Fintech and the future of securities services

Bruno Campenon

Received (in revised form): 2nd February, 2016

BNP Paribas, 21/F, PCCW Tower, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong;
E-mail: bruno.campenon@us.bnpparibas.com

Bruno Campenon

Bruno Campenon *is Head of Clearing and Custody Services and Corporate Trust Services, Americas for BNP Paribas. He is responsible for the strategic development of operations and products for Clearing and Custody Services and Corporate Trust Services in the Americas. Mr Campenon has over 20 years of experience in the securities-services industry. He joined the securities department of the investment bank Paribas in 1993. Mr Campenon was responsible for the bank's European clearing and custody solutions outside of France. He was also responsible for reengineering projects for clearing and custody worldwide. Mr Campenon was appointed Location Manager for Hong Kong in 2008 when BNP Securities Services opened a local office and created clearing and custody franchises in Hong Kong, Singapore, India, Australia and New Zealand. Mr Campenon holds a master of science degree in operational research from the Florida Institute of Technology, and a diploma from the École Internationale des Sciences du Traitement de l'Information (EISTI), a French engineering school.*

ABSTRACT

Looking ahead, financial markets will continue to undergo profound changes, owing in no small part to the perpetual growth of knowledge sharing and globalisation that has helped to define the millennium years. For securities-services providers, the pace of this change will accelerate with increased consolidation, pervasive regulatory mandates, as well as greater technological innovation. Indeed, the rapid expansion of financial technology services — or fintech — will play a lead role in this ongoing evolution, as the emergence of newer, more disruptive vehicles such as blockchain streamline the business of custody, clearing, settlement and other post-trade operations as never before. Along the way, providers will find it necessary to have an increasingly multi-global as well as multi-local presence; meanwhile, resources like capital, liquidity and collateral will continue to be closely monitored, compelling providers to be more selective while focusing on growth and market expertise. In an increasingly competitive and globalised environment, innovations such as blockchain's decentralised master ledger could serve as a stepping stone to a far more streamlined securities-services business in the years to come.

Keywords: securities services, globalisation, consolidation, innovation, fintech, blockchain, information technology, regulation

