World Payments REPORT 2010

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Preface

Now in its sixth year, the *World Payments Report* from Capgemini, The Royal Bank of Scotland (RBS), and the European financial marketing association (Efma) looks at the payments business as it faces challenges from economic and competitive conditions, technology advances, increased regulatory pressure and customer demands.

Payments and other transaction banking services proved resilient during the economic crisis, but the rapidly changing external environment will require banks to decide to what extent payments are core to their business strategies.

The *World Payments Report 2010* looks at global trends in payments volumes, describes progress in important payments-related initiatives, such as the Single Euro Payments Area (SEPA) and the Payment Services Directive (PSD), and looks at how new regulations are creating additional pressure on the payments landscape.

We include an overview on the Basel III framework, which will require strong management attention, and we spotlight its more stringent liquidity requirements, as they will increase costs and could require repositioning for some banks.

We explore how new technologies and competition are making the payments universe more complex and expansive and why, as a consequence, banks will need to dedicate more strategic attention to their payments value propositions.

We describe how banks will need to consider their options carefully for optimising their payments businesses, as the transformation of the payments value chain is accelerating.

We then focus on how banks will need to employ an intense parallel strategy, comprising revenue-focussed and cost-focussed initiatives, leverage sourcing strategies and consider mechanisms such as Payments Hubs to make these parallel strategies feasible and allow banks to achieve more with less.

We hope this year's report provides useful insights.

Bertrand Lavayssière
Managing Director
Global Financial Services
Capgemini

Brian Stevenson
Chief Executive
Global Transaction Services
The Royal Bank of Scotland

Patrick Desmarès
Secretary General
European financial marketing association

Summary of Key Findings

Banks are used to ongoing shifts in the payments landscape, but a wave of new challenges, driven by economic and competitive conditions, technology advances, regulatory pressure and customer requirements, is accelerating the transformation of the payments value chain, and banks will need to decide how best to respond. The *World Payments Report 2010* looks at the trends in payments volumes and instruments usage, key payments-related regulatory initiatives, and the consequent strategic challenges and options for banks.

The key findings of this report include the following:

The payments business has withstood the financial crisis well. Only time will tell the ultimate impact, but initial data suggest payments volumes continued to expand in 2009:

- **The global use of non-cash payment instruments continued to grow in 2008, despite the financial crisis.** The overall growth in volumes accelerated to 9% in 2008 from 7% in 2007, and preliminary data suggest payments continued to grow in 2009. Volumes in 2008 grew only modestly in developed markets and registered the largest increase in certain developing economies such as China (up 29%), South Africa (up 25%) and Russia (up 66%).
- **Globally, cards remain the preferred non-cash payment instrument,** accounting for more than 40% of payments in most markets and above 58% globally. Initial data show that card transaction volumes continued to grow in 2009.
- **Alternative payment service providers (PSPs) have made significant strides in m-payments and e-payments,** even though they still account for a small percentage of total worldwide transaction volumes.
- **Cash-in-circulation in the Eurozone maintained a steady growth of about 11% per year since 2002, representing a significant cost for global economies** (the European Payments Council estimates that the cost of cash payments for European Union economies is €50 billion to €75 billion a year).

Several developments have taken place in the last year towards SEPA and PSD in Europe:

- **Nearly all European Economic Area (EEA) Member States had transposed the Payment Services Directive (PSD) into national law by August 2010.** However, certain inconsistencies in interpretation still remain, and these ambiguities will need to be resolved to help ensure SEPA can progress as planned.
- **Banks are compliant with SEPA Credit Transfers (SCTs), but volumes remain low. SEPA Direct Debit (SDD) was launched as planned in November 2009** for both consumers (SDD Core) and corporates (SDD B2B) and even if the reachability rate is high (70%), usage at this stage is still very low. **Regarding SEPA for cards, the vision of "any card at any terminal" is still far from a reality.** However, European card initiatives (EAPS, Monnet and PayFair), designed to rival the established duopoly of Visa and MasterCard, have each made progress.
- **Nearly all stakeholders now agree that full SEPA migration will lag unless forced by regulation.** In June 2010, the European Commission (EC) announced that self-regulatory efforts were not sufficient on their own to drive concerted migration to SEPA and it was intending to draft binding legislation on migration end dates.

Regulatory pressures continue to affect the payments industry worldwide:

- **Industry-wide global regulations** are expanding in response to the crisis, creating intense pressure on the industry. Implementing the **Basel III framework**, in particular, will require management attention and investment. The **more stringent liquidity requirements** will increase costs and could require strategic repositioning for banks.
- **Anti-Money Laundering (AML) and Anti-Terrorist Financing (ATF) requirements** are likely to increase the costs of processing payment orders, reducing efficiency and slowing the rate of straight-through processing (STP).

New technology and competition are making the payments universe more complex and expansive and, together with the effects of the economic crisis, new regulatory initiatives are acting as catalysts to the further evolution of the industry:

- **New entrants, enabled by customer-friendly regulations and fast-emerging technologies, are gaining ground in the more open Business to Business (B2B), Business to Consumer (B2C) and Consumer to Consumer (C2C) payments spaces.** In recent years, the payments industry has seen many new entrants, and many of them offer state-of-the-art, highly honed and comprehensive value propositions for certain clients. The traditional payments value chain is transforming as players adapt themselves to the new landscape.
- **The transformation of the value chain will accelerate. Client-facing and processing segments of the value chain will transform more rapidly.** The first will be mainly affected by competition from new entrants and the programmes banks will dedicate to access client value chains, alone or with partners; the second will be affected by the insourcing/outsourcing solutions adopted and other improvements of the operating model.
- **Sourcing strategies will increasingly play a decisive role in banking strategies.** Revenue-focussed initiatives will require skills, expertise in partnerships and an ability to measure results. Cost-focussed initiatives will be possible mainly through outsourcing or insourcing volumes to reduce costs or achieve scale.
- **Payments Hubs can allow banks to achieve more with less.** Effectively designed processes and architectures will allow a bank dedicated to the payments business to execute both revenue- and cost-focussed initiatives in parallel, and will strengthen product innovation and operational excellence.

World Non-Cash Payments Markets and Trends

HIGHLIGHTS

- **The global use of non-cash payment instruments (direct debits, credit transfers, cards and cheques) continued to grow in 2008, despite the financial crisis.** The growth in volumes accelerated to 9% in 2008 from 7% in 2007. Global transaction volumes totalled 269 billion in 2008, after sustained average growth of 8.4% a year since 2001—growth that has outpaced the expansion in global gross domestic product (GDP).
- **The largest increase in non-cash payments volumes was found in certain developing economies, such as China (up 29%), South Africa (up 25%) and Russia (up 66%), in which economic activity was relatively more robust.** Volumes grew modestly in developed markets, but the outright totals in North America and the mature economies of Europe and Asia still overshadowed those in emerging markets, and accounted for 77% of global volumes in 2008.
- **Globally, cards (credit and debit) remain the preferred means of non-cash payment, accounting for more than 40% of payments in most markets and above 58% globally.** Globally, card-transaction volumes were up 15% in 2008, and their value was up 6.6%. Many European countries saw a drop in the average value per card transaction, in line with past trends, suggesting many individuals are increasingly using non-cash means even for low-value transactions.
- **The payments business has withstood the financial crisis well. Only time will tell the ultimate impact, but initial data suggest payments volumes continued to expand in 2009.** World exports were certainly hit by the crisis, though data have yet to show the exact impact on demand for trade finance. The crisis is also thought to be undermining growth in workers' remittances, which have clearly slowed since the last quarter of 2008 and are expected to show an outright decline in 2010.
- **Since 2002, cash-in-circulation in the Eurozone has grown about 11% per year.** The war on cash is still far from won and the continuing expansion of cash and the high associated expenses (use of cash costs EU economies an estimated €50 billion to €75 billion a year) should encourage additional efforts by all stakeholders to reduce the use of cash for payments.
- **Non-bank payment service providers (PSPs) have made significant strides in e-payments and m-payments** even in developed markets, where banks have a long-standing relationship with both consumers and merchants. But non-bank PSPs still account for a small percentage (0.6%) of total worldwide non-cash transaction volumes.

Non-Cash Payments Maintain Healthy Growth

GLOBAL USE OF NON-CASH PAYMENTS GREW AGAIN IN 2008, DESPITE THE CRISIS

The growth in global non-cash payments volumes accelerated to 9% in 2008 from 7% in 2007, despite the continued financial crisis. Volumes totalled 269 billion in 2008 (see Figure 1.1), after sustained growth of 8.4% a year since 2001—growth that has far outpaced the expansion in global GDP.

The outright volume of non-cash payments remained heavily concentrated in developed markets. In fact, while volumes grew only modestly (5–6%) in North America and the mature economies of Europe and Asia-Pacific,[1] those segments still accounted for a combined 77% of non-cash payments volumes in 2008. The top ten[2] payments markets accounted for 91% of all global volumes in 2008.

Still, the rate of growth in non-cash payments volumes was faster in developing economies, especially the BRIC (Brazil, Russia, India, China) nations, in which economic activity remained robust relative to more developed nations. For example, the year-on-year growth in transaction volumes was particularly strong (29%) in China in 2008. Emerging markets also have far more limited banking infrastructures than developed markets, and these constraints are spawning a significant number of payments innovations, which should be an important source of growth in payments volumes in the years ahead.

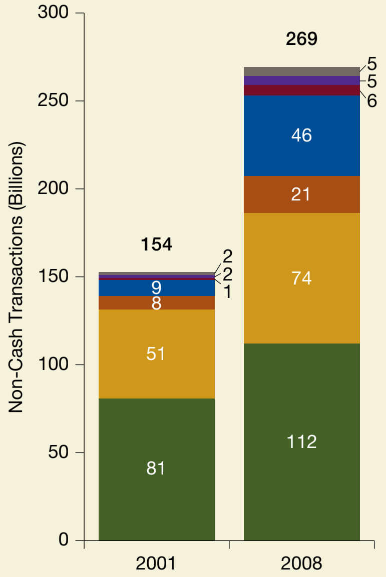
Behind the aggregate increase in 2008 non-cash payments volumes, there were notable trends in the mix and use of individual instruments (see Figure 1.2 for 2001 vs. 2008 payments mix). Those trends included the following:

- Cards (credit and debit) remained the preferred means of non-cash payments globally, accounting for more than 40% of non-cash volumes in most markets and above 58% globally. Globally, card-transaction volumes were up 15% from 2007, and their value was up 6.6%.
- Globally both debit and credit card volumes rose at a similar pace although regional differences were apparent.
- Credit-transfer volumes rose 7%. Direct debits, which also showed a 7% volume increase, are especially gaining popularity in Europe and the U.S.
- Cheque volumes continued to decline (by 6%), largely reflecting the increasing popularity of online bill payment and efforts by banks and governments to reduce usage.

[1] North America comprises Canada and the U.S.; mature Europe includes the entire Eurozone; and mature Asia-Pacific comprises Australia, Japan, Singapore and South Korea

[2] The top ten non-cash payments markets, in order of size, are the U.S., Eurozone, China, the U.K., Canada, Brazil, South Korea, Japan, Russia and Australia

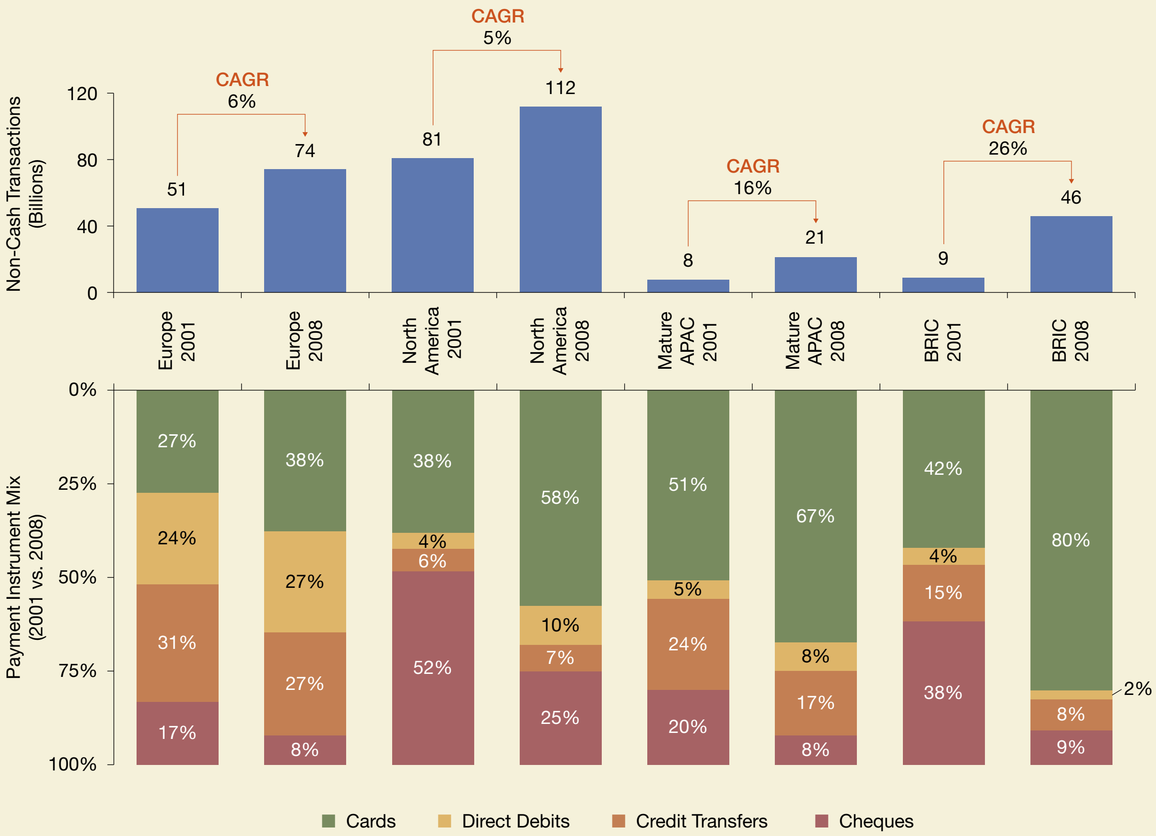
Figure 1.1 Number of Worldwide Non-Cash Transactions by Region (Billions), 2001 vs. 2008



	CAGR ('01–'08)	CAGR ('07–'08)	
Global	8%	9%	
Rest of Asia	16%	16%	Developing Economies
Latin America	18%	14%	Developing Economies
CEMEA	24%	16%	Developing Economies
BRIC	26%	28%	Developing Economies
Mature Asia-Pacific	16%	12%	Mature Economies
Europe (including Eurozone)	6%	6%	Mature Economies
North America (U.S. and Canada)	5%	4%	Mature Economies

Note: "CEMEA" (Central Europe, Middle East and Africa) does not include Russia; "mature Asia-Pacific" includes Japan, Australia, South Korea and Singapore; "Latin America" does not include Brazil
Source: ECB DWH—2008 figures, released Nov. 2009; Bank for International Settlements, Red Book, 2008 figures, released March 2010; Capgemini analysis, 2010

Figure 1.2 Comparison of Non-Cash Transactions by Region and Change in Payments' Mix, 2001 vs. 2008



Note: Data not available: for China for cheques in 2001, for South Korea for cards in 2001, for Japan and China for direct debits for all years; so the growth rates shown might be somewhat smaller for these regions for those payment instruments
Source: ECB DWH—2008 figures, released Nov. 2009; Bank for International Settlements, Red Book, 2008 figures, released March 2010; IMF database; central bank sources; Capgemini analysis, 2010

WITHIN THE LARGEST MARKETS, USAGE TRENDS CONTINUE TO EVOLVE

While overall payments volumes are rising, there are clearly ongoing shifts in usage patterns. In the U.S., for example, non-cash payments volumes rose 4% in 2008 to 102.5 billion, leaving the U.S. to account for more than 38% of the world's volumes.

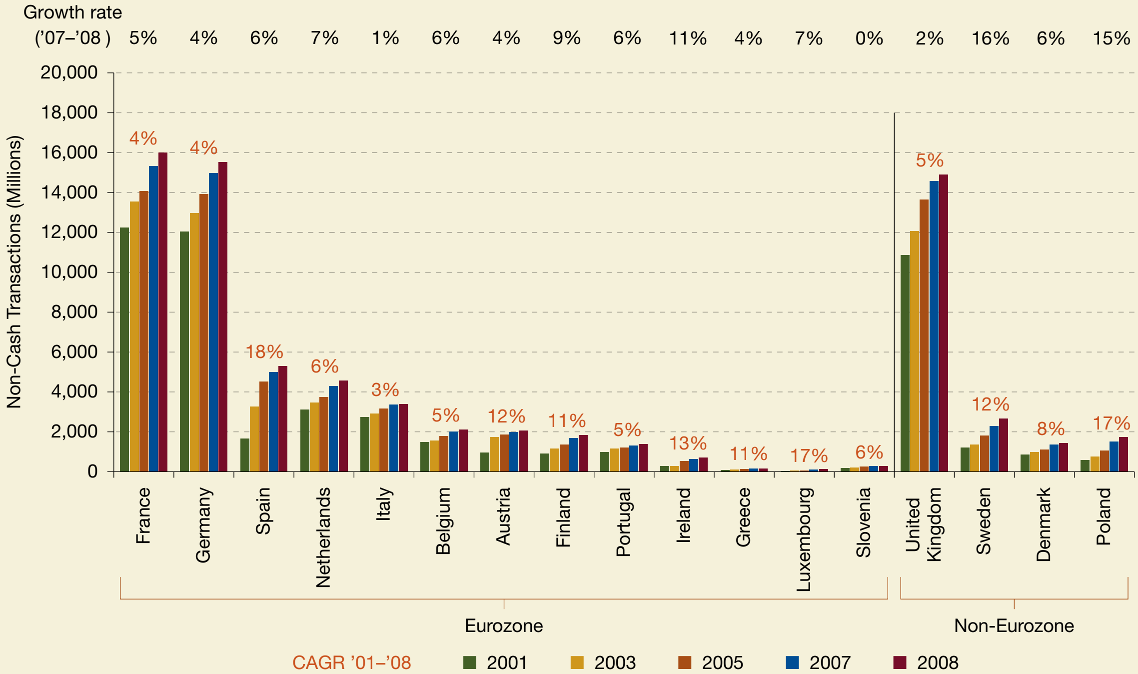
In Europe, non-cash payments are certainly increasing steadily enough to warrant investment by banks in new payment technologies, especially as regulation is likely to drive or restructure non-payments usage, either through far-reaching payments initiatives such as SEPA (see Section 2) or the efforts of individual countries to replace outmoded instruments. For example, the U.K. Payments Council National Plan has set a strategy to phase out cheque usage in Great Britain by 2018.

At present, the largest non-cash payments markets in Europe are still Germany, France and the U.K., while Poland and Sweden showed the highest year-on-year growth rates in 2008. However, the maturity of non-cash usage still varies considerably by country (see Figures 1.3 and 1.4). For example:

- Finland and Sweden lead Europe in terms of usage per inhabitant. In fact, the Finnish people are the heaviest users of non-cash payment instruments, even ahead of the Americans. The usage in Nordic countries has been driven by the concerted effort of governments and banks, and the willingness of residents to adopt new electronic payment technologies.
- Germans still like to use cash frequently, and cards are used less frequently than in other countries mainly for cost reasons. Overall, though, the country has sophisticated payment technologies, and the aggregate volume of non-cash transactions is second only to France in the Eurozone,[3] amid heavy use of direct debits and credit transfers.
- In Greece, Italy and Poland non-cash usage per inhabitant is still minimal (less than 60 transactions per year). The Polish government is actively trying to encourage non-cash transactions, starting with legislative amendments that will remove some of the barriers to developing non-cash payments, fuelling the uptrend in transaction volumes that has already become evident.

