paymentsnz

Evolution of payments regulation in New Zealand

Contents

1. Introduction

This paper is designed to provide:

- historical background on the regulation of payments in New Zealand and key payments events; and
- background to recent developments in international payments regimes.

2. Regulation and oversight of payment systems

New Zealand has historically had a relatively light handed approach to prudential regulation of the financial system, relying heavily on market disciplines and accountability of directors. This continues to be the trend today - although this has begun to change in the last decade largely as a result of the global financial crisis and international reaction to it (and in particular the reaction of global central banks).

While the regulation of the financial system has been relatively light handed, prudential regulation of the payments system has, until recent times, been almost non-existent – notwithstanding the contagion effect which can arise as a result of failures in payment systems. Even now, the Reserve Bank has limited statutory powers over the payments system and limited legal basis to prudentially supervise the payments system. This has been consistent with the international position on prudential regulation of payments systems where oversight has been a relatively recent phenomenon. However, given its light handed approach, New Zealand is probably an outlier now in respect of countries it would typically compare itself against.

The first (and probably still most significant) crisis in the payments system was in 1974 when Herstatt Bank collapsed in Germany. When it collapsed it had received the "inward payment" leg of international foreign exchange transactions but had not made the "outward payment" leg. This left a number of its foreign exchange counterparties significantly exposed. However, by and large, it took 20 years before regulations started to be introduced to deal with what became known as "Herstatt risk". In the meantime a number of countries had begun introducing "real time gross settlement ("RTGS") systems" which enabled large payments to be simultaneously settled to address at least some of the problem commercially.

In New Zealand up until the 1990s the only regulation relating to payments was in relation to specific payment instruments – with bills of exchange regulated from 1908, the Reserve Bank being authorised as the only party entitled to issue bank notes (i.e. cash) from 1934 (in some countries banks can issue their own cash) and cheques being separately regulated from 1960.

Even in 1989 when the Reserve Bank of New Zealand Act ("the Act") was re-enacted and transactional banking and government funding roles removed from the Reserve Bank, no specific payment regulation was introduced. Indeed the first "self-regulation" for the payments system didn't happen until 1992 when the New Zealand Bankers Association ("NZBA") formed the Payments Systems Committee.

There are, however, a number of significant changes to legislation that have occurred since 1990. The first of which was associated with the introduction of a RTGS system in New Zealand in the mid-1990s – the system designed to remove settlement risk on high value

transactions. In order to provide the requisite legal certainty, specific changes were made to expressly permit netting (including, for the first time, in statutory management) and to abolish the zero hour rule – which would require transactions to be unwound back to the beginning of the day on which a bank was placed into statutory management or into another insolvency regime.

It was not until 2003, when the Reserve Bank wanted to join CLS Bank that any formal oversight powers were given to the Reserve Bank. CLS Bank (CLS stands for Continuously Linked Settlement) enables simultaneous settlement in the twenty or so currencies which are available in CLS Bank. CLS Bank was set up to attempt to finally eliminate any cross border Herstatt Risk. In order to operate in New Zealand, however, CLS Bank wanted absolute certainty as to the enforceability of its rules. Accordingly, the Reserve Bank introduced designation provisions into the Reserve Bank Act, which provided that once a payments system was designated, its rules prevailed over any other statute or principle of law. While this was the prime motivation for the inclusion of powers relating to payments systems in 2003, the Reserve Bank did also obtain some limited general powers of oversight over payments systems. These were largely restricted to obtaining information and a right to audit.

Subsequently, in 2009 the designation provisions of the Reserve Bank Act were extended to security settlement systems and the Financial Markets Authority was appointed as joint regulator of designated security settlement systems. These changes were introduced to ensure that the NZX central counterparty security settlement system, which was being introduced at the time, could also have rules that prevailed over any other statute or law (i.e. rules that would give absolute certainty to participants).

In 2010 after a decade of work, Payment NZ was established. Two of the primary objectives in establishing Payments NZ were to facilitate non-bank access to the payment systems (previously only settlement banks who were members of the NZBA could be participants) and improve the transparency and governance of the payments system.

Finally, following the introduction of the CPSS/IOSCO Principles for Financial Markets and Infrastructure in 2012 ("the PFMIs"), the Reserve Bank reviewed its powers for consistency with those Principles. In 2013 the Reserve Bank sought to introduce new powers into the Act giving it oversight of payments systems. These were largely modelled on powers that it had in relation to banks and non-bank deposit takers. However, the proposed changes to the Reserve Bank Act were not accepted by the Minister of Finance and so did not proceed.

Attached as an Appendix to this paper are:

- tables which set out the dates of key legislative developments in New Zealand relating to payments;
- a table setting out the international influence on domestic payment system regulation;
- a summary of key payments events over the last 50 years; and
- a comparison of international regulatory approaches.

3. Establishment of Payments NZ

3.1. Genesis of the project

In 2001, the Reserve Bank raised concerns with the NZBA about the failure to settle provisions of the Interchange and Settlement Rules as well as issues relating to access and governance of the payment system.

This followed a review of the Reserve Bank by the Financial Action Task Force (a body of the International Monetary Fund) and concerns about access to the payment system being expressed to the Reserve Bank by the Public Service Investment Service (PSIS) and the Southland Building Society.

The Bank of International Settlements (through its Committee on Payment and Settlement Standards) had also published its Core Principles for Systemically Important Payment Systems in January 2001 and these included:

- Principle IX – The system should have objective and publicly disclosed criteria for participation, which permit fair and open access; and
- Principle X – The systems governance arrangements should be effective, accountable and transparent.

While these were not formally adopted by the Reserve Bank until 2006, the regulatory pressure created by these Principles formed the foundation of the Access and Governance project.

While initially the failure to settle and access and governance issues were dealt with together, it was decided in 2006 to separate them in order to avoid the access and governance changes being slowed down by the Failure to Settle Project.

The Failure to Settle Project was established in 2003 and initially dealt with the issue by changing the NZBA's Interchange and Settlement Rules (which, for example, included the option of the Crown guaranteeing a failed participant and the introduction of bilateral netting provisions) on an interim basis while longer term options were considered which also addressed the Reserve Bank's concerns about the legal and operational risks in Interchange and Settlement Limited ("**ISL**").

The first phases of the Failure to Settle Project, from 2003 to 2005, re-wrote the Interchange and Settlement Rules to clarify the point of debt creation between banks and introduced bilateral netting. The subsequent phases of the Failure to Settle Projects assessed options to develop a new infrastructure that reduced or eliminated settlement risk in the payment system. This ultimately became the Settlement Before Interchange ("**SBI**") Project.

3.2 The initial models considered

At the outset, the Reserve Bank expressed a preference to adopt a model based on the UK Payments Council model. It felt that model was more aligned to the New Zealand payments system.

However, the Reserve Bank allowed the New Zealand banks to adopt a model more closely aligned to the Australian Payments Clearing Association ("**APCA**") model. It was acknowledged that there were significant differences between the New Zealand payments system and the Australian payment system.