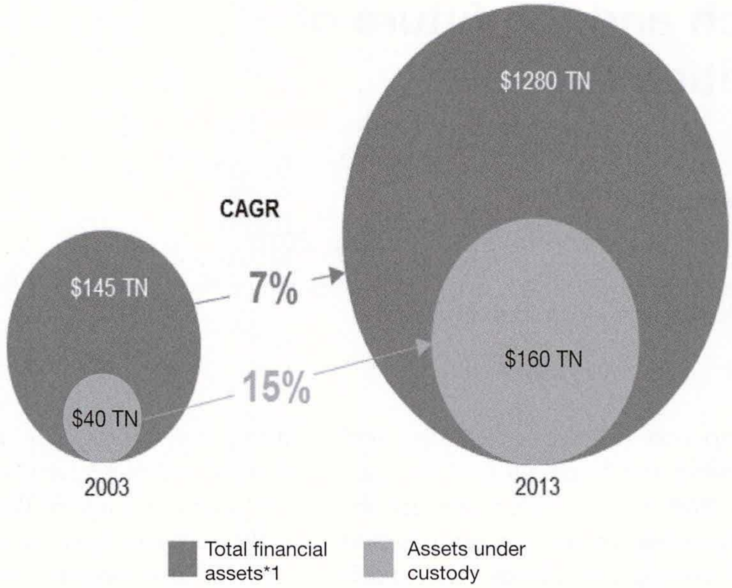
INTRODUCTION

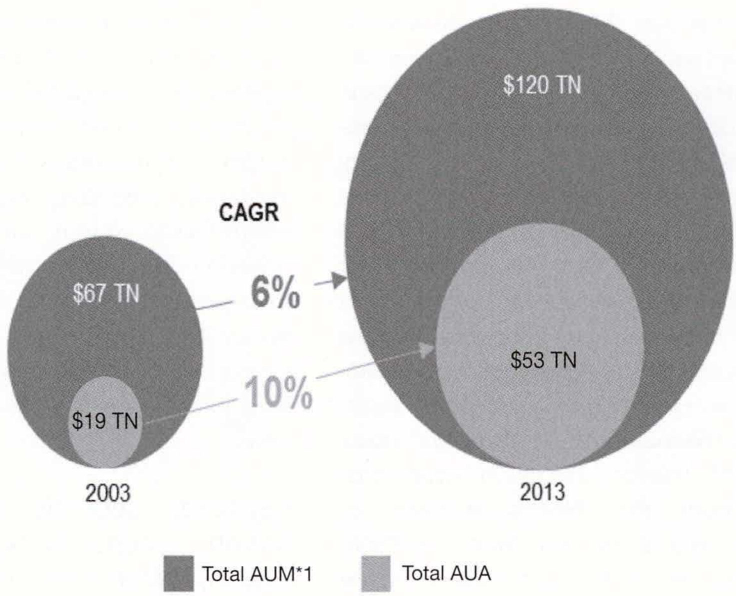
As challenging as it may be to predict the future, most forecasters can probably agree on one thing: the road ahead will be marked by significant, even radical, changes owing in no small part to the rapid development of knowledge sharing and information technology (IT). The impact on the financial world is already

Journal of Securities Operations & Custody
Vol. 8 No. 2 pp. 107–112

1753–1802

Figure 1 Even with a historic meltdown in the middle, over the past decade, assets under custody (AUCs) have quadrupled, while assets under administration (AUAs) have risen threefold, as a result of substantially stronger volumes





[(a)]*Source:* Bank for International Settlements, The World Federation of Exchanges Limited, http//www.globalcustody.net. Oliver Whyman analysis
*1 includes equity, bonds, securitised loans and listed derivatives
[(b)]*Source:* The City UK, Preqin, Investment Company Institute, Towers Watson, Soveign Wealth Fund Institute, http//www.globalcustody.net. Oliver Whyman analysis
*1 Professional managed and internally managed insurance, pension, SWF and endowment assets

evident: consider, for instance, that the Fortune 500 welcomed 23 new firms to the fold in 2015. The exponential growth of financial technology services — or fintech — undoubtedly will play a significant role in this ongoing evolution. As will be seen below, the emergence of these newer, more disruptive platforms has the potential to streamline the business of custody, clearing, settlement and other post-trade operations as never before. But first, to understand what has brought us to this point in time — as well as the likely path to the future — let us take a quick look back to see how securities services have evolved, as well as the main trends that are likely to dictate the direction of the markets going forward.

RISING VOLUMES, INCREASED CONSOLIDATION

Even with a historic meltdown in the middle, over the past decade, assets under custody (AUCs) have quadrupled, while assets under administration (AUAs) have risen threefold, as a result of substantially stronger volumes (Figure 1). Meanwhile, consolidation has continued to impact both mature and emerging markets, leading many service providers to join forces in an effort to meet the rising demands of globalisation, while also achieving greater critical mass. In the USA this includes the Bank of New York Mellon, Bank of America Merrill Lynch and Intercontinental Exchange/New York Stock Exchange (ICE/NYSE) for rationalisation purposes (as well as the cross-border NYSE/Euronext). In Europe, the turn-of-the-century launch of the eurozone/euro currency has paved the way for the centralised TARGET2 and subsequent TARGET2-Securities (T2S) framework. In Latin America, the growth of the Mercado Integrado Latinoamericano (MILA) market association has promoted increased market capitalisation through remote post-trading across the four key markets of Mexico, Colombia, Chile and Peru. And, in Asia, the introduction of the Shanghai-Hong Kong Stock Connect link has simplified trading/post-trading by allowing investors to trade China A shares directly from Hong Kong or Hong Kong shares from Shanghai, without the investment quota mandates typically required by mainland China.

