

**Box 1****Taiwan's common QR code payment standard**

Riding the wave of rapid growth in electronic payments, a large number of payment institutions have entered the market, providing consumers with more diverse payment options. The payment function is an integral part of financial businesses, and promoting security and efficiency of the payment system helps sustain financial stability. Particularly, QR code payment has been increasingly popular in recent years. Many countries have successively launched national common QR code payment standards. Taiwan also established such a standard as early as 2017, allowing customers of different financial institutions to make payments and transfers via QR codes, thereby contributing to a more convenient and secure mobile payment environment.

***1. Many countries have launched common QR code payment standards***

Payment services exhibit “network effects,” where the more people use the services, the higher the value for themselves. Therefore, payment services should be made as accessible as possible to take full advantage of network effects. However, considering operating profits and business competition, payment institutions tend to develop independent, closed and non-interoperable systems individually, which only serve their own customers and provide no cross-institutional services, leading to a phenomenon of “fragmentation” in the payment market. Not only does it cause inconvenience for users but hinders healthy competition in the market. Over time, the market may even be dominated by a small number of payment institutions, thus becoming monopolistic or oligopolistic, which is detrimental to healthy market development. In addition, in a fragmented market structure where payment institutions are allowed to develop their own systems separately without collectively adopting secure and efficient common platforms and standards, once an anomaly or failure occurs in the system of a payment institution, it could disrupt the operation of the payment market as a whole and impact financial stability, and would potentially be more serious if it's one of the few dominant payment institutions.

In order to bring the network effects of payment services into full play, preserve the long-term competitiveness in payment markets, and ensure financial stability, international efforts have been aimed at actively implementing policies to enhance the interoperability of payment systems, mainly by urging payment institutions to adopt secure and efficient

common platforms and standards. Therefore, aside from establishing retail “fast payment systems”<sup>1</sup> to provide real-time settlement services year-round by integrating the movement of messages and funds among various payment institutions on the back end, many countries have recently also introduced national standardized QR code payment standards on the front end of payment interfaces (Table B1.1).<sup>2</sup> These initiatives have addressed challenges such as incompatible QR code specifications that hindered interoperability, where merchants had to interface with individual payment institutions, leading to increased operational costs and inconvenience for the public to identify and use.

**Table B1.1 Launch of common QR code payment standards in selected countries in recent years**

Country/ jurisdiction	QR standard	Time of launch
India	BharatQR	September 2016
Taiwan	TWQR	September 2017
Thailand	Thai QR	October 2017
Singapore	SGQR	September 2018
Hong Kong	HKQR	September 2018
Indonesia	QRIS	August 2019
Australia	NPP QR Code Standard	June 2019
Malaysia	DuitNow QR	July 2019
Japan	JPQR	August 2019
Philippines	QR Ph	November 2019
Vietnam	VietQR	June 2021

Sources: Yulius et al. (2023) and websites of selected countries.

## **2. Development of Taiwan’s common QR code payment standard**

While other countries only began to launch fast payment systems in recent years (for example, the FedNow service introduced by the US in 2023), Taiwan established the IFIS, operated by the FISC, as early as in 1987. Later, the IFIS began to offer 24-hour payment services in 1991. Then, coordinated efforts among financial institutions led by the FISC were made to introduce the common QR code payment standard in September 2017, which preceded those in many neighboring countries, and enabled financial institutions’ customers to make payments and transfers by scanning QR codes.

In October 2021, the FISC established a shared platform for cross-institution e-payments to facilitate the interconnection of information and cash flows between e-payment institutions, as well as between financial institutions and e-payment institutions, which further expanded the scope of retail fast payment services. This platform subsequently served various additional functions, such as cross-institutional e-transfers, e-payments for taxes and utility bills. In October 2023, the function of e-payments for shopping went live on the platform. Meanwhile, Taiwan’s common QR code payment standard was officially

labeled as “TWQR” (Chart B1.1), and the FISC collaborated with financial institutions as well as e-payment institutions to jointly promote TWQR on the platform, marking the beginning of participation by both financial institutions and e-payment institutions in the TWQR payment ecosystem.

Chart B1.1 TWQR label



Source: Official TWQR website.

### 3. Future development of TWQR

In the future, the FISC will continue to extend the usage scenarios of TWQR, including facilitating its adoption by the transportation industry so that the public can use TWQR on e-payment or mobile banking apps when taking public transportation. Furthermore, in December 2021, the FISC teamed up with its Japanese counterpart and launched a TWQR-based cross-border e-payment for shopping services, which was later expanded to South Korea in January 2024. Taiwanese citizens are expected to benefit from enhanced security and convenience of mobile payment through this service when traveling abroad.

- Notes: 1. A fast payment system refers to a system in which the transmission of the payment message and the availability of the final funds to the payee occur in real time or near real time on a 24/7 basis. For more detail, please see Bech, Morten and Jenny Hancock (2020), “Innovations in Payments,” *BIS Quarterly Review*, March.
2. See Yulius, Davids Tjhin et al. (2023), “Interoperable QR Code Payment Ecosystem in ASEAN: What It Means for the World,” BCG and ASEAN Business Advisory Council, September.