

world payments

REPORT • 2007



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Preface

The World Payments Report from Capgemini, ABN AMRO and the European Financial Management & Marketing Association (EFMA) is now in its third year. As we publish our 2007 report, the payments industry is on the verge of radical changes driven by increasingly global trends. Yet those common drivers of change manifest themselves differently in the principal regions (North America, Europe, Asia, Latin America), depending on each unique combination of local and global regulatory, social and political changes.

The axes of economic power are also changing. North America is still the single largest economy in the world; however, Europe already has a larger GDP and population than North America. In addition, of increasing importance are the rising economies of China and India which will have a strong impact on the global balance.

North America's payments industry is a market dominated by cheques and facing increasing pressures related to new technology investments. This is combined with growing corporate demands for international services, which is redefining markets and competitors both nationally and internationally.

The Far East's payments industry encompasses extremes: it has both mature and emerging markets that are changing rapidly, with intra-regional growth being the main driver. For banks in these countries, relevant business knowledge and availability of capital to invest significantly and quickly in new technologies are key.

In Latin America, the Central Bank of Brazil is driving Brazilian banks to review their payments strategies in order to deliver better payment services to their customers.

Europe's payments industry is a hybrid, a diverse combination of sophisticated and emerging euro and non-euro markets, mandated to combine through the Single Euro Payments Area (SEPA) to form the new European payments market.

While the principal regions have strong differences, we have found four commonalities that are emerging in the payments industry: globalisation, compliance, market restructuring and performance.

Globalisation is primarily impacting the industry with increases in crossborder trade, the opening of new markets and the proliferation of offshoring as a significant change in the way banks conduct their payments business.

Regulatory and legislative *compliance* is a major factor. General industry opinion is that compliance costs are roughly one third of annual IT spend, including projects related to know-your-customer, anti-money laundering, anti-terrorist financing, and the enforcement of trade and economic sanctions. In addition, governments have also responded to globalisation and the need to remove trade barriers while at the same time protecting consumers and other users.

The payments market is *restructuring* rapidly. Globalisation and regulatory compliance forces are bringing a focus to payments, an area of cost that has previously been assumed a non-discretionary spend. These forces are instrumental in raising the visibility of payments and the associated investment, driving banks to rethink their marketing strategies and sourcing options.

Banks will need to focus on core competencies to drive changes in strategy. Therefore significant restructuring of the payments market can be expected, and banks will need to react to demands for efficiency and scale combined

with innovation and business agility. There is already clear proof of such developments emerging:

- Consolidation in the payments industry is ongoing
- Governance of payment processors is changing. The traditional 'mutual' structure of payments service providers, where the company is governed by its own customers (mainly banks), is breaking down.
- Unbundling of payment functions is increasing - for example, in the cards industry, where the scheme management and processing functions were traditionally integrated, making it very difficult for new entrants to compete.

Business models are moving towards value chain plays specialising in technology-driven processing and outsourcing. This trend is expected to continue given ongoing business process restructuring and further penetration of electronic trading across products and geographies. The best offensive strategies for established players are developing the agility needed to innovate rapidly and maintaining a relentless focus on identifying new opportunities that can confer scale and cost advantages.

Performance is under the microscope in the increasingly competitive environment and investors have learned the value of transaction banking. No longer is it acceptable to be simply financially astute, today's financial organisations must be operationally astute to succeed. Pressures have increased to drive performance, by optimising capital and driving value from every aspect of the business. The drive for capital efficiency is reinforcing the cost focus and strategic sourcing partnerships are well recognised as a method of reducing costs and redirecting capital.

Against this global backdrop, The World Payments Report 2007 focuses primarily on the evolution of payments transactions and trends within the regulatory environment in Europe.

The legal framework for a single payments market created by The European Commission (EC), in order to remove the differences between member states, will shortly start to be implemented in a number of steps between January 2008 and November 2009. At the same time, the European banks have begun to address the SEPA goals through self-regulation.

The key legislative instrument, The Payment Services Directive (PSD), requires payments providers to make their offerings more transparent and more standardised, and introduces a new category of non-bank payments institutions. The legislator's objective is to create a level playing field and enhance competition in the European payments market.

We believe that Europe's experience will be relevant to other regions as they look to address the impact of the global trends on the banking community in terms of investment, positioning, and performance issues. The compliance costs for banks will continue to be considerable. The impact on revenues from regulatory changes and increasing competition will lead to price compression, forcing banks to improve efficiency and find new revenue sources. At the same time, markets are opening up and banks will have opportunities to position strategically to cope with new challenges and capture new opportunities. The resulting industrialisation of the global payments market is one of the main topics of this report.

We hope our findings and insights will spark debate and help the banking community make successful strategic choices.



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A sunset scene over a body of water. The sun is low on the horizon, creating a bright orange and yellow glow. A person is walking away from the viewer on a wooden pier that extends into the water. A bird is in flight in the upper left part of the sky. The overall mood is serene and contemplative.

Summary of Key Findings

With all stakeholders now involved in developing the Single Euro Payments Area (SEPA), the main uncertainties regarding guidelines and rules for making SEPA a reality have been resolved, ensuring SEPA's operational phase will start soon. With both the PSD, providing a new, common legal framework for European payments, and the publication of a new version of the SEPA Rulebooks for credit transfers and direct debits, the path for SEPA implementation is now clear.

However, several key questions still remain unanswered. When will the eurozone reach a critical mass of SEPA transactions? When will customers (public administrations, corporates, small and medium-sized enterprises) start the migration to SEPA? What barriers must be overcome to ease migration to SEPA payments? In today's fast-growing market, do banks benefit from any competitive advantage? Given the new SEPA context, how can banks most effectively combine growth and industrial strategies in the payments business?

These are the core issues addressed in the report and the following page highlights our key findings.

- None of the eurozone countries expects to achieve a critical mass of SEPA payments before the end of 2010, according to the implementation and migration plans published by eurozone communities. In addition, some communities also expressed a desire to retain legacy payments as long as demand exists which could create a “mini-SEPA”.¹
- Overall success for achieving full SEPA compliance and avoiding a “mini-SEPA” will depend on regulatory incentives to attract essential first movers such as corporates and the public sector to SEPA instruments. Regulators must answer the collective call for action on decommissioning remaining legacy payments and providing a common end-date.
- Cash remains the preferred payment instrument, and there is still no visible initiative in Europe to replace cash usage. On the contrary, as ATMs improve and the amount of cash in circulation rises, consumers increasingly find it easier to use cash.
- Europe needs an “any card at any terminal” solution for a card market that is growing over 10% a year. By 2012, cards will account for about 44% of all non-cash transactions in Europe. Banks will need to review the option of a new European card scheme as an alternative option to replace the existing national schemes.
- Payment institutions will not present a serious competitive threat to Europe’s 20 largest banks (responsible for 45% of Europe’s payment volume) until 2011. Until then banks have free field to secure their current position.
- European banks will face challenges to their competitive positions as their direct payments revenue declines by between 38% to 62% in some parts of the market by 2012.² Volume growth varies by country, and non-bank stakeholders (Automated Clearing Houses (ACHs), corporates) might move up in the value chain. Banks positioned among the top 10 in the 2012 European market are expected to process approximately 5 billion transactions each.
- Banks are repositioning their business models (on a European scale), enhancing their service offerings (competitive model), and optimising their delivery models to sustain their strategic ambitions in the future payments marketplace. Banks are turning to delivery models that rely on open architectures³ to:
 - Enhance product offerings: flexibly add white-label products to their portfolios quickly enough to satisfy clients.
 - Outsource payments processing to third parties, or insource others’ corporate or financial institution payments via customised services delivered in an efficient industrial model.
 - Permanently optimise this model by offering clients the most competitive integrated services in the market.
- Most banks will adopt one of three strategies—niche player, low-cost producer, or leader—to thrive in the new payments market. Banks rejecting or unable to execute one of these three strategies will need to outsource (parts of) their payments processing functions. 58% of banks already outsource or plan to outsource part or all of their payments activities within five years, and 68% plan to offshore this activity as well, whether back-office, IT, or support functions.
- Strategic sourcing partnerships will play an increasingly important role as the payments industry focuses on globalisation, regulation and performance.

In the context of European consolidation, over the next two to three years successful banks will rely on their major strengths to develop effective strategies to meet the intense challenges of increasing competition in the SEPA marketplace from ACHs, payment service providers (PSPs), new non European entrants, and later, payment institutions.

¹ According to the European Commission, a “mini-SEPA” – where a eurozone customer is offered one service in their home market and another in the rest of the eurozone- is not in line with the payment system required by the Eurosystem.

² World Payments Report 2006, Page 5. Capgemini, ABN AMRO and EFMA.

³ An open architecture is an industrial processing model that has the flexibility to satisfy customer needs along the entire payments value chain.



SEPA Achievements and Challenges

CHAPTER 1 HIGHLIGHTS

- The PSD, approved by the Economic and Financial Affairs Council (ECOFIN) in March 2007 and by the European Parliament in April 2007 gives a legal framework to SEPA. The PSD harmonises the different national rules and creates a level playing field. It creates a new “payment institution” status allowing non-bank entrants into the payments market.
- The European Payments Council (EPC) has published updated releases of the Rulebooks for SEPA credit transfers and SEPA direct debits and confirmed the launch date for SEPA credit transfer on 28 January 2008.
- In parallel, the EPC will publish complementary deliverables on e-payments for web retailers, as well as on cash.
- After publication of the initial Rulebooks, the banking community started testing based on the SEPA testing framework for SEPA credit transfer and direct debit.
- Most of the issues that corporate players raised have been satisfied with the Rulebooks, the implementation guidelines and future additional optional services (AOS). Some questions remain, but they do not create a barrier to future evolutions of the Rulebooks. New initiatives have been taken for e-reconciliation and e-invoicing to deliver more value in the financial supply chain. SEPA promoters are now able to move forward.
- Cards are still at the centre of stakeholder debates. It is important that banks review the option of a new European card scheme as an alternative option to replace the existing national schemes. It will have to satisfy the customer need for “any card at any terminal”.

AN IMPORTANT NOTE TO OUR READERS:

- THIS ANALYSIS IS BASED ON VERSIONS OF THE PAYMENT SERVICES DIRECTIVE, FRAMEWORKS, MIGRATION PLANS AND RULEBOOKS AS OF 30 JUNE 2007.
- FURTHER UPDATES MAY OCCUR AFTER THIS REPORT IS PUBLISHED.

INTRODUCTION

In 2000 the European Council adopted the Lisbon agenda, aimed at making the EU the most competitive economy in the world. In that context the EC stressed the importance of a single market for payments. In 2002, in response, European banks announced—through the EPC—that they will support and promote the creation of a SEPA. The SEPA is a domain in which 31 European countries⁴ are standardising euro payments and collections, and the countries of the eurozone, further, are working to treat them as domestic transactions.