NAVIGATING THE NEW REGULATORY LANDSCAPE

Reflecting clients' increasingly complex business models, the regulatory landscape has itself evolved, particularly post-2008, and the trend is likely to continue in the years to come, particularly as markets and investment strategies become even more sophisticated and interconnected. Building successful standards will require significant coordination between regulators and service providers, thereby strengthening the role of market associations. Some of the main areas of regulatory focus include:

- *Bank regulation:* under G20, banks have been the first to come under the purview of the regulators' prudential regime (Basel III) as well as the too big to fail (global systemically important financial institutions, G-SIFIs), for which resolution plans have been developed that have had a major impact on capital requirements and liquidity coverage ratios. A second wave is on the way, with a new notion of 'resolvability' and the review of available assets. The banking model is also being reviewed under Volcker in the USA and Vickers in Europe in order to segregate proprietary trading from customer-related activity.
- *Investor protection:* largely coming post-crisis, the main focus has been on transparency (both *vis-à-vis* regulators and the public), asset protection, as well as harmonisation of national frameworks. There has been a large impact on compliance in terms of team size, extent of activity, reporting, controls and record keeping.

- *Shadow banking:* given the lack of regulation in the space, increased focus can be expected particularly on money market funds, securities lending and repos, with particular emphasis on reporting obligations.
- Taxation: key areas include tax evasion (with the Foreign Account Tax Compliance Act (FATCA) 2010 acting as the main regulatory deterrent), as well as Europe's transaction tax with its implementation complexity.

MORE DIVERSIFIED FUNDING REQUIRED

At a time when banks are paying closer attention to the size of their balance sheets due to more restrictive capital and leverage/coverage requirements, the impact of intraday/overnight funding continues to come under scrutiny, making providers all the more selective about the range of services they may offer. Additionally, increased emphasis on collateral usage/optimisation has given rise to cross-margining solutions, tools for ensuring collateral safety/proper usage across multiple time zones, as well as other initiatives. Going forward, demand for more transparent funding sources is expected to rise, while the industry is also likely to see an increase in collateral management outsourcing for optimisation and globalisation purposes.

THE TECH EFFECT

Undoubtedly the foremost driver of change over the past 10–20 years, the continued growth and increased sophistication of IT have been indelibly felt within the securities-services segment. Thanks to task automation, back-office efficiency has dramatically improved, knowledge sharing through the internet has become increasingly seamless and in real time, control frameworks now have a wider range of checks performed automatically and there has been a marked decrease in processing unit costs. In short, IT has become securities services' main 'engine', one that is better performing and uses fewer resources than at any time in the past; however, this may be only the beginning. In recent years, a number of upstart financial technology firms have brought to market some of the most innovative and potentially disruptive services the industry has ever seen. One of the most attractive targets for global private investment of late, in 2015 fintech companies raked in an impressive US$20bn in seed capital — a fivefold increase over the past two years alone — according to data from KPMG and Australia-based investment firm H2 Ventures. Today, there are approximately 12,000 fintechs including the likes of SoFI (loan refinancing), Zenefit (HR), Lufax (peer-to-peer (P2P) lending) and Avant (personal loans). While many fintech firms have focused on payment and currencies (eg bitcoin, ripple and litecoin), others are expanding into exchanges like NeuCoin, securities-settlement venues such as Digital Asset Holdings, or over-the-counter (OTC) derivatives like Tezos.

Fintechs rely chiefly on blockchain technology, a public ledger that controls and keeps track of all transactions which have been executed within a given environment. Blockchain is comprised of 'blocks' of information, with each block containing a set of records that references the previous block (the full chain of blocks constitutes the ledger). The ledger is then distributed and shared by nodes (computers that connect to a network and perform validations/relay transactions within a system), which subsequently apply and share a pre-agreed connecting and operating protocol inherent to the blockchain. What makes blockchain unique is that it provides multiple independent checks, thereby guaranteeing fault tolerance and greater system integrity. In short, blockchain technology solves the old Byzantine generals' problem — that is, the generals are circling the enemy and need to launch their attack simultaneously or retreat; however, some of the attackers may be traitors, and can easily foil the mission by spreading misinformation. How can the good guys share the message and ensure its reliability? The answer: by using a distributed messaging and control system — which in effect is what blockchain does by allowing all participants to achieve consensus while maintaining a complete, verifiable and tamper-proof record of all transactions.

