



# AMRO Annual Consultation Report

## Hong Kong, China - 2021

ASEAN+3 Macroeconomic Research Office (AMRO)

February 2022

## Acknowledgments

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1. This Annual Consultation Report on Hong Kong, China has been prepared in accordance with the functions of AMRO to monitor and assess the macroeconomic status and financial soundness of its members; identify relevant risks and vulnerabilities; report these to member authorities; and if requested, assist them in mitigating these risks through the timely formulation of policy recommendations. This is being done in accordance with Article 3 (a) and (b) of the AMRO Agreement.
2. This Report is drafted on the basis of the Annual Consultation Visit of AMRO to Hong Kong, China from August 16 to 27, 2021 (Article 5 (b) of the AMRO Agreement). The AMRO Mission team was headed by Dr Chaipat Poonpatpibul. Members included Mr Kimi Xu Jiang, Desk Economist; Mr Suan Yong Foo, Senior Economist; Dr Sungtaek Kwon, Senior Economist; Ms Laura Grace Gabriella, Associate Economist; and Mr Edmond Choo Chiang Yong, Associate Economist. AMRO Director Mr Toshinori Doi and Chief Economist Dr Hoe Ee Khor also participated in key policy meetings with the authorities. The AMRO Annual Consultation Report on Hong Kong, China for 2021 was peer reviewed by Dr Jinho Choi, Deputy Group Head and Senior Economist; and Mr Paolo Hernando, Senior Economist; and approved by Dr Hoe Ee Khor, Chief Economist.
3. The analysis in this Report is based on information available up to September 30, 2021.
4. By making any designation of or reference to a particular territory or geographical area, or by using the term “member” or “country” in this Report, AMRO does not intend to make any judgments as to the legal or other status of any territory or area.
5. No part of this material may be disclosed unless so approved under the AMRO Agreement.
6. On behalf of AMRO, the Mission team wishes to thank the Hong Kong, China authorities for their comments on this Report, as well as their excellent meeting arrangements and hospitality during our visit.

**Disclaimer:** The findings, interpretations and conclusion expressed in this Report represent the views of the staff of ASEAN+3 Macroeconomic Research Office (AMRO) and are not necessarily those of its members. Neither AMRO nor its members shall be held responsible for any consequence from the use of the information contained herein.

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## Executive Summary

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**1. The economy of Hong Kong, China<sup>1</sup> is projected to rebound strongly in 2021 after a deep contraction in 2020.** Growth in Q1 and Q2 2021 came in at 8.0 and 7.6 percent, respectively, following a 6.1 percent contraction last year. The strong rebound in H1 2021 was due to effective pandemic containment measures, comprehensive stimulus measures, strong external demand and low base effects. Further progress in COVID-19 vaccinations toward the target level would facilitate a gradual phase-out of social distancing measures and allow for targeted border reopening, supporting the economic recovery. Growth in 2021 is expected to reach 6.5 percent, before moderating to 3.6 percent in 2022.

**2. However, the recovery has been uneven across sectors.** Although activities in retail, transport and accommodation improved moderately, they remained below pre-recession levels in 2018. A sustained and broad-based economic recovery will require the lifting of social distancing measures and border restrictions with mainland China and the rest of the world.

**3. The labor market has been improving steadily after a sharp increase in unemployment in 2020.** The seasonally adjusted unemployment rate declined rapidly to 4.7 percent in the June-August 2021 period from the peak of 7.2 percent in December 2020-February 2021. The unemployment rates of most sectors declined. Many of them, such as those of the construction sector, the retail, accommodation and food services sector, and the transportation sector, fell visibly. Overall, recovery of the labor market is expected to continue in the short term. Scarring effects will remain to a certain extent over the medium term, given that inbound tourist arrivals would likely be below pre-COVID levels.

**4. On the strong economic recovery and improving labor market, headline inflation rose moderately.** Headline inflation increased to 1.4 percent in the first eight months of this year from 0.3 percent in 2020, with energy prices being the biggest contributor. Looking ahead, price pressures will likely increase further as housing rentals and food prices are expected to rebound. Headline inflation is projected to be 1.7 percent in 2021 and 2.0 percent in 2022.

**5. Overall external position continues to be strong and the Linked Exchange Rate System has functioned solidly.** In 2020, the balance of payments was in overall surplus, supported by a persistent current account surplus and capital inflows in some quarters. Foreign exchange reserves have increased from USD446 billion in February 2020 when the pandemic struck to USD497 billion in August 2021, continuing to provide strong buffers against future shocks.

**6. Overall financial and credit conditions continue to be accommodative.** Yields of government bonds have declined and equity prices have increased since the pandemic broke out, albeit with some retreat in recent months. Credit growth moderated but remained positive. This has been supported by the Hong Kong Monetary Authority's policy measures to provide adequate liquidity and lower financing costs, the government's loan guarantee programs to backstop targeted credit risks, and a resilient banking system with strong capital buffers.

**7. While the growth outlook has improved, downside risks are still significant on the horizon.**

- Renewed waves of infections and a consequential weakening of domestic and global demand could hinder economic recovery. While relaxing border control measures

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<sup>1</sup> Hong Kong, China will be referred to as Hong Kong hereafter.

prematurely might exacerbate such risk on one hand, prolonged strict border control measures might affect business sentiments on the other hand.

- Business and investor sentiments could worsen from an escalation of U.S.-China tensions and protracted uncertainties over the regulatory environment.
- An earlier- or sharper-than-expected U.S. monetary policy tightening could lead to a sharp tightening of domestic financial conditions, which could affect financial market activities, investment, property markets and consumption.
- There is also uncertainty over the extent to which the global implementation of Base Erosion and Profit Sharing 2.0 could affect multinational companies' investments in Hong Kong and fiscal revenue into the medium term.
- In the longer term, an aging population and climate change could pose major risks to growth and financial stability.

**8. The near-term risks call for continual, but more targeted, policy support to ensure that the economy and labor market would be on a steady recovery path.**

- A gradual phase-out of fiscal support is appropriate. Given the lingering uncertainties over the pandemic developments, fiscal policy should continue to provide sufficient targeted support to hard-hit sectors and households in the near term. If the economy is hit by a resurgence of COVID-19 infections or other significant adverse shocks, the government can still deploy more stimulus measures to mitigate the effects.
- It is important to continue to ensure that liquidity in the banking system is sufficient and conducive to further credit expansion, especially to support hard-hit small and mid-sized enterprises. At the same time, the authorities should be mindful of further deterioration in banks' loan quality and continue to closely monitor banks' capital and liquidity buffers, especially once the policy support is further phased out.
- The authorities should maintain the current tight control of the residential property market while remaining accommodative for commercial property market given their divergent developments during the pandemic.

**9. Fiscal prudence continues to be important and the government may consider increasing fiscal reserves when it is opportune to do so, to rebuild the fiscal space for future shocks.** After a sizable drawdown during the pandemic, rebuilding fiscal reserves would be prudent, considering the role of fiscal policy as the critical countercyclical macro policy lever. To achieve a balanced budget and strengthen buffers in the longer term in the face of rising expenditure, the government should consider boosting revenue. The government is encouraged to review the tax system and be open to considering more revenue raising options in the post-pandemic period. In addition, the government can also consider issuing more long-term bonds to enhance its financing flexibility. Using debt financing for big infrastructure projects would help finance fiscal deficits and foster market development.

**10. In the long term, it is essential to enhance Hong Kong's competitiveness, explore opportunities in new growth areas and ensure sustainable and inclusive economic development.** Hong Kong could capitalize on further developments in the Greater Bay Area to better connect with mainland China and continue strengthening policies to enhance its position as a global hub for financial technology, green and sustainable finance, and digital professional services. While doing so, it is also crucial to ensure sustainable and inclusive economic development by strengthening policy measures to increase housing supply and address aging population and climate change risks.

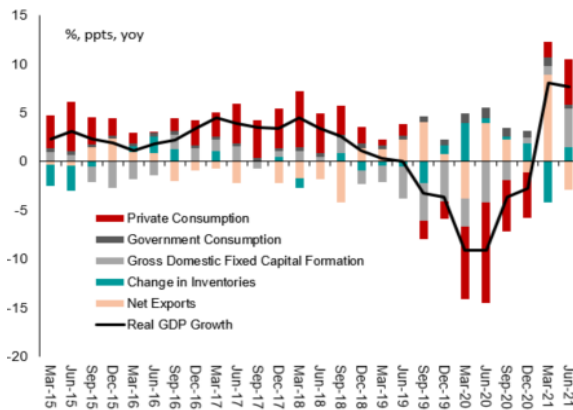
## A. Recent Developments and Outlook

### A.1. Real Sector Developments and Outlook

**1. Hong Kong's economy contracted sharply in 2020 due to the COVID-19 pandemic.** Growth in 2020 was -6.1 percent, mainly due to the impact of social distancing measures domestically and the closure of international borders. Notwithstanding an 8.1 percent increase in public consumption, domestic demand weakened sharply as private consumption declined by 9.9 percent while investment plunged by 11.2 percent. Exports and imports dropped by 5.9 percent and 6.2 percent, respectively.

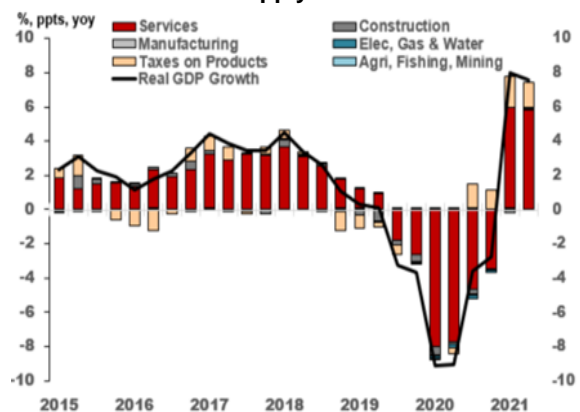
**2. The economy rebounded strongly in H1 2021, but the recovery has been uneven across sectors.** Growth in Q1 and Q2 2021 came in at 8.0 and 7.6 percent, respectively, thanks to effective pandemic containment measures, strong external demand and low base effects (Figures 1, 2). Exports bounced back strongly, and both private consumption and investment also improved. Activities in retail, transport and accommodation improved moderately, but remained far below pre-recession levels in 2018. Looking ahead, strong external demand would continue to support exports. The recovery of private consumption is expected to continue as well, supported by the government's Consumption Voucher Scheme. However, a sustained and broad-based economic recovery would require a further lifting of social distancing measures and border restrictions with Mainland China and the rest of the world.

**Figure 1. Contribution to Real GDP Growth – Demand Side**



Source: C&SD, Haver Analytics

**Figure 2. Contribution to Real GDP Growth – Supply Side**

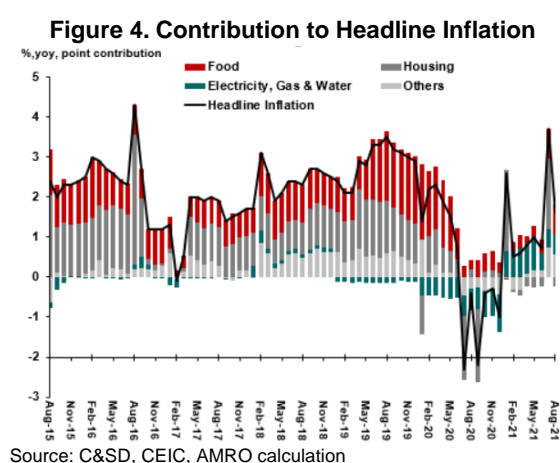
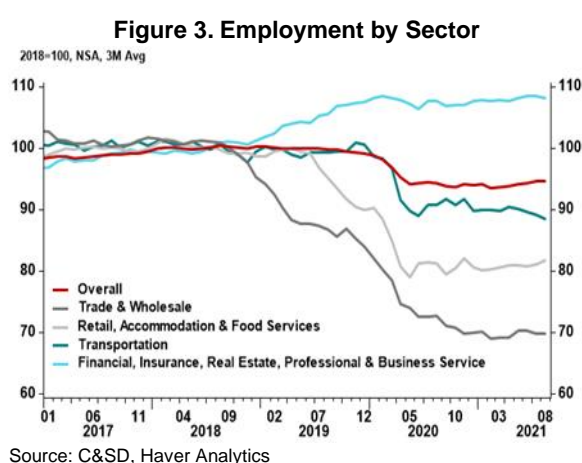


Source: Haver Analytics, AMRO calculations

**3. Labor market conditions improved continually after a marked deterioration in 2020.** The seasonally adjusted unemployment rate rose from 3.4 percent in the November 2019-January 2020 period to a recent peak of 7.2 percent in December 2020-February 2021. The unemployment rate then declined rapidly to 4.7 percent in June-August 2021. The unemployment rates of most sectors declined. Many of them, such as those of the construction sector, the retail, accommodation and food services sector, and the transportation sector, fell visibly (Figure 3). Overall, the labor market is expected to continue to recover, but at a speed dependent on the progress of the vaccinations and the pace of

economic recovery. Scarring effects could prevail to a certain extent in the medium term if inbound tourism remains significantly below pre-COVID levels<sup>2</sup>.

**4. After a sharp decline in 2020, headline inflation rose moderately amid the economic recovery.** Headline inflation was low at 0.3 percent in 2020 as aggregate demand plummeted. It increased to 1.4 percent in the first eight months of this year. In the year-to-date (YtD), energy prices contributed the most to the increase in headline consumer price index (CPI) (Figure 4). Looking ahead, housing rentals and food prices are expected to rebound and feed into the headline inflation, given their significant weights of about 40 percent and 27 percent in the CPI basket. Overall, price pressures will likely remain due to the strong economic recovery and low base effects. For 2021, we expect headline inflation to be 1.7 percent.

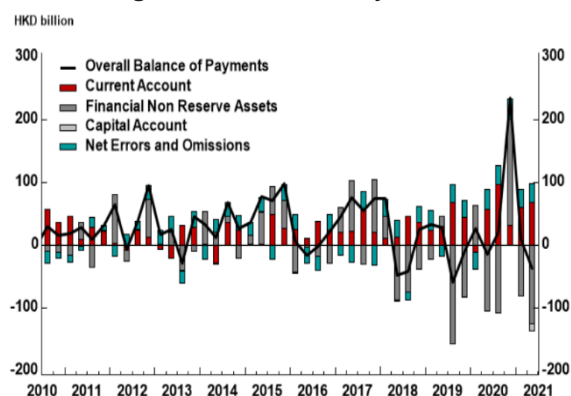


## A.2. External Sector and Balance of Payments

**5. Hong Kong’s external position has been strong.** The balance of payments was in overall surplus during the pandemic in 2020, supported by a persistent current account surplus and capital inflows in some quarters (Figure 5). The current account continues to record a surplus amid the pandemic because of a surplus in services and primary income, and strong merchandise exports (Figure 6). Meanwhile, the financial account, which often records deficit, has turned broadly balanced, with net capital inflows in several quarters during the pandemic (Figure 7). Foreign direct investments (FDIs) waned as the crisis hit, but have recovered since H2 2020. Initial public offerings and mainland investors’ elevated appetite for Hong Kong-listed stocks led to a surge in capital inflows in Q4 2020. As a result, foreign exchange reserves increased to USD497 billion as of end-August 2021, which can cover about 46 months of retained imports (Figure 8).

<sup>2</sup> “The Impact of Inbound Tourism Boom and Bust on Hong Kong’s Labor Market”, Research Memorandum, February 2021, Hong Kong Monetary Authority (HKMA).

Figure 5. Balance of Payments



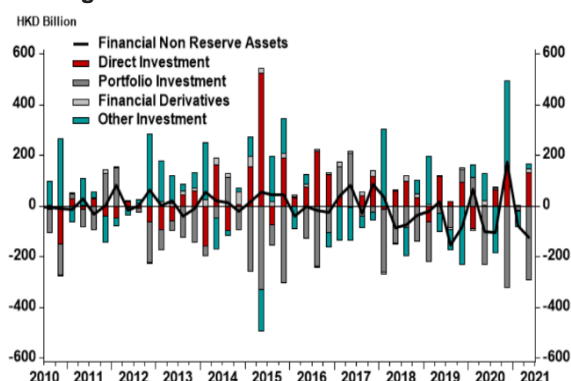
Source: C&SD, Haver Analytics

Figure 6. Total Merchandise Exports



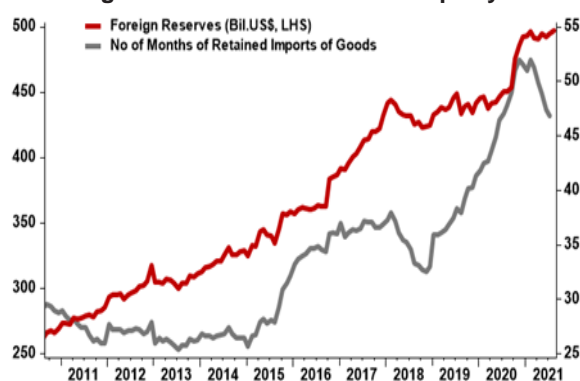
Source: C&SD, Haver Analytics

Figure 7. Financial Non-Reserve Assets



Source: C&SD, Haver Analytics

Figure 8. FX Reserves and Adequacy



Source: C&SD, Haver Analytics

### A.3. Monetary Conditions and Financial Sector

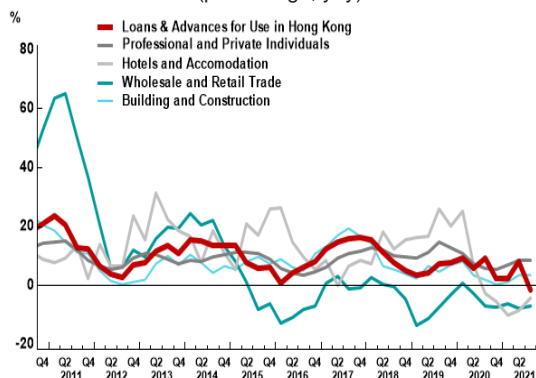
**6. Credit growth moderated but remained positive.** Total credit grew by 1.2 percent in 2020, and continued to increase by 4.3 percent in the first seven months of this year (Figure 9). The positive credit growth has been supported by the HKMA's policy measures to provide adequate liquidity. In line with a sharp decline of the U.S. federal funds rates, HKD Hong Kong interbank offered rates (Hibor) have trended down and thus keep financing costs low. Another support factor was the government's small and medium enterprises (SMEs) Financing Guarantee Scheme to mitigate credit risks arising from bank loans to SMEs. Loan growth is expected to pick up as the economic recovery continues, with a host of policy support measures having been extended to the end of June 2022.

**7. Hong Kong banks remain resilient, bolstered by strong buffers and policy support during the pandemic.** The HKMA released liquidity to support bank lending by relaxing the countercyclical capital buffer (CCyB), cutting regulatory reserves, and providing U.S. dollar liquidity through its Foreign and International Monetary Authorities (FIMA) account with the Fed. Banks maintained strong capital and liquidity ratios, above the regulatory minimums. Tier 1 capital to risk-weighted assets stood at 17.8 percent in Q2 2021 (Figure 11). The liquidity coverage ratio and net stable funding ratio were stable throughout the crisis period, standing at 148 percent and 136 percent in Q1 2021, respectively. The non-performing loan (NPL) ratio increased slightly from 0.62 in Q1 2020 to 0.90 in Q4 2020, and then declined slightly to 0.86



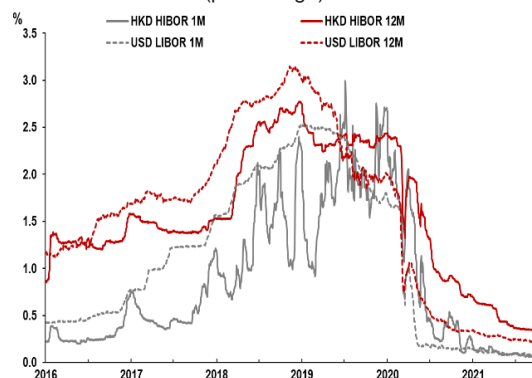
in Q2 2021. However, the low interest rate environment has weighed on banks' profitability as net interest margins declined sharply during the crisis.