The model was based upon having the same four clearing systems that operated in Australia namely:

(i) Paper ("PCS");

(ii) Bulk Electronic ("BECS");

(iii) Consumer Electronic ("CECS"); and

(iv) High Value ("HVCS").

While the clearing system governance was to be the same as in Australia, the initial corporate structure of the model went through several evolutions before the third (and final) model was decided.

3.3 The final model

A revised, more commercial model was then developed and agreed in June 2009. The core aspects of the model that were agreed were:

- each of the eight existing settlement banks would have a shareholding in the company proportionate to the amount that they had contributed to the NZBA over the preceding three years – effectively a proxy for the value they had contributed to the development of the rules;
- each shareholder would be entitled to appoint one director and each director would only be entitled to one vote (i.e. voting would not be based on interchange volume at board level);
- there would be three independent directors, one of whom would be the chair;
- the company would manage each of the current clearing systems on a cost recovery basis and would agree to make file formats available to parties with a business need at no cost;
- each clearing system would have a management committee to oversee the standards for that clearing system – all participants in the clearing system would be able to appoint representatives to the committee and voting at the committee would be based on interchange volume in that clearing system with decisions requiring members representing 60% of interchange volume in that clearing system to vote in favour;

- the company would be able to explore commercial opportunities (whether in the payments area or not);
- the board could make decisions if more than half the board members agreed;
- most shareholding decisions would require unanimous approval;
- any party could participate in the payments system provided they met the access criteria; and
- board members would, to the extent possible, be direct reports of bank chief executives to ensure the appropriate levels of seniority – especially given that the decision in relation to suspending participants from the payments system had effectively been delegated from bank chief executives to the Board of Payments NZ.

3.4 Reserve bank concerns

The three key concerns that the Reserve Bank had in relation to the establishment of Payments NZ were:

(i) access costs for new participants – where the Reserve Bank were concerned that the substantial costs that Kiwibank, for example, had paid when it entered into the payments system were a barrier to entry;

(ii) participants' representation on the Board - where the Reserve Bank were concerned that non-shareholders who were participants of the payments system would not have board representation. While it accepted that the issue was partly addressed by the appointment of three independent directors it was concerned to ensure that those directors did appropriately represent the interests of non-shareholders (participants and potential new entrants). Aligned to this was a concern that all directors be obliged to act in the best interests of Payments NZ when acting as directors; and

(iii) Payments NZ's Dividends Policy – and in particular a concern that Payments NZ operate on a cost recovery basis. It did not want Payments NZ to recover costs associated with the development of the Rules. It also wanted it to make the BACHO file formats available to new participants at no charge.

All of these issues were resolved to the point at which the Reserve Bank was prepared to give "qualified approval".

The most significant issue that needed resolution in the process of creating Payments NZ was the question of access costs – where some existing participants had concerns that new participants should not be entitled to the benefit of the significant investment that the existing participants had made in the payment system without having to pay for a fair share of the cost.

Ultimately the Reserve Bank did not accept this argument and an arrangement was agreed with it whereby if at least six months' notice was given by a new participant, they would not have to pay existing participants' costs in updating and changing their systems to accommodate them. The six month period was agreed to allow banks sufficient time to plan

resources to undertake the task. It was agreed anything more urgent would likely require banks to engage contractors at significant cost and they should be able to recover that cost.

The Reserve Bank's qualified approval letter identified three issues which had expected to be resolved after the incorporation of Payments NZ. They were:

(i) how failure to settle events are addressed in the rules;

(ii) allocation of bank numbers; and

(iii) that CECS did not have its own settlement mechanism and instead settles through BECS.

All of these issues to varying degrees have since been resolved.

3.5 Commerce Commission

The Reserve Bank advised that they had consulted with the Commerce Commission on the Access and Governance Project and expected that the NZBA would approach the Commerce Commission before proceeding.

In Australia, the Australian Payments and Clearing Association ("APCA") had initially sought the Australian Consumer and Competition Commission (ACCC) authorisation of all of its rules.

Subsequently, it had only renewed the authorisation for rules that:

- in case of a high value system mandated the use of SWIFT; and
- related to the expulsion of participants from the payments system.

Advice was sought on whether Payments NZ's Rules and Standards should also be authorised, either in whole or in part. The conclusion was that the better view was that the Rules did not require authorisation – in large part because the section in the New Zealand Commerce Act 1986 dealing with exclusionary provisions (section 29(1A)) only applied if the provisions substantially lessened competition in the market. In Australia, the equivalent provision did not have a ''substantially lessening competition test'' and hence all exclusionary provisions required authorisation.

The Commerce Commission were briefed on 2 May 2010 and Payments NZ sent a follow up letter shortly thereafter. The Commerce Commission responded almost immediately advising that it did not have any present concerns with the structure as described to it.

On that basis, no authorisation was sought.

3.6. Post establishment

Since its incorporation, Payments NZ has developed a number of new standards for the retail payment system in New Zealand including standards which:

- facilitate retail payments being settled before interchange;

- create a common set of standards for consumer payment systems like EFTPOS;
- allow for transparent access criteria for new participants into the payment system;
- facilitate the implementation of the Reserve Bank's OBR policy; and
- facilitate mobile payments.

4. Summary of international regulatory approaches

International regulation of payment systems has historically varied quite significantly between countries that New Zealand would typically look to as comparable jurisdictions (such as Australia, the United Kingdom, Canada, Singapore, Hong Kong and the United States).

However, the approach to payment system regulation appears to have converged significantly over the last five years, as countries have reviewed their oversight of payment systems. The reforms appear to have been driven, in part, by the global financial crisis but particularly the CPSS/IOSCO PFMIs.

4.1 Canada

Of the countries we have reviewed, Canada appears to have been the first with specific payments legislation, which it introduced in 1985 followed by specific legislation giving the Bank of Canada powers to oversee payment clearing and settlement systems in 1996. The Canadian Payments Act 1985 is still in many respects representative of the high watermark in payment system regulations. The Canadian Payments Act 1985 effectively gave the Canadian Payments Association (the "**CPA**") regulatory powers. Unless the CPA's rules were disallowed by the Minister of Finance within 30 days of notification, the rules took effect as regulations - although where rules imposed sanctions for non-compliance, there are greater consultation obligations on the CPA. This model appears to have been robust, as the only changes being proposed to it following the global financial crisis and the publication of the PFMIs are the changes which are currently before the Canadian Parliament that:

(a) require a majority of the CPA Board to be independent directors;

(b) require the CPA to publish a five year strategic plan (on a rolling basis – i.e. it needs to be updated each year); and

(c) extend the powers of the CPA to rule changes which it considers "advisable" for meeting its objectives, as opposed to "necessary" for meeting its objectives.