[3] In this chapter, payments data on 'the Eurozone' covers the 13 countries that were members of the Eurozone in 2007: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia and Spain. (Cyprus and Malta joined in 2008 and Slovakia in 2009.) Also see the methodology section

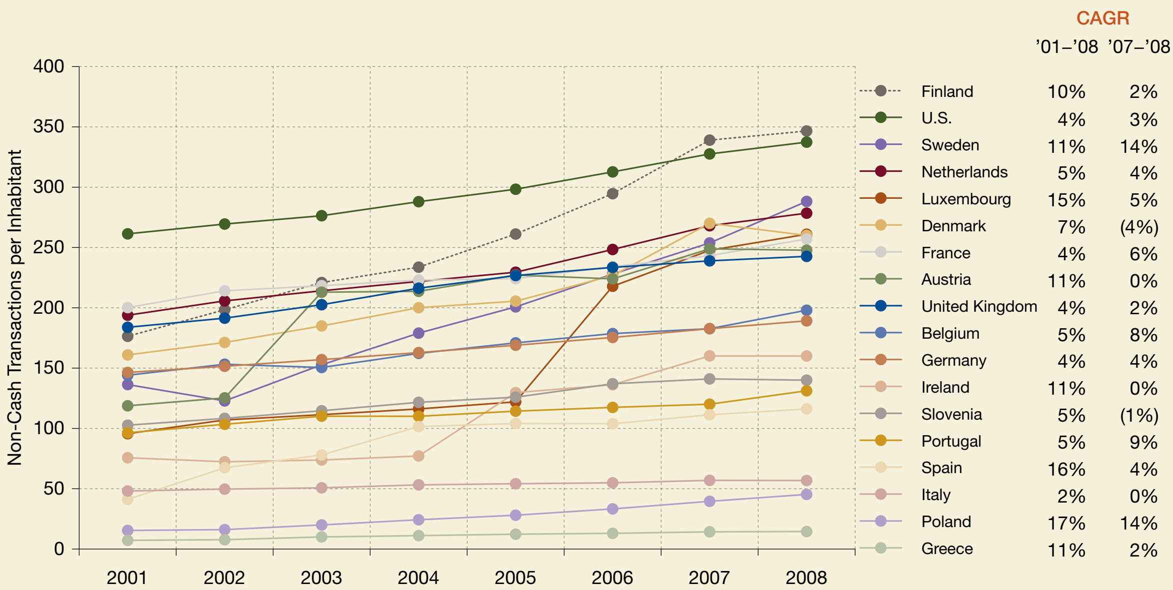
Figure 1.3 Number of Non-Cash Transactions in Europe (Millions), 2001–2008



Notes: (1) The 17-country sample includes the 13 countries that were members of the Eurozone in 2007 (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Netherlands, Slovenia, and Spain), plus four non-Eurozone countries (the U.K., Denmark, Sweden and Poland); (2) a 2007 change in Germany's methodology for collecting certain payments data causes a break in the time series, and means 2007 and 2008 data are not directly comparable with previous years; for Germany, 2001 and 2008 data have been considered and the growth has been averaged out; (3) only odd-years data have been shown in the graph up to 2007 for better visualisation of the chart

Source: ECB DWH—2008 figures, released Nov. 2009; Bank for International Settlements, Red Book, 2008 figures, released March 2010; IMF database; central bank sources; Capgemini analysis, 2010

Figure 1.4 Evolution of Non-Cash Transactions per Inhabitant per Country in Europe and the U.S., 2001–2008



Source: ECB DWH—2008 figures, released Nov. 2009; Bank for International Settlements, Red Book, 2008 figures, released March 2010; IMF database; central bank sources; Capgemini analysis, 2010; NBP Annual Report 2008

DISPARITY REMAINS BETWEEN COUNTRIES ON PREFERRED PAYMENT MEANS

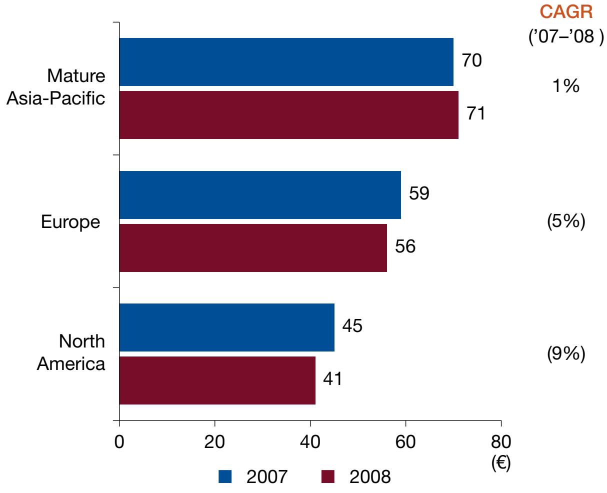
Different non-cash payment instruments are still favoured more in some countries than others. For example:

- **Card usage rose around the world, but is disparate among individual countries.** In Europe overall, the average value per card transaction dropped slightly in 2008, to €56 from €59 in 2007 (see Figure 1.5). This decline is in line with trends reported in the *2009 WPR*, suggesting many individuals are increasingly using non-cash means even for low-value transactions.

  In North America, the average value of card transactions also dropped in 2008, to €41 from €45. U.S. consumers transacted less on credit cards in 2008 as they sought to reduce spending and borrowing amid the economic slowdown. At the same time, though, debit card usage rose—with U.S. volumes up 13%—at least in part because consumers were trying to use more "pay now" strategies, especially seeking to shift everyday purchases from credit cards.

  Residents of mature Asia-Pacific continued to have the highest average value per card transaction in 2008—little changed at €71. In much of Asia, cash remains the preferred means of payment for lower-value payments.
- **Direct debits are used more often in Europe than in other markets, and the average value per direct debit transaction rose there in 2008**—to €785 from €722. Direct debits are increasing in popularity, with more corporates and small- and medium-sized enterprises starting to use them. Direct debits are more effective for the payees, as the reconciliation process is easier, and fewer balances go unpaid. Direct debits will never totally replace credit transfers, which are more useful for "one-off" payments, for example, and which tend to be preferred for higher-value automated payments. Credit transfers are especially popular in certain countries, such as the U.K. and Germany. The average value per credit transfer in Europe in 2008 was €11,069, though that was down from €13,376 in 2007.[4] Direct debits are, however, likely to take an increasing share of the payments once made via cheques.
- **Cheque usage has declined** as a percentage of total non-cash transactions in Europe—from 11% in 2005 to 8% in 2008. Concerted action from regulators and banks has helped to reduce cheque usage in countries like the Netherlands and Belgium, but cheques are still a mainstay in both France and the U.K. The U.K. Payments Council National Plan, meanwhile, is seeking to close cheque clearing in 2018, an ambitious plan that requires a comprehensive understanding of cheque usage, and subsequent action to migrate users to appropriate alternatives. In the U.S. the volume of cheques used dropped another 6% in 2008 as banks continued to encourage alternative non-cash means. In mature Asia-Pacific markets, the average value of cheque payments is far higher (€2,479 in 2008) than in either Europe or North America, but that is largely because cheques there are used mainly for legal and government-related transactions, which tend to be of a higher value.

Figure 1.5 Average Value per Card Transaction (€), 2007–2008



Source: ECB DWH—2008 figures, released Nov. 2009; Bank for International Settlements, Red Book, 2008 figures, released March 2010; IMF database; central bank sources; Capgemini analysis, 2010

THE ECONOMIC CRISIS IS LIKELY TO AFFECT EXPORT PAYMENTS AND REMITTANCES

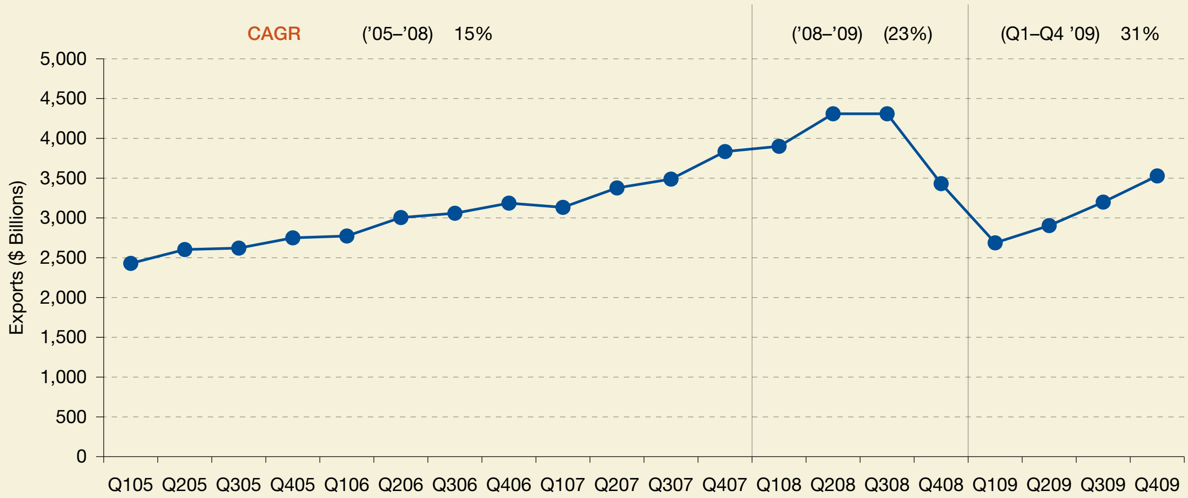
The economic crisis did not start to take its full toll until the latter half of 2008 and it is already clear that world exports declined initially, probably undermining the demand for trade finance. In fact, export rates in the first quarter of 2009 showed the largest year-on-year decline in the last decade, before starting to trend back up in the latter half of the year (see Figure 1.6).

The crisis is also thought to be undermining growth in workers' remittances, which have certainly slowed since the last quarter of 2008 and are expected to show an outright decline in 2010 (see Figure 1.7).

India continues to be the leading recipient of migrant remittances in the world (US$52 billion in 2008), since many of the population relocate to developed countries to work and then remit earnings home.

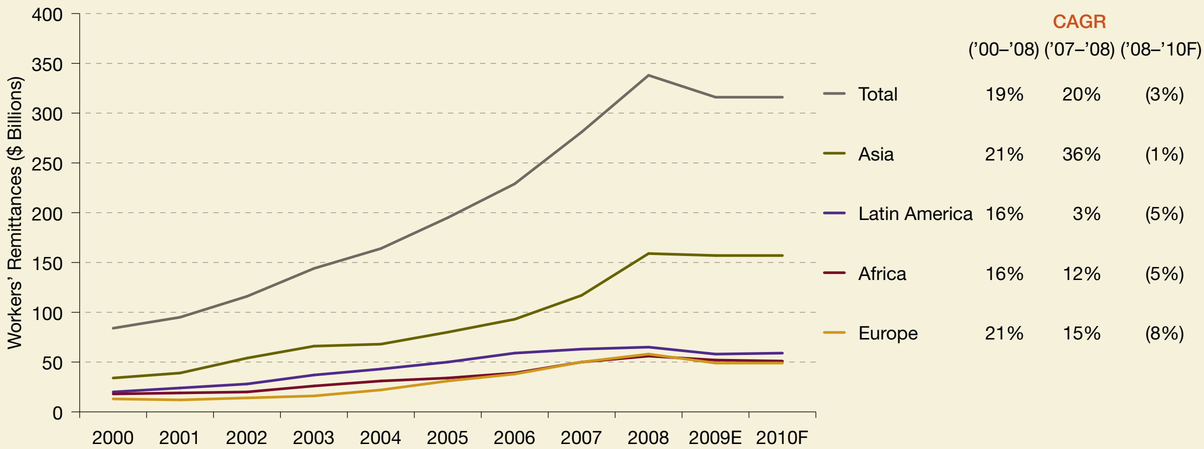
[4] The high average value per credit transfer compared to other instruments reflects its common usage in B2B payments across Europe and especially in the U.K.

Figure 1.6 Quarterly World Exports ($ Billions), 2005–2009



Source: World Trade Organisation Secretariat; Capgemini research and analysis, 2010

Figure 1.7 Worldwide Workers' Remittances Market Evolution, Receiving Regions ($ Billions), 2000–2010F



Notes: E and F represent estimated and forecast respectively
Source: World Bank Migration and Remittances Factbook 2009; Capgemini research and analysis, 2010

EURO CASH-IN-CIRCULATION IS STILL EXPANDING

Euro cash-in-circulation has sustained average growth of about 11% per year, almost doubling since the euro was introduced in 2002 (see Figure 1.8), even when excluding the €500 and €200 notes that are the most hoarded (in the Eurozone and in neighbouring Eastern European countries). In 2008, the year-on-year expansion in cash-in-circulation was much higher than the increase in non-cash transactions per inhabitant (11% vs. 4%).

According to estimates from the European Payments Council (EPC[5]),cash payments cost the EU economies between €50 billion and €75 billion per year—expenses that should motivate all stakeholders to take more determined action to discourage cash payments.

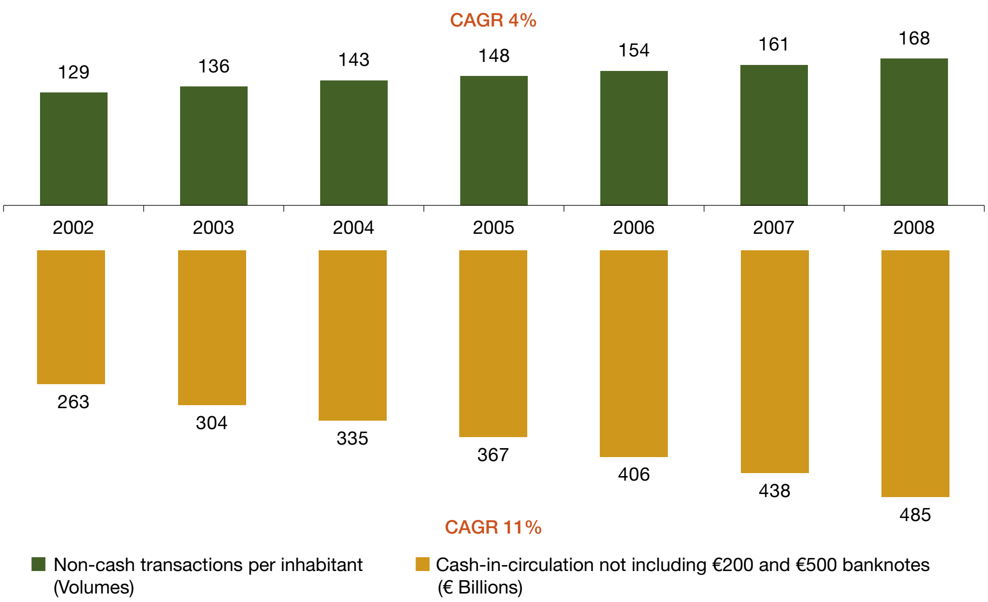
Within the Eurozone, different countries are at different stages of the cash-substitution process. In general, cards have yet to replace cash largely because consumers favour cash for low-value transactions, and merchants see card processing as slower and more costly than cash for smaller amounts. As a result, even though the number of non-cash transactions per inhabitant is likely to keep rising, cash-in-circulation will also continue to rise unless merchants and consumers are incentivised to switch.

INITIAL DATA SUGGEST RESILIENCE IN PAYMENTS FLOWS CONTINUED IN 2009

While final data on 2009 payments volumes are not yet available, initial data suggest payments flows remained strong in emerging markets into 2009. The payments markets in mature Europe and the U.S. remained resilient, as evidenced by the following findings from data produced by central banks and other payments-industry bodies:

- In the U.S. the volume of retail payments continued to grow, though the mix changed. For example:
  - There was a small decline in the volume of credit card payments (down 4%), due in part to a tightening of credit standards by banks, but the decline was more than offset by an increase in the use of debit cards and prepaid cards (up 13%).[6]
  - The number of transactions processed as automated clearing house (ACH) payments grew 2%,[7] largely due to ongoing efforts to replace inefficient instruments such as cheques.

Figure 1.8 Comparison of Cash-in-Circulation vs. Non-Cash Transactions per Inhabitant in the Eurozone, 2002–2008



Source: ECB DWH—2008 figures, released Nov. 2009; Bank for International Settlements, Red Book, 2008 figures, released March 2010; IMF database; central bank sources; Capgemini analysis, 2010

5 Annual Report 2009, European Payments Council (http://www.europeanpaymentscouncil.eu)

6 www.creditcards.com

7 www.nacha.org

- In Europe, the use of cards and other retail payment instruments also grew. For example, across the U.K., France, Italy and Spain (which account for 60% of European payments):
  - The retail payments market continued to grow at a 2%-to-6% rate, with the increased use of cards, direct debits and credit transfers more than offsetting any decline in cheque usage.
  - There was significant growth in cards usage, while the average value of card transactions continued to decline, reflecting greater use of cards for low-value cash transactions, and possibly some crisis-related belt-tightening by consumers.

While retail payments flows reportedly remained strong in 2009, there was a decline in the number and value of high-value payments as a direct consequence of the liquidity crisis. For example, data show:

- The number of payments cleared through the U.K.'s Clearing House Automated Payments System (CHAPS) dropped 10.8% and their value by 20%.[8]
- Target 2 payments dropped 6.5% in volume and 19.3% in value.[9]
- The value of U.S. dollar large-value payments processed on the central bank Fedwire fell 29.5%.[10]

Overall though, there is no evidence in early data to suggest there was any decline in global payments volumes in 2009—or even in early 2010.

CONCLUSION

The global use of non-cash payment instruments continued to grow in 2008, showing resilience to the financial crisis. The volume of non-cash payments remained concentrated in developed markets even if the increase of volumes was modest in those markets and it was far faster in developing economies.

Admittedly, there is a significant lag in global payments data, so it is premature to conclude what effect the crisis will ultimately have had on payments flows. But we know already that there has been no significant impact on emerging-market payments flows in 2009, and that the mature markets of Europe and the U.S. continued to grow overall, though the mix of payment instruments may be changing.

In fact, we expect data to show that the size of the U.S. and European payments markets increased slightly in 2009 in terms of the number of transactions and the aggregate value of those payments flows. Moreover, interim data from the U.K. and other developed economies suggest there is every reason to believe payments were still growing as of mid-2010. This resilience in payments further demonstrates why retail payments remain a critical source of stable revenues for many banks.

Optimising the payments business, however, is becoming increasingly difficult as regulatory compliance becomes more onerous (see Section 2). Moreover, banks are likely to see a growing challenge from non-bank PSPs, which have proved willing to innovate on technology and business models to migrate existing and new customers to their payments services (see "Alternative Payment Service Providers").

8 Annual Summary of Payment Clearing Statistics 2009, Payments Council (http://www.ukpayments.org.uk)

9 European Central Bank (www.ecb.int)

10 The Federal Reserve (http://www.federalreserve.gov)

Alternative Payment Service Providers

SPOTLIGHT

Innovation in technology has changed the way individuals interact and has helped to pave the way for greater competition from non-bank PSPs. Consumers, driven by convenience and price, are increasingly leveraging mobile and internet technologies to buy and sell via online auctions, interact via gaming and social networking sites, purchase goods and services via the internet for home delivery and make person-to-person (P2P) payments.

We estimate global e-payments[11] and m-payments collectively accounted for approximately 20.3 billion transactions valued at some €832 billion in 2009. Of those payments, almost 8.6% of the volume was conducted via alternative (non-bank) providers and channels, rather than traditional banking providers. With card payments representing some 158 billion transactions, another sizeable proportion of these were captured by alternative providers.

There are wide regional variations in the use of e-payment and m-payment products across the world, with transactions ranging from small values to substantial sums, conducted via a range of payment methods, and driven by different business models and players along a complex value chain.

Fundamentally, the development of e-payments and m-payments is driven by country-specific economic, technological and social factors—which shape the level of penetration and the propensity of users to embrace or reject different payment means (see Figure 1.9). Accordingly, each payments market is driven by a different mix of critical success factors.

In emerging markets, for example, traditional banking services are unavailable or unaffordable for large segments of the population, while mobile phone penetration rates are high. As a result, mobile payments have gained significant traction, with limited involvement by financial institutions. In South East Asia, for instance, our research shows m-payment transactions have reached the billion mark, with mobile channels most frequently used for shopping, travel reservations and payments, product research (by Web surfing) and banking transactions.

In developed countries, m-payments services are in a more formative stage, with commercial adoption limited by a multiplicity of different standards, unclear business models and the reluctance of telecom operators, banks and other stakeholders to resolve their conflicting interests and integrate value chains. Nevertheless, the outlook for m-payments remains optimistic for the next three to five years.

Developed markets with a well-established banking infrastructure and high internet penetration represent a prolific ecosystem for e-payments players, which is already contributing to payments growth. In Europe, for instance, there are three times as many mobile-phone subscribers (86% of inhabitants aged 16 and up[12]) as mobile-internet users (21% of that 86%[13]), indicating European mobile-payments adoption has room to expand significantly.

As part of the emerging e-payments trend, merchants are increasingly becoming multi-channel and multi-device marketers, and banks are also starting to provide new methods for consumers to manage their finances in real time. Thus in coming years, while debit and credit cards will continue to dominate online payments, alternative options will certainly develop to complement card usage.

[11] In this spotlight, "e-payments" refers only to online payments for e-commerce transactions

[12] "Realities of Mobile Commerce in Europe", Forrester Research, July 15, 2009

[13] Ibid

Figure 1.9 Developed Markets Are Better Positioned for E-Payments; Emerging Markets Are Ripe for M-Payments

	DEVELOPED			EMERGING		
FACTOR	Value	Impact on M-Payments	Impact on E-Payments	Value	Impact on M-Payments	Impact on E-Payments
Banking Infrastructure	Developed	–	+	Low Penetration	+	–
Internet Penetration	High	–	+	Low	+	–
Mobile Penetration	High	+	–	High	+	–
Computer Literacy	High	+	+	Low	–	–
Payment Preference Legacy	Cards	–	+	Cash	+	–
Emigration	Low	–	–	High	+	+

Developed Regions   Emerging Regions

Source: Capgemini analysis, 2010

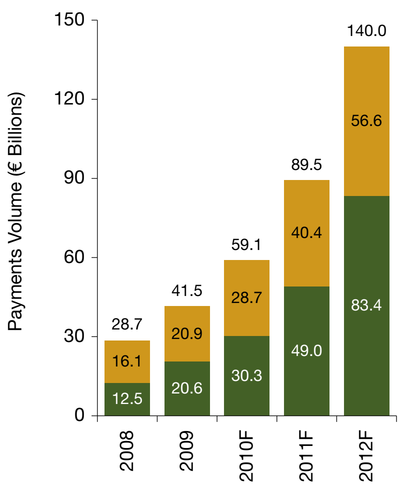
MOBILE PAYMENTS ARE GROWING, BUT ARE SO FAR USED MOSTLY FOR LOW-VALUE TRANSACTIONS

We estimate the value of global m-payments at €41.5 billion for 2009, and expect that number to grow to €140 billion by 2012 (see Figure 1.10), led by remittances and retail purchases in emerging markets.