**Figure 9. Bank Credit Growth by Sector**  
(percentage, yoy)



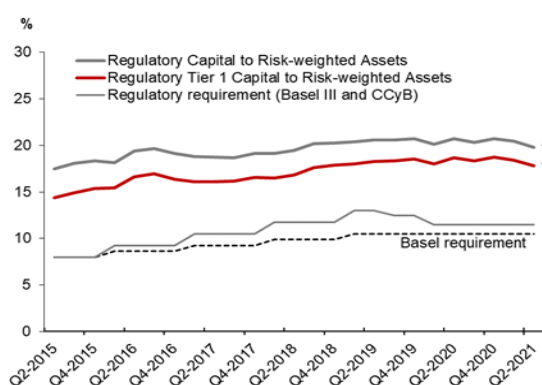
Source: CEIC, AMRO Calculation

**Figure 10. HKD Hibors vs USD Libors**  
(percentage)



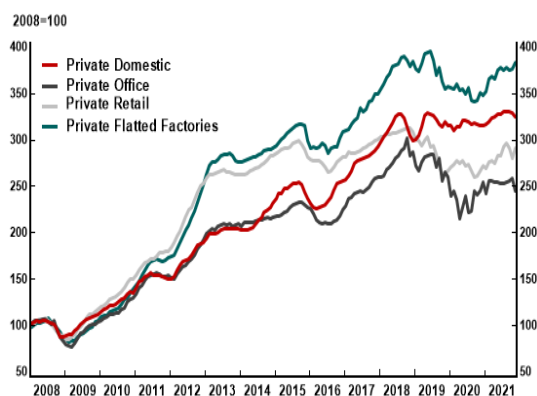
Source: Haver Analytics

**Figure 11. Capital Adequacy Ratios**



Source: IMF, Haver Analytics

**Figure 12. Private Property Market Prices**



Source: Hong Kong Rating & Valuation Department, Haver Analytics

**8. The residential property market remained resilient through the two-year recession in 2019 and 2020, while the commercial property market has bottomed out from a sharp contraction in 2020 (Figure 12).** Private residential property prices have held up well on the back of strong real demand and low interest rates. Transactions and flat prices picked up in H1 2021. Going forward, residential prices will likely remain elevated as the economy recovers further. Prices for office and retail space declined sharply due to work-from-home arrangements, social distancing and strict cross-border restrictions. Since the later part of 2020, transactions have recovered steadily and prices have bottomed out. Further recovery would likely be gradual, given the likelihood of some continuing arrangements on remote working, coupled with uncertainties over the reopening of the border.

#### A.4. Fiscal Sector

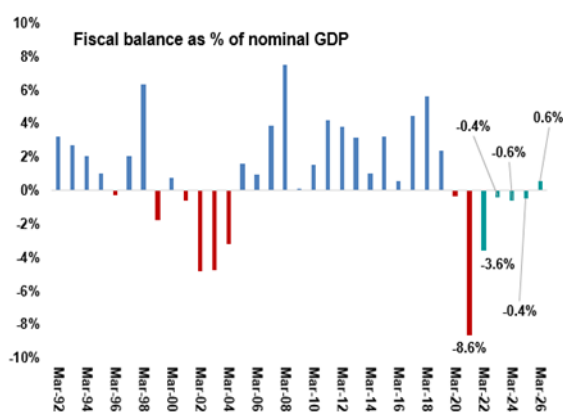
**9. The FY2021/22 fiscal budget aims to address lingering effects of the COVID-19 pandemic and buttress long-term growth potential<sup>3</sup>.** In FY2020/21, the government ran an unprecedented consolidated budget deficit of 8.6 percent of GDP. Revenue decreased by 4.5 percent to HKD564 billion as growth plummeted. Total expenditure increased by 34.3 percent to HKD816 billion, reflecting measures to support livelihoods, businesses and

<sup>3</sup> Key fiscal measures in FY2021-22 are listed in *Box A. Sustaining Fiscal Prudence in the Post-Pandemic Period*.

employment during the pandemic crisis. In FY2021/22, the government announced an additional HKD120 billion counter-cyclical measures for COVID-19 crisis support, including a HKD5,000 Consumption Voucher Scheme<sup>4</sup>. The government projected the budget deficit to be 3.6 percent of GDP, with revenue increasing by 4.8 percent on the back of a firm economic recovery and expenditure declining by 10.8 percent. Therefore, the fiscal impulse is estimated to be negative this fiscal year.

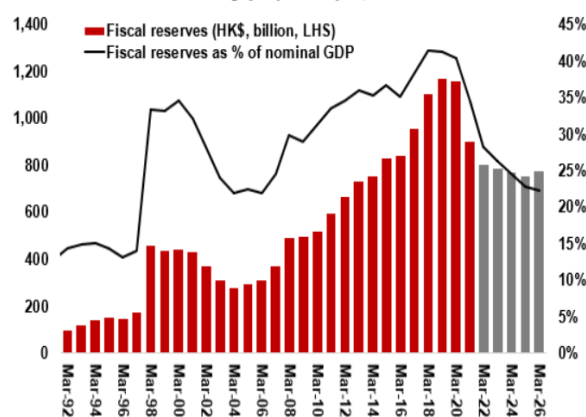
**10. Moving forward, the budget balance is expected to improve gradually and return to a surplus in FY2025/26, based on the government's projections (Figure 13).** Accordingly, fiscal reserves will fall from 35 percent of GDP at the end of FY2020/21 to 22 percent at the end of FY2025/26, which would still be sufficient to cover a full year of government spending (Figure 14).

**Figure 13. Projected Fiscal Balances by the Government**



Source: Financial Services and the Treasury Bureau, CEIC  
Note: Bars in teal denote the government's projections.

**Figure 14. Projected Fiscal Reserves by the Government**



Source: Financial Services and the Treasury Bureau, CEIC  
Note: Bars in dark grey denote the government's projections.

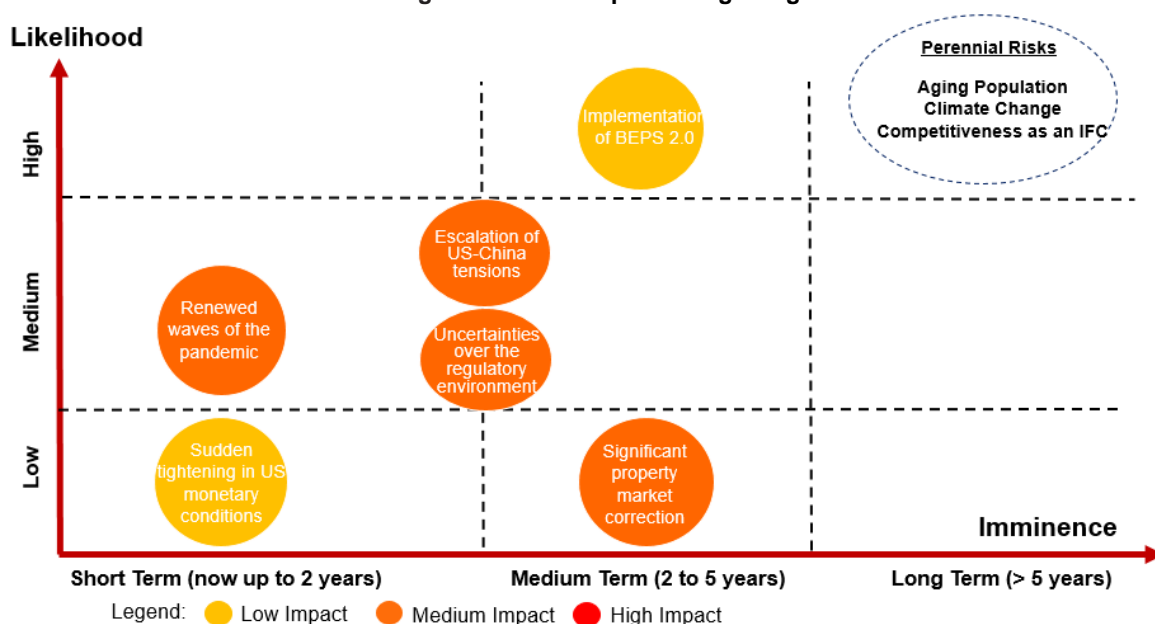
### A.5.Outlook

**11. Hong Kong's growth is estimated to rebound strongly to 6.5 percent in 2021, thanks to effective pandemic containment measures and recovering domestic and external demand.** High-frequency indicators suggest that community mobility has broadly returned to levels recorded before the pandemic. Indicators including the Purchasing Managers' Index and retail sales point to continued economic expansion in the near term. Alongside these improvements, further progress in COVID-19 vaccinations toward the target level of protection would facilitate a gradual phase-out of social distancing measures and allow for a targeted border reopening. After the strong recovery this year, we expect growth in 2022 to reach 3.6 percent, supported by the further recovery of businesses, improvement of the labor market, partial resumption of tourism, and pent-up household demand.

<sup>4</sup> According to the budget announced in February this year, the Consumption Voucher Scheme will cost HKD36 billion and is expected to boost 2021 GDP growth by 0.7 percent.

## B. Risks, Vulnerabilities, and Challenges

Figure 15. Risk map for Hong Kong



Source: AMRO staff

### B.1. Near-term Risks to the Macro Outlook

**12. While the growth outlook has improved, downside risks in the short term are still significant.** Renewed waves of pandemic infections in Hong Kong and other major trading partner countries, combined with a consequential weakening of domestic and external demand, could adversely affect Hong Kong's short-term economic outlook. Particularly, the spread of new and more infectious variants globally could disrupt economic activity, derail global and domestic economic recovery, and lead to a retightening of social distancing measures and a delay in resuming cross-border travel. Furthermore, while relaxing border control measures prematurely might exacerbate such risk on one hand, prolonged strict border control measures might affect business sentiments on the other hand. The number of regional headquarters in Hong Kong declined by 47 between June 1, 2020 and June 1, 2021, led by U.S., Japanese and German companies, although it was partially offset by the increase of regional offices by mainland entities<sup>5</sup>.

**13. Business and investor sentiments could worsen from an escalation of U.S.-China tensions and protracted uncertainties over the regulatory environment.** The overall economic impact of the U.S. and China's lingering trade tensions and intensified technology tensions on trade, investment, and financial services in Hong Kong in 2020 and 2021 so far has been quite limited. Nevertheless, major foreign chambers of commerce have been voicing their members' concerns over the heightened risks arising from the U.S.-China tensions. Additionally, there have also been concerns by business communities over future implementations of the National Security Law as well as sanctions and anti-sanctions laws by the U.S. and Chinese authorities. Meanwhile, the recent regulatory tightening by mainland authorities in some segments of the technology, education, and property sectors also led to marked declines and volatilities in the Hong Kong's stock market. Looking ahead, rising

<sup>5</sup> Based on data from Hong Kong's Census and Statistics Department (C&SD).

tensions related to policy actions and responses from both the U.S. and China, and prolonged uncertainties over the regulatory developments could affect foreign businesses' operations as well as investments.

**14. An earlier or sharper-than-expected tightening in U.S. monetary conditions could lead to a sharp reversal of domestic financial conditions.** Risk sentiment could worsen due to perceptions of a shift in the Fed's policy stance. Abruptly higher funding costs for borrowers would affect the financial market, the property market and investment. That said, the impact is expected to be mitigated by two important factors. First, the Fed has given forward guidance in recent months to manage market expectations. Second, strong macroeconomic fundamentals, ample financial buffers, the robust exchange rate system, and the sound financial sector, should enable Hong Kong to cope with episodes of large capital outflows.

**15. In the medium term, a sharp correction of the property market could dent household wealth and weigh on private consumption.** Given that residential prices rose significantly prior to 2019, and held up well during the last two-year recession, and will likely increase further, the risk of a significant price correction is not negligible. The main impact of a large property price correction on the macroeconomy would be through the wealth effect on private consumption, considering that housing assets account for the majority of household wealth. The impact on the banking system would be manageable as Hong Kong's banks are well buffered.

**16. The implementation of global tax reforms could affect tax revenue and the investment decisions of some multinational companies (MNCs).** The impact of the Base Erosion and Profit Sharing (BEPS) 2.0 rules on Hong Kong will largely depend on the actual implementation of the envisaged reform, and on the responses of the affected MNCs and tax authorities. However, the strengths of Hong Kong that stem from its close economic links with mainland China, robust legal system, top-rated financial infrastructure and skilled workforce, would continue to support the economy's attractiveness to MNCs and mitigate the impact.

## B.2. Longer-term Challenges and Vulnerabilities

**17. The aging population poses a downside risk to potential growth.** Excluding foreign domestic helpers, the elderly proportion of the population is projected to increase from 19.2 percent in 2020 to 36.3 percent in 2049, while the total fertility rate is expected to continue to trend downward from 1,051 live births per 1,000 women in 2019 to 990 in 2049<sup>6</sup>. As a result, the total dependency ratio is projected to increase, reaching 0.67 in 2035 from 0.46 in 2020<sup>7</sup>. Moreover, following a gradual decline in labor force participation over the past three decades, labor shortage could become more acute moving forward, exerting a drag on economic growth. The aging population will also require significantly higher fiscal expenditures in health care and other social services.

**18. Climate change could become a major risk to long-term growth and financial stability.** Climate change could weigh on growth via the disruption of production and the impairment of fixed capital. The economic costs of climate change could reach up to 6.4

<sup>6</sup> "Hong Kong Population Projections 2020-2069", September 2020, Hong Kong's C&SD.

<sup>7</sup> Data is from World Population Prospects 2019. The total dependency ratio is the ratio of the sum of the population aged 0-14 and that aged 65+ to the population aged 15-64.

percent of GDP through 2048<sup>8</sup>. It could also pose considerable challenges to certain segments of Hong Kong's financial sector. Insurance companies could be hit hard by rising claims and banks may be exposed to higher credit risks from losses and damages caused by more frequent and severe natural disasters. Moreover, during the transition to a low-carbon economy, banks with substantial exposure to energy-intensive industries could face challenges in coping with the lower profitability and NPLs of companies in those industries.

### **Authorities' Views**

**19. The authorities broadly agree that Hong Kong is well placed to address these challenges, given its improved macroeconomic fundamentals and strong buffers in both FX reserves and the banking system.** Policymakers will manage risks related to U.S.-China trade and technology tensions carefully. Despite geopolitical tensions, international investors have continued to increase their participation in Hong Kong, as demonstrated with the rapidly growing turnover in the Connect schemes. Opportunities may also arise when Chinese firms listed in the US return to the Hong Kong market, further expanding the diversity and depth of the Hong Kong market. The authorities will continue to promote Hong Kong's role as an International Finance Centre to benefit international financial institutions and investors for their intermediation and investment activities. Also, they consider that an earlier-than-expected U.S. monetary policy tightening will not have a significant impact on the domestic financial markets as the Fed has been careful about policy communication, drawing from the experiences of the taper tantrum event in 2013.

**20. The financial system remained extremely stable and resilient, with continuous money inflow, increased IPO activities and strong growth of the asset and wealth management industry.** A stress test conducted recently demonstrated that, on the back of strong capital buffers, the banking system would be able to withstand the impact of a significant property price correction equivalent to that seen during the Asian financial crisis (AFC) in 1997-1998. As about 66 percent of homeowners have repaid their mortgages in full, the impact on macroeconomic conditions would be contained.

## **C. Policy Discussions and Recommendations**

### **C.1. Safeguarding Economic Recovery through Fiscal Support**

**21. Fiscal policy support during the pandemic has been prompt, sizable and effective.** Strong fiscal reserves accumulated in the past years have enabled the government to roll out substantial policy measures to support the economy. Total fiscal support during the pandemic reached about 16.5 percent of GDP (Figure 16). In FY2020/21, the government enacted a stimulus budget amounting to HKD169 billion to cover a wide range of measures, including rental concessions, cash handouts, subsidies, and loan guarantees for SMEs and individuals, plus a total injection of HKD168.9 billion into the Anti-epidemic Fund. These fiscal measures<sup>9</sup> have helped to support household income and consumption, and keep businesses afloat, especially SMEs. Notably, the 100 percent loan guarantees for SMEs and individuals introduced during 2021 to 2022 have helped alleviate financial distress of many affected

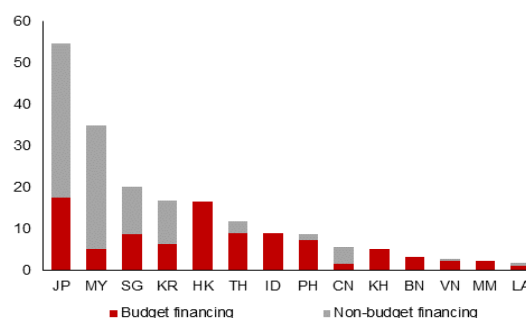
<sup>8</sup> "The Economic Implications of Climate Change", Moody's, January 2019.

<sup>9</sup> As of September 21, 2021, the loan guarantee schemes had granted a total of HKD170 billion in loans to 67,000 applicants, which included 41,600 companies that employed 610,000 people.

businesses and households, and averted large-scale bankruptcies. They have thus contained the economic scarring effects.

**22. While tapering fiscal support in FY2021/22 is appropriate given the strong economic recovery, the government is encouraged to provide more targeted support if the need arises.** This year's fiscal stimulus package has been reduced to HKD120 billion, and is more targeted at businesses and employment in the hard-hit sectors. However, the slow resumption of international travel and renewed waves of the pandemic globally would still weigh on tourism-related sectors. Thus, given the uncertainties over the pandemic developments, the government should continue to provide targeted and effective support in the near term. If the economy is hit by a resurgence of COVID-19 infections or other significant adverse shocks, the government has fiscal space to deploy further stimulus packages to mitigate the impact.

**Figure 16. ASEAN+3: Economic stimulus packages**  
(Percent of GDP)



Source: National authorities; AMRO staff estimates  
Note: Estimates are based on the governments' announced stimulus packages across regional economies from February 1, 2020, to March 31, 2021, and do not include monetary policy or other indirect support measures, such as regulatory forbearance.

**23. Fiscal reserves were higher than during the 2003 SARS and GFC, but they could further decline in the event of significant shocks in the medium term.** Despite the sizable drawdown in 2019 and 2020, fiscal reserves stood at HKD928 billion at the end of March 2021, equivalent to about 35 percent of GDP, which is higher than the levels recorded during the 2003 outbreak of severe acute respiratory syndrome (SARS) and the 2008-2009 global financial crisis (GFC), and are sufficient to cover 14 months of government expenditure. However, in our analysis (*Box A. Sustaining Fiscal Prudence in the Post-Pandemic Period*), fiscal reserves could decline substantially in the medium term due to the growth shock and the larger-than-expected expenditure.

**Box A. Sustaining Fiscal Prudence in the Post-Pandemic Period<sup>10</sup>**

**Fiscal support measures to support people, businesses and employment have been unprecedented** (Figure A1). The government recorded the largest ever fiscal deficit, of HKD232.5 billion, in FY2020-21, after four rounds of injections into its anti-epidemic funds (AEFs). Total fiscal support during the pandemic was among the largest in the ASEAN+3 region.

**Fiscal expansion during the pandemic was unprecedented.** The surge in expenditure was mainly due to the one-off relief measures, which were much larger than those rolled out during the AFC and GFC (Figure A2). Along with the increased expenditure, revenue declined for three consecutive fiscal years (Figure A3), affected by the heightened U.S.-China tensions, social unrest and the pandemic crisis. Similar to the AFC and GFC periods, land premiums also dropped during the pandemic, whereas stamp duty held up well, mainly due to active stock trading.

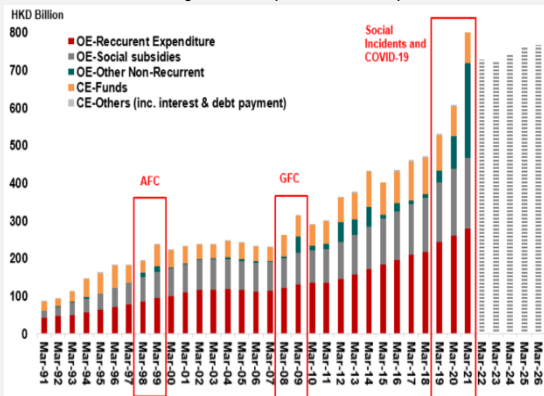
<sup>10</sup> Prepared by Kimi Xu Jiang, Economist

**Figure A1. Overview of Key Fiscal Support Measures**



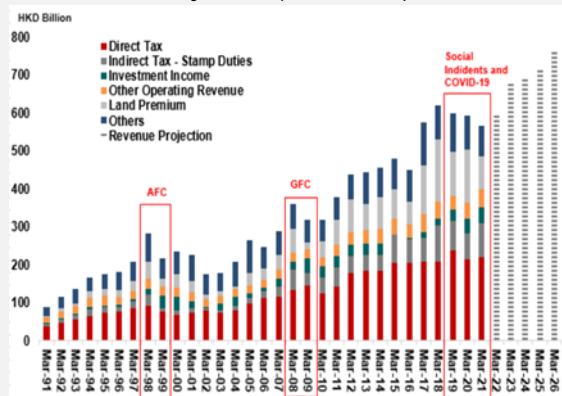
Source: Hong Kong authorities; AMRO staff

**Figure A2. Fiscal Expenditure and Government Projection (HKD billion)**



Source: Financial Services and the Treasury Bureau, CEIC  
 Note: Light grey bars during March 22-26 show the government's projections.

