



RESERVE BANK
OF AUSTRALIA

**Payments
System Board
Annual Report**

2013

RESERVE BANK OF AUSTRALIA



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G.R. Stevens
GOVERNOR

2 October 2013

The Hon Joe Hockey MP
Treasurer
Parliament House
CANBERRA ACT 2600

Dear Treasurer

PAYMENTS SYSTEM BOARD ANNUAL REPORT 2013

I am writing to seek your agreement to the tabling in the Parliament of the Payments System Board Annual Report for 2013. A copy of the report is enclosed.

In terms of the *Reserve Bank Act 1959*, the Payments System Board is required to inform the Government, from time to time, of the Reserve Bank's payments system policy. There is no statutory requirement to table an annual report, but tabling has proven a useful way of publicising the work of the Payments System Board.

Yours sincerely

A handwritten signature in blue ink, appearing to read "G.R. Stevens".

Payments System Board

ANNUAL REPORT 2013

Contents

Governor's Foreword	1
Functions and Objectives of the Payments System Board	3
Governance	5
Payments System Board	7
Trends in Retail Payments	13
Other Retail Payments Developments	21
Regulatory Developments in Retail Payments	33
Responses to the Strategic Review of Innovation	41
Oversight of High-value Payment Systems	47
Oversight of Clearing and Settlement Facilities	51
Regulatory Developments in Financial Market Infrastructures	59
Liaison Activity	67
The Board's Announcements and Reserve Bank Reports	69
Abbreviations	73

Reserve Bank

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Governor's Foreword

The work of the Payments System Board in 2012/13 addressed a wide range of issues.

The Conclusions to the *Strategic Review of Innovation in the Payments System*, published in June 2012, highlighted difficulties with achieving innovation at an industry-wide level and identified a number of specific gaps that existed in the payments system. In response, some important initiatives are underway. First, the industry and the Reserve Bank are on track to move to same-day settlement of all Direct Entry transactions by the end of 2013. Second, the New Payments Platform (NPP), an industry project in response to the Strategic Review, aims to deliver real-time payments on a 24/7 basis to all users of the payments system by 2016. A related initiative is the establishment of a new industry coordination body, the Australian Payments Council, intended to enhance the industry's capacity to innovate further over the longer term. The Council will bring together senior representatives of a range of players in the payments industry to consider strategic issues for the industry. The Board has been considering the design of the new body, in conjunction with the Australian Payments Clearing Association. The Board will also remain closely engaged with the NPP to monitor progress and ensure that its public policy objectives are met. The Bank is represented on the steering committee overseeing the project, along with the design authorities and working groups that will contribute to the initial stages. In addition, the Bank itself is building certain key elements of infrastructure to enable the NPP to settle payments in real time in the Reserve Bank Information and Transfer System (RITS).

The Board continues to assess, as needed, the effectiveness of regulation put in place in earlier years. In May 2012, the Board had decided to vary the standards relating to surcharging of card transactions by merchants, so as to allow schemes to cap surcharges at the reasonable cost of accepting cards. The new standards became effective in March 2013, supported by a guidance note to assist schemes, acquirers and merchants in determining the reasonable cost of acceptance. In May 2013 the Board initiated a consultation on whether the access regimes imposed on the MasterCard and Visa systems in 2004 and 2005 are continuing to strike an appropriate balance between competition and financial safety. Reflecting the establishment of a central governing scheme for the eftpos system, the Board made an in-principle decision to remove the access regime for the eftpos system if satisfactory alternative access arrangements are put in place. It also simplified the regulation of interchange fees in the eftpos system, given the easing of concerns that bilaterally negotiated fees might be used to disadvantage new entrants. Finally, the Board made a change to the access regime for the ATM system, which allowed it to grant an exemption to an industry arrangement that aims to reduce excessive expenditure on ATM fees in very remote Indigenous communities.

In recent years, the Board has been spending an increasing amount of its time on issues arising from its responsibilities under the *Corporations Act 2001* to promote the stability of the financial system. This continued in 2012/13, stemming in part from international regulatory developments. The global push to greater use of central counterparties (CCPs) and other centralised financial market infrastructures (FMIs) in over-the-counter (OTC) derivatives markets means that dependence on FMIs is increasing. The international policy community

has, therefore, focused increasingly on the resilience of FMIs and on arrangements to ensure continuity of critical services, should there be a threat to an FMI's solvency. Following the publication of new global standards, in November 2012 the Board approved a new set of financial stability standards for the design, operation and risk management of licensed clearing and settlement (CS) facilities in Australia. The Board recently approved the Bank's first assessments of the CS facilities in the ASX Group against the new standards, for publication in September.

The Board has also considered matters arising from greater cross-border activity by CCPs. A key issue in permitting overseas-based CS facilities to provide services in Australia is to ensure that the design, operations and governance of such facilities are appropriate to the Australian context. In this regard, the Board reviewed a framework developed by the Council of Financial Regulators that establishes a graduated set of measures to apply to cross-border facilities. This framework will be applied by the Bank and the Australian Securities and Investment Commission to oversee the domestic operations of LCH.Clearnet Limited (LCH.C), a London-based CCP, which in April became the first overseas-based CS facility to be licensed in Australia. LCH.C's licence was initially restricted to the provision of CCP services for commodity, energy and environmental derivatives traded on a new exchange to be operated by FEX Global Pty Ltd, but it has since been varied to permit LCH.C to offer its SwapClear service for OTC interest rate derivatives directly to Australian participants.

International regulatory developments are also shaping the strategic decisions of existing domestic CS facilities. In recent meetings, the Board has examined two particularly important initiatives progressed by the ASX Group that were launched in July 2013. These are a clearing service for Australian dollar-denominated OTC interest rate derivatives and a centralised collateral management service, which automates the optimisation and allocation of collateral, initially in respect of securities held in Austraclear.

Finally, the Board has considered issues arising from the cross-border reach of OTC derivatives and CCP regulation of some foreign jurisdictions, especially the United States and European Union. The Bank and other Australian regulators have been assisting counterparts in these jurisdictions in their assessments of the extent to which these jurisdictions will be prepared to rely on Australian regulation, rather than imposing their rules directly on Australian participants.

Joseph Gersh AM finished a 15-year period on the Board on 14 July 2013, having been a founding member of the Board and serving with great distinction during his three terms. The Board thanks him for his valuable contribution to the Board's deliberations and his strong support for the work of the Bank in the payments area. Gina Cass-Gottlieb and Paul Costello joined the Board on 15 July 2013.

Once again, the staff in Payments Policy Department have performed their roles with dedication and high levels of competence. The Board joins me in thanking them for their efforts.



Glenn Stevens
Chairman, Payments System Board
2 September 2013

Functions and Objectives of the Payments System Board

Under the *Reserve Bank Act 1959* it is the duty of the Payments System Board to ensure, within the limits of its powers, that:

- the Reserve Bank's payments system policy is directed to the greatest advantage of the people of Australia
- the powers of the Reserve Bank set out in the *Payment Systems (Regulation) Act 1998* and the *Payment Systems and Netting Act 1998* are exercised in a way that, in the Board's opinion, will best contribute to controlling risk in the financial system, promoting the efficiency of the payments system and promoting competition in the market for payment services, consistent with the overall stability of the financial system
- the powers of the Reserve Bank that deal with clearing and settlement facilities set out in Part 7.3 of the *Corporations Act 2001* are exercised in a way that, in the Board's opinion, will best contribute to the overall stability of the financial system.

Under the *Payment Systems (Regulation) Act*, the Reserve Bank has the power to designate payment systems and set standards and access regimes for designated systems. The *Payment Systems and Netting Act* provides the Bank with the power to give legal certainty to certain settlement arrangements so as to ensure that risks of systemic disruptions from payment systems are minimised.

Under Part 7.3 of the *Corporations Act*, the Reserve Bank 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. The Bank's powers under that Part include the power to determine financial stability standards for licensed clearing and settlement facilities.

This Report discusses the activities of the Board during 2012/13.

Governance

Composition of the Payments System Board

The Payments System Board comprises the Governor, who is Chairman, one representative of the Reserve Bank appointed by the Governor, one representative of the Australian Prudential Regulation Authority (APRA) appointed by APRA, and up to five other members appointed by the Treasurer for terms of up to five years. Members of the Board during 2012/13 are shown below and details of the qualifications and experience of current members are provided on pages 7–10. Joseph Gersh completed his third term on the Board in July 2013; a resolution of the Board on 17 May 2013 is shown on page 11.

Meetings of the Payments System Board

The *Reserve Bank Act 1959* does not stipulate the frequency of Board meetings. Since its inception, the Board's practice has been to meet at least four times a year and more often as needed. There were four meetings held in 2012/13, three at the Reserve Bank's Head Office in Sydney and the November 2012 meeting in Melbourne. Five members form a quorum at a meeting of the Board.

Conduct of Payments System Board Members

On appointment to the Board, each member is required under the Reserve Bank Act to sign a declaration to maintain confidentiality in relation to the affairs of the Board and the Reserve Bank. Further, members must comply with the general obligations of directors of Commonwealth authorities, as set out in the *Commonwealth Authorities and Companies Act 1997* (CAC Act). Under the CAC Act members of the Payments System Board must:

- discharge their duties with care and diligence
- act in good faith in the best interests of the Reserve Bank, and for a proper purpose
- not use their position to benefit themselves or any other person, or to cause detriment to the Reserve Bank or any other person

Board Meetings in 2012/13 Attendance by members

	No of meetings attended	No of meetings eligible to attend
Glenn Stevens (Governor)	4	4
Malcolm Edey (RBA, Deputy Chairman)	4	4
Joseph Gersh ^(a)	4	4
John Laker (APRA)	4	4
Robert McLean	4	4
Catherine Walter	4	4
Brian Wilson	4	4

(a) Joseph Gersh's term on the Board ended on 14 July 2013

- not use any information obtained by virtue of their position to benefit themselves or any other person, or to cause detriment to the Reserve Bank or any other person
- declare any material personal interest in a matter that relates to the affairs of the Reserve Bank.

Over and above these statutory requirements, members recognise their responsibility for maintaining a reputation for integrity and propriety on the part of the Board and the Bank in all respects. Members have adopted a Code of Conduct that provides a number of general principles as a guide for their conduct in fulfilling their duties and responsibilities as members of the Board; a copy of the Code, which was revised during 2013, is on the Bank's website.

Remuneration and Allowances

Remuneration and allowances for the non-executive members of the Payments System Board are determined by the Remuneration Tribunal.

Induction of Board Members

The induction program assists newly appointed Board members in understanding their role and responsibilities, and provides them with an overview of the Bank's role in the payments system and details of relevant developments in preceding years. Separate briefing sessions are tailored to meet particular needs or interests.

Indemnities

Members of the Payments System Board have been indemnified in accordance with section 27M of the CAC Act against liabilities incurred by reason of their appointment to the Board or by virtue of holding and discharging such office.

The Reserve Bank does not take out directors and officers liability insurance in relation to its Board members or other officers, and so no premiums were paid for any such insurance in 2012/13.

Payments System Board

September 2013



Glenn Stevens

B^{Ec} (Hons) (Sydney), MA (Western)

Governor and Chairman

Governor since 18 September 2006

Reappointed from 18 September 2013 until 17 September 2016

Glenn Stevens has held various senior positions in the Reserve Bank, including Head of Economic Analysis and International Departments and Assistant Governor (Economic), where he was responsible for overseeing economic and policy advice to the then Governor and Reserve Bank Board. He was Deputy Governor from 2001 to 2006.

Other Roles

Chairman – Reserve Bank Board

Chairman – Council of Financial Regulators

Chairman – Financial Markets Foundation for Children

Member – Financial Stability Board

Director – The Anika Foundation



Malcolm Edey

B^{Ec} (Sydney), PhD (London)

Assistant Governor (Financial System) and Deputy Chairman

Deputy Chairman since 14 April 2009

Malcolm Edey has held various senior positions in the Reserve Bank, including in the Economic and Financial Markets Groups. Prior to his current role, Dr Edey was Assistant Governor (Economic). In his current position as Assistant Governor (Financial System), he is responsible for the Bank's work on financial stability and oversight of the payments system.

Other Roles

Chairman – OECD Committee on Financial Markets

Member – Council of Financial Regulators

Member – Basel Committee on Banking Supervision



Gina Cass-Gottlieb

BEc (Hons), **L**LB (Hons) (Sydney), **L**LM (Berkeley)

Non-Executive Member

Member since 15 July 2013

Present term ends 14 July 2018

Gina Cass-Gottlieb is a senior partner in Gilbert + Tobin's competition and regulation practice, advising and representing corporations, industry associations, government and government agencies. She has over 25 years' experience, including advising in relation to access arrangements in a range of sectors across the economy. Ms Cass-Gottlieb attended the University of California, Berkeley, as a Fulbright Scholar.

Directorships

Director – Sydney Children's Hospital Foundation



Paul Costello

BA (Canterbury), **D**ip Bus Admin (Massey)

Non-Executive Member

Member since 15 July 2013

Present term ends 14 July 2018

Paul Costello has held a number of roles in the Australasian financial services sector. Most recently he served as the inaugural general manager at the Australian Government's Future Fund and also as the chief executive of the New Zealand Government's Superannuation Fund. Prior to these roles, he spent 15 years in the Australian wealth management industry. The Australian Government has previously appointed him in advisory roles to assist with the Stronger Super regulatory reforms and the Productivity Commission review of the sector. Mr Costello is a Fellow of the Financial Services Institute of Australia.

Directorships

Chairman – The Blackstone Group (Australia) Pty Ltd

Director – AIA Australia Limited



John Laker AO

BEc (Hons) (Sydney), **M**Sc (Econ), **P**hD (London)

Ex Officio Member

Chairman, Australian Prudential Regulation Authority

Member since 24 July 1998

John Laker was appointed as a Member and Chairman of the Australian Prudential Regulation Authority on 1 July 2003 and will complete his appointment on 30 June 2014. He worked in the Commonwealth Treasury and International Monetary Fund before joining the Reserve Bank in 1982, where he held senior positions in the economic, bank supervision and international areas. From 1998 to 2003, Dr Laker was Assistant Governor (Financial System) and Deputy Chairman of the Payments System Board.

Other Roles

Member – Basel Committee on Banking Supervision

Member – BIS Group of Governors and Heads of Supervision

Director – Centre for International Finance and Regulation

Member – Council of Financial Regulators

Member – Trans-Tasman Council on Banking Supervision



Robert McLean AM

BEc (Stats) (Hons) (UNE), **M**BA (Columbia)

Non-Executive Member

Member since 29 November 2006

Present term ends 28 November 2016

Robert McLean is a company director and private equity investor. He had a 25-year career at McKinsey & Company, where he remains a Senior Advisor to the firm, and previously served on the boards of CSR Ltd, Pacific Dunlop Ltd and Elders Rural Services. He was Dean and Director of the Australian Graduate School of Management at the University of New South Wales from 2003 to 2006. Mr McLean attended Columbia University in New York as a Fulbright Scholar.

Directorships

Chairman – Australia Program Advisory Board, The Nature Conservancy (Australia)

Director – LJ Hooker Pty Ltd

Director – The Centre for Independent Studies

Senior Advisor – McKinsey & Company



Catherine Walter AM

LLB (Hons), LLM, MBA (Melbourne)

Non-Executive Member

Member since 3 September 2007

Present term ends 2 September 2017

Catherine Walter is a solicitor and company director, who practised banking and corporate law for 20 years in major city law firms, culminating in a term as Managing Partner of Clayton Utz, Melbourne. She was a Commissioner of the City of Melbourne and for more than 20 years has been a non-executive director of a range of listed companies, government entities and not-for-profit organisations spanning many sectors, including the arts, education, insurance, investment, banking and financial services, consumer goods, resources, telecommunications and scientific and medical research. Mrs Walter is a Fellow of the Australian Institute of Company Directors.

Directorships

Chairman – Fed Square Pty Ltd

Director – Australian Foundation Investment Company

Director – Victorian Funds Management Corporation

Director – Victorian Opera



Brian Wilson

MCom (Hons) (Auckland)

Non-Executive Member

Member since 15 November 2010

Present term ends 14 November 2015

Brian Wilson was a Managing Director of the global investment bank Lazard until 2009, after co-founding the firm in Australia in 2004, and was previously a Vice-Chairman of Citigroup Australia and its predecessor companies. Mr Wilson was a member of the Commonwealth Government Review of Australia's Superannuation System and is currently a member of the ATO Superannuation Reform Steering Committee and of the Specialist Reference Group on the Taxation of Multinational Enterprises in Australia.

Directorships

Chairman – Foreign Investment Review Board

Deputy Chancellor – University of Technology, Sydney

Director – Bell Financial Group Ltd

Retirement from the Board

Joseph Gersh AM retired from the Board on 14 July 2013.



Joseph Gersh AM

BCom, LLB (Hons) (Melbourne)

Non-Executive Member

Appointed 15 July 1998

Retired 14 July 2013

Mr Gersh is founder and Executive Chairman of Gersh Investment Partners Limited (GIPL) and an adviser to, and director of, a range of public and private companies in Australia. Prior to founding GIPL, Mr Gersh was a senior partner and Chairman of the Management Committee of Melbourne law firm Arnold Bloch Leibler. During his 20-year association with the firm, he acted for some of the most prominent members of the Melbourne business community.

Directorships

Executive Chairman – Gersh Investment Partners Ltd

Director – The Sydney Institute

Resolution of the Board – 17 May 2013

Members noted that this was the final meeting for Joseph Gersh, who was a founding member of the Board and had served three terms, covering a period of 15 years, with great professionalism and dedication. Members paid tribute to Mr Gersh's active and probing role as a Board member, which had been based on his wide experience in the legal and financial sectors. They recorded their appreciation of Mr Gersh's valuable contribution to the Board's deliberations and his strong support for the work of the Bank in the payments area. Members wished him well in the future.

Trends in Retail Payments

The Payments System Board monitors trends in the use of retail payment methods in line with its responsibilities to promote efficiency and competition in the Australian payments system. Developments during 2012/13 largely continued the trends observed in recent years. There is some evidence that consumers are making less use of cash over time, while the use of electronic payment methods, particularly debit cards, continues to increase. The average value of card transactions continued to fall in 2012/13, perhaps reflecting card payments replacing cash for low-value transactions. One possible driver of this substitution is the adoption of contactless payments, which facilitate faster transaction times. Consistent with long-term trends, cheque use continued to fall, while the use of BPAY for bill payments continued to grow strongly, by value.

Cash Payments

The use of cash as a payment method remains widespread, though trends are difficult to measure because most cash transactions typically take place directly between payers and payees, without financial institutions being involved in each payment. This is in contrast to cheques, cards and most types of electronic payments, for which data can be obtained from financial institutions or payment system operators. One of the most comprehensive sources of data on individual cash payments is the Reserve Bank's consumer payments use diary study. This survey was first undertaken in 2007 and was repeated in 2010; a third study is currently underway. The earlier studies indicated that consumers used cash for most of their low-value transactions, with 80 per cent of the number of payments under \$25 made using cash in both studies. Overall, cash payments accounted for 62 per cent of the number and 23 per cent of the value of all payments made by individuals in the 2010 study, with some substitution away from cash use, and towards electronic methods, observed over the three years between the 2007 and 2010 studies.¹

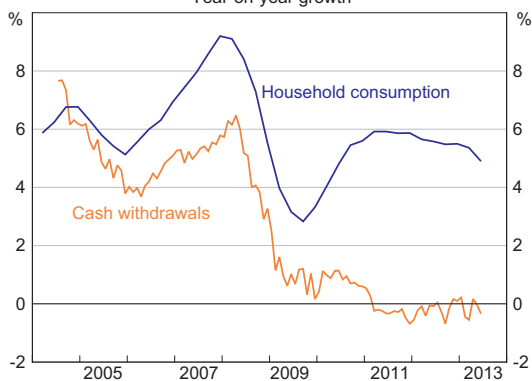
An alternative – indirect but more readily available – measure of cash use is data on cash withdrawals reported by financial institutions. The value of cash withdrawals (from automated teller machines (ATMs), through eftpos terminals and over the counter at branches) was largely unchanged in 2012/13, falling 0.3 per cent to a total of \$243 billion. This compares with 5 per cent growth in nominal household consumption expenditure over the same period (Graph 1). Broadly, the cash withdrawal data over the past few years suggest that the declining reliance on cash observed between 2007 and 2010 in the Bank's consumer use surveys is likely to have continued since 2010. In particular, the subdued growth in cash withdrawals appears to reflect consumers further embracing card payment methods as an alternative to cash. This might in part reflect contactless payments, which provide faster tender times than traditional card payments, where the card must be inserted or swiped at a terminal and authorised via PIN or signature.

The most common way individuals withdraw cash is through ATMs, which accounted for 60 per cent of the total value of cash withdrawals and 71 per cent of the total number of cash withdrawals in 2012/13.

1 Bagnall J, S Chong and K Smith (2011), *Strategic Review of Innovation in the Payments System: Results of the Reserve Bank of Australia's 2010 Consumer Use Study*, RBA, June.

