

UK banks rapped over clearing times

THE UK'S Office of Fair Trading (OFT) has called for greater clarity on the time it takes banks to process cheques and other electronic payments, and an end to the contentious interest-free 'float' period it takes for banks to process certain transactions.

In its official response to a review of the current UK banking code undertaken by the British Bankers Association, the OFT accused banks of exploiting the clearing processes for their own benefit while offering no counterbalancing benefits for customers.

The OFT concluded that customers should continue to receive interest on interest-bearing accounts when making standing orders, telephone banking and internet payments, which are currently held for two days in a interest-free float period prior to arriving in the payee's account. With cheques, funds are available to the receiving bank on the second day following the day of deposit and the OFT said that interest should be paid from this day at the latest.

"Customers, not just the banks, should get some benefit from the float," said OFT chairman John Vickers in an open letter to the British Bankers' Association. The OFT demanded the banking code be amended to force banks to brief

customer fully on their clearing practices and that any departures from the standard minimum clearing times set out by the principal UK clearing houses (BACS and CCCL) should be made especially clear. "This would help customers manage their accounts, and it would assist comparability and hence competition between banks," Vickers said.

It is also unclear whether the current codes governing clearing procedures relate to both electronic and cheque clearing processes or just the latter, the OFT said, which leads to confusion and misinterpretation for both consumers and businesses.

In a payment systems market study published last May, the OFT estimated that the float cost UK consumers £30 million (\$55.3 million) a year. However, clearing system charges accounted for less than 4 percent of the total cost of providing payment services in the UK, the report claims, with the bulk of costs incurred by individual institutions rather than the shared schemes.

Among the groups campaigning for a tightening up of the banks clearing procedures is the UK's Federation of Small Businesses (FSB), which claimed that small companies on tight profit margins are often harmed by long clearing times. ■

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Mobile payments company launches first offering

SIMPAY, THE European-based mobile payments initiative founded by Orange, Telefónica Móviles, T-Mobile and Vodafone last year, has unveiled details of its first ever product, which will focus on enabling low value payments under €10 (\$12.4).

The product will have its technical launch by the end of 2004 and be commercially available in early 2005, and the company is predicting that it will process more than €1 billion in mobile phone-based transactions by 2007.

"We intend to focus initially on under-€10 online mobile payments for digital

content as this lower value payment space is a huge opportunity for revenue generation and is yet largely untapped," said Simpay CEO Tim Jones. "Our research among consumers and content providers has shown that this is where there is great immediate demand."

Initially the service will focus on payments for mobile-related downloads such as ringtones, icons, Java games or other new types of mobile content, with consumers billed via their mobile operator. But Simpay said that it was also planning to expand the service to include higher value items such as flowers and tickets, and

physical goods and services such as car parking and vending machines, with new services expected to be launched in 2007.

The success of the scheme depends largely on the ability of Simpay to become a *de facto* standard for mobile operators and merchants, and a recognisable brand for consumers.

Simpay is to begin formally inviting new members to join the company this month, now that the design of the product and its infrastructure has been completed. Simpay said that 3, debitel, KPN Mobile group, O2 and TMN had all expressed interest in joining the company last year. ■

Will chip ever become a US reality?

WHILE EUROPE and Asia embrace smart cards as the most viable replacement for aging magnetic stripe technology, the US has all but dismantled its chip-card programmes.

Such is the scale of the US banks' indifference toward chip that all hope was resting on the efforts of Target, the general purpose retailer, which has now announced that it is also to phase out smart card technology from its credit card programme. Target's last quarterly results demonstrated that its cards business is a major driver of profitability, but the retailer would not disclose any specifics about its Visa chip card programme.

Anece Haddad, president and CEO of smart card technology company Welcome commented: "In Target's case, it's not a smart card problem [it's] the marketing value proposition. Their electronic couponing requires customers to go to the kiosk or attach a reader to their PCs to download coupons to their cards. It was just too cumbersome to search coupons online and then to go to a kiosk. The vast majority of consumers will not take time to do this."

Target a 'one-off'

He continued: "Since Target is a retailer plus a bank, this programme never resonated with a lot of US banks. It was really a one-off. Initially the banks outside the US were

watching and waiting, but eventually they also wrote it off as not relevant."

Now with Canada and Mexico also migrating to chip, there is a real danger that the card infrastructure in the US will exist in isolation from the rest of the developed world. The problem would not be so acute were it not for the fact that the US market accounts for almost 50 percent of global card volume. Haddad commented: "This event doesn't impact smart cards in the US because the impact has already happened. Chip won't take off in the US market until fraud becomes an issue and banks are faced with the same problems as banks in Asia, Europe and Latin America."

John Sheets, chief security officer for Ingenico, told *EPI* that card fraud could migrate to the point of least resistance. "Fraud may come to the US in two ways," he explained. "First, dual mag-stripe and chip cards that are compromised in Europe and elsewhere could be brought to the US and used there. Second, fraudsters will focus their energies on compromising US mag-stripe cards."

Despite the predictions of a two-tier payment card world, US banks have little appetite for investing in a technology without a proven, short-term return on investment. Both Visa and MasterCard have 'reorganised' their internal smart card departments in the US, privately acknowledging that the road to chip here may well

be a long one.

Both card associations have touted contactless chip cards as a potential catalyst for smart card growth in the US. However, Sheets questions whether this technology can serve as a general purpose payment solution. "The major issue with contactless chip is cardholder authentication. I am unaware of a practical method for cardholder authentication using contactless cards." Sheets thinks that contactless is an excellent technology in closed-loop systems, such as transit, and for low value transactions, but general purpose credit and debit presents significant challenges due to the difficulty of cardholder authentication.

Chip the solution to rising fraud

Haddad added: "We recommend presenting the card at the POS terminal and simply triggering loyalty points and surprise promotional offers directly at the POS at the moment of purchase. There's no new behaviour required, no extra steps and this approach has proven its popularity with consumers. [When US fraud reaches international levels] chip will be the solution – whether it's contact or contactless."

For now, the US banks and card organisations seem more focussed on managing the growth in e-commerce and, in particular, tapping the enormous potential of digital content. Smart cards will have to wait. ■

GlobalPlatform to merge with terminals organisation

GLOBALPLATFORM, the cross-industry body responsible for developing smart card standards, have signed a Memorandum of Understanding (MoU) to merge with the Small Terminal Interoperability Platform (STIP) Consortium and integrate it into the GlobalPlatform brand.

The two bodies have worked together closely since 2001 and the proposed merger is designed to improve communications and avoid any legal complications which could arise due to joint intellectual property ownership.

Axalto's Jean-Paul Billon, who chairs both the STIP Consortium and the GlobalPlatform Device Committee, said the

organisations have "essentially merged their technical activities already" and have been operating as a single unit for over a year.

Centralised technology promotion

"In my opinion, it is more logical and more practical for the common work of the two organisations to be undertaken under the auspices of one organisation," Billon said. "In addition, the promotion of GPD/STIP technology, which is currently undertaken by both organisations, will be centralised and therefore strengthened."

Billon also stressed the importance of STIP maintaining its independent integrity within the GlobalPlatform organisation.

"Whatever decision is made regarding the merger, it will be the result of a considered decisionmaking process, which will ensure that the interests and investments of all parties involved, including the current membership of both organisations, are respected," he added.

Datacard's Bob Beer, the current chairman of GlobalPlatform, said that the GlobalPlatform board had identified "an appropriate strategic fit" with STIP, which would allow Global Platform to expand its membership base in the mobile telecoms industry as well as among EFT-POS manufacturers.

GlobalPlatform's Device Committee has been working with the STIP Consortium for the last three years to develop a specification for smart card accepting devices (GPD/STIP). A platform compliance test-plan for the new GPD/STIP release (2.2) was published this month by STIP. ■

Wal-Mart ban throws MasterCard US debit programme into crisis

MASTERCARD'S US debit card programme is hanging in the balance after US superstore chain Wal-Mart went through with its threat to ban MasterCard signature-based transactions at its stores, on the grounds that they were too expensive to process.

Since 1 February, the stores no longer accept MasterCard signature debit cards, limiting MasterCard debit cardholders to only PIN-based transactions. MasterCard credit cards are unaffected by the change.

Wal-Mart's decision takes advantage of last year's victory in the US merchant's landmark antitrust suit against the associations, which forced Visa and MasterCard to scrap the 'honour all cards' rule which required merchants to accept all types of card transactions.

In a statement, Mike Cook, Wal-Mart's vice-president and assistant treasurer, said "the fees charged by MasterCard for its signature debit are simply too high, which led us to eliminate this payment option rather than pass these costs on to our

customers." In an angry response to the decision, MasterCard accused Wal-Mart of unnecessarily limiting its customer payment options and encouraged its debit cardholders to contact the store and complain. MasterCard added that it had "exhausted all reasonable means to come to a resolution with Wal-Mart."

At least one major US MasterCard debit card issuer – Fifth Third Bank – said it would waive its surcharge on PIN debit transactions in response to the ban on signature.

Since last year's \$3 billion settlement, both Visa and MasterCard have slashed signature-based interchange rates on debit cards by one-third but Wal-Mart insisted that they remain considerably more expensive and complex to process than PIN-based debit.