Building SEPA is the largest payments industry initiative ever undertaken in Europe. The SEPA initiative is coordinated by the EPC, which brings together the European payments industry through 69 banks and their bank associations. The EPC has played a leading role in technically and functionally creating SEPA. The work done on SEPA is progressing according to the EPC's published schedule, and the European Parliament's and ECOFIN's approval of the PSD in April 2007 harmonised SEPA's legal environment across Europe.

Questions on cards still have to be resolved. The EC, ECB, merchant stakeholders, and consumer associations alike have entered a substantial number of discussions and exchanges about the the SEPA Cards Framework (SCF). The ECB invited the EPC to review the option to create a new European card scheme.

THE PSD PROVIDES SEPA'S LEGAL FOUNDATION

The PSD must be transposed—converted to each of the 27 EU country's national law—before 1 November 2009. It has several objectives: to create a single market for payments, enhance competition by opening up markets, ensure a level playing field by harmonising divergent payments rules across the EU (such as providing clear pricing and other information to clients), encourage innovation, and increase market transparency for both providers and users.

The PSD establishes standardised rights and obligations for providers and users of payments services in the 27 countries of the EU, with fifteen currencies and strongly emphasises high-level consumer protection.

It clarifies the situation for direct debits under SEPA by creating a common ground.

The PSD has also created a new status for payment institutions, potential new entrants to the European payments market who are allowed to operate under a less stringent supervisory regime than credit institutions (banks). It delineates the legal framework for creating SEPA.

BEFORE THE PSD APPROVAL, THE EPC HAD PUBLISHED RULEBOOKS AND IMPLEMENTATION GUIDELINES FOR CREDIT TRANSFERS AND DIRECT DEBITS

The EPC established several roles for itself in SEPA's full deployment: design, implementation and testing support, and monitoring. Since the publication of the World Payments Report 2006, it has published updated Rulebooks concerning SEPA credit transfers and SEPA direct debits.

In June 2007, the EPC published Version 2.3 of the SCT Scheme Rulebook (and Implementation Guidelines) and the SEPA Direct Debit Scheme Rulebook (and Implementation Guidelines), taking into account remarks from corporates, banks, and consumers.

SEPA Credit Transfers. The Adherence Agreements of Version 2.3 of the Rulebook imposes an obligation on scheme participants to both receive and initiate SEPA credit transfers; therefore, any bank or payment institution will be able to reach the account of any customer. It also obliges banking communities that want to develop AOS to make those transparent, and not create impediments for the interoperability of SEPA payments and potential suitable for upgrading the Rulebooks. AOS may allow banks to offer services to replace legacy payments; however, widespread development of community AOS also entails the risk of creating a "mini-SEPA," replicating the existing fragmented situation.

⁴ The so-called EU31 comprises the 27 existing members of the European Union plus Iceland, Liechtenstein, Norway and Switzerland.

SEPA Direct Debits. Version 2.3 of the Rulebook removes existing questions about mandate management. It contains the core SEPA direct debit scheme that is required of all compliant banks in the SEPA area. The scheme is based on a creditor-initiated process only. The creditor needs a signed mandate from the debtor first, then it can collect euro amounts by sending a collection file to its (the creditor's) bank. The creditor's bank makes sure that the funds are collected through the clearing process. Debtors (consumers) have the right to ask for a refund for such collections within eight weeks after the debit date.

An update of the Rulebooks is scheduled to be published in December 2007. It should contain changes reflecting effects of the PSD.

An additional business-to-business (B2B) direct debit scheme is expected to be published on the same date. This scheme, which is optional, has some specific features regarding refund functions and mandate control.

The EPC has also published the SEPA Testing Framework (STF), which specifies the steps players must take to ensure compliance. Although the STF has been applied in each national banking community, banks have not provided a clear view of interoperability tests at the intracommunity level. Nor have tests taken place at the cross-border level, but those tests will be made by the banks under an alliance between the Euro Banking Association (EBA) Clearing and SWIFT. End-to-end tests are not totally covered at redaction date.

The EBA has developed a priority payment scheme with a same-day (maximum four-hour) end-to-end payment guarantee. The ECB has endorsed this scheme (called EBA Priority Scheme) as a valuable contribution to SEPA, as it responds to corporate demands.

The EPC and the EC have provided the technical, functional, and legal specifications necessary for the industry to migrate toward SEPA instruments.

THE EPC WILL ALSO PUBLISH DOCUMENTS ON CASH, AS WELL AS ON E- AND M-PAYMENTS

The EPC published the Single Euro Cash Area (SECA) Framework in March 2006 so banks can deposit and withdraw cash under the same conditions across the eurozone. The SECA Framework lists the principles that the national central banks must use in decisions to harmonise cash usage in Europe, but no concrete proposition has been formulated so far.

The EPC has decided to establish rules and standards for the channels through which e- and m-payments will be made. The work done on e-payments is more advanced than that on m-payments.

E-payments. "SEPA Online Payments (SOP)" will enable web merchants to offer secure payment methods to their clients. Debtors (mainly consumers) shopping on a merchant web site will be able to authorise payments through their own bank's e-banking portal. A final proposal is expected to be available end 2007.

M-payments. The EPC recognises the opportunities for banks in m-payments, and believes banks have to react quickly before other players beat them to the punch.

CORPORATE POINTS OF VIEW HAVE BEEN PARTIALLY TAKEN INTO ACCOUNT, BUT CORPORATES STILL HAVE SOME UNFULFILLED EXPECTATIONS

Since last year's World Payments Report, banks have made a significant effort to work with corporates and to resolve the main problems from a client perspective. The European Payments Council's approach on AOS addresses corporate needs. The Rulebooks for SEPA direct debits and credit transfers recognise the fact that customers will have future expectations and will require complementary services. Banks and payments providers consider AOS to be competitive offerings they can use to satisfy new needs expressed by their corporate clients, while leaving room for future needs. To avoid the risk of a "mini SEPA" by helping the future upgrade of SEPA instruments to some specific legacy payments, AOS should be developed by banks as mentioned in the Rulebooks. Developing AOS that would not fulfil all the transparency requirements could be detrimental to the success of SEPA.

CARDS

The SEPA Cards Framework

Cards are the most important means of non-cash payment in Europe in terms of volume and growth (see chapter 3). They will become more significant as SEPA increases competition and removes barriers for payments. European customers will be able to use their general purpose cards to make payments and cash withdrawals throughout the SEPA area with the same ease as in their own country.

To promote competition and achieve full reach for cards across Europe, the EPC has published the SCF. To improve security and reduce fraud, SCF promotes the EMV (Europay Mastercard Visa) chip and PIN (personal identification number) as the technical norm. But it does not go far enough into harmonisation of standards to ensure “any card at any terminal.” Compliance with the EMV norm represents the first substantial effort concerning cards, by ensuring technical interoperability in Europe. As of spring 2007, EMV compliance was 42% for cards, 47% for point-of-sale (POS), and 61% for ATMs (see Figure 1.1). It appears that most stakeholders will comply with EMV by the 31 December 2010 deadline.

The EPC cards standardisation initiative is the next logical step for developing a SEPA for cards. This programme covers four domains: card to terminal, terminal to acquirer, acquirer to issuer, and certification type approval.

A paradoxical situation has appeared. SEPA strives to make the payments system competitive and to change the cards system to ensure that any card will be handled by any terminal anywhere in Europe. But because SEPA calls for a suppression of national schemes in order to spread card acceptance throughout Europe, this creates conditions favourable to the existing international card schemes with strong market position through acquiring

and issuing banks. Their chief strength in cross-border payments lies in having established brands among the different players (banks, merchants, consumers) and the fact that they already have a pan-European presence. The Governing Council of the ECB has asked the banks to review the option that the EPC creates a new card scheme for debit cards.

For the moment, the international card schemes have a privileged situation because, as they are the only ones with full international reach, they can comply most easily with the SEPA Cards Framework.

BANKS COULD PREVENT A POTENTIAL FORM OF NEW COMPETITION

Banks do not believe that non-bank card providers will engage in issuing and acquiring of cards. Our analysis, however, suggests that the card providers could do so and create a change in competition (based on *World Payments Report 2006* analysis).

A risk is that the international brands could take advantage of the SCF and try to move along the payments value chain and start to compete with banks. They could reposition themselves not only on the scheme management and the processing of cards but also as payment institutions. Also, the main card providers could eventually propose a wider range of services; in the medium term, they could eventually disintermediate banks.

The international schemes propose new types of payments, such as m-payments and other contactless payments. They are positioning themselves as insurers or services providers for banks and corporates. They have developed new services to provide cards not linked to a current account.

Figure 1.1 EMV Compliance Progress Assessment April 2007

| Country | Debit Cards | Credit Cards | POS | ATM |
|-------------|-------------|--------------|------|------|
| Austria | 100% | 89% | 2% | 50% |
| Belgium | 65% | 96% | 89% | 100% |
| Finland | 68% | 90% | 17% | 100% |
| France | 100% | 100% | 95% | 100% |
| Germany | 65% | 20% | 3% | 30% |
| Greece | 11% | 19% | 43% | 32% |
| Ireland | 87% | 100% | 100% | 100% |
| Italy | 4% | 51% | 32% | 27% |
| Luxembourg | 100% | 100% | 100% | 98% |
| Netherlands | 2% | 30% | 0.1% | 70% |
| Portugal | 7% | 10% | 51% | 100% |
| Spain | 1.2% | 1.2% | 53% | 71% |
| Slovenia | 9% | 27% | 20% | 43% |
| EU-13 | 42% | | 47% | 61% |

- <75% - 100%
- <50% - 75%
- <25% - 50%
- 0% - 25%

Source: European Payments Council (EPC), 2007.

BANKS AND OTHERS COULD CREATE NEW CARD SCHEMES

To become compliant with the SCF, banks and their schemes can pursue one of five main options (see Figure 1.2). The first option is to invest in a national scheme to make it become an international actor. The second option could be to migrate national schemes to existing international scheme. The third option would be to connect a national scheme to another card scheme in Europe. The fourth option is to comply with the SCF for national transactions and co-brand with an international scheme for cross-border transactions. The fifth option would be to create a new European scheme.

The third option—connecting existing card schemes—has already been chosen by a group of national schemes which have created the Euro Alliance of Payment Schemes, although its scope across Europe is still limited. The fifth option is under consideration by several European banks from the largest markets (France, Germany, Italy, and the Netherlands), who have discussed the possibility of creating a new pan-European card

scheme. Those banks could potentially reach their entire national markets, which together represent 71% of card payments volume in the eurozone. This would be a real answer to the request of the ECB to create a new European card scheme. Banks should move quickly to gain most of the card payments volumes and to compete with the existing card schemes.