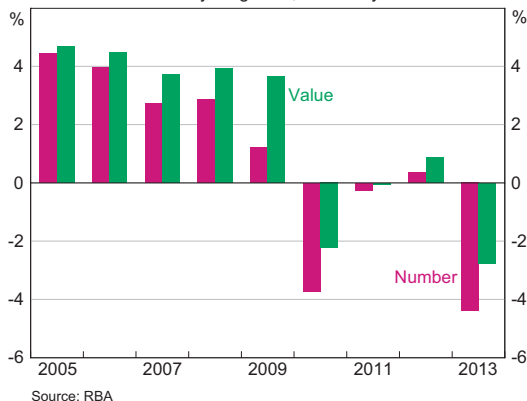
However, the value and number of ATM withdrawals fell in 2012/13 by around 3 per cent and 4 per cent, respectively (Graph 2).

Graph 1
Value of Cash Withdrawals and Household Consumption
 Year-on-year growth



Sources: ABS; RBA

Graph 2
ATM Withdrawals
 Year-on-year growth, financial year



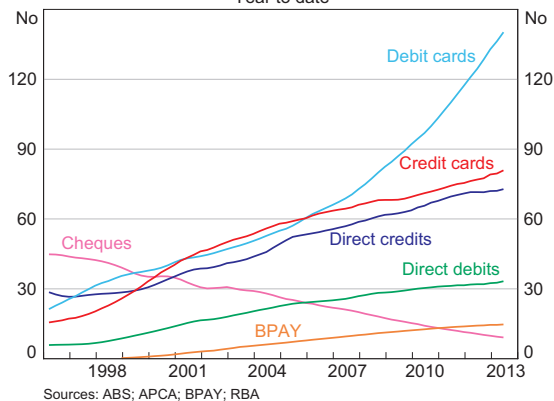
Source: RBA

After ATM withdrawals, cash acquired through eftpos cash-out facilities is the next most common means of withdrawing cash. In 2012/13, eftpos cash-outs (either with or without a related purchase) accounted for around a quarter of the total number of cash withdrawals, but only 7 per cent by value; the average value of eftpos cash-outs was \$63, compared with \$185 for ATM withdrawals. In contrast to the fall in ATM withdrawals in 2012/13, use of eftpos cash-outs continued to grow strongly, with the number of cash-outs 4 per cent higher and the value 8 per cent higher in 2012/13. The value of over-the-counter (e.g. branch) cash withdrawals increased by around 4 per cent in 2012/13, with these withdrawals accounting for 29 per cent of the value of withdrawals, but only 2 per cent by number (branch withdrawals are typically for larger amounts than ATM withdrawals and eftpos cash-outs).

Non-cash Payments

Overall, trends in non-cash retail payments use have been broadly consistent over a number of years (Graph 3). The total number of non-cash payments increased by around 8 per cent in 2012/13, with this annual growth slightly stronger than for the past five years; however, the value of non-cash payments was largely unchanged (Table 1). This suggests a fall in the average transaction size, a trend that has been evident across several categories of non-cash payments. Debit cards experienced the strongest growth in usage in 2012/13 of the various non-cash payment methods; credit card use also grew moderately, though average credit card balances have fallen

Graph 3
Non-cash Payments per Capita
 Year to date



Sources: ABS; APCA; BPAY; RBA

over the year. The use of BPAY to make bill payments grew strongly. In contrast, consumers and businesses continue to reduce their reliance on cheques. On average there were around 350 non-cash payments per person in 2012/13 (about one non-cash payment per person per day), compared with 330 non-cash payments per person in 2011/12.

Table 1: Australian Non-cash Retail Payments

	2012/13						Average annual growth 2007/08 – 2012/13	
	Per cent of total		Average value	Growth, per cent		Per cent		
	Number	Value	\$	Number	Value	Number	Value	
Debit cards	39.9	1.2	56	14.4	11.1	14.6	12.7	
Credit cards	22.9	1.7	139	7.1	3.5	5.8	5.0	
Cheques	2.6	8.0	5 718	-13.1	-3.6	-11.9	-7.6	
BPAY	4.2	1.8	785	5.3	10.5	8.5	10.7	
Direct debits	9.5	38.4	7 473	5.8	-4.5	5.4	3.1	
Direct credits	20.9	48.9	4 353	3.6	3.3	5.7	1.7	
Total	100.0	100.0	1 859	8.2	-0.2	7.9	1.5	

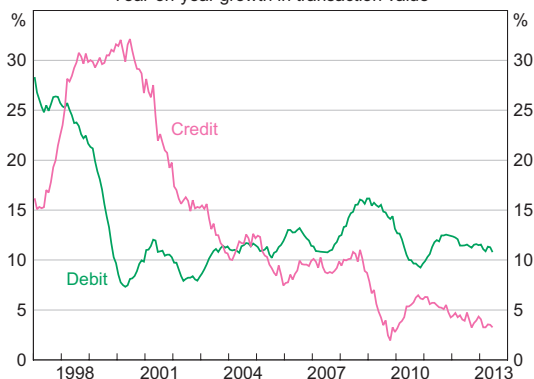
Sources: BPAY; RBA

Debit and credit card payments

Looking at the various types of non-cash payment methods in more detail, in 2012/13 Australian personal and business cardholders made around five billion card payments, with a total value of \$434 billion. Together, debit and credit/charge card payments grew strongly, increasing 12 per cent by number and 7 per cent by value, mainly reflecting the continued strong growth in the use of debit cards as a means of payment. The value of debit card payments grew by 11 per cent, while credit card payments increased by 4 per cent (Graph 4). Although the use of credit cards as a payment method continued to grow, the average value of balances outstanding per account fell by around 4 per cent over the year – the largest fall recorded in the 19-year history of the series – consistent with the broader trend of relatively conservative behaviour of households with respect to their finances. Cards, and in particular debit cards, are increasingly being used for lower-value payments, with the average value of a debit card payment falling from \$62 in 2008/09 to \$56 in 2012/13 (the average value of credit/charge card transactions has fallen from \$145 to \$139 over that time). The increasing importance of online payments in Australia has also contributed to the growth of card transactions (see ‘Box A: Online Payments’). Debit and credit cards play an important role in the non-cash payment system, accounting for over 60 per cent of the number of non-cash payments, though only around 3 per cent of the value.

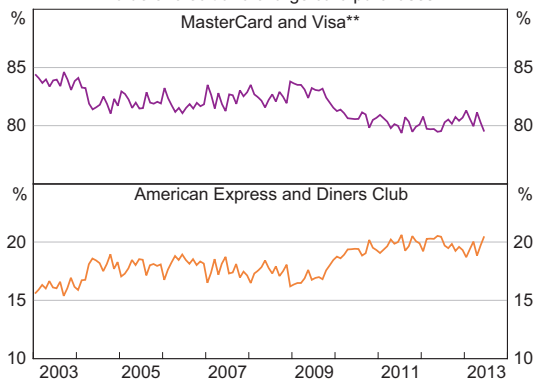
Within credit/charge cards, the shares of the four-party schemes (MasterCard and Visa) and three-party card schemes (American Express and Diners Club) were largely unchanged in 2012/13. The combined market share of the three-party schemes remained around 20 per cent of the value of credit and charge card spending in 2012/13 (Graph 5). Within debit cards, the MasterCard and Visa debit systems continued to increase market share relative to eftpos.

Graph 4
Payment Card Transactions*
 Year-on-year growth in transaction value



* Includes debit card cash-outs and credit card advances; RBA credit card data prior to March 2008 adjusted to remove BPAY transactions
 Sources: BPAY; RBA

Graph 5
Market Shares of Card Schemes*
 Value of credit and charge card purchases



* Excludes scheme debit from March 2008; back data adjusted for break
 ** Includes Bankcard before 2007
 Source: RBA

Cheque, BPAY and Direct Entry payments

The use of cheques, the oldest form of non-cash payment still in regular use, continues to decline, with the number of cheque payments falling by around 13 per cent in 2012/13 to be 64 per cent lower than a decade ago. In 2012/13 around nine personal and business cheques were written per person in Australia, down from 30 cheques per person 10 years earlier. A significant share of cheque use is related to commercial payments, and financial institution ('bank') cheques for certain transactions such as property settlements; this trend can be seen in the average value of cheque payments which rose by 11 per cent to around \$5 700 in 2012/13 (a decade ago the average value of a cheque was around \$4 500, in today's dollars). Notwithstanding the decline in use, cheques still play an important role in the payments system: while now accounting for only 3 per cent of the total number of non-cash payments, they still account for 8 per cent of the value of non-cash payments – more than debit cards, credit cards and BPAY combined.

Consumers and businesses have continued to adopt BPAY as a method of making bill payments, with the number of BPAY transactions increasing by 5 per cent and the value by 11 per cent in 2012/13. In fact, in 2012/13 the value of payments processed through BPAY exceeded the value of credit/charge card payments for the first time, in part reflecting the high average value of bill payments (almost \$800) for services such as utilities, education fees and investments.

Direct Entry (DE) payments are an important part of the payments landscape. A DE payment is an instruction from a bank account holder to his or her bank to pay (or collect) an amount directly to (from) another bank account. These are used extensively by businesses, corporates and governments for payments such as wages and bill collection. These payments continue to account for the bulk of the value of non-cash payments (87 per cent in 2012/13). This reflects the fact that the DE system facilitates a range of payment types, in addition to consumer-initiated pay-anyone transactions and the direct debit arrangements consumers establish with billers. For example, almost half of the value of non-cash payments are made by what are broadly termed 'direct credits' – these transactions include payments for goods and services where a consumer transfers funds to the seller's account via internet banking and also transactions initiated by corporations, for example to pay staff wages. Because of the range of payment types facilitated by the DE system, average values (e.g. for direct debits) do not correspond to levels typically associated with 'consumer' payments.

Use of the DE system continued to grow in 2012/13, with the number of direct debits increasing by around 6 per cent, a slightly faster pace of growth than has occurred over the past five years. The number of direct credits grew by around 4 per cent, a little slower than the recent average.

International Payment Trends

The international payment trends observed in 2011 (the latest year for which comprehensive data are available) have been largely consistent with the trends observed in earlier years (Graph 6). The use of card payment methods continued to grow, representing 57 per cent of the number of non-cash payments in 2011 in the group of countries for which data are published by the Committee on Payment and Settlements Systems (CPSS). Cheque use continued to decline as a proportion of the number of non-cash payments, falling from over 50 per cent in 1997 to 12 per cent in 2011. The share of other electronic payment methods (direct debit, direct credit and e-money transactions) remained at around 30 per cent of the number of non-cash payments, similar to previous years.

While the trend in non-cash payment use has been broadly similar across countries, the size and composition of non-cash payments varies significantly (Table 2). Non-cash payments usage tends to be greater in higher-income economies (notably the United States, the Netherlands, Sweden and Australia) compared with economies such as China, India and Mexico, which had fewer than 30 non-cash payments per person in 2011. Within card-based payments, more transactions were typically made with debit cards than credit cards, except in Brazil, Hong Kong, Japan, Korea and Turkey. Cheque usage is quite low in most countries, with Canada, France and the United States being notable exceptions.

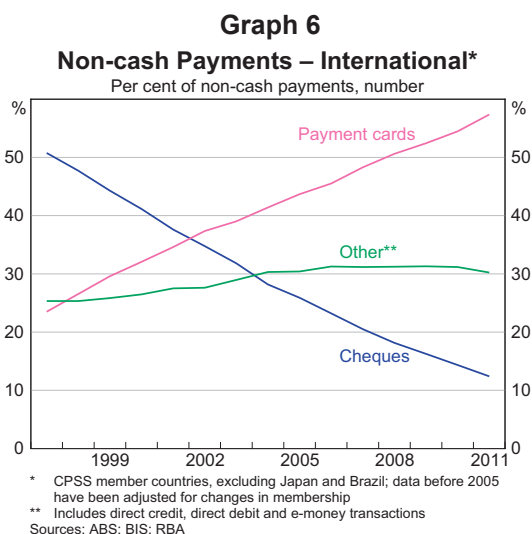


Table 2: Non-cash Retail Payments in Selected Countries
Number per capita, 2011

	Cheques	Direct debits	Direct credits	Debit card	Credit card ^(a)	Total
Australia	11	31	71 ^(b)	117	74	304
Belgium	1	24	93	93	12	223
Brazil	8	21	43	19	20	111
Canada	25	20	30	120	90	285
China	1	na	1		5 ^(c)	na
France	46	54	46		121 ^(c)	267
Germany	<1	106	74	29	7	216
Hong Kong	na	na	na	15	55	na
India	1	<1	<1	5	<1	6
Italy	5	10	21	16	10	62
Japan ^(d)	1	na	11	<1	64	na
Korea	12	30	58	38	130	268
Mexico	4	<1	9	7	5	25
Netherlands	0 ^(e)	80	101	140	7	327
Russia	<1	1	19	11	1	32
Saudi Arabia	<1	<1	<1	51	1	52
Singapore	15	11	7		43 ^(c)	na
South Africa	1	12	11		22 ^(c)	46
Sweden	<1	31	88	170	36	325
Switzerland	<1	6	95	53	24	178
Turkey	na	na	na	4	29	na
United Kingdom	15	53	57	120	33	278
United States	68	38	25	157	78	366

(a) Includes charge debit

(b) Includes BPAY

(c) Split between debit and credit cards not available

(d) Figures for Japan are for 2009

(e) Cheques have been abolished in the Netherlands since 2001

Sources: ABS; BIS; RBA

Box A

Online Payments

There are four main ways Australian individuals and businesses can make payments via the internet. First, consumers can use credit cards and certain debit cards to *purchase* goods and services on the internet, by entering their card details directly into the merchant website.

Second, financial institutions enable their personal and business customers to initiate credit transfers (commonly referred to as ‘pay-anyone’ transfers) via internet banking software. These transactions can reflect both purchases of goods and services (e.g. paying a seller by transferring funds directly into their deposit account) but also *funds transfers* (e.g. transferring funds to repay family/friends for a share of an earlier purchase/loan). Further, some businesses use internet banking initiated credit transfers to pay for invoices and staff wages.

Third, the BPAY system facilitates *bill payments*, with the customer initiating the transaction through the internet banking service provided by their financial institution.

Finally, in more recent years a number of specialised online payments providers have emerged; these systems facilitate online purchases by individuals, either by funding the transaction through the established card schemes (with the details stored with the online payments provider), or by accessing stored-value balances held with the payments provider. These systems can also be used to initiate Direct Entry payments to top up stored-value balances.

Overall, the number and value of domestic online payments made by Australians (using these various methods described above) increased by approximately 10 per cent in 2012/13, to account for around 18 per cent of total non-cash payments. Growth in 2012/13 was strongest for online payments made using cards or through specialised payments providers (e.g. by accessing stored-value balances). The number of these transactions grew by 21 per cent reflecting the continued take-up of online shopping by Australian consumers and businesses (Table A1).¹

Table A1: Online Payment Methods
Australians’ domestic payments

	2012/13 Per cent of total		2012/13 Growth, per cent		Average annual growth, 2010/11 –2012/13 Per cent	
	Number	Value	Number	Value	Number	Value
Internet banking-initiated credit transfers	47.8	87.8	8.0	9.2	9.8	10.6
BPAY	22.1	10.2	6.9	11.6	8.0	12.4
Credit cards, debit cards, and specialised payments providers	30.2	2.0	20.8	13.2	24.2	16.0
Total online payments	100.0	100.0	11.3	9.5	13.2	10.9

Sources: BPAY; RBA; specialised payments providers

¹ More broadly, card-not-present (CNP) transactions acquired in Australia (which include transactions made over the telephone, by mail or via the internet) accounted for 566 million transactions totalling \$87 billion in 2012/13 (12 per cent of the total number and 21 per cent of the value of debit and credit card purchases acquired). Within CNP transactions, internet transactions grew faster than mail and telephone transactions in 2012/13, possibly reflecting some substitution between the two methods, though mail and telephone transactions still account for a sizeable amount of CNP transactions.

Other Retail Payments Developments

In addition to monitoring trends in the use of retail payment methods discussed in the 'Trends in Retail Payments' chapter, the Board monitors other developments relevant to its responsibilities of promoting competition and efficiency in the payments system. This chapter outlines developments during 2012/13 in interchange fees and merchant service fees for card payments in Australia, pricing and incentives faced by cardholders and fraud related to cheque and card transactions.

Interchange Fees

The Reserve Bank regulates interchange fees in the MasterCard and Visa credit card systems, the Visa debit card system and eftpos debit card system.² Under the Bank's standards, the weighted average of multilateral interchange fees for each of these systems must not exceed specified benchmarks on 1 November every third year, and on any date on which there is a change to the system's interchange fee schedule. The multilateral interchange fee benchmarks were unchanged in 2012/13, at 0.50 per cent of the value of transactions for the credit card systems and 12 cents per transaction for the debit card systems, with these fees paid by the acquirer (merchant's bank) to the issuer (cardholder's bank).³

Under the various interchange fee standards, card schemes have the flexibility to set different multilateral interchange fees for different types of transactions, provided that the weighted average of these fees for each system does not exceed the relevant benchmark on the specified compliance dates. Over time, schemes have introduced fee categories based on factors such as the type of cardholder (e.g. consumer or business), the type of card (e.g. premium/platinum, super premium), the type of merchant (e.g. charity, government/utilities, 'strategic'), and the type of transaction (e.g. MasterCard's rates for contactless and low-value transactions). Reflecting this, the number of interchange fee categories, and the variability in the level of fees between categories, has grown over the years since the Bank first introduced interchange fee standards. However, such growth in the number of categories and the range of interchange fees has also occurred in some other jurisdictions, most notably the United States.

In 2012/13 schemes were required to ensure that the weighted-average interchange fees applying in the systems they operate were at or below the relevant benchmarks on 1 November 2012. MasterCard and Visa made changes to their fee schedules ahead of this compliance date, and further changes in late June 2013 (30 June 2013 was the last day on which compliance with the interchange fee standard could be assessed based on the mix of transactions observed in 2011/12). On 1 October 2012, eftpos Payments Australia Ltd

2 For debit cards, MasterCard has undertaken to voluntarily comply with the interchange fee benchmark in the Visa Debit Standard. All interchange fees quoted in this section exclude GST.

3 In 2012/13 the benchmark for *bilaterally negotiated* interchange fees in the eftpos system was also unchanged, with fees for transactions excluding a cash-out component required to be between 4 cents and 5 cents (paid by the issuer to the acquirer). However, as discussed in more detail in the 'Regulatory Developments in Retail Payments' chapter, on 1 July 2013, a new interchange fee standard for the eftpos system came into effect. Under the new standard, bilateral fees must not exceed the benchmark applying under the Visa Debit Standard (currently 12 cents per transaction, paid to the issuer).

(ePAL) introduced new categories of interchange fees for certain types of eftpos transactions at particular merchants. The changes made by each scheme in 2012/13 are discussed in more detail below.

Table 3 and Table 4 show the interchange fees currently applying in the credit card and debit card systems, respectively.