MasterCard has significantly less presence in the US debit market than Visa – which is estimated to be skewed by as much as 20:80 in Visa's favour.

While this smaller market share worked to MasterCard's advantage during the Wal-Mart case (with MasterCard paying out a

\$1 billion settlement compared to Visa's \$2 billion) the new power being enjoyed by merchants to dictate interchange fees and card acceptance appears to have isolated MasterCard as an easy target.

The situation could become worse for MasterCard if other merchants follow Wal-Mart's lead. At the time of going to press no other US retailer had publicly declared it would follow suit but it seems likely that other retailers will threaten to ban the cards if their demands over interchange fees are not met.

The increasing presence of the cheaper national PIN debit card networks such as NYCE and STAR is also squeezing MasterCard's influence in the sector and Visa's controversial exit-fee imposed on its debit issuers who attempt to switch brands, which MasterCard is contesting in court, is also causing problems.

Wal-Mart hinted that its decision was not irreversible but gave no indication of the grounds on which it would be willing to renegotiate with MasterCard. ■

RBA attacks Visa debit fees on competition grounds

VISA MAY be forced to slash debit card interchange fees in Australia following the Reserve Bank of Australia's ruling that Visa debit cards will be subject to the same regulations as the country's credit card schemes.

In a statement, the RBA said that "the interchange fees charged between financial institutions for the processing of Visa debit transactions are the same as for Visa credit card transactions" and that consumers are unable to distinguish between Visa debit cards and credit cards at point of sale.

'Honour all cards' concerns

The RBA also noted that as the 'honour all cards' rule forces merchants to accept both Visa credit and debit, the dominance of the Visa debit card, which is used by over 3.8 million Australians, may effect "the efficiency of, and competition in, the payment system."

MasterCard, Visa's rival, does not operate a debit scheme in Australia, and so is unaffected by the ruling.

The Reserve Bank will focus on the fact that Visa charges a similar interchange fee on both types of cards despite the fact that a debit card transaction does not have to fund any interest-free period, which RBA estimates constitutes about half of a credit card interchange fee.

According to the RBA's figures, the average cost of the credit for the interest-free period adds about 0.55 percentage points to the transaction, while for debit the cost is only 0.25 percentage points.

The move is the latest in a series of reforms in the cards industry undertaken by the RBA which culminated in last year's dramatic halving of credit card interchange fees; and the classification of the Visa debit under the RBA's Payment Systems Act will almost certainly force the association to apply similar cuts to its debit fees.

"We worked in a constructive and co-operative manner to try and resolve the RBA's concerns about Visa debit so we are naturally disappointed that this process has been abandoned in favour of regulation," said Bruce Mansfield, general manager for Visa International Australia & New Zealand.

The Reserve Bank said interested parties could still make proposals for reform issues and would have a further period for comment before any standards were finalised.

'Access Regime'

The RBA also sent the finalised details of its 'Access Regime' initiative to Australia's three designated credit card schemes (Visa, MasterCard and Bankcard) last month, which outlined the new rules aimed at allowing non-bank card issuers to join the card associations on the same terms as banks.

It is hoped that the new regulation will allow specialist financial institutions – including large retailers such as Coles Myer – to compete with banks on equal terms and drive down costs in the market. ■

First Data makes a big splash in Australian ATM market

THE AUSTRALIAN Competition and Consumer Commission (ACCC) has granted First Data permission to acquire Cashcard, Australia's largest independent ATM company.

First Data entered into a Merger Implementation Agreement (MIA) with Cashcard in December 2003 to acquire 100 percent of its shares, but Cashcard was also understood to be considering a bid from CabCharge, the company that operates Australia's national taxi communications. However, Cabcharge is reported to have dropped its bid following the ACCC's approval of the First Data acquisition.

Expanded service offerings

Financial terms of the deal were undisclosed but reports suggested First Data would pay around \$250 million for the company and take on debts of about \$75 million. "The combination of First Data and Cashcard will provide a competitive payment transaction

processing company for both Australian financial institutions and retailers. Together, the companies will bring expanded service offerings to our clients in the Australian marketplace," said Pam Patsley, president of First Data International.

First Data hopes to close the acquisition during the second quarter of the year but the deal still requires approval from Cashcard shareholders, the Reserve Bank of Australia (RBA) and the Federal Court.

In a statement, Cashcard said it as still 'business as usual' for both companies while the acquisition was in progress, but it was unwilling to comment on the specifics of the transaction.

Cashcard currently provides services for over 50 member financial institutions and several thousand merchants and has processed around 2.5 billion EFT payments – including ATM and EFTPOS, Direct Entry and BPay, telephone and internet payments – since its inception in 1993. The company is estimated to control a 49-percent share of

the domestic independent (or non-bank) ATM market and just under 10 percent of the debit and credit card processing market. Cashcard operates 5,600 ATMs.

Its nearest competitor, the Commonwealth Bank of Australia, operates around 5,000 ATMs.

After-tax profits up 106 percent

In its last set of annual results pertaining to the end of its latest financial year on 30 June 2003, the company reported a 106 percent increase in after-tax profits to \$4.4 million.

Assets increased to \$120 million due to a series of acquisitions during the year including the purchase of the EBS, Movieline and Direct Cash ATM networks, and the Adelaide Bank EFTPOS network.

For First Data, the Cashcard deal is just the latest in a long line of international acquisitions by the company aimed at aggressively expanding its presence outside its core US market. ■

Concord takes on Visa in cheque verification

THE US PIN debit network, Concord EFS, has celebrated the completion of its merger with its new parent company First Data with the announcement that it will re-enter the cheque and debit verification space with a new service, called STAR CHEK Direct.

The new service, operated by Concord's STAR Systems subsidiary, marks a return to the cheque conversion sector a year after it shut its original service, following Visa's acquisition of SafeCheck LLS – the system originally used by Concord – which Visa merged into its own POS cheque service. The acquisition effectively prevented rival Visa systems such as STAR, NYCE and Pulse from using the service.

The launch of STAR CHEK Direct will reignite the fierce rivalry between STAR and Visa's Interlink PIN debit network, which has seen Visa snatch some of Concord's key customers over the last year, including the Bank One, Wachovia and Wells Fargo contracts.

But the injection of fresh investment represented by First Data appears to have

given Concord fresh impetus and increased financial muscle to take on Visa – especially as the deal will give Concord a perceived closer relationship with the key banks.

The First Data/Concord deal was finally approved last month after First Data agreed to divest its shares in the smaller NYCE network to avoid anti-trust concerns.

Streamlined administration

The new cheque verification service will be launched this month and STAR claims that it will allow bill payment processors and cheque acceptance companies to streamline administration, reduce fraud losses and processing costs, speed funds availability and generate additional income.

The service will also be the first to offer standalone funds availability verification direct to the consumer's financial institution DDA account, as well as real-time cheque debit, the company said.

The service will launch with nine participants on board: ACH Direct, BillMatrix Corp, e-commerce Group, Electronic Clearing

House, FEDChex, LML Payment Systems, Paragon Application systems, TeleCheck and the Union Bank of California.

"Given that half of adult consumers in the US, and 50 percent of active ATM/debit card users still write cheques at the point-of-sale, it was inevitable that cheque debit would join PIN-secured debit as a risk management tool for core deposits – both draw funds directly from the DDA account," said Ronald V. Congemi, president of STAR.

"The advances we've made in cheque electronification mean that the future for the paper cheque is a more secure transaction, because the cheque can be a truly electronic transaction," he said.

STAR CHEK Direct is available for both retail POS transactions and telephone and internet bill payments, with future deployment planned for financial institution teller windows and ATMs.

EFSnet, Concord's internet connection for payment processing, will be offered as an optional connection to allow smaller retailers to participate in the system. ■

Wells Fargo reaps the rewards of mortgage e-payments

WELLS FARGO is to receive an award from the US electronic payments association NACHA in recognition of its achievement in migrating the vast majority of its mortgage customers over to electronic payments, which has allowed the bank to slash its payments processing bill.

The company is to receive the 2004 George Mitchell Payments System Excellence Award at this month's NACHA Payments conference in Seattle. The award, named after the former vice-chairman of the Federal Reserve Board of Governors, is given every year to recognise individuals or companies that are deemed to have advanced the US payments system.

In the first quarter of 2000, just before Wells Fargo embarked on its initiative aimed at switching customers from paper to electronic payments, 81 percent of payments processed by Wells Fargo's Home Mortgage division were paper-based. According to figures relating to the current quarter, this has now fallen to just 12 percent with 88 percent of payments now made (or processed) electronically.

Wells Fargo is the largest mortgage lender in the US with a portfolio of more than 4.6 million loans. According to Jerald Banwart, vice-president of payment operations at Wells Fargo Home Mortgage, with such a sizable portfolio, paper collections is not only inefficient but also extremely expensive. Banwart estimates that the

cheque clearing fees alone on the 2.5 million paper payments that go through the company's external 'lockbox' network exceed \$1.3 million annually.

The bank's efforts to cut costs by moving towards e-payments began to take shape after the NACHA rules governing TEL and internet-based ACH debit (WEB) payment methods came into effect in 2001. Telephone-initiated ACH debits (TEL) replaced paper drafts as the payment mechanism for the telephone payment programme and has seen the number of customers using the system almost triple since its launch, Banwart says.