**Figure A3. Fiscal Revenue and Government Projection (HKD billion)**



Source: Financial Services and the Treasury Bureau, CEIC  
 Note: Light grey bars during March 22-26 show the government's projections.

**One important question is whether the projected fiscal deficits and further declines in fiscal reserves imply weaker public finances in the medium term.** While the government has exerted efforts and will continue to boost funding and revenue from non-tax sources<sup>11</sup>, funding reallocation<sup>12</sup> and the issuance of green bonds, spending on social welfare, mainly due to the aging population, has been accelerating and the trend will likely continue. The share of social welfare in total government spending is expected to increase to 16.6 percent in FY2021-22 from only 10.6 percent in FY1997-98, overtaking education as the largest area of government expenditure<sup>13</sup>.

**Against this backdrop, we assess the resilience of Hong Kong's fiscal position over the medium term.** We use the government's medium-range forecasts for nominal GDP, revenue and expenditure announced in the budget in February 2021 as a reference for comparison with our projections under the baseline scenario. Under the adverse scenario, we assume a resurgence of COVID-19 infections, the most prominent risk on the horizon, which would bring about a substantial loss of income in 2022 and 2023, followed by some scarring effects in the subsequent two years. Specifically, nominal GDP growth would decline to -1.4 and 1.6 percent in 2022 and 2023,

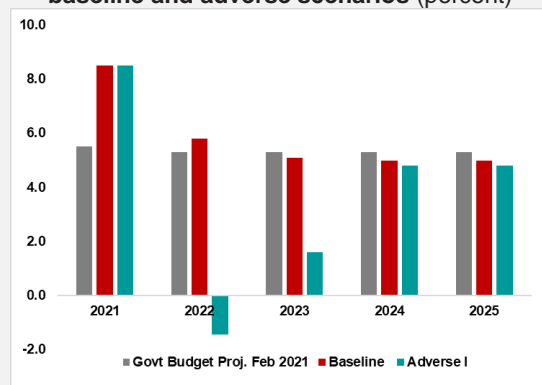
<sup>11</sup> In this year's budget, the government announced to increase the stamp duty for stock trading to 0.13 percent from 0.10 percent and taxes for first registration and license fees for private cars.

<sup>12</sup> The government plans to bring back the investment return of the Future Fund into the operating account and add the transfer from the Housing Reserves.

<sup>13</sup> "The 2021-2022 Budget", Research Brief, Issue No.3, Research Office, Legislative Council Secretariat.

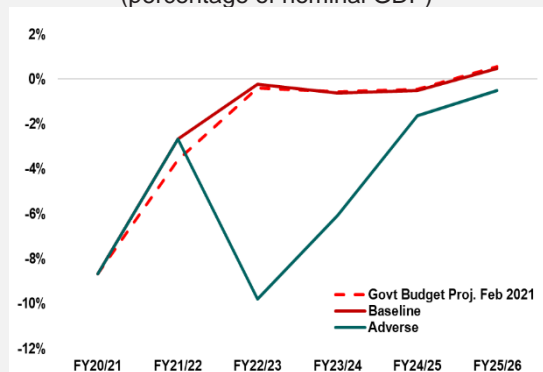
respectively<sup>14</sup>. The growth rate in 2024-25 would be 4.8 percent, 0.2 percentage points lower than our baseline projection (Figure A4). This negative growth shock would reduce revenue, particularly from non-tax sources, and prompt the government to provide sizable countercyclical one-off fiscal support<sup>15</sup>. Furthermore, we assume that there is an additional 2 percent increase relative to our baseline government expenditure in each of the next four years as a result of a more-than-expected rise in social security and healthcare spending.

**Figure A4. Projected Nominal Growth Under the baseline and adverse scenarios (percent)**



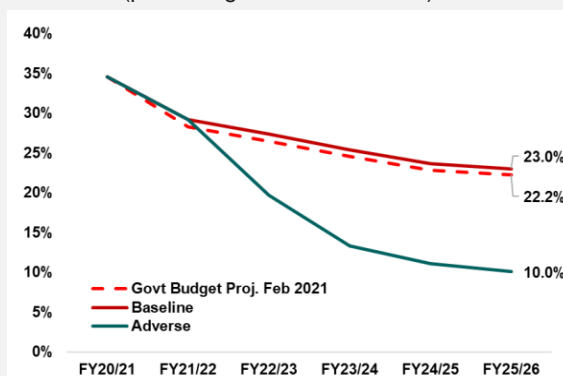
Source: Financial Services and the Treasury Bureau, CEIC, AMRO Calculations

**Figure A5. AMRO Fiscal Stance Projection (percentage of nominal GDP)**



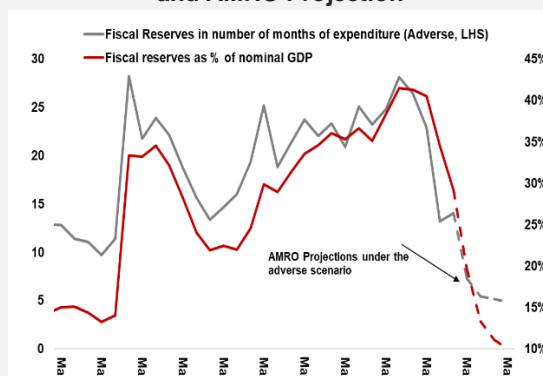
Source: Financial Services and the Treasury Bureau, CEIC, AMRO Calculations

**Figure A6. AMRO Fiscal Reserves Projection (percentage of nominal GDP)**



Source: Financial Services and the Treasury Bureau, CEIC, AMRO Calculations

**Figure A7. Fiscal Reserves - Past Dynamics and AMRO Projection**



Source: Financial Services and the Treasury Bureau, CEIC, AMRO Calculations

**Fiscal reserves will decrease sharply in the medium term under the adverse scenario.** Due to the growth shock and the larger-than-expected expenditure, fiscal deficits would widen and fiscal reserves would decline. As a reference, fiscal deficits are projected to widen to 9.8 percent and 6.1 percent of GDP in FY2022-23 and FY2023-24, compared with 0.1 and 0.6 percent, respectively, in the baseline scenario (Figure A5). Accordingly, fiscal reserves would drop to 10.0 percent of GDP, or HKD335 billion in FY2025-26, compared with 23 percent, or HKD825 billion, under the baseline case (Figure A6). The reserves at the 10.0 percent level under the adverse scenario would only be

<sup>14</sup> The income loss in 2022 and 2023 relative to the baseline scenario are at the 5 and 7.5 percentile over a 40-year horizon.

<sup>15</sup> We look at the relationship among nominal GDP, fiscal revenue, and expenditure using data over the past thirty years to understand the potential impact of growth shock on fiscal revenues and expenditure. On the revenue, a simple OLS regression shows that for every 1 percent decrease of nominal GDP, fiscal revenues are expected to decline by 1.36 percent. On the expenditure, we apply the conventional elasticity of zero in the baseline scenario. Under the adverse scenario, we observe from past recession periods that for every 1 percent decrease of nominal GDP, the fiscal expenditure increases by 4 percent. In calculating the fiscal balance, we take into account the planned green bond issuance and assume an equal distribution of about HKD35 billion over the next five calendar years.



able to cover about 5.0 months of annual government expenditure in FY2025-26, the lowest coverage over the past three decades and lower than the level prior to the AFC (Figure A7). Such a low level of reserves could raise concerns in the markets over Hong Kong's fiscal space to counter further adverse shocks.

**The assessment highlights the importance of maintaining fiscal prudence and the benefits of increasing fiscal reserves (see section C.2: Strengthening Fiscal Buffers When the Time is Opportune).** In addition, the economic outlook for Hong Kong is still subject to significant uncertainties that could arise from both the external and domestic environments. Also, the need to substantially increase housing supply and strengthen infrastructure also implies a notable rise in government spending ahead. Hence, maintaining fiscal prudence is essential. Exploring ways to strengthen revenues and increase fiscal reserves when opportunities arise would be prudent.

## C.2. Strengthening Fiscal Buffers When the Time is Opportune

**24. Looking ahead, the government is encouraged to increase fiscal reserves when it is opportune to do so.** Successive annual budget surpluses for more than a decade have built up strong fiscal reserves that amounted to about 40 percent of GDP in FY2019/20. These reserves provide strong “insurance” against economic and financial shocks. After the sizable drawdown, rebuilding fiscal reserves in the future will be prudent. With limited monetary autonomy, fiscal policy is the critical countercyclical macro policy lever to bolster the economy. Healthy fiscal reserves would provide more flexibility in managing increased spending on health care and welfare related to population aging – especially as fiscal revenue might also experience some volatility from time to time. In addition, strong fiscal buffers would strengthen market confidence in the LERS and the financial system.

**25. To achieve a balanced budget and strengthen buffers in the longer term, the government should consider boosting revenue to fund rising expenditure.** Social and healthcare spending on an aging population<sup>16</sup> and public housing has increased and is expected to rise further over the longer term. Growth-enhancing initiatives, including integration within the GBA, financial connections with mainland China and fintech development, would also need fiscal support. Hence, it would be prudent to strengthen government revenue by broadening the tax base and considering new tax measures. As such, the government is encouraged to review the tax system and be open to considering more revenue options in the post-pandemic era. These could mean more progressive income taxes, a wealth tax and a modest value-added tax. When doing so, it is important to be mindful of the potential impacts on households and businesses.

**26. In the future, the government can consider issuing more long-term bonds to enhance its financing flexibility.** Using debt financing for big infrastructure projects could be feasible and useful. It would help finance fiscal deficits and allow the government to preserve or even increase fiscal reserves in the short and medium term. In addition, increasing government bond supply would boost market liquidity and help to provide a better benchmark yield curve for market participants to price other financial assets. In this regard, the authorities' plan to issue HKD176 billion of green bonds over the next five years is a welcome policy move.

<sup>16</sup> The report “Government expenditure on the elderly” published by Research Office, Legislative Council Secretariat in December 2019 shows that government expenditure on the elderly, including elderly care, medical and health care services, and financial assistance, has been rising at the average rate of 11.4 percent since FY2012-13. The share of spending on the elderly in the total recurrent government expenditure has increased to about 20.8 percent in FY2019-20 from 16.5 percent in FY2012-13.

### C.3.Exploring Opportunities and Addressing Challenges to Growth Potential<sup>17</sup>

**27. Mainland China and the region's favorable development prospects provide significant opportunities for Hong Kong in the years ahead.** Further economic and financial integration with mainland China, a strong edge in trade-related and professional services, as well as further development as a financial hub, will continue to buttress growth. Looking ahead, deepening economic and financial links with other cities in the GBA and ASEAN region will bring about mutual benefits in terms of know-how, investments, human capital development and deployment – and ultimately productivity-driven quality growth.

**28. Nevertheless, population aging and the resultant slowdown in productivity gains can exert a significant drag on growth moving forward.** As in other advanced economies, aging has already set in and labor productivity gains have slowed down. It will become more pronounced in the years ahead as the dependency ratio is projected to further increase and the labor force is expected to decline. Against this backdrop, labor market policies should aim to strengthen labor quality and increase the supply of talents to meet the needs of a knowledge-based economy. In addition to the continual efforts to nurture local talents, the authorities should find ways to attract foreign talents to further develop technology and raise competitiveness.

**29. Strategically, Hong Kong should continue to enhance its competitiveness in sectors where it is already strong, and explore opportunities in new growth areas.** The economy is well placed to meet growing demand across trade-related services, professional services and financial services. Besides, it will benefit from a widening range of services becoming more tradable over time through digitalization. Hong Kong can also leverage its leading role as an innovation and technology hub by taking advantage of its quality education in science and technology as well as strong prospects for collaboration within the GBA.

**30. Greater efforts are needed to address challenges related to socioeconomic inclusion.** Issues involving inequalities in incomes and opportunities are multifaceted and becoming more pressing. Income gaps and socioeconomic disparities in Hong Kong have widened, and wage growth has been modest and lagged behind productivity (*Selected Issue 1: "Hong Kong's Economic Growth: Some Learning Points for the Future", paragraph 5.E.*). As structural changes, including those brought about by global trends and further integration with mainland China, continue to evolve, Hong Kong needs to focus on narrowing the gaps in economic and social inequality. Upskilling programs for workers along the entire skill spectrum will boost productivity and wages. Raising minimum wages in line with higher costs of living and productivity gains will help the lower-income groups. Ongoing efforts to boost housing supply for large segments of the population, especially the younger and the poorer, are commendable and should be stepped up.

### C.4.Maintaining Adequate Liquidity and Ensuring Property Market Stability

**31. As uncertainties over the pandemic situation remain, authorities should maintain adequate liquidity in the banking system and be ready to take additional steps to boost credit to the hard-hit SME sector.** The halving of regulatory reserves and the provision of U.S. dollar liquidity through the Fed's temporary repurchase agreement during the pandemic,

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<sup>17</sup> See Selected Issue 1: "Hong Kong's Economic Growth: Some Learning Points for the Future".

as well as the lowering of the CCyB from 2.5 percent to 1 percent over the past two years have been important steps. Yet SMEs, particularly those in the hardest-hit sectors, continue to struggle to survive in difficult business conditions. A survey on the SMEs' credit condition for the second quarter of 2021 by the HKMA indicates that 28 percent of SMEs are still concerned about obtaining credit from banks. Given these challenges, further extension of policy support measures should be considered if the economic or credit conditions worsen.

**32. At the same time, authorities should continue to be mindful of potential deterioration in banks' loan quality.** The regulatory and loan relief measures have been effective in easing the strain on borrowers' cash flows and helping a sizable number of businesses and households to avert insolvency. This has been an important factor behind the marginal increase in the NPL ratio and the number of bankruptcies. Although Hong Kong banks are resilient to a severe credit shock (*Box B: Stress Testing Hong Kong's Banking System*), the authorities should continue to pay close supervisory attention to banks that are likely to be more affected, whose NPLs could increase more quickly once the forbearance measures and credit support are withdrawn.

#### **Box B. Stress-testing Hong Kong's Banking System<sup>18</sup>**

**Against the backdrop of the prolonged COVID-19 pandemic, an AMRO staff team conducted top-down solvency stress tests to assess the resilience of Hong Kong's banks to severe macroeconomic shocks.** Two types of solvency stress tests were applied: (1) a reverse stress test; and (2) a forward-looking stress test. There were 20 local banks in the sample, including six domestic systemically important banks (D-SIBs). All 20 collectively accounted for nearly 70 percent of total banking system assets. They were categorized based on asset size to facilitate analysis<sup>19</sup>. Data was collected from the banks' 2020 financial statements.

**The reverse stress test measures the extent to which the banks' NPL ratios must increase (that is, the "breakeven" NPL) before their capital adequacy ratios (CARs) fall to the minimum regulatory requirement.** The analysis follows Ong, Maino, and Duma (2010) and assumes that regulatory capital thresholds are employed system-wide and are inclusive of the countercyclical capital buffer (CCyB) of 1 percent. The thresholds for the Tier 1 CAR and CAR are 8.5 percent and 11.5 percent, respectively.

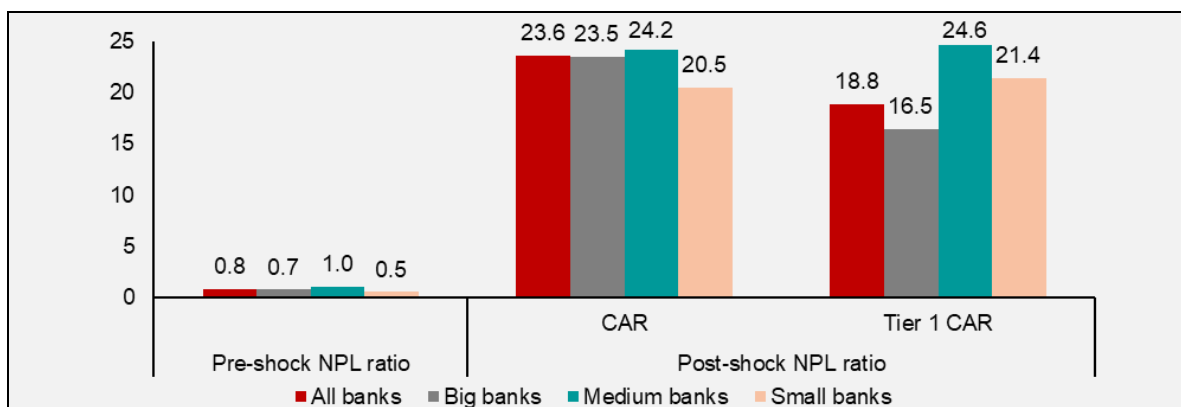
**The reverse stress test results suggest that Hong Kong banks are generally well buffered against credit shocks.** Figure B1 shows that bank NPLs in total would need to increase by more than 23 percentage points before the aggregate CAR falls to the regulatory minimum, and by almost 19 percentage points for the Tier 1 CAR. Medium-sized banks appear to be the most resilient, while small banks have the smallest regulatory capital buffer and big banks the least Tier 1 buffer, albeit still comfortable (Figure B1).

**However, reverse stress tests alone do not reveal the severe impact of certain risks because they only estimate the "breaking point" NPL.** Ideally, the findings should be complemented by information gathered from on-site bank examinations and stress tests using plausible macro-shock scenarios, to provide a more comprehensive picture of the stress points for banks.

**Figure B1. Reverse Credit Stress Test**  
(Breakeven NPL Ratios, Percent)

<sup>18</sup> Prepared by Laura Grace Gabriella, Associate Economist

<sup>19</sup> Banks whose assets make up more than 5 percent of Hong Kong's total bank assets are classified as big banks; those with assets in the range of 1-5 percent of total bank assets are classified as medium banks; and the rest are classified as small banks.



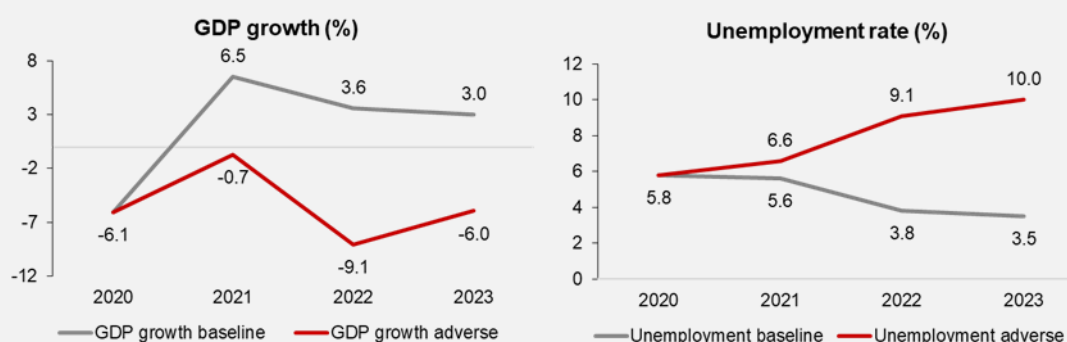
Source: BankFocus; AMRO staff calculations

**Our forward-looking stress test employs both a baseline and an adverse scenario<sup>20</sup>.** It assumes a risk horizon of two and a half years until December 2023. The baseline scenario is constructed using AMRO staff projections that Hong Kong’s GDP growth will recover in 2021 and 2022 and then resume its pre-recession trend growth in 2023 (Figure B2). Correspondingly, the unemployment rate is projected to decline over the same period to 3.5 percent in 2023 from 5.8 percent in 2020.

**The adverse scenario assumes a simultaneous materialization of key risk factors for Hong Kong over the same two and a half years:**

- Possible shocks to the banking system would include renewed waves of COVID-19 infections, an escalation in U.S.-China tensions, a significant property price correction, and a sharp tightening in financial conditions.
- It is further assumed that these shocks would persist and thus lead to considerable GDP losses over the risk horizon. In particular, a resurgence in COVID-19 infections could wipe out gains accumulated from growth in the first half of 2021 and continue to weigh on growth over the next two years.

