

## Executive Summary

Central Bank Digital Currency (CBDC) is a legal tender issued by central banks in digital form. It serves as a direct cash-like claim against the central bank, which means that CBDC is a liability of the central bank and therefore free of counterparty credit risk. In simple terms, CBDC is similar to digital cash. It merges the stability of currency as a medium of exchange and a unit of account with the convenience of digitalisation, which allows for swift and contactless payments between users. More importantly, CBDC also enables countless avenues for innovation that existing digital payment methods lack, such as offline payments and programmable features.<sup>1</sup>

By and large, CBDC can be categorised into two types: retail CBDC and wholesale CBDC. While retail CBDC is mainly designed for the general public’s day-to-day payments, wholesale CBDC is designed with financial institutions in mind, facilitating rapid interbank payments and cross-border settlements. And while retail CBDC provides the public with the most advanced payment methods, wholesale CBDC provides the bedrock on which to upgrade existing financial

infrastructures. In pairing the “smart” with the efficient, both forms function together to pioneer a new era of digital finance.

As of today, 86% of the central banks around the world are conducting CBDC-related research, with China’s digital renminbi, referred to as “e-CNY” below, acting as the trailblazer for many others. Among those exploring the possibility of issuing CBDC are developed economies such as the United States, the United Kingdom, Japan, France, and Switzerland. Hong Kong, as the world’s traditional international financial centre, is not lagging on this front either. The Hong Kong Monetary Authority (HKMA) conducted their wholesale CBDC research project in 2017 and has recently launched their retail CBDC project in 2021.

This report is structured into three different areas: retail CBDC, wholesale CBDC, and governance, offering seven recommendations in total (Table I). This report aims to explore how Hong Kong can take full advantage of the opportunities offered by CBDC and assume a leading role in the new era of digital finance.

The primary application areas for retail HKD CBDC, referred to as “e-HKD” below, lies on the local level. Before all else, Hong Kong should first formulate a comprehensive and overarching retail payment strategy to optimise the daily payment experience of citizens (**Recommendation 1**).

Table I. Report structure

	Local	Cross-border
Retail CBDC	<b>Recommendation 1:</b> Formulate a retail payment strategy	<b>Recommendation 3:</b> Dual-currency digital wallets
	<b>Recommendation 2:</b> Explore implementation strategies and use cases for e-HKD	
Wholesale CBDC	<b>Recommendation 4:</b> Explore use cases for wholesale CBDC in the financial industry	<b>Recommendation 5:</b> Develop Hong Kong into a wholesale CBDC hub
Governance	<b>Recommendation 6:</b> Formulate digital finance strategies	
	<b>Recommendation 7:</b> Establish a joint steering group for CBDC	

<sup>1</sup> CBDC can set specific rules for its usage through its programmable features, such as limiting the scope for use and setting an expiration date.

To do this, the HKMA should seek to better understand the public's demand for CBDC through various means, such as public consultations; moreover, in order to meet the public's increasing demand for more convenient payment methods, relevant authorities should also work to ensure the interoperability between CBDC and the existing payment systems (e.g., Faster Payment System).

Guided by a clear retail payment strategy, Hong Kong should begin to explore local implementation strategies and use cases for e-HKD (**Recommendation 2**). To list but a few strategies, the formulation of public-private partnerships should be considered when deciding the implementation strategy for e-HKD. The HKMA might also consider working with existing prevalent digital payment companies, such as the Octopus Cards Limited, to promote its usage. Regarding application scenarios, Hong Kong can refer to the Mainland's pilot of e-CNY and begin introducing CBDC from simple application scenarios such as government subsidies, slowly moving towards more complex application scenarios. This gradual approach would aid the adoption and popularisation of e-HKD.

In addition to local applications, e-HKD can also help facilitate cross-border payments. To offer greater convenience, Hong Kong should cooperate with the Mainland to launch a dual-currency digital wallet which has both e-CNY and e-HKD for cross-border commuters that travel between the Mainland and Hong Kong (**Recommendation 3**). This dual-currency digital wallet can be first piloted in the Guangdong-Hong Kong-Macao Greater Bay Area, improving the financial interconnectedness and capital flow between the two economies in the long run.