In the first quarter 2002, Wells Fargo Home Mortgage processed 3.4 million electronic payments. By the third quarter 2003, that number had grown to 4.3 million e-payments – a 26-percent increase. Lockbox payments, which accounted for 65.6 percent of total payments processed in the first quarter 2002, fell to 57.1 percent of payments processed in the third quarter of 2003. ACH direct payments increased from 14.5 percent to 18 percent of total payments; EBPP increased from 1.4 percent to 2.4 percent of total payments; online and third-party bill payments grew from 5.3 percent to 8.7 percent of total payments.

In the first quarter of 2002, Wells Fargo Home Mortgage's ratio of paper to electronic payments was 2.4 to 1. A year later, the ratio had shifted further to electronic. By the first quarter of 2003, the

ratio of paper to electronic payments was 1.9 to 1. Wells Fargo succeeded in shifting a full 20 percent of its payment volume from paper to electronic from 2001 to 2003. Still, in the first quarter of 2003, over 64 percent of payments were paper. With the full implementation of cheque conversion now completed, Wells Fargo estimates that its mortgage division will process more than 11 million electronic payments during the current quarter.

Currently the bank allows its mortgage customers to pay by Automatic Mortgage Payments (an ACH direct payment), online payments (WEB), telephone-based payments (TEL), Electronic Bill Payment and Presentment (EBPP) and the Wells Fargo Equity Enhancement Programme (EEP), which debits payments directly from a customer's account on a bi-weekly basis.

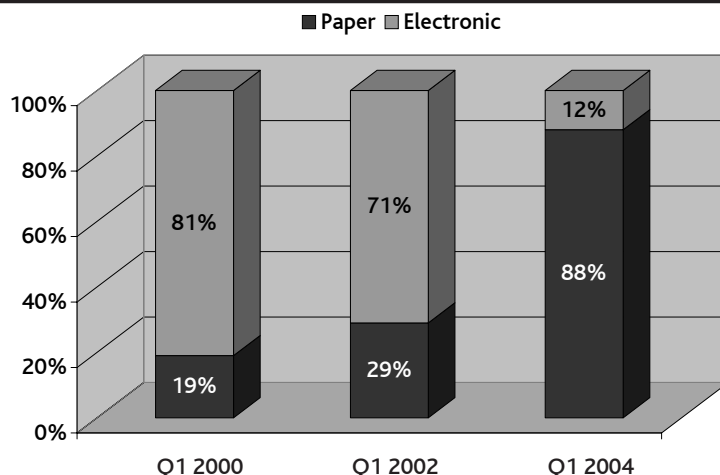
Only two paper-based payment methods remain. Customers can either send cheques, money orders, etc. to one of the five Wells Fargo Home Mortgage external Lockbox sites, or by making a payment at a branch. However, despite the decreasing numbers of people using paper-based methods, the processing expenses remain an issue with Wells Fargo estimating that paper payment processing costs the company more than \$3 annually per loan. By contrast, an ACH direct payment produces \$11 in combined cost reduction and float benefit annually per loan.

The NACHA rules governing accounts receivable cheque conversion (ARC) went into effect in March 2002 and Wells Fargo began implementing the system early the following year – the first US mortgage company to do so – and all four ARC sites went live in January 2004.

In measuring the financial success of ARC cheque conversion, Wells Fargo said it monitors both the account float (the period between the payment due date and the receipt of a customer's payment) and cheque-clearing charges, with conversion to ACH debits increasing the float by more than half a day, and ACH debits requiring little or no manual handling.

Banwart estimates that total annual savings from increased float and decreased bank fees will reach \$2 million in the first full year of ARC implementation. ■

WELLS FARGO: MOVING TO ELECTRONIC PAYMENTS



Source: Wells Fargo Home Mortgage

Rodrigues new president and CEO at Visa Int

VISA INTERNATIONAL'S board of directors has appointed Christopher J. Rodrigues as President and CEO of Visa International. Rodrigues is currently the chief executive of demutualised UK building society Bradford & Bingley.

He will succeed Malcolm Williamson, who has retired as Visa International CEO after a five-year term. William Boardman, chairman of the Visa International board, is acting as interim CEO until Rodrigues assumes his new post on 1 June.

Prior to joining Bradford & Bingley, Rodrigues was CEO of Thomas Cook, the global travel services company. His earlier career was spent with McKinsey & Co in the UK, continental Europe and North America, and in senior management positions at American Express. From 1998 to 2003, Rodrigues also served as a non-executive director of the Financial Services Authority, the UK market regulator.

eFunds' 2003 profitability up despite revenue drop

PAYMENTS PROCESSOR eFunds reported a 17 percent rise in net income in 2003 to \$28.9 million, or \$0.61 per diluted share, despite a slight drop in net revenue.

Scottsdale, Arizona-based eFunds reported income before taxes of about \$40 million in 2003, up from \$36.2 million in 2002. Its net income benefited from a decrease in its estimated annual effective tax rate from about 32 percent to just under 28 percent.

Net revenue fell to \$532.1 million for the year ended 31 December 2003, compared to \$543.1 million recorded in 2002. The company attributed the drop in revenue chiefly to the loss of the STAR EFT network and electronic Medicaid eligibility verification (EMEVS) contracts during 2002 and a decline in revenues from IT consulting services during 2003 compared to last year. Net revenues from its electronic payments operations dropped 13 percent in 2003 to about \$183.6 million, while net income fell by 34 percent.

The revenue decline was somewhat offset by increased revenue from ATM acquisitions completed in 2002 and new electronic benefit transfer (EBT) contracts. Revenue from ATM management operations rose 21 percent to \$139.8 million, and contributed a net income of about \$0.1 million in 2003, compared with a net loss of \$4.2 million in 2002.

ATM TV licence payments in Italy

SSB, THE bank behind the scheme that allows Italians to pay for their TV licences at ATMs, has reported that the number of people using the service rose by over 25 percent during the last year.

The service was launched by the bank in 2000 and was initially aimed at all ATM machines of banks participating in the initiative, and subsequently also through the Fastbank service and via the internet using a home-banking service provided by the bank.

Mobile phone top-ups in New Zealand and UK

EURONET SUBSIDIARY e-pay has launched an electronic top-up service at approximately 240 Shell stations in New Zealand and at 39,000 terminals in around 17,000 Post Office branches across the UK.

Shell is the third major oil company to join e-pay's New Zealand prepaid network, which will allow Vodafone mobile phone subscribers to top up their mobile phone airtime. The e-top-up payment method replaces scratch-off cards, which e-pay claims are more costly to handle and have a high instance of theft.

Meanwhile, in the UK, the e-pay service is fully integrated with the Post Office's EPOS system, Horizon, one of the largest automation projects in Europe. Every year, Horizon processes 2.4 billion transactions, and at its peak rate of operation, the system manages 3,500 transactions per second.

"Our ability to successfully integrate our e-pay platform across a very large EPOS infrastructure further reinforces our expertise in the prepaid processing business," said Paul Althasen, Euronet executive vice-president and co-managing director e-pay. "This agreement marked a substantial achievement for the e-pay staff and provides a significant revenue opportunity for e-pay."

In its full year financial results released last month, Euronet reported consolidated revenues of \$204.4 million for 2003, an increase of 188 percent over 2002 revenues of \$71 million, reflecting, in part, last year's acquisition of e-pay.

New appointment at NACHA

NACHA, THE US electronic payments association, has appointed Ann-Marie

Bartels, president and CEO of Mid-America Payment Exchange, as chairman of its newly created Corporate Payments Council. The Council's mission is to develop solutions and best practices that will result in greater use of electronic business-to-business payments.

"The use of electronic payments in the business-to-business realm is a mixed picture," said Bartels, who also serves on NACHA's Board of Directors. "Electronic payment, dollar and remittance figures increase by double-digits every year, and higher dollar-value payments are largely electronic. Yet paper cheques still account for about 80 percent of all B2B payments."

Visa Interlink debit usage up \$1 billion

VISA USA has reported impressive growth in usage for its Interlink PIN debit card network. The Interlink network processed more than 93 million transactions worth \$3.3 billion in January 2004, compared with 67 million transactions worth \$2.3 billion in January 2003.

The number of merchant locations accepting Interlink also grew by 19 percent over the same period. With 1.2 million locations by the end of January, the merchant network is growing by more than 200,000 new merchant locations annually. More than 980 issuers had more than 70 million Interlink-branded debit cards in issue. Visa USA attributed the growth in Interlink usage to growth in merchant acceptance and issuing financial institutions, and a shift in consumer preference away from cash and cheques in favour of electronic payments.

Growth in off-site European ATMs

THE NUMBER of off-site ATMs in Europe have grown by 117 percent between 1998 and 2002, according to a new report by Retail Banking Research (RBR).

At the end of 2002, Western Europe was home to 283,590 ATMs. A total of 64,828 (22.9 percent) were found to be away from bank branches, although the proportion of machines in off-site locations varies widely between countries.