4.2 Australia

The next significant regime to introduce specific payment system legislation was Australia in 1998 following the Wallis enquiry. The legislation was the Payment Systems (Regulation) Act 1998 and the Payment Systems and Netting Act 1998. Through this legislation, it is commonly believed that the Reserve Bank of Australia has one of the clearest and strongest mandates in the world in relation to payment systems. Furthermore, in 2001 the Reserve Bank of Australia was given a formal regulatory role to ensure that the infrastructure supporting the clearing and settlement of transactions in financial markets is operated in a way which promotes financial stability. The Reserve Bank of Australia's powers include the power to determine

financial stability standards for licenced clearing and settlement facilities (Part 7.3 of the Corporations Act 2001.

Under the Payment Systems (Regulation) Act 1998 the Reserve Bank of Australia designated:

(a) Visa, MasterCard and bank cards for credit systems in 2001;

(b) Visa Debit and the EFTPOS debit card system in 2004 (the MasterCard debit card was designated when it was subsequently introduced); and

(c) ATM systems in 2008.

In addition to regulating payment systems, the Payment Systems (Regulation) Act 1998 also entitled the Reserve Bank of Australia to regulate stored value facilities.

Very little change was made to Australian legislation over the period following the global financial crisis – probably reflecting the fact that the Reserve Bank of Australia already had sufficient powers. However, the Payments Council was established in 2014 as a way of improving the scope of the Reserve Bank of Australia's engagement with the wider payments industry. The Reserve Bank of Australia also continues to adopt a very intrusive approach to payment card regulation with the issue of a further paper in March 2015.

4.3 Singapore

Singapore introduced legislation specifically entitling it to regulate payment systems in 2006. The Singapore legislation entitles the Monetary Authority of Singapore ("MAS") to designate systemically important systems (i.e. retail payment systems) as well as stored value cards.

The powers were enhanced in 2013, in particular by adding greater emergency powers to MAS over designated settlement systems.

4.4 Hong Kong

Hong Kong also had a regime that entitled the Hong Kong Monetary Authority ("HKMA") to regulate systemically important payment systems from 2004. Retail payment systems however were subject only to a voluntary code.

This position is changing with the introduction of the Clearing and Settlement Systems (Amendment) Bill 2015 in January this year. This Bill will clearly enable the HKMA to regulate retail payment systems and stored value facilities.

It is likely that the eight retail payment systems that are subject to the voluntary code now will all become subject to formal regulation. This will include Visa and MasterCard.

4.5 United Kingdom

The United Kingdom was one of the last countries to introduce the formal payment oversight power. It did this in 2013 with the Financial Services (Banking Reform) Act 2013. This Act specifically set up a Payment System Regulator ("PSR"). This legislation was passed after a

report was published in which it was stated:

> *"the government has considerable concerns about the UK payment systems".*

The primary reasons for this were described as the "overlapping groups of big incumbent banks" giving rise to problems with:

(a) competition – with the large incumbent banks creating barriers to entry;

(b) innovation – where there was concern because innovation required cooperation, that some banks may slow the pace of innovation if they were not well placed to take advantage of it; and

(c) service user responsiveness – because where a payment system fails to respond to user needs, it does not necessarily result in a competitive disadvantage to individual banks because it will be perceived to relate to system-wide issues.

The outcome is that the PSR will have the ability to designate systems where the disruption of that system's operation would have serious consequences for the users of the system.

The PSR is proposing to regulate Bacs, CHAPS, Faster Payments, Link, Cheque and Credit, Northern Ireland Clearing, Visa and MasterCard.

The PSR has considered other payment systems such as American Express, Diners, PayPal, M-Pesa and Google Wallet but concluded that they are all too small at this stage to warrant inclusion.

4.6 United States

For completeness we have also looked at the United States, where prior to 2010 regulation of payment systems was fragmented between federal and state regulators. However, in 2010 as part of the Dodd Frank reforms the United States introduced the Payment Clearing and Settlement Supervision Act 2010 which gave the Financial Stability Oversight Council the power to designate financial market utilities and to prudentially supervise them. To date, eight systems have been designated.

4.7 Worldwide summary

The overarching global trend in countries comparable to New Zealand has been to:

(a) empower regulators to designate not just systematically important systems but also retail payment systems; and

(b) regulate stored value facilities.

It is likely that the Reserve Bank will look to adopt a similar approach – looking to some of the refinements that have been made to the definitions of payment systems in countries like the United Kingdom in particular. In addition, there has been a practice of widening engagement with the industry beyond banks to include other payment industry participants, for example

the Australian Payments Council (albeit noting that Payments NZ's recent membership changes will have gone a long way to addressing this issue).

As New Zealand also has an opt-in designation regime (introduced in 2004 to enable CLS Bank to get legal certainty on its rules), it is also likely that the Reserve Bank will continue with its earlier proposed approach of using a "recognition" regime instead. The recognition regime is likely to be the same as other countries designation regime.

Table 5 in the Appendix examines the different approaches taken by international jurisdictions in regulating payment systems in more detail.

Appendix

TABLE 1: PRE-1989 RESERVE BANK LEGISLATIVE DEVELOPMENTS

Event	Year	Summary
Bills of Exchange Act 1908	1908	Codified the law relating to negotiable instruments (including bills of exchange, cheques and promissory notes) by defining each of these negotiable instruments and setting strict compliance requirements as to their enforceability as a means of payment. Continues to be one of the four Acts administered by the Reserve Bank. The other three are: Reserve Bank of New Zealand Act 1989, Cheques Act 1960 and the Insurance (Prudential Supervision) Act 2010.
Reserve Bank Act 1933	1933	Structured the Reserve Bank as a body corporate with the purpose of exercising control over monetary circulation and credit so that the economic welfare of New Zealand was promoted.
Launch of the Reserve Bank	1934	The Reserve Bank opened its doors. It was founded after a 1930 report by Otto Niemeyer of the Bank of England recommended that New Zealand should establish a central bank.
Coinage Act 1933	1 August 1934	Allowed the Reserve Bank to issue distinctive New Zealand coinage and the removed the legal tender status of British coins.
Cheques Act 1960	1960	Added to the formal requirements set down in the Bills of Exchange Act 1908 for cheques.
Decimal Currency Act 1964	10 July 1967	Replaced the New Zealand pound with the New Zealand dollar. Coins to be issued by the Minister of Finance with notes continuing to be issued by the Reserve Bank.
Reserve Bank of New Zealand Act 1964	1964	The Reserve Bank's independence had been in a state of flux since 1933. This Act clearly gave the government control of the Reserve Bank and responsibility for monetary policy decisions was given to Minister of Finance. This Act had no explicit reference to payment systems.
Banking Act 1982	1982	Imposed strict administrative requirements on banks, such as their opening hours.
New Zealand dollar floated	March 1985	Capital inflows into the country and high interest rates led the newly elected Labour government, under the direction of the Minister of Finance Roger Douglas, to introduce a floating foreign exchange rate and to deregulate the financial sector.