Based on our estimates, m-payment schemes driven by alternative providers—especially telecom providers—conducted 156 million transactions in 2009, accounting for 5% of all m-payments (see Figure 1.11). That amounts to 0.05% of all non-cash payments transacted in 2009, a share expected to rise to 0.17% by 2012, which would equate to 8% of the m-payments market at that time.

We expect m-payments usage in emerging markets to grow much faster than in developed economies, because the unbanked population is so large. As a result, emerging markets are expected to account for 59.6% of the total m-payments market in 2012 (vs. 51.3% in 2010), after sustained growth of 60.6% in 2008–2012.

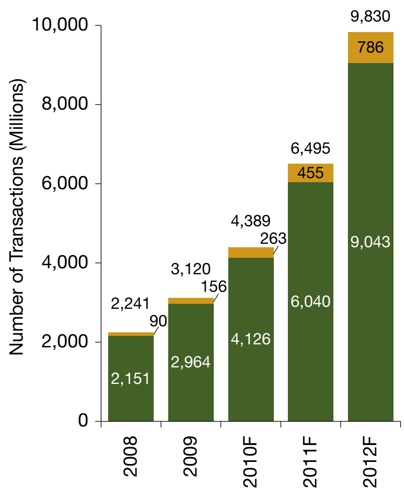
Figure 1.10 Global Mobile Payments Market Volume (€ Billions), 2008–2012F



	CAGR ('08–'12F)
Total	48.6%
Developed Markets	36.8%
Emerging Markets	60.6%

Notes: (1) Developed markets for m-payments consist of Western Europe, North America, Japan, South Korea and Australia; (2) emerging markets for m-payments consist of Eastern Europe, Latin America, Africa and Rest of Asia; (3) F represents forecast
Source: Capgemini analysis, 2010; figures may not add due to rounding

Figure 1.11 Global Mobile Payments Number of Transactions (Millions), 2008–2012F



	CAGR ('08–'12F)
Total	44.7%
Non-Bank Providers	72.1%
Bank Providers	43.2%

Note: (1) Non-bank providers numbers include mobile-operator-led payment schemes; (2) F represents forecast
Source: Capgemini analysis, 2010; figures may not add due to rounding

For now, m-payments are largely used for relatively low-value transactions (although the actual amounts vary widely by country), and the underlying usage patterns are generally different in emerging markets than in developed ones.

In developed economies, m-payments are mainly tied to mobile digital content purchases (ringtones, pictures and entertainment information), and to an extent to mobile ticketing (tickets at terminals or retrieved on-site). In emerging markets, m-payments are mainly used in P2P payments and remittances (domestic and cross-border P2P fund transfers), resulting in a higher average transaction value.[14]

As m-payments expand in developed markets, they will (in the coming three to five years) complement rather than substitute for existing payment instruments and provide an alternative to cash payments. Mobile proximity purchases and airtime top-ups are expected to drive mainstream adoption of mobile purchasing. Near-field communication (NFC) technologies, in particular, offer a clear improvement over some existing payment methods, being simpler and faster than network-based short-message service (SMS; text-messaging) technologies, and even more convenient than using cash. However, proximity-payments usage cannot expand significantly until merchant infrastructures and mobile phones are more extensively NFC-enabled, probably sometime after 2011. Currently, to compensate for the lack of NFC infrastructure and enabled handsets, attention has moved from hardware to software, and from traditional telecom operators to new entrants offering solutions that allow consumers to pay with existing methods.

In emerging markets, mobile payments represent a cost-effective and sufficiently secure medium for various types and sizes of cashless payment transactions. However, workers' remittances, including cross-border remittances, are likely to be the strongest driver of growth in m-payment transaction volumes, given the substantial number of migrant workers seeking to return funds to their home countries as efficiently and cheaply as possible—and to recipients that may or may not have bank accounts.

In general, the m-payments market has significant potential in the medium to long term, but all stakeholders (mobile operators, banks, payment-card networks, merchants, and mobile device manufacturers) will need to co-operate to manage the economics of m-payments business models, manage the risks of each party, and deal with issues ranging from security concerns and know-your-customer (KYC) protocols[15] to customer preferences.

E-PAYMENTS ARE GAINING MOMENTUM, WITH MANY ALTERNATIVE PROVIDERS SUCCESSFULLY FINDING A NICHE

We estimate the value of worldwide e-payments was €790.1 billion in 2009 and expect sustained growth of 19.6% per year in 2008–2012 to reach €1,382.3 billion in 2012 (see Figure 1.12). Alternative providers, leveraging economic and competitive opportunities in the payments space, are gaining momentum and are expected to increase their share of e-payments values from 9.3% in 2009 to 12.4% in 2012, potentially capturing revenues that would otherwise have gone to banks.

We estimate alternative providers processed around 1.6 billion transactions in 2009, which translates to 0.55% of the total non-cash payments market (see Figure 1.13). They are expected to process around 3.7 billion e-payment transactions in 2012, which would be 1.02% of the total. While this percentage remains small, alternative providers are expected to grow their share of e-payments volumes (in € billions) at a sustained rate of 29.3% a year in 2008–2012.

Notably, alternative providers are addressing specific market needs that are not served or are currently underserved by existing systems. Merchants, for example, are realising that by offering alternative payment options, they can lower their overall transaction costs, increase conversions and create new revenue streams—while reducing charge-backs and fraudulent activity. At the same time, consumers want merchants to accept their preferred payment methods, including those that are not currently covered by traditional payment methods.

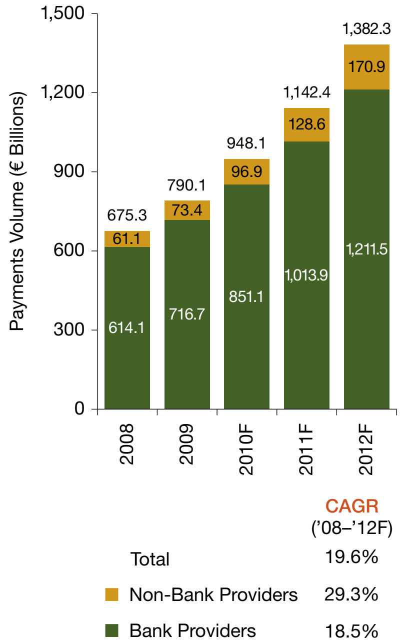
PayPal and Bill Me Later are prominent examples of the success of non-traditional payment systems that have emerged to usurp both revenue and market presence from financial institutions and associated network brands (see PayPal case study). PayPal even acquired a European banking licence, aiming to build on its success and prominence as an alternative payment option and reap the full benefits of providing traditional banking services to already loyal customers. New hybrids such as Google Checkout and an array of products and platforms from Amazon (for example) present an additional challenge to financial institutions, given their widespread adoption.

More than 30% of Europeans have used an online payments service for online purchases, and three-quarters of U.S. online buyers have an alternative payments account—of which 70% are active and used to make online purchases. In Asia-Pacific, countries with developed banking systems still tend to be highly

[14] "US Mobile Payments", Forrester Research, June 3, 2008

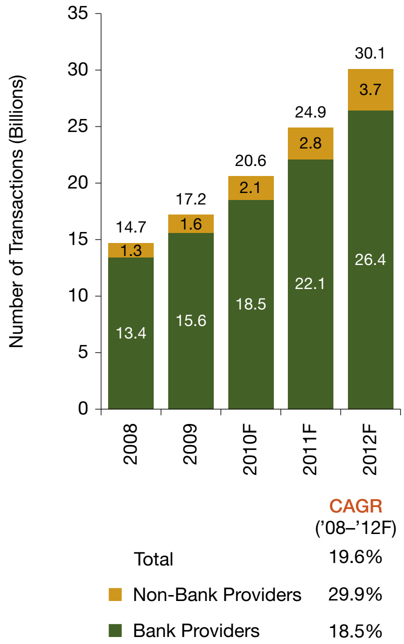
[15] KYC protocols comprise the systems and procedures needed to properly identify customers to control fraud, money laundering and other illicit activity

Figure 1.12 Global Electronic Payments Market Volume (€ Billions), 2008–2012F



Note: F represents forecast
Source: Capgemini analysis, 2010; figures may not add due to rounding

Figure 1.13 Global Electronic Payments Number of Transactions (Billions), 2008–2012F



Note: F represents forecast
Source: Capgemini analysis, 2010; figures may not add due to rounding

dependent on cards (at least 75% of online customers in Japan and South Korea use a credit card,[16] for example), although PayPal has a substantial presence in Australia. In mainland China, two-thirds of online consumers pay for their purchases using Alipay, the leading alternative payment system in the country.[17]

CONCLUSION

Banks have been well-positioned as trusted providers to both merchants and consumers, especially in developed markets where they typically have long-standing transaction- and account-based relationships. However, alternative providers have made significant strides in e-payments and m-payments. This shows there is significant opportunity for non-bank competitors, particularly when they demonstrate more flexibility, lower costs or more savvy applications than traditional bank providers.

Thus far, alternative providers still account for a small percentage of total worldwide non-cash transaction volumes (0.6%) and revenues, but their rate of growth is significant. The m-payments segment is a prime example of the competition for banks: mobile operators are in a better position to leverage emerging technologies, e.g. proximity payments, and the mobile-device lifetime is fairly short (about two years). User-friendly mobile payments applications are widely available for smartphones (iPhone, BlackBerry, etc.), and are already enabling internet and phone-to-phone payments with little or no need for infrastructure upgrades or changes.

As a result, mobile operators and their partners can gain relatively rapid and cheap access to large customer bases, which can potentially be migrated to m-payments, starting first with low-value amounts. Alternative providers may also be able to extend their reach to target offline P2P and consumer-to-business payments—presenting banks with stronger competition.

Alternative providers face their own challenges in finding viable business models to monetise e-payments and m-payments on a broad scale. As they do so, banks should be formulating their own strategies for proximity and other e-payments—probably focussing first on mobile internet payments, since mobile broadband penetration, data application services and smartphone devices are all expanding rapidly. However, any player hoping to develop online P2P payments will need to be able to launch services quickly, navigate regulations and cater to an often fickle but tech-savvy user base.

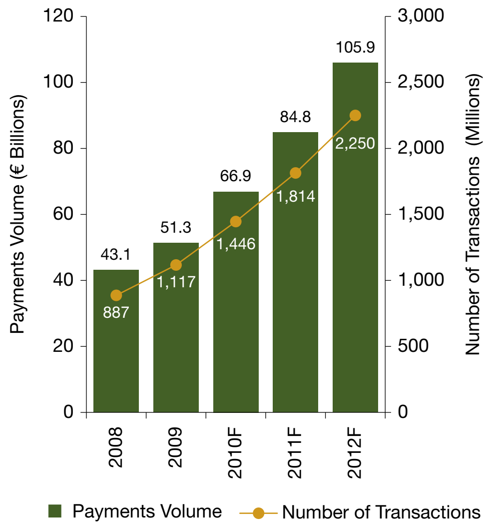
[16] "Understanding Online Payment Preferences in International Markets", Forrester Research, March 18, 2010

[17] Ibid

Case Study — PayPal

PayPal has established itself as a global payments processor, facilitating €51.3 billion in total payments volume (TPV) in 2009[18] (see Figure 1.14) and making it the world's largest online PSP. In 2009 in fact, PayPal accounted for almost 6% of all global online payment transactions (and 7.5% of online payments in the U.S.), capturing a significant share of revenues that could have gone to the banking industry. Along with its international expansion, the proportion of revenues derived solely from eBay has declined as a percentage of total revenues—to 42% at the end of 2009. In 2009, PayPal revenues were around €1.89 billion, nearly one-third of which was derived from U.S. sellers and nearly 40% from cross-border transactions.[19]

Figure 1.14 Total PayPal Transaction Volume (€ Billions) vs. Number of Transactions (Millions), 2008–2012F



Note: F represents forecast
Source: eBay quarterly earnings reports

PayPal had 81 million active users as of December 2009, after sustaining annual growth of 18% in 2006–2009,[20] and is extremely popular among its users, because it is perceived to offer:

- **An easy-to-use service.** Accounts take less than five minutes to set up and require minimal information; its platform is designed exclusively for facilitating e-commerce.
- **A simple and cost-effective integrated payments solution** compared to traditional merchant accounts and gateways—especially for smaller merchants that lack scale, cannot meet merchant credit standards, or prefer not to open a dedicated merchant account or use a gateway service provider.

[18] Capgemini analysis of eBay investor relations, quarterly earnings reports

[19] Capgemini analysis based on publicly available data

[20] eBay quarterly earnings reports

- **Flexible payment options.** Users can choose to fund their accounts through credit cards, bank accounts or PayPal balances.
- **Simple but effective fraud prevention.** Buyer details (e.g. account numbers) are not disclosed to sellers and "dual factor" authentication requires a user name and password, so the system is less vulnerable than a credit card if account information is stolen.
- **Straightforward procedures for fraud and liability claims** for buyers and sellers, e.g. hassle-free refunds and charge-backs in cases of unauthorised payments or missing purchases.

The most distinctive element of the PayPal business model, though, is its ability to draw on various funding sources with very different costs. In 2009, payments were funded 50% by credit and debit cards, 31% by ACH (e.g. bank accounts) and 19% directly from PayPal account balances.[21]

Payments linked to credit cards cost PayPal the most, while payments funded from a user's PayPal account cost virtually nothing, so PayPal actively seeks to shift users into funding sources that are cheaper to process, and therefore—by employing an appropriate pricing policy—generate higher margins.

Another integral element of the PayPal business model is maintaining low average loss rates (0.25% of TPV in 2009), which it does by keeping down dispute rates (they are four to six times lower than average card-not-present dispute rates) and buyer losses (60% to 70% lower).[22]

PAYPAL HAS FURTHER GROWTH AND INNOVATION POTENTIAL

PayPal has arguably pretty much tapped out the potential in U.S. eBay penetration, but there are still opportunities for growth, including:

- **Geographic expansion,** especially into locations where the online auction business is still maturing.
- **Customer-segment expansion, in particular through Bill Me Later.** Acquired by PayPal in 2008, Bill Me Later provides online credit approvals for specific transactions to offer convenience for customers with higher-quality credit.
- **Customer-base expansion by opening up the service platform.** Since opening its platform to third-party software developers in November 2009, new applications have already been developed, including Payvment, which allows individuals to integrate a shopping cart with a retail storefront on their Facebook page, and Rentalic, a marketplace that enables P2P renting of services and real estate.[23]
- **Mobile initiatives.** PayPal has seen limited success with its SMS-based service (PayPal Text 2 Buy) and has since launched a WAP-based checkout service (Mobile Checkout), but most compelling is the rapid growth in applications for smartphone platforms like the iPhone, Android and BlackBerry.

These and other initiatives could help PayPal to grow quickly and cost effectively further challenging traditional market boundaries.

[21] Capgemini analysis based on publicly available data

[22] Ibid

[23] These types of open applications had already transacted more than €22 million in payments volumes as of March 2010

Payments-Related Regulatory Update

HIGHLIGHTS

In the European Economic Area (EEA[24]) SEPA and PSD combine legal enforcement, government regulation and self-regulation by market participants in pursuit of the political goal of providing a unified payments area for EEA countries. Major developments and updates since last year's *WPR* include the following:

- **The majority of EEA countries had transposed the PSD into national law by August 2010** and at the time of writing, only two countries—Poland and Iceland—still have to undertake their transpositions. At this point, certain inconsistencies in interpretation remain, and these ambiguities will need to be resolved, not least to help ensure SEPA can progress as planned.
- **SDD was launched in November 2009 for consumers (SDD Core) and corporates (SDD B2B).** As of April 2010, nearly 60% of European banks representing about 70% of SEPA payments volumes can be reached for SDD in both variants, albeit usage at this stage is still low. At the same time, **usage of SCTs has continued to grow, but still lags expectations.**
- **Nearly all stakeholders now agree that full SEPA migration will lag unless reinforced by regulation.** In June 2010, the EC announced its conclusion that self-regulatory efforts were insufficient on their own to drive concerted migration to SEPA (on either the supply or demand sides) and that it was intending to draft binding legislation, potentially in the form of an EU regulation, on migration end dates for both credit transfers and direct debits. Work now continues to prepare this draft legislation.
- **The SEPA vision of "any card at any terminal" is still far from a reality.** At the moment, only the Europay-MasterCard-Visa (EMV) standard is well-accepted, while other standards such as ISO 20022 are not yet universally welcomed across the cards business. However, **three European cards initiatives (EAPS, Monnet and PayFair), designed to rival the established duopoly of Visa and MasterCard, have each made progress.**
- **Regulators and antitrust authorities are also continuing to monitor particular elements of the cards business model,** especially the level of interchange fees, which they argue could inflate the cost of card acceptance by retailers without leading to proven efficiencies.

Regulators are taking a multipronged approach to ensuring the ongoing resilience of the global financial system, based on lessons learned from the crisis. Their post-crisis priorities and general desire to ensure the safety and integrity of the financial system have significant consequences for key elements of the payments business model:

- **The Basel Committee on Banking Supervision has proposed measures (informally known as Basel III)** to strengthen global capital, reduce leverage and bolster liquidity in a bid to promote a more resilient banking sector. The **liquidity provisions could increase funding costs** and intraday liquidity issues will present additional challenges. Given the growing regulatory focus on liquidity, first-rate liquidity management capabilities could give financial institutions a regulatory, reputational and financial edge.
- **Global regulation related to Anti-Money Laundering (AML) and Anti-Terrorist Financing (ATF) is likely to increase the costs of processing payment orders.** These regulations put the onus on PSPs to monitor, document and validate payments flows—a burden that inevitably reduces efficiency, slows the rate of straight-through processing (STP) and raises the cost of payments processing.

[24] The EEA comprises the 27 European Union (EU) Member States plus three non-EU countries (Iceland, Liechtenstein and Norway)

SEPA and PSD Implementation Progress

INTRODUCTION

SEPA implementation is progressing, but the process of turning this ambitious concept into reality continues to be challenging. SEPA is the banking industry's response to implement the EU authorities' vision for an integrated euro payments landscape. As such, it touches all economic stakeholders—customers (consumers, corporates and public authorities [PAs]), PSPs and regulators—and it needs to navigate those varied interests. At times, SEPA's overarching objectives seem to run counter to the efforts and needs of some stakeholders. This friction is to be expected, but remains a hurdle to speedy progress.

In the last year or so, global financial and economic challenges have also distracted attention from SEPA's progress, with some banks and end users becoming more hesitant—or simply less able—to make the significant investments needed to speed SEPA migration while they focus on navigating the crisis and its after-effects.

The EC has reminded stakeholders that SEPA could potentially deliver exactly the kind of efficiency gains and cost savings they need during economically challenging times. And the European Central Bank (ECB) has launched a project to offer greater insight into the cost efficiency of different payment instruments, and is partnering with the Eurosystem[25] to study in detail the costs of retail payments.

In this chapter, we highlight some of the pivotal SEPA developments since last year's *WPR* and note some of the key issues that remain unresolved.

PSD, CRITICAL TO SEPA, HAS NOW BEEN IMPLEMENTED INTO NATIONAL LAW IN NEARLY ALL COUNTRIES, THOUGH SOME MEMBER STATES MISSED THE TRANSPOSITION DEADLINE

The PSD is intended to have a wide set of impacts on the payments market in the EU/EEA. Among these is its role as a critical building block for full SEPA implementation, because it aims to provide a consistent legal framework across the EEA on aspects such as refund rights and payment execution times. The transposition of the PSD into the national laws of EEA members was scheduled for November 1, 2009, and has long been seen as a critical interim milestone for SEPA implementation.

Only 15 of the 30 EEA countries completed national implementations by the November deadline. Implementation delays continued into 2010, and the EC announced in early June enforcement action against six EU Member States—Cyprus, Greece, Poland, Romania, Spain and Sweden—advising that all would receive "reasoned opinions" requesting them to fully implement the PSD.

By August 2010, however, the vast majority of EEA countries had transposed the PSD into their national law, and only two countries—Poland and Iceland—still had to undertake this task.

REMAINING PSD AMBIGUITIES NEED ATTENTION

While the PSD has been broadly implemented, some ambiguities and contradictions are apparent in the market in a range of operational and contractual issues—including product specifics such as availability-of-funds provisions, usage and meaning of certain charging options, point-in-time of receipt, and execution timelines/business days in certain situations.

One example is the implementation of the PSD's "sharing" principle, under which the payers and payees of a payment should be charged separately and individually by the originator bank and beneficiary bank to ensure each customer pays his or her own bank. While this principle is quite clear, implementation has in some instances been inconsistent—for example, in cases where the national legal interpretation of the PSD in a small number of countries has been used by banks from those communities to justify continued use of the alternative "OUR" charging option to their corporate clients.

The various types of inconsistencies, including variations in the way the PSD has been implemented at an individual-country level, have resulted in disparities between countries continuing for the time being. This reduces the level of harmonisation across Europe and the potential for banks to capture region-wide economies of scale by standardising and industrialising processes and systems.

To support full SEPA implementation, stakeholders will need to continue to work together to iron out any ambiguities and define how to handle payment products that are not yet covered by the scope of PSD transposition in some Member States.

[25] The Eurosystem comprises the European Central Bank (ECB) and the national central banks (NCBs) of those countries that have adopted the euro

Against this backdrop, the banking industry's PSD Expert Group published in June 2010 an addendum to its "Guidance for the Implementation of the Payment Services Directive". As well as reiterating and elaborating on existing market best practice with regard to various PSD-related topics, this new document contains an overview of derogation usage and examples of national variations in transposition at an individual Member State level.