During 2002, growth amounted to 9,439 machines – a rise of 17 percent – and growth

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was driven by UK deployment, where 4,044 new off-site ATMs were added. The UK has the largest population of off-site installations by far, and is followed by the other members of Europe's five largest economies, although in these countries less than one in five ATMs is found away from branches.

In 2001 remote ATMs became more numerous than branch machines in Finland, and the same happened in the UK during 2002. Off-site installations also account for more than one-third of the total in Ireland, Turkey and Portugal, according to RBR.

BA signs up for VbV and SecureCode

THE UK'S flagship airline British Airways (BA) is to rollout both MasterCard's SecureCode and Visa's Verified by Visa online card authentication solutions across multiple regions, including its key markets of the US and UK.

"The sheer volume of tickets now processed by the internet means that we're constantly striving to have the best security possible," said Simon Parks-Smith, head of e-commerce at BA, adding that online bookings now account for 46 percent of all BA's short-haul, non-premium business in the UK.

According to Visa, airlines are one of the fastest growing online retail sectors accounting for almost 10 percent of online spending in the EU in the last quarter of 2004.

Both the Visa and MasterCard services will be implemented and managed by Streamline International, which offers multi-currency credit card acquisition services, and CyberSource.

Visa said that the Verified by Visa service has been available to BA customers as part of a pilot project since 2 December 2003.

Arabs online buy with cashU Cards

ONLINE ARAB payment service cashU Card has expanded to reach more than 200 merchants and 10,000 users with transaction volumes hitting \$1 million in its first year of operation.

"With a membership base growing by an encouraging 1,000 subscribers and 40 merchants per month, we can confidently say that cashU Card has reinvented online transactions in this region where traditional

transactions could only target a limited market," Rami Araj, distribution manager for cashU Card.com told reporters. "The positive response to cashU Card's benefits among the online shoppers has made it a respectable and fast-growing brand name in the region."

Saudi Arabia, Kuwait, Syria and Egypt remain cashU Card's biggest markets, while others such as Iraq are now adopting it.

CashU Card works on the same principle as prepaid mobile cards, avoiding Islamic issues with interest rates as each cashU card has a unique card/account number that is refilled with money using cashU coupons. It was introduced by Maktoob.com, the online Arab service with over 3.5 million registered users.

MasterCard reports strong growth for 2003

MASTERCARD INTERNATIONAL reported almost 15 billion transactions on MasterCard-branded cards in 2003 and a gross dollar volume of \$1.27 trillion in 2003, an increase of 5.9 percent on a local currency basis, and 10.4 percent on a US dollar basis, over 2002.

There were about 632.4 million MasterCard-branded (excluding Maestro and Cirrus) cards in issue by the end of last year, up 7 percent on 2002. There were more than 520 million cards with the Maestro debit card marque, up 13.8 percent on 2002. There were more than 150 million smart cards with MasterCard, Maestro, or Mondex brands in issue by year-end.

Gross dollar volume (GDV) for worldwide credit and charge programs grew 5.1 percent to \$1.0 trillion, and GDV for offline debit programs rose 9.3 percent to \$236.9 billion during 2003. MasterCard reported strong GDV growth in all regions: the US rose 5.8 percent; Canada, 14.7 percent; Europe, 13.5 percent; Latin America, 31.2 percent; and South Asia, Middle East/Africa, 17.5 percent.

While most Asia-Pacific markets experienced double-digit GDV growth, South Korea suffered as a result of rising credit card delinquencies and write-offs, leading to a 9 percent drop in GDV for the region.

MasterCard-branded cards were used for more than 7.4 billion transactions in the US in 2003, generating \$636.8 billion in GDV, a 5.8 percent increase over 2002. Purchase volume grew 9.6 percent while cash volume was down 5.1 percent. There were 272.6 million MasterCard-branded cards in issue, up 1.9 percent, and outstanding balances reached \$293.2 billion, a 3.4 percent increase over the

same period in 2002. The number of debit MasterCard cards issued rose 10.6 percent to 53.4 million.

Both the Switch migration and the M&S MasterCard introduction, helped drive the UK's total card growth rate, including both MasterCard and Maestro cards, up 30.8 percent in 2003.

While GDV growth in Latin America was driven by strong cash volume growth, growth in South Asia, Middle East/Africa was driven by both purchase and cash volume growth.

NCR opens ATM factory in Brazil

NCR IS opening an ATM manufacturing and engineering facility in Sao Paulo, Brazil.

The new facilities will focus on the Brazilian ATM market, which NCR estimates to be the third-largest in the world. The Sao Paulo manufacturing plant will be NCR's fifth ATM factory worldwide, with an annual capacity of up to 7,000 units.

NCR will initially employ between 75 and 100 staff at the Sao Paulo facility. The ATMs manufactured there by NCR will be customised for the Brazilian market, using local NCR engineering capability.

Brazilian component suppliers and manufacturers will provide ATM components consistent with NCR's local sourcing strategy.

Online security solution in Germany

SCM Microsystems has announced a new digital security solution that aims to bring a significantly higher level of security, trust and non-repudiation to online transactions between the public and government institutions in Germany.

The new solution, PublicOnline Box, combines smart cards, PC-connected secure readers with PIN pads and public key-based digital signatures to enable the confidential exchange of certified identities and binding transaction information via the internet. ■

Clarification

Re: EPI 200, Page 6: 'Philips and IBM in smart card/Rfid alliance'

The contactless payments alliance referred to in the last paragraph of the story is between Philips and Visa, and not Philips and IBM.

Consolidation is the key to SEPA... and the problem too

THE EUROPEAN Central Bank's push towards a Single European Payments Area (SEPA) is rapidly gaining pace in both the large-value and low-value payments spheres, but persuading banks to move away from their domestic infrastructures toward a single consolidated euro platform is proving difficult.

The ECB's Real Time Gross Settlement (RTGS) system for the eurozone – called TARGET – was launched in 1999 in preparation for the launch of the European single currency, and has since grown to become the world's largest RTGS in terms of value, handling an average of €1.6 billion (\$2 billion) in payments a day during 2003 (see table).

But TARGET's decentralised system – with each of the 15 central banks within the eurozone operating its own TARGET platform – has also proved a headache for banks and has not achieved the harmonisation between countries that will serve as the backbone to SEPA.

According to Citigroup's Eric Sepkes – also deputy chair of the EBA – the cost of processing a TARGET payment for a small bank versus a large bank can differ by as much as €0.40 per transaction. "This is not sustainable," says Sepkes.

Moving TARGET

The ECB has been pushing hard for consolidation across platforms to solve such problems, and there is evidence that this is being achieved. The German PAF payment system, for example, was migrated to the TARGET platform in 2001. However, it is the development of TARGET's successor, TARGET2, that has attempted to establish the first true centralised European cross-border platform.

TARGET2 was unveiled in October 2002 and is a system designed to allow all central banks in the eurozone to share data and be flexible enough to allow other countries to join the platform as the EU expands.

But the practical implementation of such a system cannot be achieved overnight and many are predicting that TARGET2 will not be able to fully replace the existing system before the end of the decade. Testing is scheduled to begin during 2006 and it is

expected to become operational by 2007 although a timetable for how (and when) national RTGS systems will migrate to the new system has yet to be developed and many commentators have claimed that the 2007 deadline is overly-ambitious – not least because countries will not be able to implement the system on an incremental basis.

The ECB said there are strong incentives for consolidation as all platforms will have to cover their own costs, and pricing will be based on the most efficient platform, but it confirmed that individual EU countries will be allowed to run their own platforms in the interim period.

"Individual countries are unlikely to produce lower costs than a centralised system so I expect after four years we will work as a single structure," said ECB's director-general of payment services, Jean-Michel Godeffroy, at last year's SIBOS conference. "We're designing a central system for the circulation of money to increase the efficiency of cross border platforms in euros and improve the soundness of payments in general."

Sweet as a PE-ACH

Activity in the low-value payments sphere has been gathering pace rapidly since last year's decision by the ECB to harmonise cross-border credit transfer charging across the eurozone with the final goal of bringing all cross border charges in line with domestic tariffs by 2010.

A similar directive on EU cross-border card payments was announced a year earlier.

Central to SEPA is the development of Pan-European Automated Clearing Houses (PE-ACH), of which the ECB's Step2 is the first – and so far only – example.

Thirty-one banks – including Commerzbank, HSBC, JP Morgan Chase and Hypovereinsbank – joined Step2 in time for the credit transfer deadline last July, and another 17 banks have started using the system since. According to figures released last month by the European Banking Association, as of February 2004 Step2 had over 1,100 'indirect' participants, i.e. banks that use the system but send and receive

payment messages through one of Step2's 48 direct participants.

Currently Step2 offers payments distribution to over 90 percent of the EU countries and discussions are also underway to extend full distribution to banks in the future EU member states. Last month the system achieved a new daily peak of almost 150,000 transactions.

But once again it is not been proving easy to persuade banks to move away from their domestic systems.

"Banks are in favour of a pan-European approach when they are in Europe, but when they come home they tend to think more locally," said Godeffroy. "What is still missing is the idea that we have to move quickly to make the euro area a real domestic area."