TABLE 2: POST 1989 - THE RESERVE BANK BEGINS 'REGULATING' PAYMENT SYSTEMS

Event	Year	Summary
Reserve Bank of New Zealand Act 1989	1989	The constitutional restructuring of the Reserve Bank under this Act reflected the political climate of the mid-1980s and moved the country away from a Muldoon command and control economy towards the economic neo-liberalism of the Lange government. The Act made the Governor of the Reserve Bank responsible for ensuring that the Reserve Bank carries out it functions. It also removed the previous power of the Minister of Finance to direct the Reserve Bank. This Act restructured the Reserve Bank and gave it two core oversight objectives: 1. formulating and implementing monetary policy designed to promote stability in the general level of prices, while recognising the Crown's right to determine economic policy; and 2. promoting the maintenance of a sound and efficient financial system (with a related objective of ensuring that there is no significant damage to the financial system from a bank failure). There was no explicit reference to the oversight of payment systems in this Act.
Payment System Committee of the NZBA established	1992	The operational autonomy which came as a result of the restructure under the Act allowed the Reserve Bank to develop an interest in payment and settlement systems, which until this time had been dominated by the registered banks through systems such as Databank and the Kiwi Inter-Bank Transfer System ("**KITS**"). The Reserve Bank was concerned that a lack of regulation meant that few procedures existed to deal with a settlement default. In 1992, the NZBA established the Payment System Committee, which aimed to cooperate on how best to reform the industry. The Reserve Bank had observer status on the Committee. The Committee concluded that the 'transaction unwinding' system in place for settlement systems like Databank was inadequate and unacceptably passed the risk on to customers rather than other banks.

Event	Year	Summary
Banking Law Reform Act 1995	1995	The Act removed the strict regulations on the banking sector in the Banking Act 1982 in favour of regulating the industry like other businesses under statutes, such as the Companies Act 1993. Elements of the Banking Act 1982 were reincorporated into the Reserve Bank of New Zealand Act 1989, particularly those relating to the keeping of bank records. The Act also implemented changes to the Cheques Act to allow cheques to be non-transferable and enabled them to be transferred electronically, rather than have to be physically transported.
The Banking and Insolvency (Netting and Payments Finality) Bill 1998	1999	Prior to the introduction of RTGS, the industry relied heavily on the 'netting' of payments made by participants over the course of a day and then settling overnight based on a net figure. The legal status of these arrangements was unclear at the time. The Bill, which was subsequently amended into four different Acts and introduced in 1999, was designed to address the lack of certainty in the enforceability of netting provisions. The Bill also effected the removal of the 'zero hour rule'. The rule provided that in the event of insolvency, the insolvency event is held to have occurred at the beginning of the day on which the insolvency order was made. This was an important piece of legislation as these two issues could potentially create a roadblock to the implementation of RTGS systems (and later the Committee on Payment and Settlement Systems ("CPSS") Core Principles which are discussed further below). The legislation brought New Zealand regulation into line with international jurisdictions by ensuring that a netting agreement or a prior settlement transaction remained enforceable and irrevocable in spite of an insolvency event affecting one of the settling parties.

Event	Year	Summary
Reserve Bank of New Zealand Amendment Act 2003	2003	Part 5B and 5C of the Act were introduced giving the Reserve Bank some formal oversight powers of payment systems for the first time. Part 5B granted the Reserve Bank responsibility for oversight of payment systems under the Act. The Act defines a payment system as "*a system or arrangement for the clearing or settlement of a payment obligation or the processing of payment instructions*" and requires the Reserve Bank to exercise its powers for "the maintenance of a sound and efficient financial system". The Reserve Bank also has certain information gathering and auditing powers in relation to operators of a payment system, the power to require the supply of information under section 156C and the power to publish or disclose that information under section 156G of the Act. Part 5C created a designation procedure whereby the Reserve Bank could exercise a degree of regulation, albeit optional, over payment systems. The designation system had the effect of ensuring that transfers made under a designated settlement system were irrevocable. Again, this regulatory development was the product of a desire to implement the Core Principles set down by the CPSS and to enable CLS Bank to operate in New Zealand. There are currently four designated settlement systems: 1. ESAS: designated in 2004 for high value transfers; 2. CLS Bank: designated in 2004 for foreign exchange settlement; 3. New Zealand Clearing and Depository Corporation ("NZCDC"): designated in 2010 for clearing trades on the NZX; and 4. NZClear: designated in 2012 for high value payments and securities settlements. It was formally known as Austraclear. NZClear is also used as the backup system if the SBI system fails.

Event	Year	Summary
Statement of Principles: Payment System Oversight ("**PS1**")	2005	In 2005 the Reserve Bank effectively adopted the Core Principles of the Bank of International Settlement's Committee on Payments and Market Infrastructures ("**CPMI**"), (formerly known as the CPSS) when it published its PS1 document which set out the expectation that New Zealand payment systems be brought into line with international best practice, taking into account any New Zealand specific conditions.
Rule change to outsourcing policy conditions	2006	New rules were implemented in order for some banks to comply with the Reserve Bank's outsourcing policy conditions of banking registration requirements. The new rules changed the NZBA's Interchange and Settlement Rules (which, for example, included the option of the Crown guaranteeing a failed participant). ISL also implemented changes and agreements to block and freeze a failed bank.
Statement of Principles: Payment System Governance ("**PS2**")	2007	The Reserve Bank issued a second document in 2007 which took further steps to align New Zealand with the standards set out in the Core Principles through addressing payment system governance. PS2 looked at regulatory gaps related to Core Principle IX – Open and Transparent Access and Core Principle X – Effective Governance
Amendments to Part 5C of the Reserve Bank of New Zealand Act 1989	2009	The amendment to Part 5C provided for the designation and oversight of settlement systems and made the Financial Markets Authority ("**FMA**") a joint regulator. It was designed to meet the expectations of international and domestic participants conducting trades in securities which were required to be cleared and settled in New Zealand. This replaced the previous Part 5C regime which was just concerned with designation of payment systems.
Personal Property Securities Amendment Act 2009 ("the **PPSA**")	2009	Section 103A was added to the PPSA in 2009 to afford specific protection to payments made through designated payment systems. It provides that a settlement operator of a designated payment system which takes personal property to effect a settlement instruction does so free of any security interest. The legislation reinforced the irrevocability of payments made through a designated system.

Event	Year	Summary
Payments NZ established	2010	The NZBA had taken responsibility for setting standards for New Zealand's payment systems in an effort to regulate the introduction of new payment system technology. Payments NZ was established to take over the payments standards developed by the NZBA in collaboration with the banks and various other international bodies. Under the Payments NZ constitution, a primary function of the company is to facilitate system participation through fair and reasonable access criteria, better aligning the New Zealand system with international best practice.
Memorandum of Understanding signed with the FMA	2011	This document outlined how the Reserve Bank and FMA would jointly regulate designated settlement systems under Part 5C of the Act. Under the Memorandum of Understanding signed between the Reserve Bank and the FMA in 2011, the Reserve Bank has responsibility for: • promoting the maintenance of a sound and efficient financial system; and • avoiding significant damage to the financial system resulting from a failure of a participant in a settlement system. The FMA maintains responsibility for: • promoting the integrity and effectiveness of settlement systems; and • enhancing the confidence of investors and other market participants in settlement systems.
Policy Statement - Oversight of Financial Market Infrastructures in New Zealand ("FMI1")	March 2015	Released to reflect the update of the CPMI guidelines in the PFMIs.

