Grant Spencer: Reserve Bank perspective on payments

Speech by Mr Grant Spencer, Deputy Governor of the Reserve Bank of New Zealand, to the Payments New Zealand Conference, Auckland, 11 November 2014.

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Thanks to Payments New Zealand (PNZ) for the invitation to speak this morning. I would like to congratulate PNZ for again bringing together such a wide group of people with interest and expertise in payments matters.

The ability to make payments conveniently and safely is vital to the functioning of the financial system and broader economy. The Reserve Bank therefore has a natural interest in the evolution and safety of the New Zealand payment system. The Bank plays three roles with respect to payment systems:

- As a Central Bank, we are a payment system user. Like any other financial institution, we use various payment systems to settle a range of transactions.
- The Reserve Bank is also a provider of payment and settlement services. Our role as the supplier of currency is widely known and notes and coins are still used to make a significant proportion of retail payments. We are also the operators of the Exchange Settlement Account System (ESAS) and the securities depository and settlement system, NZClear. We are currently undertaking a strategic review of these two systems and will be releasing a progress report this week. But this is not my topic today.
- The Bank's third role, undertaken jointly with the Financial Markets Authority (FMA), is the regulatory oversight of payment and settlement systems. In our broader capacity as financial system regulator we are conscious of the crucial role that the payment system plays in promoting a sound and efficient financial system.

Today I will focus on this regulatory role, which I have responsibility for within the Bank. I will discuss recent changes in the payments landscape, some of the opportunities and risks that those changes present, and how the industry is responding to those risks. I will also talk about the role that I see for the Reserve Bank in influencing payment system developments.

The fast-changing world of payments

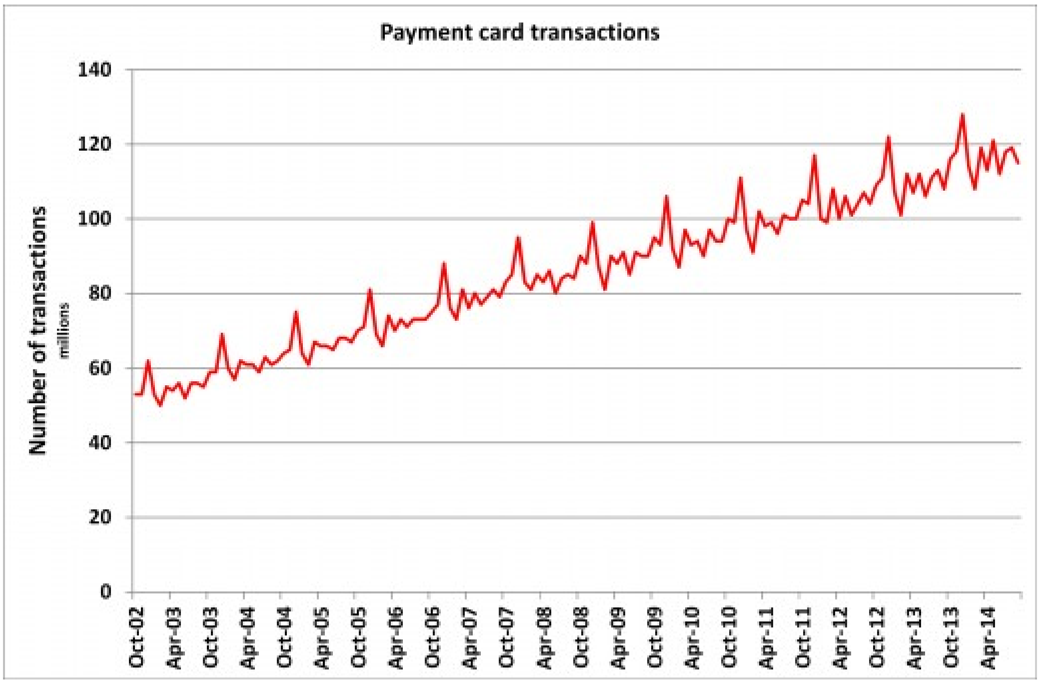
In retail payments, we are seeing rapid innovation, increasing technological complexity, and a breakdown of traditional boundaries between banking, telecommunications and IT functions.

It was just 30 years ago that payments were overwhelmingly made using cash and cheques. While these instruments continue to play an important role, most payments these days are made using electronic debit, credit and payment cards.

Figure 1. highlights the steady growth in cards transactions that has continued unabated over the past 10 years.

Figure 1

Retail transactions in New Zealand (monthly)



Source: Statistics New Zealand.