In theory the ECB can apply regulatory pressure to force banks into joining a pan-European system but at this stage it is still hoping that the sheer scale offered by Step2 will be enough to persuade domestic ACHs to work towards a consolidated approach. One of Europe's largest ACHs is the UK's BACS, which processes around 5 billion payments a year at a cost of between 1 and 2 euro cents per transaction. BACS CEO Marion King claims that these figures demonstrate that BACS has already achieved the economies of scale promised by PE-ACHs, but she agrees that a hardline approach by the ECB is not the way forward.

"Regulators cannot impose a solution," said King at SIBOS. "It is madness to build something brand new. There is a strong business case to harness the capability that already exists, but we need to have common standards."

She added that any pan-European ACH consolidation effort must focus on delivering commercial benefits and delivering shareholder value to achieve success, and move away from the traditional 'not-for-profit' utility approach deployed by most domestic ACH systems.

In a white paper released last month, the European Payments Council (EPC) outlined the business case for joining Step2.

This included significant back office reductions realised through areas such as

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greater automation between client-to-bank and bank-to-bank communications, and, in investment terms, by avoiding unnecessary expenditures involved in improving and maintaining several national ACHs and developing links between them.

However, the EPC said that "the financial impact of joining Step2 comprises the cost of adapting the back office, this has both a positive impact, due to the increased standardisation, and a negative impact, the investment to connect to a new infrastructure, and the costs of using Step2."

The EPC continues: "Creating a Single Euro Payment Area will imply moving away from strongly embedded national market practices to a real domestic pan-European environment. This can only be achieved if in addition to modified political and regulatory conditions, financial institutions are willing to tackle all the necessary changes...Banks themselves must accept the imperative of change and must demonstrate practical steps in the right direction to authorities and the public."

Moving Swiftly on...

Central to the success of the ECB's SEPA vision is the communication networks that allows banks to talk to each other and to clients.

Most prominent is the Swift network, which is currently in the process of migrating all its members over to its internet-based platform, SwiftNET, with the deadline set for November this year.

Swift has also made recent moves to incorporate the expanding EU region, which will see ten new countries join the region in May this year. Swift applies a specific

validation to intra-European credit transfer messages to check that there is a currency/instructed amount in the message. This validation also checks, in intra-European STP (straight-through processing) messages, for the presence of International Bank Account Numbers (IBAN) – the identifier that is used internationally to uniquely identify the account of a customer at a financial institution.

Swift said that six of the ten new EU countries confirmed readiness to implement European validation shortly after their accession (Cyprus, Hungary, Lithuania, Malta, Slovakia and Slovenia), while the remainder (the Czech Republic, Estonia, Latvia and Poland) will wait until May 2005.

'Banks are in favour of a pan-European approach when they are in Europe, but when they come home they tend to think more locally'

"While this is not a complex issue, the two-phase introduction will be handled carefully, so that not only will the new EU countries come on board at the rate that suits them, but also the current intra-European countries can continue and indeed improve their own efficiency," said Carlo Palmers, head of payments standards development at Swift.

Basel II

Perhaps a more pressing concern for European banks than SEPA has been the looming deadline for the Basel II risk assessment regulations, which are set for 2007.

A recent survey by KPMG that questioned 294 financial institutions from 38 countries worldwide found approximately 50 percent of respondents are still in

the pre-study and assessment phase. Sixty percent of respondents cited the timing of the implementation as the main cause for concern.

Jane Leach, Basel partner at KPMG, warned that banks must pay special attention to their Basel projects despite pressing concerns in the current business climate like mismanagement problems, International Financial Reporting Standards (IFRS) and identifying exposures. "Because the deadline on implementation is not until 2007, it is important not to deprioritise Basel because there are more immediate problems going on," Leach said.

Regional variations identified by the survey included a relative European prefer-

ence for advanced approaches to Basel, while more Asia-Pacific banks are intending to take basic approaches. In the Americas, banks are polarised between the most basic and advanced approaches.

Leach said the recent announcement by American regulators that the top ten banks must take the most advanced approach has set American banks a much larger task than their European counterparts, where despite a relative preference for the advanced approach, a large number are adopting the middle approach.

Since most Asia-Pacific nations are not Basel countries – with the notable exception of Japan – they "have less of a hard deadline," Leach added. ■

Matt Ablott

Additional reporting by Olann Kerrison

PAYMENT INSTRUCTIONS PROCESSED BY TARGET (2003) VALUE OF TRANSACTIONS €BN

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2003 AV TARGET
All TARGET payments													
Total value	37,093	33,080	36,696	33,286	35,368	37,324	39,175	32,138	33,903	36,089	32,308	34,289	35,062
Daily average	1,686	1,654	1,747	1,664	1,684	1,777	1,703	1,530	1,541	1,569	1,615	1,633	1,650
Cross-border TARGET payments													
Total value	11,901	10,497	12,238	10,441	11,051	12,053	12,698	10,371	11,501	11,910	10,544	11,674	11,407
Daily average	541	525	583	522	526	574	552	494	523	518	527	556	537
Domestic TARGET payments													
Total value	25,193	22,583	24,458	22,845	24,317	25,271	26,477	21,767	22,402	24,178	21,764	22,615	23,656
Daily average	1,145	1,129	1,165	1,142	1,158	1,203	1,151	1,037	1,018	1,051	1,088	1,077	1,113

Source: European Central Bank

Consumers' love affair with cards rolls on

The use of credit and debit cards will continue to grow at a rapid rate and will account for over 40 percent of all consumer expenditure in the majority of the world's largest economies within the next five years, according to a new report by Morgan Stanley*

THE RECENT rapid rise of debit cards will continue to outperform the more mature credit card market in most regions, the report claims (see Table 1). Nowhere is this more marked than in the US where debit card use as a percentage of consumer spending is predicted to rise from 7 percent to 13 percent by 2007, against just a 3 percent rise in credit cards (20 percent to 23 percent).

But it is in Europe where debit cards are predicted to remain the dominant payment method, with debit card use in Germany and the Netherlands forecast to account for over 40 percent of total consumer expenditure. Italy was the only country monitored in Europe where credit card use is predicted to outweigh debit by 2007, with even the UK,

which has a considerably more mature credit card market than mainland Europe, predicted to see debit card use increase to match credit card use by 2007 with both accounting for 23 percent of consumer expenditure.

In Asia-Pacific, debit cards are also forecast to rise rapidly, albeit from low (or, in some cases, non-existent) current usage rates. The only relatively mature debit market – Australia – is predicted to see broadly similar growth for both credit and debit.

In terms of credit cards, the report predicts that after-tax income in the global credit cards industry will grow by 60 percent by 2007, with strong growth in the Latin American and Asia-Pacific markets (28 percent and 42 percent respectively) making

up for marginal growth in the more mature North American and European markets (see Table 2).

Despite the predicted flurry of activity in the emerging markets, Morgan Stanley predicts that the large US companies will continue to dominate with the world's largest banking institution and card issuer, Citigroup, accounting for an astonishing 28 percent of the world market for consumer credit in 2002 with half coming from its cards activities alone.

Lagging somewhat behind came HSBC and GE with a 9 percent market share each, with JP Morgan Chase/Bank One and MBNA following with 8 percent shares (see Table 3).

"Citigroup's is the largest consumer credit franchise in the world, with nearly three times as much income as its nearest competitor," writes report author Kenneth A. Posner. "Its franchise benefits from a strong brand and in many markets a full-fledged depository branch network."

Global consumer franchises

Commenting on the recent JP Morgan- Bank One merger which created Citigroup's closest retail banking rival, Posner said that "size alone does not determine success," noting also that recent performances by both JP Morgan and Bank One had been lagging the industry in terms of growth. The combination of the two credit card units would create "major operational challenges" which could lead to disruption and loss of market share, the report warned.

Posner also highlighted the emergence of MBNA as a true global player, noting its particular presence in Europe. "We believe MBNA represents a high-quality play on the development of credit card lending in European markets," said Posner. "MBNA's international portfolio, which includes the UK, Ireland, Canada, and Spain, has grown to 17.5 percent of the total portfolio, thanks to fast organic growth, portfolio acquisitions, and the depreciation of the US dollar."

"While continental Europe has historically been a difficult market for credit cards, we see enough signs of progress to envision a significant growth opportunity for MBNA over time," he added.

American Express was cited as the third example of a "global consumer franchise," but

TABLE 1: DEBIT AND CREDIT CARD REPUTATION

	Credit Spending as % of CAGR in consumer expenditure			Debit Spending as % of CAGR in consumer expenditure		
	2002	2007E	2002-2007E	2002	2007E	2002-2007E
North America						
USA	20%	23%	9%	7%	13%	21%
Canada	28%	33%	9%	16%	20%	10%
Latin America						
Brazil	7%	12%	22%	22%	27%	16%
Chile	4%	9%	26%	1%	6%	50%
Mexico	5%	9%	18%	14%	14%	7%
Europe						
France	21%	24%	8%	31%	37%	8%
Germany	3%	3%	8%	33%	43%	8%
Italy	16%	19%	9%	11%	14%	10%
Netherlands	5%	7%	10%	40%	45%	5%
Spain	10%	20%	21%	14%	22%	16%
UK	18%	23%	9%	17%	23%	9%
Asia-Pacific						
Australia	22%	26%	8%	9%	12%	10%
Hong Kong	22%	23%	2%	2%	2%	2%
India	1%	2%	20%	1%	3%	35%
Japan	8%	11%	6%	0%	0%	0%
Singapore	18%	19%	6%	1%	1%	5%
South Korea	35%	37%	6%	0%	4%	205%
Taiwan	14%	17%	7%	2%	4%	14%

Source: Morgan Stanley Research

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the report expressed concern that Amex' business model is largely dependent on its proprietary payment network, and that the company may suffer if interchange rates continue to be driven down in the manner achieved by the recent regulatory crackdowns in Australia, the UK and the EU.