TABLE 3: INTERNATIONAL INFLUENCE ON DOMESTIC PAYMENT SYSTEM REGULATION

Event	Year	Summary
CPSS established and Core Principles developed	1999-2001	The CPSS was established by a group of key central banks in 1999. It developed ten Core Principles to guide the governance and management of systemically important payment systems. The Core Principles were published in 2001. The Core Principles (specifically Core Principle IV which requires a settlement to be final and irrevocable) drove the introduction of designated settlement systems and the amendment to the PPSA. The Core Principles that have had the biggest effect on the New Zealand regulatory landscape have been: • Core Principle IV which provides for prompt and final settlement on the day of value, preferably during the day but at minimum at the end of the day; • Core Principle V which provides that a system in which multilateral netting takes place must, at minimum, be capable of ensuring a timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation (during the pre-SBI era, interchange and settlement was multilateral); • Core Principle IX which relates to open and transparent access; and • Core Principle X which provides that the system's governance arrangements should be effective, accountable and transparent.

Event	Year	Summary
Principles for Financial Markets Infrastructure ("PFMI") released	2012	The CPMI and the Technical Committee of the International Organisation of Securities Commissions ("IOSCO") released the PFMIs to replace the Core Principles. The PFMIs outline a comprehensive set of minimum standards for Financial Markets Infrastructure, covering general organisation, settlement, default management, access, efficiency and transparency. There are 24 principles and five responsibilities for central banks overseeing the payment system. New Zealand has not been aligned with international best practice since the introduction of the PFMI. The Reserve Bank has recently responded to the more stringent guidelines in PFMIs by releasing the FMI1 policy statement to replace PS1.
Recovery of Financial Market Infrastructures Report by CPMI-IOSCO	October 2014	The CPMI-IOSCO report states that Financial Market Infrastructures ("FMIs") should have rules to fully allocate uncovered losses from participant default and uncovered liquidity shortfalls, as well as tools to promptly replenish financial resources employed in a stress event. It further states that FMIs should have comprehensive arrangements in place to allocate losses from investment risk incurred through payment, clearing and settlement activity.
Key Attributes of Effective Resolution Regimes for Financial Institutions Report by the Financial Stability Board ("FSB") released	October 2014	The FSB report provides guidance to resolution authorities on the design of FMI resolution regimes that have the objective of achieving the continuity of critical functions without exposing taxpayers to loss.

TABLE 4: TIMELINE OF THE KEY EVENTS IN NZ PAYMENT SYSTEMS

Event	Year	Summary
Databank established	1967	Executive management at the Bank of New Zealand ("BNZ") wanted to obtain a computer and establish a computerised system to enable the automation of the processing of its banking transactions and customer accounting. Computerisation was deemed as the only way to proceed if the increasing cheque transaction volumes were to be accommodated in a timely fashion. Therefore the BNZ teamed up with the National Bank to establish Databank. In 1974, the Reserve Bank acted as an arbiter in negotiations that saw other financial institutions gain access to Databank on an agency basis.
Arrival of credit cards	1979	The BNZ launched VISA cards in New Zealand in 1979 but the campaign was largely unsuccessful. NZ Bankcard Associates Limited ("NZBAL") was subsequently launched by ANZ Bank, Commercial Bank and Westpac and enjoyed high customer uptake. Credits cards were initially introduced to New Zealand out of a need for automated revolving personal lending and not necessarily due to a need for a payment system.
Arrival of ATMs	1979	ATMs were initially established without any interconnection between the banks. After negotiations conducted through the NZBA, banks agreed to create a single national network of ATMs in 1985
Arrival of Electronic Funds Transfer ("EFTPOS")	June 1984	The EFTPOS system was first trialled in New Zealand by ASB at a service station and a supermarket. These two retail operators initiated a payment system revolution in which New Zealanders would become some of the lowest users of cash payment and amongst the highest users of electronic payments in the world. Initially, the banks pursued EFTPOS fleets which were not connected, leading to multiple terminals on retailer counters. This was eventually streamlined into two networks: Cashline (owned by the Trustee banks) and Quicksmart (created by Databank).

Event	Year	Summary
Treasury threatens to make the Reserve Bank a State-Owned Enterprise	November 1986	The restructure of the Reserve Bank caused significant upheaval. Treasury released a paper outlining its intentions for the Reserve Bank to be restructured into a state-owned enterprise, creating a quasi-governmental department operating commercially, with restraints on its ability to create money.
Development of KITS	1987	Databank built KITS to enable real time electronic trade between the four major banks.
Debt Management Office ("DMO") established	1988	Treasury believed that the Reserve Bank had too much say in the management of government debt and liquidity. Therefore the DMO was established to improve the management of risk associated with the government's debt portfolio.
Incorporation of Paymark Limited	1989	Paymark, formerly known as Electronic Transaction Services Limited ("ETSL"), began acting as a payments switch for EFTPOS transactions after a merger between Cashline and Quicksmart. ETSL was established by ASB, Westpac, and the National Bank, in competition with a switch established by BNZ and ANZ. BNZ eventually joined Paymark but the ANZ persisted with its own switch (which would eventually become EFTPOS New Zealand Limited).
Crown outsources transactional banking to Westpac	1989	The Crown outsources its core banking transactional services to Westpac for the first time.
Reserve Bank purchases licence to operate Austraclear	1990	The Reserve Bank purchased a licence to operate Austraclear, which was a real time trade matching system for the transfer, clearance and settlement of securities. The Reserve Bank's entry into the market for the provision of payment services caused a great deal of tension with the banks, who felt that the Reserve Bank's association with Austraclear created a potential conflict of interest given the Reserve Bank's role as a banking supervisor and a provider of interbank settlement services.

Event	Year	Summary
ISL is established	1992	ISL replaced the Databank system. It was a service which allowed banks to settle overnight on a deferred net basis. ISL was the interbank value transfer software that sat within Databank and had to be extracted prior to the sale of Databank to Electronic Data Systems Corporation ("EDS").
NZBA resolution to adopt RTGS	1993	NZBA resolve to adopt RTGS for high value transactions as a risk management measure. Retail transactions continue to be processed through net-deferred settlement.
Sale of Databank	1994	Alarm had been caused by Databank's failure to settle 'unwinding' procedures, which penalised customers rather than the other banks. Databank's slow cheque clearing network caused ASB to set up an alternative payment network, Payment Clearing Limited, which in turn forced Databank to improve its processing speeds. The banks sold Databank in 1994 to the United States company EDS.
Incorporation of EFTPOS NZ Limited	1994	Formally named Technology Resource Management Limited, EFTPOS NZ Limited was established by the ANZ to compete with Paymark and create an element of competition in the market. Part of EFTPOS NZ Limited's approach was to buy transaction files (common in markets where interswitch fees are arbitraged) however this was curtailed when interswitch interchange was reduced from 20.0 cents to 6.0 cents and then zero. After Kiwibank reduced transaction fees to zero and other banks followed suit, the EFTPOS NZ Limited model of buying transactions was no longer viable.
RTGS System	1998	The introduction of the RTGS system ESAS by the Reserve Bank meant that netting was no longer required for high value payments as payments were transferred instantaneously.