Table 3: Credit Card Interchange Fees^(a)
Excluding GST; per cent unless otherwise specified, as at 30 June

	MasterCard		Visa	
	2012	2013	2012	2013
Electronic	0.35 ^(b)	0.30	0.40	0.30
Standard	0.40 ^(c)	0.30	0.45	0.30
Premium/platinum	1.00 ^{(b),(c)}	0.95	1.00	0.93
Super premium	1.60 ^(c)	1.59	1.70	–
Visa Rewards	–	–	–	1.50 or 1.70 ^(d)
Visa Signature	–	–	–	1.80
Consumer elite/high net worth	–	2.00	–	1.80 or 2.00 ^(d)
Commercial	1.27 ^(b)	1.00	1.28	0.97 or 1.20 ^(e)
Commercial premium	–	1.30 or 1.35 ^(f)	–	1.30 or 1.80 ^(g)
Strategic merchant	0.25 or 0.34	0.23 or 0.29	0.25 to 0.35	0.20 to 0.40
Government/utility	0.30	0.29	0.30	0.30
Charity	0.00	0.00	0.00	0.00
Petrol/service station	0.34	0.29	0.32	0.30
Education	0.30	0.29	0.40	0.30
Supermarket	–	–	0.32	0.30
Insurance	–	–	0.40	0.30
Transit	–	–	0.30	0.30
Recurring payment	0.30	0.29	0.30	0.30
Quick Payment Service	0.40	0.40	–	–
Contactless payment	0.35 ^(h)	0.29 ⁽ⁱ⁾	–	–
Large ticket ^(j)	–	–	\$20 + 0.20%	–
SecureCode	–	0.30	–	–
Benchmark	0.50	0.50	0.50	0.50

(a) Fees are paid by the acquirer to the issuer (i.e. from the merchant's financial institution to the cardholder's)

(b) MasterCard had a chip version of this category with the same interchange fee as the non-chip category

(c) May be 5–10 basis points lower, depending on use of MasterCard's SecureCode online authentication system

(d) The higher rate applies if an account is deemed qualified (if spending on that account exceeds a card-specific threshold)

(e) Visa has three types of non-premium commercial rates; the 'business' category attracts a fee of 0.97% while the 'corporate' and 'purchasing' categories attract a fee of 1.20%

(f) 1.30% for the 'commercial corporate executive' category and 1.35% for the 'commercial business executive' category

(g) 1.30% for the 'commercial premium' category and 1.80% for the 'business signature' category

(h) MasterCard *PayPass* transactions equal to or less than \$55

(i) MasterCard *PayPass* transactions equal to or less than \$60, excluding commercial cards

(j) Transactions above \$10 000 excluding travel/entertainment purchases

Sources: MasterCard website; RBA; Visa website

Table 4: Debit Card Interchange Fees^(a)
 Excluding GST; cents unless otherwise specified, as at 30 June

	MasterCard		Visa		eftpos	
	2012	2013	2012	2013	2012	2013
Consumer electronic	6.0	6.0	8.0	8.0	4.5	4.5
Consumer standard	19.0	12.0	0.30%	0.20%	–	–
Consumer chip	12.0	–	–	–	–	–
Premium/platinum	0.50%	0.50%	0.40%	0.40%	–	–
Commercial	1.27%	0.91%	1.00%	0.85%	–	–
Commercial chip	1.48%	–	–	–	–	–
Strategic merchant	3.6	3.2 or 3.6	4.0 to 60.0	2.0 to 60.0	–	0.0 to 4.5
Government/utility	7.0	7.0	8.0	6.0	–	–
Charity	0.0	0.0	0.0	0.0	0.0	0.0
Petrol/service station	4.0	7.0	6.0	6.0	–	–
Education	–	–	8.0	6.0	–	–
Supermarket	–	–	6.0	6.0	–	–
Insurance	–	–	8.0	6.0	–	–
Transit	–	–	6.0	6.0	–	–
Recurring payment	9.1	10.0	8.0	6.0	–	–
Contactless ^(b)	–	5.0	–	–	–	–
Quick Payment Service	4.0	6.0	–	–	–	–
Micropayment	4.0 ^(c)	0.4 ^(d)	–	–	0.0 ^(d)	0.0 ^(d)
Large ticket ^(e)	–	–	\$10 + 0.1%	–	–	–
SecureCode merchant	–	8.0	–	–	–	–
SecureCode full	–	10.0	–	–	–	–
Medicare Easyclaim	–	–	–	–	0.0	0.0
Benchmark	12.0	12.0	12.0	12.0	12.0	12.0

(a) Fees are paid by the acquirer to the issuer, except for transactions involving a cash-out component

(b) MasterCard *PayPass* transactions equal to or less than \$60

(c) Transactions with a value equal to or less than \$20

(d) Transactions with a value equal to or less than \$15

(e) Transactions above \$10 000 excluding travel/entertainment purchases

Sources: ePAL website; MasterCard website; RBA; Visa website

On 1 November 2012, MasterCard and Visa made changes to their respective credit card interchange fee schedules to ensure they complied with the Reserve Bank's standards. The schemes took a similar approach to previous resets in November 2006 and 2009, introducing and removing certain fee categories, and lowering rates for some existing categories while increasing others. On 28 June 2013, the two schemes made further changes to their schedules. The changes over these two resets included:

- Both schemes have lowered rates applying to 'electronic' and 'standard' categories, to 0.30 per cent.
- Visa introduced new interchange rates that differ based on cardholder spending characteristics. An account is deemed to be 'qualified', and will attract a higher interchange rate, if the cardholder has an annual account spend exceeding a certain threshold determined by Visa. 'Qualified' interchange rates are applicable for the 'super premium Visa Rewards' and 'high net worth' categories.
- Both schemes have increased the rates for cards attracting the highest interchange fees. MasterCard introduced a 'consumer elite' category that after the June reset attracted an interchange fee of 2.00 per cent, higher than its 'super premium' rate of 1.59 per cent. Visa's equivalent 'high net worth' interchange category attracts interchange fees above its 'super premium' category. When a cardholder is 'qualified' (as above), the interchange fee is 2.00 per cent for 'high net worth' cards and 1.70 per cent for 'super premium Visa Rewards'.
- Visa replaced its 'commercial' category with five new categories of fees ranging from 0.97 per cent to 1.8 per cent, compared with 1.28 per cent for its old commercial category. MasterCard reduced the rate on its 'commercial' category from 1.27 per cent to 1.00 per cent.
- Both schemes standardised the rates applying across merchant-based categories. For example MasterCard lowered the rate for its government/utilities, supermarket and petroleum categories to 0.29 per cent, with Visa's equivalent merchant rates all set at 0.30 per cent (compared with between 0.30 per cent and 0.40 per cent previously). MasterCard also reduced its 'strategic merchant' rates from 0.25 or 0.34 per cent to 0.23 or 0.29 per cent of transaction value. Visa also reduced its lowest strategic rate, but widened the range of fees that apply to its strategic merchants to between 0.20 and 0.40 per cent, compared with 0.25 to 0.35 per cent previously.
- MasterCard reduced the fee applying to certain types of consumer PayPass transactions by 6 basis points to 0.29 per cent.

Excluding charity payments, which attract a zero interchange fee, MasterCard and Visa credit card interchange fees currently range from 0.20 per cent to 2.0 per cent, compared with the weighted-average benchmark of 0.50 per cent of transaction value.

With the June 2013 resets, the number of interchange fee categories in the MasterCard and Visa credit card systems combined now stands at 42, up from 8 in November 2003 (as noted above, this increase in the number of interchange fee categories has also been observed in other jurisdictions). Although the benchmark has remained fixed at 50 basis points plus GST, the range between the minimum and maximum interchange fees (excluding charity payments) has stretched from 68 basis points in November 2003 to 180 basis points in 2013. The Board observes that the cost to an acquirer (ultimately passed on to the merchant) of the highest fee category is now nearly double the equivalent rate applying in November 2003, and that the cost of these higher interchange rates tends to fall on medium-sized and smaller merchants and other merchants that do not benefit from strategic rates; the same card when presented to a merchant with the lowest strategic rate will carry an interchange fee of 0.20 or 0.23 per cent, but will have a fee of 2.0 per cent for a merchant that doesn't benefit from preferential arrangements. It notes also that at the individual transaction level it may be

difficult for a merchant to identify when these high-cost cards are presented (making it difficult to differentially surcharge).⁴ This is especially so when the interchange rate that applies is determined by factors that are not observable from the type of card, such as the amount spent by the cardholder.

For debit cards, the two systems made changes to the interchange fee schedule once in 2012/13, at the November compliance date. These changes included:

- Both MasterCard and Visa significantly reduced some fee types. MasterCard lowered its 'consumer standard' fee from 19.0 cents to 12.0 cents while Visa cut its equivalent fee from 0.30 per cent of transaction value to 0.20 per cent.
- Both schemes reduced their commercial rates. MasterCard lowered its rate from 1.27 per cent to 0.91 per cent, while Visa replaced its 1.0 per cent commercial rate with two separate categories, both attracting a 0.85 per cent fee.
- MasterCard significantly reduced the interchange fee on its micropayment category from 4.0 cents to 0.4 cents per transaction (applicable for transactions under \$15, except charity payments). It also introduced a 5.0 cent per transaction 'PayPass' fee category for certain types of contactless debit card transactions under \$60, with this rate 1.0 cent lower than the alternative 'consumer electronic' rate for transactions where a debit card is inserted or swiped at a terminal.
- MasterCard and Visa each reduced their lowest strategic merchant rate to 3.2 cents and 2.0 cents per transaction, respectively.
- MasterCard introduced two new 'SecureCode' categories which provide an incentive for online merchants to incorporate SecureCode for transactions (the rate can be as low as 8.0 cents per transaction, compared with 12.0 cents for the consumer standard rate).

As discussed above, on 1 October 2012 ePAL varied its multilateral interchange fee schedule to introduce 'differential' rates for merchants that meet certain requirements as determined by ePAL – an equivalent approach to the strategic merchant rates used by MasterCard and Visa. For purchases at qualifying merchants, interchange fees range between 0 and 4.5 cents per transaction, flowing from the acquirer to the issuer (compared with 4.5 cents for the standard purchase rate). For purchase transactions with a cash-out component at qualifying merchants, interchange fees range between 13.6 and 22.7 cents per transaction, flowing from the issuer to the acquirer (compared with 13.6 cents for the standard rate for these transactions).

Merchant Service Fees

The average fee paid by merchants to their financial institutions for transactions on MasterCard and Visa credit and debit cards has been largely unchanged in recent years. In 2012/13 average fees fell by around 2 basis points to be 0.78 per cent (Graph 7). The average merchant service fee in the June quarter was around 62 basis points lower than it was a decade ago, just prior to the introduction of the cap on weighted-average credit card interchange fees.

Average merchant service fees for transactions on American Express and Diners Club cards have also declined since the 2003 reforms, falling by 67 basis points and 32 basis points, respectively, over the decade. In 2012/13, the average fee for American Express transactions declined slightly, from 1.85 per cent to 1.81 per cent, while the average fee for Diners Club transactions fell by 3 basis points to be 2.07 per cent.

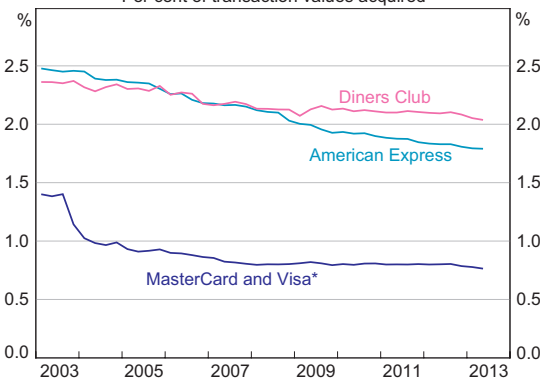
⁴ A related development is 'account-level processing', a means by which a card can be replaced and the interchange category can be changed without the card's Bank Identifier Number (BIN) being changed, meaning that a list of BINs is no longer a definitive indicator of the interchange rate that a card attracts.

The average merchant service fee for eftpos transactions was 10.3 cents per transaction in 2012/13, up by 2.7 cents per transaction from the previous financial year and representing around 0.18 per cent of an average transaction (Graph 8). This reflects in particular the move from bilaterally negotiated interchange fees to a multilateral interchange fee schedule set by ePAL for the system. The schedule, which took effect on 1 October 2011, reversed the direction of interchange fees on purchase transactions so that acquirers now pay, rather than receive, an interchange fee. Consequently, since then, acquirers have passed on part of the increase in their interchange fee costs to merchants in the form of higher merchant service fees. These transitional effects appear to have largely run their course, with the average eftpos merchant service fee largely unchanged in recent quarters.

Graph 7

Merchant Service Fees

Per cent of transaction values acquired

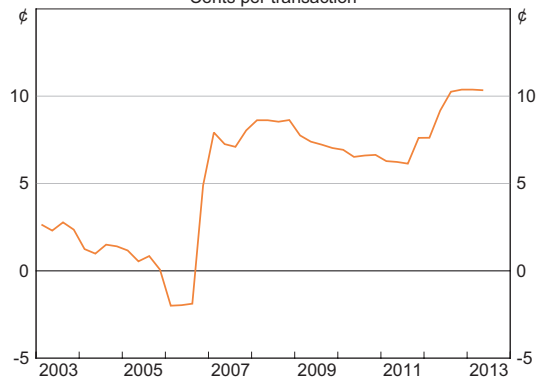


* Includes Bankcard prior to March quarter 2007
Source: RBA

Graph 8

eftpos Merchant Service Fees

Cents per transaction



Source: RBA

Pricing and Product Offerings to Cardholders

Credit cards

Cardholders can choose from a wide range of credit card products offered by card issuers. Each card has a different mix of annual fees, features and rewards to appeal to different customer types. Cards that offer rewards (*rewards* cards) are typically classified into 'standard', 'gold', 'platinum' or 'super premium' cards, with each successive category generally commanding higher annual fees but also providing more generous rewards and benefits. Consumers who use their cards frequently may be attracted to cards that offer reward points and other benefits, such as travel insurance and extended or enhanced warranties for goods purchased on the card. Other cards (*non-rewards* cards) do not offer reward points, but some gold and platinum non-rewards cards extend other benefits, such as travel insurance to cardholders. Within no-rewards cards, *low rate* cards may be attractive to cardholders who carry outstanding balances from month to month ('revolvers') because on average these products attract significantly lower interest costs (see Table 5). *Low fee* cards may be more attractive to consumers who pay their credit card balance in full each month ('transactors') but who use their card relatively infrequently.

The range of credit card products offered by issuers has evolved significantly in recent years as card issuers have adopted new strategies, driven in part by interchange fee differentials. The introduction of additional premium interchange rates has meant that card issuers receive considerably greater interchange fee revenue than on more standard products, and may use this revenue to

fund more generous rewards programs.⁵ Consequently, there has been significant growth in the premium segments of the credit card market, particularly in the issuance of platinum cards, which have largely replaced gold cards.⁶ In recent years there has also been a trend towards merchant-branded platinum card products. These products generally offer lower annual fees than bank-branded cards and relatively generous rewards programs, particularly for spending at the merchant partner.⁷

Table 5: Typical Features of Personal Credit Cards, by Type^{(a),(b)}
As at end June 2013

	Number of card products	Average annual fee \$	Average interest rate Per cent	Average spending for \$100 voucher (primary and companion card) ^(c) \$	Range of rewards benefit as per cent of spend (primary and companion card) Per cent
No rewards					
Standard, Gold and Platinum	31	59	16.9	–	–
<i>of which:</i>					
– Low rate	12	79	13.1	–	–
– Low fee	11	19	19.3	–	–
Rewards					
Standard	21	57	19.6	16 500	0.25–1.00
Gold or platinum	25	218	20.3	13 100	0.52–1.15
Super premium	5	462	20.4	9 900	0.74–1.33

(a) Reported averages are calculated as a simple average of relevant products' features; the total sample comprises over 80 credit card products offered by the top 10 credit card issuers and selected major merchants; the top 10 issuers are based on issuing market shares calculated from the Bank's Retail Payments Statistics collection; only products which are available to all new cardholders are included in the sample

(b) For the purposes of this table, a rewards card involves the cardholder having the ability to accumulate a store of points, which may be redeemed for goods or services – other benefits such as instant cashbacks, overseas travel insurance and extended warranties are not included; only rewards programs where a \$100 shopping voucher can be redeemed are included in the calculations for rewards spending and benefits, but all rewards cards are included in the calculations for the number, annual fee and interest rate

(c) Average of the sum of the required spend for each applicable card; figures do not take into account the ability to earn additional reward points at certain merchants; the value of spending required to obtain a \$100 shopping voucher assumes cardholders with a credit card product containing a companion American Express card spend equal amounts on their MasterCard/Visa card and companion American Express card

Sources: RBA; card issuers' websites

5 For example, in June 2013, the average spending required to obtain a \$100 shopping voucher was \$16 500 for standard cardholders, compared with \$13 100 for platinum cardholders (Table 5). This required spending assumes half of cardholders' spending is on a companion American Express card where applicable – the share of spending on MasterCard and Visa cards compared with companion American Express cards could vary between 0 per cent and 100 per cent across individual cardholders.

6 Over the three years to June 2013, the number of gold card products offered by the issuers in our sample in Table 5 fell from 22 to 9.

7 Issuers also offer a number of merchant-branded low rate and standard cards.

As platinum cards have become more widespread, some card issuers have introduced super premium cards, targeting the very high end of the market. This trend continued in 2012/13, with the number of super premium rewards cards in our sample increasing from three to five. Typically, these cards have very high annual fees (averaging around \$460) but more generous rewards than the platinum credit cards in the same card range. On average, cardholders must spend \$9 900 to obtain a \$100 shopping voucher on a super premium card, compared with \$13 100 on a platinum card. Super premium cards also tend to offer benefits beyond those offered by platinum cards, for example access to exclusive experiences (such as advance purchase opportunities for entertainment tickets or cooking classes with celebrity chefs).

Since late 2009, American Express cards have become more widespread in the personal credit card market through the issuance of 'companion' cards that complement a cardholder's primary MasterCard or Visa credit card. Cardholders have a greater incentive to use their American Express companion card more heavily because it earns more reward points than the primary card. American Express companion cards are now a relatively standard feature on rewards credit card accounts at the four major banks. More recently, Diners Club has also introduced MasterCard companion cards that are paired with a primary Diners Club charge card.

Debit card accounts

Deposit account and debit card pricing has been largely unchanged in recent years, with the average account-keeping fee charged by the top 10 debit card issuers for the typical unlimited transactions electronic account remaining at around \$4 per month. This entitles cardholders to an unlimited number of free electronic transactions, including transactions made on eftpos, MasterCard or Visa debit cards, plus own-ATM withdrawals and internet/telephone banking transactions. However, in practice, many account holders do not pay a monthly account-keeping fee, with institutions commonly waiving these fees if the account holder deposits sufficient funds into the account each month. Monthly fees are also sometimes waived as part of an overall package of services provided to the customer (e.g. if the customer has a home loan with the same financial institution).⁸

Institutions generally offer a range of servicing and pricing options to suit the needs of different account holders. These can include zero-fee basic ('electronic only') deposit accounts, 'all you can eat' electronic accounts that provide cheque book and branch facilities, but at a cost of around \$1 per cheque written and \$2 per branch withdrawal, and accounts that offer unlimited free electronic, cheque and branch transactions but that attract a slightly higher monthly fee.

At the premium end of the market, 2012/13 saw the emergence of some invitation-only platinum debit card products, offering benefits traditionally associated with credit card programs, such as extended warranties and travel insurance. One institution also introduced a debit card rewards program offering reward points for both the account balance and the number of debit card purchases. However, the rate of points accrual is generally not as generous as credit card rewards programs. Contactless debit cards (incorporating MasterCard PayPass or Visa PayWave) have become a standard feature of many deposit accounts; one institution promoted contactless functionality by offering new customers 5 per cent cashback on contactless transactions under \$100 for six months.

⁸ Similarly, annual credit card fees are sometimes waived as part of a broader package of banking services.

Cheque and Card Payments Fraud

According to data from the Australian Payments Clearing Association (APCA), total fraud losses relating to cheque payments and debit, credit and charge card transactions where the card was issued and/or acquired in Australia fell by 14 per cent to \$317 million in 2012, from \$369 million in 2011 (Graph 9). This decrease, the first annual fall since 2009, reflected a 16 per cent fall in fraud on 'scheme' debit cards, credit cards and charge cards.⁹ Nevertheless, fraud on these card types continues to account for the bulk of payments fraud covered by the APCA collection, a total of \$291 million (92 per cent of total fraud) in 2012. In contrast, fraud relating to cheque, eftpos and ATM withdrawals from deposit accounts increased somewhat in 2012, but remains low by comparison, in total accounting for the remaining \$26 million of fraud.¹⁰

For every \$1 000 Australians transacted using cheques there was around 1 cent of fraud in 2012, compared with 5 cents for eftpos and ATM transactions. The average fraud rate for scheme transactions on Australian issued cards is higher at 79 cents per \$1 000 transacted (Table 6). The higher rate for scheme cards compared with eftpos and ATM transactions reflects the ability to use these cards in a card-not-present (CNP) environment (e.g. online or over the phone). In fact, fraud related to CNP transactions has grown rapidly until recently and accounted for almost three-quarters of all scheme card fraud in 2012 (Graph 10).

Graph 9
Fraud on Cheque and Card Transactions
Calendar year

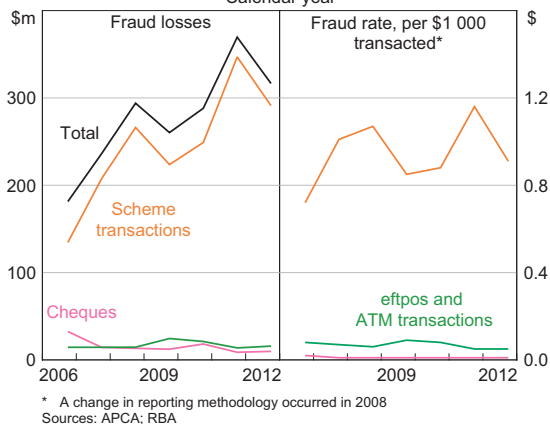


Table 6: Fraud Losses by Payment Method

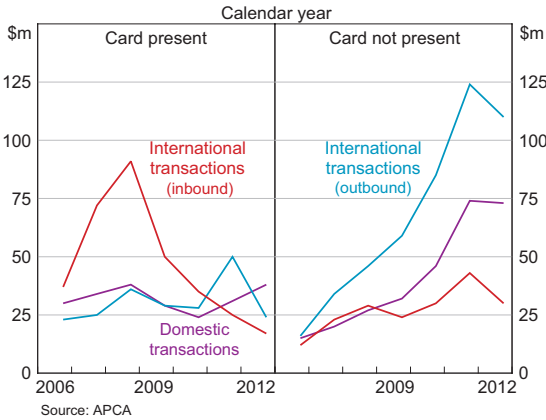
	2011		2012	
	\$ million	Dollars per \$1 000 transacted	\$ million	Dollars per \$1 000 transacted
All instruments	369	0.20	317	0.17
All cards	361	0.62	307	0.50
Scheme debit, credit and charge cards	347	1.16	291	0.91
<i>Australian cards used in Australia and overseas</i>	279	0.96	245	0.79
<i>Foreign cards used in Australia</i>	68	7.46 ^(a)	46	4.87 ^(a)
eftpos and ATM transactions	14	0.05	16	0.05
Cheques	9	0.01	10	0.01

(a) Data for fraud rates for foreign cards used in Australia are estimates only
Sources: APCA; RBA

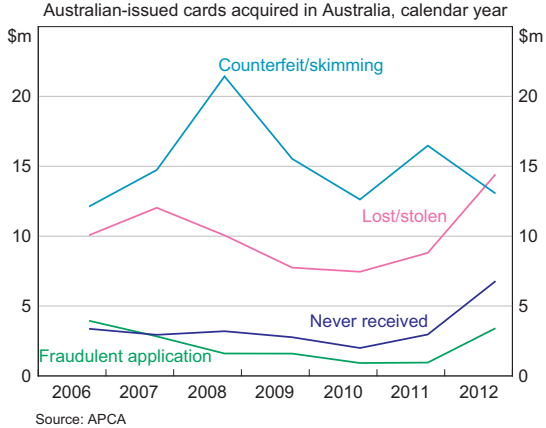
⁹ Fraud statistics for 'scheme' debit, credit and charge cards include transactions through the MasterCard, Visa, American Express, Diners Club and JCB systems.