**Figure B2. Forward-looking Stress Test Scenarios**



Source: C&SD; AMRO staff calculations

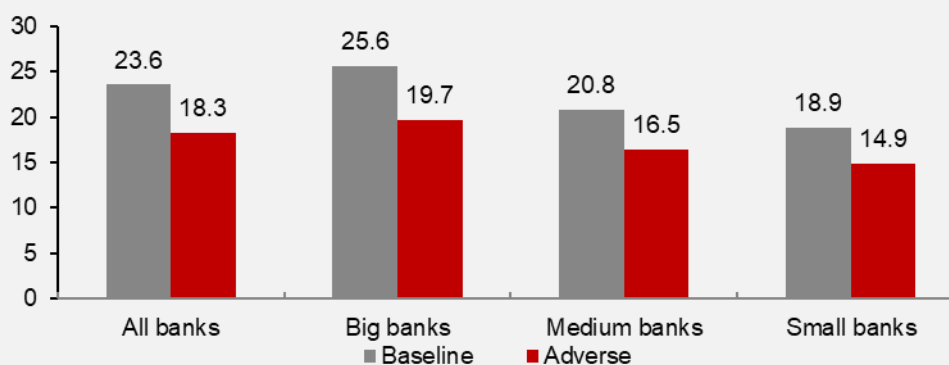
- Meanwhile, an escalation in U.S.-China tensions could lead to a 2.5 percentage point loss in GDP growth in both 2022 and 2023, using growth numbers in 2018 and 2019 as a reference<sup>21</sup>, while a property price correction could lead to a 3.8 percentage point loss in GDP growth in both 2022 and 2023, as evidenced by the impact during the GFC.

<sup>20</sup> Forward-looking stress test follows Cihak (2014).

<sup>21</sup> The average growth rate between H2 2018 and H1 2019, when the U.S.- China tensions intensified, was 1.2 percent, compared with 3.7 percent in the preceding four quarters.

- Additionally, we also consider a rise in the Best Lending Rate to 10 percent, equivalent to the level during the AFC, which would mean an interest rate shock of 5.0 percentage points from the current Best Lending Rate.

**Figure B3. Forward-looking Stress Test Results**  
(CAR, percent)



Source: BankFocus; AMRO staff calculations

**The forward-looking stress test results underscore the resilience of the Hong Kong banking system to severe macro-financial shocks, with no banks expected to fail.** Under the adverse scenario, which assumes the realization of a combination of four key risk factors, the banks' average CAR would decrease by 5.3 percentage points from 23.6 percent in Q2 2021 to 18.3 percent in Q4 2023 – with the capital adequacy of all groups remaining well above regulatory requirements. The caveat is that our stress tests do not incorporate feedback effects from broader economic spillovers.

**Both the reverse and forward-looking stress tests underscore the robustness of Hong Kong's banking system, thanks to the large capital buffers accumulated since the GFC.** Discussions with banking supervisors and bank management indicate that deferred loan payments remain “manageable”, and that most of their individual and business customers have begun the recovery process and resumed servicing their loans. That said, we recommend further extending current policy support measures for hard-hit business sectors and households until a sustained and broad-based economic recovery is assured.

#### References

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Ong, Li Lian, Rodolfo Maino, and Nombulelo Duma. 2010. “Into the Great Unknown: Stress Testing with Weak Data”. IMF Working Paper No. 10/282, International Monetary Fund, Washington, DC.

**33. Authorities are encouraged to maintain the current macroprudential policy stance on the residential market and step up efforts to increase the housing supply in the longer term.** We concur with the authorities' maintenance of the loan-to-value (LTV) cap at 60 percent (for property price below HKD10 mn) or 50 percent (for property price at or above HKD10 mn) as underlying demand remains strong and interest rates continue to be low. In the long term, strengthening efforts to boost the supply of both public and private housing will be essential to address the supply-demand imbalance and housing affordability. Concerted

and steadfast implementation of the government's Long-Term Housing Strategy<sup>22</sup> would be pivotal. On that front, it is commendable that the government has successfully identified sufficient land to fulfill the supply target of 430,000 flats over the next 10 years. The introduction of short-term transitional housing, cash allowances and tenancy control to support vulnerable households during the interim is also a welcome policy development.

**34. For commercial property, policy support has produced useful stabilizing effects and authorities are encouraged to remain watchful of developments.** We commend authorities' swift actions to increase the LTV ratio in a measured way from 40 percent to 50 percent and abolish the double ad valorem stamp duty for non-residential transactions in response to the sharp fall in commercial property prices. These measures helped to inject stabilizing effects into the market. Should there be a sharp decline in transactions and prices, more policy measures could be deployed to support the market, taking into account the trend and level of property prices, transaction volume, economic fundamentals and the external environment.

### C.5. Continuing to Promote Hong Kong as an International Financial Centre

**35. Hong Kong is well positioned to become a global green finance hub and should strengthen its capacity to support sustainable development.** Strong track record in facilitating equity and bond financing, FDI and its links to mainland China puts Hong Kong in a strong position to be a global leader of green finance<sup>23</sup>. Close coordination among financial institutions, market professionals and the authorities would sharpen Hong Kong's competitiveness. In this regard, several recent policy initiatives are heading in the right direction<sup>24</sup>. These include the adoption of the global Climate-Related Financial Disclosures<sup>25</sup> by 2025 and the development of Common Ground Taxonomy<sup>26</sup>. In addition, the authorities' plan to issue HKD176 billion of green government bonds over the next five years is encouraging. This can stimulate green bond market development and establish a green bond benchmark curve for market participants, and in turn facilitate a brisk increase in bond supply over the long term.

**36. The stock, bond and wealth management connect schemes with the Mainland are key avenues for Hong Kong to play an instrumental role in China's capital account liberalization and the GBA's long-term development.** These schemes provide good facilitative platforms for two-way investment flows between Hong Kong and mainland China,

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<sup>22</sup> The Government promulgated the current Long Term Housing Strategy on 16 December 2014, which is the first long term strategic document in housing since 1998. In order to gradually avert the current supply-demand imbalance, the strategy aims to build more public rental housing units and ensure the rational use of existing resources; provide more subsidized sale flats; expand the forms of subsidised home ownership and facilitate market circulation of existing stock; and stabilize the residential property market through steady land supply and timely demand-side management measures, and to promote good sales and tenancy practices for private residential properties.

<sup>23</sup> According to the Climate Bond Initiative, an international and investor-focused non-profit organization, and the HKMA, Hong Kong's green debt market is growing in size and diversity. Last year, USD12 billion of green debt was arranged and issued in Hong Kong despite the pandemic crisis. Cumulative green debt issuances had amounted to more than USD38 billion by the end of 2020.

<sup>24</sup> "Cross-Agency Steering Group Launches its Strategic Plan to Strengthen Hong Kong's Financial Ecosystem to Support a Greener and More Sustainable Future", HKMA Press Release, December 17, 2020, <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2020/12/20201217-4/>

<sup>25</sup> The aim is to promote a more effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting decisions and, in turn, enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks.

<sup>26</sup> Taxonomy in this context generally refers to a system that classifies economic activities that are considered environmentally sustainable.

to mutual benefit<sup>27</sup>. The newly established Cross-boundary Wealth Management Connect Scheme, which was launched in September 2021, would increasingly allow Hong Kong to benefit from opportunities across the GBA<sup>28</sup>. To this end, close coordination between Hong Kong and Mainland authorities, careful consideration of feedback from financial-sector players, and appropriate adjustments to the framework of the connect schemes, will enhance the benefits for both sides over time.

**37. Fintech initiatives have been moving in the right direction of purposeful innovation.**

To prepare for the next phase of fintech development, the HKMA announced the Fintech 2025 Strategy in June to sharpen the policy focus in five areas<sup>29</sup>. To reduce transaction costs and save time for businesses, Hong Kong is pioneering a few wholesale Central Bank Digital Currency (CBDC) projects with other central banks, with the aim of extending them to more economies<sup>30</sup>. To address risks arising from further digitalization such as money laundering and terrorism financing and to strengthen compliance practices, the HKMA commendably rolled out a series of regulatory technology (regtech)<sup>31</sup> initiatives<sup>32</sup> this year. While these initiatives will help buttress further development, competition for investment by other fintech hubs has become intense. Hence, authorities are encouraged to step up efforts to facilitate funding to the fintech sector (*Selected Issue 2: Private Funding Trends for Hong Kong's Financial Technology Companies*).

### **Authorities' Views**

**38. The authorities have noted that, while there is no urgency to implement major tax reforms to increase fiscal revenue, they are open to exploring options in the future.** The projected fiscal expenditure in the medium term will be financed by the existing tax system and will not be based on any new taxes. That said, the government does not rule out the possibility of considering potential revenue options ahead.

**39. Hong Kong will focus on both specialization and diversification strategies.** The authorities are committed to enhancing Hong Kong's competitiveness in financial and trade-related services and professional services. They will also make significant efforts to develop green financing and fintech as new growth engines. Smart manufacturing is a new area that will be further developed by taking advantage of Hong Kong's strong science and research capacities and cooperation with counterparts in the GBA. Capitalising on the opportunities

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<sup>27</sup> Trading volumes via the northbound and southbound Stock Connect since 2015 have increased at an annual pace of 70.4 percent and 51.1 percent, respectively. Trading activities via Bond Connect continue to be strong, reaching RMB641 billion in June 2021, compared with only RMB66 billion in May 2018, less than a year after the launch of northbound trading under Bond Connect in July 2017.

<sup>28</sup> See <https://www.hkma.gov.hk/eng/key-functions/international-financial-centre/wealth-management-connect/>

<sup>29</sup> The five areas identified as main areas of improvement to strengthen Hong Kong's fintech capabilities are as follows: (1) supporting all banks to go fintech, (2) future-proofing Hong Kong for CBDCs, (3) creating the next-generation data infrastructure, (4) expanding the fintech-savvy workforce, and (5) nurturing the ecosystem with funding and policies.

<sup>30</sup> To advance the second area, the HKMA is conducting research on wholesale CBDCs with the Digital Currency Institute of the People's Bank of China (PBC DCI), the Bank of Thailand, the Central Bank of the United Arab Emirates and strongly supported by the Bank for International Settlements Innovation Hub Centre in Hong Kong (BISIH), with the aim of extending the Multiple CBDC Bridge (mBridge) platform to more jurisdictions. On retail CBDCs, the HKMA is working with the PBC on cross-border application of the e-CNY, and with the BISIH on studying the technical aspects, benefits and risks surrounding the issuing of the e-HKD. These projects would continue to put Hong Kong at the forefront of CBDC research.

<sup>31</sup> Regtech is a suite of technologies that the financial sector uses to manage regulatory processes, involving regulatory monitoring, reporting and compliance.

<sup>32</sup> The initiatives include a two-year regtech road map introduced in November 2020 to enhance awareness and adoption of regtech in banks. In June this year, the HKMA also held a virtual regtech conference which invited participants to a global regtech challenge to solve real-life problems. In the same month, the monetary authority rolled out a Regtech Adoption Practice Guide series to provide banks with detailed practical guidance on the implementation of regtech solutions.

brought by the National 14<sup>th</sup> Five Year Plan, Hong Kong will further enhance its international competitiveness and take its economic development to a higher level

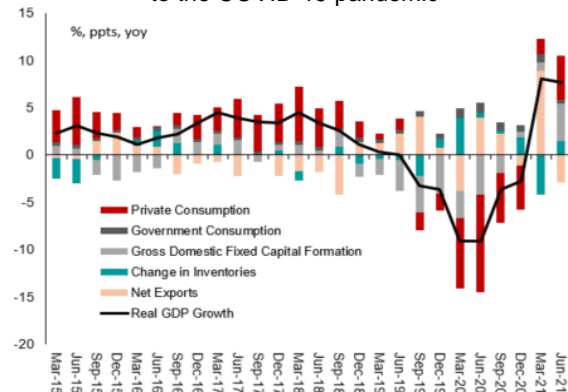


# Appendices

## Appendix 1. Selected Figures for Major Economic Indicators

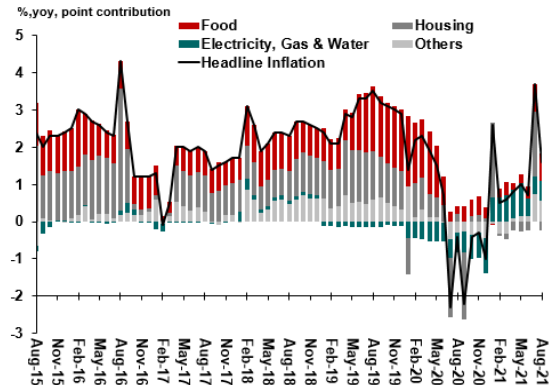
**Figure 1.1 Real Sector**

Hong Kong's economy rebounded sharply in H1 2021 after a pronounced economic contraction in 2020 due to the COVID-19 pandemic



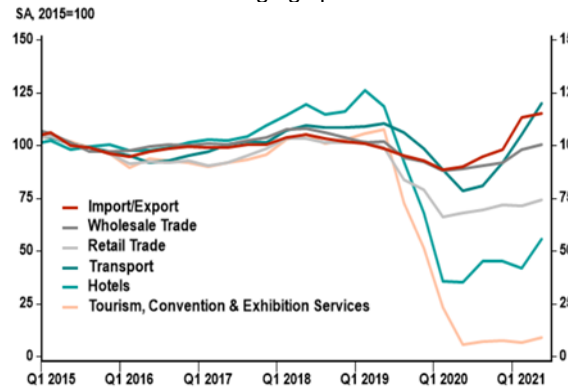
Source: C&SD; Haver Analytics

Inflation rose moderately on the back of the economic recovery and the low-base effects



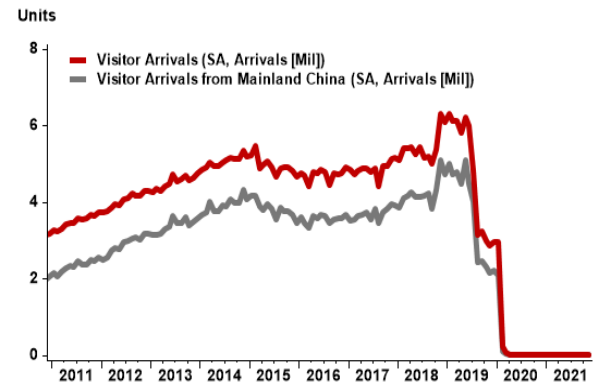
Source: C&SD; CEIC; AMRO calculations

Business revenues in several sectors recovered, but at diverging speeds



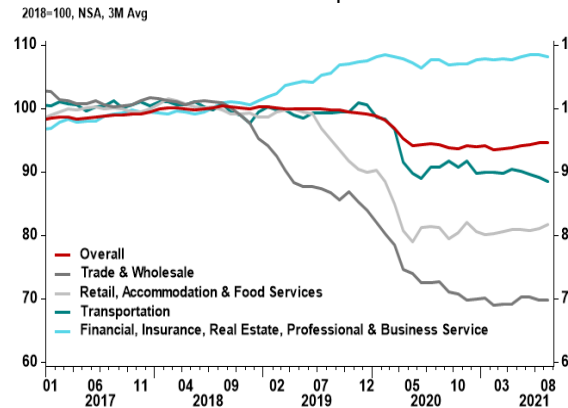
Source: C&SD; Haver Analytics

Tourist arrivals stayed at a standstill as strict border restrictions remained in place



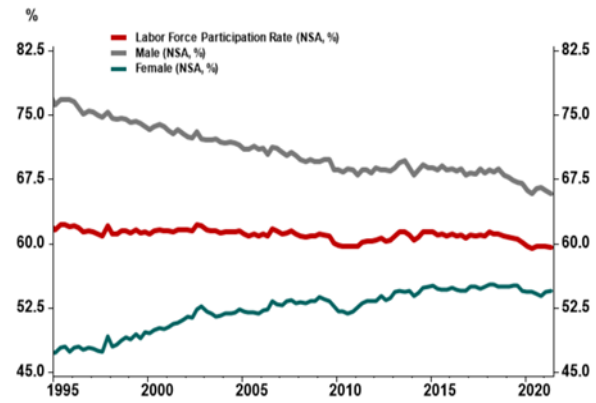
Source: Hong Kong Tourism Board; Haver Analytics

Following a marked decline in 2020, employment was flat in H1 2021 and then improved in Q3 2021.



Source: C&SD; Haver Analytics; AMRO calculations

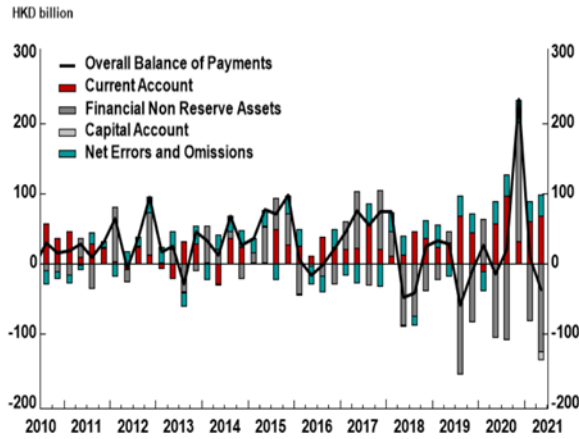
Workers who opted to leave the job market over the past two years have not yet fully returned



Source: C&SD; Haver Analytics

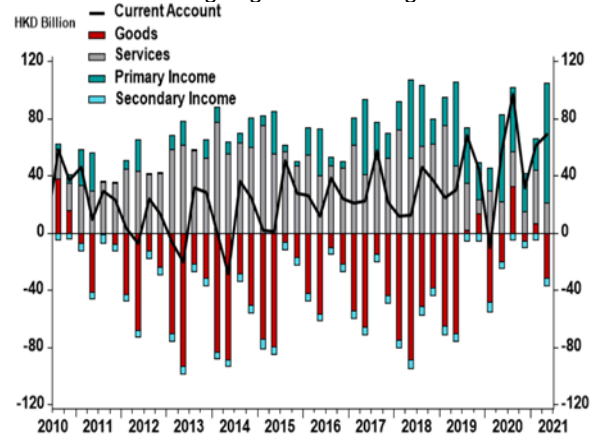
**Figure 1.2. External Sector**

The external position has remained resilient since the outbreak of the pandemic...