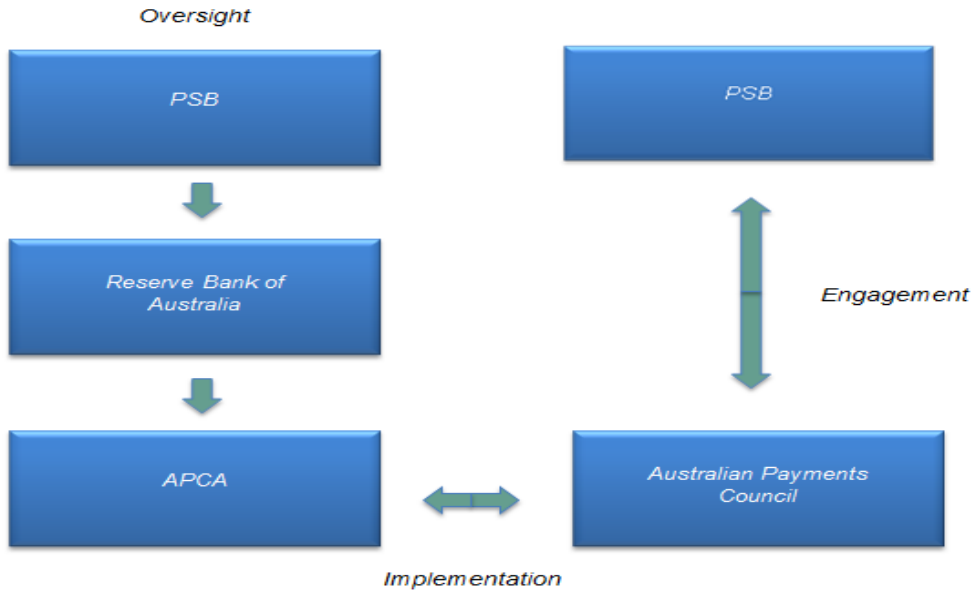
Event	Year	Summary
ESAS and "auto repo" introduced	1998	ESAS allowed registered banks to have an account with the Reserve Bank, through which transactions with other participants were credited and debited. The banks were unhappy with the amount of power this new system gave to the Reserve Bank given that the Reserve Bank was providing commercial payments system services and developed Settlement Request Manager ("SRM") to supervise the authorisation procedures. Auto repo allowed a paying bank with insufficient ESAS funds to make the payment through obtaining cash from the Reserve Bank via the intra-day repo facility using certain tradable securities as collateral. This was an automatically generated facility if the amount was within the limits set by the participants.
KITS replaced with Same Day Cleared Payment ("SCP")	2000	SCP was an electronic payment service used for high value inter-bank transactions as well as for customer transactions. Settlement was on a real-time, transaction by transaction basis through ESAS. The Reserve Bank also became the closed user group administrator of Assured Value Payment (which SCPs were transacted through).
Kiwibank established	2002	Kiwibank enters the wider payment system.
Reserve Bank joins CLS Bank as a participant	2004	CLS Bank is a United States financial institution that provides settlement services to its members in the foreign exchange market through a payment vs payment and RTGS system. Participating central banks hold accounts with CLS Bank which are credited and debited.
Liquidity management regime replaces auto repo	June 2006	The Reserve Bank started supplying a significantly higher level of cash to participants than previously. This higher level of cash was designed to enable participants to efficiently settle day-to-day gross payment obligations. Auto repo was scrapped.

Event	Year	Summary
Commerce Commission settles litigation on credit card interchange rules	2009	After three years of litigation with the banks and card schemes starting in 2006, the Commerce Commission and the banks reached a settlement capping local interchange rules and agreeing to weighted average interchange targets for each bank.
NZBA approval of SBI	2009	The Failure to Settle Project culminated in the design of the business requirements for SBI, which were subsequently approved by the NZBA Council.
SBI replaces ISL	February 2012	SBI allows for five settlement windows over the course of a business day, reducing the fallout of a participant failing to settle after a full day of transactions. SBI was a world first and has largely eliminated settlement risk in the retail payment system. SBI replaced the ISL system which had been in place for twenty years and only allowed a net settlement at the end of a business day on a multilateral basis.
ANZAC Day failure of SBI	2012	Significant disruption to SBI processing on ANZAC Day 2012.
Open Bank Resolution ("OBR")	2013	OBR is a Reserve Bank policy outlined in its Statement of Principles BS1, which aims to allow a failing bank to be kept open for business under statutory management, while placing the cost of a bank failure primarily on the bank's shareholders and creditors, rather than the taxpayer.
Mobile Payment Standards introduced	2014	New Zealand becomes the first country with mobile payments standards based on a combination of NFC/EMV/Global Platform where sensitive card data is stored on a secure element within the SIM card of a mobile phone. This allowed participants of the Consumer Electronic Clearing System to issue a payment application on a mobile device with Semble being the trusted services manager.

TABLE 5: COMPARISON TO OTHER JURISDICTIONS' REGULATION OF PAYMENTS SYSTEMS

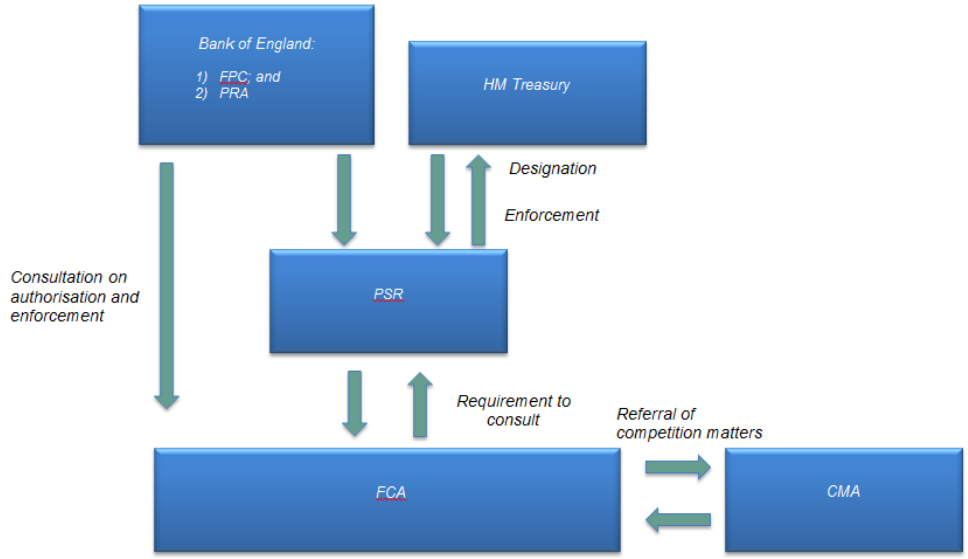
Jurisdiction	Summary
Australia	• The Reserve Bank of Australia plays a key role in the operation of the payment system and has one of the strongest mandates in the world in relation to payment system regulation. The Payment System Board ("**PSB**") of the Reserve Bank of Australia oversees the payment system and is responsible for promoting the safety and efficiency of payment systems through the Payment Systems (Regulation) Act 1998 and the Payment Systems and Netting Act 1998. • The Reserve Bank of Australia has a formal regulatory role to ensure that the infrastructure supporting the clearing and settlement of transactions in financial markets is operated in a way that promotes financial stability. Oversight of the payment system by the Reserve Bank of Australia includes powers to: (i) designate a particular payment system as being subject to its regulation. Designation has no other effect - it is simply the first of a number of steps the Reserve Bank must take to exercise its powers; (ii) determine rules for participation in that system, including rules on access for new participants. Since access is inextricably linked to efficiency the Reserve Bank of Australia works closely with the ACCC; (iii) set standards for safety and efficiency for that system. These may deal with issues such as technical requirements, procedures, performance benchmarks and pricing. The Reserve Bank of Australia implemented revised financial stability standards for central counterparties and securities settlement facilities in 2013. These Standards replaced previous standards determined in 2003 to incorporate changes to international standards for clearing and settlement facilities; (iv) direct participants in a designated payment system to comply with a standard or access regime; and (v) arbitrate on disputes in a designated payment system over matters relating to access, financial safety, competitiveness and systemic risk, if the parties concerned wish. • Australian Prudential Regulation Authority ("**APRA**") sits alongside the Reserve Bank of Australia as a regulator of payment systems. APRA is the prudential regulator of the Australian financial services industry. The PSB must have an APRA member on its board.