¹⁰ This category includes fraudulent ATM withdrawals when 'cheque' or 'savings' is selected; it does not include losses associated with fraudulent credit card cash advances or international withdrawals – these are reported under scheme debit, credit and charge cards.

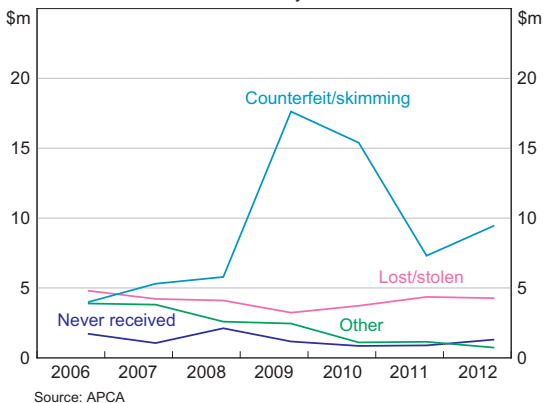
Graph 10
Domestic and International Card-present and Card-not-present Scheme Fraud



Graph 11
Domestic Card-present Scheme Fraud
 Australian-issued cards acquired in Australia, calendar year



Graph 12
Fraud on eftpos and ATM Cards
 Calendar year



Scheme card fraud can be further classified as relating to international transactions (i.e. Australian cards used overseas and foreign cards used in Australia) or domestic transactions (Australian cards used in Australia). In turn, these categories can be further separated into transactions involving cards used at a point-of-sale terminal or ATM (i.e. card present) and transactions involving the use of card details over the internet, phone or mail order (i.e. CNP). The four types of *international* fraud all declined in 2012 following strong overall growth in 2011 for most categories, with annual falls ranging from around 10 per cent to 50 per cent (for Australian cards used overseas in a card-present environment) (Graph 10). Despite these recent falls, international transactions (particularly Australian cards used overseas in a CNP environment) account for a significant share of total scheme card fraud (62 per cent).

In contrast, *domestic* card-present fraud increased by 23 per cent in 2012, while domestic CNP fraud was largely unchanged. The rise in domestic card-present fraud (the only type of scheme fraud to have increased in 2012) was driven by an increase in criminals acquiring genuine cards either through theft (e.g. interception of mail) or through lodging fraudulent applications with issuers (Graph 11). Greater use of PIN authentication at point of sale is expected to assist in reducing card-present fraud (see 'Box B: Initiatives Underway to Reduce Card Payment Fraud').

Fraud related to eftpos and ATM transactions increased by 15 per cent to \$16 million in 2012. The increase reflected a 30 per cent rise in counterfeit/skimming fraud, with other types of fraud remaining largely unchanged (Graph 12). Despite the rise in 2012, fraud losses relating to eftpos and ATM transactions remain well below the levels observed in 2009 and 2010.

Box B

Initiatives Underway to Reduce Card Payment Fraud

The increase in card-not-present (CNP) fraud over the past few years likely reflects a number of factors:

- the rapid growth of online retailing, with not all new entrants to online retail having implemented strong safeguards against online fraud
- significant incidents involving card data stolen from databases and compromised point-of-sale terminals and ATMs
- fraudsters shifting their focus to online merchants in response to the adoption of EMV chip card standards, which has generally made card-present fraud more difficult to carry out.¹

In response to the increase in online fraudulent activity, MasterCard and Visa have continued to encourage adoption of their respective online authentication technologies – MasterCard SecureCode and Verified by Visa. These authentication technologies require cardholders to provide additional information (e.g. a predetermined password or SMS confirmation code) at the time the transaction takes place. In addition, the Australian Payments Clearing Association launched its online retailer education campaign during the year, which is intended to provide smaller online merchants with the knowledge required to address and reduce incidents of CNP fraud.

Efforts to reduce card-present fraud have progressed further. The industry push to implement EMV chip technologies continues, with reports suggesting that around 90 per cent of point-of-sale terminals and all new ATMs are EMV capable, and most new cards in Australia are now issued with EMV chips. As a result, counterfeiting/skimming card-present fraud, which reached particularly high levels in 2008 and 2011 for overseas cards used in Australia and Australian cards used overseas, respectively, has been largely kept in check in 2012.

However, as discussed above, fraud involving the theft of genuine cards or using cards obtained by the making of fraudulent applications to issuers has grown recently, particularly for domestic transactions. Fraudsters may have turned to these approaches due to counterfeiting of cards becoming less lucrative, and more difficult, with the rollout of EMV technology.

Recently, the Australian Card Industry Security Initiative has been examining ways to address card fraud issues. In particular, the PIN@POS initiative proposes to remove signature as a method of cardholder verification for point-of-sale transactions with Australian chip cards from March 2014.

¹ EMV standards provide a secure means of transmitting cardholder information from the chip embedded in the card to the terminal's chip reader.

Regulatory Developments in Retail Payments

Surcharging

Since the Reserve Bank removed the 'no surcharge' rules imposed by the card schemes as part of its payments system reforms starting in 2003, merchants have been able to pass on the cost of credit and debit card acceptance to consumers. The removal of the rules was aimed at improving efficiency and competition in the payments system. In particular, the reforms have better aligned price signals to cardholders about the cost of card acceptance, reduced the cross-subsidisation of card users by all other customers, and increased merchants' ability to use surcharging as a tool in negotiations over merchant service fees.

As discussed in the 2012 Payments System Board Annual Report, the Board decided, after extensive consultation, to change the surcharging Standards to allow the card schemes to limit surcharges to the 'reasonable cost of acceptance'. The decision to vary the Standards reflects the Board's concerns about the increase in cases where surcharges appear to be well in excess of acceptance costs or where surcharges are 'blended' across card schemes or products, even though merchants' acceptance costs may be considerably higher for some cards than others. These practices have the potential to reduce the effectiveness of the Bank's previous surcharging reforms. The Bank intends that its variation will improve price signals by enabling card schemes to address cases where merchants are clearly surcharging at a higher level than is justified for acceptance of their card products, while at the same time continuing to ensure that merchants can fully recover their card acceptance costs.

At the suggestion of a number of parties during the initial consultation process, the Bank held two further rounds of consultation on a guidance note to provide clarification on its view of 'the reasonable cost of acceptance'. The final version of the Guidance Note was published in November 2012.¹¹ It makes clear that it is the Bank's expectation that merchant service fees and other costs payable to acquirers will typically represent the bulk of the reasonable cost of card acceptance for merchants, and that merchants surcharging only for these costs should not be required to provide any additional verification of their costs. The Guidance Note also states that in a limited number of cases, surcharges may appropriately include other costs, and there is nothing in the Standards which prevents a scheme from seeking verification of these costs. Reflecting the revisions to the Guidance Note and the longer-than-expected period of consultation after the Standards were varied, the Board decided in November to delay the commencement date of the varied Standards from 1 January 2013 to 18 March 2013.

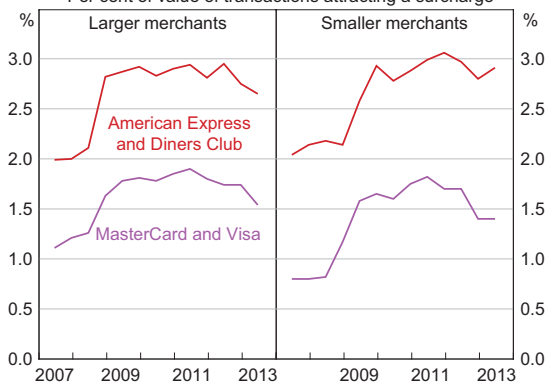
Since the varied Standards took effect, the four-party schemes (MasterCard and Visa) have changed their scheme rules to limit Australian merchants' surcharges on their products to the 'reasonable costs of acceptance'. The three-party schemes (American Express and Diners Club), which have provided updated

¹¹ The Guidance Note is available at <<http://www.rba.gov.au/payments-system/reforms/cards/201211-var-surcharging-stdns-guidance/guidance-note.html>>.

undertakings to the Bank in relation to the varied Standards, have likewise changed their terms and conditions to limit surcharges.

Given the relatively short period since these changes took effect, discussions on surcharge levels are still underway between the schemes and acquirers, and between acquirers and merchants. A major airline has lowered some of the surcharges that apply to its booking process. In addition, there is tentative evidence that the average surcharge level applied to transactions attracting a surcharge has declined from the previous year. Drawing on data from East & Partners' semiannual survey of the merchant acquiring market and the Bank's estimates of each scheme's market share, the average surcharge applied across all card types is 1.70 per cent of transaction value, compared with 2.00 per cent in June 2012. The decline occurred for both larger and smaller merchants, and across three-party and four-party schemes (Graph 13). At the same time, the proportion of merchants that surcharge credit card transactions has continued to rise, with 39 per cent of merchants surveyed applying a surcharge on at least one of the credit cards they accepted. Surcharging continues to be more common among 'very large' merchants (in the survey, those whose annual turnover exceeds \$530 million). Surcharges tend to be lower for MasterCard and Visa than in the higher-cost American Express and Diners Club systems.

Graph 13
Average Surcharge by Merchant and Scheme
 Per cent of value of transactions attracting a surcharge



Sources: East & Partners' Australian Merchant Acquiring & Cards Market Program; RBA

eftpos Regulatory Framework

Following the Board's announcement in 2011 that it would undertake a review of the regulatory framework for the eftpos system and its decision in May 2012 to put in place a new designation for the eftpos system, the Bank began the second phase of the review in June 2012.¹² Much of the regulatory framework for the eftpos system was put in place when interchange fees and connection agreements in the eftpos system were bilaterally agreed. The regulatory framework therefore did not anticipate the establishment in 2009 of the new management structure for the system under eftpos Payments Australia Limited (ePAL) and its decision to introduce a multilateral interchange fee schedule for the system from 2011. It also predated the establishment of the Community of Interest Network (or COIN), which simplified connections between participants in the system.

The review was aimed at ensuring that the regulatory framework for the eftpos system continues to support competition and efficiency in the payments system as a whole, in light of the significant changes to the governance and architecture of the system. In particular, the consultation paper released in June 2012 sought views on the regulatory options for interchange fees in and access to the eftpos system.

In line with the views expressed during consultation, the Board decided at its November 2012 meeting to move the regulation of bilaterally negotiated eftpos interchange fees to a basis that is consistent with other

¹² For more detail on the designation, see RBA (2012), *Review of the Regulatory Framework for the EFTPOS System: Consultation on Options for Reform*, June, available at <<http://www.rba.gov.au/publications/consultations/201206-rev-reg-frmwk-eftpos-sys/index.html>>.

eftpos interchange fees and those of the international debit schemes.¹³ The regulatory changes in respect of the eftpos system are intended to enhance competition between eftpos and the international debit schemes by placing them on a more consistent regulatory footing. Under current benchmarks, the change means that bilateral interchange fees can now be up to 12 cents paid to the issuer (and any amount paid to the acquirer), compared with the previous requirement for bilateral interchange fees to be between 4 and 5 cents paid to the acquirer. The change took effect on 1 July 2013 through a new standard on eftpos interchange fees.¹⁴

The Board also made an in-principle decision to revoke the existing *Access Regime for the EFTPOS System*, subject to satisfactory access arrangements being put in place by ePAL. The Access Regime, which was aimed at addressing issues arising from the bilateral nature of the system, contains 'no-discrimination' provisions relating to the bilateral negotiation of interchange fees and a cap on charges that can be levied on a new entrant for the establishment of a connection to an existing eftpos participant. The Board concluded that these provisions are no longer necessary given that new entrants can access the multilateral interchange fees set by ePAL. The Board is also prepared to remove the connection charge cap when it is satisfied that ePAL has suitable access arrangements in place. This has not occurred to date; the Bank continues to liaise with ePAL over potential rule changes and other developments that may have a bearing on access.

Review of Card System Access Regimes

In May 2013, the Reserve Bank released a consultation paper reviewing the access regimes applying to the MasterCard credit, Visa credit and Visa Debit systems. The access regimes were originally introduced by the Bank in the mid 2000s to expand access for prospective issuer and acquirer participants in the card schemes in Australia, to address concerns that the schemes' restrictions on entry had not struck the right balance between competition in the payments system and the financial safety of the schemes. Prior to the reforms, scheme rules stipulated that only card issuers that were prudentially supervised or organised under local banking legislation were eligible to participate. In Australia, this meant that card issuers and acquirers had to be authorised deposit-taking institutions (ADIs) supervised by the Australian Prudential Regulation Authority (APRA). Card acquirers were also required to be issuers to be eligible, and penalties were imposed on institutions that were significant net acquirers. At the same time, it was considered that there are good reasons why card issuers should be required to be of sound financial standing.

To address these concerns, the Bank worked closely with APRA to formulate a new class of ADIs – specialist credit card institutions (SCCIs) – to allow entities that are not deposit-takers to undertake issuing or acquiring activities in the MasterCard and Visa card systems while being subject to prudential supervision. The Bank subsequently imposed access regimes on the card schemes, requiring that any ADI, including SCCIs, be eligible to apply to participate in the schemes without discrimination. The reforms have therefore allowed new entrants that would otherwise have been ineligible for scheme membership to participate in the card schemes without compromising the financial safety of the schemes. They have also facilitated the participation of institutions that specialise only in card issuing or acquiring.

However, recent developments suggest that the access regimes in their current form may no longer be fulfilling their original objective, and may indeed be preventing some prospective scheme participants to entry. The Bank is aware of a number of entities, particularly foreign corporations focusing on non-traditional products, with an interest in undertaking credit card issuing or acquiring activities (and not other banking business) in

¹³ See RBA (2012), *The Regulatory Framework for the EFTPOS System: Final Reforms and Regulation Impact Statement*, November, available at <<http://www.rba.gov.au/payments-system/reforms/debit-card-systems/201211-reg-frmwrk-efpos-sys/index.html>>.

¹⁴ The Standard, *Interchange Fees in the EFTPOS System*, is available at <<http://www.rba.gov.au/payments-system/legal-framework/standards/interchg-fees-in-the-efpos-system-29112012.pdf>>.

Australia. These prospective participants may be discouraged from entry because the access regimes impose a regulatory burden – prudential supervision by APRA – that may be more onerous than necessary given the nature of their operations. To an extent, the current regulatory framework also transfers the cost of screening the soundness of current and prospective members of the card schemes to APRA.

Additionally, the access regimes' requirement that participants must be ADIs means that the Reserve Bank, in its capacity as a provider of banking services to various government departments, is not eligible to apply to become a participant in the MasterCard and Visa systems; the Bank is able to undertake banking business but is not an ADI. The Bank is nonetheless eligible to become a participant in the eftpos scheme. It is appropriate for the Board to consider whether it is in the public interest for regulatory arrangements to allow the Bank to participate in one scheme, but not other competing systems.

In light of these issues, the Bank outlined three policy options in its May 2013 consultation paper, *Review of Card System Access Regimes*: to vary the access regimes to widen the eligibility for participation; to revoke the access regimes; or to maintain the status quo. Submissions closed in July 2013.

ATM Access Regime

As reported in the 2012 Payments System Board Annual Report, the Bank began a consultation on varying the Access Regime for the ATM System in May 2012. The catalyst for the consultation was the ATM industry's response to a joint Treasury/Reserve Bank ATM Taskforce report on Indigenous ATM issues. The report found that residents in very remote Indigenous communities are generally more reliant on ATMs than other Australians because of a lack of alternatives to withdraw cash or make balance enquiries. These residents are also more likely to have no alternative to paying a direct charge for ATM transactions because their communities typically only have access to an independently owned ATM, resulting in high expenditure on ATM fees by these communities. In light of these findings, the Taskforce and the Australian Government facilitated negotiations among ATM industry participants which resulted in an arrangement to help reduce the sizeable expenditure on ATM fees in the communities.

Related to this work, the Bank consulted on varying the ATM Access Regime to provide greater flexibility to grant exemptions from the prohibition of certain interchange fee arrangements in the ATM system. The Board decided at its August 2012 meeting to vary the Access Regime to extend the Bank's exemption power. At the same meeting, the Board decided to use its expanded powers to grant an exemption to the industry's arrangement for very remote Indigenous communities.¹⁵

Dual-network Debit Cards

A longstanding practice in Australia is the issue by banks and other financial institutions of cards for ATM use and with debit functionality from more than one payment network. The Board has previously indicated it supports the issue of such cards in Australia, because they are convenient for cardholders and allow stronger competition between networks at the point of sale, facilitating both consumer and merchant choice. In August 2012, the Board considered a range of issues relating to these cards, including scheme rules that require the provision of commercially sensitive data about one network to a competitor network; the imposition of fees by one network on another network's transactions; and disputes over the placement of network brands on cards. The Board also noted issues that had arisen between networks in the context of contactless debit cards,

¹⁵ More detail on the variation can be found in RBA (2012), *A Variation to the Access Regime for the ATM System: Conclusions*, August, available at <<http://www.rba.gov.au/payments-system/reforms/atm/var-access-regime/index.html>>. The exemption is available at <<http://www.rba.gov.au/payments-system/reforms/atm/rem-indigenous-com-290812.pdf>>.

which had the potential, in the Board's view, to inhibit competition, limit choice to consumers and increase costs. The Board noted that authorities in other jurisdictions had taken measures to address similar issues, and authorised a consultation on the case for regulatory action. However, rather than proceed immediately to a consultation, the Board encouraged the parties involved to see if voluntary agreements could be reached that were acceptable to all parties and also in the public interest.

At its August 2013 meeting the Board was briefed on discussions between the networks and the Bank in which the three networks had agreed to address the Board's concerns. The outcome will safeguard the rights of Australian card-issuing banks and institutions to maintain existing dual-network arrangements in the contactless environment. Where an issuer wishes to include applications from two networks on the same card and chip, the networks have agreed to work constructively with issuers to allow this. The networks have also agreed not to take steps preventing merchants from exercising choice in the networks they accept, in both the contact and contactless environments. In addition, to the extent that merchants are able to and wish to exercise their own priorities with respect to two contactless debit applications on one card, the networks will not prevent this choice. The Board considers that this agreement on 'rules of the game' is a positive development and, as a consequence, a consultation on a possible regulatory intervention appears to be unnecessary at present. The Board has asked the Bank to maintain liaison with the industry on dual-network card issues and to monitor market developments and technological changes in the industry. While market forces are likely to lead to competition for the payment flows of very large merchants, the Board will be particularly interested in seeing that there is also downward pressure on payments costs faced by smaller merchants.

Operational Incidents in Retail Payments Systems

Given the growing importance of retail payments and the potential system-wide implications of any incident, the Bank has been considering how best to strengthen its oversight of significant disruptions and contribute to the ongoing integrity of retail payment systems. In addressing the resilience of retail payment systems, the Bank is conscious of the need to coordinate with APRA and APCA so as to avoid duplication.

To inform its consideration of this issue, the Bank informally consulted with industry participants in 2012 on issues including sources of vulnerability; existing controls; safeguards and contingencies; change management; and plans for upgrade and enhancement of supporting technology. In general, the Bank observed an encouraging level of industry attention on operational resilience, with a number of payments system participants citing commercial pressures as a driver of increased investment in payments infrastructure. Moreover, payments operations are increasingly perceived as a strategic priority within financial institutions.

As a result of the informal consultation, in November 2012 the Board published its findings, in which it concluded that at present there is no need for a regulatory response.¹⁶ In the Board's view, senior management of individual institutions are primarily responsible for improving the operational resilience of their organisations. Accordingly, the Bank plans, at least for the time being, to limit its role to monitoring retail operational incidents and working with industry on initiatives around the disclosure of data on incidents.

Consistent with this, the Bank has implemented an incident reporting protocol, and is in the process of implementing a framework for routine statistical reporting on retail payments incidents. It has also collected additional information on the system architecture supporting retail payments activities. The data collected under the reporting framework will be used to identify trends and, as appropriate, follow up with any payments system participant that was persistently underperforming. The data could also form the basis for industry

¹⁶ RBA (2013), *Operational Incidents in Retail Payments Systems: Conclusions*, November. Available at <<http://www.rba.gov.au/payments-system/resources/publications/payments-au/201211-operational-incidents-in-retail-payments-systems-conclusions/index.html>>.

initiatives to disclose aggregate data on operational incidents to facilitate performance benchmarking by payments system participants.

International Developments

International regulators have continued with work on a variety of regulatory reforms aimed at improving competition, enhancing governance and restricting excessive surcharging. There remains a considerable focus internationally on the level of interchange fees in card payment systems.

United Kingdom

In March 2013, the UK Government began consulting on the establishment of a new payments system regulator. The Government argued that self-regulation was no longer sufficient to promote the best interests of all stakeholders in the payments system given recent experiences in banking industry self-regulation and the conflicts created by the concentrated ownership of payment systems by their member banks. This followed an initial consultation in July 2012, which outlined options for changes to the way in which payments system strategy is set.