The EC and the ECB are encouraging the emergence of new schemes in Europe to compete with the existing international players. If banks maintain the existing level of interchange (partly billed to the merchant), this could alleviate the cost of investments linked to creating another scheme and building a business model. The banks are waiting for more clarity from the EC (and the European Competition Network) on what the accepted policies are for the future of interchange in Europe.

Some questions remain concerning the creation of a new scheme, regarding technical aspects and the business model, how to ensure acceptance of cards across Europe, and how the new scheme will finance itself in a card market that is already well established.

Figure 1.2 The Five Possible Options for Becoming SCF Compliant

| | | Benefits | Drawbacks |
|---|--|---|--|
| 1 | Invest in national scheme to make it become an international actor | <ul style="list-style-type: none"> Builds on strong experience | <ul style="list-style-type: none"> Too expensive Too small volumes |
| 2 | Migrate national scheme to existing international scheme | <ul style="list-style-type: none"> Easy way to become SCF compliant International acceptance beyond SEPA | <ul style="list-style-type: none"> Disinvestments made in national scheme No European alternative Financial impacts for merchants |
| 3 | Connect national scheme to another card scheme in Europe (Euro Alliance) | <ul style="list-style-type: none"> Looks like a good compromise between the current situation and requirements for the future | <ul style="list-style-type: none"> Complicated, especially regarding unbundling |
| 4 | Co-brand with an SCF-compliant international scheme | <ul style="list-style-type: none"> Easy way to become SCF compliant Already a working option Probable increase in interchange, with profits to issuing banks | <ul style="list-style-type: none"> Lose control over the scheme Possible increase in price and therefore problems with merchants |
| 5 | Create a new European scheme | <ul style="list-style-type: none"> Creates an alternative to the international schemes Helps banks to keep control over the card industry | <ul style="list-style-type: none"> Scope (brand, business rules, and processing) to be established Investments to be assessed Business plan: banks need the European Commission / Directorate General for Competition to clarify position on interchange fees |

Source: European Payments Council—SEPA Cards Framework, 2006, Caggemini analysis, 2007.

Payment Institutions—a threat to banks?

- According to the PSD, a payment institution is a non-bank that may under certain conditions provide payments facilities to end-users.
- What can a payment institution do?
 - Payment institutions can grant credit to clients to cover their transactions. In case of cross-border relationships, the duration of credit is limited to 12 months. In all cases, this credit cannot be refinanced with customers' deposits.
 - Payment institutions are allowed to carry out other business activities, such as retailing or telecommunications.
- What is a payment institution barred from doing?
 - Payment institutions are not authorised to offer savings accounts.
 - Funds held on behalf of clients for payments services cannot be used for refinancing of credit.
- How can banks be disintermediated?
 - Corporate customers will have a choice between using a bank or a payment institution to process their payments. Corporates could start their own payment institutions.
 - Payment institutions could clear and settle payments between corporates.
 - One of the PSD main objectives is the establishment of a level-playing field for the effective competition between credit- and payment institutions.
- Do banks believe they can be disintermediated by payment institutions?
 - Most banks believe that payment institutions can only provide limited credit and will not keep control over the client accounts.
 - Banks believe they still offer the strongest guarantees against counterparty risks.
 - Most banks believe that payment institutions will not be able to compete with them before the end of 2011 because they are required to obtain regulatory authorisation.



Country Migration Plans Focus on Banks' Compliance

CHAPTER 2 HIGHLIGHTS

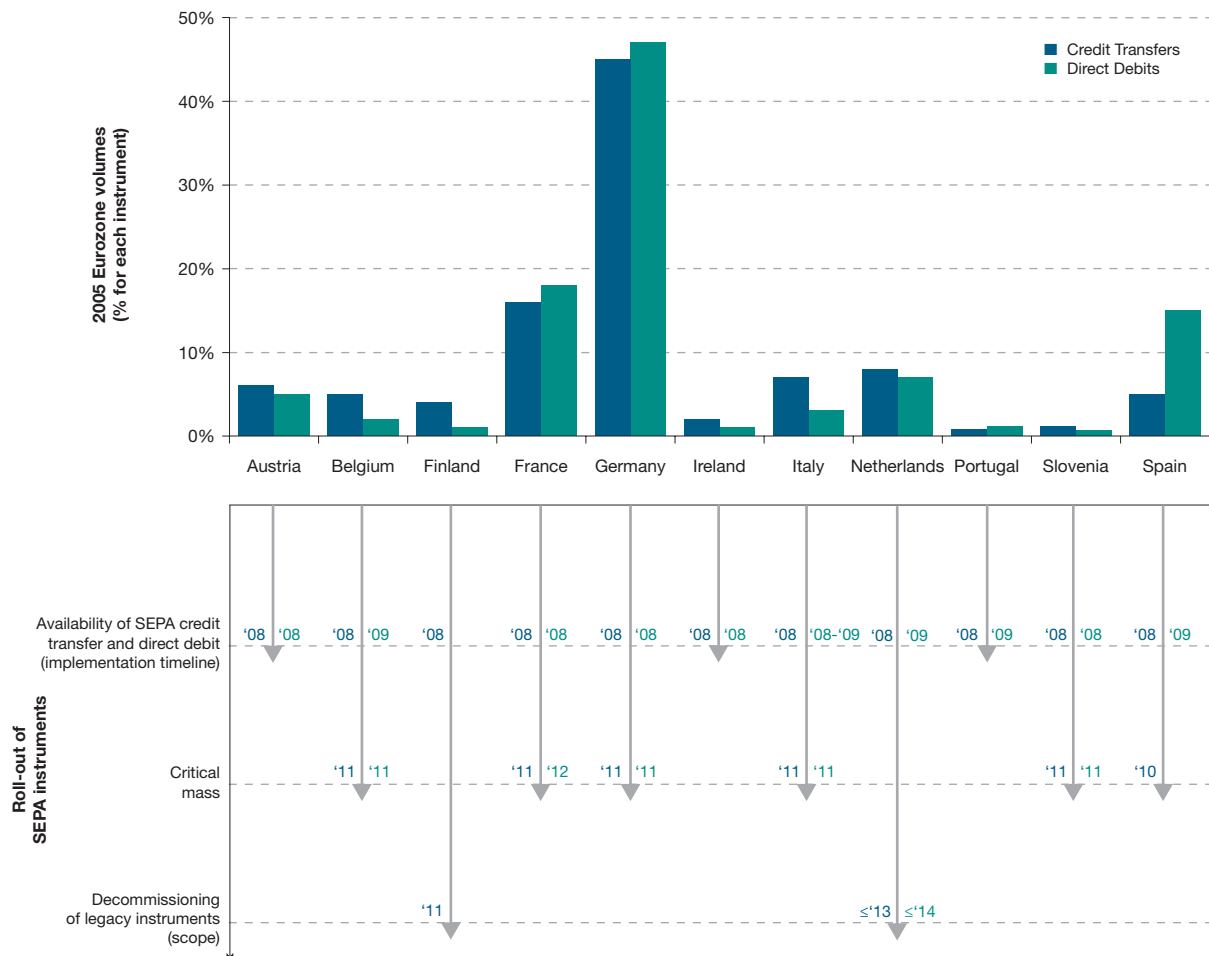
- The 2010 deadline is at risk: none of the eurozone countries expects to achieve a critical mass of SEPA payments before the end of 2010, according to the implementation and migration plans published by eurozone banks. In addition, some countries also expressed a desire to retain legacy payments as long as demand exists which could create a “mini-SEPA”.
- Legislators will need to incentivise first movers: overall success in achieving full SEPA compliance and avoiding a “mini-SEPA” will depend on regulatory incentives to attract essential first movers such as corporates and the public sector to SEPA instruments. Regulators must answer the collective call for action on decommissioning remaining legacy payments and providing a common end-date.
- The Public Sector has about 29% of the credit transfer and direct debit payments. Clarity on their SEPA launch date is important to reach critical mass.
- Banks and corporates need to accelerate discussions: corporates are key for SEPA but most domestic corporations, however, are still reluctant to work toward SEPA implementation. They argue that banks and the public institutions should fulfil conditions first to go toward SEPA.

INTRODUCTION

We have based this year's report on the latest SEPA migration plans. Last year's report estimated the effort each country would need to make to become SEPA compliant. Although the PSD approval was available later than anticipated, the ECB did not adjust its expectation that most of the SEPA objectives could be implemented irreversibly before the end of 2010. The EPC likewise remained convinced that a critical mass for transactions would naturally migrate to SEPA payment means by 2010, and that stakeholders would be the key players, especially banks and end users such as the public sector and corporates. Our analysis evaluates each eurozone country's SEPA migration plan with an eye to its usefulness in monitoring the migration and ensuring that the critical mass can be reached by the end of 2010.

Eleven of 13 national banking communities have published their migration plans in agreement with the national central banks.⁵ Working groups, including end users such as corporations and consumers, provided input. Updates have been published or are ongoing. By publishing their plans, the national banking communities have made a real effort to establish implementation organisations and ensure SEPA deployment among their members and help other stakeholders make the transition as well. However, they are still incomplete. National migration plans were expected to address the technical and operational features required to achieve SEPA, including critical mass. Only two of them do this.

Figure 2.1 SEPA Migration Plans Analysis



Note: See footnote 5 below.
Sources: National migration plans as of 30 June 2007, ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

⁵ Greece provides only generic information so far and Luxembourg's migration plan now focuses only on cards.

ANALYSIS OF THE MIGRATION PLANS

Our analysis focuses on SEPA-compliant credit transfer and direct debit payments transactions (cards are studied in chapter 1). We examined each published plan's status from four perspectives: scope of instruments, content, implementation timeline, and critical mass (see Figure 2.1). Bars above the horizontal line represent, for each instrument, the share of each country in the European market. The arrows below the line illustrate the depth of the analysis (Example Austria's migration plan do not cover critical mass neither the decommissioning of legacy instruments).

Scope of instruments. All the migration plans propose SEPA instruments as new means of payment. But they do not systematically propose to replace legacy payments with SEPA instruments. Moreover, more than half the country plans state explicitly that legacy instruments will continue as long as demand exists. Generally, country migration plans show little or no commitment to decommissioning legacy payments, with some countries even expressing doubts about the need for SEPA direct debits.