The report also noted that Amex is trying to push credit cards into everyday spending categories that seem more appropriate for debit cards – another sign, the report says, of the maturity of its payment network.

Four other firms were included in the global elite of consumer companies – BNP Paribas (via its Cetelem unit), GE Capital, HSBC and Standard Chartered.

Emerging markets

India was highlighted as one of the key growth areas for consumer credit, with Morgan Stanley tipping India's HDFC Bank as being perfectly poised to take full advantage of the burgeoning market. Sachin Sheth, Morgan Stanley's financial analyst covering Indian banks, said that the market is currently undervaluing HDFC Bank, and is also underestimating the importance to the consumer credit market of a national credit bureau with positive data sharing, which should be implemented this year.

But Morgan Stanley warned that other parts of Asia remain "questionable" – and cite the example of Taiwan, which is currently experiencing a consumer credit boom fuelled by aggressive balance transfers and cash advance lending, a pattern that the report claims could lead the territory into the kind of problems suffered by South Korea over the past 18 months. Countries such as Taiwan, Singapore, and Japan may also suffer from deflationary trends if capital investment and job growth migrate to China, the report says.

Meanwhile, Morgan Stanley's Korean financial services analyst, Michael Chung, offered some much-needed positive news for South Korea by predicting improving credit costs during the second half of 2004, and widening net interest margins and higher earnings in 2005. He cited Kookmin Bank as best placed to take advantage of this upturn in fortunes

* *Consumer credit and credit cards: a global perspective, Morgan Stanley (February 2004).*

TABLE 2: GLOBAL FORECAST SUMMARY

	Credit Card Industry After-tax Income \$bn			ROE	
	2002	2007E	CAGR 02-07 ¹	2002	2007E
North America	\$16.2	\$20.0	4%	27%	23%
Latin America ²	\$1.3	\$4.6	28%	19%	28%
Europe ³	\$3.5	\$4.9	7%	29%	25%
Asia/Pacific ⁴	\$1.0	\$6.0	42%	-2%	14%

Notes:

1. Does not include forecast of FX appreciation or depreciation.
2. Includes Brazil, Mexico, and Chile.
3. Includes France, Germany, Italy, Netherlands, Spain, and UK.
4. Includes Australia, Hong Kong, India, Japan, Singapore, S Korea and Taiwan.

Source: Morgan Stanley Research

TABLE 3: GLOBAL MARKET SHARE (\$ BN)

	US		International		Global	
	Amount	Market Share	Amount	Market Share	Amount	Market Share
Citigroup ¹	\$4.75	31%	\$1.48	22%	\$6.23	28%
Citigroup (cards only) ¹	2.46	16%	0.65	0%	3.11	14%
HSBC ²	1.83	12%	0.23	3%	2.06	9%
GE Capital ³	0.68	4%	1.26	18%	1.94	9%
JP Morgan Chase/ Bank One	1.83	12%	0.00	0%	1.83	8%
MBNA ⁴	1.55	10%	0.22	3%	1.77	8%
American Express ⁵	1.08	7%	0.44	6%	1.52	7%
Capital One ⁶	1.05	7%	-0.04	-1%	1.02	5%
DBS Holdings	0.00	0%	0.95	14%	0.95	4%
UOB	0.00	0%	0.89	13%	0.89	4%
Discover ⁷	0.77	5%	0.00	0%	0.77	3%
Barclays ⁸	0.00	0%	0.66	10%	0.66	3%
Bank of America	0.63	4%	0.00	0%	0.63	3%
RBS ⁹	0.00	0%	0.46	7%	0.46	2%
Aiful	0.00	0%	0.50	7%	0.50	2%
BNP Paribas	0.00	0%	0.34	5%	0.34	2%
Provident ¹⁰	0.15	1%	0.00	0%	0.15	1%
ANZ ¹¹	0.00	0%	0.13	2%	0.13	1%
Westpac ¹¹	0.00	0%	0.13	2%	0.13	1%
CIBC	0.00	0%	0.11	2%	0.11	1%
Santander	0.00	0%	0.10	1%	0.10	0%
State Bank of India ¹¹	0.00	0%	0.07	1%	0.07	0%
Chinatrust ¹²	0.00	0%	0.07	1%	0.07	0%
HDFC Bank ¹¹	0.00	0%	0.02	0%	0.02	0%
Banesto	0.00	0%	0.00	0%	0.00	0%
Credit Saison	0.00	0%	-0.05	-1%	-0.05	0%
Standard Chartered	0.00	0%	-0.19	-3%	-0.19	-1%
Kookmin Credit	0.00	0%	-0.83	-12%	-0.83	-4%
LG Card	0.00	0%	-1.26	18%	-1.26	-6%
Industry Net Income ¹³	\$15.15	100%	\$6.88	100%	\$22.03	100%

Notes:

1. US net income based on North American card segment reporting, adjusted to exclude Mexico and Puerto Rico, and US consumer finance. US includes estimate of Sears' credit and private-label card operations, which were acquired in November 2003. International includes international cards and consumer finance and estimate of Mexico and Puerto Rico cards. Does not include personal banking operations.
2. US based on Household US credit card and US consumer finance segments. US and international include home equity; US includes auto.
3. US reflects estimate of private-label credit card business based. International reflects Global Consumer Finance profits.
4. Based on company reports. US includes consumer finance net income.
5. Estimate based on geographic breakdown of pretax income and 35% tax rate. Excludes AEFA, AEB profits, and estimate of travel and travelers cheques profitability at TRS.
6. US includes net income from auto.
7. Based on actual results for fiscal year ended November 30, 2002.
8. Operating profits. Excludes restructuring charges. Estimate assumes credit card contribution to Retail Direct division is 44%, which is based on credit card share of loans outstandings.
9. Excludes foreign operations, which were discontinued and sold in 1H02. Barclaycard purchased PVN's UK operation.
10. Estimate of net income from cards and personal loans. Excludes revenues related to mortgages and asset management.
11. Estimated using some assumptions from country market forecasts.
12. Represents 2003 9-month annualized results for revolving credit card loans. Excludes credit card installment loans.
13. US includes estimate of net income from credit and private-label credit cards. International represents credit cards only.

Source: Company reports, Morgan Stanley Research

Following in Europe's footsteps

Thales e-Security's **Paul Meadowcroft** outlines the lessons that the Middle East can learn from the European EMV migration

ALTHOUGH THE European EMV migration is entering its final phase of mass smart card rollout, other regions of the world are only at the earliest stages of EMV adoption.

Closest, both in terms of geography and deadline, is the Middle East which is scheduled to complete its own EMV migration by 1 January 2006. However, this actually puts the Middle East in an enviable position of strength where its banks can learn lessons from the European EMV migration. Crucially, the Middle Eastern banks are also able to take advantage of the latest technologies and standards that were not available when their European counterparts set off down this road.

Managing rollout through a single association

When examining successful strategies to adopt from the European experience, one of the most beneficial is the management of the rollout through an industry association.

These were either specifically set up for the task or already existed, such as APACS in the UK and GEI CB in France (both of which have taken overall responsibility for managing their nationwide implementations). By following suit, Middle Eastern nations will ensure that various idiosyncrasies can be addressed, ensuring that the EMV migration is shaped to meet national needs.

For retailers, especially those with multiple location environments such as supermarkets, the rationale behind EMV may not initially be apparent. Ensuring that this sector is involved in discussions at an early stage is one of the biggest lessons the Middle East can learn.

Multiple location retailers spend vast sums of money refitting their stores on a rolling basis with new point of sale terminals. Typically these have a lifespan of less than ten years, and until very recently retailers will not have considered updating their terminals to be EMV smart card

compliant. It is for this reason that in weighing up the chicken or the egg situation in whether to introduce smart cards first or to ensure EMV terminals are rolled out beforehand, it is the latter that has taken priority. With EMV smart cards costing between \$1 and \$3 each – compared to the \$0.13 cost of a magnetic stripe card – there is an obvious business rationale from a bank's point of view for taking this course of action.

Although across Europe there has been a \$168 million incentive scheme for retailers to migrate over to smart card terminals, it is the use of a pilot phase that is possibly more beneficial. In the UK, a major pilot implementation took place in Northampton, which involved major card issuers such as Barclaycard, MasterCard, American Express, HSBC, Egg, Switch and Visa as well as around 1,000 retailers. The results of this trial have been crucial for the £1.1 billion (\$2 billion) Chip and PIN EMV rollout that is underway in the UK.