The regulator would be responsible for:

- implementing a licensing regime for payment systems
- promoting access to and competition in the payments system
- ensuring any payments system decisions take into account the views of all stakeholders, including end users.

The Government has also raised the possibility of the regulator having powers to seek divestment by banks of their ownership of payment systems, if deemed necessary. The Government is consulting on whether the Financial Conduct Authority or one of the existing economic regulators (e.g. the Office of Communications, or Ofcom) should be the regulatory authority.

Under the proposal, the Government does not envisage a formal role for the UK Payments Council in the new regulatory structure. The strategy-setting role the Council currently plays would instead be performed by the individual payment schemes, with approval given by the regulator. It is up to the industry to decide if the Payments Council will continue to perform its industry coordination and representation functions.

Separately, ban on excess surcharging came into effect in April. This follows the consultation initiated in September 2012 and the subsequent passage of the *Consumer Rights (Payment Surcharges) Regulations 2012*. The legislation prohibits merchants from levying 'fees that exceed the cost borne by the trader' for the use of a payment method. Similar to the approach taken here by the Board, the UK Government released, in March, non-legally binding guidance to merchants on the costs that could be passed on to consumers.

Europe

In July 2012, the European Commission (EC) expressed concerns about potential violations of antitrust legislation of Visa Europe's consumer credit card multilateral interchange fees, foreshadowing a formal investigation to follow. The multilateral interchange fees, which ranged from 0.50 to 0.70 per cent, applied to cross-border Visa credit card transactions where the issuer and acquirer are both in the European Economic Area (EEA), and to the domestic Visa credit card transactions of eight European Union (EU) member states. Visa Europe responded in May 2013 by agreeing to cap its credit card multilateral interchange fees at 0.30 per cent

of transaction value and make its cross-border scheme rules more competitive. The EC has put the offer to a market test by inviting public comments on Visa Europe's offer. This development follows a May 2012 decision of the EU General Court to uphold the 2007 EC ruling requiring MasterCard to roughly halve its cross-border multilateral interchange fees for debit and credit card transactions to 0.20 per cent and 0.30 per cent of the transaction value, respectively.

In other developments, the EC announced in April 2013 that it was conducting an investigation into MasterCard, focusing on three aspects:

- international interchange fees that are paid by acquirers in the EEA to issuers outside the EEA
- scheme rules related to cross-border acquiring which restrict the ability of merchants to obtain acquiring services from banks located in another country within the EU
- other scheme rules or business practices that may be anti-competitive in nature (e.g. the 'honour all cards' rule, which obliges merchants to accept all types of MasterCard cards).

Subsequent to the end of the financial year, the EC released two very wideranging regulatory proposals. The first is to regulate interchange fees and business rules for card payments (including honour all cards and no-steering rules, unblending of merchant service fees, multi-network cards and separating scheme and processing entities). The second proposal is for the Payment Services Directive to be updated to help further develop an EU-wide market for electronic payments through harmonisation of payment services and regulations.

United States

In July 2012, a settlement agreement was proposed in a lawsuit between MasterCard, Visa, a number of card-issuing banks and US merchants. The lawsuit concerns alleged collusion in setting of credit card interchange fees by the credit card schemes and card-issuing banks. The key conditions of the settlement are:

- a modification to MasterCard and Visa scheme rules to allow 'brand level' and 'product level' surcharging for credit cards up to a predetermined cap, and to allow merchants to form 'buying groups' for the purpose of negotiations – the scheme rules were amended in January 2013
- a US\$6 billion payment from MasterCard, Visa and the card-issuing banks to the merchants that agree to the settlement
- further payments totalling an estimated US\$1.2 billion to merchants agreeing to the settlement; these payments are intended to represent a 10 basis point reduction in interchange fees for MasterCard and Visa credit card transactions at the relevant merchants for eight months, and will be funded by the schemes withholding part of the interchange income of all issuers.

Following the 28 May 2013 deadline for opting out of and objecting to the settlement, a number of related lawsuits have been filed by merchants objecting to the settlement condition that merchants involved in the suit will be unable to litigate in future to contest MasterCard's and Visa's credit card interchange fee setting or other merchant rules. MasterCard and Visa, on the other hand, have filed retaliatory complaints seeking that the interchange fees be declared legal and competitive, in an attempt to limit the scope for future lawsuits.

A fairness hearing was scheduled for 12 September 2013, where the judge was expected to announce whether the settlement has been agreed to by merchants representing at least 75 per cent of the value of all MasterCard and Visa credit card transactions. After taking into consideration the objection filings from merchants, a ruling on whether the settlement offer has been granted approval by the court was also expected.

Other international

In the second half of 2012, China and India both introduced new regulatory regimes relating to payment card fees. In June 2012, the Reserve Bank of India issued a directive requiring merchant service fees on debit cards to be capped at 0.75 per cent of the transaction value for transactions up to 2 000 rupees (around A\$34) and 1 per cent for transactions above 2 000 rupees, effective in September. In November, China's State Council put in place a new interchange fee regime for UnionPay cards for domestic transactions.¹⁷ Effective February 2013, interchange fees on UnionPay debit and credit card transactions in China – which previously ranged from 0.35 per cent to 1.40 per cent – fell to 0.26 per cent for transactions at merchants in the essential goods category, 0.55 per cent for the general merchandise category, and 0.90 per cent for the dining and entertainment category.

In July 2012, the World Trade Organization ruled that certain requirements imposed on payment service providers operating in China discriminated against foreign electronic payment providers by allowing UnionPay to monopolise the clearing of certain types of renminbi-denominated card-based transactions. In June 2013 the Chinese central bank ruled that no domestic payment institution would be allowed to cooperate with foreign card companies in renminbi-denominated cross-border transactions.

¹⁷ UnionPay is the dominant national card scheme in China and was established by the People's Bank of China and the State Council in 2002.

Responses to the Strategic Review of Innovation

In May 2010 the Board announced the Strategic Review of Innovation in the Payments System, which aimed to identify areas in which innovation in the Australian payments system could be fostered through more effective cooperation between stakeholders and regulators. Following two years of consultation, research and industry engagement, the Board concluded that the removal of some of the barriers to cooperative innovation in the Australian payments system had the potential to deliver significant public benefits over time. The Board's findings were published in the *Strategic Review of Innovation in the Payments System: Conclusions* (Conclusions Document) in June 2012.¹⁸

In the Conclusions Document, the Board put forward two key proposals designed to improve cooperative outcomes in the payments system – the creation of a new industry coordination body and the setting by the Board of strategic objectives for the payments system. The first set of strategic objectives was set out in the Conclusions Document. In response, industry proposed, and has now begun work to develop, a new payments system that will facilitate real-time retail payments in Australia.

Australian Payments Council

To support its objective of fostering effective industry coordination and cooperation between the industry and the regulator, the Board proposed that there be more direct dialogue between itself and the industry. As part of this effort, the Reserve Bank has been working with industry to constitute a new, high-level industry coordination body – the Australian Payments Council. This body is not only expected to play a key role in helping the Board to identify and the industry to achieve strategic objectives but may also provide industry coordination for a range of issues not necessarily covered by the strategic objectives.

In the Conclusions Document, and over the course of the Strategic Review, the Board identified some features that it sees as particularly important for such a coordination body. These include:

- membership that is small enough to be effective, yet broad enough to be representative of those that have a genuine stake in the outcomes; membership should not be dominated by any class of participant
- representation of sufficient seniority to be able to promote a strategic approach and commit resources where appropriate.

Following the release of the Conclusions Document, the Bank engaged in a further period of consultation on this proposal. These discussions helped to refine views on the role and make-up of the body. The Bank has since been working with Australian Payments Clearing Association (APCA) to design a framework for the Australian Payments Council and a proposed plan for its establishment.

¹⁸ RBA (2012), *Strategic Review of Innovation in the Payments System: Conclusions*, June. Available at <<http://www.rba.gov.au/payments-system/reforms/strategic-review-innovation/conclusions/index.html>>.

In contrast to the current membership of APCA, industry representation on the Australian Payments Council is expected to be significantly broader than financial institutions, potentially incorporating payment system operators, non-bank institutions with their own payments processing facilities ('self acquirers') and other innovators and payment facilitators. Given that the Payments Council cannot be too large if it is to have effective decision-making, considerable focus has been placed on the interaction between the Council and the broader payments industry. The proposed model provides for a broad range of organisations to subscribe to the Payments Council. Those organisations would become part of the 'Payments Community' and would receive briefing on Payments Council activities and the opportunity to provide input to its deliberations. At any time, a subset of organisations in the Payments Community would be represented on the Payments Council. A joint consultation process coordinated by APCA and the Bank will take place in the second half of 2013, and it is anticipated that the Australian Payments Council will begin meeting in early 2014.

Strategic Objectives

In the Conclusions Document, the Board signalled its intention to set strategic objectives for the payments system. These would take into account the interests of all stakeholders, including end users, and would identify services or attributes that the Board believes the payments system should be able to provide. In general, industry will be expected to determine how these objectives can be delivered most efficiently. To that end, it is anticipated that the new Australian Payments Council will perform a key role in initiating and coordinating an industry response to the objectives. A review of the strategic objectives will be conducted from time to time, with the Board establishing new or revised strategic objectives, or confirming existing ones.

The initial set of strategic objectives was published as part of the Conclusions Document (see 'Box C: Initial Strategic Objectives'). The Bank then engaged in a further period of consultation regarding the objectives, seeking views on how they could best be delivered and time lines that had been set out. In response, the Bank received more than 30 written submissions. Overall, the responses were supportive of the objectives that had been set, suggesting the time frames proposed were challenging, but achievable. It was generally agreed that the objectives could largely be delivered through changes to the existing Direct Entry (DE) system and the development of a new real-time retail payments system – the New Payments Platform (NPP).

Box C

Initial Strategic Objectives

Based on its consultations over the course of the Strategic Review, the Board proposed the following as the initial strategic objectives for the payments system:

- All Direct Entry payments should be settled on the day payment instructions are exchanged by the end of 2013.
- There should be the capacity for businesses and consumers to make payments in real time, with close-to-immediate funds availability to the recipient, by the end of 2016.
- There should be the ability to make and receive low-value payments outside normal banking hours by the end of 2016. This would include availability of the Direct Entry system and any real-time system. Ideally, it would also involve the capacity for the settlement of card payment receipts during weekends and public holidays, so that receipts can be posted to merchants without generating interbank credit risk.

- Businesses and consumers should have the capacity to send more complete remittance information with payments by the end of 2016.
- A system for more easily addressing retail payments to any recipient should be available (see 'Box D: Addressing Solutions'). To the extent that this is provided by a new real-time system, it should be available by the end of 2017. This does not rule out earlier availability via other solutions.

Changes to the Direct Entry System

Two of the initial strategic objectives are of direct relevance to the DE system. The first is the objective that all DE payments be settled on the day payment instructions are exchanged by the end of 2013. Currently, the DE system settles once a day, at 9.00 am on the business day following the exchange of payment instructions. The industry had nonetheless been working towards same-day settlement of three of the five daily file exchanges. The Board endorsed a move to same-day settlement of all five DE exchanges as a means of mitigating counterparty and operational risks and to allow end users to access funds in a more timely manner. Many of the system changes required to support this initiative are now complete; industry is currently working to amend the APCA rules to support this change, which is expected to be introduced by the end of 2013. In addition, as discussed in the 'Oversight of High-value Payment Systems' chapter, the Bank is making changes to its liquidity management arrangements to facilitate the settlement of DE payments near the end of the day.

Second, the Conclusions Document highlighted the desirability of payment systems being available when and where needed by users. Increasingly, this means consumers should have the ability to make and receive low-value payments outside normal banking hours. The initial strategic objectives suggested this need could be addressed in both the DE system and via a real-time payments solution. However, feedback from industry following the release of the Conclusions Document noted the cost of upgrading the DE system and indicated a preference for achieving out-of-hours retail payments via a real-time payments solution. Accordingly, the Board decided to defer this objective in respect of the DE system until the NPP is operational, at which time the need for out-of-hours DE payments will be reviewed.

New Payments Platform

The initial strategic objectives identified that there should be the capacity for businesses and consumers to make payments in real time with close to immediate funds availability to the recipient by the end of 2016. Fast payments with immediate funds availability would enable government agencies to make immediate emergency payments electronically to those in need, individuals to make immediate personal payments and potentially allow businesses to make better use of cash balances. These types of payments are already offered in countries such as the United Kingdom, Mexico and Switzerland and are currently being implemented in Singapore.¹⁹

In response to the Conclusions Document, industry formed the Real-Time Payments Committee (RTPC). The RTPC's mandate was to agree, by the end of 2012, an industry-based project approach for the delivery of fast retail payments. Concurrently, the Reserve Bank began work developing core criteria, expanding on the initial

¹⁹ Other countries which have been noted as having systems with similar functionality include Brazil, Japan, Nigeria, Poland and South Africa. Available at <http://www.paymentscouncil.org.uk/files/payments_council/payments_council_response_to_hmt_consultation_-_opening_up_payments_-_25-06-2013.pdf>.

strategic objectives, in order to provide industry with a more detailed set of expectations and also to serve as a tool against which it could assess any proposals.²⁰

In February, the Board was briefed on the RTPC's proposal to establish an industry-based project to deliver a fast payments solution for Australia.²¹ The RTPC proposal sought to address the strategic objectives by not only facilitating fast payments for consumers and businesses, but also by supporting payments with richer information, easier addressing and close-to-immediate funds availability to the recipient on as near to a 24/7 basis as practicable.

The industry's NPP solution will be based on a hub infrastructure capable of supporting the exchange of fast flexible payments messaging and will be linked to a Settlements Service built by the Bank. The NPP will support commercial 'overlay' services that can be tailored to particular payment needs. While multiple overlays could potentially be connected to the NPP, the first will be an 'initial convenience service' developed to support person-to-person mobile payments.

The NPP is intended to link all ADIs as well as other approved participants. The Board considers it important that there be fair, open and transparent access to the NPP and the Bank will continue to have close cooperation with industry to ensure that the NPP arrangements remain consistent with the Board's objectives and the public interest.

In June 2013, the NPP Steering Committee was established to oversee the development of the NPP. The Steering Committee has appointed a Program Director and engaged a consulting firm to manage the project. The next major step is the development of business requirements for the proposed platform, together with a detailed plan and budget for the next phases of development. It is anticipated that this will be completed by the end of the year.

To support the project the NPP Participant Group has also been established. The Participant Group is a broader group that will provide funding and expertise for the NPP Program, and will act as a forum for providing project updates to participants and an avenue for members to relay feedback to the Steering Committee.

In addition to the progress underway at industry level, the Bank has commenced work on developing the principles and requirements for the settlement component of the NPP. The Fast Settlement Service will be operated as a 24/7 RITS service, owned by, and located at, the Reserve Bank. It will provide a relatively simple model for the final and irrevocable settlement of each individual payment sent from the NPP. The Bank's timetable for the delivery of the Fast Settlement Service has been aligned with the proposed industry timetable. The Bank intends to consult further about the operation of the service with RITS members in coming months.

The Board welcomes the industry's willing response to the strategic objectives outlined in 2012. The industry's progress towards achieving same-day settlement of DE payments this calendar year and its commitment to providing a cutting-edge retail payment system that addresses key gaps identified in existing systems by 2016 are both landmark achievements. They suggest a renewed capacity for the industry to cooperate in the interests of providing a better payments system. The Board is hopeful that the creation of the Australian Payments Council in the coming year will help to maintain that progress in the years to come.

20 RBA (2012), *RBA Core Criteria for a 'Fast Payments' Solution*, November. Available at <<http://www.rba.gov.au/payments-system/reforms/strategic-review-innovation/201211-rba-core-criteria-fast-pay-solution/pdf/solution-112012.pdf>>.

21 Real-Time Payments Committee (2013), *Proposed Way Forward*, February. Available at <<http://apca.com.au/docs/real-time-payments/real-time-payments-proposal.pdf>>.

Box D

Addressing Solutions

A key element determining the ease of use of a payment system is the process by which the payee's details are provided by the payer. Currently, for a payment to be made into a bank account, the payee's BSB number and account number must be provided. Individuals may not always remember these details or may be reluctant to provide them. The need to enter up to 15 digits correctly is a further problem.

The Board concluded that an easier means of addressing payments could improve the efficiency of the payments system and may have an additional benefit of increasing competition in the provision of financial services to the extent that it makes it easier for customers to switch accounts between financial institutions. Industry has undertaken to provide an addressing solution as part of the delivery of the New Payments Platform.

Addressing solutions are being considered in other jurisdictions. In January 2013, the UK Payments Council announced a new service, the Mobile Payments Scheme. This scheme will enable secure payments to be made directly to or from an account without the need to disclose account details, but rather by using a mobile phone number as a proxy. Eight financial institutions – representing 90 per cent of UK current accounts – have already committed to offering the new service, which is scheduled to launch in 2014. A central database will enable banks to securely store their customers' mobile phone numbers and link them to their account details. Participation in the Mobile Payments Scheme is open to any payment service providers who have access to the UK Faster Payments system and/or LINK (the UK ATM network).¹

In Sweden the infrastructure for electronic identification, BankID, also offers a secure electronic identification for mobile phones and tablet computers called Mobile BankID. Customers download the BankID app to their mobile phone or tablet, and request the Mobile BankID from the bank, using the app. Customers are able to use Mobile BankID to facilitate mobile payment services, mobile banking and a number of government services.²

1 Payments Council (2013), 'Countdown Starts to Mobile Payments for All', Press Release, 15 January. Available at <http://www.paymentscouncil.org.uk/media_centre/press_releases/-/page/2378/>.

2 Available at <<http://www.bankid.com/en/Mobile-BankID/>>.

Oversight of High-value Payment Systems

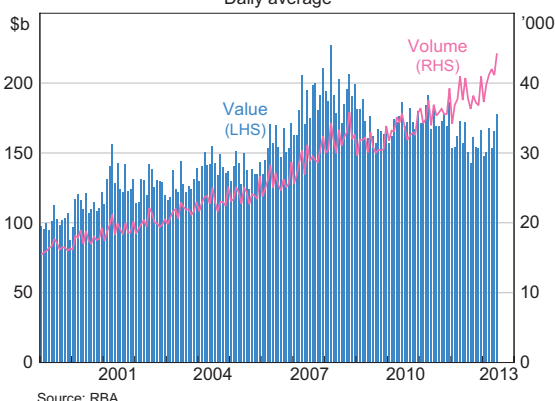
Reserve Bank Information and Transfer System

A key element of the Payments System Board's responsibility for the safety and stability of payment systems in Australia is oversight of the Reserve Bank Information and Transfer System (RITS). RITS is primarily a real-time gross settlement (RTGS) system, which settles transactions on an individual basis in real time across Exchange Settlement Accounts (ESAs) held at the Bank. Consistent with RITS being the principal domestic payment system in Australia, around 70 per cent of the value of non-cash payments in Australia is settled on an RTGS basis in RITS.²² In 2012/13, an average of over 39 000 RTGS transactions were settled each day, with an aggregate daily value of around \$158 billion (Graph 14). Since the global financial crisis, the volume of RTGS transactions has continued to grow steadily, while the value has remained fairly stable.

The interbank obligations arising from the remaining 30 per cent of non-cash payments are also settled in RITS, but on a deferred net basis. Currently, this occurs in a batch settlement process at 9.00 am on the next business day after a payment is made. As discussed in the context of the Strategic Review of Innovation in the Payments System, by the end of 2013 it is expected that arrangements will be in place to settle Direct Entry (DE) payments – the largest component of the current 9.00 am batch settlement – on a same-day basis.

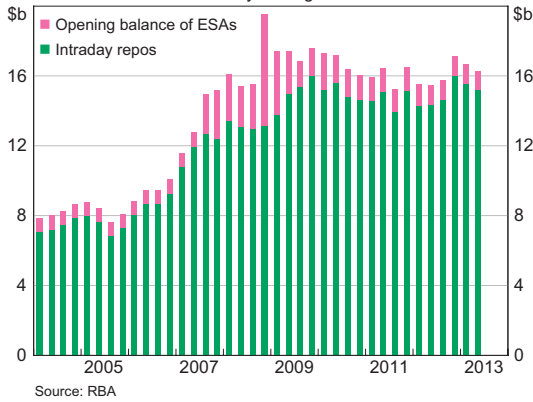
At present, liquidity in RITS is sourced from overnight balances in participants' ESA and interest-free intraday repurchase agreements (repos). However, the proposed same-day settlement of DE payments will require settlement late in the day, after intraday repos have been unwound and the interbank cash market has closed. To facilitate same-day settlement, from November 2013, ESA holders will be able to engage in repos on an 'open' basis; that is, without a maturity date. To ensure RITS participants are not penalised for holding higher overnight balances for this purpose, the Bank has made arrangements to pay RITS participants the target cash rate on a proportion of their balances (rather than 25 basis points below the target cash rate for overnight ESA balances at present). In aggregate, it is anticipated that ESA holders will hold open repos of between

Graph 14
RTGS Transactions
Daily average



²² This measure of payments is broader than interbank settlements, since it includes retail payments settled across the books of a commercial bank, such as payments between two customers of the same institution.