To date the most familiar usage of blockchain ledger technology is in support of the cryptocurrency bitcoin. To participate in bitcoin, users open a bitcoin 'wallet', define a public address and acquire a private key to ensure safety. There are numerous ways to obtain bitcoins — by purchasing on an exchange, receiving them in exchange for goods, navigating on commercial/advertising sites, or becoming a bitcoin 'miner' equipped with sophisticated computer systems capable of crunching complex mathematical formulas used to generate new digital coins (additionally, miners validate all bitcoin transactions in order to ensure proper safety). In short, bitcoin acts as a decentralised depositary, messaging system and settlement platform rolled into one. However intriguing the prospect of bitcoin may be, in reality there are no limits to the number of applications that can utilise blockchain technology. Given the lack of real-time production experience, the markets have been proceeding with caution — hence the large number of initiatives aimed at proving the worth of the blockchain concept through pilot applications. The market will also require further proof of the real-life sustainability of blockchain from a bandwidth, processing consumption and structural cost-effectiveness perspective. Still, many already view such innovations as the likely wave of the future. While investors have tended to focus on bitcoin's short-term price action, for instance, for others the cryptocurrency phenomenon represents the leading edge of a far more powerful and sustainable movement, the latest in a succession of grassroots efforts targeting an established oligarchy — in this case, the global monetary system. In the same way that upstart digital-music providers used P2P file sharing to bypass traditional music-industry distribution channels at the start of the century, bitcoin's operations rely on similarly organic elements — it too utilises an open-sourced, P2P system, which is designed to prevent any one entity from achieving a majority stake. Like its predecessors, bitcoin is built on the premise that one need not overpay in order to line the pockets of a monopolising middleman.

As proof of its increased viability, NASDAQ recently announced that it will become the first stock exchange to use blockchain for issuance and transfer of shares in privately held companies. For its part, BNP Paribas began considering blockchain several years ago, and recently held a business hackathon to identify opportunities for blockchain in a securities-services context; the company has since launched multiple proofs of concept with a focus on specific areas that could work in a crypto environment. Although still in the exploratory phase, the goal is to assess how blockchain could be integrated into a custodian's core infrastructure in order to facilitate the movement of securities as well as their safe-keeping.

PURVEYORS OF CHANGE

Being a leader on one's home front exclusively is no longer good enough; today, having an international reach has become compulsory for service providers. There is a growing need for critical mass and large processing capacity in order to facilitate and accompany clients' geographical expansion and global partnerships. Furthermore, as financial institutions, corporations, asset owners, managers, broker dealers and custodians continue to expand their international footprint, they also will require a multi-local presence in order to guarantee in-house expertise and proactivity, facilitate clients' business-expansion plans and provide local contacts as well as extended operating hours. This combination of global reach/multi-local setup will pave the way for a true, complete and optimised follow-the-sun model, in which service providers will shift from client window to dual-office mode, leading to true around-the-clock processing capability. A securities-services provider also must be a business enabler, facilitating entry into new markets, offering new service extensions while, at the same time, delivering value-added services to clients. This includes creating solutions to mitigate clients' risk exposures (such as activity monitoring, credit controls and market-risk controls), while also helping clients to adapt to regulatory change. Additionally, the provider must be able to seamlessly integrate the operational chain so as to offer greater efficiency without disrupting the client's operating model. Finally, with resources like capital, liquidity and collateral coming under intense regulatory scrutiny, providers will need to be all the more selective when focusing on areas of growth and expertise. So, how does fintech fit into the picture? As has been seen, using digital currencies like bitcoin to pay for basic goods and services continues to gain global converts, making the idea of incorporating blockchain's decentralised master-ledger within a broader, securities-services context quite tangible indeed. With consolidation, competition, regulation and globalisation compelling providers to streamline post-trade services as never before, such innovation almost certainly will continue to be a force in the years to come.