Implementing a pilot phase has a number of benefits. First and foremost it reassures the banks and retailers that the costly migration will work and it allows any problems to be ironed out. However it also kick-starts the cultural change that is needed among the public if people are not familiar with using Chip and PIN – while EMV migration does not have to involve the use of Chip and PIN, it is undoubtedly an ideal opportunity to introduce it.

The business benefits of EMV

The main argument for introducing PIN transactions is that it is a proven system for combating fraud. When combined with a smart card, the possibility of fraudulent transactions taking place in an ordinary retail environment are very small.

However, as banks in Europe have begun to realise, there are other significant business-case arguments for migrating to EMV.

For example, France introduced PIN transactions over ten years ago and has already reduced the levels of fraud considerably – the level of counterfeit fraud has

fallen by 90 percent. Therefore the savings from the EMV migration are not as significant as in non-PIN countries such as the UK. For this reason, French banks are introducing electronic purse and loyalty schemes with their smart card deployment. Furthermore, it is not just banks that are seeing non-fraud related business case advantages from introducing EMV. In the UK, supermarket chain Tesco has realised that EMV terminals will mean that its stores will print out 13,000 miles of till receipts less each year. Astonishingly this will save Tesco an estimated £500,000 (\$935,000) per annum, which was not considered when they were compiling the original business case.

Banks are also considering multiple applications as they are a proven way of adding value to the customer and increasing customer retention. The fact that common standards for multiapplications – such as GlobalPlatform and MULTOS – are only beginning to emerge means that being behind Europe in its migration will work to the advantage of the Middle East. It will also allow Middle Eastern banks to research proven examples of the multiple applications in action. By the end of this year GlobalPlatform predicts that the amount of multiapplication cards in the marketplace will have doubled to 40 million.

The advantages of a phased rollout

The experience in Europe has also shown that EMV migration does not have to be a single-phase event. Indeed, many banks have realised that in the short term, the amount of change that is necessary to migrate to EMV can be quite limited and focussed.

Assuming the host system is not too old, it is possible to just bolt on new software that will handle EMV transactions: the older the system, the less likely it is that it will be able to handle an EMV migration. The software can then translate these into details that resemble a magnetic stripe transaction that can then be authenticated in the normal way by the host system.

As the EMV migration is an ideal opportunity to review the state of the host

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systems, it may be that a migrating bank does decide to opt for the long-term fix. This would require the replacement of the entire host system. However, at the same time the bank would be able to introduce the new infrastructure that is required for multiple application smart card systems. Interestingly these can also be introduced in both a short- and long-term manner. Smart cards are issued without any multiple applications pre-loaded but with the functionality there to enable the bank to add these at a later date. For example, in an initial rollout a bank may only wish to give a loyalty scheme to its most lucrative customers. Later on, a bank decides to roll this out further, customers can be given the option of having a loyalty scheme added to their cards. Also the EMV risk management parameters on the cards that govern the level at which a transaction needs to be authenticated online can also be altered whilst a customer is carrying out a point of sale or ATM transaction.

Adopt regional and national standards from the outset

The 2006 Middle East deadline will mean that banks in the region can take advantage of the emerging EMV card personalisation specifications. At the moment there are many competing proprietary cards that banks can choose to purchase. Each of these has to be personalised in a different way.

Recently GlobalPlatform proposed a common standard for personalising the cards that has now been ratified by EMVco, the body responsible for the EMV specifications. Not only will this make it far easier for banks to switch between different competing EMV-compliant cards, but also it should stimulate commoditisation within the marketplace, boosting competition. Such a scheme must be issuer-led and while this was not an option for European banks when they set out on the EMV migration path, it is one that the Middle East can seize upon now.

Going hand-in-hand with this is the opportunity for Middle East banks to choose which model of data preparation and personalisation they would like to adopt. These are the same three options that existed under the traditional magnetic stripe system – prepare and

personalise the cards in-house, outsource the whole process to a card bureau or keep the data preparation in-house and outsource the personalisation. However, unlike the magnetic stripe card process, with EMV the preparation process involves embedding the Unique Derived Keys (UDKs) onto the card. If a bureau is used, they will have to be given the master encryption keys to be able to do this.

While there is no suggestion that the bureaux are in any way insecure, correct security best practice requires as few people as possible to have access to the master keys. This therefore means that the advice given by most EMV consultants is that at the very least the data preparation process and key management should be kept in-house. The prepared file can then be sent to the bureau which then completes the personalisation process. This has the added advantage of allowing the bank to change between competing bureaux in a competitive environment without compromising security.

The fact that common standards for multiapplications are only beginning to emerge means that being behind Europe in its migration will work to the advantage of the Middle East

It should be noted that many European banks have chosen to use a bureau during the pilot phase of their EMV rollout. Most of these issuers intend to bring the data preparation back in-house once the trials are complete.

The Middle East will also be able to benefit from one further advantage that was not available to Europe. By the time the Middle East begins to fully embark on the road to EMV, the region's banks will be able to choose from a range of proven suppliers who have already assisted many European banks to migrate to EMV.

This is no small advantage, as a complete EMV migration can involve changing 12 or more separate parts of the infrastructure such as the host system, the card issuance system and of course the cards themselves.

At the moment no single vendor is able to offer a complete EMV migration package. However, there are several examples of vendors repeatedly working together for individual banks. The creation of these *ad hoc* partnerships means that Middle Eastern banks will be able to select a range of proven suppliers who have experience of working together to provide

the complete package. In a task as complex and costly as EMV migration, this will prove to be a massive benefit.

Look to what the future offers now

Along the road towards EMV migration, there are several other advances that are in the pipeline that Middle Eastern banks should consider now.

The first is smart card-based e-commerce and internet banking transactions. This replaces the less-secure password-based systems used today and uses a standalone smart card reader and PIN pad, meaning that the user is able to avoid the security dangers posed by Trojan horses and computer hacks.

This is possible because the smart card itself generates a random single-use passcode which is displayed by the reader and then typed in during the authentication process. The bank's authentication system then calculates what this code will be and validates it. Even if someone inter-

cepted this transaction, the code cannot be used for further transactions as the smart card would generate a fresh code for the next transaction.

Furthermore the expense of this system is probably less than \$15 a reader as the cryptographic key processing is carried out by the card and the reader itself is 'dumb.'

By learning from the knowledge already gained in Europe and benefiting from the use of experienced vendors, Middle Eastern banks will find themselves in an extremely strong position.

This will lead to not only a successful but also an immensely cost-effective EMV migration saving the banks considerable sums of money. Importantly, their customers will also benefit from a far more secure and diverse service. ■

Paul Meadowcroft is head of Transaction Security at Thales e-Security.

For more information on how to complete a successful EMV migration, readers can download the free independent EMV migration guide from the Thales e-Security website at <http://www.thales-eseecurity.com/products/services/P3.shtml>

Electronic cash gains a foothold in Europe and Asia

Europe's electronic purse schemes have had contrasting fortunes in recent years, with schemes in northern and southern Europe suffering from post-millennial blues while the centre enjoys a renaissance. Meanwhile, public transport payments in Asia are being transformed by contactless smart cards. **Tony O'Brien** reports

ELECTRONIC PURSES seem to have found a safe home in central Europe despite some hiccups along the way.

Proton, managed by Banksys in Belgium, saw a huge upsurge in usage on the back of the euro conversion in 2002 but in 2003 it came back down to earth. The number of active users slumped from 2.45 million to 2.1 million. The number of purchases tumbled by 11.2 percent while the number of reloads fell by 7.9 percent to 16,752.

The Proton acceptance network continues to expand, with about 2,000 more payment terminals and vending machines installed. By the end of 2003, there were 81,295 payment terminals and 25,286 vending machines accepting Proton, and 213,249 load terminals.

Banksys expects Proton usage to recover for more sustainable growth in 2004, boosted by initiatives such as the 'Load & Win' promotion and the recent agreement reached between Banksys and UNIZO (Unie van Zelfstandige Ondernemers) that resulted in Proton merchant commissions being cut from 0.7 percent to 0.55 percent.

While Banksys remains the sole acquirer of Proton transactions, Interpay will cease to acquire Chipknip electronic purse and PINpas debit cards transactions from 1 March. The rapid growth in Chipknip usage in recent years was sustained in 2003, with a 35 percent jump in payments to 109 million. The number of loads rose 26 percent to 15 million.

Two-thirds of Chipknip payments in 2003 were payments for parking or catering, especially in hospitals or schools. Of the 36.1 million payments for parking, 24.8 million were for street parking, with the rest for parking garages or parking lots. There were some 37.5 million payments for catering purchase, almost 88 percent more than in 2002, as well as 19.6 million payments at vending machines (with a further 0.8 million

payments at cigarette vending machines).

The Private Label Prepaid Chipknip, an own-brand or white label version of the Chipknip which can be distributed by non-banks, was launched in 2003. The card is pre-charged with a balance amount that can be determined by the non-bank. However, Chipknip is likely to be shut out of the public transport sector as a consortium of public transit companies, Transit Link Systems, will use the contactless chip card technology of Hong Kong's Octopus Cards for its national transit card system.

But Chipknip has been accepted by the 3,000 vehicles of Connexxion Taxi Services, a taxi company run by national bus operator Connexxion, since 1 March, with credit card acceptance to follow.