Graph 15
Liquidity in RITS
Daily average



\$20 and \$30 billion, which is substantially above existing liquidity levels (Graph 15).²³ The overall effect of these changes may be to facilitate earlier settlement of other transactions in RITS.

As part of its oversight of RITS, the Reserve Bank conducts periodic self-assessments of RITS against the relevant international standards. Following the finalisation of the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) *Principles for Financial Market Infrastructures* (the Principles) in April 2012, the Bank announced that from 2013 it will conduct self-assessments of RITS against the Principles on an annual basis.²⁴ These

self-assessments are reviewed by the Payments System Board and published on the Bank's website. The Board also reviews any material developments occurring between assessments.

As part of this ongoing oversight process, the Board was briefed on the details of the 14 September 2012 operational incident, during which members' access to RITS was disrupted for around 50 minutes. This outage resulted in RITS availability falling to 99.948 per cent in 2012, the first time it has fallen below the target of 99.95 per cent in 5 years. In response to internal and external reviews of the circumstances surrounding the outage, the Bank has refined its incident management procedures.

While the Bank devotes significant operational and financial resources to ensuring the resilience of RITS, the efficient operation of RITS is also dependent on the operational reliability of RITS participants. To ensure RITS participants manage their operational risk effectively, the Bank recently introduced business continuity standards for RITS members. These complement existing Australian Payments Clearing Association (APCA) and Australian Prudential Regulation Authority (APRA) standards. The standards cover business continuity planning, system resilience, incident management, recovery time frames and testing. RITS members were required to complete their initial self-assessments against the standards by July 2013.

CLS Bank

Continuous Linked Settlement (CLS) provides a mechanism for settling foreign exchange transactions in 17 currencies, including the Australian dollar. These transactions are settled on a payment-versus-payment (PvP) basis, thereby eliminating foreign exchange settlement risk (the risk that one party settles its obligation, while the other subsequently does not). Members meet any Australian dollar settlement obligation by making payments into a CLS's ESA via RITS. These funds are then paid out to those settlement members with long positions in Australian dollars. The value of these payments in RITS is a small fraction of the gross value of transactions involving the Australian dollar settled by CLS. CLS also settles some one-sided payments related

²³ These arrangements were discussed in Debelle G (2013), 'The Impact of Payments System and Prudential Reforms on the RBA's Provision of Liquidity', Address to the Australian Financial Markets Association and Reserve Bank of Australia Briefing, 16 August. Available at <<http://www.rba.gov.au/speeches/2013/sp-ag-160813.html>>.

²⁴ *Implementing the CPSS-IOSCO Principles for Financial Market Infrastructures in Australia*, available at <<http://www.rba.gov.au/payments-system/policy-framework/principles-fmi/implementing-principles-australia.html>>. See also CPSS-IOSCO (2012), *Principles for Financial Market Infrastructures*, available at <<http://www.bis.org/publ/cpss101a.pdf>>.

to non-deliverable forwards and credit derivatives, and offers an aggregation service that compresses large volumes of low-value foreign exchange transactions for settlement.

Across all currencies, CLS settled US\$4.8 trillion on average each day in 2012/13 (Graph 16, top panel). This figure includes an average of \$247 billion of foreign exchange transactions involving the Australian dollar per day in 2012/13 (Graph 16, bottom panel). Because of the large value of Australian dollar settlements in CLS, any disruption to CLS or members' payments to CLS could have implications for the smooth functioning of RITS, and indeed the wider Australian financial system.

CLS is chartered in the United States and is regulated and supervised by the Federal Reserve System. The Federal Reserve also coordinates the CLS Oversight Committee, which provides for cooperative oversight by the central banks of issue in the currencies that settle in CLS. As a member of the Oversight Committee, the Bank is

able to contribute to the assessment of the ongoing adequacy and robustness of CLS's risk controls, and its processes and settlement arrangements. In addition, through this forum the Bank is involved in overseeing how well CLS meets the requirements of the relevant international principles, against which CLS is required to submit annual self-assessments.

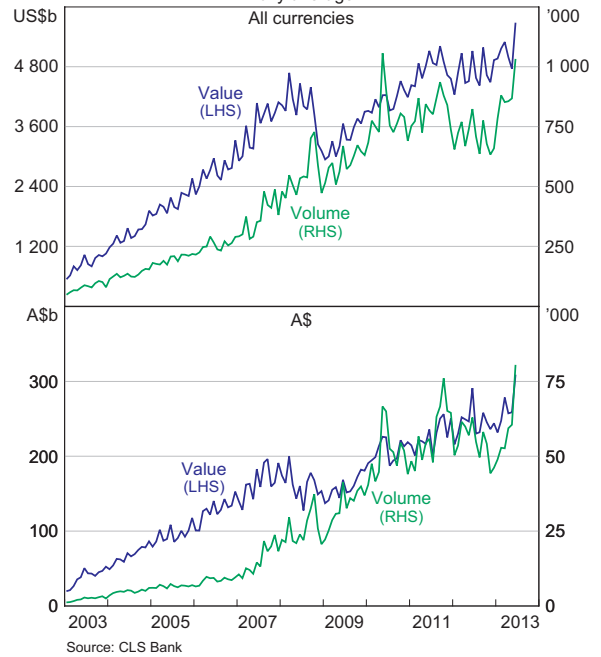
The Oversight Committee has also kept a close watch on developments in the CLS system over 2012/13. These include: the development of a same-day settlement service across a limited number of jurisdictions (currently not including Australia); continued expansion of the range of currencies settled via CLS; and efforts to assist in the settlement of foreign exchange transactions cleared by central counterparties (CCPs).

SWIFT

While the Society for Worldwide Interbank Financial Telecommunication (SWIFT) is not a payment system, many systemically important payment systems depend on SWIFT's communications platform and other services. In Australia, SWIFT is a core component for communication between important payment and settlement systems (i.e. RITS, CLS, the Low Value Settlement Service (LVSS) and Austraclear) and those systems' participants.

SWIFT is a member-owned cooperative company, which is chartered in Belgium and is primarily overseen by the SWIFT Oversight Group (OG), comprising the G10 central banks and chaired by the National Bank of Belgium. In 2012, the OG set up the SWIFT Oversight Forum (SOF) to include additional central banks, including the Reserve Bank, in the oversight process. Through its membership of the SOF, the Bank is able to contribute to discussions on oversight priorities and policies. In addition, the SOF facilitates information sharing about SWIFT oversight and considers system interdependencies arising from the common use of SWIFT.

Graph 16
CLS Settlement
Daily average



To support its oversight activities, the OG has set proprietary minimum standards – the High-level Expectations (HLEs) – against which SWIFT is assessed. In its capacity as a member of the SOF, the Bank receives SWIFT’s annual self-assessment against the HLEs. SWIFT also has a number of strategic projects underway, including the construction of a third operating centre and a technology refresh of its main messaging service, FIN. The OG monitors closely these projects to ensure that they do not adversely affect SWIFT’s core services, and keeps SOF members updated on its work in this area.

Exchange Settlement Accounts

The Board has ongoing responsibility for the Reserve Bank’s policy on access to ESAs. These accounts provide a means for ultimate settlement of interbank obligations via the exchange of a settlement asset – a deposit held with the Bank – that carries no credit risk.

In July 2012, the Bank announced the creation of a specific category of ESA for which Australian-licensed CCPs with Australian dollar obligations are eligible.²⁵ At the same time, the Bank took the opportunity to consolidate its policy statements on ESA eligibility into a single statement.²⁶ This statement clarifies that the following types of institutions may hold an ESA:

- an authorised deposit-taking institution (ADI) or other institution that is an actual or prospective provider of third-party (customer) payment services with a need to settle clearing obligations with other providers
- an Australian-licensed CCP or securities settlement facility (SSF) (or a related body corporate acceptable to the Bank) with payment arrangements that require Australian dollar settlement.

The statement further clarifies that all banks licensed by APRA are required to have an ESA, and that any Australian-licensed CCP determined by the Bank to be systemically important is required to settle its Australian dollar margin and other securities- and derivatives-related obligations using its own ESA. Any entity that accounts for 0.25 per cent or more of the value of total RTGS payments must use its own ESA to settle its high-value transactions, whereas smaller entities may elect to settle using another ESA holder as an agent. A full list of ESA holders is available on the Bank’s website.²⁷

In addition to meeting the eligibility requirements listed above, any institution applying for an ESA must be able to demonstrate that it has access to sufficient liquidity to meet its settlement obligations under routine conditions, during seasonal peaks and under periods of stress. Depending on whether it is subject to supervision by APRA, the nature of its operations and the extent of its payments experience, collateral requirements may be imposed on an ESA holder.

25 For more information, see RBA (2012), ‘Payments System Issues: Exchange Settlement Account Policy for Central Counterparties’, Media Release 2012-17, 31 July. Available at <<http://www.rba.gov.au/media-releases/2012/mr-12-17.html>>.

26 The statement on ESA policy is available at <<http://www.rba.gov.au/payments-system/esa/index.html>>.

27 The full list of ESA holders is available at <<http://www.rba.gov.au/payments-system/rits/membership/membership-list.html>>.

Oversight of Clearing and Settlement Facilities

The *Corporations Act 2001* assigns to the Reserve Bank a number of powers and functions related to the oversight of clearing and settlement (CS) facilities. Under the *Reserve Bank Act 1959*, it is the responsibility of the Payments System Board to ensure that these are exercised in a way that ‘will best contribute to the overall stability of the financial system’.

Under the Corporations Act, CS facility licensees that operate in Australia are required to comply with the Financial Stability Standards (FSS) set by the Bank and to do all other things necessary to reduce systemic risk. Four domestic Australian CS facility licensees, all owned by the ASX Group, are currently required to meet the FSS:

- ASX Clear Pty Limited (ASX Clear), which provides central counterparty (CCP) services for a range of financial products traded on the ASX and Chi-X Australia Pty Ltd (Chi-X) markets, including cash equities, pooled investment products, warrants, certain debt products and equity-related derivatives.
- ASX Clear (Futures) Pty Limited (ASX Clear (Futures)), which provides CCP services for derivatives traded on the ASX 24 market, including futures and options on interest rate, equities, energy and commodity products. In July 2013, ASX Clear (Futures) began offering a clearing service for Australian dollar-denominated over-the-counter (OTC) interest rate derivatives (see below).
- ASX Settlement Pty Limited (ASX Settlement), which provides for the settlement of cash equities, debt products and warrants traded on the ASX and Chi-X markets. ASX Settlement also provides a settlement service for non-ASX listed securities.
- Austraclear Limited (Austraclear), which offers securities settlement services for trades in debt securities, including government bonds and repurchase agreements (repos).

While oversight is ongoing throughout the year, the Board conducts a formal assessment of each CS facility licensee’s compliance with the FSS once a year. The assessments covering the 2011/12 financial year were published in September 2012.²⁸

In April 2013, LCH.Clearnet Limited (LCH.C), a London-based central counterparty, was granted a CS facility licence to clear trades executed on a new derivatives exchange to be operated by FEX Global Pty Ltd (FEX). In July 2013, LCH.C’s licence was varied to permit LCH.C to offer its SwapClear clearing service for OTC interest rate derivatives directly to Australian participants. Under the Corporations Act, LCH.C is similarly required to comply with the FSS and to do all other things necessary to reduce systemic risk. In assessing LCH.C’s compliance with

²⁸ The *2011/12 Assessment of Clearing and Settlement Facilities in Australia* is available at <<http://www.rba.gov.au/payments-system/clearing-settlement/assessments/2011-2012/index.html>>.

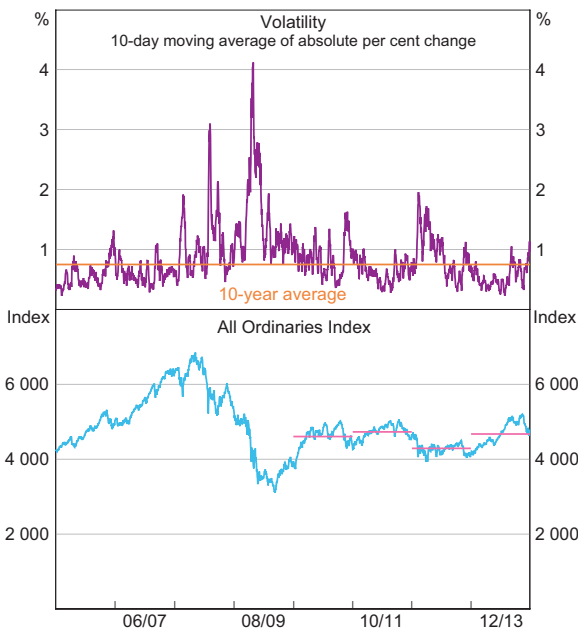
these obligations, the Reserve Bank will place appropriate reliance on information and reports from LCH.C's home regulator, the Bank of England.²⁹

Domestic Clearing and Settlement Facilities

Activity in the domestic licensed CS facilities

In 2012/13, price volatility was generally lower than in the previous year for markets cleared and settled by the ASX CS facilities. Daily average values for cash-equity trades cleared by ASX Clear and debt securities settled by Austraclear fell, while the number of derivative contracts traded on ASX 24 continued to grow.

Graph 17
All Ordinaries



Source: Bloomberg

The average volatility in equity prices, as measured by the average of absolute daily percentage changes in the S&P ASX All Ordinaries Index, was lower in 2012/13 compared with 2011/12, decreasing from 0.9 per cent to 0.5 per cent (Graph 17, top panel). In response to renewed concerns about European sovereign debt, volatility rose above the 10-year average in late February and remained around this level for much of the remainder of the financial year. Peaks in volatility in 2012/13, however, were well below peaks in previous years.

Trends in the growth of the number and value of cash-equity trades continued to diverge over 2012/13. The daily average number of such trades increased by 6 per cent in 2012/13, while the daily average value fell by 11 per cent (Graph 18). The average daily value of securities transactions settled by ASX Settlement decreased by 12 per cent in 2012/13, to \$8.2 billion.³⁰

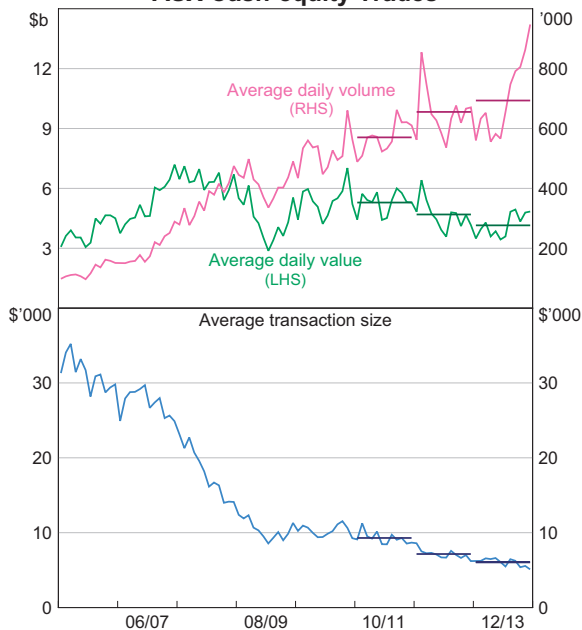
As a result of this divergence, which is a continuation of a long-term trend associated with the growth in algorithmic trading, the average size of trades in 2012/13 declined by 16 per cent. Further contributing factors include market fragmentation from the break-up of large orders across trading venues, and the increasing prevalence of automated or semi-automated processing.

The average daily number of equity options contracts traded on the ASX market decreased by 4 per cent in 2012/13. Despite this, and the sizeable reduction in volatility in the equity market in year-average terms, margins held by ASX Clear against equity derivatives increased by 12 per cent in 2012/13 (Graph 19, top panel). This was in part the result of higher share prices, which increase the value of contracts written on equities and, to a lesser extent, the introduction of the CME SPAN margin methodology (see discussion of risk

²⁹ The Bank's approach to oversight of both domestic and overseas CS facility licensees is set out in *The Reserve Bank's Approach to Assessing Clearing and Settlement Facility Licensees*, available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/201212-new-fss-ris/attachment-6.html>>. In addition to bilateral engagement with the Bank of England in accordance with a memorandum of understanding, the Bank is also a member of a multilateral cooperative oversight arrangement for LCH.C's SwapClear service.

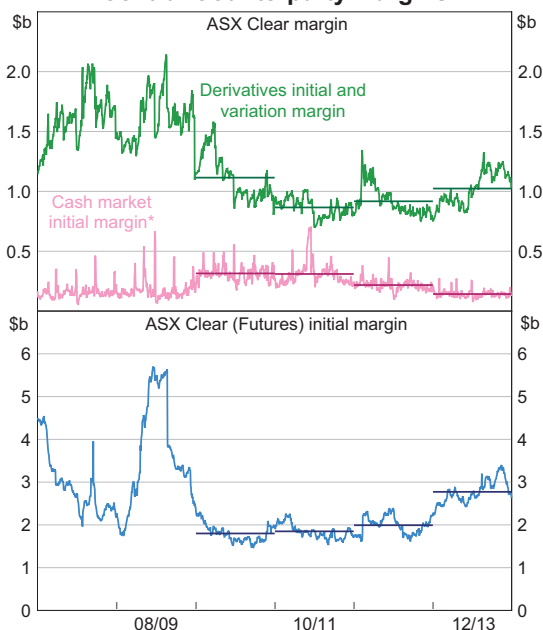
³⁰ Settlement values differ from trade values because they reflect both market traded and non-market transactions, as well as multilateral netting of participants' obligations.

Graph 18
ASX Cash-equity Trades



Source: ASX

Graph 19
Central Counterparty Margins



* Notional amount until 7 June 2013; Real Risk methodology used until 18 July 2012, Cash Market Margining used thereafter

Source: ASX

management enhancements below). By contrast, notional initial margins calculated by ASX Clear for the cash equity market decreased by 34 per cent in 2012/13, reflecting a number of factors, including lower volatility and smaller net end-of-day positions (on which margin is calculated).

The daily average number of derivatives contracts traded on the ASX 24 market rose by 12 per cent in 2012/13. This included significant increases for several major contracts, most notably the 10-year Treasury bond futures (up 24 per cent), 3-year Treasury bond futures (up 12 per cent) and 90-day Bank Bill futures (up 20 per cent). The volume of ASX SPI200 futures contracts traded was, however, down by 13 per cent. Daily initial margin collected increased by 39 per cent, reflecting a higher value of participants' end-of-day exposures, as well as the increase in trading volumes (Graph 19, bottom panel). Despite the recent increases, margins held remain significantly below the levels at the height of the global financial crisis in 2008–09. With the exception of 10-year Treasury bond futures, margin rates were lower for most of 2012/13 than in 2011/12.

In 2012/13, the average daily value of debt securities settled through Austraclear decreased by around 5 per cent to \$38 billion. This includes outright purchases and sales of securities, and securities transferred to effect repurchase agreements (other than intraday repurchase agreements with the Bank).

2011/12 Assessment

In September 2012, the Reserve Bank published its 2011/12 Assessment of the four licensed ASX CS facilities against the relevant FSS. The Bank concluded that all four facilities met the relevant standards in the Assessment period.

The 2011/12 Assessment highlighted a number of improvements to the risk and operating frameworks of the two CCPs – ASX Clear and ASX Clear (Futures). In particular, the CCPs made changes in the following areas:

- *CME SPAN.* In 2011/12, ASX introduced the widely used CME SPAN margining system for derivatives at ASX Clear (Futures). As discussed below, in late 2012, ASX also introduced CME SPAN at ASX Clear. These upgrades have consolidated the two CCPs' risk management for derivatives on a common platform, and have facilitated better calibration of the CCPs' exposures to ASX's risk tolerance.
- *Default management.* The ASX CCPs successfully handled the default of the MF Global Holdings Limited subsidiaries in November 2011. Some lessons learned from this event have since been incorporated into ASX's default management framework. ASX continues to regularly review and enhance its default arrangements.
- *Participant monitoring.* ASX improved its participant monitoring processes by refining its participant 'watch list'. In particular, arrangements were put in place to coordinate actions and information sharing between different areas within ASX. ASX also increased its face-to-face engagement with participants, and progressed a number of projects related to monitoring participants' compliance with ASX's rules.
- *Participation requirements.* From 1 January 2012, the minimum 'core capital' requirement for participants offering third-party clearing was increased from \$10 million to \$20 million.

Also notable in 2011/12 was ASX's progress towards the routine margining of cash equities. The Bank has been strongly supportive of this work, since margining arrangements are an important risk management tool and a key requirement of the new FSS against which the CS facilities have been assessed for the period 2012/13. The new arrangements for cash equity margining were progressively rolled out at ASX Clear in 2012/13, with the final stage of margin collections being introduced in June 2013.

The 2011/12 Assessment also reported on a number of material developments in the two SSFs. ASX Settlement continued to refine its settlement process in accordance with recommendations in the Bank's 2008 *Review of Settlement Practices for Australian Equities*. ASX Settlement also developed two new settlement services: a delivery-versus-payment (DvP) settlement service for non-ASX listed securities, allowing participants in these markets to avoid incurring principal risk during the settlement process; and a payment and unit allocation service for managed funds, potentially improving the efficiency of payment arrangements in this area.³¹

During the 2011/12 Assessment period, ASX completed the move to a new operations centre. This resulted in improved redundancy arrangements for the core systems of all four of ASX's CS facilities. The new operations centre facilitates rapid recovery in the event of an operational incident, and provides an alternative workspace for a significant proportion of ASX staff. ASX also continued work to increase the level of in-house development and support of Austraclear's core system. This work, scheduled for completion in 2014, will simplify the design of the system, which should in turn improve its stability. Furthermore, it will simplify system maintenance and upgrades, and give ASX greater control over future system enhancements.

