Developing a Modern Payments System

Ambitious vision becomes a reality

By Robert Keppler (FSE)

I well remember the day in Beijing in April 1993 that I submitted the Payments System Vision Report to members of The People’s Bank of China Steering Committee, The Domestic Advisory Committee, and The International Advisory Committee. At that time, I did not imagine that some twelve years later I would read an article in Electronic Payments Week (“Chinese Payments System: Sleek, Powerful, Advanced”) describing the way in which the CNAPS (Chinese National Automated Payments System) vision is now becoming a reality that positions China amongst the best of breed in the payments system world. The participative structured approach which we now take for granted - Stocktaking, Vision, Conceptual Design, and System Acquisition – works in practice and should be pursued actively by all countries that are serious about soundly based benefits driven reform that satisfies the needs of all sectors of an evolving economy.

When China’s payments system--arguably the world’s most modern--is fully operational, it may make that nation the world’s most financially competitive. China’s payments system which has been underway since 1990 is based on a fully centralized fiber-optic network that funnels all payments through the People’s Bank of China. While it is still being rolled out across China’s vast interior, the system, when it’s fully functional, will allow the People’s Bank—the Chinese central bank—to know, intra-day, what is going on in its financial system. Many central bankers in the West would give their eyeteeth for information like that as a fully electronic system such as this can feed data to both commercial bankers and treasurers of major corporations, allowing them to know what’s going on with their balance sheets. Proactive liquidity management would free up capital at both types of institutions, allowing them to be more competitive internally and internationally.

The new electronic banking system is built, owned and operated by the Zhong Yuan Financial Data Network Co. Ltd—a joint venture owned by China’s Ministry of Post and Telecommunications, the People’s Bank of China, and some of the nation’s major commercial banks. It was financed with loans from the World Bank and the Asian Development Bank. The World Bank’s assistance was provided through a financial sector assistance project which included a detailed Vision and Conceptual Design of an integrated suite of systems that together serve the needs of all sectors of the economy for payments services. This included a Bulk Electronic Retail Payments System, a special purpose Large Value Payments System, a Government Securities Book Entry System, an Authorization System to authenticate card based payments, a centralized Settlement System and an automation strategy for modernizing the large number of local Clearing House Systems.

Among its most impressive features is the concept of a single shared data communications network. Not only does all credit and debit card payments transaction information travel over the network but many large employers have been paying their employees via payment cards instead of with cash or checks. Chinese institutions quickly recognized the advantages of cooperating when making large investments in technology based infrastructure whilst recognizing that competition can still exist by offering value added services that take advantage of the features and functions offered by the common infrastructure.
Can others emulate China’s success?

The simple answer is yes. In fact the need to do so is increasing rapidly. Governments now recognize the economic benefits that stem from cost efficient access to financial services; especially payments systems that can process and deliver domestic and international funds transfers throughout the country to all citizens and businesses with legal and technical certainty. Additionally, well designed and well functioning payments systems provide real opportunities to use the available money stock multiple times per day without risk and thus create benefits similar to those that would stem from a real increase in money supply without the inflationary risks that would accompany such a real increase. Payments systems, even those in modern well developed economies, need to be continuously improved. The following questions might allow the need for specific improvements to be identified when speaking with country counterparts:

- Do the present arrangements satisfy the needs of all market sectors for making and receiving payments? Such payments would include; individual/consumer payments, retail point-of-sale payments, industrial & commercial payments, financial payments (interbank, money market, open market operations, securities trades, etc.), government payments (receipts & disbursements), and international payments.

- Do the systems adequately cover the entire country?

- Is there a specialized system for processing large value payments?

- Are payments cleared & settled sufficiently quickly? In particular, how quickly is a payment settled with legal finality or certainty (funds not revocable & available for immediate use)?

- Is the range of available payment instruments sufficient to satisfy the differing needs of the users? These might include paper and electronic debits. And should also (preferably) include paper and electronic credit instruments

- Are the systems convenient and easy to use from a user perspective? And, are systems reliable and always available for use?

- Are the systems safe and secure? For example, do the arrangements adequately address fraud, risk, rules to resolve disputes promptly and fairly, unauthorized access or tampering with payment system data, confidentiality of data and to the mechanisms minimize the credit exposure between participants?

- Is the legal & regulatory underpinning of the system sufficient? For example, if electronic payments are available, does the law provide for the legal validity of an electronic record and do the courts recognize electronic records as evidentiary material? (Many older legal arrangements insist on a signed paper document).

- Do the systems satisfy international minimum standards?

If the answer to any of the above questions is unsatisfactory, then there may be a good case for having an expert opinion as to how the situation can be improved to ensure that market needs are satisfied in a cost effective manner.