FEW BANKS HAVE SO FAR SEEN PSD AS A TRANSFORMATION DRIVER

As is sometimes the case with regulatory change, the initial focus for many has been on "ticking the boxes" of PSD compliance rather than pursuing strategic benefits. Ironically, therefore, while many European banks have already incurred significant PSD-implementation costs, and lost margins and revenues to value-dating changes and float reductions, few have actively sought to capture the potential benefits of the PSD paradigm.

Moreover, many European banks have invested heavily in information technology (IT) to achieve PSD compliance for soon-to-be obsolete legacy instruments, rather than being able to focus IT budgets and effort on revamping IT systems to handle incoming SEPA products.

SDD WAS LAUNCHED AS PLANNED IN NOVEMBER 2009: MANY BANKS OFFER THE SERVICE, BUT AS YET THERE IS VERY LITTLE DEMAND

On November 2, 2009, both variants of the SDD scheme were launched—the SDD Core and SDD B2B—while a new EC regulation (924/2009/EC of September 16, 2009) confirmed mandatory "reachability"[26] for debtor banks in the EEA for SDD Core by November 1, 2010, in the Eurozone and by November 2014 in other SEPA-area banks. Some countries, however, decided not to launch SDD products and services in the first wave of SDD implementation, because neither banks nor corporates were ready (France, for example, has said it plans to launch SDD in November 2010).

EC Regulation 924/2009/EC also sets the maximum multilateral interchange fee (MIF) for a cross-border SDD at €0.088 during a transitional period that ends November 1, 2012—though the parties to a multilateral agreement are free to agree a lower or zero MIF. Existing national MIFs for direct debits can be kept until November 1, 2012, if they were in place as of November 1, 2009. The aim is for providers to use the transitional period to develop a long-term business model for SDD that fully allays competition concerns.

As of April 2010, nearly 2,600 banks representing about 70% of SEPA payments volumes can be reached for SDD Core and B2B collections, but the above-mentioned regulation has been necessary to ensure the full reach, which is needed from the payee's perspective.

Some governments and public authorities (PAs) are starting to demonstrate a stronger commitment to migrating to SDD (payee side). Most corporates still clearly favour national direct debit products for now, partly because national schemes are more familiar to their customers, but also because they are waiting for full reach (see above). Continuing to promote and build corporate buy-in remains a key action to ensure SEPA's success.

The EPC also continues to consider requests for further modifications and enhancements to SDD from customer representatives, banking communities and others, and it has started a public consultation on change requests that could potentially be incorporated into the November 2011 SEPA Direct Debit Rulebooks.

MOST MANDATE ISSUES ARE RESOLVED

Most Member States that have not yet addressed mandate-migration issues but required a legal solution took the opportunity to write provisions into their national laws in parallel with the PSD transposition process. This ensured the continued legal validity of existing direct debit mandates under SEPA and avoided the need for customers of legacy mandates to agree to brand-new mandates ("re-sign") to use SDDs.

However, the position for Germany—in which almost 50% of all non-cash payments take place via direct debit—is still not entirely resolved. Due to the huge number of mandates, the German banking industry and the Bundesbank have proposed that collection mandates be automatically converted to SEPA mandates unless a customer objects within two months. However, the proposal has yet to be confirmed by legislation.

More fundamentally, discussions continue to address the needs of some stakeholders that do not favour the Creditor Mandate Flow (CMF) model—and consider the Debtor Mandate Flow (DMF) model to be more safe and reliable both for payers and payees since the payer's bank (the debtor bank) holds the mandate and authorises payment. Consumers in countries that are switching mandate models may need assurances that the SDD offers them at least the same level of guarantees and protection previously enjoyed. E-Mandates, an optional service, will offer credible

[26] "Reachability" refers to the need for payments to travel successfully from any originating bank to any beneficiary bank in SEPA in a timely manner without any delays or hurdles; accordingly, any bank that offers SEPA services must be able to reach any other SEPA-compliant bank in the EU, EEA and Switzerland

solutions to some of the needs of payers accustomed to DMF, but there has been little investment in e-Mandates so far.

Notably, the EPC will potentially deliver another optional service—the "Advanced Mandate Information"—into the SDD Scheme Rulebooks being published in November 2010. This functionality provides an extended timeline for the optional verification of mandate information by the payer's bank (debtor bank), thus increasing its ability to widen its mandate management for customers. This feature could also serve as a basis for banks and communities of banks to develop further additional optional services (AOS) to facilitate the migration from legacy direct debit instruments to SDD.

In a related development, the Italian banking community has, for example, already proposed a specific AOS in this area. SEPA-compliant Electronic Database Alignment (SEDA) aims to align the SDD mandate databases of creditor and debtor banks during the lifecycle of the SEPA mandate, using ISO 20022 "Payments Mandate" messaging to confirm mandate data (e.g. eligibility of account, account-holder details) before the first collection, and amend or cancel the mandate thereafter.

SEDA potentially benefits both corporates and banks, because it reduces the financial-risk exposure associated with the use of direct debit instruments by ensuring financial and commercial flows are more closely synchronised and reconciled, reducing the potential for errors and unauthorised payments. Its functionality also provides the type of mandate assurances potentially sought by countries accustomed to the DMF model.

It should be remembered, though, that the use of AOS carries risks—in the sense that it is important to employ AOS in a way that promotes migration to SEPA and competition without introducing too much fragmentation or running the risk of triggering a "mini-SEPA" outcome.

SCT USAGE LAGGED EXPECTATIONS IN 2009 AND WHILE ADDITIONAL GROWTH IS EXPECTED, IT IS VERY LIKELY TO REMAIN SUB-SCALE PENDING THE CONFIRMATION OF A MIGRATION END DATE

As of July 2010, SCTs were available through PSPs representing 95% of all payments volumes in the EU 27, but migration rates have continued to lag expectations. In May 2010, SCT transactions accounted for only 8.1% of all eligible credit-transfer transactions (i.e. including legacy credit transfers [CTs]), though that was up from 3.9% in May 2009.[27] Moreover, SCT usage varies considerably by country (see Figure 2.1).

SCT migration in 2009 was slowed by a combination of:

1. The effects of the financial crisis, which kept many banks and corporates focussed on other business activities.
2. Lack of a compelling business case for users to adopt SCT in the short term.

As is the case with SDDs, some of the obstacles to adoption could potentially be addressed through the use of AOS. Indeed, some AOS are already being deployed to satisfy various corporate concerns regarding reconciliations between incoming CTs and account receivables.

European end users are also requesting additional services related, for example, to information handling and bank identifier codes, so as with SDD, the challenge will be defining a coherent AOS regime across countries—one that does not contribute to market fragmentation.

There are some signs that volumes are picking up in 2010, partly thanks to specific initiatives in various countries (Belgium, for example, has said it will migrate all PA payments to SCTs by the end of 2010 and France will do the same by end 2011) and by some key PAs, which account for a significant share of all credit transfers.

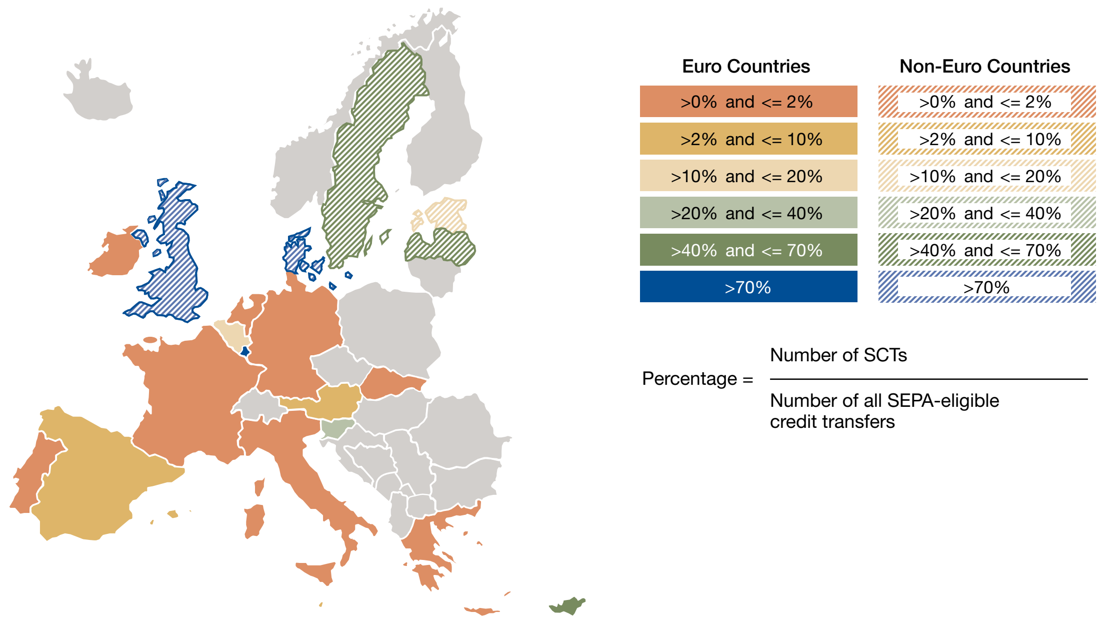
As a result, the EPC estimates 20% of European credit transfers may be made using SCTs by the end of 2010, and 30% by the end of 2011. The question is whether 30% is sufficient to create the scale of payments required to make it economically attractive to decommission legacy instruments. That seems very unlikely and hence it is clear that confirmation of a binding end date to phase out legacy products is needed to trigger significant acceleration in the growth in SCT usage.

THE NEED FOR A BINDING END DATE MUST TOP THE AGENDA IF SEPA IS TO FLOURISH

A compelling driver for migration would be a regulatory push at the EU level endorsing mandatory end dates for the use of legacy instruments, supported by stakeholders promoting the use of SEPA instruments.

[27] http://www.ecb.int/paym/sepa/html/index.en.html

Figure 2.1 SCT Adoption Rates in Most EEA Countries as of April 2010



Note: All SEPA-eligible CTs include credit transfers in euro, domestic and cross-border toward EEA countries.
Countries in grey are not EEA countries or they are EEA countries with no official data available.
Source: ECB data of April 2010; Capgemini analysis, 2010

A strong consensus has emerged among various stakeholders, with all now stressing the need in principle to set deadlines for the abolition of current domestic schemes for credit transfers and direct debits. Recent discussions have focussed on setting potential mandatory deadlines of end 2012 and end 2013/2014 for SCT and SDD, respectively.

The EC published in early June 2010 the "Working Paper on SEPA migration end-date" for consultation. It contains proposals on specific issues that would need to be addressed in drafting binding legislation:

- Reachability of PSPs for CT transactions and interoperability of payment systems.
- Different end dates for credit transfers and direct debits.
- Waivers for niche products that are not suitable for migrating to SEPA (and which do not account for more than 10% of the market share of national transactions).
- A mixed approach to setting end dates, with "common standards" defined for the industry, (e.g. message formats between PSPs) and general "essential requirements" (e.g. for CT, the IBAN of the payer's and payee's account).

These "essential requirements" would be the minimum required of both PSPs and customers for credit transfer and direct debit transactions.

However, according to the EPC's response to the EC consultation, this "essential requirements" approach carries the risk of legacy schemes also achieving compliance and so not triggering the full migration of SEPA-eligible domestic credit transfers and direct debits to the SCT and SDD schemes—thus jeopardising the realisation of the full efficiency and competition benefits being sought.

SEPA FOR CARDS IS PROGRESSING, BUT SOME CHALLENGES STILL LIE AHEAD

In 2009, the SEPA Cards Framework (SCF) was updated to incorporate the payment institutions (PIs) defined by the PSD, and to enlarge the level playing field by including the "three-party schemes".

According to the ECB, as of the first quarter of 2010, almost 71% of cards, 77% of POS terminals and 93% of ATMs in the EU 27 were EMV-compliant, although differences per country exist. However, EMV migration is still insufficient to achieve the SEPA original vision of "any card at any terminal". EMV migration is one of the requirements of "SEPA for cards".

Another ingredient is standardisation across the cards payments value chain. After the publication in December 2009 of version 4.0 of the EPC "Cards Standardisation Volume-Book of Requirements", the EPC is working with the Cards Stakeholders Group (CSG) to lay out a possible implementation path for the standards. The CSG, established in 2009, includes representatives from retail and vendor sectors, the card transaction processing sector, card schemes and the banking industry. Although good progress is being made, two key issues need to be addressed: card and terminal SEPA "security requirements" and a "certification framework" (architecture and functional requirements).

The industry is addressing potential fraud in card-not-present (CNP) transactions, commonly used in e-commerce, through solutions such as 3D Secure (around 50% of card fraud originates from about 5% of all card transactions, namely cross-border CNP transactions).

It is important not to underestimate the impact of SEPA cards on the European payments landscape given the importance of cards as a payment instrument and evidence that the cards arena is one of the first to see competition from new entrants.

THE DEBATE ABOUT PAYMENT CARD MIFs STILL NEEDS TO BE RESOLVED

MIFs have long been a contested issue in the European cards arena, and the ECB continues to urge stakeholders to negotiate a mutually workable resolution. Interchange fees are interbank fees that form a large part of the merchant service charge (MSC) that is charged to merchants for transactions made by cardholders using credit and debit cards. The EC has sought to argue that the construction of these fees may violate EC Treaty rules on restrictive business practices. For instance, the Commission concluded that MasterCard's MIF, a charge levied on each payment at a retail outlet when the payment is processed, inflated the cost of card acceptance by retailers without leading to proven efficiencies. MasterCard has appealed that decision.

For now, the EC has arranged interim MIF deals with MasterCard and Visa for cross-border transactions, but the debate continues.

Notably, pressure from regulators and antitrust authorities on the level of interchange fees is not limited to Europe. In the U.S., for example, a protracted debate on interchange fees for debit cards culminated in a provision in the Dodd-Frank Act[28] that empowers a new Federal Reserve agency to study debit card interchange fees charged by the largest card issuers and cap these fees at levels that are "reasonable and proportional to the cost incurred by the issuer with respect to the transaction".

EMERGING EUROPEAN CARD SCHEMES ARE MAKING PROGRESS

The Eurosystem strongly favours the concept of a European cards initiative to rival the established networks of Visa and MasterCard. Three initiatives are currently underway—EAPS, Monnet and PayFair—though each has its strengths and weaknesses.

- **EAPS (Euro Alliance of Payment Schemes)** links together different card schemes from Italy, Germany, Spain, Portugal and the U.K., as well as the EUFISERV interbank network of savings banks. EAPS took an important step in August 2009 by linking together the ATM networks in Italy and Germany, allowing cardholders to make cross-border withdrawals. As of July 2010, holders of German debit cards were able to withdraw cash from ATMs across the U.K. via EAPS.
- **Monnet,** launched by major French and German commercial banks in 2008, reached an important milestone in May 2010 when banks from more than ten countries agreed to extend the project across Europe. Details of the initiative remain unpublished, but the scheme's stated aim is to satisfy as many stakeholders as possible (providing innovation, efficiency and high-level services) while designing an economically feasible business model with transparent pricing.
- **PayFair,** a retailer-driven initiative, launched a pilot in November 2009 with one of the largest retailers in its original target market of Belgium. Another partnership, with Germany's largest acquiring processor and network provider (Easycash), takes effect sometime in 2010. PayFair's business model is organised around a SEPA- and PSD-compliant central infrastructure for processing payments, and it claims a flat and transparent fee model without MIFs or cardholder fees.

[28] The "Dodd-Frank Wall Street Reform and Consumer Protection Act", which makes changes to the system of financial regulation, was signed on July 21, 2010, by U.S. President Barack Obama

E-SEPA IS EDGING AHEAD, BUILDING A SOLID BASE FOR VIABLE BUSINESS MODELS

"E-SEPA" refers in its broadest sense to harmonised electronic (e) solutions designed to streamline interactions between buyers and sellers along the entire supply chain. This includes e-payments, mobile (m) payments and e-invoicing. Various initiatives are underway to develop the prerequisite technical standards, infrastructures, etc. to enable the development of viable e-SEPA business models. Among the latest developments:

- **M-payments.** Numerous business models exist in m-payments. Some are established and successful, especially in Asia and in under-banked countries. In Europe, m-payments are still embryonic and stakeholders are keen to see a common interoperability standard before committing to the infrastructure investments needed to initiate and receive mobile SEPA payments. The EPC launched a Roadmap for Mobile Payments after extensive stakeholder consultations. The Roadmap prioritises mobile contactless payments (also known as NFC or "proximity" payments), while highlighting mobile remote payments such as P2P, B2B and person-to-business (P2B) spaces, fully utilising SCT and the SCF. The EPC continues to work with the GSM Association (Global System for Mobile Communications trade body) to define the roles and responsibilities of entities involved in contactless mobile payments. Furthermore, in June 2010, the EPC published a white paper designed to facilitate the implementation and interoperability of user-friendly mobile payment solutions.
- **E-payments.** The EPC will develop an E-Payments Framework to facilitate online retail payments so a consumer can pay any merchant in the Eurozone from his or her local bank account. The long-term goal of the framework is full reach for consumers, but that goal will only be achieved if providers elect to enrol in the framework and consequently commit to becoming technically and commercially interoperable. The framework is due to be finalised in 2010 after legal reviews and consultations with banking communities.
- **E-invoicing.** Member States have embraced e-invoicing to differing degrees but 90%–95% of invoices in some sectors are still paper-based.[29] E-invoicing—which can encompass the electronic transfer of billing and payment information—is expected to grow rapidly due to potential cost savings and efficiency benefits. E-invoicing is complementary to SEPA, albeit the business case has still to be fully defined, and the EC has not yet attempted to harmonise standards, tax acceptance and other provisions that are vital to the success of e-invoicing. Nevertheless, within five to eight years, structured e-invoicing is expected to become the predominant invoicing method in Europe.[30] Public sector organisations continue to be a key constituency as e-ordering and e-invoicing are increasingly being integrated into public procurement processes. Large corporates have been slower to migrate to e-invoicing as they tend to use Electronic Data Interchange (EDI), although EDI is a cornerstone of e-invoicing, to manage invoicing throughout the extended supply chain. The EC's Expert Group on e-Invoicing has continued to work on identifying and removing barriers to mass adoption of e-invoicing, although that group's mandate ended on December 31, 2009.

CONCLUSION

The implementation of SEPA is an intricate process that touches on multiple stakeholders, who must agree on a wide range of issues and manage the operational challenges of execution. As a result, it is not surprising that the progress of SEPA has been slower than anticipated, and if SEPA is to be fully implemented—and deliver on its promise—it seems clear that a regulatory driver is needed to tip the balance towards adoption.

Many end users, especially corporates, are not yet ready to invest in SEPA products and want to be sure that there will not be a diminution of the services provided under legacy regimes. The Payment System End-Users Committee (EUC) argues end users actually need incentives to migrate promptly.

In the longer term, though, corporate end users generally recognise the benefits SEPA promises to bring:

- Reduced complexity and costs (e.g. through end-to-end STP of payments).
- Enablement of centralised treasury, payments and collection factories and international billing centres.
- Greater efficiency in working capital management.

The shorter-term challenge is convincing all end users that such benefits can indeed be realised by migrating to SEPA products, and that they are worth the significant investment of time and money that is required.

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[29] EPC Newsletter, January 2010

[30] "Final Report of the Expert Group on e-Invoicing", European Commission, November 2009; "European Banking Federation Input to the EC Final Report on e-Invoicing", EBF, February 2010

Increasing Financial System Regulation

INTRODUCTION

Since the start of the global financial crisis, regulators have been studying the causes and exploring remedial actions. In particular, the crisis has revealed how complex and interrelated markets and risks have become, speeding the rate of contagion throughout the market and making institutions more aware of exposure than previously realised to counterparties and risk concentrations. Moreover, risk has a domino effect—with credit risks, for instance, turning into market risks, which soon become liquidity risks.

Regulation did little to reduce these exposures—or mandate that financial institutions be properly positioned for such scenarios—and regulators are keen to address this. The overhaul of the Basel Accord on capital standards is an integral part of that reform, but broad global moves are also underway to make the system stronger and more able to withstand systemic shock. As a result, "the banking system will be less profitable, there will be smaller profits but less risks, it will be more secure but less speculative", says the President of the Financial Stability Board (FSB).[31]

A top priority for financial institutions in coming years will be achieving profitable and stable growth. But first, supervisory authorities, regulators and banks need to work together to regain credibility and restore trust in the financial system.

The priorities of global regulators, as laid out by the FSB in its April 2008 "Report on Enhancing Market and Institutional Resilience", are:

- Strengthening capital, liquidity and risk management in the financial system.
- Enhancing transparency.
- Strengthening the authorities' responsiveness to risks.
- Putting in place robust arrangements for dealing with stress in the financial system.

Besides the ongoing proposals to reform Basel II, other regulations, such as AML and ATF provisions, also aimed at preserving financial system integrity and safety, are also having an impact on PSPs.

On the other hand, standardisation could help to allay some of the compliance-related costs by improving end-to-end STP rates, streamlining processes and potentially providing a competitive edge to some providers while reducing costs for end users.

BASEL III AND THE NEW LIQUIDITY FRAMEWORK

The Basel Committee on Banking Supervision is in the process of updating the Basel II capital framework and intends to add formal standards for liquidity risk management and measurement. The "Basel III" proposals[32] aim to address systemic risks exposed by the financial crisis and specific weaknesses revealed in the Basel II framework itself. Basel III has undergone its consultation phase, and the committee will finalise the details before the end of 2010.