Finally, the 2011/12 Assessment discussed the development of new FSS (see 'New Financial Stability Standards' under 'Regulatory Developments in Financial Market Infrastructures' for more details). Over 2011/12, ASX started to consider the implications of the new FSS in preparation for their introduction in the 2012/13 Assessment period. In conjunction with its work on the new FSS, the 2011/12 Assessment also encouraged ASX to carry out a review of its Treasury Investment policy, in consultation with the Bank. This reflects concerns first raised in the Bank's 2008/09 Assessment, which identified the risks associated with ASX's large concentrated exposures to the major domestic banks under its Treasury Investment policy and encouraged ASX to consider options to reduce this risk.

³¹ This service will commence operations once ASX has sought and received the necessary regulatory approvals.

Material Developments in 2012/13

The Board approved the Bank's 2012/13 Assessment of the four licensed ASX CS facilities at its August 2013 meeting for publication in September. This was the first assessment against the new FSS (see below) and a number of material developments were reviewed.

Risk management enhancements

In 2012/13, ASX successfully introduced the CME SPAN system for margining of derivatives at ASX Clear. With CME SPAN having been introduced at ASX Clear (Futures) in the 2011/12 Assessment period, both CCPs are now using a consistent approach to the margining of derivatives. Over time, this will permit ASX to improve the consistency of margin reports and margin data.

On 11 June 2013, ASX began routinely to collect margins on unsettled cash equity transactions, consistent with requirements under the revised FSS. ASX collects both initial and mark-to-market margin. A Historical Simulation of Value at Risk (HSVaR) methodology is used for actively traded stocks, which involves calculating potential changes in the value of a portfolio of securities based on observed historical price moves. Where stocks are less liquid, or do not have sufficient historical price information available, ASX applies flat rate margins. Daily initial margin averaged \$140 million in June.

Also in June 2013, ASX conducted a capital raising by means of a stock entitlement offer to support changes to the pooled financial resources of ASX Clear and ASX Clear (Futures). ASX raised \$533 million, with \$250 million used to replace existing resources across the two CCPs previously funded by a commercial bank loan, \$20 million replacing participant funds in ASX Clear (Futures), and \$180 million used to increase the level of cover of financial resources at ASX Clear (Futures). This increase in resources was in part to support clearing of OTC derivatives (see below). It also anticipated additional financial resource cover requirements arising from the Bank's supplementary interpretation of the FSS issued in the context of a European Union regulatory equivalence assessment (see discussion of cross-border issues below). The remaining funds contributed to an increase in the business risk capital allocated to the CS facilities.

New Products and Services

ASX OTC interest rate derivatives clearing service

On 1 July, ASX launched an interdealer clearing service for Australian dollar-denominated OTC interest rate derivatives. These trades are negotiated bilaterally, and submitted for central clearing to ASX Clear (Futures). Nine banks have become Foundation Customers, and under the terms of the Foundation Customer Program are expected to be admitted as participants by 1 January 2014. In the first phase, ASX clears standardised interest rate swaps (IRS) and overnight indexed swaps. In a second phase, ASX plans to introduce client clearing, and expand its product scope to Australian dollar-denominated IRS indexed to forward rate agreements and New Zealand dollar-denominated OTC interest rate derivatives.

Novation occurs in 'real time', in a similar manner to the process for exchange-traded futures. Participants that clear both futures and OTC products are able to take advantage of cross-margining of exchange-traded and OTC positions, which reduces margin requirements to the extent that positions are risk offsetting.

In addition to the increase in ASX contributions to pooled financial resources described above, ASX has also provided in its rules for an additional \$100 million in contributions from OTC participants. Although ASX Clear (Futures) has a single pool of resources to cover any losses from the default of a participant in respect of both

exchange-traded and OTC positions, the order in which losses would be allocated to participants will depend on the defaulter's activity in each type of product. For example, if the defaulter is primarily active in OTC products, a larger share of OTC participant contributions to the pooled resources will be used in the initial loss allocation. To size its resources, ASX's stress-testing regime has been amended to include OTC derivatives related factors.

Prior to its launch, the Bank carried out a detailed assessment of the design of the service against the relevant FSS. The detailed assessment of ASX Clear (Futures) has been incorporated in the Bank's 2012/13 Assessment.

ASX Collateral

Over the past two years, ASX has been working with Clearstream, a Luxembourg-based financial market infrastructure provider, to develop a centralised collateral management service (ASX Collateral) for the Australian market. Impending regulatory changes and other market developments are increasing demands on a limited pool of high-quality collateral, giving market participants a strong incentive to optimise their use of collateral. ASX's new service automates the optimisation and allocation of collateral, with title remaining and settlement continuing to take place in the existing domestic securities settlement facilities. ASX Collateral was launched in late July 2013 for collateral held in Austraclear, with 12 participants having signalled their intention to join the service. There are plans to extend coverage to collateral settled by ASX Settlement in due course.

Key functions of ASX Collateral are that it can automatically optimise the allocation of collateral, substitute collateral as required, and re-use collateral received.

- Optimisation of collateral is a process whereby a collateral provider seeks to meet its obligations by using collateral in the most efficient way. The provider aims to minimise the opportunity cost of providing collateral subject to predetermined constraints, which may include regulatory requirements, the eligibility criteria and haircuts of collateral receivers, alternative uses for collateral-eligible assets, and its own risk preferences.
- Substitution is the process whereby collateral that has been lodged or pledged is replaced by unused collateral of equivalent or greater value – provided that it meets the eligibility criteria set by the collateral receiver. Events that may trigger substitution include the sale of securities by the collateral provider, a corporate event, collateral becoming ineligible (e.g. because of a change to counterparty criteria), or optimisation of the collateral allocation.
- Re-use is the process by which collateral received from another participant can in turn be given as collateral, thereby allowing for the creation of chains of re-use involving many participants. Where a participant in the re-use chain needs to perform a substitution of collateral, a series of substitutions may be required to retrieve the collateral.

Given the potential implications of ASX Collateral for Austraclear's compliance with several FSS, as well as its potential to become a critical piece of financial market infrastructure, the Board has taken a close interest in the development of ASX Collateral. Accordingly, in early 2013, staff carried out a detailed assessment of the interdependencies between Austraclear and ASX Collateral and their implications for Austraclear's continued observance of the FSS for SSFs. The detailed assessment of ASX Collateral in relation to Austraclear's compliance with the FSS for SSFs has been incorporated in the Bank's 2012/13 Assessment.

A retail trading platform for Commonwealth Government Securities

Having received the necessary regulatory approvals, in late May 2013 ASX launched a retail trading, clearing and settlement service for depository interests in Commonwealth Government Securities (CGS). These depository interests are traded on ASX Trade, novated to ASX Clear, and settled in ASX Settlement with a three-day settlement cycle. This is a departure from existing arrangements for wholesale trading in CGS, which occurs on an OTC basis, with no central clearing, and settlement on a gross transaction-by-transaction basis in Austraclear. Since launch, trading activity on the new platform has been limited.

Overseas Licensed Clearing and Settlement Facilities

LCH.Clearnet Limited

On 4 April 2013, LCH.C became the first overseas-based CS facility to be licensed in Australia. LCH.C is a London-based CCP that provides clearing services for OTC derivatives and a number of overseas exchange-traded markets in both equities and derivatives. Initially, the conditions on LCH.C's CS facility licence permitted LCH.C to provide CCP services only for commodity, energy and environmental derivatives traded on the market to be operated by FEX, which was also granted an Australian market licence on 4 April.³² LCH.C's licence has since been varied to permit LCH.C to also operate its SwapClear service for OTC interest rate derivatives in Australia (see the discussion under 'SwapClear' for more detail).

LCH.C's licence was granted under section 824B(2) of the Corporations Act, which provides an alternative licensing route for any overseas-based CS facility that is subject to requirements and supervision in its home country that are considered to be sufficiently equivalent to those in Australia. When deciding whether to grant a CS facility licence, the Corporations Act requires the Minister to have regard to advice received from the Reserve Bank and the Australian Securities and Investments Commission (ASIC). The Bank's advice to the Minister, which was approved by the Board, was provided in February 2013. Among other things, the advice included an assessment of the sufficient equivalence of the oversight of CCPs in the United Kingdom in relation to protection from systemic risk; ASIC's advice on the sufficient equivalence of the UK regime also considered sufficient equivalence in terms of the effectiveness and fairness of services that the regime achieves. Consistent with its stated approach, the Bank's sufficient equivalence assessment considered:³³

- the clarity and coverage of stability-related principles applied by the overseas regulator relative to the stability-related principles applied by the Bank
- the nature and intensity of the overseas regulator's oversight process, including direct comparison with the regime applied by the Bank
- observed outcomes relative to those in Australia, as reflected in an initial assessment of the facility against applicable standards in the Australian regime.³⁴

³² The FEX market is not yet operational.

³³ The Bank's approach to assessing the sufficient equivalence of an overseas regulatory regime is available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/overseas-equivalence.html>>.

³⁴ This assessment was published following the Minister's decision to grant a CS facility licence to LCH.C. It is available at <<http://www.rba.gov.au/payments-system/clearing-settlement/assessments/lch/2013/lch-assess-2013-02.html>>.

SwapClear

A variation to LCH.C's licence was granted on 1 July 2013, permitting LCH.C also to offer its SwapClear service for OTC interest rate derivatives directly to Australian entities. SwapClear is the world's largest central clearing service for interest rate swaps in terms of cleared notional amounts outstanding. It clears swaps in 17 currencies (including the Australian dollar), and has over 80 clearing participants. Previously, Australian banks had participated in SwapClear indirectly through client clearing arrangements, with volumes and values of derivatives transactions submitted to SwapClear via these arrangements increasing markedly during 2012 and 2013.³⁵

As with the initial granting of a CS facility licence, the Minister must also have regard to relevant advice from the Bank and ASIC when considering a variation to a licence. The Reserve Bank's advice included an updated assessment of the sufficient equivalence of the UK regime in terms of protection from systemic risk, following three major changes to the Australian and UK regulatory regimes during the first half of 2013:

- The coming into force of new European Union-wide requirements for CCPs under *Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories* (EMIR) on 15 March.
- The coming into force of the Bank's new FSS on 29 March (see the discussion under 'New Financial Stability Standards' for more details).
- The transfer of responsibility for the oversight of CCPs in the United Kingdom from the Financial Services Authority to the Bank of England on 1 April.

The Reserve Bank's updated sufficient equivalence assessment acknowledged that the UK regime was in a state of transition, with the provisions of EMIR and associated technical standards not binding on UK-based CCPs until a 'reauthorisation' process is completed under EMIR. Accordingly, in considering the clarity and coverage of the stability-related principles, the updated assessment compared the requirements of both the pre- and post-EMIR states of the UK regime with the Bank's new FSS for CCPs. The observed outcomes component of the assessment took the form of a high-level assessment of LCH.C and its SwapClear service against the FSS for CCPs.³⁶

³⁵ Volumes and values of transactions submitted to LCH.C's SwapClear service are discussed in APRA, ASIC and RBA (2013), *Report on the Australian OTC Derivatives Market*, July, available at <<http://www.cfr.gov.au/publications/cfr-publications/2013/report-on-the-australian-otc-derivatives-market-july/index.html>>.

³⁶ This assessment was published following the Minister's decision to grant LCH.C a variation to its CS facility licence. It is available at <<http://www.rba.gov.au/payments-system/clearing-settlement/assessments/lch/2013/lch-assess-2013-06.html>>.

Regulatory Developments in Financial Market Infrastructures

Throughout the year, the Board has remained engaged with a number of important domestic and international regulatory initiatives relevant to its responsibilities in relation to payments and clearing and settlement facilities. These include three ongoing initiatives of the Council of Financial Regulators (CFR), namely a review of the regulatory framework for financial market infrastructures (FMIs) in Australia; work on competition issues in the clearing and settlement of Australian cash equities; and the development of a framework for over-the-counter (OTC) derivatives regulation. The Bank also introduced new Financial Stability Standards (FSS) that align with new international standards for FMIs, and has also assisted overseas regulators in cross-border comparability assessments of regulatory regimes for central counterparties (CCPs) and OTC derivatives markets.

Review of the Regulatory Framework for Financial Market Infrastructures

In April 2011, the CFR was asked by the then Deputy Prime Minister and Treasurer to consider possible changes to the regulation of FMIs to strengthen regulators' ability to provide effective oversight and manage risks to both stability and market integrity. The CFR's advice was released by the then Deputy Prime Minister and Treasurer in March 2012, inviting further consultation with stakeholders on the final framework for implementation of the CFR's proposals.³⁷ Further to this consultation, Treasury has led work to develop legislative proposals consistent with the proposed framework, with input from the Reserve Bank and other CFR agencies. The Bank and the Australian Securities and Investments Commission (ASIC) have also taken steps to incorporate elements of the package that do not require legislative change into their respective frameworks for oversight of FMIs. Developments in three main areas of the reform of FMI regulation are particularly worthy of note.

Regulatory influence over cross-border financial market infrastructures

The CFR released a supplementary paper in July 2012 describing the approach to be taken by the Bank and ASIC to ensure adequate influence – and continuity of service – where a clearing and settlement (CS) facility has cross-border operations.³⁸ The paper builds on the CFR's recommendation that regulators be given explicit powers to support a 'proportional and graduated' location policy for licensed CS facilities. It describes a framework within which incremental requirements could be imposed on cross-border CS facilities that are systemically important in Australia, or that have a strong connection to the Australian financial system and real economy.

³⁷ The Council of Financial Regulators' letter to the Deputy Prime Minister and Treasurer is available at <http://www.treasury.gov.au/~media/Treasury/Consultations%20and%20Reviews/2012/CFRWG%20on%20Financial%20Market%20Infrastructure%20Regulation/Key%20Documents/CoFR_Letter_to_Deputy_PM.ashx>.

³⁸ See Council of Financial Regulators (2012), *Ensuring Appropriate Influence for Australian Regulators over Cross-border Clearing and Settlement Facilities*, July. Available at <<http://www.treasury.gov.au/ConsultationsandReviews/Consultations/2012/cross-border-clearing>>.

Most of the specific measures envisaged under the framework have been incorporated into the Bank's revised FSS, as discussed below, and ASIC's *Regulatory Guide 211* (RG 211) on CS facilities, revised in December 2012.

Corporations and financial sector legislation

In June 2013, Parliament passed legislation containing several provisions that support the regulation of clearing and settlement (the *Corporations and Financial Sector Legislation Amendment Act 2013*). The relevant provisions of the legislation:

- support the capacity of CCPs to transfer client positions from a potentially insolvent clearing participant to another clearing participant, in line with requirements under the new FSS
- remove the requirement for the Bank and ASIC to conduct annual assessments of licensed CS facilities, except as determined by regulation
- enable more effective information sharing arrangements with other regulators.

The Bank provided a submission to the Parliamentary Joint Committee on Corporations and Financial Services in support of the changes.³⁹ The Committee's report was published in May 2013. Notwithstanding the changes, the Bank may, at its discretion, continue to assess licensees on an annual basis, even where this is not prescribed. Accordingly, the Bank has issued a statement setting out criteria to be considered in determining which CS facilities should continue to be subject to annual assessments, in addition to any for which annual assessment has been prescribed by regulation.⁴⁰

Resolution of financial market infrastructures

In accordance with the CFR's recommendation for legislative change to provide for the appointment of a statutory manager to a distressed FMI, the Bank and other CFR agencies are supporting Treasury work to develop a proposal for a comprehensive FMI resolution regime consistent with international principles. Resolution (and the related concept of recovery) addresses situations in which an FMI is in financial distress (and may become insolvent). If an FMI is unable to restore itself to financial soundness through implementation of an effective recovery plan, a resolution authority may need to intervene with the aim of maintaining continuity of critical services.

Implementation of the CFR's recommendation is being considered in the context of broader international work on the recovery and resolution of FMIs and other financial institutions. The Financial Stability Board's (FSB) *Key Attributes of Effective Resolution Regimes for Financial Institutions* (Key Attributes) set out a number of potential tools to be applied as part of a broad resolution plan, including the power to appoint a statutory manager.⁴¹ The FSB is consulting on an extension of its work to FMIs, with a view to publishing a final report in late 2013. Working to a similar timetable, the Committee on Payment and Settlement Systems (CPSS) and International Organization of Securities Commissions (IOSCO) have also released for consultation draft guidance on recovery planning for FMIs. The Bank has contributed to this work.⁴²

39 See *Submission to the Inquiry into the Corporations and Financial Sector Legislation Amendment Bill 2013*, available at <<http://www.rba.gov.au/publications/submissions/inquiry-corp-legis-amend-0413.html>>.

40 See Reserve Bank of Australia (2013), *Frequency of Regulatory Assessments of Licensed Clearing and Settlement Facilities*, August. Available at <<http://www.rba.gov.au/payments-system/policy-framework/frequency-of-assessments.html>>.

41 See FSB (2011), *Key Attributes of Effective Resolution Regimes for Financial Institutions*, October. Available at <http://www.financialstabilityboard.org/publications/r_111104cc.pdf>.

42 See CPSS-IOSCO (2013), *Recovery of Financial Market Infrastructures – Consultative Report*, August, available at <<http://www.bis.org/publ/cpss109.htm>>. See also FSB (2013), *Application of the Key Attributes of Effective Resolution Regimes to Non-bank Financial Institutions*, August, available at <http://www.financialstabilityboard.org/publications/r_130812a.pdf>.

Also of relevance is a September 2012 Treasury consultation paper setting out proposals for strengthening a range of the Australian Prudential Regulation Authority's (APRA's) crisis management powers, including those related to resolution of a distressed authorised deposit-taking institution (ADI).⁴³ The paper discussed how aspects of the proposed ADI resolution regime could be extended to FMI, including by the establishment of a statutory management power.

In conjunction with further development of policy on FMI resolution, the Bank will continue to work with the other CFR agencies to consider the implementation of enhancements to directions powers and sanctions under the *Corporations Act 2001*. These enhancements were also recommended in the CFR's advice to the Treasurer and discussed in Treasury's consultation on APRA's crisis management powers.

Competition in clearing and settlement/Code of Practice

Over the past year, the CFR, together with the Australian Competition and Consumer Commission, has undertaken detailed work on competition issues in the clearing and settlement of the Australian cash equity market. The CFR's conclusions were published and endorsed by the government in February 2013.⁴⁴ Those conclusions included a set of preconditions for competition in clearing and settlement. However, reflecting views from industry on the costs of adjusting to a competitive environment for clearing in difficult market conditions, the CFR concluded that a decision on any licence application from a CCP seeking to compete in the Australian cash equity market should be deferred for two years. In the meantime, ASX should work with industry stakeholders to develop a *Code of Practice for Clearing and Settlement of Cash Equities in Australia* (Code), based on a set of principles around user input to governance, transparent and non-discriminatory pricing, and access to clearing and settlement services. ASX consulted extensively and released the final Code in July.⁴⁵

At the end of the two years, the CFR intends to carry out a public review of the Code's implementation and effectiveness. At the same time, the CFR will review the prospect of granting a licence to a competing CCP, or of pursuing other regulatory outcomes. If competition were to be ruled out indefinitely, a regulatory response might be appropriate.

New Financial Stability Standards

On 29 March 2013, the Reserve Bank's new FSS came into force.⁴⁶ The new FSS are aligned with the requirements in the CPSS-IOSCO *Principles for Financial Market Infrastructures* (the Principles) that address matters relevant to financial stability. They also:

- mirror the structure of the Principles and associated key considerations, with some amendments to reflect the type of CS facility, the Australian regulatory and institutional context, and other relevant factors
- comprise 21 standards for CCPs and 19 standards for securities settlement facilities, each with one or more accompanying sub-standards
- are supported by guidance, based on the explanatory notes to the Principles.

43 Treasury (2012), *Strengthening APRA's Crisis Management Powers*, September. Available at <<http://www.treasury.gov.au/ConsultationsandReviews/Consultations/2012/APRA>>.

44 The government's response to the CFR's recommendations is available at <<http://www.treasury.gov.au/PublicationsAndMedia/Publications/2013/competition-of-the-cash-equity-market>>.

45 The final Code is available at <http://www.asx.com.au/cs/documents/ASX_finalises_Code_of_Practice_and_membership_of_Forum.pdf>. The CFR's media release on the introduction of the Code is available at <<http://www.cfr.gov.au/media-releases/2013/mr-13-04.html>>.

46 The new FSS are available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/index.html>>. For a summary of the feedback received during consultation and the Bank's response, see RBA (2012), *New Financial Stability Standards: Final Standards and Regulation Impact Statement*, December, available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/201212-new-fss-ris/index.html>>.

