with Hong Kong International Airport.

Blended finance is also a mature funding mechanism that is enjoying resurgence. In large part this has been driven by new perspectives on risk related to economic volatility in recent years. Banks, such as the Asian Infrastructure Investment Bank, put in guarantees and “first loss” equity, which creates a level of security and therefore unlocks wider bank and other forms of funding. Blended finance is therefore a mechanism to fund the project – and, in turn, facilitates Public Private Partnerships (PPPs) by creating a platform to share risks and promote the financial feasibility of the project.

銀行的諮詢角色

這些項目規模龐大，為期長久，在如何安排持續而靈活的融資方案方面，銀行擔當重要的諮詢角色。銀行可作為銀團的牽頭人，匯集不同的資金來源。銀行有機會擔任債券的配售經辦人，過往香港國際機場和西九文化區項目發債，銀行就擔當了配售經辦人。

混合融資是一種成熟的融資方式，最近有重新流行的趨勢；這很大程度上與近年的經濟狀況不穩，人們對風險有新看法有關。例如亞洲基礎設施投資銀行便在融資安排內加入擔保和第一損失安排，提升了融資產品的安全度，吸引更多銀行和其他機構加入。因此混合融資是為項目融資的一個機制，而由於提供了分擔風險的平台，反過來又促進了公私營合作。公私營合作本身是個採購和融資機制，為項目提供資金。

Blended Finance 混合融資

Involves project-level instruments to enhance the bankability of projects.

牽涉項目層面的工具，以提升項目的可融資性。

This involves the participation of Multilateral Development Banks (MDBs), Governments and Development Finance Institutions (DFIs), often on non-commercial terms.

有多邊開發銀行、政府和開發金融機構以非商業條款參與。

They de-risk the project and enhance its bankability by issuing project-level instruments.

他們發行項目層面的工具，減低項目風險，提升項目的可融資性。

These organisations can also make subordinated debt, equity and guarantees available to projects, thereby reducing risks for other lenders and unlocking wider participation.

這些機構也可為項目設立次級債券、股權及保證，減輕其他貸款人的風險。

Increasingly, MDBs and governments leverage their balance sheets to provide funding through equity and bond issues. This supports project feasibility and hence unlocks wider private sector capital.

多邊開發銀行和政府越來越多利用他們的資產負債表，藉發行股份和債券為項目融資，從而提高項目的可行性，吸引更多私營部門的資金。



“
正如不同的資金規模需要不同的資金來源，許多項目只有在有足夠的人力的情況下才能實現。”

Public-Private Partnerships 公私營合作

PPPs are a collaborative mechanism covering a broad spectrum of partnership models between the private and public sector.

公私營合作是個合作機制，讓公營和私營部門以各種不同的模式合作。

Partnerships can take different forms: from simple operating concessions (where a Government asset is run by a private operator) through to a Design-Build-Finance-Operate-Transfer model (where the private sector funds, delivers and operates the project on behalf of Government).

合作有多種不同形式，有簡單的經營特許權（由私營經營者營運政府資產），以至設計、建設、融資、營運及轉移的模式（由私營機構提供資金，代政府交付及營運項目）。

PPPs can also be facilitated by blended finance instruments. These can include, for example, land or equity being injected into the PPP by Government. DFIs can also be involved to provide guarantees or export finance that brings down the costs and risks of the project.

混合融資工具也可促進公私營合作，這些工具可包括政府注入公私營合作的土地或股本。開發金融機構也可參與，提供保證或貿易融資，以減低項目的成本及風險。

Source 資料來源: PwC analysis

“
Just as the scale of funding requires different sources of financial capital, many of these projects can only be realised if there is sufficient manpower.”

As mentioned above, the broad pipeline of infrastructure projects in Hong Kong presents a real opportunity to incorporate best practice in sustainability, green finance and Smart City construction techniques. This could include green rail links and wastewater treatment. Carbon-neutral development will not only help Hong Kong reach its 2050 net zero commitment: if these projects are independently certified as green, this could unlock green and sustainable sources of capital which could lead to a significant reduction in financing costs.

Banks with experience in the issuance of green bonds may also have opportunities to leverage their expertise. The green bond market is growing rapidly. In February 2024, the Hong Kong SAR Government issued its first digitally-native, multi-currency green bond. The issue, which was over-subscribed, highlighted the vibrancy and innovation in this field of finance, as well as the strength of investor appetite.