Content. To determine whether the published migration plans were complete, we based our qualitative analysis on nine criteria: whether they give dates for SEPA implementation, for achieving the critical mass for volumes, for decommissioning legacy instruments, and for full SEPA implementation (end of the SEPA migration); whether they evaluate the complexity of the migration plan; whether they discuss means to achieve migration and mention barriers to the migration; and whether they include testing planning and give additional country-specific notes. For further details about criteria, please see the methodology chapter. Three-quarters of the migration plans provide a starting basis for banks to prepare SEPA rollout.

Last year's World Payments Report highlighted the gap remaining before a complete SEPA conversion could be achieved. Our analysis this year enabled us to assess the remaining compliance gaps (see Figure 2.2) and demonstrate that over 50% of the European transactions can be converted to SEPA products.

Impacts related to mandate management for direct debits can be managed through migration plans, as shown by France and Germany. In some other countries, however, mandate management will be difficult to implement, due to differing standards for refund, reject, refusal, and return disposition.

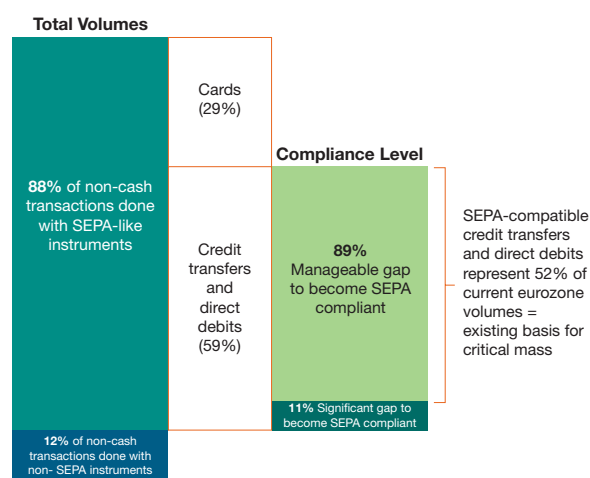
Implementation timeline. All the plans specify January 2008 as the availability date for SEPA instruments. Following the approval of the PSD, changes are to be expected for direct debits. Belgium has already announced that the release date will be shifted to November 2009. Other countries are expected to publish a new release date for SEPA Direct Debits in the near future. Most of the plans mention that SEPA instruments, because they are new, will have to go through a transition period. Figure 2.1 provides a visual representation of the timing for each country's plans.

Critical mass. Six countries mention critical mass, but with different degrees of analysis. Only one plan covers the important issue of transactions volumes associated with that critical mass. The level should be set high enough to ensure an irreversible move to SEPA instruments. A range from 61% to 89% seems to be reasonable (see methodology).

In countries where plans clearly mention that some legacy payments will remain like Austria, or cheques in France, these remaining legacy payments will represent at least 12% of the total eurozone volume. Two options would decrease that percentage and help replace legacy with SEPA instruments.

Regulators' actions could discourage the use of legacy instruments (comments in the migration plans show that the use of certain legacy payments will be discouraged).

Figure 2.2 SEPA Compliance of Credit Transfers and Direct Debits vs. Total Eurozone Volumes



Note: Figures are based on countries covered in this report – see details in the methodology section.
Source: ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

Some additional functionality in the SEPA credit transfer and direct debit Rulebooks could override remarks in some migration plans about the functional predominance of certain legacy payments.

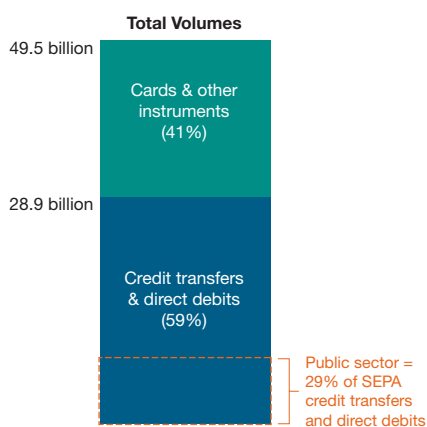
The difficulty of replacing specific legacy payments should not be a reason to avoid seeking the required critical mass of SEPA payments in each country. The public sector in particular could provide sizeable volumes to reach the aforementioned critical mass, as suggested in the Spanish plan.

REACHING CRITICAL MASS: PUBLIC SECTOR AND CORPORATIONS ARE KEY

Today, the public sector user group accounts for approximately 15% of total eurozone payments, primarily credit transfers and direct debits, and this sector could contribute 29% of the required volumes to reach a critical mass (see Figure 2.3). If corporates were added, the critical mass of volumes should be reached, even exceeded. Therefore, to achieve the required critical mass, banks and regulators should provide incentives for the public sector and corporations to become early movers.

Using a geographic approach, we could focus on four countries mentioning critical mass in their migration plans: Germany, France, Italy, and Belgium. They currently account for 68% of the eurozone’s credit transfer and direct debit payments. If the Netherlands and Spain are added, the group reaches 86% of today’s total payments volume for these two instruments in the eurozone.

Figure 2.3 Proportion of Direct Debits and Credit Transfers for Public Sector



Note: Figures are based on countries covered in this report – see details in the methodology section.
Source: ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

Figure 2.4 illustrates the potential risk of delay if none of these actions occurs. The highest SEPA adoption scenario is based on a strong commitment from early movers while in the average scenario only 70% of these early movers do (see methodology for further detail). It could take two to three years before the migration to SEPA direct debits and credit transfers takes off. Strategic decisions made by the regulator today would play an essential role in avoiding this pitfall.

The target critical mass must be high and reached quickly (highest SEPA adoption scenario in Figure 2.4, see methodology for further detail). Once critical mass is reached, the time granted for decommissioning remaining legacy payments should be as short as possible (18 months in the best scenario) to limit uncertainty associated with the possible extension of its end date. Based on the existing migration plans, it is unrealistic to think that critical mass could be reached by the end of 2010. Consequently, the decommissioning of legacy payments would not be achieved by 2012. Regulators should accelerate the process in order to avoid a long and costly period with two service offerings.

FOR THE REGULATOR, THE CRITICAL MASS DEADLINE IS STILL THE END OF 2010; REWORKING MIGRATION PLANS AND REFINING CONDITIONS ARE KEY

Migration plans. Despite the PSD approval and its impacts on the implementation timeline, especially for SEPA direct debits, the regulator—through the ECB—has not amended the target deadline for critical mass to be the end of 2010. The EC, ECB, and EPC have given no common definition of critical mass.

The ECB asked the national implementation organisations to update their migration plans by the end of 2007. The new versions are expected to take into account the latest developments and fully cover the different steps of the migration.

A complete migration plan covers the implementation plan and the change management plan for SEPA instruments. It presents measures needed to replace existing euro domestic payments (legacy payments) by SEPA instruments (euro payments compliant with the SEPA Rulebooks). But it also deals with legacy instruments not covered by SEPA Rulebooks and implementation guidelines.

A migration plan should mention the adoption of SEPA instruments by end users—consumers, merchants, public administrations, corporations and small and medium-sized enterprises (SME’s)—and explaining how to reach a critical mass of SEPA volumes would be an effective way to achieve this goal.

Finally, a migration plan should concentrate on terminating the use of the legacy payments throughout the eurozone, except for those instruments that do not have SEPA equivalents such as cheques and bills of exchange. For these, ambiguities remain, and the position of the regulator is not yet clear.

Two topics clearly need to be addressed in the next release of the migration plans: critical mass and legacy payments. Tangible criteria for measuring critical mass should be established in the plans, such as volumes of use of each SEPA means of payment, and the date the country plans to achieve it. Migration plans should also deal with how AOS or upgrades of the Rulebooks would be useful for ending the use of legacy payments.

Conditions. Achieving critical mass depends on reaching maximum acceptance among end users for each means of payment. Most domestically-based corporations, however, do not agree, and are still reluctant to work toward SEPA implementation. They argue that banks and the regulator should first fulfil conditions to go toward SEPA. The first condition is the transposition of the PSD into national laws. The other required conditions can be grouped into three main categories:

- **Efforts on standards:** Setting up exchange standards between players (banks, payment service providers, corporations, SMEs and merchants) to ensure the

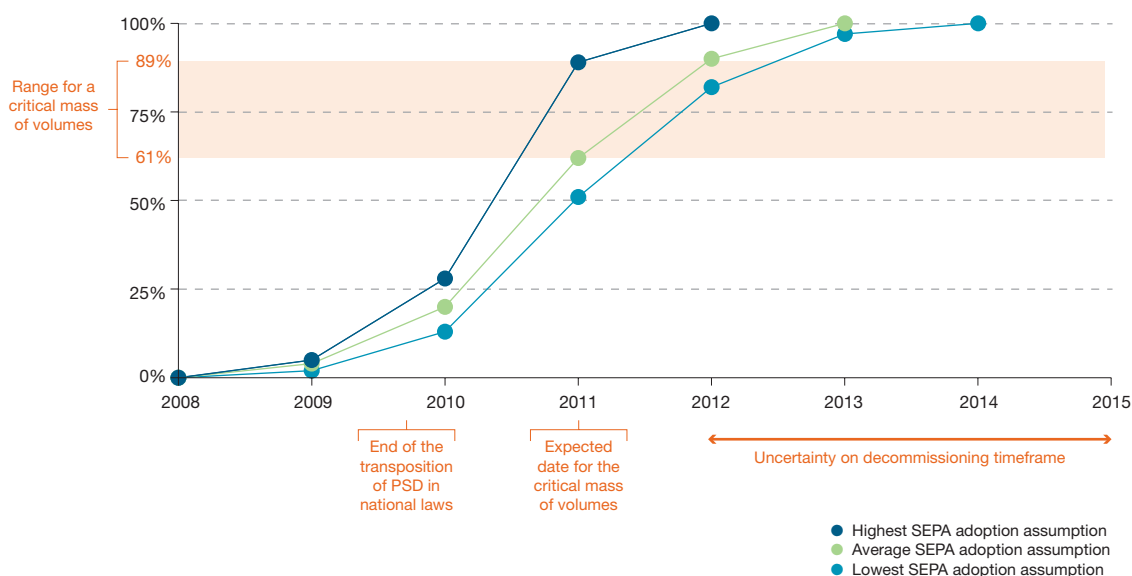
stability of the payments systems. Corporations are also waiting to be provided with supporting services to collect the IBAN/BIC instead of the national account identification number.

- **Quality/price:** Proposing at least the same fees for the same services. Thanks to SEPA, standardisation, and better efficiency, corporations believe interbank commissions and tariffs should be cut. Offering the same level of bank services to corporations by providing a combination of SEPA instruments and AOS would ensure services remain effective.
- **Timing:** Providing them with a detailed timeline to migrate to SEPA instruments. Multi-country corporates, SMEs and banks are asking for clarity on a common end date.

