# The Impact of Fintech Innovations on the Hong Kong Banking Industry

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## Summary

The Hong Kong banking sector is embracing Fintech vigorously. The survey results indicate that on the whole incumbent banks considering Fintech as a complement and enabling technology, which facilitates them to improve efficiency and to meet the demand for underserved customers, out-number significantly those seeing it as a threat and a replacement for their existing businesses. Given vast interests and growing adoption of Fintech by banks, the impact of Fintech is being increasingly felt, with most banks surveyed previously considering themselves unaffected now realise that they could not be immune. Either proactively or passively, most incumbent banks have taken a pragmatic approach and have made tangible efforts to adopt Fintech in their business operations.

As of today, a wide range of Fintech innovations have been adopted generally in banks' operations, albeit by various degrees. In particular, innovations relating to "mobile banking", "open banking (APIs)", "customer identification and authentication", "machine learning and predictive analytics" and "cloud computing" have been rather commonly applied, with over 40% to up to two thirds of the incumbent banks revealing that these have been partially adopted in their institutions; and most respondents intend to apply more of them to either a

limited or full extent. For "robo-advisory", "regtech solution", "distributed ledger (e.g. blockchain)" and "smart contracts", while related applications have been less widely used, most respondents either are using or plan to apply them in the future. In general, the applications of Fintech amongst foreign banks have been less widespread than retail banks, with the exception of the use of "machine learning and predictive analytics" and "roboadvisory". As for virtual banks, they have shown keen interest in almost all identified solutions.

Understandably, most incumbent banks are not keen on applications of marketplace platforms, which could facilitate a shift to disintermediation. This is in contrast to virtual banks, about 40% to half of which indicate likely adoption of these applications.

As for specific financial services, Fintech has been most widely applied (by about half or more of respondents) in areas including payment and fund transfer, personal finance, savings and deposit account services, and investment and wealth management services, as well as in back-office operations and IT security systems. Similarly, the trend of progressive applications can be expected in virtually all types of financial services, as indicated by most incumbent banks. As for virtual banks, most of them indicate that they would apply Fintech innovations in almost all the services that they plan to operate.

Although in general it may appear premature to evaluate the effectiveness of Fintech adoption, there are already some early signs of payoff, with more than one third of incumbent banks stating that their prime objectives have been met. Our regression analysis also suggests that the adoption of Fintech may have produced some positive effects on banks' performance.

Most retail and virtual banks have or plan to set up dedicated divisions/teams, mostly located in Hong Kong, though fewer foreign banks have so far established their teams domestically, partly reflecting the centralised development approach taken at their headquarters. Moreover, with an aim to accelerate the adoption of Fintech innovations, various forms of engagement in relation to Fintech have been taken, including "develop in-house", "purchase Fintech products and services from external parties", "forming partnerships with Fintech firms" and others. These, coupled with the fact that most banks take either a "proactive adopters" or a "reactive adopters" strategy, augur well for future Fintech developments in the Hong Kong banking industry.

The pace and degree of Fintech adoption will, however, hinge on whether certain challenges can be overcome, amongst which difficulties in ensuring information security, data privacy and protection, difficulties in retaining and attracting talents, domestic as well as international regulation related to Fintech evolution, and banks' legacy IT systems are considered by most as key challenges. For some of these hurdles, policymakers could have a role to play. In this regard, it is worth noting that already the Hong Kong Monetary Authority (HKMA) has introduced a number of measures to address related issues, as appropriate.

How Hong Kong's banking sector structure may evolve in the face of Fintech development has been widely debated. Over a 10-year time horizon, incumbent banks on the whole seem confident that, through adapting to the new environment, they will continue to play a key role and would not be displaced by new competitors: all incumbent banks consider the "better bank scenario" either possible or highly possible. In contrast, only one bank considers the "disintemediated bank scenario" highly possible and less than one third of the respondents see it possible, while two thirds of them rate it as either less possible or unlikely.

Nevertheless, incumbent banks appear not ruling out other less but still dramatic scenarios. As for virtual banks, they in general expect a bigger impact of Fintech on traditional banking services and a more dramatic change in the structure of Hong Kong's banking sector, in particular, with half of them seeing the "new bank scenario" and the "distributed bank scenario" highly possible.

If banks' views are any guide, precautionary preparations for more dramatic changes in Hong Kong's banking sector structure, such as strengthened monitoring on the Fintech development as well as increased cooperation with different authorities responsible for oversight of regulatory functions related to Fintech, may be warranted.