Jurisdiction	Summary
Australia (cont'd)	• Arrangements for clearing most payment instruments in Australia are coordinated by the APCA. APCA is a limited liability company with a board of directors drawn from its shareholder banks and manages clearing for cheques, direct entry payments, ATMs, debit cards and high-value payments. • The Australian Payments Council was established in 2014 after a Reserve Bank of Australia consultation document on the establishment of a Payments Council concluded that the PSB needed regular and ongoing engagement with the industry. The Australian Payments Council also assists APCA in implementing clearing arrangements. • The Reserve Bank of Australia released the Issues Paper "Review of Card Payments Regulation" in March 2015. The Issues Paper asked for industry feedback on the following issues which could be subject of a review in the near future: (i) the decline in transparency for some end users of the card systems, in part due to the increased complexity and the wider range of interchange fee categories; (ii) whether there is scope for interchange fees to fall further, consistent with falls in overall resource costs; (iii) widespread perceptions that card surcharges remain excessive in some industries; (iv) perceptions that the growth of companion card arrangements may indicate that the current regulatory system is not fully competitively neutral; (v) some uncertainty in the regulatory treatment of prepaid cards; and (vi). clarifying arrangements for cards offering access to more than one payment network (whether presented physically or virtually via a wallet application). • The recommendation for the introduction of mandatory central clearing requirements for US dollar-, euro-, British pound- and Japanese yen-denominated interest rate derivatives trades between internationally active dealers is a recent development in Australian payment regulation.

Jurisdiction	Summary
Australia (cont'd)	Australian regulatory system diagram 
Hong Kong	• The Clearing and Settlement Systems Ordinance ("**CSSO**"), which came into force in November 2004, empowers the HKMA to designate and oversee clearing and settlement systems that are material to the monetary or financial stability of Hong Kong. The oversight is performed by the Payment Systems Oversight team ("**PSO**"), which is segregated from the Financial Infrastructure Department (which is responsible for the operation and development of financial infrastructures) of the HKMA to maintain checks and balances. There are effective "Chinese wall" arrangements to avoid any potential conflicts of interest. All information obtained by the PSO team during the oversight process is kept strictly confidential and solely used for oversight purposes. • The HKMA is empowered to designate clearing and settlement systems and to oversee these systems on an ongoing basis to ensure their compliance with the CSSO. The HKMA oversees designated systems through off-site reviews, continuous monitoring, onsite examinations and meetings with management of the system operators and settlement institutions of the systems. • The HKMA also owns and operates a number of clearing and settlement systems itself. The Process Review Committee's mandate is to review the processes and procedures adopted by the HKMA in making decisions relating to or affecting the designated systems in which the HKMA has a legal or beneficial interest. • The Clearing and Settlement Systems Appeals Tribunal ("**CSSAT**") hears appeals from persons who are aggrieved by a decision of the HKMA on: (i) the designation of a clearing and settlement system;

Jurisdiction	Summary
Hong Kong (cont'd)	(ii) the revocation of a designation; (iii) the issuance of a certificate of finality; or (iv) the suspension or revocation of a certificate of finality. • There are some FMIs in Hong Kong under the supervision of the Securities and Futures Commission ("**SFC**"). To avoid regulatory overlap between the HKMA and the SFC, the CSSO stipulates that the HKMA's power to designate does not cover clearing and settlement systems operated by a recognised clearing house under the Securities and Futures Ordinance ("**SFO**") (however there are cases in which a recognised clearing house under the SFO may also be a participant of a designated system under the CSSO.) To avoid the possibility of introducing any incompatible regulatory requirements, the HKMA and the SFC entered into a memorandum of understanding in 2004 to set out the co-operative oversight arrangements between the two regulators. • The Clearing and Settlement Systems (Amendment) Bill had its first reading on 4 February 2015. It amends the CSSO and provides for a new licensing framework for stored value facilities and a designation scheme for retail payment systems ("**RPS**") as well as relevant supervisory and enforcement powers for the HKMA. RPSs are systems or arrangements for clearing or settling of payment obligations relating to retail activities and are currently unregulated in Hong Kong (although the HKMA have endorsed a voluntary code of practice for RPSs).
United Kingdom	• The Bank of England has an oversight function of interbank payment systems under Part 5 of the Banking Act 2009. Its powers include the ability to gather information, set principles, issue directions, require changes to system rules, appoint inspectors, and require the commissioning of an independent report. There are also powers of sanction for compliance failures as specified in the Act, including publishing the fact of a compliance failure, financial penalties, management disqualification and closure of a system. Regulation of payment and settlement systems is divided between two divisions: (i) the Financial Policy Committee ("FPC") is the arm of the Bank of England in charge of systemic infrastructure and undertakes regulation of settlement and payment systems; and (ii) the Prudential Regulation Authority ("PRA") is a company wholly owned by the Bank of England with the objective of promoting the financial stability of the United Kingdom financial system based on a judgement-led approach so banks comply with the spirit and not just the letter of a rule.