All these conditions are needed, but each player wants to retain control over its own investments and transformation pace. These players will require incentives, which regulators are in the best position to create, to help achieve the critical mass of SEPA-compliant payments.

Once critical mass is achieved, legacy payments could be phased out over a timeframe of 18 months in the best scenario. But at the moment the only incentive banks have is self-regulation. More are needed.

Figure 2.4 Reaching the Critical Mass of Volumes and Decommissioning of Legacy Payments: Credit Transfers and Direct Debits



Source: Capgemini analysis, 2007.



Non Cash Payments Use in Europe is Converging

CHAPTER 3 HIGHLIGHTS

- The payments market is currently undergoing major changes within Europe, which is leading toward a more uniform and rational use of payments instruments.
- Payments volume in the 17 countries under review continues to grow at an increasing rate (an average annual 7% increase since 2001, rising to a potential 9% by 2012). Use of direct debits will increase slightly on a percentage basis, but card transactions are projected to rise from 2005s 34% of non-cash transactions to 44% by 2012.
- In 2012, volume levels in nine of the surveyed European countries will converge at approximately 300 transactions per inhabitant per year. The remaining three countries will not keep pace, remaining below 200 transactions per inhabitant per year, leading to a “two-speed” Europe at this stage of the maturity of the market.
- Cash is still predominant. At least 6 out of 7 payments are made in cash and there are limited initiatives in Europe to replace the use of cash. On the contrary, as ATM services improve, consumers increasingly find it easier to use cash and as a consequence cash in circulation will rise and will be used for payments and for hoarding purposes. Substantial cost savings are possible if merchants, banks and central banks cooperate to reduce the cost of cash in society.
- As long as e-wallets, contactless payments, and mobile payments do not represent an effective industrialised alternative to cash—through the capacity to handle high volumes of transactions, with sufficient security as required by merchants, and the creation of a sizable acceptance network—cash will remain predominant for low-value transactions.

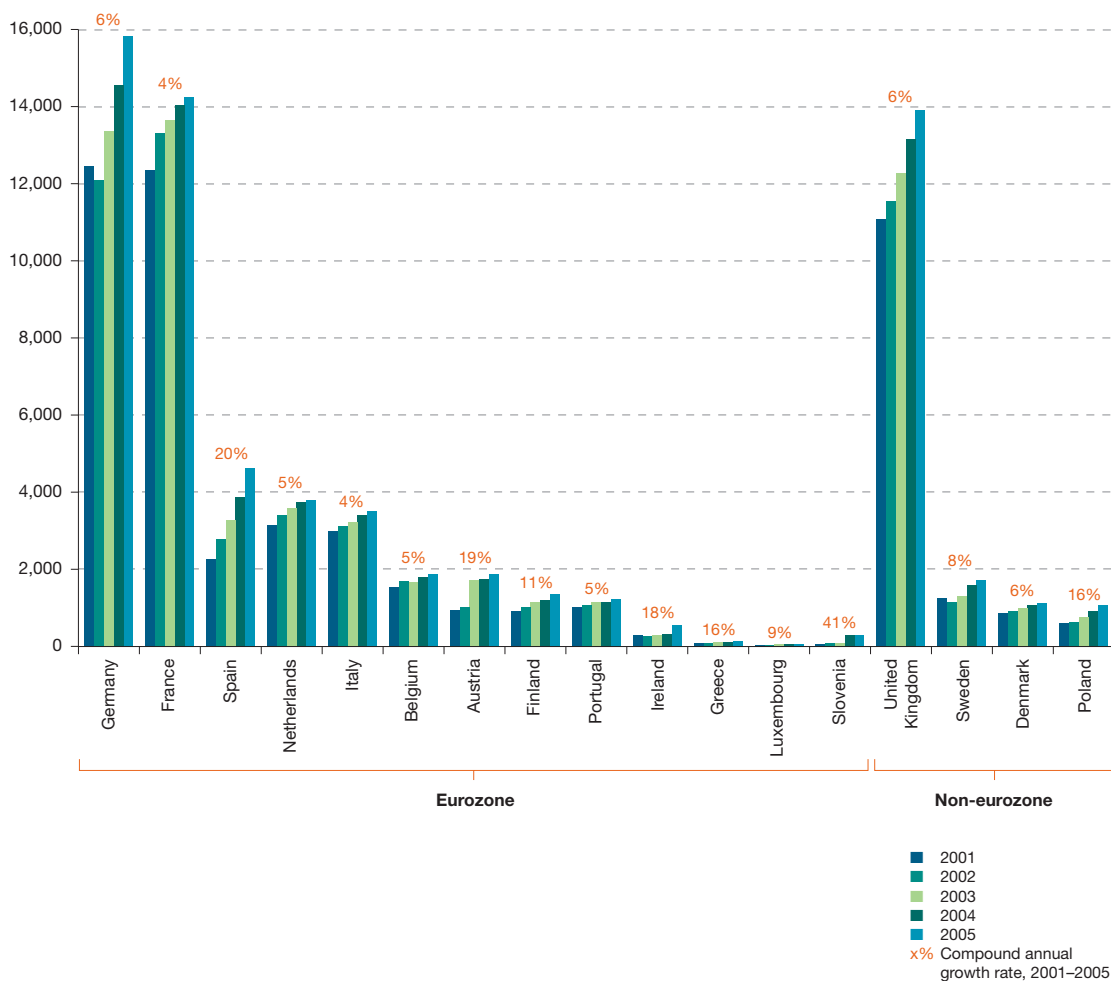
INTRODUCTION

For this third edition of the World Payments Report, we have revisited previous forecasted trends and examined them from new angles. Starting with a broad sample of both 17 eurozone and non-eurozone countries, we first had a look at changes in volumes of non-cash payments transactions. We then moved to cash, which still plays a central role in everyday life. We focused on the most meaningful countries, using their ATM equipment utilisation as an indirect indicator of cash usage.

Based on these observations, we made projections on a 2012 horizon for the nine countries under review in last year's report and two years further ahead than last year's report. We also added three (Belgium, Greece, Portugal) new European countries to develop a more complete picture. Also new is the United States as a benchmark—whose payments volume is as big as all of Europe's combined and yet has different usage patterns.

We also analysed whether a convergence in payments instrument usage could be in sight over the longer term.

Figure 3.1 European Non-Cash Transactions Volumes, 2001–2005 (millions)



Note: Figures are based on countries covered in this report – see details in the methodology section.
Source: ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

ANALYSING TRENDS TOWARD INCREASING PAYMENTS VOLUMES

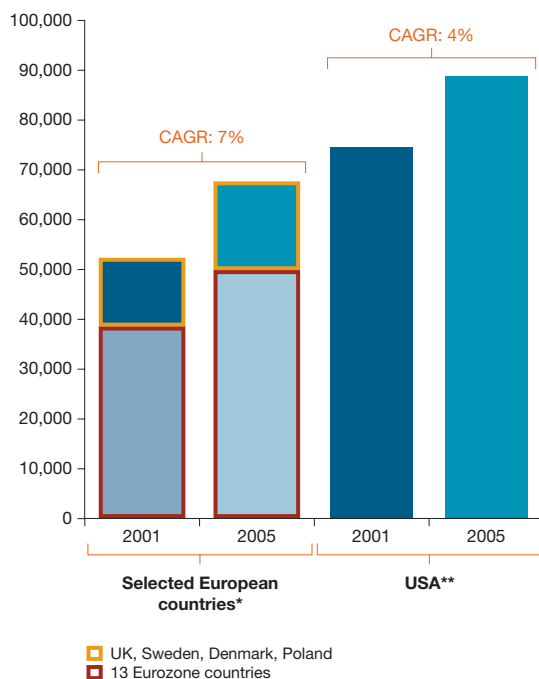
In 2005, almost 67 billion non-cash transactions occurred in the 17 surveyed European countries, 49.5 billion of which concerned eurozone countries (see Figure 3.1). In the eurozone, two countries—Germany and France—led the pack, with volumes at least three times larger than their next counterpart. Outside the eurozone, the UK had comparable volumes to Germany and France, but with a different usage pattern for credit cards and cheques.

Payments transaction volume continued to grow at a sustained 6%–7% rate in Europe, and a comparable 5%–6% in the United States (see Figures 3.1 and 3.2). However, a closer analysis on a country-by-country basis reveals substantial differences.

High transaction volume growth occurred both in low volume countries (such as Ireland, Slovenia, and Poland), and in some high volume countries as well (Spain and Germany). Those markets are evolving at a fast pace, with non-cash transactions growing rapidly due to initiatives aimed at streamlining the network (point-of-sales equipment, larger numbers of cardholders, etc.), and continuing high growth in some countries can be expected in the years ahead.

At the same time, we observed that maturity in usage is not linked to the size of the country, since Belgium and Denmark, France and the Netherlands are growing at the same pace. These more mature markets for retail banks have established strong non-cash equipment and usage patterns. In these countries, incentives that encourage users to move to electronic transactions would promote substantial payments volume growth for several years.

Figure 3.2 European vs. US Non-Cash Transactions Volumes, 2001–2005 (millions)



Cards and direct debits are growing fastest due to ongoing promotional efforts. To better understand this growth pattern, we separated our analysis into two parts: the current instruments eligible to SEPA (including cards, direct debits, and credit transfers), and other instruments (such as cheques) that are not covered by SEPA.

Cards (34%), direct debits (26%), and credit transfers (29%) represent the bulk of non-cash transactions volume in Europe. These proportions vary by country, however, with usage patterns differing greatly from one country to another.

Note: Figures are based on countries covered in this report – see details in the methodology section.

Sources:

* ECB Blue Book—2005 figures, release Dec. 2006.

** Bank for International Settlements—Red Book—2005 figures, release Nov. 2006.

As shown in Figure 3.3, cards (11%) and direct debits (9%) exhibit higher and sustained annual average growth rates, which can be traced to three complementary reasons:

- First, from a consumer standpoint, these are the two instruments that offer a real substitute for cash.
- Second, banking and corporate stakeholders have made considerable efforts to promote greater use of these two instruments. Card-related equipment for merchants and consumers is constantly improving and spreading in use. Direct debits, by offering (as the name implies) direct bill payments from a customer's account, are being increasingly pushed by corporate stakeholders.
- Third, lower unit cost per transaction has helped increase the frequency of payments transactions. Many companies and institutions now choose monthly instead of annual payments (for taxes, for instance), weekly instead of monthly payments, and so on.

These observed growth patterns are reshaping the market structure, with cards playing a prominent position, rising from 29% of non-cash volumes in 2001 to 34% by 2005.

Cheque use, meanwhile, continues to decline at a 5% annual rate. Most countries have successfully curtailed cheque use, and now limit it to higher-value transactions.