Looking forward, the new growth areas in retail payments are contactless payments, mobile phone based applications and on-line payments. These innovations reflect technological advances in IT and telecommunications and ever-rising customer expectations. Payers and payees are demanding payment services that are convenient, reliable and secure. Increasingly, people also want the funds cleared from their transactions quickly, preferably in real time.

As significant change is occurring in how we make retail payments, we are also seeing a number of new players, including telecommunications companies and the likes of Apple, Google and Paypal – a trend that is likely to continue. Banks, the traditional providers of an end-to-end payment service, are now facing competition from, and needing to co-operate with, other entities. What role will banks play in the future? Will they continue to do what they have always done? Or will their role be limited to providing the trusted store of value while other technology providers capture the transaction service? These trends imply new sources of risk in payment systems and a potential need for refinements to the regulatory regime.

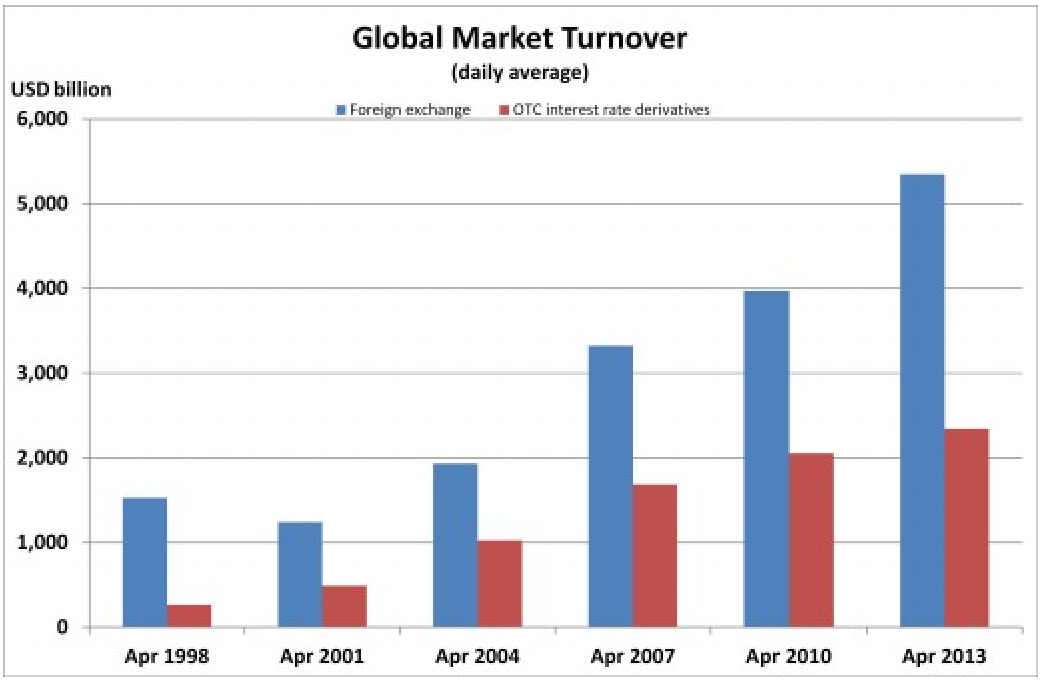
The move towards increased digitisation and electronic payment methods opens up the prospect of digital currencies such as Bitcoin becoming more important. As the currency issuer, the Reserve Bank does not feel threatened by Bitcoin which seems to behave more like a commodity than a currency. However, I do not doubt that future digital currencies will become more realistic substitutes for cash.

Turning to wholesale payment systems, here too we are seeing innovation and growth. Wholesale payments are in large part related to the settlement of financial market transactions, including foreign exchange, equities, debt securities and financial derivatives. Innovations in products and trading strategies, some driven by new technologies, have contributed to ongoing growth in the turnover of these markets, with hardly a pause for the Global Financial Crisis (GFC) (Figure 2.) The amounts involved are very large globally. The foreign exchange market alone now accounts for over US$5 trillion per day.

While New Zealand debt and equity securities transactions are generally settled on local systems (NZClear and NZCDC), the foreign exchange and derivative markets, being dominated by cross-border flows, have seen the development of sophisticated cross-border payment systems such as CLS for foreign exchange and the London Clearing House (LCH) for financial derivatives.

Figure 2

Global wholesale market turnover



Source: Bank for International Settlements.

More so than in the retail space, a key driver of innovation in the wholesale space has been the post-GFC regulatory pressure from the G-20 and major country regulators to reduce risk in large payment and settlement systems, widely known as “Financial Market Infrastructures” (FMIs). The international regulators have become more concerned because of the growth in complexity and volume of payments, and the systemic risks that were made evident in the GFC.