Jurisdiction	Summary
United Kingdom (cont'd)	• HM Treasury is empowered to designate which systems will be regulated through powers given to it under the Financial Services (Banking Reform) Act 2013. HM Treasury has now proposed that eight payment systems operating in the United Kingdom should be subject to the new regulatory regime. There is some overlap with those systems already regulated by the Bank of England. • Following HM Treasury's paper on "Opening up UK Payments" in March 2013, the Payment Systems Regulator ("**PSR**") was officially created as a subsidiary of the Financial Conduct Authority ("**FCA**") under the Financial Services (Banking Reform) Act 2013. The PSR is tasked with promoting effective competition and innovation in payment systems and ensuring that those systems are operated and developed in the interest of business and consumer users of those systems. The PSR will only be responsible for regulating payment systems that are designated for regulation by HM Treasury. The PSR became fully operational on 1 April 2015. The PSR released its policy statement PSR PS 15/1 "A new regulatory framework for payment systems in the UK" on 25 March 2015 which outlines policy decisions on its strategy setting processes, the governance and control of payment systems and access to payment systems. • The FCA and Competition and Markets Authority ("**CMA**") regulate competition issues concurrently with the PSR. A Memorandum of Understanding is currently being agreed between the Bank of England, FCA, PRA and PSR to clearly define which agency is in charge of which statutory objectives. • The UK Payments Council, set up in 2007, is the organisation that sets the strategy for United Kingdom payments and ensures the needs of payment service providers, users and the wider economy are catered for. It will soon be wound down and replaced by the PSR. • Following an outage of the RTGS system for nine hours on 20 October 2014, the Bank of England re-convened a RTGS Board, with a Deputy Governor as Chair, to improve the governance, and change and testing arrangements in the RTGS system. • The Bank of England's Strategic Plan, launched in March 2014, placed renewed focus of the Bank's role as FMI supervisor, establishing a new directorate for Financial Market Infrastructure within the Bank of England, in recognition of FMIs' increasing systemic importance.

Jurisdiction	Summary
United Kingdom (cont'd)	UK regulatory diagram: 
Singapore	• The MAS's role in the oversight of payment and settlement systems is to promote the safety and efficiency of these infrastructures. MAS is explicitly empowered by the Payment System Oversight Act 2006 with the supervision of payment system operators such as the Singapore Automated Clearing House and payment system participants to oversee payment systems. Oversight focuses on the objectives of safety and efficiency and covers three main areas: (i) the designation of payment systems as systemically important payment systems (SIPS) or system-wide important payment systems ("SWIPS"); (ii) information gathering powers over all payment system participants; and (iii) the regulatory regime for stored value facilities. • The Payment Systems (Oversight) (Amendment) Act 2013 strengthened the oversight powers of MAS and aligned Singapore more closely with the PFMIs. The Act amended the following: (i) it excludes the MAS in its capacity as a participant, an operator or a settlement institution of any payment system from the application of certain oversight powers in the Act; (ii) it included an express provision safeguarding the confidentiality of the information contained in reports issued by MAS to the operator of a designated system; and (iii) expedites the exercise of MAS's emergency powers in relation to a designated system in the event of an emergency and allows it to take immediate regulatory action in a crisis.

Jurisdiction	Summary
Canada	• Policymaking and oversight responsibility for payments regulation in Canada is primarily shared by the Bank of Canada and the Ministry of Finance, with the Financial Consumer Agency of Canada ("FCAC") being the enforcer of consumer protection provisions in multiple Acts and the CPA developing and enforcing rules that shape important interbank systems. The Payment, Clearing and Settlement Act 1996 provides the Bank of Canada with responsibility for oversight of designated payment and other clearing and settlement systems for the purposes of controlling systemic risk. • The CPA is a not-for-profit organisation with a mandate to establish and operate national payment systems, facilitate the integration of its clearing and settlement systems with other systems and facilitate the development of new payment methods and technologies. Through the Canadian Payments Act 1985, the Ministry of Finance has directive and oversight powers over the CPA as well as payment, clearing and settlement systems that it designates for oversight. The CPA is internationally unique because it is founded by an Act of Parliament. The CPA owns and operates the two national payments systems in Canada, the Automated Clearing Settlement System and the Large Value Transfer System. • Amendments have recently been made to the Canada Payments Act 1985 and the Payments Clearing and Settlements Act 1996 to restructure the CPA (which will come into force in July 2015) including: (i) new CPA board composition requirements including: (a) a pool of candidates vetted by a Nomination Committee; (b) seven independent directors (one of whom will be chair); (c) five member directors; (d) three direct participant members, at least two of which must be from domestic systemically important banks; and (e) two other members; and (ii) an oversight framework for planning, reporting, accountability and financial administration, including a five year corporate plan for approval by the responsible Minister.

Jurisdiction	Summary
EU	• The oversight function of the Eurosystem is recognised in the Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks ("**ESCB**") and of the European Central Bank ("**ECB**"). Article 127(2) of the Treaty and Article 3.1 of the Statute state that one of the basic tasks to be carried out through the ESCB shall be to promote the smooth operation of payment systems. Oversight of retail payment systems has been based on the oversight standards for euro retail payment systems, which are based on the CPSS Core Principles and SIPS ("**Systemically Important Payment Systems**") Regulations have subsequently been updated to reflect the 2012 PFMIs. • Domestic payment systems in Europe have been replaced with a European-wide standard payments system known as the Single European Payments Area ("**SEPA**"). As of 1 February 2014, all domestic Automatic Clearing Houses and direct debit instructions within the Eurozone were expected to comply with the SEPA standard. • The European Payments Council, representing payment service providers, supports and promotes SEPA payments integration and development
USA	• Some of the key payment systems in the United States are operated by the Federal Reserve, whilst a number of others are operated by private organisations. Prior to 2010, various federal regulatory authorities had oversight responsibilities for certain systems. The Federal Reserve had no explicit statutory oversight authority in respect of financial infrastructure in the United States (however, it did derive certain payment oversight responsibilities from more general statutory responsibilities, such as its responsibility for monetary policy). • The Payment, Clearing and Settlement Supervision Act 2010 was introduced under the Dodd-Frank Act after the global financial crisis raised concerns in relation to the systemic risk caused by large institutions failing and gave the Financial Stability Oversight Council the power to designate 'systematically important systems'. The definition of a 'systemically important system' in the Dodd-Franks Act is a system which, if it failed or there were a disruption to it functionality, could create or increase the risk of significant liquidity or credit problems spreading among financial institutions and thereby threaten the stability of the United States financial system. The eight payment systems which have so far been designated as systematically important are CLS Bank, CHIPS, Chicago Mercantile Exchange, Depository Trust, ICE, Fixed Income Clearing Corporation, National Securities Clearing Corp and Options Clearing Corp.

Jurisdiction	Summary
USA (cont'd)	• As part of its oversight powers, the Federal Reserve can prescribe risk management standards, conduct examinations of designated systems alongside prudential regulators and directly enforce compliance with the Dodd-Franks Act. • The Federal Reserve released its "Strategies for Improving the US Payment System Report" in January 2015 following a consultation with payment industry stakeholders. It outlined a number of strategies to improve the payment system including: (i) sustained engagement with industry stakeholders to implement safer and faster payments infrastructure; (ii) measures to increase the resilience of the payment system and reduce fraud; (iii) providing for more effective central bank settlement solutions; and (iv) enhancing cross-border payment capabilities.