As Figure 3.4 indicates, the average value of an individual payment transaction is decreasing for all instruments (except cheques, as noted above), including all three SEPA instruments. This indicates that consumers are using them (especially cards) more frequently for daily transactions.

While cards, direct debits, and credit transfers have similar volumes, the average value per individual transaction is clearly different. Cards are used by consumers primarily for mid-value transactions, while direct debits are used for moderate-value transactions, and credit transfers for higher-value transactions are also used by corporates, SME's and public administrations. From a merchant standpoint, cards offer a payment guarantee, and direct debits provide easy and reliable bill payments. Because of these advantages, corporates promote their use, and consumers are using them in more and more bill-paying situations. In a few countries, however, such as Finland, credit transfers are more widely used for bill payments: the corporate sends an invoice to its customer, who then initiates a payment transaction with his or her bank.

The average value of a transaction naturally differs from one country to another due to very different economies and GDPs. This is especially true for cards, where the average value per transaction ranges from €31 in Poland to €110 in Greece (see Figure 3.5).

Figure 3.3 European Growth Rate per Payment Instrument, 2001-2005

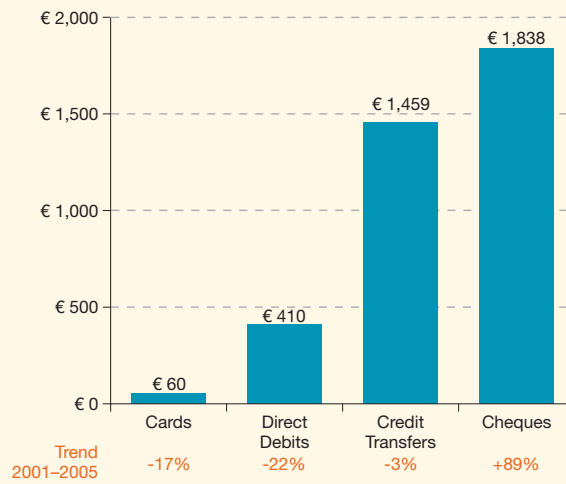
| | Number of Transactions per Payment Instrument (millions) | | | Weight of the Different Instruments | |
|-------------------------|--|---------------|-----------------------------|-------------------------------------|-------------|
| | 2001 | 2005 | Compound Annual Growth Rate | 2001 | 2005 |
| Credit Transfers | 15,646 | 19,352 | 5% | 30% | 29% |
| Direct Debits | 12,356 | 17,167 | 9% | 24% | 26% |
| Cheques | 8,494 | 7,040 | -5% | 16% | 11% |
| Cards | 14,903 | 22,726 | 11% | 29% | 34% |
| Total* | 51,542 | 66,638 | 7% | 100% | 100% |

Note: Figures are based on countries covered in this report – see details in the methodology section.

Source: ECB Blue Book – 2005 figures, release Dec. 2006, Caggemini analysis, 2007.

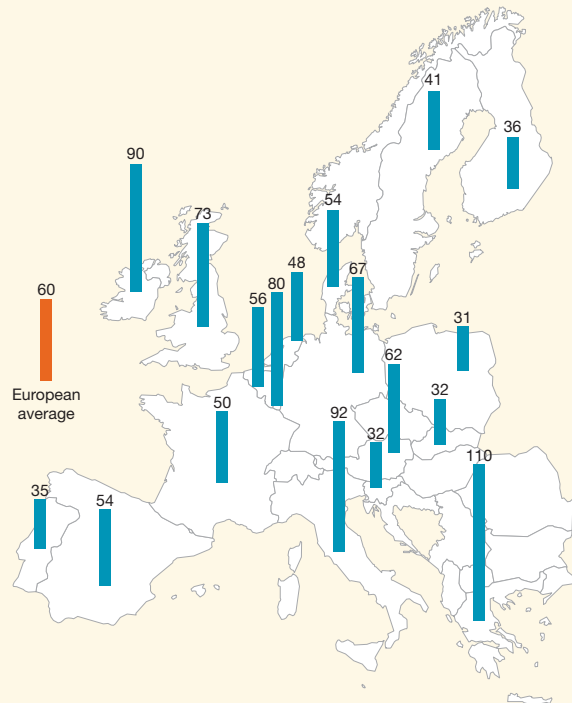
* Including other instruments.

Figure 3.4 Average Value of Transactions per Payment Instrument in 2005 (€)



Note: Figures are based on countries covered in this report – see details in the methodology section.
 Source: ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

Figure 3.5 Average Value per Card Payment Transaction, 2005 (€)



Note: Figures are based on countries covered in this report – see details in the methodology section.
 Source: ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

VOLUME PROJECTIONS ON A 2012 HORIZON

Previous editions of this report initiated our projection model, and to date our projections have been accurate. This provides a certain amount of confidence in the projections we have developed here.

When assessing 2005 transaction volumes per inhabitant, several points stand out. Despite already high non-cash volume usage in some countries, many actions, such as more and better equipment for cards (point-of-sale terminals in market segments that do not currently accept cards—at the doctor's office in France and Spain, for example) can still generate sustained growth—as high as 9% per year on average in the surveyed countries. Banks could encourage corporations to use direct debits by clearly pointing out the better cash-flow control direct debits offer, and that they represent a less expensive and more productive billing process.

Five European countries are below the 200 transactions per inhabitant level: Belgium, Spain, Italy, Austria, and Greece. Among them, two countries follow different paths. Back in 2001, both Spain and Italy had the same low non-cash usage levels. Between 2001 and 2005, Spanish consumers started to embrace non-cash transactions, with volumes doubling in that time frame. This increase was not an accident. It is the consequence of an active bank policy since 2001 to develop both direct debits and card transactions in Spain, which is reflected by the increased level of POS equipment there. Conversely, volumes in Italy remained steady from 2001 to 2005, due to a lack of such an active policy. POS equipment levels have remained low. Italians have remained high cash users, and they are not likely to change without some encouragement and incentives.

With 1.36 times the transaction volume of all surveyed European countries combined, the United States represent a comparable payments area. Americans are heavy non-cash users compared to Europeans: they top the countries surveyed over the whole 2001–2012 period.

In 2005, the entire US payments transaction rate had reached 299 transactions per inhabitant, versus 260 transactions for the top European country (Finland).

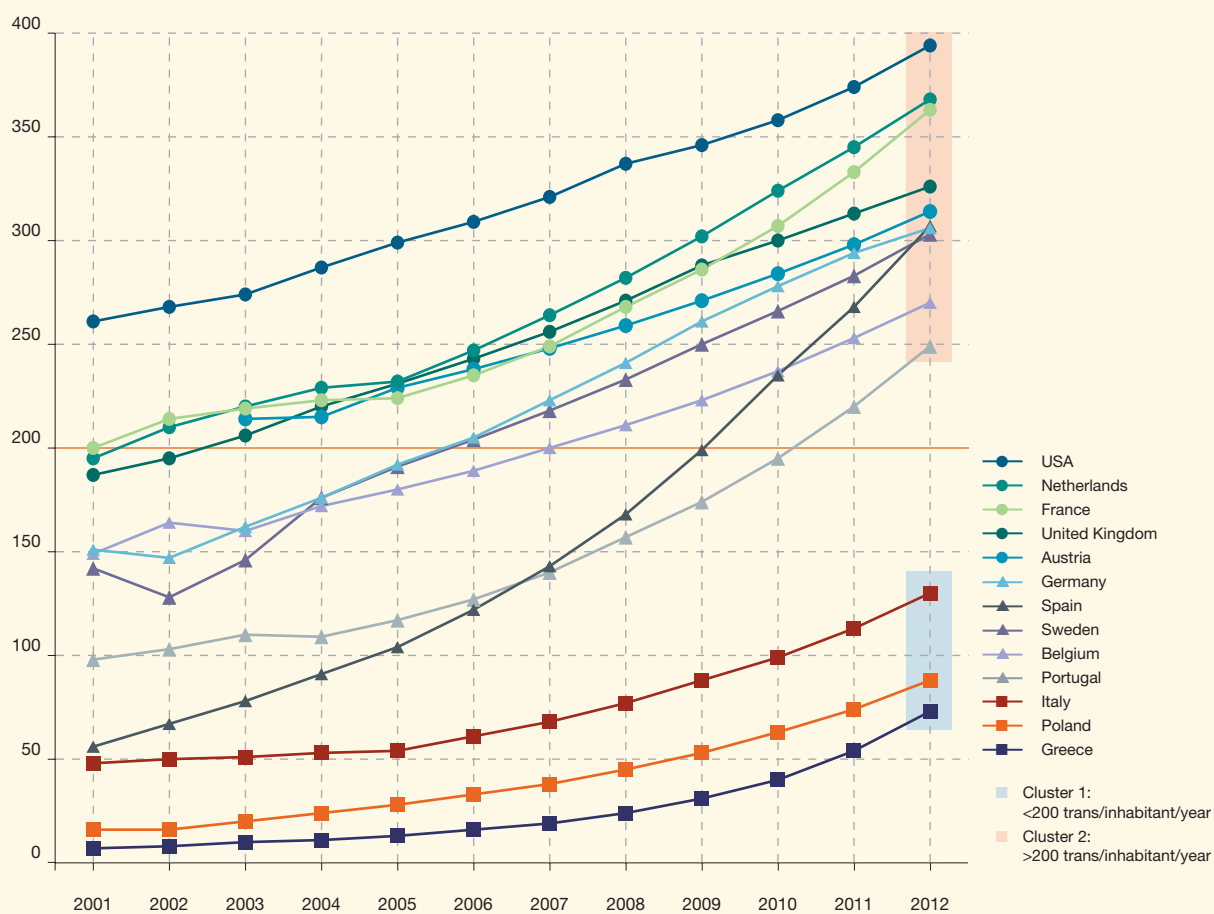
By 2012, Europe will split into two transaction clusters. More countries will leave the under-200 non-cash transactions group and join the ranks of those with 200 or more non-cash transactions per inhabitant (see Figure 3.6).

Serious efforts are currently being made on the corporate, merchant, and consumer sides to increase the use of non-cash instruments, especially for cards, thanks to better POS and consumer equipment. These efforts will continue, increasing non-cash transactions per inhabitant until there is a strong top cluster of countries with more than 200 transactions per inhabitant. Belgium, Spain, and Portugal will join these top non-cash users.

At the other end of the scale, a lower cluster will remain, with three countries—Italy, Poland, and Greece—registering fewer than 150 transactions per inhabitant per year. The discrepancy between those two clusters will increase over time, and SEPA alone will not be enough to bring the lower cluster to the top level. Specific country-based incentives would help move consumers in these low-level countries to use non-cash transactions instead of relying on cash.