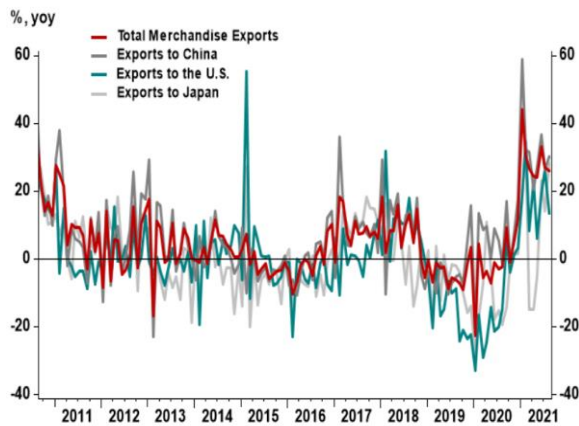
Source: C&SD; Haver Analytics

...with the surplus in services and primary income outweighing the deficit in goods



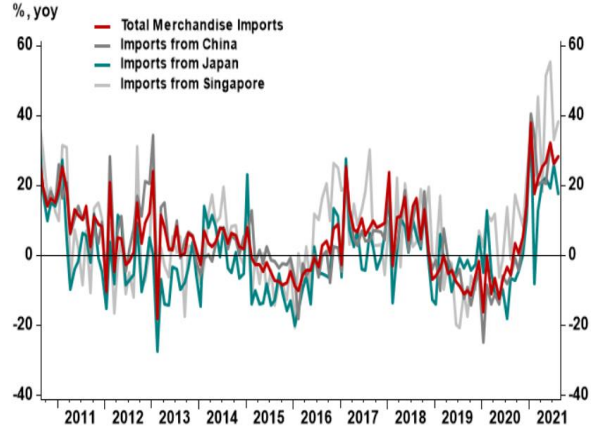
Source: C&SD; Haver Analytics

Exports have rebounded sharply YtD on the back of the strong recovery of external demand



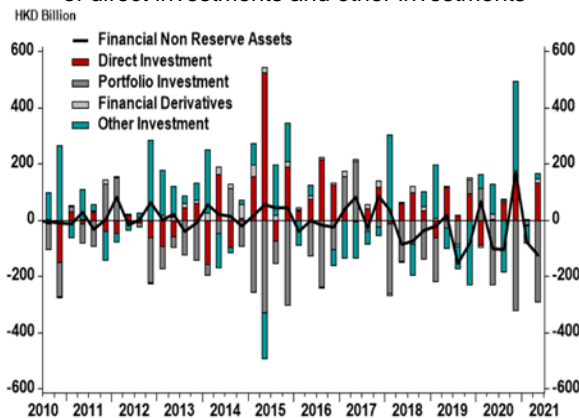
Source: C&SD; Haver Analytics

Imports have likewise increased, to a large extent reflecting Hong Kong's role in re-export trade



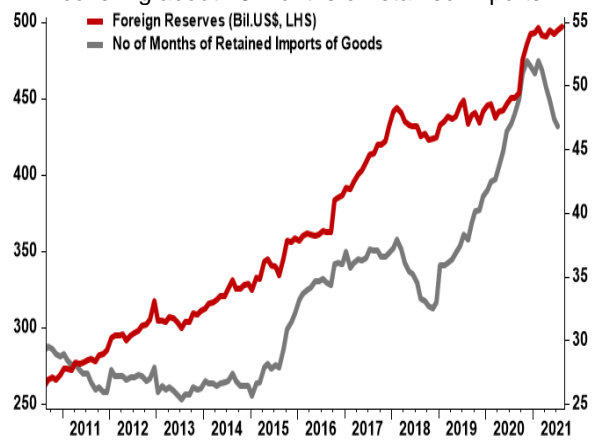
Source: C&SD; Haver Analytics

Hong Kong's financial account saw net capital inflows in some quarters, supported by continuing net inflows of direct investments and other investments



Source: C&SD; Haver Analytics

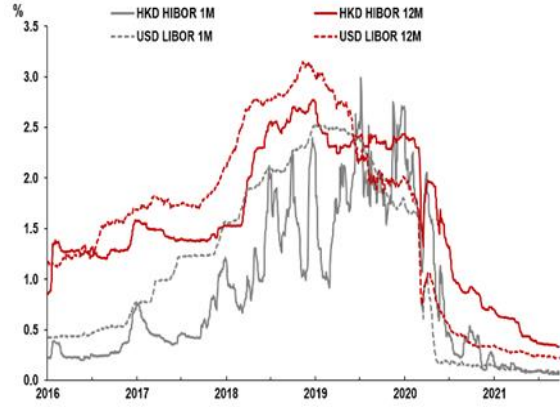
FX reserves remained ample amid the pandemic, covering about 46 months of retained imports



Source: HKMA; Haver Analytics

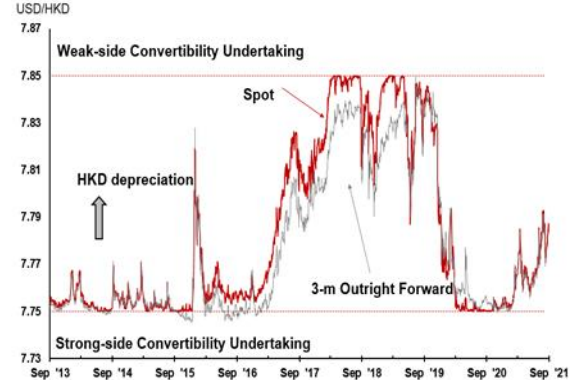
**Figure 1.3. Monetary and Financial Markets**

With ample liquidity in the banking system, money market HKD Hibor rates have trended down, tracking the decline in the fed funds rates



Source: Bloomberg

The HKD intermittently hit the strong side of the Convertibility Undertaking during the crisis in accordance with the functioning of the Linked Exchange Rate System



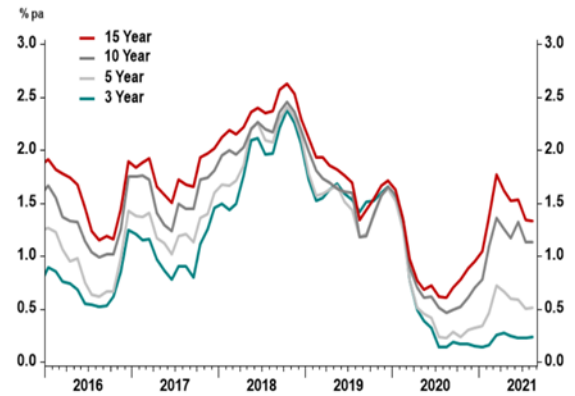
Source: Bloomberg

The Hang Seng Index has underperformed relative to its peers since the pandemic started



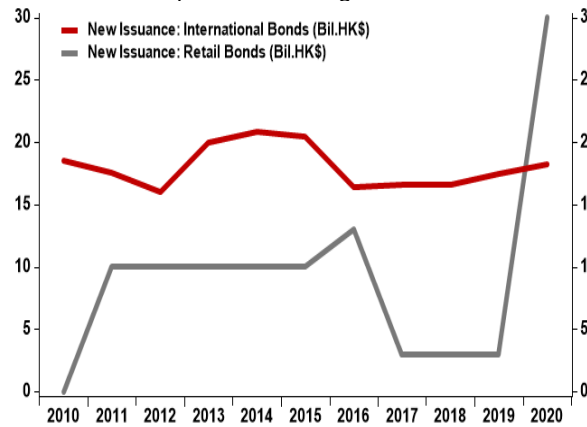
Source: Bloomberg

Yields of Hong Kong government bonds declined in 2020 following the Fed's easing, but bounced back in 2021 except for the short tenor



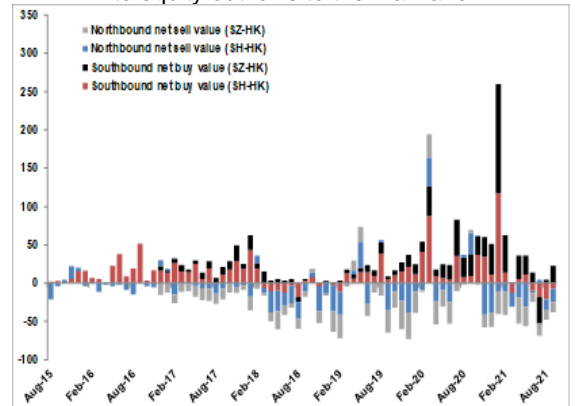
Source: HKMA; Haver Analytics

The government increased bond issuances to retail investors to help finance its large fiscal deficits in 2020



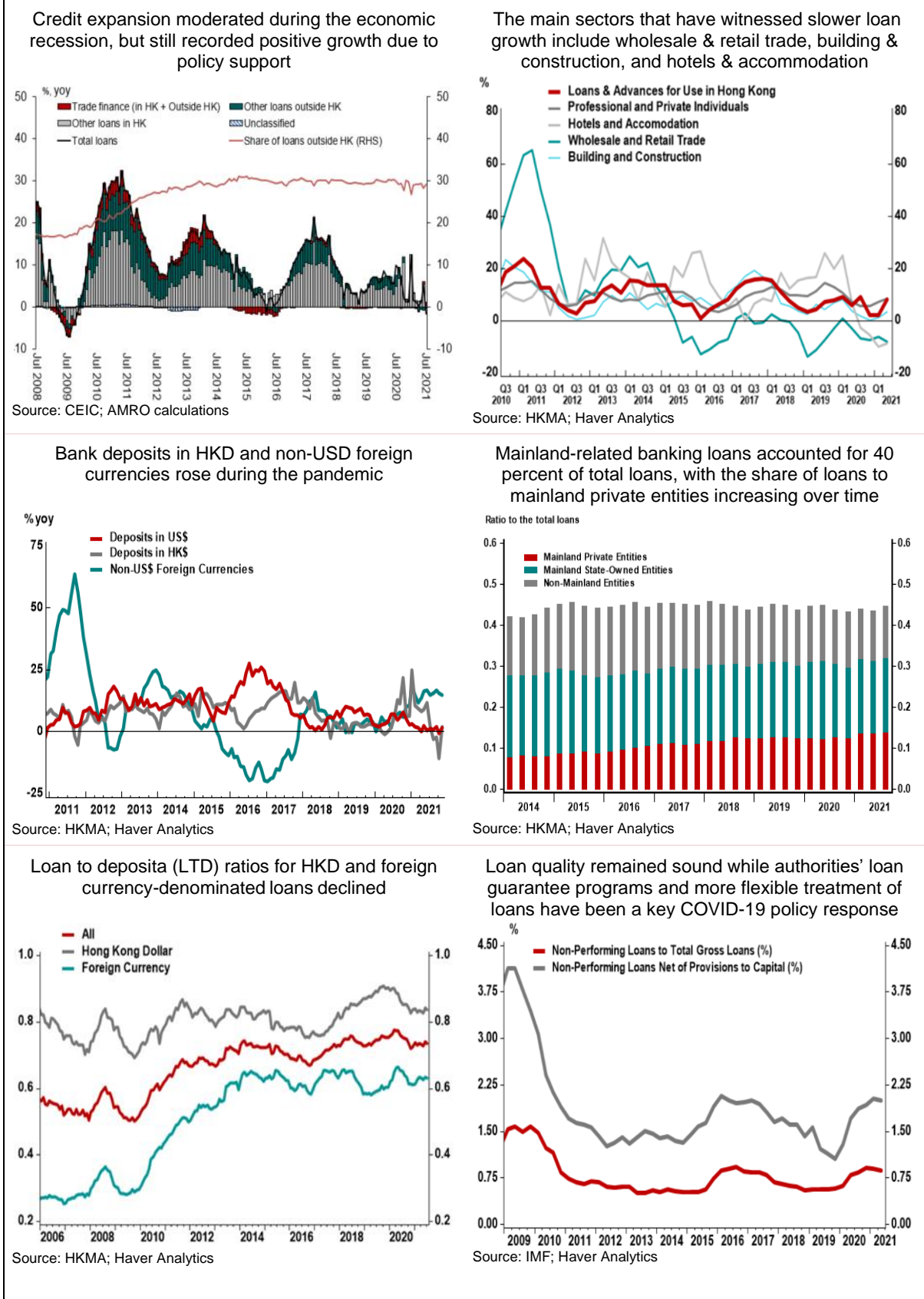
Source: HKMA; Haver Analytics

Since February, profit-taking and China's increased regulatory scrutiny of technology companies have led to equity outflows to the mainland



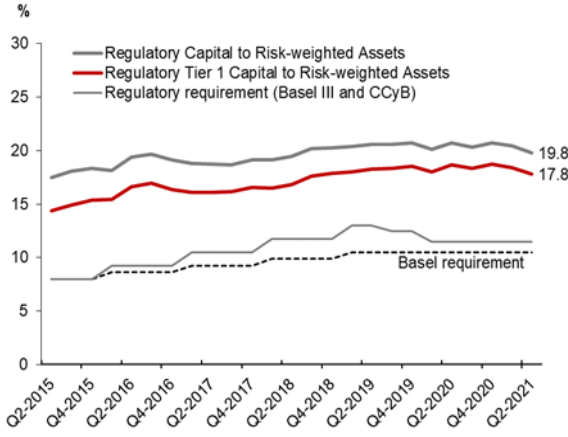
Source: HKMA;

**Figure 1.4. Banking and Property Sectors**



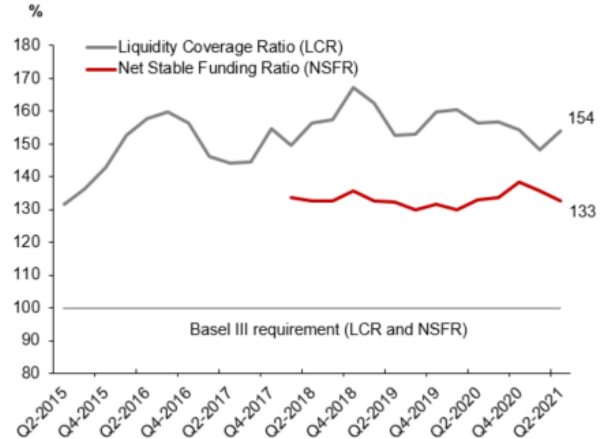
**Figure 1.4. Banking and Property Sectors (contd)**

The banking sector remained well-capitalized, thanks in part to supportive measures by the HKMA



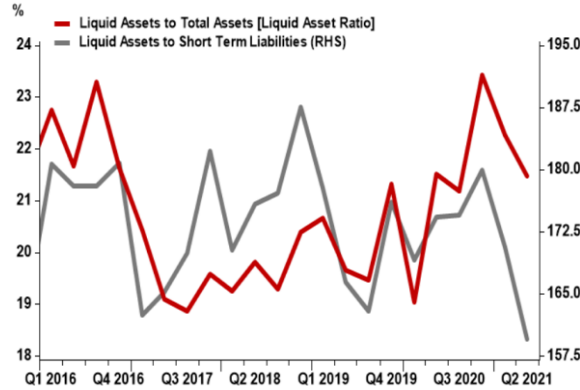
Source: IMF; Haver Analytics

Liquidity ratios also stayed above the regulatory minimum



Source: HKMA; Haver Analytics

Banks' liquid assets sufficiently covered their short-term liabilities



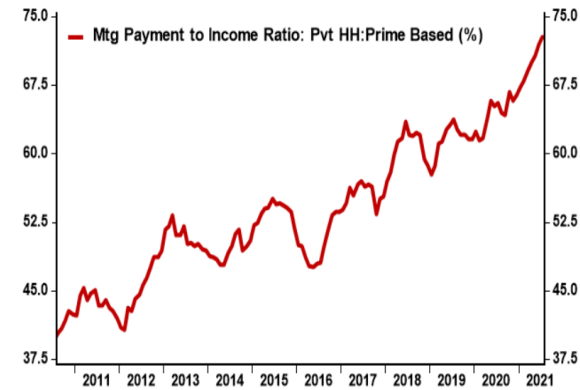
Source: IMF; Haver Analytics

Due to policy support, the number of bankruptcies remained stable



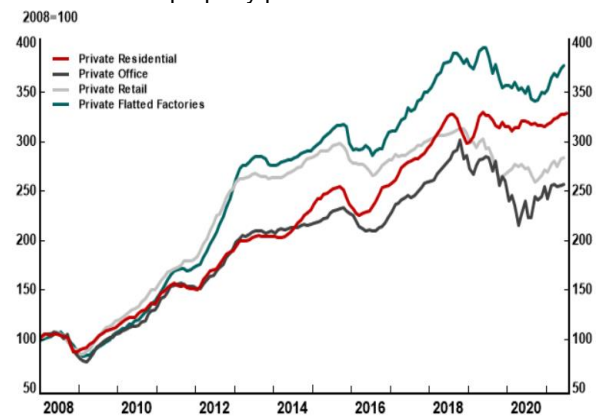
Source: Official Receiver's Office; Haver Analytics  
Note: Due to the courts' special work arrangements, no petition was presented and no order was made between January 29, 2020, and February 28, 2020.

Housing affordability worsened, with the mortgage payment-to-income ratio increasing further during the economic downturn



Source: CentaData; Haver Analytics  
Note: Assumptions made in the calculations: 1) the unit size is 400 sq feet 2) loan-to-value ratio is 60% 3) mortgage period is 20 years 4) based on Centa-City (small/medium units) Leading Index's adjusted unit price 5) median household income from April to June 2015 is assumed to be the same as Q1 2015.

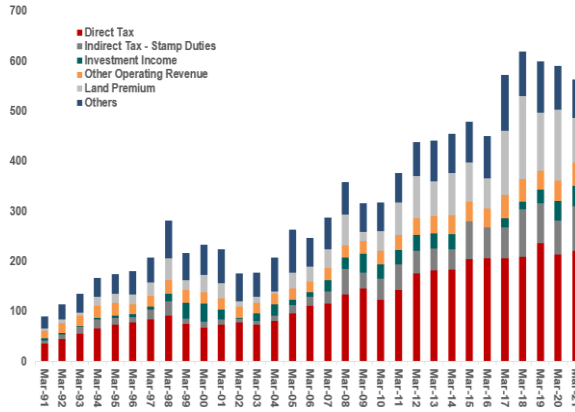
The residential market remained resilient, while commercial property prices bottomed out in 2020.



Source: Rating & Valuation Department; Haver Analytics

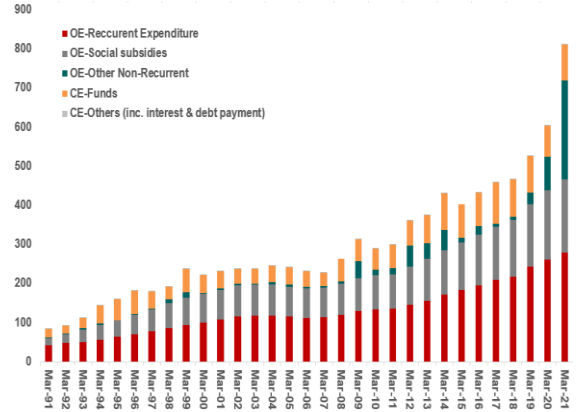
**Figure 1.5. Fiscal Sector**

Government revenue decreased again in FY2020/21 due to the economic downturn



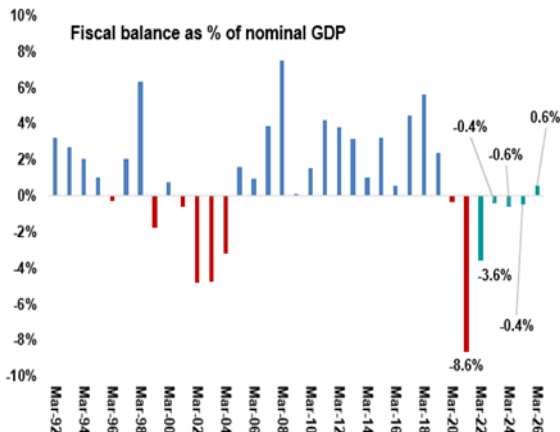
Source: Financial Services and the Treasury Bureau; CEIC

Government expenditure rose to support people, businesses and employment



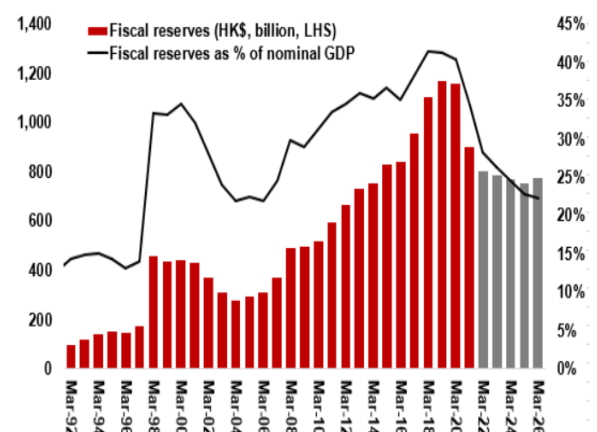
Source: Financial Services and the Treasury Bureau; CEIC

The fiscal stance is projected to gradually tighten with the fiscal position returning to a surplus in FY2025/26



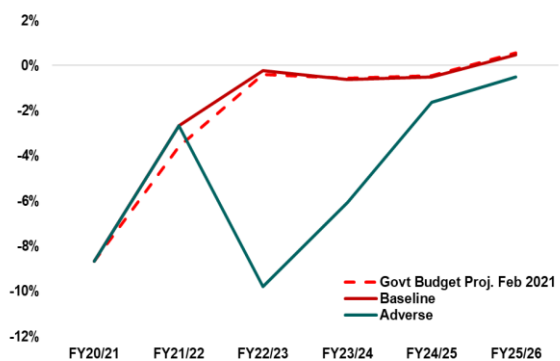
Source: Financial Services and the Treasury Bureau; CEIC

Fiscal reserves are projected to decline to 22 percent of GDP at the end of FY2025/26, but remain adequate



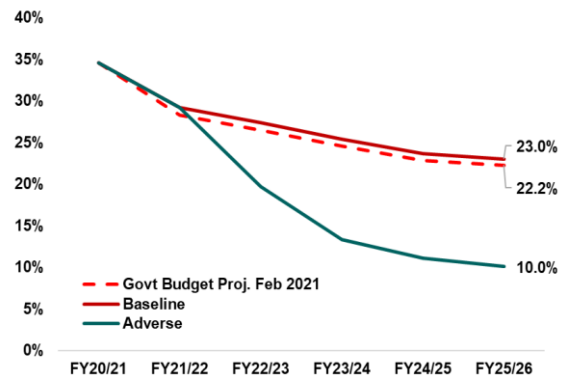
Source: Financial Services and the Treasury Bureau; CEIC

Assuming that COVID-19 resurges and a larger-than-expected aging spending, leading to a GDP loss in 2022 and 2023 and increases in government spending...