The crisis prompted regulators to focus on how "systemically important" banks that were failing could be wound down in a way that did not cause massive disruption to the international system as a whole. Absent of any developments to create cross-border insolvency laws, regulators have concluded that cross-border liquidity risk needs to be addressed within the regulatory framework.

Specifically, Basel III introduces a new Liquidity Risk Framework that seeks to ensure banks preserve sufficient liquid assets to survive short-term crises and have stable longer-term funding. Only certain assets are considered to be suitably liquid and banks should not rely too heavily, for example, on short-term wholesale funding to cover long-term commitments. The framework has two main purposes: to require an adequate amount of liquidity for a bank to be self-sufficient for one month; to promote liquidity risk resilience over a longer-time horizon.

After analysing the December 2009 proposals, banks and other financial institutions expressed concern at the costs of compliance and the excessively high funding costs of the liquidity provisions. For instance, BAFT-IFSA, the international financial services trade association, said banks could choose to "exit or reduce their investments in these service lines, which would reduce the quality and variety of

[31] Mario Draghi, Financial Stability Board president, in a meeting of economics and finance ministers (ECOFIN), April 17, 2010

[32] Consultative proposals on Basel III published in December 2009 are contained in two documents: "Strengthening the Resilience of the Banking Sector" and "International Framework for Liquidity Risk Measurement, Standards and Monitoring (BCBS165)"

transaction banking services offered".[33] In addition, banks and other financial institutions generally believe that stringent liquidity requirements set out by Basel III could potentially increase the cost of lending for customers.

The major areas of concern for banks over the liquidity provisions include the following:

- It may be difficult to diversify liquidity risk in the event of systematic stress, particularly since certain liquid assets will be in high demand concurrently by many players.
- Any move to downgrade the narrow range of assets currently deemed highly liquid, such as government securities, could spark a significant reduction in assets value in the market as banks seek to rebalance their portfolios.
- There is little granularity in the liquidity risk factors, e.g. all non-financial corporate balances are grouped together.
- The prescribed liquidity formulas will hinder the ability of liquidity managers to fully account for the differing behaviours across the mix of products, customers and countries managed by their institutions.
- The proposed liquidity framework asks banks to manage the relationship between their liabilities and the level of liquidity in their assets in a "flat manner" (e.g. the framework assigns a standard run-off rate to each kind of liability) but this "one size fits all" approach is not appropriate.

Regulators, however, argue these potential effects are a price worth paying for a stable financial system. Indeed, regulators argue that under-pricing of liquidity risk was a contributing factor in the growth of leverage in the system and the resulting crisis. Thereby, to increase aggregate capital levels and limit excessive use of financial leverage, the Basel Committee is also introducing a leverage ratio requirement that caps the ratio of off-balance-sheet exposures and assets to capital.

Following the end of public consultations and the results of the Quantitative Impact Study, as well as the assessments of the economic impact over the transition and the long-term economic benefits and costs, the Basel Committee announced on July 26, 2010, that broad agreement had been reached on the proposals. The new regime will still have a major impact on the banking sector, but some of its initial capital and liquidity reforms have been softened:

- Early definitions of capital composition have been broadened.
- The leverage ratio will be less restrictive than initially envisaged, and will be phased in over a longer period: a supervisory monitoring period will commence January 1, 2011, while a parallel run period will commence January 1, 2013, and will run until January 1, 2017.
- Liquidity quality and quantity requirements have been amended and will be phased in over a longer period. In particular, an "observation phase" will be carried out (in relation to the Net Stable Funding Ratio component) before finalising and introducing the revised rules as minimum standards by January 1, 2018.

INTRADAY LIQUIDITY, NOT SPECIFICALLY ADDRESSED IN BASEL III, IS A CRITICAL ISSUE

Intraday liquidity is not specifically covered in Basel III, though clearly there is a risk that liquidity could fluctuate and potentially be short during the day, leaving banks with insufficient collateral to meet the day's outflows. As a result, U.K. and U.S. regulators already require banks and others to share with them their policy on managing intraday liquidity and collateral. However, to improve intraday liquidity management, financial institutions need comprehensive intraday visibility on liquidity risk positions—this requires enterprise-wide information (i.e. across entities, business lines, divisions, branches, etc.)

Many financial institutions are investing in IT solutions to help generate and manage the relevant information in real time—or at least in time to position the day's settlements. However, any institution that interacts directly or indirectly with settlement systems will need to review the way they operate to cope with new rules and new business requirements around liquidity.

Banks, for example, will need to reassess the level of intraday overdrafts they are offering to their clients (indirect banks) to take into account:

- The amount of collateral they need each day for their own activities.
- How to manage the intraday overdrafts of bank clients.
- How to monitor and manage intraday overdrafts granted on an uncommitted basis to their bank and larger corporate clients.

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[33] http://www.bis.org/publ/bcbs165/baftifsaliquidi.pdf

Indirect participants need to consider what their liquidity needs could be in a stress situation, including:

- What level of intraday overdraft is used.
- How to deal with the possibility that an overdraft could be withdrawn.

For all financial institutions, though, the ability to manage intraday liquidity effectively and efficiently is fast becoming a key regulatory, reputational and financial differentiator.

Moreover, liquidity management capabilities will be an increasingly important component in corporate transaction-banking offerings. Companies can no longer assume banks will have surplus intraday liquidity, and companies will see higher costs for intraday funding. Those companies that can develop more accurate cash-flow forecasting and processes, even for the shortest durations, should be able to maximise internal cash sources and optimise their cost of funding. Banks that can provide additional services to corporate customers that enhance liquidity management will have a significant competitive advantage.

BANKS COULD SEARCH FOR MORE SOURCES OF STABLE FUNDING

Since Basel III liquidity constraints impact the relationship between assets and liabilities, banks will look for more stable and long term sources of funding, such as retail accounts and/or retail prepaid cards.

Competition could increase in the retail segment, and international players that rely on short-term wholesale funding are likely to compete more actively with local/regional banks for domestic retail deposits—and this, in some cases, could lead to lower retail transactions prices and, in general, a modified business model.

However, the very fact that all banks will be chasing these types of deposits could be self-defeating, as retail customers are likely to become more price conscious, potentially creating more volatility in balances. In such a scenario, client relationships become even more important, and banks will need to design and incorporate packages that include services that are attractive for retail customers, such as payments (especially e- and m-payments) and cards (especially prepaid cards) into acquisition campaigns and customer-retention activities. Also, the supply of retail deposits will only increase if individuals themselves deleverage, which will require a cultural shift.

In the intraday space, settlement banks will need to think carefully about the cost of the collateral they hold to support their payments systems for both their own transactions and those of their clients.

Notably, in the U.K., the Financial Services Authority (FSA) has published and is implementing a new regulatory framework, which includes provisions on intraday liquidity management. The FSA framework consists of various measures to ensure sound liquidity-management practices (e.g. with new regulatory reporting, stress-testing requirements, contingency funding plans, assessment and liquidity buffers, intraday cash management plans, etc.).

The Basel III liquidity-management rules alone—and their implementation in each country—could directly affect bank business models, and may even prompt some to rethink their participation in the payments and transactions banking businesses.

AML AND ATF REQUIREMENTS COULD SLOW PAYMENTS PROCESSING

The Financial Action Task Force (FATF), a global policy-making body, is driving worldwide efforts to regulate money laundering and terrorism financing by setting minimum standards on which individual countries can design tailored national solutions. The European Parliament, for instance, issued its Third Directive 2006/70/EC, AML and ATF, taking into account the FATF's recommendations.

Globalisation has created critical AML and ATF challenges for regulators as criminals and terrorists have become more adept at all aspects of laundering—from getting illicit funds into the financial system ("placement") to hiding those funds in a series of transactions ("layering") and investing illicit proceeds ("integration"). Moreover, these placement-layering-integration activities are advancing more rapidly than market regulations, especially in evolving arenas such as e- and m-payments.

Regulation is expanding fast, though: the FATF, which covers more than 170 jurisdictions, has 40 "Recommendations on Money Laundering" and nine "Special Recommendations on Terrorist Financing".

As a result, for example, PSPs are already required to undertake thorough customer due diligence (CDD) measures, including identifying and verifying the identity of new and (occasionally) existing customers. And when establishing business relationships, the onus is on PSPs to obtain information on the purpose and intended nature of the venture itself. Even when there is no business relationship, PSPs are required to verify details of certain occasional transactions.

Moreover, financial institutions have to keep complete records on national and international transactions and the relevant CDD data for at least five years so they can provide the authorities with a swift and structured flow of information if necessary.

All of these policies, procedures and controls inevitably reduce the efficiency of payment systems, slowing the rate of STP and raising the cost of payments processing. PSPs will not only have to invest to comply with the various provisions, but will have to consider how to handle the increasing complexity in processing (e.g. manual activities in case of ambiguities).

However, the overall business case could be net positive for banks as they will be gathering more, better-quality information on clients. Some may be able to use this intelligence to reduce fraud and operational risks (and therefore associated capital requirements), generating value for the business.

GLOBAL LEVELS OF STANDARDISATION COULD HELP REDUCE PROCESSING AND TRANSACTION COSTS DESPITE REGULATORY BURDENS

Standardisation and interoperability on a global level provide banks and markets with a common architecture that facilitates end-to-end STP rates and potentially enhances service levels and reduces costs. Standardisation also allows customers to manage their administrative and cash flows more efficiently. The financial sector is still working on standard messaging formats and data transmission protocols, which are key to standardisation, but adoption is far from universal so far:

- **Few are yet using the single (ISO 20022) global protocol for standardising payment messages.** U.S. banks have yet to adopt the IBAN standard or the related ISO 20022 XML formats. In Europe, public sector adoption of ISO 20022 is slow, because the vast majority of EU Member States (including Germany, Italy, Spain and the U.K.) did not set up a common transition plan from legacy standards. Moreover, corporates—despite the launch of the Common Global Implementation project for corporate-to-bank messaging standardisation—are waiting to see when ISO 20022 will standardise the payment instruction and the client reporting segments (e.g. multiple personal digital signatures).
- **Use of EBICS as a data transmission standard is spreading.** The Electronic Banking Internet Communication Standard, a highly secure file transfer protocol, has been used by the German banking community since 2006 and by the French since 2008. As of end 2009, plans are being made to extend its use to other EU countries, allowing customers access to all European banks through a single communication technology—while providing the financial services industry an alternative to the SWIFT network.

CONCLUSION

It seems inevitable that, in the coming years, compliance costs will continue to rise as banks and financial institutions are required to navigate and implement increased regulation[34] and manage self-regulation issues for their business activities. Additionally, some countries have yet to adopt Basel II and, given Basel III liquidity constraints, banks will need to reshape their business models, looking for more stable sources of funding through retail accounts and prepaid cards.

Conversely, though, standardisation and interoperability could prove to be an important way of increasing efficiencies and reducing costs in the payments area, while delivering higher service levels and a consistent experience to customers. However, banks will need to advocate standardisation to their clients, particularly to corporates, and prove its value, in order to ensure widespread adoption so that benefits can be realised by all stakeholders. In addition, banks will need to decide how extensively to invest in the IT infrastructures required to achieve standardisation and interoperability.

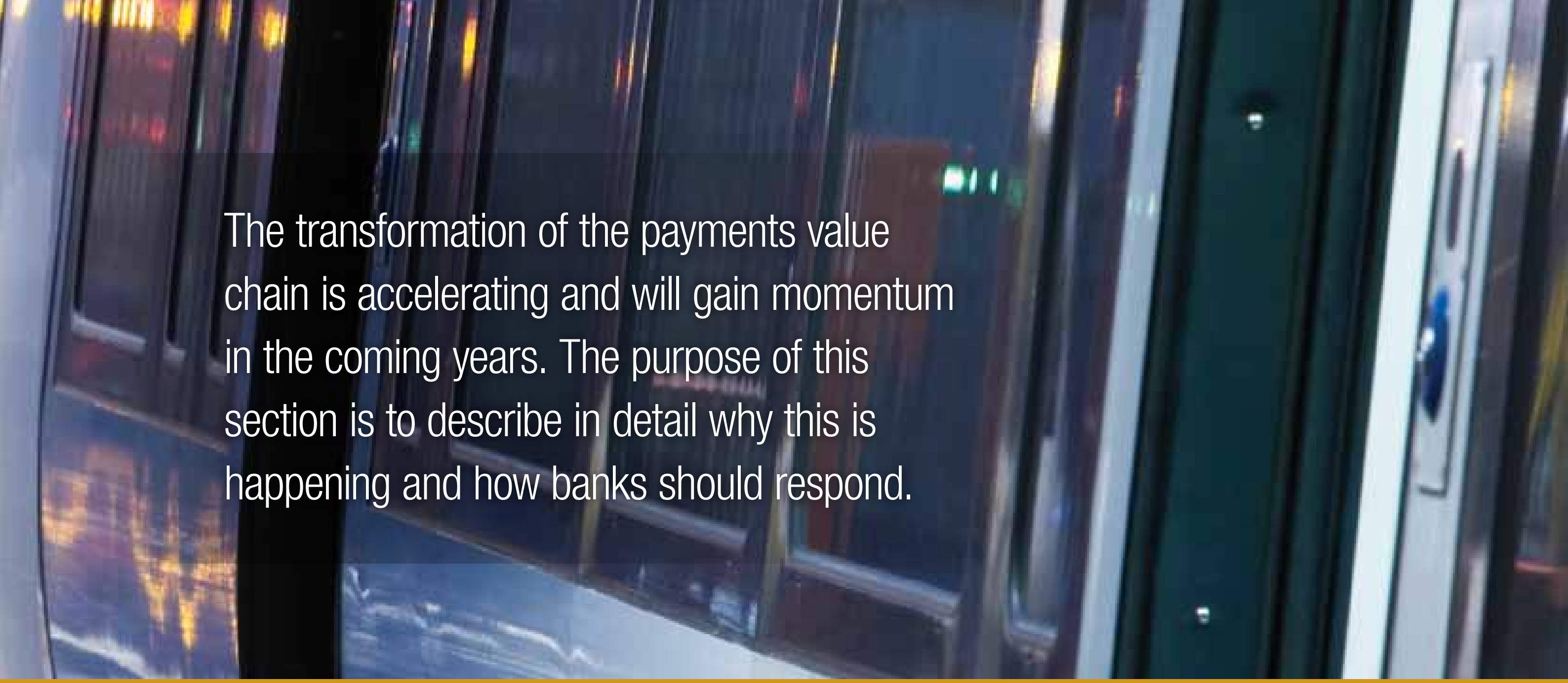
[34] In the U.S., the Dodd-Frank Wall Street Reform and Consumer Protection Act creates the Financial Stability Oversight Council and grants the Federal Reserve increased authority over the supervision and regulation of "Significant Institutions". The council is also empowered to make recommendations regarding capital and leverage applicable to the same. Enhanced prudential standards will include, among others, risk-based capital requirements, leverage limits and liquidity requirements

The Transformation of the Payments Value Chain Is Accelerating

HIGHLIGHTS

The transformation of the payments value chain is accelerating and will gain momentum in the coming years. The purpose of this section is to describe in detail why this is happening and how banks should respond.

- **The payments universe is becoming more complex and expansive.** Regulation, competition, technology and industrialisation have acted as catalysts to transform the "what", "who" and "where" of the industry.
- **New entrants, enabled by customer-friendly regulations and fast-emerging technologies, are gaining ground in the more open B2B, B2C and C2C payments spaces.** In recent years, the payments industry has seen many new entrants, and many of them offer state-of-the-art, highly honed and comprehensive value propositions for certain clients. The traditional payments value chain is transforming as players adapt themselves to this new landscape.
- **Banks have generally managed the pace of the ongoing evolution.** Initiatives and partnerships between banks, and between banks and new entrants, will increasingly be critical to success. These initiatives are focussed on revenues and/or costs.
- **Two major factors are accelerating the evolution of the industry: the economic crisis and the response of regulators.** The crisis reduced global trade volumes and at the same time the regulatory response to instability is likely to encourage banks to look for more retail deposits to increase their liquidity positions, and will reduce margins while increasing the costs of compliance.
- **Client-facing and processing segments of the value chain will transform more rapidly.** The first aspect will be mainly affected by competition from new entrants and the programmes banks will dedicate to access "client value chains", alone or with partners; the second will be affected by the insourcing and outsourcing solutions adopted.
- **Banks will need to evaluate and execute revenue-focussed and cost-focussed strategies in parallel as a key priority.** Banks will have to increase revenues by redesigning or improving their client retention and acquisition propositions, seeking scale and efficiency while dealing with the increasing costs of compliance.
- **Sourcing strategies will play a decisive role.** Revenue-focussed initiatives will require skills and expertise on partnerships and an ability to measure results. Cost-focussed initiatives will be possible mainly through outsourcing or insourcing volumes to reduce costs and/or achieve scale.
- **Payments Hubs will allow banks to achieve more with less.** Effectively designed processes and architectures will allow a bank dedicated to the payments business to execute both revenue- and cost-focussed initiatives, and will support product innovation and operational excellence.



INTRODUCTION

Banks are accustomed to constant shifts in the payments landscape, but an onslaught of new challenges, driven by economic and competitive conditions, technology advances, regulatory pressure and customer demands, is accelerating the transformation of the payments value chain, and banks will need to decide how best to respond.

The realities of the modern payments environment require banks to pay more strategic attention than ever to their value propositions, since even though year-on-year volumes and usage patterns may change, payments flows have shown sustained growth for many years, and have remained resilient globally during the economic crisis—making payments a critical and relatively stable source of revenues.

In fact, global non-cash payments volumes, as described in Section 1, grew to 9% in 2008 from 7% in 2007, after sustained growth of 8.4% a year since 2001. Even though full 2009 data were not available at the time this report was written, provisional data collected for the U.S. and Europe, from central banks and industry bodies, show that volumes are still growing globally after the crisis, albeit at a slower pace.

On the other hand, as industry-wide global regulations are expanding in response to the crisis (as described in Section 2), there will be intense pressure on the industry. Implementing the Basel III framework, in particular, will require management attention and investment.

The more stringent liquidity requirements proposed in Basel III will increase costs and could require strategic repositioning for some banks—who may need to address the retail customer segment more intensively in search of retail deposits to strengthen their liquidity positions. Banks will also need to keep paying attention to the corporate space, since most large corporates are also affected by liquidity and counterparty risks and are thinking about how to limit their exposure by leveraging intra-group funding.

Banks need to employ an intense parallel strategy, comprising revenue-focussed initiatives to enrich their portfolios, retain clients and enhance the addressable market, as well as cost-focussed initiatives, looking for additional volumes, efficiencies and cost rationalisation.

In this section we will provide an overview of:

- How and why the payments industry is becoming more complex and expansive.
- How banks are responding to the new market conditions.
- Why banks should move forward quickly as the pace of the evolution accelerates, driven by the combination of all the above-mentioned factors.

In the following chapters, we will also explore partnerships and sourcing, as well as the critical role that Payments Hubs potentially have to play for banks that want to navigate the evolving payments landscape proactively.

How the Payments Industry Is Evolving

Regulation, competition, industrialisation and technology have acted together as catalysts to transform the "what", "who" and "where" of the global payments business. Figure 3.1 maps the expanding payments universe, from its initial one-dimensional bank-to-bank payments (D1) to the more bilateral stage (D2) more prevalent today, in which banks interact directly (or through third parties) with consumers and businesses. We would argue the emerging phase in the payments evolution directly reflects the complex interconnectedness of world payments (D3).

Each of these stages has its own characteristics:

- **D1: The one-dimensional view of the payments business** evolved around the settlement process, with banks developing protocols and mechanisms aimed at processing financial information related to the exchange of funds, together with ACHs, networks (SWIFT, etc.) and card schemes. Driven by the increasing need to move toward customer-centric approaches, banks progressed to the next stage.
- **D2: The two-dimensional approach** involves a reshaping of the business more closely around the requirements of clients. Corporate needs spawned the Global Transaction Services (GTS) model that is common among large global and regional banks. In the D2 universe, banks interact directly with their consumer and business clients, or through entities operating in the "access providers space" (corporate banking networks, acquirers, etc.), but the B2B, C2C and B2C spaces are largely opaque and open to competition. There is enormous untapped potential in those spaces, and non-bank players—enabled by customer-friendly regulations and/or fast-emerging technologies—have been quick to experiment with ways to disintermediate banks in these areas, helping to push payments toward a tipping point, and banks towards the next phase in their evolution.
- **D3: The third dimension in payments** is the inevitable result of today's more dynamic payments flows, as well as the broader changes in payment preferences and technologies, and the interconnectedness of the global economy—together with the more active role other industries have started to play in the payments arena (e.g. telecoms, retail and others on the right side of Figure 3.1).

The latest regulations, and the growing activities of non-bank competitors, are making the move to D3 more urgent for banks. This dimension is characterised by:

- An expanded yet distinctive focus on B2B, B2C and C2C and the emerging government-to-consumer (G2C) payments.
- Evolution of players in the "market-making space" where networks, ACHs and card schemes operate.
- Regulatory compliance, e.g. on consumer protections and transparency.
- Emergence of collaborative and open-technology options (e.g. mobile, NFC, SaaS).
- Emergence and growing maturity of less regulated, non-bank PSPs.
- "D3 information" (e.g. invoices, health information, national IDs), which can be a source of innovative and truly value-added services for clients.