In Germany, smoking is emerging as one of GeldKarte's killer applications. Germans can buy cigarettes at some 50,000 vending machines throughout the country using their GeldKarte cards, thanks to the backing of the German association of tobacco wholesalers and vending machine operators. By the end of 2006, all cigarette vending machines will accept account-linked GeldKarte cards – standalone, reloadable cards are also available and are usually issued by banks on behalf of third parties such as public transport companies (including tourist cards) or as special editions.

The move was prompted by efforts to comply with new German youth protection law, which is designed to ensure that young people under the age of 16 cannot buy cigarettes from machines. The microchip on the GeldKarte will have a special code which prevents anyone aged under 16 from using it in cigarette machines.

The number of active payment terminals (including vending machines) jumped 23 percent in 2003 to 121,000. There were 62 million GeldKarte cards in issue by the end of 2003 and the cards were loaded 4.2

million times during 2003 and used for some 37.4 million payments. The average load amount loaded was €25.36 (\$31.36), down from €27.35 in 2002, and the average payment value was €2.05, down from €2.1 in 2002.

As elsewhere in Europe, the GeldKarte is enjoying widespread acceptance for automated transactions in public areas. More than 400 towns and cities in Germany accept the card in their parking lots, and public transport users can buy tickets at automatic ticket machines, or at ticket shops. Some public transit systems, such as Bremen's, allow the card to be used to store an electronic ticket, instead of issuing a paper ticket.

Deutsche Post has been encouraging the use of the GeldKarte in its outlets, especially for self-service transactions. The card is accepted in the 13,000 German post offices and at about 6,000 stamp machines around the country. Some post offices with 24-hour self-service zones are also being fitted with machines that accept GeldKarte payments.

Austria's Quick electronic purse was another to benefit from the changeover to the euro, with the number of payments more than trebling, but, like Belgium's Proton, it slipped back in 2003 with purchase and load volumes down and a small rise in the number of payments. There were 17.7 million Quick payments in 2003, valued at €116.8 million, compared with 17.2 million payments in 2002, valued at €132.5 million. Similarly, there were 1.32 million load transactions valued at €120 million in 2003, down from 1.47 million loads valued at €142.25 million.

The Quick acceptance network continued to expand, with 79,806 payments terminals at the end of 2003, up from 74,567 in 2002, and 5,879 load terminals, up from 5,775 in 2002.

There are about 3.8 million CASH electronic purses in Switzerland, of which about 3.6 million are combined with debit cards. After rapid growth up to 2000, the annual number of transactions has remained around 20 million for the past three years.

Telekurs, which operates the CASH scheme, indicated its intention to reposition CASH as a niche product. As a result, Telekurs will focus on maximising acceptance and usage for parking, vending machines, and public transport and other sectors, such as grocery or clothing stores will no longer be acquired.

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The rollout of France's Moneo is entering a new phase with Billettique Monétique Services (BMS) moving on from the nationwide rollout to consolidation and encouraging use. Some 1.3 million Moneo cards had been activated by February and the cards were accepted at some 130,000 outlets. There were about 20 million Moneo payments in 2003, out of 41 million payments recorded since January 2000. The average payment value is about €4.

The modest success of Moneo in France contrasts with the declining fortunes of electronic purse schemes in southern Europe and Scandinavia.

Payments using Portugal's Porta-moedas Multibanco (PMB) fell from 5.1 million in 1998 to 3.2 million in 2001, according to the European Central Bank (ECB). Banco de Portugal reported that by January 2003 only 11,118 of the 3.6 million cards with a PMB purse had been loaded at once. Active cards were reloaded 131,000 times €1.7 million in 2002, and they were used for about 884,000 payments. The three Spanish purses (Visa Cash, Monedero 4B and Euro 6000) have also seen better days. According to ECB figures, they managed a combined 1.13 million payments in 2001, down from 2.23 million in 1998. Electronic purse usage in Italy is negligible, with only about 0.5 million electronic money payments in 2001.

Sweden was one of the last European countries to develop a national electronic purse scheme but it will be one of the first to abandon purses, after Cashkort partners FöreningsSparbanken, Handelsbanken, Nordea and SEB decided in January to phase it out.

The move had been coming for some time, according to Kerstin Ottosson, head of communications with SEB's cards division SEB Kort. Indeed, usage peaked in 1999 with 4.2 million purchases – by 2002, there were only 0.7 million. The banks came to realise that consumers did not want or need another card, although Ottosson acknowledged that the banks could have done a better job in promoting the Cashkort.

With the same banks active throughout Scandinavia and the Baltic states, does the decision to abandon Cashkort bode ill for electronic purses elsewhere in northern Europe? Not according to Ottosson, who insisted that the experience had not soured the banks against electronic purse schemes and that the experience had taught them valuable lessons for the future.

One scheme that does seem to be in jeopardy is Finland's Avant. Despite rapid growth in the late 1990s, there were still only about 0.7 million Avant payments in 2001. Earlier this year, it emerged that the major banks (Nordea, Okobank and Sampo) were considering phasing out Avant partly because it had failed to establish itself in the market and partly because chip-enabled credit and debit cards can be used cost-effectively for small value payments.

Another early pace setter in the electronic purse game, Denmark's Danmønt has seen better days. Purchase volumes began to slip back in 2001, with 7.1 million in 2003, down from 7.9 million in 2000. The cards were loaded about 65,300 times.

Just as their neighbours are getting out of electronic purses, Norway's banks, through Bankenes BetalingsSentral (BBS), are getting in. BBS announced an agreement with STMicroelectronics in December to become a licensee for Norway for Proton Prisma.

ELECTRONIC PURSES: MAJOR EUROPEAN SCHEMES

	Transactions (mn)		
	2001	2002	2003
Proton	60.5	120.8	107.3
Chipknip	21.8	81.1	109.0
Geldkarte	29.4	35.9	37.4
Quick	5.1	17.2	17.7

Source: APSS, Banksys, Interpay Nederland, ZKA

The first Proton-Prisma-based cards will combine the Visa or MasterCard EMV application with the Norwegian domestic debit Bank-Axcept. Other applications in the future are expected to include the existing Norwegian Proton-based e-purse Småpengekort.

BBS will coordinate the development and launch of new payment solutions as an integral part of its strategy to migrate to smart cards. The banks are planning to launch the pilot with BBS in the second quarter of 2004, with full rollout due to begin by the fourth quarter.

Most of Europe's electronic purses started as cash replacements for all small value payments. Asia, on the other hand, has seen the emergence of chip-based cards primarily focussed on public transport payments. The particular need of transit payment quick throughput and customer convenience led to the development and widespread use of contactless cards in the region, and Sony Felica card is the platform for most of these schemes.

The Felica chip-based, contactless card is the platform for the Hong Kong's Octopus card, Singapore's ez-Link card and the Edy electronic purse and the Suica card of railway company JR East in Japan.

The Octopus card began life as an integrated public transit card in 1994 but from 2000 Octopus Cards, formerly Creative Star, expanded the acceptance network to include convenience stores, supermarkets, fast food outlets, car parks and vending machines. There are more than 10 million Octopus cards in circulation, generating over 7.9 million transactions per day, with an average daily value of about HK\$53.6 million (\$6.88 million).

Singapore has two major smart card-based electronic money schemes: CashCard, an electronic purse developed by the banks' payments consortium NETS, and ez-link, a public transit payment card.

CashCard has benefited from the support of the banks and widespread acceptance through NETS' vast terminal network. There were 115 million CashCard transactions in 2002, worth S\$239 million (\$138 million), but since its launch in April 2002 ez-link has been a huge success. ez-link registered over 580 million payments, worth more than S\$410 million in 2002 alone.

ez-Link is already looking beyond the transport sector, and QB Link, a subsidiary of the payments company Green Dot Payments Services, was charged with developing non-transit payments and loyalty applications for the cards. Another ez-Link partner is Citibank, which acts as the stored value card issuer of the card.

Edy in Japan enjoys widespread support from banks, retailers and technology companies and according to figures from bitWallet, the company behind Edy, some 3.4 million Edy cards were in issue by the end of 2003, which were accepted at about 3,400 outlets and were generating over 1.6 million payments per month. By comparison, the J-Debit debit card generated less than 9.5 million payments in 2003, worth ¥530.9 billion, up from 8.3 million, valued at ¥434.8 billion (\$3.88 billion) in 2002.

Future developments could see the lines blur between electronic purse and mobile payments. The Japanese mobile operators NTT DoCoMo and KDDI also plan to use Sony Felica technology in their phones. In Korea, mobile operator KTF and electronic purse company KEBT will provide a rechargeable, mobile phone-based nationwide public transport payment system for mobiles and a mobile finance service. ■

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Asia-Pacific Cards Research Reports 2003-2005



The Lafferty Group has undertaken a new landmark study: **Cards in Asia-Pacific 2003-2005**. Over six months, a team of researchers on three continents worked to obtain the most **up-to-date, accurate and robust data** available about the key credit card markets in the Asia-Pacific region. Hundreds of industry leaders and contacts participated in the study, and all available sources were utilized. Based upon this research, a series of reports has been developed for executives in the cards industry who need information about specific topics or geographical regions.

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