Spain and Italy illustrate how these two clusters came about. From 2005 onward, Spain has been benefiting from its efforts, begun in 2001, to improve non-cash transactions and encourage their use, and will continue to catch up with top-tier non-cash countries. For Italy, however, even if Italian banks start promoting and more actively using non-cash payments from now until 2012, it will take them another four or five years to catch up with Spain and join the top cluster, even if the two countries share a comparable growth rate. By 2012, although European countries will be closer to US non-cash payments levels, the potential for growth will still exist, even for those with a very active non-cash payments market.

Figure 3.6 Evolution of Non-Cash Transactions per Inhabitant per Country, 2001–2012



Note: Figures are based on countries covered in this report – see details in the methodology section.
 Sources: ECB Blue Book—2005 figures, release Dec. 2006, Bank for International Settlements—Red Book—2005 figures, release Nov. 2006, Capgemini analysis, 2007.

A CLOSER LOOK AT THE PAYMENTS INSTRUMENT MIX

Besides substantial differences in the number of transactions per inhabitant in 2005, the use of different payments instruments also varies by country. Some, such as France, the Netherlands, and Sweden, rely more on cards, while others—such as Germany and Austria—have embraced direct debits or credit transfers.

With SEPA on the horizon, it is important to analyse the mix and the growth potential of cards, direct debits, and credit transfers, which might be influenced by banks' strategies.

Analysing the projected trends leading to 2012 indicates that the European instrument mix will change. Use of direct debits will increase slightly on a percentage basis, but card transactions are projected to rise from 2005's 34% of non-cash transactions to 44% by 2012 (see Figure 3.7).

Based on the payments instrument mix of the top three European countries (from a transactions per inhabitant standpoint—France, the Netherlands, and the United Kingdom), other countries have the potential to grow the use of specific instruments (see Figure 3.8). Except for France and the UK—Europe's biggest cheque users—credit transfers vary but little between the largest and smallest users. Credit transfers, therefore, have only limited potential for growth.

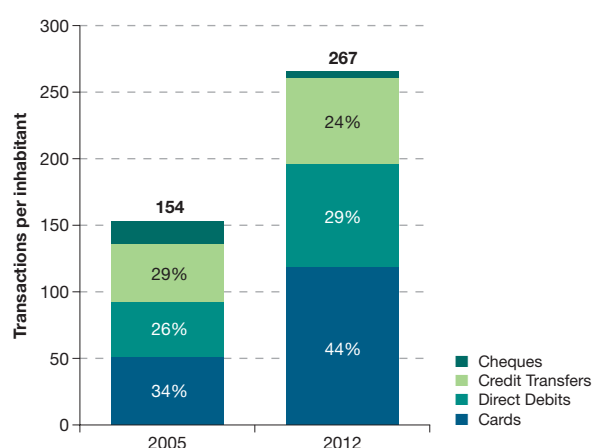
As direct debits' advantages become clear, the low users are bound to increase their use. Card use is also projected to grow, and will be linked directly to infrastructure improvements (ATMs and POS). Consumer demand for cards will rise as cash becomes less attractive.

Once SEPA is implemented, local payment habits will become part of a common eurozone that will help create a unique European usage model for payments.

As the rules of the game converge around SEPA, each customer will be able to choose the best means of payment for its needs. Because the transaction area will be much wider, it will be easier to find exactly the right supplier. Confidence in the SEPA means of payment and potential linked payment guarantee will also contribute to growth.

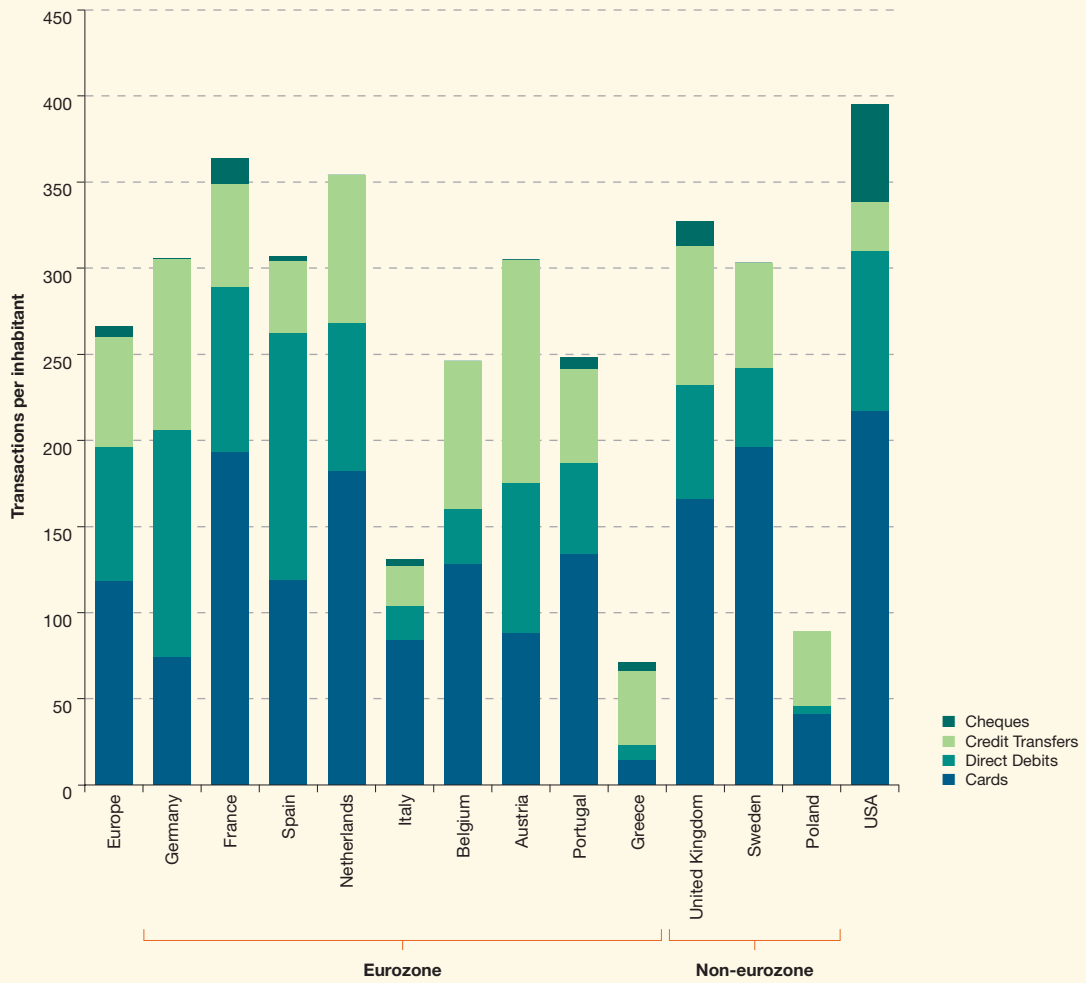
The EC's Green Paper (2007) reflects a broader vision than just day-to-day banking. Through regulations (Regulation 2560/2001, for instance) and upcoming ones creating the SEPA, the EC aims at shaping an open, regulated market where strong competition will push prices down while increasing consumer choice and the quality of products offered. Within this new environment, banks will no longer be limited by their national boundaries. Successful banks will adopt strategies to serve a wider market. Developing and offering SEPA-compliant payments instruments could be a strong factor in a bank's attractiveness and sustain its growth.

Figure 3.7 Transactions per Inhabitant in Europe, 2005 vs. 2012



Note: Figures are based on countries covered in this report – see details in the methodology section.
Source: ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

Figure 3.8 Transactions per Inhabitant in 2012



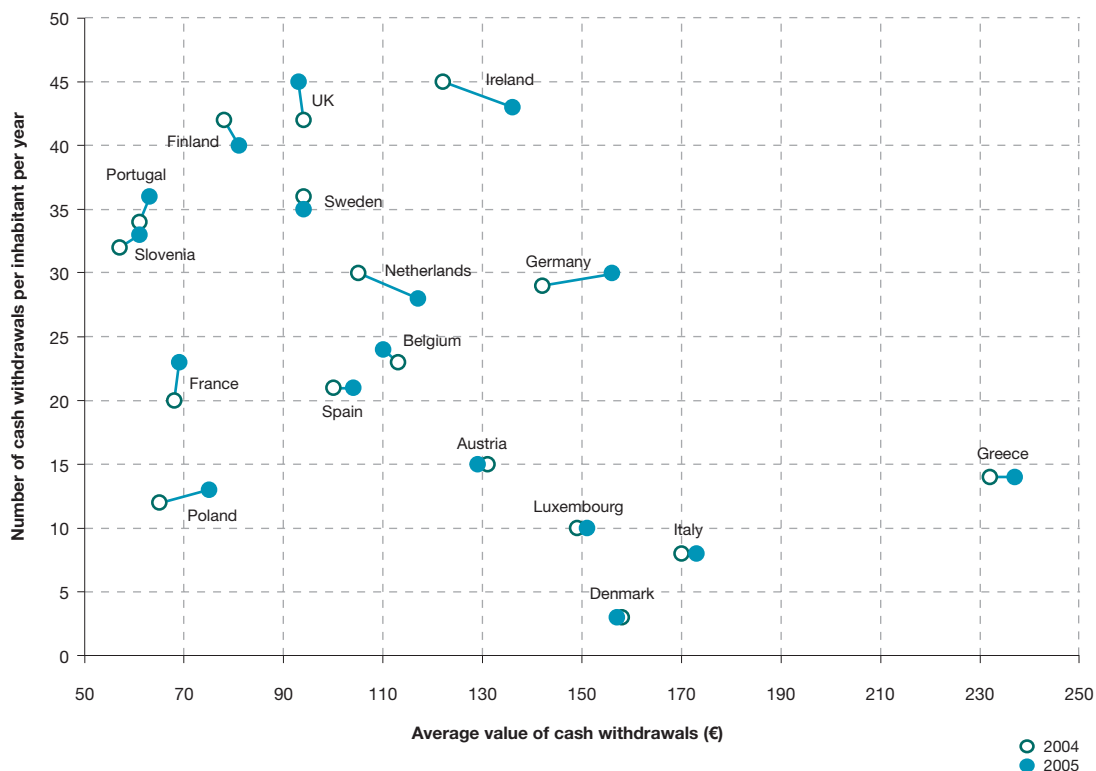
Note: Figures are based on countries covered in this report – see details in the methodology section.
 Source: ECB Blue Book—2005 figures, release Dec. 2006, Cappgemini analysis, 2007.