Increasing risk in payment systems

Increasing risk in payment systems is apparent at both the retail and wholesale levels. And there is greater awareness now of some existing systemic risks that had not previously been fully appreciated.

At the retail end, our reliance on electronic payments will continue to grow as we make more payments online and use mobile phones for more transactions. This greater use of technology is making our lives easier but also brings increased operational risk. Uppermost are concerns about the vulnerability of payment systems to cyber-attacks and risks associated with the involvement of new non-traditional players.

A recent example of cyber-attack was at JP Morgan, America’s largest bank, in August of this year, where it is reported that 76 million household files were compromised by Russian hackers. Perhaps more concerning was the report that the attack was through a third-party website and that it took two months to discover the problem.

Such incidents highlight the reliance that we now have on technology and what can happen when that technology fails. With customers becoming more accustomed to high levels of convenience and rapid settlement, operational lapses have, if anything, become more visible to the end-users.

From the regulator's perspective, a short-term disruption to customer service is not of major concern if its impact is contained locally. That is for the provider to sort out with its customers. However, operational lapses in large and/or highly connected payment systems can disrupt the wider financial system and economy. The regulator has a much stronger interest in the safety and efficiency of such systemic FMIs.

We experienced this in New Zealand on ANZAC day 2012, when the exchange of retail payments between banks via SWIFT[1] was disrupted. ESAS continued to function and banks were able to invoke contingency arrangements. Nevertheless, there were significant delays to the exchange of payments and to the posting of transactions to customer accounts. There could easily have been a more widespread disruption of retail payments and commerce if there had not been a public holiday that day.

The recent system outage at the Bank of England that disrupted the operation of the UK's large value payment system, CHAPS, provides a further example of how widely a payment system disruption can be felt. The unavailability of CHAPS for nine hours meant that high value sterling payments, including the settlement of house purchases, could not proceed, causing a gridlock of house settlements. More seriously, the settlement of foreign exchange transactions around the world was disrupted because the functioning of the CLS system depends on the ability to make and receive payments in all currencies in CLS, including sterling.

The greatest potential for systemic damage from payment systems arises in the event of a failure of one or more major counterparties to financial transactions, particularly derivative transactions. In physical foreign exchange and securities transactions, the use of Delivery versus Payment (DVP) removes credit risk from the payments process. But financial derivatives involve (sometimes long-dated) future commitments to exchange cash flows that vary with market prices. The posting of collateral is used to reduce credit exposures as derivative contracts go in and out of the money over time but this is an imperfect process, particularly in times of market turbulence.

The failure of Lehman Brothers and AIG in 2008–09 focused the spotlight on the huge extent, and also the opacity, of credit exposures arising from over-the-counter (OTC) derivatives[2]. The US authorities were ultimately able to untangle the Lehmans derivative book without further major contagion. In the case of AIG, a bailout was organised by the US Treasury in order to avoid the further financial fallout that would have ensued if AIG had been unable to meet its obligations on its large volume of derivative contracts.

An additional area where we face growing risk management challenges is the increasingly global nature of the infrastructures that provide many wholesale payment services. In New Zealand we already rely on a number of offshore FMIs. These large global financial infrastructures provide advantages in terms of economies of scale but also pose legal and resolution risks for local counterparties in the case of an FMI failure. The outcome for a domestic bank would be determined by the legal and regulatory framework in the FMI's home jurisdiction, over which New Zealand authorities would have little influence.

1 SWIFT is the principal global messaging system used in payments systems.

2 Derivatives bought and sold through banks, rather than exchanges.

Responses to increased risk

What are the appropriate responses to these increased payment system risks on the part of both industry participants and regulators?

The providers of retail payments services need to closely manage the new operational risks arising from the increasing reliance on complex technologies and the internet. This is not just about ensuring that business continuity arrangements are in place for the day that a component of the system fails. It is also about cybersecurity and protecting systems from malicious attack. Systems that rely on the Internet are especially vulnerable and appropriate safeguards need to be in place.

There are natural commercial incentives for payment system providers to ensure the resilience of their systems to such threats. If one provider's system is corrupted, customers will quickly move to competing providers. While local operational risks can at times have broader systemic consequences, the regulatory response in this area has typically been of a low key nature -requiring payments providers to have robust governance, risk management and BCP structures in place.

The international regulatory response has been more substantive in the area of systemic counterparty risk. The Lehmans and AIG episodes demonstrated that network contagion effects can generate damaging externalities, i.e. potential systemic costs of counterparty failure, that are not taken into account in bilateral derivative contracts.