With regards to wholesale CBDC, an important application will be the local financial industry; Hong Kong should explore its usage within existing systems to encourage process optimisation (**Recommendation 4**). To achieve this, Hong Kong should refer to the successful pilots of Switzerland and other economies to promote the application of CBDC

in exchanges, as well as improve and automate the whole delivery and payment process. In addition to the Hong Kong Exchanges and Clearing Limited, other digital asset exchanges in the private sector also have the potential to play an important role in the digitisation of Hong Kong's financial system.

At the cross-border level, the application of wholesale CBDC should revolve around the m-CBDC Bridge project.<sup>2</sup> Hong Kong should leverage its first-mover advantage and take the initiative in leading the standard-setting and governance of m-CBDC Bridge, connecting m-CBDC Bridge with the CBDCs of other economies (**Recommendation 5**). In the future, the foreign exchange and cross-border application of e-CNY is projected to be at the core of m-CBDC Bridge. Hong Kong should give full play to its existing advantages as a major global intermediary to promote both the exchange between e-CNY and other CBDCs, as well as the internationalisation of renminbi.

Lastly, in terms of governance, Hong Kong should formulate a comprehensive digital finance strategy (**Recommendation 6**), to establish a legal framework conducive to “disruptive innovation”, as well as explore the potential risk factors associated with various newly introduced technological components, thus ensuring a smooth transition towards digital finance. At the same time, the HKMA should collaborate with the Financial Services and the Treasury Bureau to set up a CBDC joint task force (**Recommendation 7**), maximising the advantages offered by CBDC in both Hong Kong's financial and economic systems.

A new era of digital finance is forthcoming, with CBDC being an integral part of this modern age. As the world's traditional international financial centre, it is imperative for Hong Kong to make full use of its numerous advantages to facilitate the development and implementation of CBDC, with a view on ushering in a new era of digital finance for the city.

<sup>2</sup> In February 2021, the HKMA announced the launch of the m-CBDC Bridge project. Based on the collaborative project between the HKMA and the Bank of Thailand in 2017 on cross-border application of CBDC, m-CBDC Bridge announced the addition of two new members: the Digital Currency Research Institute of the People's Bank of China and the Central Bank of the United Arab Emirates, to further explore the application of wholesale CBDC for cross-border payments.



# 86%

of central banks worldwide are currently conducting CBDC related research

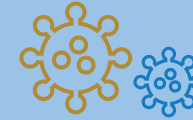
# 36



central banks are now exploring both retail and wholesale CBDC

# 30%

of central banks have changed their stance on CBDC since the outbreak of COVID-19



# 1

## st

live retail CBDC:  
**Bahamas' Sand Dollar**

The average cost of cross-border transactions is



# 7%

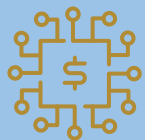
and CBDC can help reduce this

Retail CBDC is likely to be used by

# 1/5



of the world's population in the next three years



There are currently **10,000+** types of cryptocurrencies with market capitalisation equivalent to **1.45%** of global equities



# 1/3

of adults worldwide do not have a bank account, and CBDC can help improve financial inclusion

# FAQs

Is CBDC fiat money?

**Yes.**  
It has the same legal status as cash.

While possible, most central banks **do not favour** the idea.

When will Hong Kong's CBDC be launched?

There is no fixed timeline yet, but experiments are **progressing quickly**.

What are retail CBDC's implications for regular citizens?

It provides an alternative payment method that is **faster, cheaper, safer, and more efficient**.

What are the key differences between CBDC and cryptocurrencies?

CBDC is backed by the central bank; it serves as legal tender, allows for offline payments, but is not for **speculative** purposes, among others.

Will CBDC pay interest?

Will retail CBDC replace other payment methods, such as cash?

Is Hong Kong exploring retail or wholesale CBDC?

**Both.**

What is the difference between blockchain and distributed ledger technology (DLT)?

Blockchain is a **subset of DLT**.

**No,** it is only meant to serve as an alternative payment method.