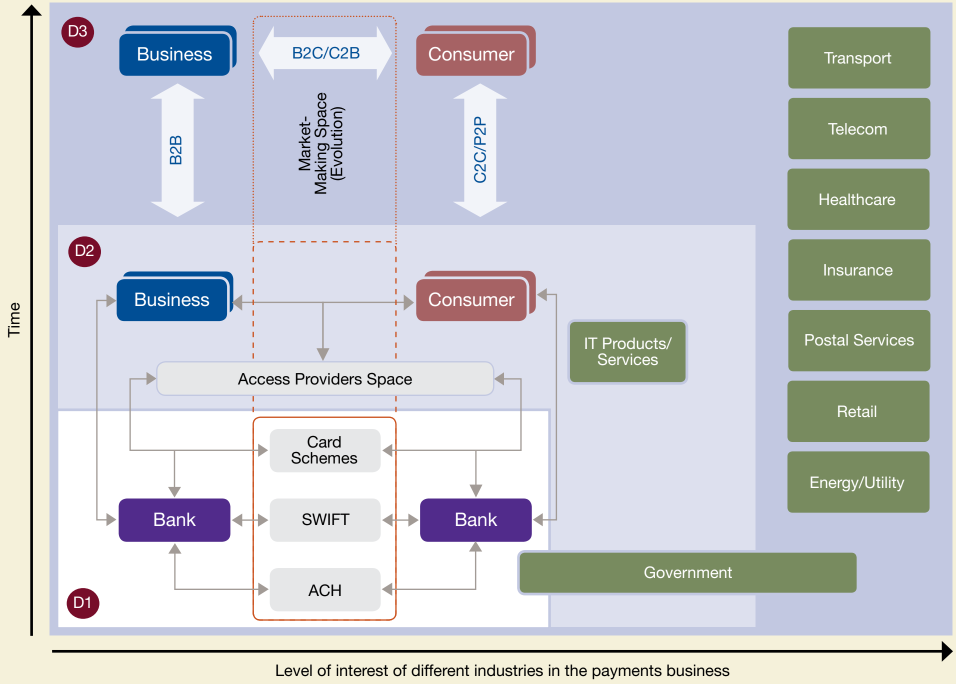
PAYMENT PLAYERS ARE PERVASIVE THROUGHOUT THE EVOLVING LANDSCAPE

The more payments shift toward the D3 dimension, the more new players and banks are positioning themselves in the opaque and unprotected B2B, B2C and C2C spaces—and getting involved in alternative solutions to traditional D1 activities, and even some facets of D2 (Figure 3.2).

In recent years, the industry has seen many new entrants, from major names such as Amazon and Google to more niche players. Although many of these experiments may fail, some are clearly gaining ground (see PayPal case study in Section 1, for example). Financial institutions (FIs) clearly need to pay special attention to the development of the "D3 dimension", and to the retail space in particular—especially given the need to manage more restrictive limits on funding liquidity (see Section 2).[35] Banks have to pay attention to the corporate space too, since large corporates are also concerned by liquidity and counterparty risks and are thinking about how to limit their exposure by leveraging intra-group funding. Some are even considering building their own banks.

[35] Several initiatives are already well-established in certain retail segments; Vodafone M-PESA, for example, offers a mobile remittance solution that allows users to make cross-border remittances without a bank account

Figure 3.1 Payments Universe Is Becoming More Complex and Expansive (Moving to D3)

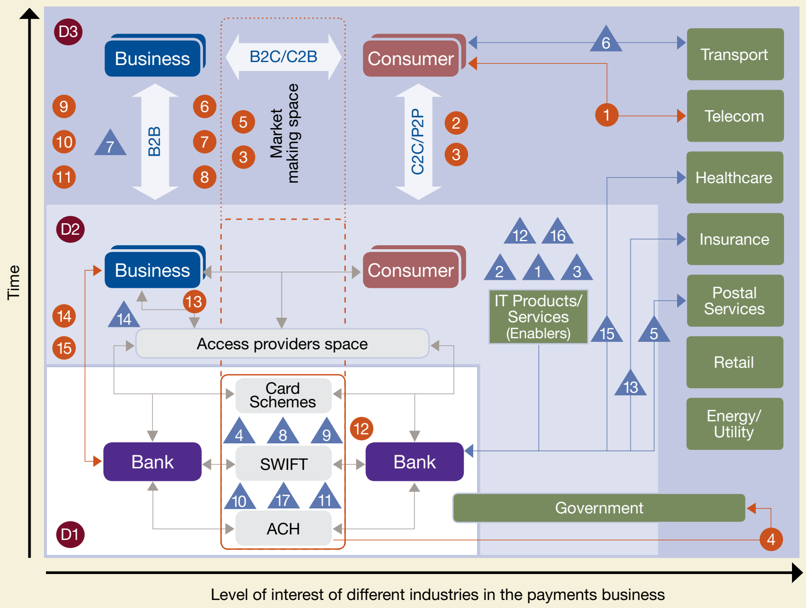


Note: The y-axis represents elapsed time; the x-axis shows how the proactive involvement of non-banks in the payments industry has increased (e.g., telecoms and retailers, among others, have become extremely active in the payments arena)
Source: Capgemini research and analysis, 2010

Figure 3.2 Bank Competitors and Partners Pervade the Modern (D3) Payments Landscape

NON-BANK-DRIVEN INITIATIVES

1. Vodafone M-PESA
2. PayPal
3. Luup
4. National Payments Corporation of India
5. SafetyPay
6. Google Checkout
7. Amazon Payments
8. Facebook
9. OB10 (e-invoicing network)
10. Ariba (invoices)
11. Tradeshift (invoices)
12. TSU
13. Tuxedo (e-accounts)
14. CUG/SCORE
15. eBAM



BANK-DRIVEN INITIATIVES

1. Deutsche Bank and Logica
2. ING Bank and CoCoNet
3. Nordea and SunGard
4. Deutsche Bank and Danske Bank
5. HSBC and Poste Italiane
6. Citibank and Octopus
7. ING and Billington and Anachron
8. Bank of America and Wells Fargo (Pariter)
9. ING Bank and Deutsche Bank and PostBank
10. Crédit Agricole (CEDICAM) and Equens
11. VocaLink and BGC
12. Deutsche Bank and Luup
13. Citibank and mPay and Prudential
14. Bank of America and First Data
15. PNC and HealthLogic
16. RBS WorldPay and VeriFone
17. RBS and ABN AMRO

Note: Illustrative representation. Only some aspects of the proposition(s) have been represented.
Source: Capgemini research and analysis, 2010

Also at stake for banks is the B2B business. Emerging players include OB10, Ariba and Tradeshift, which are all successfully providing niche B2B services. OB10, for example, has developed the leading global B2B e-invoicing network. As a flexible network, it allows the exchange of data "from any format to any format" without relying on a single industry standard. This potentially leaves FIs without an active role. Customers of all sizes can use OB10 to improve efficiency and transparency in the financial supply chain. And even if most banks can still boast tight and fairly stable relationships with their clients, these types of services by non-bank competitors are leveraging strong client management skills and expertise to infiltrate the "bank-to-client" space. Moreover, many of the non-bank options offer state-of-the-art, highly honed and comprehensive value propositions for certain clients.

Banks will need to decide whether and how to develop partnerships to match these offerings in order to address changing customer needs and requirements while avoiding major investment in infrastructures and/or capabilities. Global and regional banks are launching joint initiatives to protect, expand and/or enhance their existing businesses (as illustrated in Figure 3.2).

In mapping some of these initiatives on a simplified framework (see Figure 3.3), we can already see that banks are engaging in ventures that combine capabilities and assets, putting them on one or more of the following paths, or a combination of those paths, to improve their payments business:

- **Revenue-focussed paths** in which players can pursue various objectives to improve their top line, including, for example: Portfolio Enrichment, achieved by service innovation and expansion; Market Enhancement, normally leveraging the customer base of other players to expand the addressable market; Client Retention, leveraging new product offerings and/or improved service quality to preserve current revenues.
- **Cost-focussed paths,** achieved via technology efficiency or increased volumes or by leveraging more standardised schemes and procedures—with revenues increased as a direct consequence of higher volumes.

Figure 3.3 Bank-Driven Initiatives Collaboration Assessment Framework

<table>
<tr><th>REVENUE-FOCUSSED</th><th>REVENUE- AND COST-FOCUSSED</th><th>COST-FOCUSSED</th></tr>
<tr><td>Portfolio Enrichment and Market Enhancement</td><td>Market Enhancement and Cost Rationalisation</td><td>Cost Rationalisation All Around</td></tr>
<tr><td rowspan="3">▪ Deutsche Bank and Logica
▪ ING and CoCoNet
▪ Nordea and SunGard
▪ ING and Billington and Anachron
▪ Deutsche Bank and Luup
▪ Citibank Thailand and mPay and Prudential
▪ PNC and HealthLogic
▪ Bank of America and First Data
▪ RBS WorldPay and VeriFone</td><td>▪ Poste Italiane and HSBC
▪ VocaLink and BGC</td><td rowspan="3">▪ Bank of America and Wells Fargo (Pariter)
▪ Crédit Agricole (CEDICAM) and Equens
▪ ING and Deutsche Bank and PostBank</td></tr>
<tr><td>Portfolio Enrichment and Cost Rationalisation</td></tr>
<tr><td>▪ Danske Bank and Deutsche Bank
▪ RBS and ABN AMRO</td></tr>
<tr><td>Portfolio Enrichment</td><td></td><td></td></tr>
<tr><td>▪ Citibank and Octopus</td><td></td><td></td></tr>
</table>

Source: Capgemini research and analysis, 2010

The ventures mapped (which are just a few examples of the existing initiatives) offer models for other players that are considering how to expand or enhance their payments propositions. Notably, existing ventures show there are many ways to combine the interests of both parties to deliver mutual benefit from collaboration.

In regards to the **revenue-focussed paths,** we observe different combinations of players' objectives:

- **Portfolio enrichment plus market enhancement: For banks, non-banks offer quick access to niche-specific insights and capabilities.** FIs can use a variety of third-party partnerships to get a head-start on expanding into new and innovative services. These third parties, typically from another industry (e.g. telecoms, utilities, transportation), can expand the range of payments services, often starting from specific needs and geographies. Deutsche Bank and Luup, for example, developed a solution to provide cross-border mobile phone payments services to DB clients in more than 80 countries. Similarly, partnerships with IT providers and ready-to-use platform vendors can deliver specialised solutions. Nordea and SunGard, for instance, implemented a platform that allows Nordea's customers to get direct access from SunGard's Treasury solution to the bank's treasury management services.
- **Portfolio enrichment: FIs can partner to complement existing capabilities.** FIs and other PSPs can also use partnerships to merge complementary capabilities and expertise and expand the available options for clients. Citibank and Octopus Cards together launched a card that offers airtime top-ups, credit and cash-back functionalities and can be used at all merchant sites that accept Octopus cards.

Moving to the **revenue- and cost-focussed paths**, we observed the following mix of objectives:

- **Cost rationalisation plus market enhancement and/or portfolio enrichment: Partnerships can benefit each party separately and quite differently.** In agreements such as these, one party captures volume-driven cost reductions, for example, while the other gets to expand its customer reach by accessing the other player's channels or address customer needs by enriching its product portfolio. For instance, HSBC and Poste Italiane set up a collaboration in money transfer and cross-border prepaids. The agreement offers Poste Italiane a wider geographical reach while ensuring volumes to HSBC. On the other hand, we have the example of Danske Bank, providing pan-European cash management services to its customer base by leveraging Deutsche Bank's franchise. Danske Bank remains the single point of contact for its cash-management clients, but can provide integrated access to Deutsche Bank's account services, domestic and international payment and collection capabilities, liquidity management and electronic banking solutions. As a result, Danske Bank can expand the available services for its clients, potentially preventing them from selecting another bank for those services, while Deutsche Bank captures insourced volumes, helping it to consolidate European payments flows and capture scale efficiencies. A further example would be the Partner Bank Agreement for International Transaction Banking Clients signed by ABN AMRO and RBS, through which ABN AMRO will continue to provide international transaction banking services for its new and existing clients through RBS's global network. Under this agreement, clients of the new ABN AMRO will benefit from the RBS international network in much the same way as RBS's clients, while ABN AMRO remains the primary contact for its clients for sales, implementation and support.

Concerning the **cost-focussed paths:**

- **Collaborations can remove costs in different ways.** Players can work together to manage operating costs with a strict bottom-line focus—e.g. by gaining volumes or standardising technology. Purely cost-focussed partnerships may seek to bypass established intermediaries to offer standardised alternatives to proprietary approaches, and to pool scale. For example, Bank of America and Wells Fargo created the Pariter joint venture to provide a single, combined ACH platform for both companies and their clients.

Banks will need to consider carefully the importance of potential collaborations with players that are mastering new technologies, since these partnerships could provide competitive assets, enabling banks to fill their current technological gaps, but they could potentially also increase the risk of disintermediation.

In the Fast-Shifting Landscape, Banks Need to Decide to What Extent Payments Are Core to Their Strategies

The initiatives described demonstrate that banks are keeping pace with the ongoing evolution in payments—an area in which they still maintain a stronghold. However, the global economic crisis is influencing the pace of the evolution, and could require financial institutions to think far more radically and quickly than expected about their strategies in payments. In fact, the crisis induced:

- **A reduction in global trade volumes,** which could mean FIs are handling reduced volumes of wholesale payments flows for some time (and it is uncertain how long it will take for volumes to recover).
- **Liquidity and confidence issues** in the market that led corporates and retail consumers to readdress the way they were managing their cash and their transactions.
- **Action by regulators** (see Section 2) **that will require banks to strengthen risk controls,** which will ultimately reduce margins, increase compliance costs and encourage banks to look for more retail deposits or prepaid cards to increase liquidity.

Banks need to be more proactive in the payments evolution while managing crisis-driven business pressures and new regulatory and compliance imperatives. First of all, they will need to make some prompt decisions about how to redesign or accelerate their revenue-focussed and cost-focussed payments strategies. In particular, they will need to think about how to:

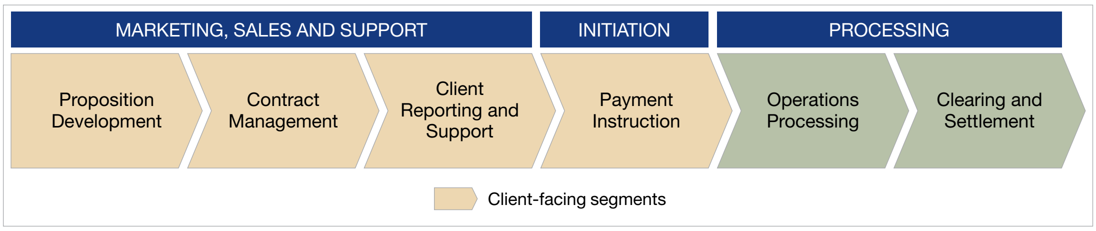
1. **Make rapid inroads into one or more of the activities in the expanding modern (D3) payments landscape,** addressing at least one of the following propositions:
   - › Increasing their retail market share to reinforce liquidity positions and compensate for lost revenues.
   - › Building innovative B2B initiatives to provide truly value-added services to corporates.
   - › Developing rigorous customer-retention initiatives.
2. **Keep costs down,** containing the costs of compliance and improving service and delivery efficiency. This would require banks to verify:
   - › The degree to which current payment systems can deliver cost-effective improved performance and service to clients given the rising costs of compliance.
   - › The cost of re-engineering business-critical areas to achieve the required efficiencies.
   - › The potential consequences of outsourcing all or part of their payment systems to a trusted party.

DIFFERENT SEGMENTS OF THE VALUE CHAIN WILL BE AFFECTED AS BANKS DECIDE TO ACCELERATE REVENUE- AND COST-FOCUSSED STRATEGIES

Figure 3.4 illustrates a simplified payments value chain, which will help in the remainder of this section to spotlight the segments that are likely to undergo major transformation. For simplicity, we have grouped the value chain segments into three blocks:

- Marketing, Sales and Support, which spans product inception, client and partner contracts management, and client reporting and support.
- Initiation, which represents all the possible ways a payment can be instructed from any channel, including third parties.
- Processing—internal processing of incoming/outgoing payments and interfacing with clearing and settlement mechanisms.

Figure 3.4 Simplified Payments Value Chain



Source: Capgemini research and analysis, 2010

CLIENT INFORMATION IS KEY TO INNOVATE AND IMPROVE REVENUE-FOCUSSED INITIATIVES AS WELL AS RISK MANAGEMENT FUNCTIONS

As the fund flows in the payments arena become more complex, information management will become increasingly important. For example, banks need to gather certain reliable data to be compliant with regulations (e.g. KYC, AML, ATF) and collect and manage other reliable client information to respond appropriately to customer requests and complaints—then build an innovative proposition tied to client behaviour. (More generally, business intelligence will also continue to be critical for acquiring and retaining customers.)

As customer interactions spread more widely across channels, banks will also benefit from having centralised data in near real-time, which can help drive business decisions (e.g. where to expand) and improve key operational metrics (e.g. for risk management).

Centralised data could also elevate information exchange with partners to a strategic advantage by driving service-level enhancements, facilitating end-to-end process monitoring and management, and enabling more effective oversight and comparison of different partnerships and sourcing strategies, by segment and relationship, finally enabling decision-making.

Banks will then need to consider adapting their processes and architectures to make effective use of "D3 information".

TO SEIZE OPPORTUNITIES, THE ALIGNMENT OF BUSINESS, PROCESSING AND INFORMATION TECHNOLOGY IS CRITICAL—BUT DIFFICULT

Banks hoping to expand their footprint in the "D3 dimension" will have to consider payments as one of the "core" businesses of their organisation. A well-balanced parallel strategy (incorporating business, processes and IT) will allow FIs to innovate and invest in client-facing initiatives (moving progressively into client value chains), while effectively allocating resources to compliance and operational excellence (enhancing collaboration in the non-, or less-competitive D1 dimensions to achieve greater scale and efficiency).[36]

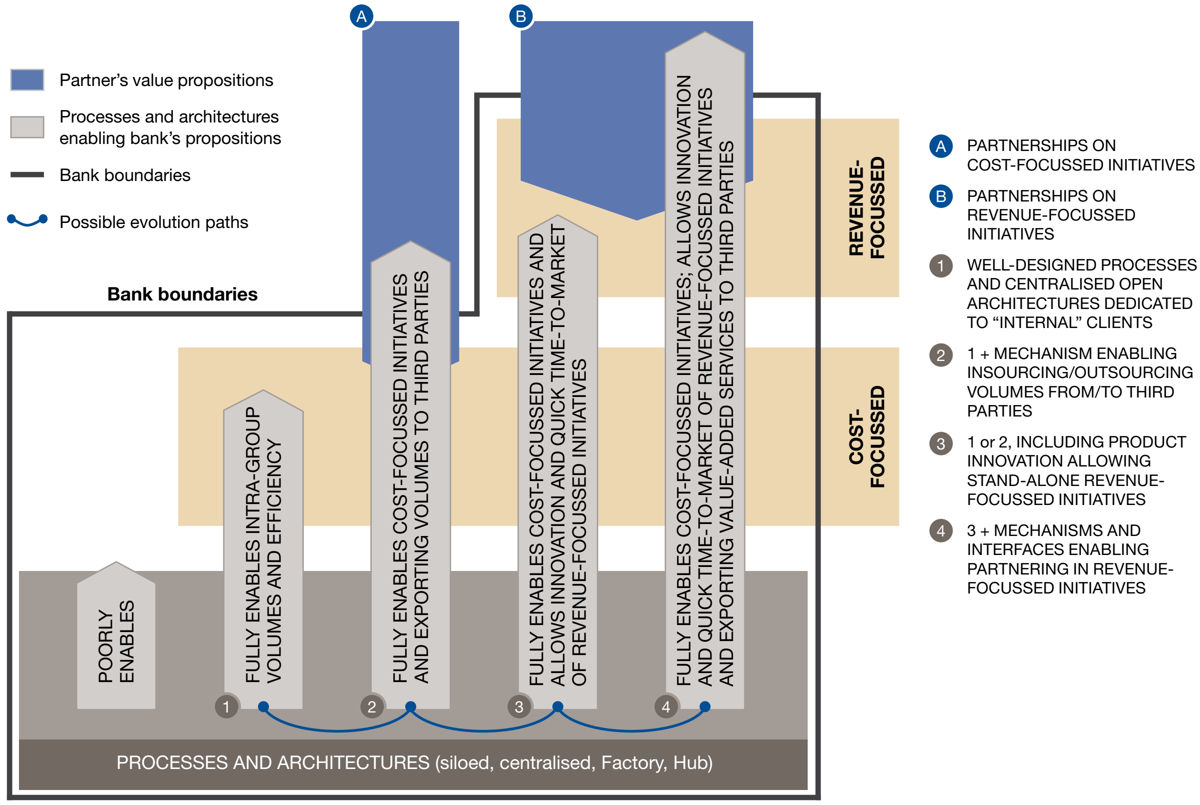
Figure 3.5 shows how payments processes and architectures can enable revenue-focussed as well as cost-focussed strategies, including partnerships. Grey arrows flowing from the bottom to the top of the figure represent the different kinds of support that processes and architectures can provide to strategic initiatives.

Looking at that figure we can see that siloed, legacy and non-compliant processes and architectures (far left) will poorly enable any initiative, strongly limiting the ability of the bank to be proactive.