Source: Financial Services and the Treasury Bureau; CEIC; AMRO estimates

...fiscal reserves would further decline



Source: Financial Services and the Treasury Bureau; CEIC; AMRO estimates

## Appendix 2. Selected Economic Indicators for Hong Kong, China

	2017	2018	2019	2020	2021 e/	2022 p/
<b>Real Sector and Prices</b>	(in annual percentage change)					
Real GDP	3.8	2.8	-1.7	-6.1	6.5	3.6
Private consumption	5.5	5.3	-0.8	-9.9	5.6	4.9
Government consumption	2.8	4.2	5.1	8.1	4.1	3.5
Gross domestic fixed capital formation	3.1	1.7	-14.9	-11.2	13.4	4.0
Exports	5.8	3.7	-6.1	-5.9	14.7	3.5
Goods	6.5	3.5	-5.5	-0.3	15.2	3.0
Services	2.8	4.6	-9.6	-36.1	2.0	8.5
Imports	6.6	4.5	-7.2	-6.2	14.7	3.7
Goods	7.3	4.7	-8.2	-2.1	14.6	3.6
Services	2.0	2.8	0.1	-34.1	1.0	7.3
GDP deflator	2.9	3.7	2.0	0.6	2.0	2.2
<b>Labor Market</b>						
Unemployment rate (In percent, period average)	3.1	2.8	2.9	5.8	5.6	3.8
<b>Prices</b>						
Headline inflation (Period average)	1.5	2.4	2.9	0.3	1.7	2.0
Underlying inflation (Period average, netting out one-off govt relief measures)	1.7	2.6	3.0	1.3	2.0	2.2
<b>External Sector</b>	(in billions of U.S. dollars, unless otherwise specified)					
Current account balance (In percent of GDP)	4.6	3.7	5.8	6.9	5.5	5.0
Goods trade balance (In percent of GDP)	-6.7	-8.9	-4.2	-1.5	-0.8	-1.7
Exports, f.o.b, Goods	497	530	509	506	580	601
Imports, cif, Goods	559	602	563	550	630	653
Overall balance	32	1	-1	34	5	15
(In percent of GDP)	9.4	0.3	-0.3	9.8	1.3	3.8
Gross official reserves excluding net forward position	431	425	441	492	495	470
(In months of retained imports of goods)	37	33	41	51	52	48
Total external debt	1575	1695	1675	1789	1800	1850
Short-term external debt (% of international reserves)	244	266	249	239	225.0	220.0
<b>Fiscal Sector (General Government)</b>	(in percent of GDP, fiscal year)					
Revenue	23.3	21.2	20.8	21.0	21.0	22.1
Expenditure	17.7	18.8	21.4	30.4	24.9	23.4
Consolidated budget balance	5.6	2.4	-0.4	-8.6	-2.7	-0.1
Public debt	0.1	0.1	0.3	1.0	1.3	2.2
<b>Monetary and Financial Sector</b>	(in annual percentage change, period end)					
Total loans	16.1	4.4	6.7	1.2	5.0	6.5
Total loans (In percent of GDP)	350	343	365	390	392.1	358.7
Loan to deposit ratio (In percent)	73.0	72.6	75.3	72.3	73.0	80.0
Classified loan ratio (In percent)	0.7	0.5	0.6	0.9	0.8	0.6
Capital adequacy ratio (In percent)	19.1	20.3	20.7	20.7	20.8	21.0
Three-month Hibor (In percent, end of period)	1.3	2.3	2.4	0.4	0.3	0.3
<b>Memorandum Items</b>						
Exchange rate (LCY per USD, end-period)	7.81	7.83	7.79	7.75	7.78	7.80
GDP in billions of HKD	2659	2835	2845	2689	2918	3081
GDP in billions of U.S. dollars	341	362	363	347	375	395
GDP per capita (USD)	46161	48540	48354	44635	49901	52491
Interest rates (% , end-period)						
Three-month Hibor	1.3	2.3	2.4	0.4	0.3	0.3
10Y Govt' bond yield	1.8	2.1	1.8	0.7	1.0	1.5
Asset prices						
Hang Seng Index (end of period, 1964=100)	29919	25846	28190	27231	23398	25000
(% yoy)	36.0	-13.6	9.1	-3.4	-14.1	6.8
Residential property prices (end of period, 1999=100)	353	359	379	380	390	400
(% yoy)	14.7	1.9	5.5	0.2	2.8	2.6

Source: Hong Kong Authorities, IMF, Haver Analytics, CEIC, AMRO calculation and estimates.

### Appendix 3. Balance of Payments

	2015	2016	2017	2018	2019	2020
	(In percent of GDP)					
Current account	3.3	4.0	4.6	3.7	5.8	6.5
Goods	-7.4	-5.2	-6.7	-8.9	-4.2	-1.5
Total exports of goods	162.2	156.3	158.4	157.1	149.6	157.9
Imports of goods	169.6	161.5	165.1	166.0	153.8	159.4
Services	9.8	7.5	7.7	8.7	5.8	3.4
Exports of services	33.7	30.7	30.5	31.3	28.1	18.8
Imports of services	23.9	23.2	22.8	22.6	22.3	15.5
Primary income	1.9	2.5	4.3	4.8	5.1	5.5
Secondary income	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8
Capital and financial account	-5.4	-4.1	-2.9	-6.2	-8.3	-9.0
Capital account	0.0	0.0	0.0	-0.1	0.0	0.0
Financial account	-5.4	-4.0	-2.9	-6.1	-8.3	-8.9
Financial non-reserve assets	6.4	-3.7	6.6	-5.9	-8.6	0.9
Direct investment	33.1	18.0	7.0	6.1	5.7	4.9
Portfolio investment	-40.5	-18.9	9.9	-21.7	-7.6	-16.0
Financial derivatives	4.1	1.5	2.3	1.2	0.0	0.5
Other investment	9.6	-4.3	-12.7	8.6	-6.7	11.4
Reserve assets	-11.8	-0.4	-9.4	-0.3	0.3	-9.8
Net errors and omissions	2.0	0.1	-1.7	2.4	2.5	2.4
Overall Balance of Payments	11.8	0.4	9.4	0.3	-0.3	9.8

Source: C&SD, CEIC, AMRO calculation



#### Appendix 4. Statement of Central/General Government Operations

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
	(In billions of HKD)					
<b>Opening Balance</b>	<b>829</b>	<b>843</b>	<b>954</b>	<b>1103</b>	<b>1171</b>	<b>1160</b>
<b>Consolidated Revenue</b>	<b>450</b>	<b>573</b>	<b>620</b>	<b>600</b>	<b>591</b>	<b>564</b>
General Revenue	384	436	444	465	436	463
Operating Revenue	382	412	442	454	434	459
Direct Tax	206	207	208	236	214	221
Stamp Duties	63	62	95	80	67	89
Others	113	143	139	138	153	149
Capital Revenue	2	24	2	11	2	4
Land Premium	61	128	165	117	142	89
Others	5	9	11	17	13	12
<b>Consolidated Expenditure</b>	<b>436</b>	<b>462</b>	<b>471</b>	<b>532</b>	<b>608</b>	<b>816</b>
Operating Expenditure	347	353	371	432	523	719
Capital Expenditure	88	109	100	99	85	97
<b>Consolidated Surplus</b>	<b>14</b>	<b>111</b>	<b>149</b>	<b>68</b>	<b>-11</b>	<b>-233</b>
<b>Closing Balance</b>	<b>843</b>	<b>954</b>	<b>1103</b>	<b>1171</b>	<b>1160</b>	<b>928</b>
	(In percent of GDP)					
<b>Opening Balance</b>	34.6	33.9	35.9	38.9	41.2	43.1
<b>Consolidated Revenue</b>	18.8	23.0	23.3	21.2	20.8	21.0
General Revenue	16.0	17.5	16.7	16.4	15.3	17.2
Operating Revenue	15.9	16.5	16.6	16.0	15.3	17.1
Direct Tax	8.6	8.3	7.8	8.3	7.5	8.3
Stamp Duties	2.6	2.5	3.6	2.8	2.4	3.3
Others	4.7	5.7	5.2	4.9	5.4	5.5
Capital Revenue	0.1	1.0	0.1	0.4	0.1	0.1
Land Premium	2.5	5.1	6.2	4.1	5.0	3.3
Others	0.2	0.4	0.4	0.6	0.5	0.4
<b>Consolidated Expenditure</b>	18.2	18.6	17.7	18.8	21.4	30.4
Operating Expenditure	14.5	14.2	14.0	15.2	18.4	26.7
Capital Expenditure	3.7	4.4	3.8	3.5	3.0	3.6
<b>Consolidated Surplus</b>	0.6	4.5	5.6	2.4	-0.4	-8.6
<b>Closing Balance</b>	35.2	38.3	41.5	41.3	40.8	34.5
Memorandum Items:						
<b>GDP in billions of HKD (Calendar Year)</b>	2,398	2,490	2,659	2,835	2,845	2,689

Source: Hong Kong Authorities, CEIC, AMRO calculation

Appendix 5. Monetary Survey

	2015	2016	2017	2018	2019	2020
	(In percent of change, period end)					
Total money supply						
M1	15.4	12.3	9.8	-0.4	2.6	30.1
M2	5.5	7.7	10.0	4.3	2.8	5.8
M3	5.5	7.7	10.0	4.3	2.7	5.8
Hong Kong dollar money supply						
M1	12.2	14.0	11.8	-2.6	-1.5	28.7
M2	10.3	8.9	11.6	3.6	2.4	6.5
M3	10.4	8.9	11.6	3.7	2.3	6.5
Deposit						
Total	6.7	9.1	8.7	5.0	2.9	5.4
Hong Kong dollar	10.7	9.3	11.6	3.6	2.5	6.2
Foreign currency	3.1	8.8	5.9	6.4	3.2	4.6
Loans and advances						
Total	3.5	6.5	16.1	4.4	6.7	1.2
Hong Kong dollar	3.8	7.9	19.7	8.9	6.6	-1.8
Foreign currency	3.2	4.8	11.6	-1.7	7.0	5.6
Interest rates	(In percent, period average)					
Discount window base rate	0.5	0.8	1.3	2.2	2.5	0.9
HIBOR: 1 month	0.2	0.3	0.6	1.3	1.9	0.8
HIBOR: 3 month	0.4	0.6	0.9	1.8	2.1	1.1
Composite interest rate	0.3	0.3	0.3	0.6	0.9	0.6
HSBC's best lending rate	5.0	5.0	5.0	5.0	5.1	5.0

Source: Hong Kong Monetary Authority, CEIC, AMRO calculation

## Appendix 6. Data Adequacy for Surveillance: a Preliminary Assessment

Criteria / Key Indicators for Surveillance	Data Availability (i)	Reporting frequency / timeliness (ii)	Data Quality (iii)	Consistency (iv)	Others if any (v)
National Account	(i) For expenditure components, yearly and quarterly data in nominal and real terms are available; (ii) for production components, yearly data in nominal terms are available, and yearly and quarterly data in real terms are available; and (iii) for income components, yearly data in nominal terms are available.	Quarterly, about 1 month for expenditure and about 2.5 months for production after the end of the reference quarter	-	-	-
Balance of Payments (BOP) and external position	Quarterly data are available	Quarterly, within three months after the end of the reference period	-	-	-
Central government budget / external debt	Monthly central government public finances are available, while quarterly external debt data are available in detail	Budget: monthly, within one month after the end of the reference period	-	-	-
Inflation, money supply and credit growth	Monthly inflation, money supply and credit growth data are available	Monthly data are released within one month after the end of the reference period	-	-	-
Financial sector soundness indicators	Available	Financial sector soundness indicators (FSIs) are available from the IMF website	-	-	-
Housing market indicators	Available	Monthly data are released within one month after the end of the reference period	-	-	-

### Notes:

(i) Data availability refers to whether official data are available for public access by any means.

(ii) Reporting frequency refers to the periodicity that the available data are published. Timeliness refers to how up-to-date the published data are relative to the publication date.

(iii) Data quality refers to the accuracy and reliability of the available data given the data methodologies taken into account.

(iv) Consistency refers to both internal consistency within the data series itself and its horizontal consistency with other data series of either same or different categories.

(v) Other criteria might also apply, if relevant. Examples include but are not limited to potential areas of improvement for data adequacy.

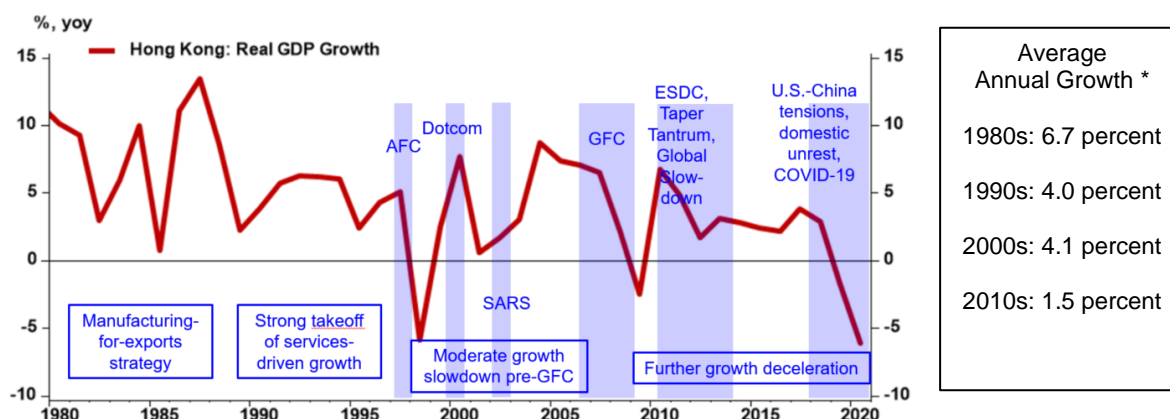
Source: AMRO staff compilations. This preliminary assessment will form the "Supplementary Data Adequacy Assessment" in the ERPD Matrix.

## Annexes: Selected Issues

### 1. Hong Kong's Economic Growth: Some Learning Points for the Future<sup>33</sup>

1. This selected issue takes stock of Hong Kong's successful economic development, considers opportunities and challenges for achieving sustained growth and raises some policy ideas.

Figure 1.1. Hong Kong's Economic Growth Over Four Decades



Source: Haver; AMRO staff

\* Note: Leaving out major recession years, such as 1998, 2009 and 2019-2020, the average growth rates over of 1990s, 2000s, and 2010s are 5.1%, 4.9% and 3.0%, respectively.

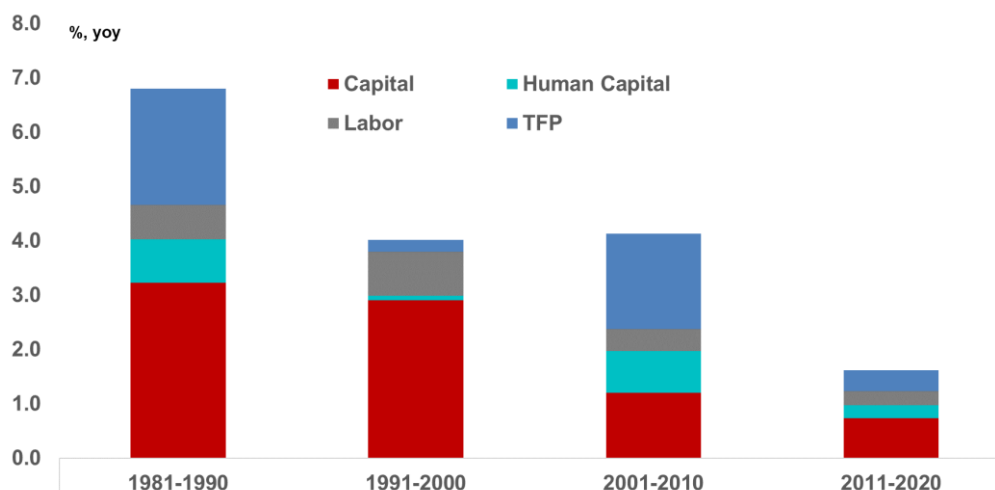
### 2. Growth was strong in the earlier decades, driven by strong policy efforts to develop the economy and its strategic role as a global financial centre and entrepot. (Figure 1.1)

- In the 1980s, Hong Kong pursued a manufacturing-for-export strategy. To support this strategy, it built infrastructure, upgraded enterprises' capacity, and upskilled its workforce to drive industrial development. Growth was high during this decade, averaging 6.7 percent annually, and physical capital accumulation was by far the most important driver of growth (Figure 1.2).
- In the 1990s, Hong Kong made a transition from manufacturing for export to a growth model driven by re-exports and trade-related services. Contribution to growth from capital stock accumulation continued to be brisk, particularly in the years leading up to the AFC in 1997-1998. Physical labor also contributed significantly to economic growth (Figure 1.2). However, total factor productivity (TFP) declined substantially in the 1990s due to a combination of rising unit labor costs and flat labor productivity in the non-tradable service sector (Li, 2015).
- The AFC prompted a big step-up in reforms between the late 1990s and early 2000s. Much of the focus was on strengthening the transition to a service-driven economy, sharpening the competitive edge of various segments of the service sector, helping the workforce to become more adaptable and mobile, and looking for ways for Hong Kong and Hong Kong-based enterprises to meet mainland China's growing demand for different types of services, including trade-related services, professional services, and tourism sector-related services.

<sup>33</sup> Prepared by Suan Yong Foo, Senior Economist; Kimi Xu Jiang, Economist; Laura Grace Gabriella, Associate Economist; Edmond Choo Chiang Yong, Associate Economist; and Sungtaek Kwon, Senior Economist.

- During this period, authorities strengthened the institutional and operational framework of the exchange rate system to enhance its robustness against shocks. Improvements were also made to the resilience of the financial sector – such as adopting macroprudential policies and banking reform measures, including strengthening depositors’ protection and the risk-based approach to bank supervision (Jao, 2001). These improvements accorded the banking system and capital markets greater buffers to mitigate and avoid amplifying the adverse effects of shocks.

**Figure 1.2. Growth Decomposition in Hong Kong**



Source: Penn World Table V.10 (Feenstra, Inklaar and Timmer, 2015); C&SD; Haver; AMRO calculations

Note: This baseline growth accounting specification is augmented with the human capital factor, which takes into account the role of educational attainment in measuring the effective input of labor, as in Bosworth and Collins (2003) and Svirydzenka and Petri (2014). Factor contribution is averaged over the sample periods.

### **3. As the economy advanced further and became significantly more service-oriented in the 2000s, relative contributions to growth registered a shift, away from physical capital and labor to TFP and human capital.**

- Due to the aforementioned reforms, by the early to mid-2000s, Hong Kong’s macro fundamentals had become stronger, its buffers were sizable and its policy regimes were key to striking a judicious balance between growth and resilience. By maintaining a business-friendly environment and the rule of law, and exercising fiscal prudence, Hong Kong enabled domestic enterprises and MNCs to thrive.
- Thereafter, Hong Kong steadily deepened its links with the mainland, leveraging on China’s accession to the World Trade Organization to spur its own growth. Growth channels were developed: mainland-bound re-exports, further relocation of low-end labor-intensive manufacturing to the mainland, trade-related services, logistics, financial services and tourism. Economic growth was firm (Figure 1.3) and cross-border lending to mainland enterprises increased, two developments that were reflected by a marked pickup in credit growth (Figure 1.4).
- In tandem, TFP and human capital deepening were more critical and capital accumulation became less important. Key to this transformation were factors such as technological advancement, improved management efficiency, and a stronger business climate.