In the 1990s similar concerns about foreign exchange settlement risk led to the creation of CLS. In the post-GFC period, serious concerns about systemic risk in OTC derivatives markets led to a G20-mandated restructuring of derivatives clearing and settlement. In particular, G20 banks are required to report OTC derivative contracts to trade repositories and to clear those derivatives through central counterparties[3].

More generally, regulators have recognised the need to ensure that large wholesale payment systems and other financial market infrastructures giving rise to systemic risk are as robust as possible. Much of the work on regulatory frameworks has been done by the Committee on Payments and Market Infrastructures (CPMI)[4] and the International Organisation of Securities Commissions (IOSCO). In 2012, these groups published updated international standards for financial market infrastructures in the form *of Principles for financial market infrastructures (PFMI)*[5]*.* These principles represent international best practice guidance for addressing risk and efficiency in FMIs, and many countries have adopted the principles as the basis for their oversight regimes.

Many national regulators have recently strengthened their regimes for the regulation and oversight of FMIs. Amongst the multitude of provisions in the US Dodd-Frank Act are requirements for the Federal Reserve to create uniform risk management standards for systemically important "financial market utilities" and to monitor the compliance of those systems. The European equivalent to Dodd-Frank is the European Market Infrastructure Regulation (EMIR), which sets rules for central counterparties and trade repositories. Other countries that introduced or plan to introduce strengthened regimes include the UK, Canada and Hong Kong.

A common feature of these regulatory regimes is their risk-based approach. Regulators focus their oversight activity on the largest systemic risks to financial stability. Typically this involves classifying certain FMIs as systemically important and paying particular attention to those systems.

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[3] So far these requirements only apply to OTC interest rate derivatives.

[4] Formerly the Committee on Payment and settlement systems (CPSS).

[5] http://www.bis.org/cpmi/publ/d101.htm.

The Reserve Bank's oversight role

In the international context, the Reserve Bank's regulatory framework in the payments area is at the non-intrusive end of the spectrum. The Bank and FMA have a relatively low level of regulatory authority in this area. Under the Bank-FMA designation regime[6], FMIs seeking designation must have their rules approved by the Bank and FMA. However, this regime is voluntary and, for FMIs not choosing to be designated, the Bank must rely on suasion and industry engagement to promote its stability and efficiency objectives.

In promoting the soundness and efficiency of the financial system, and consistent with the internationally agreed principles for FMIs, the Bank has four core objectives that FMIs are encouraged to follow as responsible "NZ Inc. payments citizens":

- The first is good governance. It is important that FMIs are well managed by appropriately skilled people. Governance arrangements should ensure that the views of all relevant stakeholders are considered.
- The second is a sound risk management framework, covering legal, credit, liquidity, operational and other risks.
- The third is continuity of service. Given their role at the heart of the financial system, it is important that FMIs operate continuously. This means that a system should be able to cope with potential disruptions like technical problems and the failure of a participant.
- The fourth is fair and open access. FMIs should have risk-based and publicly disclosed criteria for participation that promote fair and open access with no unwarranted barriers to entry. Fair and open access should encourage competition between participants and innovation.

The Bank promotes these objectives through consultation with the industry and we especially value the relationship with Payments NZ in helping to achieve good results.

We are confident that the requirements for designated FMIs will ensure that they meet the four core objectives. However, we would like to see these requirements extended to all systemic FMIs. In this regard we believe there is a case for some strengthening of the current regulatory framework. Our concern relates to situations where our objectives for the safety and efficiency of systemic FMIs cannot be achieved through suasion alone.

Another area where we believe there is a need for change is crisis management. When there is a crisis, particularly in a systemic FMI, there is a need for prompt and deliberate action to restore normal operations and mitigate the flow-on effects of the disruption. In past systemic events, for example the ANZAC day disruption, the industry has looked to the Reserve Bank for leadership. We are happy to play such a role but would like to formalise crisis management roles and responsibilities.

The Bank is currently looking to establish an enhanced oversight regime based around systemically important FMIs with attention given to crisis management powers. Our approach will be aligned with international principles and, while remaining near the non-intrusive end of the international spectrum, will focus on the core objectives for a sound and efficient payment system.

The Bank does not seek to prescribe the shape of the payment system or the direction of innovation. Other national regulators take a range of approaches on such strategic issues. Across the Tasman for example, the RBA and Payments System Board can take quite strong positions on industry shape and direction. In our own case, we often express views on

[6] Once a payment system is designated, all payments through that system are final and irrevocable.

industry direction, particularly if there are implications for systemic risk, but we prefer to see market-based solutions.