On the other hand, advanced processes and architectures (far right) will facilitate full achievement of both revenue- and cost-focussed strategies.

[36] For small banks, payments can also be "core", as success is not driven solely by size; as an example, the EC in November 2009 demonstrated that payments excellence can be achieved even by small players when it selected Italy's Banca Popolare di Sondrio (a relatively small domestic player) as one of the banks that will process the EC's SEPA payments (together with three large regional and global banks)

Figure 3.5 Processes and Architectures Enabling Payments Initiatives



Source: Capgemini research and analysis, 2010

Figure 3.5 reflects the following realities about operating in the modern payments landscape:

- **Value-generating top-line initiatives typically leverage outside collaboration.** Processes and architectures should be open and flexible to allow the execution of revenue-focussed initiatives to enrich the portfolio or enhance the addressable market, which typically extends beyond the boundaries of the existing business.
- **A true win-win partnership features deeply embedded interaction with a third party.** The blue arrows (A and B) represent the value that partners can bring into the bank while the grey arrows designate value generated by the bank. Areas where the blue and grey arrows overlap are "win-win" partnerships. In these "sweet spots", the bank's processes and architectures are able to connect and interact with those of the partner so the two parties share information and maximise value from collecting and managing clients' information.
- **Less-integrated initiatives can still generate value.** If the blue and grey arrows do not overlap, value can still be generated, but will be difficult to maximise. Banks can, for example, insource value-added services from third parties, or deliver their own services to third parties, as a way to pursue both revenue- and cost-focussed initiatives. It is just unlikely that banks will be able to optimise the value of those partnerships.
- **In-house initiatives can ultimately support more expansive bank ambitions.** Processes and architectures designed to enable revenue-focussed initiatives can remain totally within the boundaries of the bank when the focus is mainly on industrialising and seeking internal efficiency. However, they can also evolve to support the pursuit of revenue-focussed goals, or to support cost-focussed initiatives undertaken with external parties (grey arrows 1 and 2).

CHAPTER 3

Partnerships and Sourcing Are Both Enabling Strategies

PARTNERSHIPS WILL ENABLE REVENUE-FOCUSSED INITIATIVES

Innovation, which is critical in the battle for clients, will become increasingly difficult and costly for banks to manage alone as the payments proposition grows more complex—and especially as the pressure to evolve becomes more urgent. Banks will therefore need to consider whether partnerships, commercial agreements and other alliances with non-banks, vendors and technology operators can provide the capabilities they need to execute their chosen payments strategy promptly.

Collaborations with third parties can potentially help banks to speed time-to-market, spread investment expenses and reduce operating costs of new payments initiatives. And partners can help banks extend their footprints (i.e. geographically, farther into client value chains, etc.), helping sway clients toward bank providers and away from competitors. However, collaborative strategies can be challenging for many reasons, including:

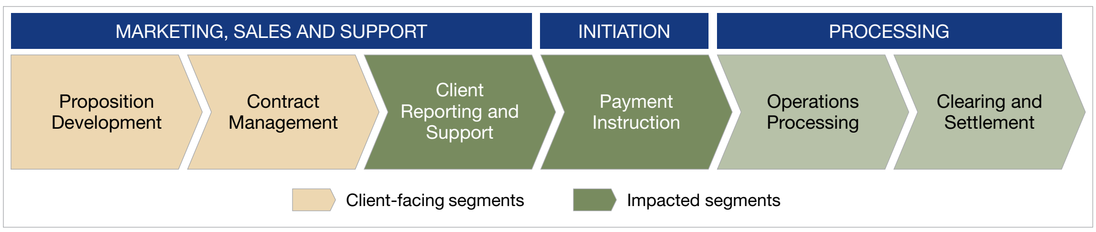
- Partnerships, commercial agreements and joint ventures are inherently the more volatile models of sourcing, and require iterative controls and reviews to ensure the overarching business objectives are being met, along with everyday service requirements (which should be rigorously stipulated in service-level agreements [SLAs]).
- Partnerships enabling revenue-focussed initiatives carry special risks as they grant potential competitors access to service arenas in which the barriers to entry would otherwise be prohibitively high (the more banks count on third parties for strength and innovation in profitable niches, the higher is the risk of irreversible disintermediation).
- To succeed in partnerships, banks need to have a culture and organisation capable of identifying and pursuing collaborative opportunities. Banks must be ready and willing to monitor the market's evolution and anticipate trends, then recognise opportunities, identify potentially value-adding partnerships, and negotiate and structure appropriate collaborations.

Given these challenges, many banks have kept partnerships to date to more commoditised payments activities (in Figure 3.2's D1 dimension), designed to acquire volumes, scale and efficiency, share processing costs and potentially free up resources to focus on top-line initiatives. As the need to innovate becomes more urgent, however, banks will need to consider using partnerships to further more revenue-focussed initiatives. And the pressure is likely to intensify in coming years, as banks focus time and money on increased regulatory compliance, leaving less bandwidth to innovate internally (even among the few banks that have been successful incubators of innovation in the past).

Figure 3.6 shows Marketing, Sales and Support and Initiation are affected to some degree by partnerships, with the major impact felt in Client Reporting and Support and Payment Instruction. This reflects the combined effects of competition from new entrants, and the effort banks will make to progressively access client value chains, alone or with partners.

Initiation, for instance, will become fragmented, dispersed and probably more connected to clients' industry specificities, as banks shift farther into the D3 dimension. We can imagine, as an example, that payment instructions will become progressively more integrated into the specific client's business logic, and this could imply for banks the ability to establish closer relationships with package and/or solution vendors and to participate more actively in product lifecycles.

Figure 3.6 Partnerships Can Transform Client-Facing Segments of the Value Chain



Source: Capgemini research and analysis, 2010

INSOURCING AND OUTSOURCING ARE INTEGRAL TO COST-FOCUSSED INITIATIVES

Insourcing and outsourcing have become integral to cost-focussed initiatives to acquire volumes, scale and efficiency, but banks still need to make ongoing decisions about the scope of such arrangements—which can range from "everything" to a specific segment of payments, and which all entail a wide variety of technical considerations. The enduring imperative is to ensure a well-defined and predictable cost/revenue structure.

The criteria banks use in deciding whether to outsource their payments are manifold, including such issues as target costs, timing, long-term commitments, transition costs, value-added services, innovation, proprietary zones and potential conflicts of interest.

A pivotal issue for banks is the degree to which payments are integrated into the existing core banking system since it can be challenging and costly, especially for smaller banks, to carve out an entire payments business from the legacy environment. That task involves managing (for example) the number and types of IT interfaces and issues of standardisation, and there are organisational repercussions that may need to be managed through a change management programme.

For any bank, outsourcing the full core banking system and/or re-platforming needs a bank-wide strategy that has to involve technical IT core-banking providers. By contrast, more piecemeal outsourcing (e.g. just of clearing connectivity) is feasible even for small banks, but the cost savings are likely to be more limited.

In the last five years or so, major payments outsourcing deals have been relatively rare, but the dynamics of the payments ecosystem are likely to prompt more such deals in the near term, including partnerships with pure outsourcing players and the participation of ACHs.

Many potential outsourcers remain concerned they will lose control of their business, so outsourcing banks will need to make sure they stipulate and document SLAs that are rigorous and binding. This will help to ensure a degree of control over the end-to-end operational process and keep customers satisfied.

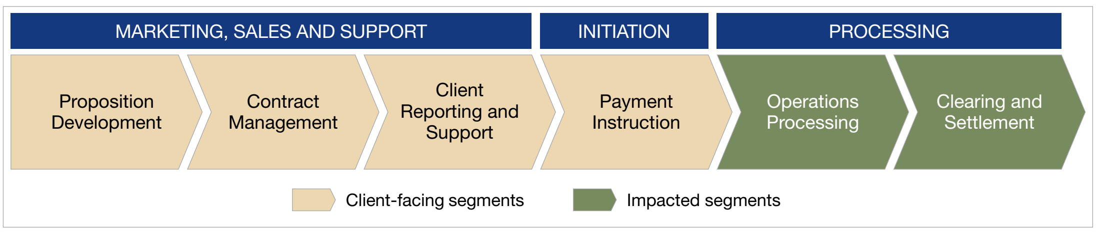
Smaller banks might also consider outsourcing in the near future, despite the costs and challenges of such projects, such as execution and commercial risks. Outsourcing is an option to offset other rising expenses related to regulatory requirements such as SEPA and Basel III implementation.

The decision for a bank to offer insourcing services is similarly complex. Insourcing can be very challenging, requiring change management programmes to ensure effective implementation, and sometimes involving a radical restructuring of the organisation. Furthermore, banks should be clear about how much volume is needed to maintain the efficient value-added services so as to make sure they remain competitive. When considering the insourcing options for different payments services and/or value chain segments, banks will especially need to weigh the potential benefits in terms of running costs and the return on investment. For instance, banks that provide account concentration services for insourced corporate payments may drive enough volumes to applications to lower their own costs per transaction and maximise back-office utilisation.

Notably, outsourcing and insourcing policies aimed at pursuing cost-focussed initiatives (scale and efficiency) mainly impact the processing segments of the value chain (see Figure 3.7), with particular attention paid to labour-intensive and non-STP activities.

Those initiatives will probably not transform the essence of processing, but could imply the introduction of new layers, mechanisms and key performance indicators (KPIs) to retain control of the outsourced segments (or to report on the operational performance of the insourced segments to the client bank).

Figure 3.7 Insourcing/Outsourcing Can Transform Processing Segments of the Value Chain



Source: Capgemini research and analysis, 2010

Is Payments Outsourcing Just a Matter of Time?

To draw a parallel with payments, custodial services experienced more than 20 years of relative stability before pressure from regulation, competition, industrialisation, technology and evolving client demands beset the business in the 1990s—just as payments are being pressured now.

Consolidation began in custodial services in the early 2000s (e.g. State Street acquired Deutsche Bank's global custody assets in 2003, and RBC Global Services merged with Dexia Fund Services in 2006). New ventures were also born (e.g. CACEIS—Crédit Agricole and Natixis). Custodians also started to build and deliver value-added services, such as tailored reporting, tax services, analytics, an expanded range of investments, etc. And outsourcing began in the U.S. and Europe around 2001, with contracts between Bank of New York and Julius Baer, State Street and PIMCO, and JP Morgan Chase and Schroders—successful models for other such deals worldwide.

We argue payments could follow the path of custodial services and is now mature enough for more widespread outsourcing. In fact, outsourcing may develop even faster than it did in custodial services, because the payments landscape is so extensive.

Case Study — Full Payments Outsourcing

In 2005, the OP-Pohjola Group Central Cooperative, a Finnish financial services group, decided to outsource its payments processing to Equens. The decision was driven by the definition of a long-term strategy, and its main aims were to avoid heavy investment in IT systems related to the adoption of SEPA standards and formats, and to have a predictable defined cost structure.

The Finnish bank wanted to be able to provide SEPA services to clients, and guarantee high-quality and cost-efficient products and services (high STP rates and minimal manual intervention)—while maintaining the bank's pre-existing cost structure.

From a technical standpoint, the complexity remained in the integration between the two different infrastructures, which required a new interface. Reaching a common language and understanding of functionalities and processes was also necessary. Since the migration, the outsourcer has managed low- and high-value domestic and cross-border payments.

The critical success factors were:

- The interfaces and security standards.
- The clear definition of service-level agreements (SLAs).
- The ability to evolve IT applications based on real market needs and expectations.

CHAPTER 4

The Payments Hub: Achieving More with Less

Banks will certainly need to fully understand how much of their business could be at stake amid the transformation of the payments value chain—and make strategic decisions accordingly. In recent years, many global and regional banks have reassessed their payments operating models and architectures, opting for Payments Factories or Payments Hubs, based at least on the cost-optimisation and revenue-growth business case. Some others, under regulatory and competitive pressure, made different kinds of optimisations and adaptations to their payments environments. As already stated, a centralised and integrated payment system has to fully enable the execution of strategies based on both a revenue focus (e.g. by generating critical business intelligence from its ideal position at the centre of client information flows) and a cost focus.

In addition, centralising and integrating payments will allow banks to:

- Better understand, measure and monitor the performance and profitability related to each payment instrument/service/segment.
- Offer customised, enhanced value-added services leveraging the huge significant value hidden in information related to payments (e.g. liquidity projections).
- Tailor pricing and billing according to required business objectives.

A Payments Factory represents, in fact, the "beating heart" of payments services, and assembles processes, people and IT around the special mission of designing, producing, delivering and monitoring end-to-end payments services. It therefore needs to:

- Be open, flexible and scalable, allowing centralisation on core payments processes and a focus on standardisation, volumes, scale and high STP rates.
- Serve a bank's "internal" clients and enable sourcing and partnership mechanisms with specific standards, contracts, SLA rules and organisation.

The Payments Hub represents arguably the "business evolution" of a Payments Factory and is more appropriate for banks playing (or wanting to play) an active role in the payments arena—and/or perhaps planning to evolve towards the role of a global transaction bank. That evolution involves the broadening of a bank's payments ambitions, with a more explicit and formal focus on people and processes, and even the creation of dedicated business units and/or legal entities, running their own P&L—and having a significant impact on the bank organisation (even if few banks have decided, up to now, to organise in this way, due to the significant impact on the organisation).

The Hub's shape largely depends on the volumes the bank can attract, its geographic focus (regional vs. global), its addressed market segments (FIs, corporates, retail) and its product/service coverage (global and generalised to niche and specialised). Setting up a Hub requires significant commitment and rigorous metrics and KPIs to measure performance (some banks have so far pursued Hubs largely as a way to industrialise and scale up, reducing average cost per transaction, with little real thought to the business case for revenues). Hub initiatives, supported by extensive business/technical experts and widely enabled by IT, generally require a multi-year transformation programme that has to be able to find and pursue "islands of stability" that can generate positive results in the intermediate term—successes that can be communicated to the organisation to build commitment and positive energy.

Before starting to transform, however, banks need to formally evaluate the degree to which payments are core to their business and then assess the range, scope, flexibility, overall cost and degree of compliance of existing systems and services vs. the targeted segments, geographies and areas of focus (using shared and comparable metrics, such as revenues per product, FTEs, costs, volumes, etc.). The assessment must align all stakeholders, inform decisions about the realities and pre-requisites of different scenarios, and identify the key elements that need to be addressed to reach the targeted end model. Ultimately, this will mean deciding whether to:

1. Focus investments on complying with new regulations, adapting only the most critical competitive areas.
2. Start a payments transformation journey, designing a Hub and perhaps taking an intermediate step by building a Payments Factory.

Future ambitions also need to determine the scope of products and services (all kinds and formats of payments services, value-added services, cards, trade finance, advanced liquidity and cash management

Figure 3.8 Challenging the Current Payment Systems

SOPHISTICATION OF SERVICES	▪ Are the services you have today sophisticated enough with respect to the competition? ▪ Are you losing clients since you are not flexible enough to anticipate their needs/expectations? ▪ Are you able to provide services which have value your clients are ready to pay for?
TIME-TO-MARKET AND COST-TO-MARKET	▪ Are you able to deliver services on time and at the speed your clients require? ▪ Is the overall time-to-market acceptable or are you losing clients? ▪ Are you innovating your offers to deliver services above your clients' expectations?
PRICING	▪ Are you able to provide transparent and flexible pricing mechanisms to your clients?
TRACKING OF SERVICES AND CLIENTS	▪ Do you have a clear real-time picture of your clients' overall positions? ▪ Are you using client information to strengthen relations and to provide valuable information to other banking business units?
PARTNERSHIPS/ STRATEGIES OF SOURCING	▪ Are you in a position to enrich your portfolio of services with white-label products from third parties? ▪ Are you able to provide your differentiating services to third parties? ▪ Are you in a position to insource and/or outsource payments services from/to others?

Source: Capgemini research and analysis, 2010

services, etc.) as well as the main functionalities (real-time multi-currency interest calculations for cash pooling, managed standards and formats, end-to-end monitoring 24/7, etc.). For each service fitting the target model, banks should assess how much their current payments structure (business, organisation and IT) stacks up against a list of potential challenges (see Figure 3.8), and how much those challenges could negatively impact the business and client relations.

REVENUE-FOCUSSED STRATEGIES

With revenue-focussed objectives in mind, Hubs should incorporate secure, rules-based decoupling layers that enable banks to exchange real-time (or near real-time) client information with support from specifically designed Web services, interfaces and translation mechanisms. Banks can then extract value from the payments information by using the resulting business intelligence to deliver value-added services to clients, improve client retention, design new sources of revenue, support cross-selling, and hone credit, operational and counterparty risk management. Some specific ways to extract value include:

- Supporting clients in managing accounts receivable and payments scheduling, enhancing cash-flow projections and management.
- Optimising liquidity management.
- Providing spend analysis (segmentation and aggregation), which can help merchants, for example, to monitor customers' behaviours.
- Collecting and aggregating credit-rating and other information to monitor the market response to evolving banking products, and (re-)design products accordingly.
- Generating granular insights from pricing tools and mechanisms that can drive new product pricing and packaging and help in designing loyalty and other rewards schemes.
- Automatically reconciling payments with invoices, helping clients to connect the physical supply chain with the financial value chain.

COST-FOCUSSED STRATEGIES

Execution of cost-focussed initiatives also requires a Hub that incorporates technical decoupling layers, connectors, format translators and interfaces and a full set of high-performance tools. Banks will be then able to connect to third parties, carrying out insourcing and outsourcing of payments volumes to achieve cost reductions, scale, efficiencies and more seamless STP. Banks will also be able to address/remove common obstacles to efficiency and high performance. In particular:

- To improve STP and optimise cut-offs, banks need paperless client orders, directly from client systems. Banks can therefore actively discourage the paper-based initiation of payments.
- Incoming and outgoing orders often require manual intervention to check, for example, proper account identification, so banks can ensure close co-operation between account and payments management teams.
- Customer service tools and organisation can be enhanced, following client flows on an end-to-end basis, extending opening hours and providing, for example, a single expert and technical entry point to provide seamless integration with bank helpdesks.
- Payments, such as credit transfers, cannot be processed until account balances or credit lines have been checked or a specific banker has authorised the transaction. Efficient information and workflow between the account management system and the Hub could streamline this process.
- The Hub should also facilitate the selection of the most effective internal/external clearing and settlement mechanisms (ACHs and/or correspondent banks) for each type of payment, increasing efficiency.

EVALUATE POSSIBLE OPTIONS: IS IT SAFER TO WAIT AND SEE?

Figure 3.9 outlines major benefits, concerns, costs, investments and revenues involved in three possible scenarios for banks. Under the "Wait and See" scenario, the bank relies mainly on legacy and "siloed" processes, organisations and IT applications. Operations have difficulty leveraging potential synergies found by re-using common elements in the value chain. Product enrichment tends to be expensive and time-consuming. Generally, it can be difficult to compare costs to generated revenues. When costs are examined they are sometimes greater than expected and margins are reduced (or unrealised).

The "Improving Efficiency" scenario is substantially similar to the first in terms of product portfolio and propositions features, and it is focussed on the resolution of inefficiencies by means of specific interventions. Even though searching for cost reductions improves overall operational efficiency, it may not overcome structural constraints. Furthermore, as in the prior scenario, final results cannot be easily measured, and optimisation initiatives addressing specific niches sometimes complicate the already articulated structure of payments services delivery even further.

For banks to transform their payment systems, though, four steps at the outset will be critical to success:

- Building a clear map of the current situation (people, processes, overall technologies, applications, interfaces, feeding procedures, networks, costs and revenues, strengths and weaknesses, etc.).
- Establishing a high-level and long-term business vision and commitment from the organisation to at least a three-year transformation programme.
- Properly aligning bank departments around the initiative, making sure in particular that IT is positioned as a critical enabler but not a primary driver of the transformation.
- Drafting at least a high-level business case, in which revenues-at-risk, cost reductions, efficiency and volumes all need to be the key drivers.

These actions will provide banks with the building blocks for an effective strategy—though many more decisions and drivers will obviously emerge as the transformation journey progresses.