ASIC has also implemented the requirements in the Principles that are relevant to its regulatory remit by revising its regulatory guidance on oversight of CS facility licensees.⁴⁷ Monitoring of the Principles' global implementation is ongoing through the CPSS and IOSCO. An initial progress report was published in August 2013.⁴⁸

The Bank's consultation with stakeholders during the development of the new FSS identified the need for transitional relief to be granted in respect of certain sub-standards. Acknowledging that international guidance had yet to be finalised in respect of matters related to recovery and resolution of FMI, and that certain changes necessary to meet account segregation and portability and liquidity risk requirements could involve significant industry-wide or legislative change, the Bank granted transitional relief for 12 months in respect of a small number of sub-standards. The Bank has, however, made it clear that it is unwilling to extend the period of transitional relief for these sub-standards, except in exceptional circumstances. It is therefore anticipated that the sub-standards for which relief is currently available will become effective from 31 March 2014.

The Bank has also articulated its approach to assessing CS facility licensees against the new FSS.⁴⁹ The Bank has set out its information requirements and expectations, drawing a distinction between the approach that it will take in respect of domestic facilities licensed under section 824B(1) of the Act, and that in respect of overseas facilities licensed under section 824B(2). Notably, in the case of overseas facilities, the Bank intends to place appropriate reliance on information provided by an overseas facility's home regulator when assessing against any standard for which there is a materially equivalent standard in the facility's home regime.

OTC Derivatives

There is an international policy consensus that increasing the use of centralised infrastructure – trade repositories (TRs), CCPs and trading platforms – in OTC derivatives markets will be an effective way to address many of the concerns around the functioning of these markets that emerged during the global financial crisis. Accordingly, in 2009, the G20 leaders committed that all OTC derivatives transactions would be reported to TRs, that all standardised OTC derivatives would be cleared through CCPs and, where appropriate, traded on exchanges or electronic trading platforms, and that higher capital requirements would apply to non-centrally cleared OTC derivatives. International standard setters have also been developing standards for initial and variation margin requirements where OTC derivatives remain non-centrally cleared.⁵⁰

Consistent with these commitments, in January 2013 amendments to the Corporations Act took effect that provide for the imposition of mandatory requirements in respect of trade reporting, central clearing and platform trading of OTC derivatives. Under this regime, the responsible Minister – after considering the advice of the regulators – may issue a determination that mandatory obligations should apply to a specified class of derivatives. Once the Minister has made a determination, ASIC may make Derivative Transaction Rules (DTRs), setting out the details of any requirements, including the institutional scope, product scope, transitional arrangements and the manner and form in which persons must comply with the requirements. In making

47 See ASIC (2012), *Regulatory Guide 211: Clearing and Settlement Facilities: Australian and Overseas Operators*, December. Available at <<http://www.asic.gov.au/rg>>.

48 See CPSS-IOSCO (2013), *Implementation monitoring of PFMI – Level 1 assessment report*, August. Available at <<http://www.bis.org/publ/cpss111.htm>>.

49 Details of the Bank's oversight approach are available at <<http://www.rba.gov.au/payments-system/clearing-settlement/standards/201212-new-fss-ris/attachment-6.html>>.

50 See G20 (2009), *Leaders' Statement*, Pittsburgh Summit, 24–25 September, available at <<http://g20.org/load/780988012>>. also See G20 (2011), *Building Our Common Future: Renewed Collective Action for the Benefit of All*, Cannes Summit Final Declaration, 4 November, available at <<http://g20.org/load/780986775>>.

these rules, ASIC must also consult with APRA and the Bank. In order to inform their advice, the regulators actively monitor developments in the Australian and overseas OTC derivatives markets. As part of this process, the regulators carry out periodic surveys and produce assessment reports based on the results of these surveys. Over the past year the regulators have produced two such reports, in October 2012 and July 2013.⁵¹

Mandatory trade reporting

The key recommendation from the October 2012 report was that the government should consider a broad-based mandatory trade reporting obligation for OTC derivatives. Following the regulators' recommendations and the passage of the legislation described above, in December 2012, the Treasury consulted on a proposal that a broad-ranging determination be made requiring the reporting of OTC derivatives to a licensed trade repository, where one is available. Consistent with this proposal, in May 2013 the Minister made a determination covering interest rate, foreign exchange, credit, equity and commodity (excluding electricity) derivatives.

In anticipation of this determination, ASIC consulted in March 2013 on draft DTRs that set out proposed requirements for the reporting of OTC derivative transactions to licensed TRs, including the details of transactions that would need to be reported. These DTRs were finalised in July 2013, with a phased implementation. The reporting obligation for internationally active banks is due to commence in October 2013.⁵²

The January 2013 changes to the Corporations Act also introduced a licensing regime for TRs. ASIC has responsibility for administering this regime, and in July the Derivative Trade Repository Rules also came into force, with which licensed TRs must comply.⁵³ ASIC expects the first TR to be licensed under the new regime by early 2014.

Mandatory central clearing

To give market participants and international regulatory peers more clarity around how the regulators will assess the case for introducing clearing mandates, in May 2013 the regulators published a statement on assessing the case for mandatory clearing obligations.⁵⁴ The framework set out in the statement was applied in the July 2013 report, which concluded the following:

- The Minister should consider a central clearing mandate for US dollar-, euro-, British pound- and yen-denominated interest rate derivatives, primarily on international consistency grounds. The initial focus of such a mandate should be dealers with significant cross-border activity in these products.
- The regulators do not see a case for mandating North American- and European-referenced credit derivatives at this time.
- The regulators will monitor for a further period Australian dealers' progress in implementing appropriate clearing arrangements before recommending mandatory central clearing of Australian dollar-denominated interest rate derivatives. The initial scope of any mandate would likely be the interdealer market.

With both ASX Clear (Futures) and LCH.C having received regulatory approval in July to clear Australian dollar-denominated interest rate derivatives, the regulators expect banks' operational arrangements for these derivatives to be largely in place by the end of 2013. The regulators will therefore review the case for mandatory

51 APRA, ASIC and RBA (2012), *Report on the Australian OTC Derivatives Market*, October, available at <<http://www.rba.gov.au/payments-system/clearing-settlement/otc-derivatives/201210-otc-der-mkt-rep-au/index.html>> and APRA, ASIC and RBA (2013), *Report on the Australian OTC Derivatives Market*, July, available at <<http://www.cfr.gov.au/publications/cfr-publications/2013/report-on-the-australian-otc-derivatives-market-july/pdf/report.pdf>>.

52 *ASIC Derivative Transaction Rules (Reporting) 2013*. Available at <<http://www.comlaw.gov.au/Details/F2013L01345>>.

53 *ASIC Derivative Trade Repository Rules 2013*. Available at <<http://www.comlaw.gov.au/Details/F2013L01344>>.

54 APRA, ASIC and RBA (2013), *Australian Regulators' Statement on Assessing the Case for Mandatory Clearing Obligations*, May. Available at <<http://www.cfr.gov.au/publications/cfr-publications/australian-auth-statmnt-mandatory-clearing-obligations.html>>.

central clearing of Australian dollar-denominated interest rate derivatives in their next report in early 2014. The regulators also plan further work to understand the incremental costs and benefits of extending a central clearing mandate to non-dealers.

Mandatory platform trading

In their July 2013 report, the regulators reiterated that they see in-principle benefits in a greater utilisation of trading platforms in the Australian OTC derivatives market. However, at this stage the regulators have not made a specific recommendation regarding a mandatory platform trading obligation. The regulators continue to monitor developments in other jurisdictions and will seek more detailed information on activity in the Australian market, with a view to more clearly defining the characteristics of suitable trading platforms in the context of ongoing discussions about possible reform of the markets licensing regime.

Capital requirements for OTC derivatives

Consistent with the G20 commitment, the Basel III capital framework for banks includes rules designed to ensure that banks' exposures to CCPs will be adequately capitalised, while also preserving incentives for banks to centrally clear their trades. The rules also promote robust risk management by CCPs and recognise the role of the Principles. In June 2013, the Basel Committee on Banking Supervision (BCBS), in cooperation with CPSS and IOSCO, released a consultation paper on the capital treatment of banks' exposures to CCPs, which contained proposed rules that fine tune the interim rules for capital exposures to CCPs published in July 2012.⁵⁵

As of January 2013, APRA has adopted the interim rules on ADIs' exposures to CCPs. Under Basel III, banks' exposures to 'qualifying' CCPs are subject to much lower risk-weights than bilateral counterparty exposures. Through an exchange of letters, in April 2013, the regulators confirmed that APRA considers ASX Clear and ASX Clear (Futures) – the only Australian-licensed domestic CCPs – to be qualifying CCPs.⁵⁶

Margin requirements for non-centrally cleared derivatives

In September 2013, the BCBS and IOSCO finalised principles on margining for non-centrally cleared OTC derivatives (i.e. transactions that remain bilateral between counterparties), to be phased in between 2015 and 2019. The purpose of these principles is to reduce contagion and spillover effects that could result from the default of an OTC derivatives counterparty by ensuring that collateral is available to offset losses arising. By introducing margining requirements that align with CCP practices, the international principles are also expected to provide greater incentives to move to central clearing. The regulators are now in the process of developing advice to the government in relation to the implementation of these principles in Australia.

Cross-border issues

The international dimension of OTC derivatives regulation and the cross-border application of some jurisdictions' rules have become more prominent in recent months. In its April 2013 Communiqué, the G20 Finance Ministers and Central Bank Governors called upon regulators to resolve 'remaining cross-border conflicts, inconsistencies, gaps and duplicative requirements'.⁵⁷ Consistent with this, the Australian authorities

55 BCBS (2013), *Capital Treatment of Bank Exposures to Central Counterparties*, June. Available at <<http://www.bis.org/publ/bcbs253.pdf>>.

56 See ASIC and RBA letter to APRA, *Qualifying Central Counterparties – ASX Clear and ASX Clear (Futures)*, available at <<http://www.cfr.gov.au/publications/member-publications/pdf/letter-qccp-status-asic-rba-to-apra.pdf>> and APRA's response, available at <<http://www.cfr.gov.au/publications/member-publications/pdf/letter-qccp-status-apra-response.pdf>>.

57 G20 (2013), *Communiqué*, Meeting of Finance Ministers and Central Bank Governors, Washington, 18–19 April. Available at <<http://g20.org/load/781302507>>.

have been working with the relevant authorities in the US and the European Union (EU) to assist in these authorities' comparability assessments of the Australian regime for regulation of CCPs and OTC derivatives markets. These assessments will determine the extent to which the US and EU authorities will allow Australian rules to apply, rather than imposing their requirements directly on Australian institutions (so-called 'substituted compliance' or 'equivalence').

The Board has considered particularly closely the work undertaken by the European Securities and Markets Authority (ESMA) to compare the Australian and EU regimes for regulation of CCPs. ASX Clear (Futures) is seeking regulatory recognition in the EU and a positive assessment is one prerequisite for such recognition. In addition, ASIC and the Bank will need to execute memoranda of understanding with ESMA.

While the FSS are designed to deliver outcomes equivalent to ESMA's standards, they are less detailed. The Bank has therefore issued supplementary interpretation of a subset of standards, by way of an exchange of letters with ASX.⁵⁸ In early September, ESMA published its advice to the European Commission on regulatory equivalence in a number of regimes, including Australia's regime for regulation of CCPs. The Australian regime was considered to be equivalent to that in the EU.⁵⁹

58 The Bank's letter to ASX is available at <<http://www.rba.gov.au/payments-system/clearing-settlement/pdf/supplementary-guidance-domestic-derivatives-ccps.pdf>>.

59 ESMA's advice to the European Commission is available at <http://www.esma.europa.eu/system/files/2013-1159_technical_advice_on_third_country_regulatory_equivalence_under_emir_australia.pdf>.

Liaison Activity

Liaison with Industry

The Reserve Bank consulted widely on payments, clearing and settlement issues in 2012/13. It met with various stakeholders in retail payments systems – including financial institutions, merchants, payment schemes, payment service providers and consumer representatives – to discuss a range of matters. Many of these discussions related to the Strategic Review of Innovation in the Payments System, including potential arrangements for improving payments system governance. The Bank also consulted widely on its surcharging Guidance Note and implementation and reforms to the regulatory regimes for eftpos and the ATM system. Meetings were also held with stakeholders in financial markets to discuss clearing and settlement issues. These included discussions related to the oversight of the licensed clearing and settlement (CS) facilities, competition in clearing and settlement, and reforms to the over-the-counter (OTC) derivatives market.

The Bank continued to work closely with other regulatory and government agencies. Examples include work undertaken by the member agencies of the Council of Financial Regulators, such as the review of financial market infrastructure regulation, recovery and resolution of Financial Market Infrastructures (FMIs), competition in clearing and settlement (also with the Australian Competition and Consumer Commission), and OTC derivatives reform. The Bank also worked closely with the Australian Prudential Regulation Authority as part of its consultation on possible changes to the access regimes applying to the MasterCard and Visa card systems.

In line with its liaison agreement with the Australian Payments Clearing Association (APCA), the Bank met with APCA management following each APCA Board meeting in 2012/13, as well as with the APCA Board on a number of occasions. The Bank began participating in the New Payments Platform Steering Committee in June 2013.

The Bank participated in a number of public forums on payments system issues. Other staff attended various payments and clearing and settlement industry events, including conferences and forums organised by APCA and the Australian Securities and Investments Commission.

International Engagement

The Reserve Bank was represented on a number of international groups in 2012/13: the Committee on Payment and Settlement Systems (CPSS); the CLS Oversight Committee; the SWIFT Oversight Forum (SOF); the multilateral cooperative oversight arrangement for LCH.Clearnet Limited's SwapClear service; the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) Working Group on Payment and Settlement Systems; and the OTC Derivatives Regulators' Forum. Involvement in the CPSS included participating in a number of working groups and contributing to ongoing joint work with IOSCO via a seat on the CPSS-IOSCO Steering Group, participation in work on recovery and resolution of FMIs, and contribution to a task force monitoring the implementation of the CPSS-IOSCO *Principles for Financial Market Infrastructures*.

The Bank also engages with overseas central banks and regulatory agencies on a less formal basis. Over the past year, this engagement included discussing various issues in retail payments with relevant authorities, assisting overseas regulators with their equivalence assessments of the Australian regulatory regime, and keeping abreast of developments in OTC derivatives regulation around the world via discussions in various forums with other central banks and securities regulators. Engagement with global financial market stakeholders, such as the International Swaps and Derivatives Association, also provided useful information about developments in OTC derivatives markets.

The Board's Announcements and Reserve Bank Reports

This section lists developments since mid 2012. The Payments System Board's 2006 Annual Report contained a list of the Board's announcements and related Reserve Bank reports up to that time. Subsequent annual reports have contained an annual update.

2012

Media Release 2012-17, 'Payments System Issues: Exchange Settlement Account Policy for Central Counterparties', 31 July 2012.

Ensuring Appropriate Influence for Australian Regulators over Cross-border Clearing and Settlement Facilities, Council of Financial Regulators, Canberra, July 2012.

Media Release 2012-20, 'Payments System Issues: Multi-Network Debit Cards', 17 August 2012.

Media Release 2012-22, 'Payments System Issues: Guidance Note for the Varied Surcharging Standards', 23 August 2012.

Media Release 2012-23, 'Payments System Issues: New Financial Stability Standards for Clearing and Settlement Facilities', 29 August 2012.

Media Release 2012-24, 'Payments System Issues: Variation to the Access Regime for the ATM System', 29 August 2012.

ATM Fees, Pricing and Consumer Behaviour: An Analysis of ATM Network Reform in Australia, Reserve Bank of Australia Research Discussion Paper, Sydney, August 2012.

Guidance Note: Interpretation of the Surcharging Standards (Revised Draft), Reserve Bank of Australia, Sydney, August 2012.

Consultation on New Financial Stability Standards, Reserve Bank of Australia, Sydney, August 2012.

A Variation to the Access Regime for the ATM System: Conclusions, Reserve Bank of Australia, Sydney, August 2012.

2011/12 Assessment of Clearing and Settlement Facilities in Australia, Reserve Bank of Australia, Sydney, September 2012.

'Payment System Design and Participant Operational Disruptions', RBA Research Discussion Paper No 2012-05, September 2012.

'Financial Regulation and Australian Dollar Liquid Assets', RBA *Bulletin*, September 2012.

Report on the Australian OTC Derivatives Market, Australian Prudential Regulation Authority, Australian Securities and Investments Commission and Reserve Bank of Australia, Sydney, October 2012.

'The Impact of Payment System Design on Tiering Incentives', RBA Research Discussion Paper No 2012-06, October 2012.

Media Release 2012-34, 'Payments System Issues: Card Surcharging Restrictions – Guidance Note and Commencement Date; Strategic Review of Innovation – Core Criteria and Amendment of Strategic Objectives', 22 November 2012.

Media Release 2012-35, 'Payments System Issues: Operational Incidents in Retail Payments Systems; Review of the Regulatory Framework for the EFTPOS System', 29 November 2012.

RBA Core Criteria for a 'Fast Payments' Solution, Reserve Bank of Australia, Sydney, November 2012.

Guidance Note: Interpretation of the Surcharging Standards, Reserve Bank of Australia, Sydney, November 2012.

The Regulatory Framework for the EFTPOS System: Final Reforms and Regulation Impact Statement, Reserve Bank of Australia, Sydney, November 2012.

Operational Incidents in Retail Payments Systems: Conclusions, Reserve Bank of Australia, Sydney, November 2012.

Media Release 2012-37, 'Payments System Issues: New Financial Stability Standards for Clearing and Settlement Facilities', 5 December 2012.

New Financial Stability Standards: Final Standards and Regulation Impact Statement, Reserve Bank of Australia, Sydney, December 2012.

Council of Financial Regulators Advice on Competition in Clearing of the Cash Equity Market, Council of Financial Regulators, Canberra, December 2012.

2013

Assessing the Sufficient Equivalence of an Overseas Regulatory Regime, Reserve Bank of Australia, Sydney, January 2013.

Assessment against the Financial Stability Standard for Central Counterparties of LCH.Clearnet Limited's Proposed Clearing Facility for the FEX Market, Reserve Bank of Australia, Sydney, February 2013.

Implementing the CPSS-IOSCO Principles for Financial Market Infrastructures in Australia, Council of Financial Regulators, Canberra, February 2013.

Media Release 2013-03, 'Industry Proposal for a Fast Payments Solution', 20 February 2013.

Media Release 2013-11, 'Consultation on Payment Card Access Regimes', 28 May 2013.

Review of Card System Access Regimes: A Consultation Document, Reserve Bank of Australia, Sydney, May 2013.

Australian Regulators' Statement on Assessing the Case for Mandatory Clearing Obligations, Council of Financial Regulators, Canberra, May 2013.

Assessment against the Financial Stability Standards for Central Counterparties of LCH.Clearnet Limited's SwapClear Service, Reserve Bank of Australia, Sydney, June 2013.

'OTC Derivatives Reforms and the Australian Cross-currency Swap Market', *RBA Bulletin*, June 2013.

Report on the Australian OTC Derivatives Market, Council of Financial Regulators, July 2013.

Media Release 2013-04, 'Introduction of the ASX Code of Practice for Clearing and Settlement of Cash Equities in Australia', Council of Financial Regulators, Canberra, July 2013.

Supplementary Interpretation of the Financial Stability Standards for Central Counterparties, Reserve Bank of Australia, Sydney, August 2013.

Frequency of Regulatory Assessments of Licensed Clearing and Settlement Facilities, Reserve Bank of Australia, Sydney, August 2013.

Media Release 2013-16, 'Dual-network Debit Cards', 21 August 2013.

Abbreviations

ADI	Authorised deposit-taking institution	ESMA	European Securities and Markets Authority
APCA	Australian Payments Clearing Association	EU	European Union
APRA	Australian Prudential Regulation Authority	FMI	Financial market infrastructures
ASIC	Australian Securities and Investments Commission	FSB	Financial Stability Board
ATM	Automated teller machine	FSS	Financial Stability Standards
BCBS	Basel Committee on Banking Supervision	HLE	High-level Expectations
BIS	Bank for International Settlements	HSVaR	Historical Simulation of Value at Risk
CAC Act	<i>Commonwealth Authorities and Companies Act 1997</i>	IOSCO	International Organization of Securities Commissions
CCP	Central counterparty	IRS	Interest rate swaps
CFR	Council of Financial Regulators	LCH.C	LCH.Cleantnet Limited
CGS	Commonwealth Government Securities	LVSS	Low Value Settlement Service
CLS	Continuous Linked Settlement	NPP	New Payments Platform
CNP	Card not present	OG	Oversight Group
COIN	Community of Interest Network	OTC	Over-the-counter
CPSS	Committee on Payment and Settlement Systems	PIN	Personal Identification Number
CS	Clearing and settlement	PSB	Payments System Board
DE	Direct Entry	PvP	Payment-versus-payment
DTR	Derivative Transaction Rules	RBA	Reserve Bank of Australia
DvP	Delivery-versus-payment	RITS	Reserve Bank Information and Transfer System
EC	European Commission	RTGS	Real-time gross settlement
EEA	European Economic Area	RTPC	Real-Time Payments Committee
eftpos	Electronic funds transfer at point of sale	SCCI	Specialist Credit Card Institution
EMEAP	Executives' Meeting of East Asia-Pacific Central Banks	SOF	SWIFT Oversight Forum
EMV	EuroPay, MasterCard & Visa	SSF	Securities settlement facility
ePAL	eftpos Payments Australia Ltd	SWIFT	Society for Worldwide Interbank Financial Telecommunication
ESA	Exchange Settlement Account	TR	Trade repository



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