An example of this is the current discussion about the future of domestic debit, where the Bank has not taken a position. We acknowledge the arguments in favour of preserving a domestic debit product so that competing payment instruments are available. However, we also note the popularity of scheme debit cards given their ability to facilitate on-line and overseas payments. It may be that the cost of re-investing in the domestic product to provide comparable functionality is too high.

In recent times, the most significant change to the payments landscape has been the Settlement Before Interchange (SBI) arrangements for retail payments, introduced in 2012. These arrangements have helped to address long-standing concerns about settlement risk arising from a retail payments participant failing to settle. SBI has resulted in more frequent intra-day settlements and a significant shortening of the lag between retail transactions and the final clearing of funds.

The Bank still has concerns about the length of time taken to settle retail transactions and the frequency of interchange. We are working with the industry to address this issue and good progress is being made. For example, the proportion of transactions settled after 9pm has reduced by about 30 percent in the past twelve months. Our expectation is that, by the end of 2016, SBI participants will interchange retail payments at least hourly.

Another area where the Bank has taken an active interest is the establishment of Payments New Zealand (PNZ) and the opening up of the system to new players. Payments is a business in which the right balance has to be found between competition, co-operation and safety. Innovation is usually spurred by competition but for a payment vehicle to be successful it needs to be widely accepted, and that requires co-operation. New players often promote competition but there must be risk-based criteria for their participation.

A positive feature of the New Zealand payment system over the years has been the extent to which participants have collaborated in establishing payment networks. The development of the domestic EFTPOS system, with a shared service provider switching transactions for a number of banks, is a good example of this. The success of the shared utility model in the past probably reflects the earlier industry structure, which was dominated by a small number of major banks. With more players entering the market and the increasing pace of innovation, collaboration may become less prevalent. The recent partial acceptance of a shared Trusted Services Manager for mobile payments reflects this trend.

But, competition notwithstanding, at the highest industry level it is important that the views of all stakeholders are taken into account when decisions are made about the future architecture of the payment system. The establishment of Payments NZ improved governance of the payment system and paved the way for a more open and competitive payments industry. This outcome was welcomed by the Bank and we are watching closely the recent moves by PNZ to further open up its membership via a multi-tiered structure. We will continue to monitor the extent to which the interests of all stakeholders are accommodated in the committee structure. An example will be the progress being made towards an account numbering system that accommodates banks who wish to move from agency arrangements to direct participation in the retail payments system. The challenge for PNZ is to promote efficiency and innovation by allowing wider participation in the system, while at the same time continuing to manage system risks.

On the wholesale front, recent international regulatory developments have been impacting New Zealand players, irrespective of our own regulatory framework. For example, while not a member of the G20, New Zealand financial institutions are affected by the G20 requirements relating to OTC derivatives. Many of the derivative counterparties of New Zealand banks are required to centrally clear and so New Zealand banks are ensuring that they have the same capability. The NZ banks are also being captured by new reporting requirements being applied to their parents. We continue to monitor developments in this area and so far have not mandated central clearing/reporting. This is a difficult issue for a small country where the relevant FMIs sit in offshore jurisdictions. It underlines the increasingly global nature of payments, and the need for our payments oversight function to be seen in the global context.

Conclusion

The payments industry landscape is more fast-changing than ever, with customer preferences and technology advances driving innovation in the retail space and international regulatory developments adding further impetus for change in wholesale FMIs. Increasing complexity and use of the internet are adding to risk in retail systems which must be managed carefully by system participants.

Most major countries have moved since the GFC to strengthen their regulatory oversight of payment systems, with an emphasis on large systemic infrastructures. Internationally developed principles for FMIs have been widely adopted, including by New Zealand. The Bank is looking to strengthen its oversight regime in order to fully apply the principles to systemic FMIs. At the same time, New Zealand’s oversight regime will remain at the low intensity end of the international spectrum.

The Reserve Bank’s approach to payment system oversight is not to be prescriptive in terms of future payments system architecture. Nor does the Bank want to force cooperative “utility” solutions on the industry which could inhibit innovation and competition.

However, it is important that the industry has a high level governance structure that facilitates competition and innovation by allowing access to new participants, and gives all participants an input into the strategic direction of the industry. Payments New Zealand is the key governance body in this regard and its challenge is to find the right balance between openness and competition on the one hand, and the integrity of the system and its participants on the other. We will continue to follow governance developments with close interest.

Thank you.