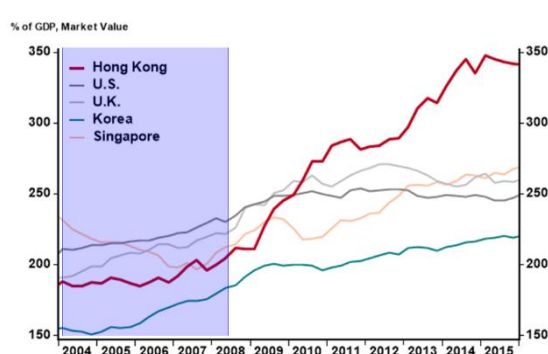
**4. As successive shocks hit the economy in the 2010s, growth slowed markedly during this decade, and the contributions of both TFP and human capital to growth fell – yet remained resilient.** These shocks included the GFC, European sovereign debt crisis (ESDC), taper tantrum, the US-China trade conflict, Hong Kong’s domestic social incidents, and the global pandemic - which Hong Kong did very well to contain and bring under control within the city. The common thread running through the shocks was transitory increases in unemployment rates and weakening of investment activities as sentiment weakened – followed by, in practically every case, a fairly rapid and robust upturn. Annual growth still averaged 1.6 percent, despite growth being negative in some years.

**Figure 1.3. GDP Growth: Hong Kong and Selected Comparator Economies**



Source: IMF; Haver  
Note: The shaded area marks pre-GFC years which benefited from reforms in the 1990s

**Figure 1.4. Credit Growth: Hong Kong and Selected Economies**



Source: Bank for International Settlements; Haver  
Note: The shaded area marks pre-GFC years which benefited from reforms in the 1990s

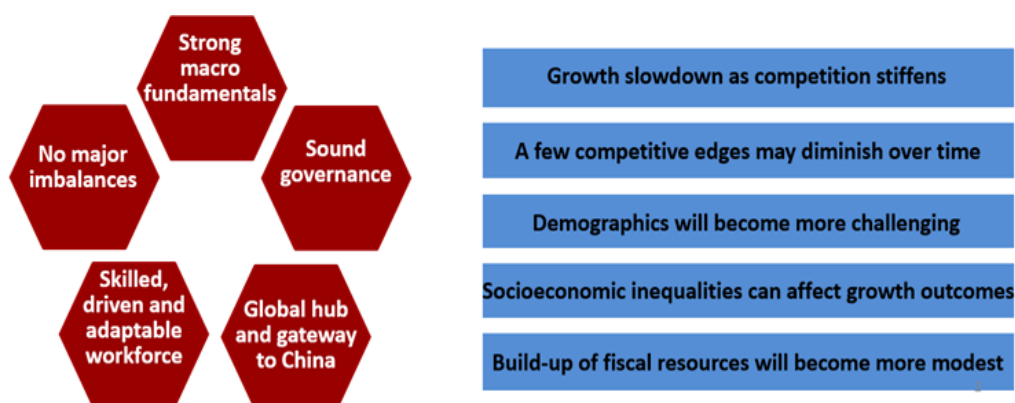
**5. Bolstered by strong fundamentals, sound governance, efficient conduct of business and financial services as well as a skilled, driven and adaptable workforce, Hong Kong has developed deep strengths and very sharp competitive edges in several high-growth areas.** These would stand the city in good stead for the future and enable it to benefit from a further integration with mainland China. For example:

- The stock, bond and wealth connect schemes with the mainland are key avenues for Hong Kong to play an instrumental role in China’s capital account liberalization and the GBA’s long-term development. These schemes provide good facilitative platforms for two-way investment flows between Hong Kong and mainland China, to their mutual benefit. The newly established Cross-boundary Wealth Management Connect Scheme launched in September 2021 will increasingly allow Hong Kong to benefit from opportunities across the GBA. To this end, close coordination between Hong Kong and mainland authorities, careful consideration of feedback from financial-sector players, and appropriate adjustments to the framework of the connect schemes, will enhance the benefits for both sides over time.
- Fintech initiatives have been moving in the right direction, of purposeful innovation. To prepare for the next phase of fintech development, the HKMA announced the Fintech 2025 Strategy in June to sharpen the policy focus in five areas. To reduce transaction costs and save time for businesses, Hong Kong is pioneering a few wholesale Central Bank Digital Currency (CBDC) projects with other central banks, with the aim of extending them to more economies. To address risks arising from further digitalization, the HKMA has built a robust surveillance and enforcement framework for anti-money

laundering and terrorism financing (AMLCFT) work, alongside constant efforts to further strengthen compliance practices among financial institutions.

**6. Looking ahead, Hong Kong still needs to address multiple challenges in order to sustain robust growth or lift potential growth – and the city is well-positioned to continue doing so (Figure 1.5).**

**Figure 1.5. Factors Supporting Growth versus Factors Exerting Drag on Growth**



Source: AMRO staff

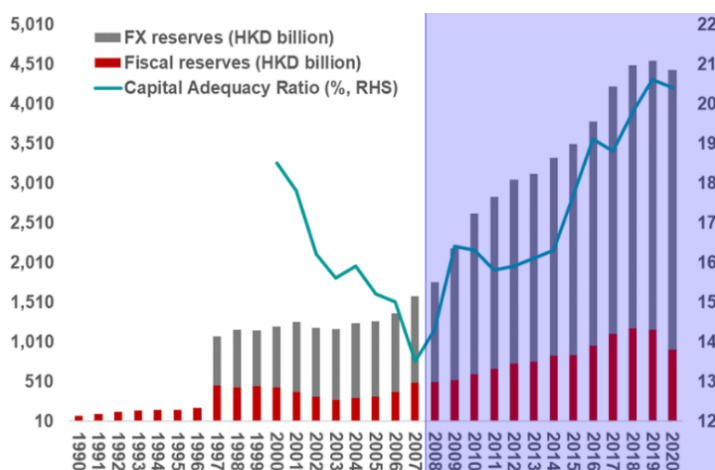
- (A) While the openness of Hong Kong enables it to ride the crest of global upturns, it also renders the economy vulnerable to recurrent external shocks. The authorities are aware of this vulnerability, which is a key reason for their relentless buildup of financial buffers through years of reform, adaptation, growth and savings (Figure 1.6). With these buffers, Hong Kong has demonstrated, as in the 2010s, that it is in a strong position to withstand future shocks.
- (B) While Hong Kong has a strong competitive edge, a few of its strengths may face greater competition over time. Competition from other cities in Mainland China and emerging economies in the region will likely intensify in financial services, logistics, and tourism sectors<sup>34</sup>. Relatively high housing and labour costs could put Hong Kong at a disadvantageous position for businesses to set up offices and for high-skilled talents to relocate to the city. To maintain its edge as a regional trade hub, an international financial centre, as well as a gateway to China, Hong Kong has enhanced its Bond Connect and Stock Connect Schemes as well as recently launched the Wealth Connect Scheme. To this end, close coordination between Hong Kong and mainland authorities, careful consideration of feedback from financial-sector players, and appropriate adjustments to the framework of the connect schemes, will enhance the benefits for both sides over time. It is also growing as “International Transportation Centre”, “International Trade Centre” and “International Legal and Dispute Resolution Hub”<sup>35</sup>. On housing, the authorities agreed that increasing land supply remains the key

<sup>34</sup> Most ASEAN countries have lower labor costs than Hong Kong. For logistics services, emerging economies in ASEAN are putting in strong efforts to develop their competitiveness, and are well-positioned to make good progress. For example, Malaysia’s logistics sector is well developed, and its transport infrastructure likewise. For Thailand, demand for its logistics services is being driven to large degree by multinational companies looking to leverage on the country’s connections to ASEAN and encouraged by the Thai government’s efforts to integrate logistics services across the borders of the Greater Mekong Subregion.

<sup>35</sup> Leveraging Hong Kong’s strong international connectivity and free trade system, Hong Kong authorities launched a number of infrastructure projects in recent years to enhancing Hong Kong’s logistics and trade industries. That includes “Smart Port facilities, cross-boundary high speed rail, and a third runway for its international airport, as well as forging new FTAs and IAs. With a wealth of legal professionals and the Basic Law system, Hong Kong reached a 9-year high in terms of arbitration cases

to fundamentally resolve the structural imbalance between housing demand and supply. That is reflected by the recent launch of the Northern Metropolis Development Strategy.

**Figure 1.6. Fiscal Reserves, Foreign Exchange Reserves and Financial-sector Capital Buffers**



Source: HKMA; Financial Services and Treasury Bureau; Haver.

Note: Data on FX reserves starts from 1997 and data on the CAR, from 2000. Both FX and fiscal reserves are denominated in the HKD. The year in the x-axis represents the calendar year except for fiscal reserves, for which the fiscal year starts in April and ends the following March. The shaded area marks the GFC period and its aftermath during which there was a sharp increase in financial buffers.

**(C) Demographics will become more challenging as population shrinkage and ageing become more pronounced.**

- The total workforce is projected to decline over time. According to the government's baseline projection, population growth is expected to slow markedly, with the key factors being the continuously falling total fertility rate and rapid aging. The elderly as a percentage of the population is projected to increase from 18.3 percent in 2020 to 33.4 percent in 2049, while the total fertility rate is expected to continue to trend down from 1,051 live births per 1,000 women in 2019 to 990 in 2049. In addition, the labor force participation rate is expected to decrease further. So far, population ageing has not had a marked impact on economic growth and development although ageing started some years ago. As ageing becomes more pronounced in the coming years, the challenge for Hong Kong will be to sustain or lift productivity gains. What is in Hong Kong's favor is that the still-unfolding global transition to the "new economy" places a great premium on skills, adaptability and technology savviness – rather than age and physical attributes. To that end, the authorities are implementing a number of talent development programs in the "new economy" sectors
- Retaining talent could become a perennial challenge. The risk from the emigration of local talent and the departure of foreign expatriates has increased. Although Hong Kong would likely be able to attract talents from mainland China, they may not possess certain important areas of expertise and experience commanded by those who leave.

and amount in 2020. For details, please see:

[https://www.policyaddress.gov.hk/2021/eng/pdf/publications/14-5/02\\_International-Transportation-Centre.pdf](https://www.policyaddress.gov.hk/2021/eng/pdf/publications/14-5/02_International-Transportation-Centre.pdf)

[https://www.policyaddress.gov.hk/2021/eng/pdf/publications/14-5/03\\_International-Trade-Centre.pdf](https://www.policyaddress.gov.hk/2021/eng/pdf/publications/14-5/03_International-Trade-Centre.pdf)

[https://www.policyaddress.gov.hk/2021/eng/pdf/publications/14-5/04\\_Intl-Legal-and-Dispute-Resolution-Centre.pdf](https://www.policyaddress.gov.hk/2021/eng/pdf/publications/14-5/04_Intl-Legal-and-Dispute-Resolution-Centre.pdf)



(D) Socioeconomic inequalities can adversely affect growth outcomes.

- Income gaps and socioeconomic disparities in Hong Kong have widened, while lower-income households also have more limited capacity to service debts. The Gini coefficient, which is based on original household income, is at a 45-year high of 0.539, and that computed on a post-tax post-social transfer basis, is also still high at 0.473. The authorities have boosted their spending on social welfare by 62% over four years from \$65.3 billion in 2017-18 to \$105.7 billion in 2021-22, and provided fiscal support to address socioeconomic issues under the pandemic. Despite the fiscal pressure that it may bring, the size of the poor population in 2019 decreased significantly from the pre-intervention 1.49 million to 0.64 million.
- Wage growth has been modest and has lagged behind productivity. Housing has become less affordable. Some segments of the population have become less confident about opportunities and prospects for significant upward socioeconomic mobility. Concerns have arisen over the quality of jobs created in the “new economy” and the gaps in health-care and welfare services, particularly for the more vulnerable groups in society.
- Studies have shown that extreme income inequality can depress aggregate demand. Stark income disparities will limit the ability of poorer households to stay healthy and accumulate human capital (IMF, 2018; Perotti, 1996; Galor and Moav, 2004; Aghion, Caroli, and Garcia-Penalosa, 1999), and may create protectionist pressures for policymakers and lead to higher political and economic instability (IMF, 2018; Claessens and Perotti, 2007, Alesina and Perotti, 1996).

(E) The buildup of fiscal resources will likely be more modest than before, while expenditure needs will be expanding. Recurrent and capital expenditure will increase pronouncedly over the long term. Spending on social welfare and health care will need to rise along with the aging society. The authorities have also rightly committed to significantly increasing spending on public housing supply over the longer term. Besides, further infrastructure developments such as those to strengthen Hong Kong’s links with mainland China would also need significant fiscal support. In this context, despite achieving a fiscal surplus in the past 15 years and having large fiscal reserves, fiscal deficits might become more frequent, and possibilities to build up fiscal reserves again would have to be seized whenever opportune. The authorities recognised the challenge and have conducted policy measures to raise revenue and reduce expenditure.

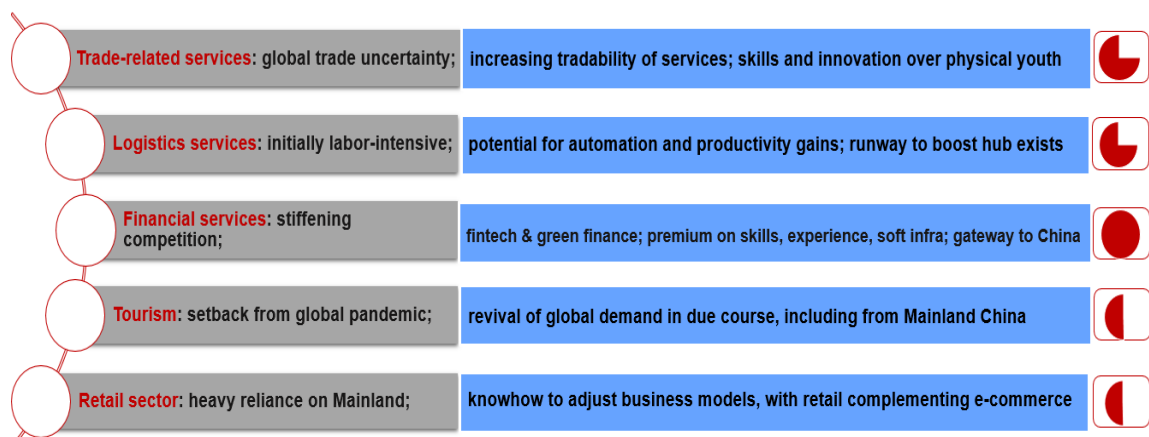
**7. There is also a need to maximize growth benefits from economic sectors with high potential while providing measured support to industries that face headwinds for their further development** We consider several influencing factors (+/-) along two dimensions: scope for advanced labor-saving technologies to drive productivity; and prospects of robust global demand over the medium to long term – bearing in mind some likely lasting effects of COVID-19 (Figure 1.7).

- In the trade-related services sector, Hong Kong’s competitive edge is sharp. With global goods trade still expected to grow and more services becoming tradable, Hong Kong will benefit.
- For logistics services, new technologies are creating the potential for greater automation and productivity gains, and Hong Kong’s excellence as a business hub and strong track

record in services should imply bright prospects for growth that is driven by technology and productivity.

- For financial services, the use of technology as well as the role of fintech firms in creating new products, improving processes and enhancing distribution channels still have a long way to go. The financial sector’s demand for advanced skills and high-quality “soft” infrastructure suits Hong Kong well. Most importantly, the city’s deepening links with mainland China will bring immense benefits. Green finance will also provide significant opportunities.
- For tourism, likely dampeners could come from greater caution for cross-border travel and the rising substitutability of certain types of digitalized services in place of on-site visits. The gradual reopening of borders – with Mainland China and with other countries – will add a boost to Hong Kong’s economic growth and development, although a return to the height in 2017 is unlikely in the medium term

Figure 1.7. Sectoral Growth: Influencing Factors and Possible Outcomes



Source: AMRO staff

Note: the number of red quadrants in each circle indicates the extent to which the sector has bright development potential

- For the retail sector, growth potential might be limited as about half of the city’s retail sales are driven by mainland tourists and the business model is challenged by e-commerce. The sector should see a significant revival when borders are reopened, and then be in a stronger position to find ways to meet longer-term structural challenges.

**8. Combining the top-down view with more bottom-up sectoral considerations, we discuss the possible landing zones of Hong Kong’s long-term GDP growth in 2021-2035 and show that growth will be reasonably firm in a baseline scenario, with considerable upsides and downsides (Figure 1.8).**

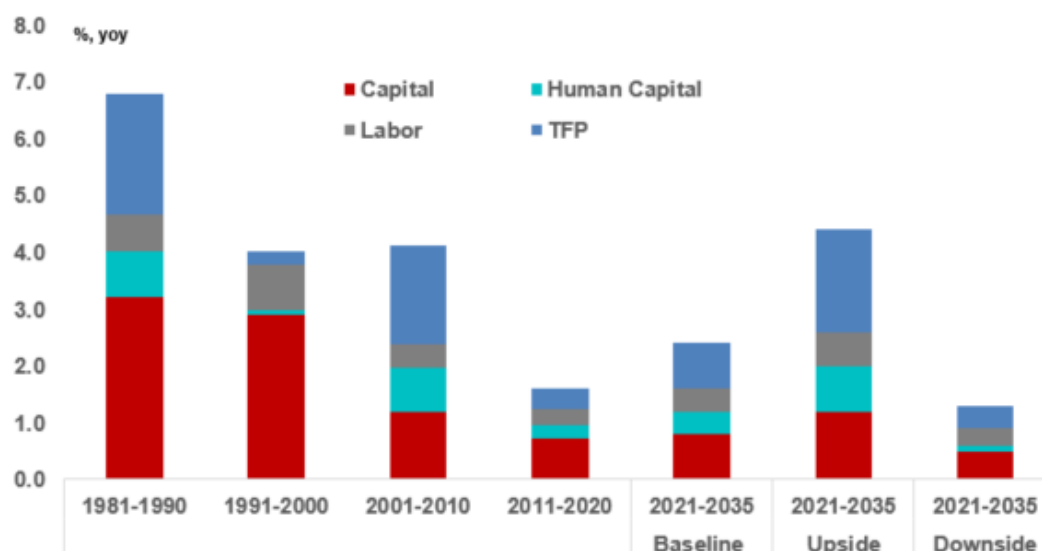
- In the baseline scenario, average GDP growth would be 2.4 percent in the next 15 years. Human capital and TFP are assumed to grow at a moderate pace in line with the average performance over the past three decades. Employment growth would continue to trend down, taking into account the government’s baseline projection of population<sup>36</sup>.

<sup>36</sup> According to “Hong Kong Population Projections 2020-2069” published by the C&SD, the population is projected to increase to 8.4 million in 2035 in the upside scenario, compared with 8.0 million in the baseline scenario and 7.8 million in the downside scenario. Under different population trajectories, total employment would change accordingly based on our projection of labor force participation and the structural unemployment rate.

Accordingly, the contribution to economic growth from total labor productivity would be similar to the pre-recession level in 2014-2018. Capital accumulation would remain a less important factor than TFP, labor and human capital for driving economic growth.

- In the downside scenario, total labor and the level of TFP are assumed to be stagnant, with the contribution to economic growth being the same as in the decade of 2011-2020. Accumulation of capital investments and human capital would further decline; as witnessed during the low-growth decade of 2011-20, average GDP growth would slip to 1.3 percent on the horizon.
- However, in the upside scenario where we consider optimistic factor contributions to economic growth, education, wages, TFP and capital investments would grow in tandem with the performance of these areas in their respective best decade and the population would increase at a faster pace. Average GDP growth could reach as high as 4.4 percent on the horizon.

**Figure 1.8. Hong Kong's GDP Growth: Possibilities in the Longer Term**



Source: Penn World Table V.10 (Feenstra, Inklaar and Timmer, 2015); C&SD; Haver; AMRO calculations

Note: This baseline growth accounting specification is augmented with the human capital factor, which takes into account the role of educational attainment in measuring the effective input of labor, as in Bosworth and Collins (2003) and Svirydzenka and Petri (2014). Factor contribution is averaged over the sample periods.

**9. To further the growth prospects, Hong Kong's policies should sharpen the competitiveness of sectors that are already strong, and also increasingly capitalize on its hinterland and diversify growth drivers (Figure 1.9).**

- The government and businesses have a good grasp of how the outlook for different sectors of the economy is changing. This enables a timely shifting of resources across sectors when necessary.
- Hong Kong can deepen its links with mainland China and the region, including through the Regional Comprehensive Economic Partnership (RCEP) and the ASEAN-HK Free Trade Agreement, to boost trade and investment and attract more foreign labor, especially people who bring with them specialized skills and expertise.