The implications for Hong Kong's banking sector

Hong Kong's capabilities in handling both HKD and RMB settlement make it well placed to be the hub for regional infrastructure financing. In addition, China's 14th five-year plan set the goal of Hong Kong developing as a regional Risk Management hub. Regulatory bodies such as the Hong Kong Monetary Authority, the Securities and Futures Commission and the Hong Kong Insurance Authority are supportive of this. The latter – as noted in the latest Hong Kong budget – is working to promote Hong Kong as a captive domicile and insurance-linked securities (ILS) issuance hub, thus providing sophisticated risk management solutions for large corporations with a global footprint.

The development of a robust securitisation market would also help achieve this Risk Management goal. To date, banks in Hong Kong and China have mostly focussed on



正如上一節所述，香港大量的基建項目為整合可持續發展、綠色金融及智慧城市建設技術的最佳實踐提供了實質機會，包括綠色鐵路系統、污水處理等。碳中和發展不僅有助香港兌現2050年達致淨零排放的承諾；假如這些項目被獨立認證為綠色項目，還將吸引其他貸款人，並應導致融資成本大幅降低。

有發行綠色債券經驗的銀行，也有機會發揮所長。綠色債券市場發展迅速，香港特區政府在2024年2月發行了首批多幣種數碼原生綠色債券，獲得超額認購，足見這個金融範疇發展蓬勃，創意無限，也可見投資者對債券興趣濃厚。

對香港銀行業的啟示

香港擁有處理港元和人民幣結算的能力，使其成為區域基建融資中心。此外，十四五規劃定下了把香港發展為區域風險管理中心的目標，香港金融管理局、證券及期貨事務監察委員會及香港保險業監管局均表示支持。正如香港最近的財政預算案所提到，保險業監管局正推廣香港作為專屬自保保險基地和保險相連證券發行樞紐，為業務遍佈全球的大型企業提供成熟的風險管理方案。



發展穩健的證券化市場，也有助達致這個風險管理目標。迄今為止，香港和內地銀行大多集中精力把貸款證券化，而非推動證券化資產交易。隨着私募股權基金的投資重點由股票轉移至高收益證券化貸款，這種情況可望改變。

最後，未來項目眾多，意味着香港銀行須加強自身能力。那些能分清哪個項目應適用何種融資方法的人才將成為各家銀行激烈爭奪的對象。北部都會區和明日大嶼將為具備所需技能的銀行帶來龐大機遇。

結語

香港銀行需要確實做好準備，深入了解這些項目的商業特點，並妥善處理種種不可避免的不確定性；他們還需要參與政府規劃和加深對政府議程的認識。從整體和戰略角度看，這些項目非常引人注目，對香港的長遠發展至關重要。BT

[1] 《可持續發展城市路徑：上海與香港地區的探索》
(<https://www.pwccn.com/zh/issues-based/esg/pathways-towards-sustainable-cities-jun2023.pdf>)

the securitisation of loans, rather than developing a deep trading pool of securitised assets. This is likely to change, as private equity funds shift their investment focus from equities to high-yield securitised loans.

Finally, the sheer volume of projects in the pipeline means that Hong Kong's banks will need to build up their capabilities. The competition will intensify for talent that can identify what kind of financing is most appropriate for each project. The Northern Metropolis and Lantau Tomorrow could represent significant opportunities for those banks that have the right skills in place.

Conclusion

Hong Kong's banks need to ensure that they are prepared to engage with the commercial realities of these projects and to weather the inevitable uncertainties. They also need to engage with and deepen their understanding of Government agendas. Looked at holistically and strategically, these projects are compelling – being essential for Hong Kong's long-term growth. BT

[1] Pathways towards sustainable cities: The progress of Hong Kong SAR and Shanghai (pwccn.com)

ABOUT THE AUTHORS

作者簡介



James TAM
Banking and Capital Markets
Leader
PwC Hong Kong

譚文傑
羅兵咸永道香港
銀行業與資本市場主管
合夥人



Chris CHAN
Partner
Financial Services Market Leader
GBA Services
PwC Hong Kong

陳宣統
羅兵咸永道香港
中國大灣區金融業服務市場主管
合夥人



Simon BOOKER
Infrastructure and Public Sector
Partner
PwC Hong Kong

羅兵咸永道香港
基建與公共部門
合夥人