Figure 3.9 Banks' Options on Payments Business

	1 WAIT AND SEE	2 IMPROVING EFFICIENCY	3 PAYMENTS HUB
DESCRIPTION	Silos solution / Legacy	Silos solution / Legacy with specific cost-effective interventions	Integrated solution
PRODUCT PORTFOLIO	Limited to current situation	Limited to current situation with potential improvement in service level	Enhanced by new services introduction and state-of-the-art offer
PROPOSITIONS FEATURES	▪ Real-time, online and 24/7 features difficult to achieve ▪ Time-to-market for new services very difficult to improve ▪ Limited end-to-end tracking and tracing ▪ Limited exploitation of clients' information ▪ Non-modular pricing ▪ No sourcing options available	▪ Real-time, online and 24/7 features difficult to achieve ▪ Time-to-market for new services difficult to improve ▪ Slight improvement on end-to-end tracking and tracing ▪ Limited exploitation of clients' information ▪ Non-modular pricing ▪ No sourcing options available	▪ Real-time, online and 24/7 features ▪ Effective time-to-market for new services ▪ Full end-to-end tracking and tracing ▪ Full exploitation of clients' information ▪ Sophisticated pricing and costing ▪ Full sourcing options available
BENEFITS	▪ No structural changes in terms of operational model and organisation	▪ No structural changes in terms of operational model and organisation ▪ Efficiency improvement ▪ Reduced negative impact on operational costs	▪ Operational risks reduction and value-at-risk protection ▪ Low investments in compliance ▪ Low operational costs in the medium/long term ▪ New sources of revenues ▪ Profitability analysis available for different dimensions ▪ Full ability to execute revenue and cost-focussed initiatives

CONCERNS	▪ Relatively high operational risks
	▪ High investments in compliance
	▪ Inability to reduce operational costs
	▪ High risk of revenue decrease in the long term
	▪ Limited profitability analysis available
	▪ Client retention at risk
	▪ Portfolio enrichment: very difficult
		▪ Relatively high operational risks
		▪ High investments in compliance
		▪ Risk of revenue decrease in the long term
		▪ Limited profitability analysis available
		▪ Client retention at risk
		▪ Portfolio enrichment: difficult
			▪ New architectural, operational and organisational model to be implemented
			  – Potential resistance to change to be addressed
			▪ Potential immaturity of the market
			  – No best practice or consolidated end-to-end solutions to follow

OPERATIONAL COSTS	● ● ●	● ● ○	● ○ ○
INVESTMENTS	●	● ●	● ● ●
REVENUES	● ● ●	● ● ◐	○ ○ ○

● Negative Impact ○ Positive Impact

Source: Capgemini research and analysis, 2010

Case Study — Rationalising the Product Portfolio before Embarking on a Hub Implementation

One regional bank with a local presence in some countries decided to use a Hub in its bid to be recognised as a global and unique brand delivering superior payments services to customers. The bank opted to design an operating model incorporating a shared service centre, believing payments processing could derive significant benefits from standardisation, centralisation, economies of scale and STP in a single solution—thus allowing optimisation of skills, operational excellence and a higher quality and level of services.

Notably, the bank began its transformation by harmonising portfolio services, because management recognised the real challenge wasn't related primarily to technology but to the ability of the bank to construct a viable vision (of priorities, business constraints, domestic mandatory needs and functionalities) that all stakeholders could embrace, ensuring there would be ample buy-in and confidence to drive the transformation. First, the bank undertook a robust assessment of different geographies to evaluate:

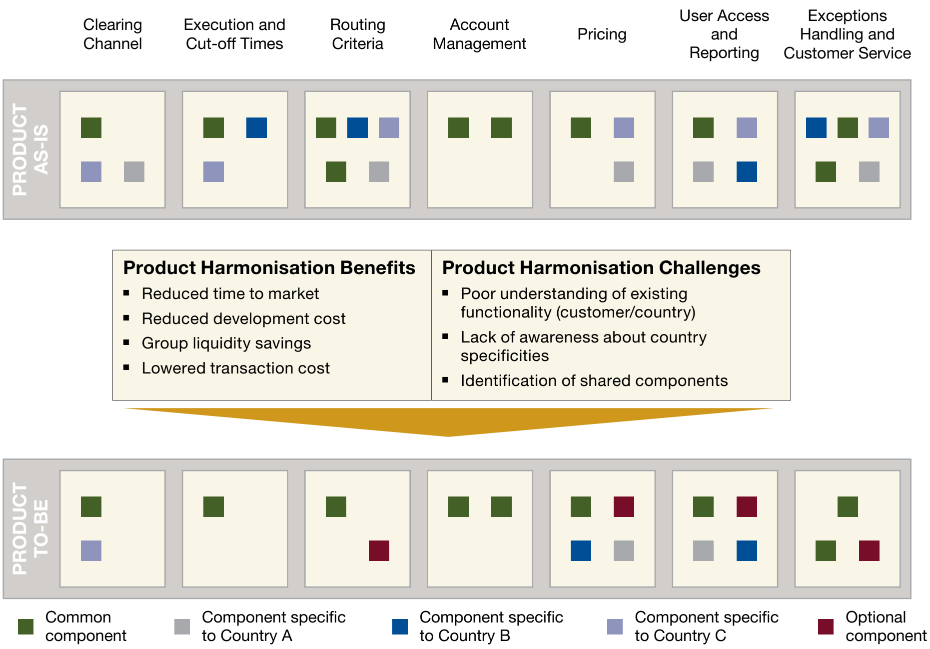
- Market positioning, ambitions, economic value of the business and the bank's more profitable segments (present and potential, dimensioning the growth hypothesis, identifying untapped opportunities in under-served segments, areas of vulnerability, etc.).
- The potential for sharing and need to maintain specific local niche services (benefits logic).

An industrial approach was used to map the global payments portfolio (see Figure 3.10) and capture a clear view of current product offerings and related value propositions (to preserve or to develop), as well as the constraints and characteristics of local product requirements and related opportunities.

Reaching a shared and global view of the target portfolio-services model is a critical step, because each geography tends to think its services and specialities are best-of-breed and essential to customer retention. Cultural resistance can also be a strong inhibitor, making it difficult to establish the real value of a domestic proposition and create a common prism through which to view the group's portfolio (such as the Figure 3.10 framework).

Certainly, one of the most important lessons learned is that **the transformation journey needs to start from understanding and aligning the business issues—before the technical business and IT specifications are defined.**

Figure 3.10 Products Portfolio Harmonisation



PORTFOLIO FRAMEWORK DEFINITION

Product	Component	Option
▪ Smallest unit possible to sell stand-alone (not necessarily always sold separately)	▪ Standard part or function which the product is built from	▪ Part that can be sold, but not independently, only together with a product
▪ Car Model X: basic	▪ Steering wheel ▪ Standard interior	▪ Metallic paint ▪ Leather interior

Source: Capgemini research and analysis, 2010

Conclusion

As banks accelerate their response to new entrants and the direct and regulatory effects of the economic crisis, the payments value chain will feel the impact. Figure 3.11 illustrates how the different segments could be affected. In some cases, revenue-focussed initiatives will affect processing (e.g. accelerating selling on one product on a specific channel can bring efficiency). Sometimes cost-focussed initiatives oriented towards improving efficiency and looking for scale will affect client-facing segments (e.g. improving investigation time or making instruction easier and more friendly).

Given the potential value chain impacts, we believe that:

- Banks need to decide to what extent payments are core for their business, since the reality might prompt banks to think far more radically, and perhaps more quickly, than expected, about their payments strategies. This review should include a frank and critical assessment of their competitive positioning.
- The "Wait and See" approach is passive, and could actually result in the bank progressively losing clients and market share over time. Such an approach could ultimately prove more expensive than making a decision to invest and take proactive governance of this area of business.
- Banks need to explore sourcing and partnering possibilities. Partnerships can support revenue-focussed strategies, filling the technological gap—and consequently addressing the more onerous customer demands. Insourcing/outsourcing can reduce running and compliance costs, improving efficiency and obtaining scale on specific segments, geographies or services.
- New governance, operating mechanisms and KPIs may need to be implemented when using partnerships, insourcing and outsourcing, since some segments of the value chain will be more dispersed and risky (especially client-facing ones).
- It may prove extremely difficult, or even impossible, for banks to leverage partnerships and/or develop insourcing/outsourcing options without Hubs. In fact, Hubs fully enable the execution of revenue-focussed and cost-focussed initiatives, and both are required in order to achieve more with less.
- With numerous Hub initiatives underway, banks that have not yet decided on any Hub initiative would benefit from evaluating their options, including an associated cost/revenue analysis for the coming years.

Figure 3.11 Overview of Potential Impacts on the Value Chain

	CLIENT-FACING SEGMENTS				NON-CLIENT-FACING SEGMENTS	
	MARKETING, SALES AND SUPPORT			INITIATION	PROCESSING	
	Proposition Development	Contract Management	Client Reporting and Support	Payment Instruction	Operations Processing	Clearing and Settlement
Competition of New Entrants	▪ Innovative approach ▪ Partnership skills ++	▪ Increased flexibility +	▪ More sophisticated and transparent reporting ▪ More client orientation ++	▪ Innovation ▪ Client channel development ▪ Time-to-market +++		
Executing Revenue-Focussed Initiatives	▪ Innovative approach ▪ Partnership skills ▪ Time-to-market +++	▪ Agility ▪ Time-to-market ▪ More client focus ++	▪ More sophisticated and transparent reporting ▪ More client orientation +++	▪ Innovation ▪ Client channel development ▪ Time-to-market +++	▪ Push on channel improves scale +	
Executing Cost-Focussed Initiatives	▪ Improved time-to-market +	▪ Responsiveness +	▪ Responsiveness +	▪ Improved time-to-market +	▪ Increased STP ▪ More efficiency ▪ Optimised processes ▪ Processes/open architecture +++	▪ Seek volumes ▪ Optimised processes ++

\+ Low impact ++ Medium impact +++ High impact

Source: Capgemini research and analysis, 2010

What Lies Ahead

A year ago, there was uncertainty regarding how payments would fare as the global economy faltered and banks were dealing with the effects of the worst financial crisis in recent memory. In fact, the payments business has proved resilient, further cementing its place as a mainstay of revenues for many banks. However, the economic crisis and the regulatory response have further accelerated change in the payments market at a time when non-bank competitors and technological advances are already impacting the landscape.

In this fluid environment, we could have studied any number of trends in world payments, but we have chosen to highlight those developments that are likely to prompt the most radical change—and, in turn, the key strategic considerations for payments executives:

- **Payments trends** show the volume of payments is expanding, but usage patterns continue to evolve. Moreover, there is still a distinct disparity in behaviour among different countries and regions around the globe, and this partly reflects long-standing user preferences and the growing availability of modern alternatives such as m- and e-payments. Industry and some government initiatives are also encouraging electronic payments but the use of cash is still growing, representing a significant cost for global economies. Banks need to anticipate and navigate changes in usage preferences to solidify their position in the payments value chain.
- **Regulatory initiatives** (including SEPA, PSD, Basel III, AML, ATF) all have the potential to increase costs and put pressure on margins, prompting banks to look for more cost-effective solutions. New liquidity rules could challenge bank business models and require excellence in managing intraday liquidity. Banks will potentially also need, as a consequence, to search for more sources of stable funding, such as retail deposits, at a time when competition for those deposits is growing.
- **Competition and innovation** are already transforming the payments landscape into a more complex, expansive and interconnected world. The payments space is also becoming a more volatile and "information-driven dimension". Banks need to consider how to capture the value embedded in that dimension, and they will need to consider the gamut of sourcing, partnership and collaborative models to succeed.

WHAT DOES THE FUTURE HOLD FOR BANKS?

In the coming year, banks will face a range of challenges. In the process, and to build profitable and sustainable business models, payments executives around the world will need to:

- Understand the risks and opportunities within the changing landscape, and decide to what extent payments are "core" to business strategies.
- Evaluate the implications if regulatory deadlines are set for SEPA migration.
- Resolve responses to numerous regulatory issues, with an emphasis on Basel III.
- Consider rebalancing and rationalising their portfolios (retail vs. corporate and product mix).
- Consider the question of how to incentivise a change in behaviour to reduce the proportion of payments made in cash.
- Build models that can better measure the profitability of payment transactions.
- Focus on the need for fully integrated fraud and claims management frameworks (payments and cards).

We look forward to bringing you further updates and insight on these considerations and other key developments in the payments industry, in the *World Payments Report 2011*.

Methodology

NON-CASH PAYMENTS

This year's *World Payments Report* offers insights on the payments segments in the following areas:

- North America: the U.S. and Canada.
- Europe:
  - The 13 countries that were members of the Eurozone in 2007: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Slovenia and Spain. (Cyprus and Malta joined in 2008 and Slovakia in 2009.)
  - Four non-Eurozone countries: Denmark, Poland, Sweden and the U.K.
- Asia-Pacific: Australia, China, India, Japan, Hong Kong, Singapore and South Korea.
- Latin America: Brazil and Mexico.
- Central Europe, Middle East, Africa (CEMEA), Russia, Saudi Arabia, South Africa, Turkey and Ukraine.

Figures for the U.S., Canada, Hong Kong, Japan and Singapore were taken from the latest Bank for International Settlements payment statistics (Red Book, March 2009). The source of figures for the Eurozone was the European Central Bank payments statistics (ECB Statistical Data Warehouse, 2009). For the remaining countries, figures were taken from central bank publications and websites. Macroeconomic indicators (GDP and population) were collected from the World Bank and International Monetary Fund (IMF).

Total non-cash circulation is the sum of non-cash transactions of cheques, debit cards, credit cards, credit transfers and direct debits. Due to the numerous revisions in official data made by the ECB, along with changes in reporting methodology in certain countries (especially Germany), prior-year data may diverge from data initially reported in the *2009 WPR*. The basic linear estimation technique was used to calculate the estimates wherever data were unavailable or substantially different. Also note a 2007 change in Germany's methodology for collecting certain payments data caused a break in the time series, so we took the growth rates for 2001 and 2008, and averaged out data for the intervening years to make data directly comparable year-on-year. These German numbers have been used throughout our analysis.

In order to provide regional and global data sets, estimates have been calculated for those countries not specifically researched, and then grouped under the appropriate regional heading: other Asian countries, other Latin America countries, or other CEMEA countries.

For worldwide macro descriptive graphs (number of transactions per region) seven regions were defined: Europe without Russia, North America, Japan-Australia-South Korea-Singapore, BRIC (Brazil, Russia, India, China), Latin America without Brazil, Rest of Asia, and CEMEA, grouped by geographic, economic, and non-cash payments-market maturity criteria. For graphs on average value per transaction per payment instrument, only three regions were defined: mature Asia-Pacific (Japan-Australia-South Korea-Singapore), North America (U.S. and Canada) and Europe without Russia.

The source for the Workers' Remittances Market Evolution is the World Bank Migration and Remittances Factbook 2009 and for the World Exports Evolution, the World Trade Organization Secretariat. The values used in remittances analysis are inflows (credit) of the workers' remittances, compensation of employees and migrant transfers.

The analysis of cash-in-circulation versus non-cash transactions was conducted on all Eurozone countries to give the widest possible view. Notes of €200 and €500 were excluded from the study, as these large-currency notes are largely used for hoarding rather than for payments. Cash figures were provided by the ECB and national central banks.

ALTERNATIVE PROVIDERS

Capgemini estimates of e-payments market sizes are derived from analysis based on Celent, Datamonitor and Mobile World data. M-payments market-size estimates are taken from Juniper Research and IE Market Research. The following assumptions have also been made:

- The fixed average dollar/euro exchange rate (0.72 US$/€) was used for 2009 to mitigate the effects of foreign exchange on the business drivers.
- Mobile payments estimates are expected to grow much faster in the later years, because they hold substantial attraction and potential, but there are several key issues that must be addressed to ensure success.
- The emerging-market share of m-payments is expected to grow faster and overtake the developed markets by 2012 (43.7% share in 2008 and 59.6% in 2012), due to rising usage by the unbanked.
- Telecom-operator-centric models are assumed to have 5% of the market in 2009, considering the success of such schemes, and are expected to have a share of 8% by 2012, leveraging emerging technologies to position themselves better.
- The total e-commerce market was assumed to grow at 17% in 2008–2009 as economic concerns slowed spending by users across the world. Growth is expected to pick up steadily and reach 21% in 2011–2012 given increasing internet penetration and user confidence.
- Total payments value by PayPal was assumed to be 70% of the total worldwide alternative payments market in 2009 and, accordingly, the size of the alternative payments market has been estimated and forecasted from the PayPal data.
- The percentage of alternative payments (from non-bank providers) as a medium of payments in the e-commerce world is assumed to increase every year, with higher growth rates in later years (20% in 2008–2009 due to the effects of the economic slowdown, and 32% growth in ensuing years as more alternative providers come up with innovative, secure and affordable payment methods).

The number of transactions for the e-payments and m-payments markets was estimated by dividing the market size by estimated average e-payment and m-payment transaction sizes. Average transaction sizes for m-payments and e-payments were estimated using sources like Vodafone M-PESA, MasterCard trial in Canada and IE Market Research along with the following assumptions:

- Average transaction size for m-payments has been estimated according to the stage of development of the country (€20 for emerging markets, driven by m-remittances, and €10 for developed markets, driven by convenience proximity transactions).
- Average transaction size for e-payments and alternative payments was estimated to be €45.95 from PayPal numbers using total payment value and number of transactions.
- The size is assumed to be stable to mitigate the effects of payment size on trends.

In the PayPal case study, revenue contributions were estimated by starting from publicly available data from 2008. The 2009 projection considers a fixed proportion of cross-border transactions (CBT) over the international share of payments volumes and maintains the same distribution for complementary revenue sources. Figures for sources of funds in the PayPal case study are based on 2005 publicly available data, with 2009 projections taking a fixed share of credit card funding over the share of margins provided for each year.

PARTNERSHIPS, SOURCING AND HUB INITIATIVES

Several public sources were used to analyse and document partnerships, collaborations, sourcing and Hub initiatives involving PSPs and non-PSPs with a global and regional reach.

INTERVIEWS CONDUCTED

The methodology for this report also incorporates 13 executive interviews, conducted in June and July 2010 with major global and regional banks and major clearing houses.

Glossary

ACH
Automated clearing house

AML / ATF
Anti-Money Laundering / Anti-Terrorist Financing

AOS
Additional optional services

ATM
Automated teller machine

B2B
Business-to-business

B2C
Business-to-consumer

BAFT-IFSA
Bankers' Association for Finance and Trade and International Financial Services Association

BRIC
Refers collectively to the countries of Brazil, Russia, India, and China

C2B
Consumer-to-business

C2C
Consumer-to-consumer

CAGR
Compound annual growth rate

CBT
Cross-border transaction

CDD
Customer due diligence

CEMEA
Central Europe, Middle East, Africa

CHAPS
Clearing House Automated Payments System

CMF
Creditor Mandate Flow

CNP
Card not present

CSG
Cards Stakeholders Group

CT
Credit transfer

DMF
Debtor Mandate Flow

EEA
European Economic Area

EBF
European Banking Federation

EBICS
Electronic Banking Internet Communication Standard, a transmission protocol for banking information for use by banking clients

EC
European Commission

ECB
European Central Bank

ECB DWH
European Central Bank's Statistical Data Warehouse (DWH), the official ECB publication covering the main payment and securities settlement systems in EU Member States

ECOFIN
Economic and Financial Affairs Council

EDI
Electronic Data Interchange

Efma
European financial marketing association

e-invoicing
electronic (e-) invoicing is a solution for secure exchange of invoice data between suppliers and buyers

EMV standard
Europay MasterCard Visa, a global standard for cards, POS and ATM terminals in relation to credit and debit card payments

e-payments
Online payments for e-commerce transactions

EPC
European Payments Council

EU
European Union

EUC
The Payment System End-Users Committee

Eurozone
The Eurozone comprises the Member States of the EU that have adopted the euro as their national currency. Eurozone data in the first chapter of this report cover the 13 countries that were members in 2007: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and Slovenia. Since then, Cyprus, Malta and Slovakia have also joined, bringing the number of Eurozone members to 16 as of 2009

FATF
Financial Action Task Force, an intergovernmental body whose objective is the development and promotion of policies to combat money laundering and terrorist financing

FI
Financial institution

FSA
Financial Services Authority

FSB
Financial Stability Board

FTE
Full-time equivalent

G2C
Government-to-consumer

GDP
Gross domestic product

GSMA
Global System for Mobile Communication Association

GTS
Global Transaction Services, sometimes known as Global Transaction Banking (GTB)

IBAN
International Bank Account Number (ISO 13616 Norm)

IMF
International Monetary Fund

interchange fee
The fee paid by the acquirer to the issuer mainly to reimburse for payment guarantees, fraud management, and issuer processing costs

ISO
International Organisation for Standardisation

ISO 20022
Abbreviated term referring to the ISO message scheme used by SEPA instruments

KPI
Key performance indicator

KYC
Know your customer

legacy payments
Term used to describe domestic payment instruments that pre-date SEPA

m-payments
Mobile payments, any payment initiated through a mobile device

mandate
In payments, the “mandate” is the authorisation required

MIF
Multilateral interchange fee

MSC
Merchant service charge

NCB
National central bank

NFC
Near-field communications (short-range wireless technology) used for contactless payments

non-cash payments
Payments made with instruments other than notes and coins, i.e., using credit transfers, direct debits, credit or debit cards or cheques

P&L
Profit and loss

P2B
Person-to-business

P2P
Person-to-person

PA
Public authorities

Payments Factory
A payments environment that centralises core payments processes (with a main focus on standardisation and volumes) and enables basic sourcing mechanisms

Payments Hub
The “business evolution” of the Payments Factory: it also focusses on people and processes and enables a wide range of sourcing strategies

PI
Payment institution

POS
Point of sale

PSD
Payment Services Directive

PSP
Payment service provider

Red Book
An official publication of the Bank for International Settlements (BIS)

SCF
SEPA Cards Framework

SCT
SEPA Credit Transfer

SDD
SEPA Direct Debit

SEDA
SEPA-compliant Electronic Database Alignment

SEPA
The Single Euro Payments Area is a domain in which the EU 31 is standardising all euro payments and collections so they can be treated as domestic transactions

SLA
Service-level agreement

SMS
Short-message service (more commonly known as text messaging)

STP
Straight-through processing

SWIFT
Society for Worldwide Interbank Financial Telecommunication

TPV
Total payments volume

WAP
Wireless application protocol

WPR
World Payments Report

XML
Extensible markup language; facilitates the sharing of structured data across information systems

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www.rbs.com

For more information, please contact:

Capgemini	payments@capgemini.com
RBS	wpr2010@rbs.com
Efma	wpr@efma.com

For press inquiries, please contact:

Emma Hedges	ehedges@webershandwick.com
Lisa Boughner	lisa.boughner@capgemini.com
Shamira Alidina	shamira.alidina@rbs.com