- The global transition to the new economy is ongoing. Hong Kong, with its strong entrepreneurial base, skilled workforce, and pipeline of tech-savvy graduates, is well placed to use technology and innovation to raise productivity to thrive in the new economy.
- For some new activities, rapid growth from a low base can yield significant gains. An example is smart manufacturing, which can be developed in a targeted manner by tapping the skills of tech-savvy labor and the experience of MNCs.
- Hong Kong should continue to explore ways to increase fiscal revenue and also augment fiscal reserves when opportunities permit. This would help to anchor resilience and expand room for public efforts to generate more growth and jobs.
- Addressing inequalities will help to lift growth outcomes by boosting aggregate demand and strengthening the ability of poorer households to consume in the near term and accumulate human capital over the longer term. Greater social stability will also benefit growth outcomes.

**Figure 1.9. Future Policies: Some Suggestions**



Source: AMRO staff

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## 2. Private Funding Trends for Hong Kong's Financial Technology Companies<sup>37 38</sup>

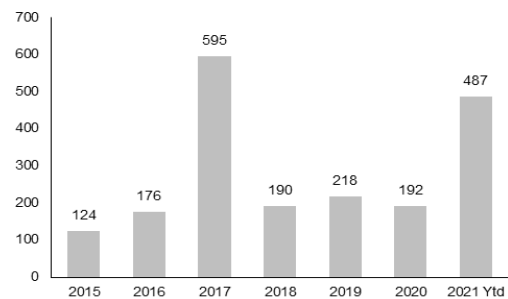
**1. Financial technology is poised to become another important growth engine for Hong Kong.** Fintech has crucially driven the digitalization of financial and insurance services, a major sector that has consistently contributed to Hong Kong's growth in the last decade and accounted for 23.3 percent of GDP (Figure 2.1). Hong Kong has become a very strong and relevant fintech hub, hosting over 600 firms, of which eight are unicorns<sup>39</sup> as at October 2021. Looking forward, the city's fintech industry has a very strong potential to leverage opportunities arising from the integration within the Greater Bay Area (GBA). The appetite for digitalization has been increasing<sup>40</sup> among banks (Ernst and Young, 2021) and individuals (Sea and World Economic Forum, 2020), given various contributing factors including progressive regulatory regime, the COVID-19 pandemic and corresponding changes in consumer behavior. To prepare for the next era of fintech, the HKMA unveiled the Fintech 2025 strategy in June 2021 to "promote the provision of fair and efficient financial services for the benefit of Hong Kong citizens and the economy"<sup>41</sup>.

**Figure 2.1. GDP Contribution by Service Sector**  
(Percentage point contribution to yoy change in real GDP)



Source: C&SD; AMRO estimates  
Note: Others include public administration, social and person; services; information and communications; ownership of premises; and accommodation and food services.

**Figure 2.2. Funding to Fintech Start-ups**  
(Millions of USD)



Source: Tracxn  
Note: 2021 Ytd refers to January-August 2021.

**2. Funding is crucial to fintech start-ups as it is the lifeblood that keeps operations going throughout the companies' life cycle.** Start-ups in Hong Kong make up the majority of fintech firms. Studies have shown significant relationships between funding and the success of start-ups. In particular, funding from venture capitalists would send a strong signal of the firm's viability and support its growth, especially in sales (Bertoni and others, 2010). Conversely, in a fast-moving results-oriented environment such as fintech, a lack of adequate financial resources would constrain the growth of start-ups, especially in the early stages (Davila and others, 2001). Therefore, examining funding trends would allow us to gauge the potential and viability of different parts of the fintech sector. In this study, we mainly rely on

<sup>37</sup> Prepared by Edmond Choo Chiang Yong, Associate Economist

<sup>38</sup> Data sourced from Tracxn may differ from official data. All analysis in this selected issue is based on Tracxn data.

<sup>39</sup> A unicorn is defined as a company that has a valuation of at least USD1 billion.

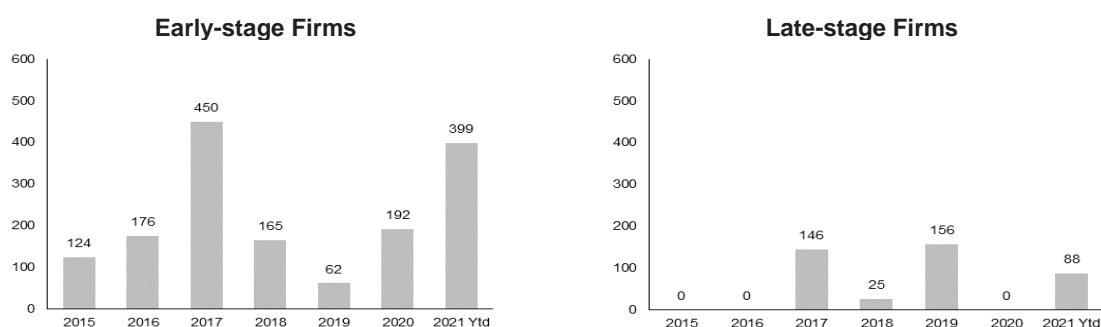
<sup>40</sup> "Fintech Adoption and Innovation in the Hong Kong Banking Industry", May 2020, Hong Kong Academy of Finance.

<sup>41</sup> Opening remarks of Mr Eddie Yue, Chief Executive of the HKMA, at a fintech seminar organized by the Hong Kong Association of Banks on June 8, 2021.

data from Tracxn<sup>42</sup>, which specializes in information about start-ups including fintech firms<sup>43</sup>, to examine the trend in funding and offer some policy recommendations<sup>44</sup>.

**3. Funding to the fintech sector continued at varying degrees in recent years, buttressed by improving growth prospects, policy support and accelerated digitalization.** Since 2017, the regulators has rolled out initiatives, such as HKMA’s Smart Banking Initiatives<sup>45</sup>, to facilitate the development of fintech. Notwithstanding challenges from the U.S.-China tensions, domestic social unrest and the pandemic, Hong Kong managed to attract a couple of major funding raising (above USD100 million for each) between 2017 and 2020. As the pace of digital adoption by consumers and businesses accelerated during the pandemic and the economic recovery became more robust, fintech funding continued in 2021, supported by the HKMA’s Fintech 2025 strategy, among others.

**Figure 2.3. Funding by Stage**  
(Millions of USD)



Source: Tracxn

Note: 2021 Ytd refers to January-August 2021.

**4. Private financing for early-stage to late-stage fintech companies may vary but there is no lack of funding support<sup>46</sup>.** Funding for early-stage firms may vary from year to year as investors may prefer to reduce funding in early-stage firms in favor of investment in late-stage companies, given the less risky prospects based on individual circumstances (Figure 2.3). That said, there is no lack of funding support outside private financing for startups, including those in the Innovation and Technology (I&T) sector<sup>47</sup>.

<sup>42</sup> Tracxn Technologies Limited is an India-based global start-up database which tracks funding and company information through internet scrapping. Compared to other databases, Tracxn offers better Asia-centric data, especially in emerging markets.

<sup>43</sup> We try to segregate firms into different segments before aggregating them together to compute the total funding data. These segments include but are not limited to: alternative lending, banking technology, crowdfunding, financial and accounting technology, foreign exchange technology, insurance information technology (insurtech), internet first insurance platforms, investment technology, payments, regulatory technology (regtech) and remittance. To segregate firms into different segments, Tracxn classifies each firm in terms of its primary business function. As an example, TNG Wallet in Hong Kong is classified under “payments” rather than “remittance” as the company’s main function is to provide electronic wallet services. In that sense, we could avoid the possibility of double-counting the funding data when we compute the aggregates.

<sup>44</sup> Tracxn would normally classify firms that have Hong Kong management but are domiciled overseas as Hong Kong firms. When comparing such firms with data from other sources, these factors could lead to differences.

<sup>45</sup> The seven Smart Banking Initiatives were (1) the Faster Payment System (FPS), (2) an enhanced Fintech Supervisory Sandbox (FSS) 2.0, (3) the promotion of virtual banking, (4) the Banking Made Easy initiative, (5) the Open Application Programming Interface (API), (6) closer cross-border collaboration, and (7) enhanced research and talent development.

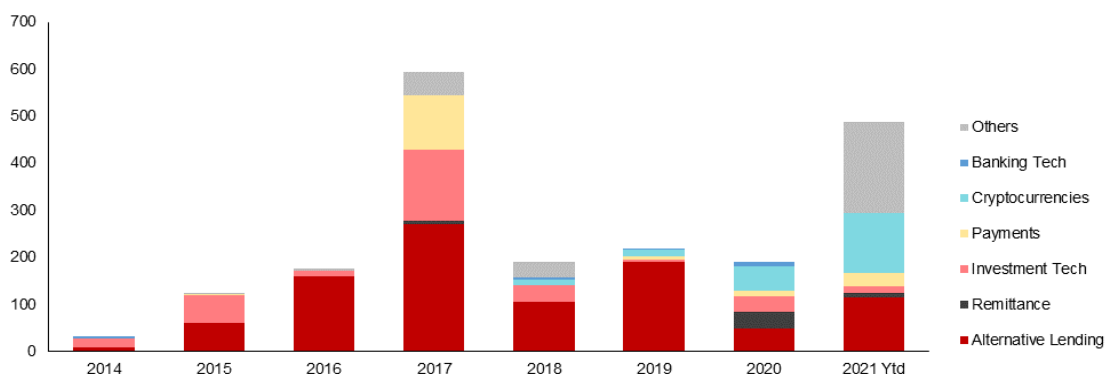
<sup>46</sup> The early stages comprise angel, seed, and Stage A and B funding rounds, while late stages include Stage C funding rounds and beyond. Based on information provided by Tracxn, late-stage funding could go as far as Stage G before the firm launches an initial public offering.

<sup>47</sup> In 2017, Hong Kong government has set up an Innovation and Technology Venture Fund to encourage investment from venture capital funds in local I&T start-ups. In the 2018/2019 budget, the Hong Kong government set aside HK\$500 million for the development of financial services over the next five years. Additionally, the government has allocated more than HK\$99.4 billion

**5. The alternative lending segment has attracted the most significant amount of investment so far, while funding to other segments, such as banking technology and insurtech have also grown.**

- During 2014 to 2016, funding for fintech mostly went to the alternative lending and investment tech segments (Figure 2.4). These segments took off quickly as Hong Kong’s large wealth management market was able to leverage the fintech tools provided to access a wider array of investments.
- In 2017, Hong Kong saw unprecedented inflows of funding into the rest of the segments, especially payment (accounting for 19.3 percent of total), driven by the HKMA’s launch of the Smart Banking Initiatives, among others. Due to Hong Kong’s status as a center for cross-border payments and transactions, this segment was a low-hanging fruit targeted by the authorities at the early stage of fintech development.
- With the launch of Insurtech Sandbox and issuance of virtual insurer licenses, funding to insurtech firms has also grown between 2018 and 2021.
- In 2020, funding to remittance firms picked up strongly and accounted for 18.3 percent of total inflows as opportunities rose to reduce pain points in cross-border transfers, such as the slow speed and hassle of transferring money and the costs charged by service providers. Closed borders and movement restrictions during the pandemic accelerated the need for digital solutions to improve efficiency.

**Figure 2.4. Funding by Sub-sector**  
(Millions of USD)



Source: Tracxn

Note: YtD refers to January-August 2021. The data is about funding for 129 funded firms out of a total of 577 active fintech firms. The alternative lending segment includes online marketplace or comparison platforms for financial products, online lenders for trade finance, peer-to-peer (P2P) or small and medium enterprise lending platforms, and credit scoring platforms. Payments include online payments and point-of-sale payment terminals. Investment tech includes robo-advisory, online stock/forex trading platforms and technical analysis platforms. Banking tech includes digital banks and financial comparison platforms. Remittances include online business-to-business (B2B) and P2P cross-border transfer platforms. Cryptocurrencies include mining, online over-the-counter trading platforms, financial solution providers based on digital currencies, and crypto-based wallets/payments or exchanges for crypto derivatives. Others include crowdfunding, regtech and insurtech.

since 2017 to support the development of innovation and technology. This included a HK\$10 billion infusion into the Innovation and Technology Fund, to introduce various new initiatives and promote research and development (R&D). As of January 2021, the Hong Kong government provides 47 grants for enterprises and organizations in different sectors. For details, please see [https://www.if.gov.hk/filemanager/en/content\\_43/FCR-2016-17-67.pdf](https://www.if.gov.hk/filemanager/en/content_43/FCR-2016-17-67.pdf) and <https://www.hongkong-fintech.hk/en/insights/news/news-2021/fact-sheet-hong-kong-fintech-landscape/>

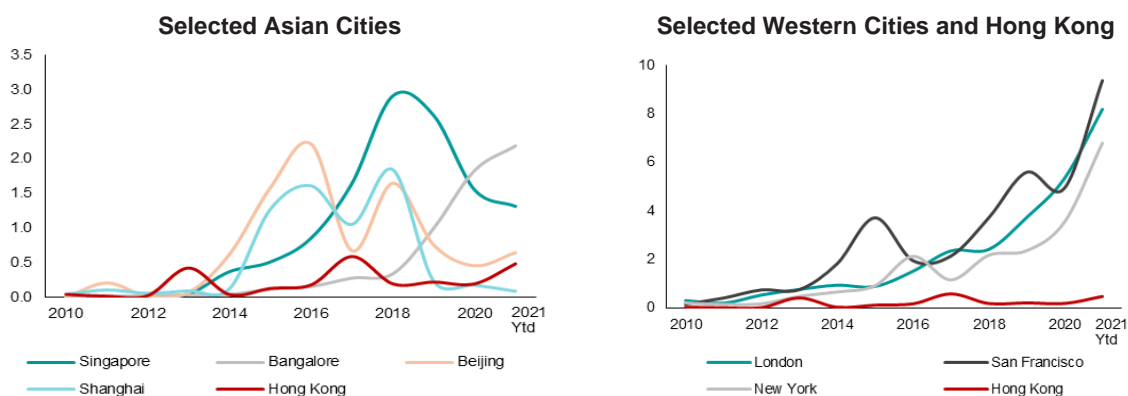


- Funding for cryptocurrency firms (accounting for 26.1 percent of total) has grown more than twofold in 2020 and 2021, supported by demand from ultra-high net worth individuals and celebrity investors with a huge risk appetite. Looking ahead, further growth in this segment could be affected by market conditions and regulatory changes.

**6. The next phase of fintech development would entail more advanced products that require sophisticated technologies** such as artificial intelligence and distributed ledger technology to support and deliver financial services. These would likely come into play for the regtech<sup>48</sup>, robo-advisory, banking, financial and accounting tech segments, which are currently small but have huge potential.

**7. Global competition for fintech funding has increased.** Since 2014, Hong Kong's fintech sector has been receiving less financing than other Asian fintech hubs (Figure 2.5). The effects from the US-China tensions and the pandemic were also observed for the Mainland cities and Singapore<sup>49</sup>. During those years, investors shifted their interest to Bangalore, a fast-rising fintech hub<sup>50</sup>. Meanwhile, outside of Asia, fintech funding has been accelerated by rapid progress in the digitalization of financial services and fintech adoption. Investment flows to the fintech sectors in New York, London and San Francisco seem undeterred by the pandemic, reaching historical highs in 2021. Taken together, while global fintech investment is on the rise, competition for funding has also increased across the globe and has become more intense in the last few years.

**Figure 2.5. Fintech Funding by City**  
(Billions of USD)



Source: Tracxn  
Note: 2021 Ytd refers to January-August 2021.

**8. Moving forward, it is important to ensure that funding continue to be robust in the fintech sector.** The positioning of Hong Kong as a key innovation and technology hub for the GBA and as an international financial center should enable fintech firms to use the city as a test bed for further expansion to mainland China's massive markets, and to raise capital and create demand for fintech. Furthermore, the gradual reopening of borders and the rapid pace

<sup>48</sup> Regtech is the use of technology to enhance risk management and regulatory compliance in financial institutions. It includes know-your-customer (KYC)/anti-money laundering (AML)/counter-terrorism financing (CTF) solutions, and risk management solution providers.

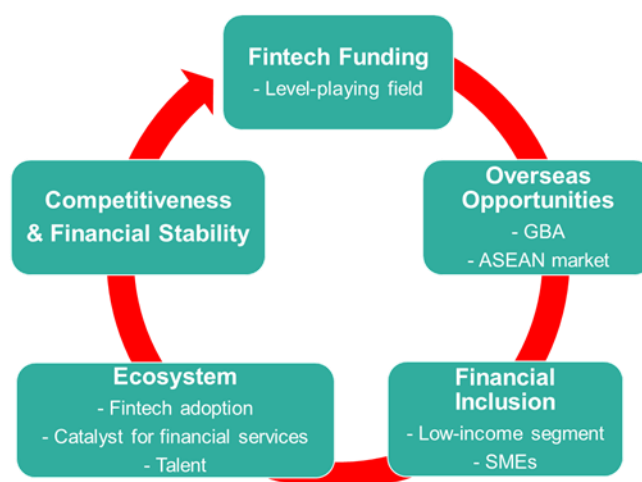
<sup>49</sup> In Singapore, the reduction of funding to Grab, a large payment company, contributed to the bulk of the decline. Funding to Grab made up an average of 83 percent of total fintech funding for Singapore from 2014 to 2020.

<sup>50</sup> As of August 2021, funding to Bangalore had reached a new record of USD2.2 billion, compared with USD1.3 billion, USD0.6 billion and USD0.5 billion in Singapore, Beijing and Hong Kong respectively.

of fintech development in the ASEAN+3 region would also encourage companies from other parts of the world to participate in and enrich Hong Kong's fintech space, leveraging the city's position as an innovation center. Therefore, policy support for start-ups at all stages of their life cycles should continue in order to attract overseas firms and local firms alike to set up and access financing in Hong Kong.

**9. Policies could be strengthened to enhance competitiveness and groom this sector into a future growth driver.** On top of the current policy measures, the authorities could reduce barriers to entry by incubating more potential start-ups and maintain a level-playing field for all firms (Figure 2.6). More assistance could also be rendered to firms to venture overseas, especially in ASEAN, to tap into the large unbanked population<sup>51</sup>, other than the GBA. To foster a rich fintech ecosystem and increase financial inclusion, policymakers could encourage consumers to adopt fintech even more so that fintech benefits can spill over to greater parts of the population, in particular, the unserved low-income segment and micro, small and medium businesses<sup>52</sup>. Addressing the shortage of skilled IT talents by attracting foreign talent, among others, should continue to be a policy priority<sup>53</sup>.

Figure 2.6. Enhancing Robustness of the Fintech Ecosystem



Source: AMRO staff

**10. To enhance the robustness of the fintech ecosystem, fintech-related risks will need to be adequately mitigated.** One of fintech's advantages is that moving money around has become easier and faster, but that could also amplify financial cycles and volatility<sup>54</sup>. To

<sup>51</sup> The Dedicated Fund on Branding, Upgrading and Domestic Sales (BUD Fund) provides the cumulative funding ceiling per enterprise to HK\$6 million for firms to explore more diversified markets including those Hong Kong has signed Free Trade Agreements (such as ASEAN) and Investment Promotion and Protection Agreements (e.g. Japan and Korea). For details, please refer to <https://www.bud.hkpc.org/en>.

<sup>52</sup> In 2019, the consumer fintech adoption rate in Hong Kong reached 67 percent (exceeded 64 percent of average adoption across 27 Markets) (same as Argentina, Korea and Singapore) according to Global Fintech Adoption Index 2019 by Ernst & Young. The top was China and India at 87 percent.

<sup>53</sup> The Policy Address 2021 has covered various measures to attract talents. For example, the Quality Migrant Admission Scheme will have the annual quota doubled to 4000 to attract talents from all over the world to work in Hong Kong. There are also facilitating measures in place to attract talents such as Technology Talent Admission Scheme. In recent years, the Government also promulgated the Talent List, providing immigration facilitation to 11 professions (including asset management, marine insurance and fintech professionals).

<sup>54</sup> For example, online lending platforms have yet to establish an efficient background check system on borrowers, hence the chances of default are higher (Fung and others, 2020).

safeguard financial stability, the government needs to closely monitor and assess the risks of fintech activities, especially new types of risks, and enhance regulations if necessary. Meanwhile, the authorities are encouraged to continue with the efforts to improve the population's financial literacy and understanding of the risks of fintech, such as cryptocurrencies. Collectively, these elements could build on initiatives laid out by the new Fintech 2025 Strategy to further cultivate a robust fintech ecosystem. The strengthened system will in turn enhance competitiveness, improve financial stability, attract further funding to the sector, and boost the role of the fintech sector as an important growth engine ahead.

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