CASH USAGE CONTINUES TO INCREASE

Several indicators point to the continued increase in cash usage. First, banks make cash use easier and more convenient. The average value and number of cash withdrawals continues to grow in 15 out of the 17 selected study countries (see Figure 3.9). While the number of ATMs is growing at a slow pace, the value and number of withdrawals at ATMs is rising, pushing up the total value of cash withdrawn through ATMs. The opposite trend is occurring in the two Nordic countries we studied, and although they constitute small markets, their numbers of ATMs and cash withdrawals are on the decline.

At the same time, the value of notes and coins in circulation is expanding more rapidly than both the number of non-cash transactions and GDP in all selected countries (see Figure 3.10). Several indicators, including cash in circulation and withdrawals at ATMs, point to an increase in cash usage. However, since information on over the counter cash withdrawals and information on real cash transactions is not available, we cannot build a definitive picture. Furthermore, banknotes are also used for hoarding.

Figure 3.9 Average Value of ATM Cash Withdrawals vs. Average Number of Cash Withdrawals, by Country (2005 vs. 2004)



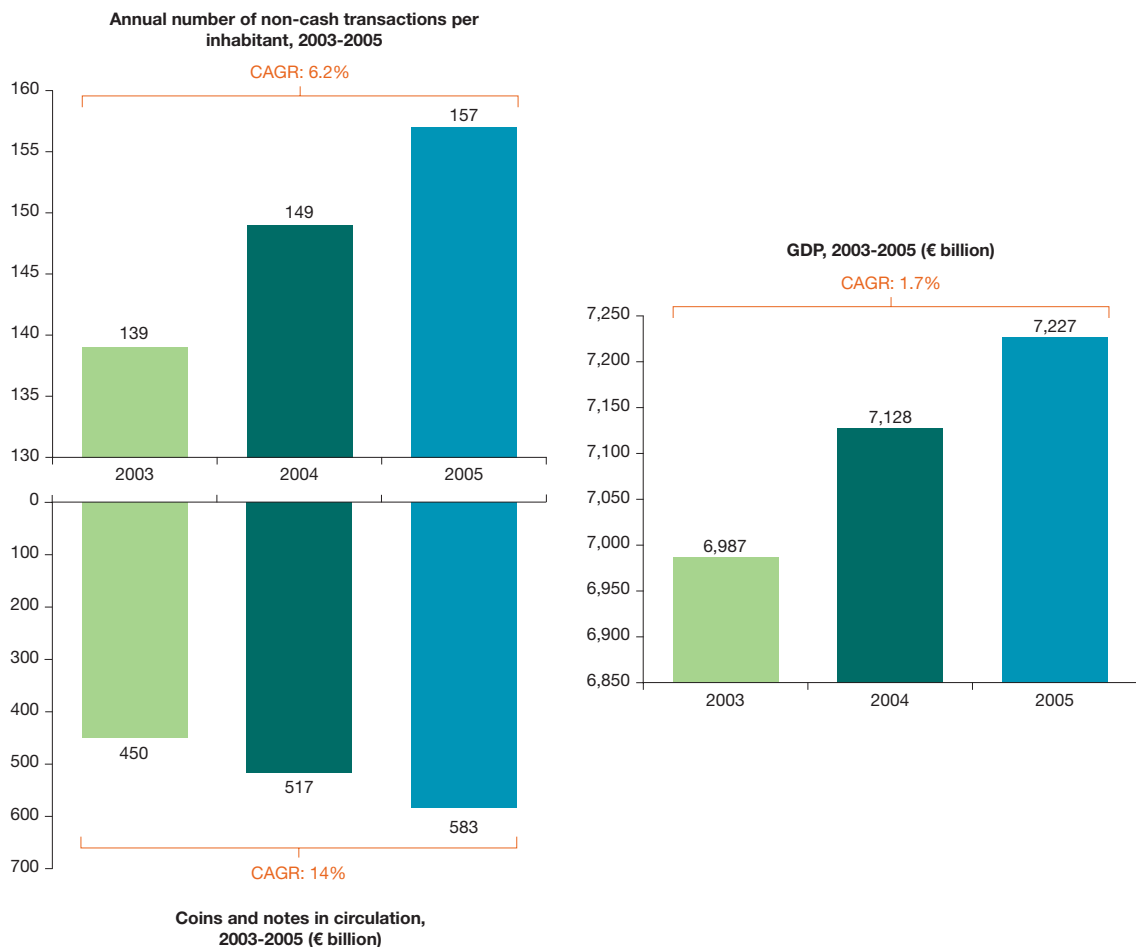
Note: Figures are based on countries covered in this report – see details in the methodology section.
 Source: ECB Blue Book—2005 figures, release Dec. 2006, Capgemini analysis, 2007.

With no real incentive to reduce cash use, and in the absence of a good non-cash alternative, cash remains king in some countries. Resistance from some retailers and only meagre incentives by banks to encourage their customers to use non-cash instruments are telling. High fees for non-cash payments transactions, along with complex and slow transaction processes, also keep customers preferring cash to a card, especially for small transactions.

By adopting differentiated prices depending on the channel, in some countries banks have encouraged their customers to use the bank's own ATMs instead of making withdrawals at the counter or at other banks' networks, but these remain local actions, and they do not really fight the use of cash.

The primary criteria for selecting a payment means in a given situation are acceptance, ease and quickness of use, cost (for both payer and payee), security and payment guarantee, tracking and reporting, and value-added services. While cash is weak on the last three points, it provides unmatched acceptance and quickness compared to current non-cash payment means for low-value transactions. As long as e-wallets, contactless payments, and mobile payments do not represent an effective industrialised alternative to cash—through the capacity to handle high volumes of transactions, with sufficient security as required by merchants, and the creation of a sizable acceptance network—cash will remain predominant for low-value transactions.

Figure 3.10 Comparison of Cash in Circulation vs. Non-Cash Transactions and GDP



Note: See details in the methodology section.

Source: ECB Blue Book—2005 figures, release Dec. 2006, European Central Bank, Caggemini analysis, 2007.



PSD is Impacting Bank Revenues

CHAPTER 4 HIGHLIGHTS

- The 20 largest banks in Europe perform approximately 30 billion payments transactions a year—about 45% of Europe's total volume.
- Due to changing market structures—in terms of both their payments transaction volumes and associated revenues—the market position of key banking players will change substantially between now and 2012. Regulatory action and competition will ramp up from 2008 to 2012, while SEPA payments transactions reach critical mass.
- The EC, after using Regulation 2560/2001 to cut cross-border prices for customers by a factor of 10, is now focusing on interchange and float. By 2012 the PSD mandates D+1 which will lead to a reduction in float, cutting banks' payments revenues by about 8%. Lower interchange rates for cards will also potentially cut those revenues of issuing banks by about 20%.
- Our analysis and surveys conducted with major European banks and clients indicate that changing regulations under SEPA expose banks to potential revenue loss risks (with partial overlap) in the short to middle term:
 - In the short run, legislative impact loss as an indirect consequence of the EC's desire to improve and harmonise payments on a European scale will reach up to 28% as noted above.
 - Later, competitive risk due to new banks entering current markets could cut a bank's direct payments revenue by approximately 38% to 62% as mentioned in the World Payments Report 2006.

INTRODUCTION

Last year's report pointed out that increasing competition in the payments market would lower revenues, including interchange, float and value dating⁶, for banks both in and outside the eurozone. To understand and confirm the importance of the payments area for major banks, we analysed the payments activities of the top 20 banks. These include both commercial and mutual banks, some of which comprise several brands and have common operational structures from a volume and revenue standpoint. Adding all their volumes, the 20 largest banks in Europe process approximately 30 billion payments transactions a year, which represents almost 45% of Europe's total volume.

Aside from the competition and a potential disintermediation risk banks face, the European regulator is putting banks and other payments market players under pressure with steady attention on transactions costs from a user standpoint. An EC publication ("Report on the Retail Banking Sector Inquiry," January 2007), although less focused on card interchange than originally expected, reveals the potential pressure European regulators are ready to exert to ensure competition and achieve fair pricing conditions for consumers, corporates and SME's.

Our analysis of the data we gathered assesses two key points:

- The importance of payments revenues for major European banks, including their total volume of national payments and revenues for 2005, and projections to 2012.
- The impact of the regulator's actions on European payments revenues from now until 2012.

PAYMENTS ARE CRITICAL TO MAJOR EUROPEAN BANKS

Major European banks have very different payments transaction volumes (see Figure 4.1). Nowhere is this heterogeneity more obvious than for the 20 major banks we studied. The top and bottom players, for instance, are separated by a factor of 10, with the highest performing 5 billion transactions and the lowest performing 500 million. To handle these high volumes, some banks host and share their payments transactions with another provider, while multibrand banks often try to handle their transactions through a single entity.

Bank transaction rankings are fragile. All banks will be part of the market growth SEPA generates, as discussed in the previous chapter. Even if other key economic variables remain at their current levels (prices, business models, market shares), and banks stick to their current markets, their payments volumes are likely to grow at very different rates from now until 2012. Rankings, therefore, are likely to change, and some medium-sized banks in the payments arena will become big players in the market, while some current leaders could lose their volume advantage (see methodology for further details).

Efforts to enhance the use of non-cash transactions could pay big dividends. As the expected boom in non-cash transactions per inhabitant grows, due to a better environment for cards and direct debits, total payments volumes will increase dramatically, and those positioned for it will win big dividends.

Banks holding strong positions in more mature markets will not automatically become top European players via their current customer bases. Some are already considering how to expand into new markets and ensure continuing growth. The payments market is destined to change, and could produce big new players who take more effective strategic positions in this growing market with its higher volumes. Mergers and acquisitions might create new *de facto* big players in the payments market. In any case, a bank's volume ranking from now until 2012 will depend primarily on how it responds strategically to the post-SEPA payments market.

High volumes do not necessarily translate into high revenues. Average revenue per transaction varies from one country to another, which creates a different ranking for each bank from a revenue perspective than its ranking by volume. The estimated average revenue per transaction, including all players involved, ranges from €0.37 to €1.28. Cards, especially, have large variations. In the Netherlands, for example, the annual card fee is lower on the consumer side, and on the corporate side, there are lower interchange levels that translate into lower remittance fees for merchants. All this leads to a lower cost per transaction.

Revenues will also rise between now and 2012 due to local market growth. As with volume rankings, top European banks' rankings based on payments revenues are destined to change substantially, as well.

⁶ Float occurs when the funds of a payment are in process to the beneficiary, but these funds are held on the bank's internal account (with the payer's bank, the intermediary bank or the beneficiary's bank). With value dating, the money is actually on the customer's account, but is not (yet) earning interest.

REGULATION WILL AFFECT PAYMENTS REVENUES

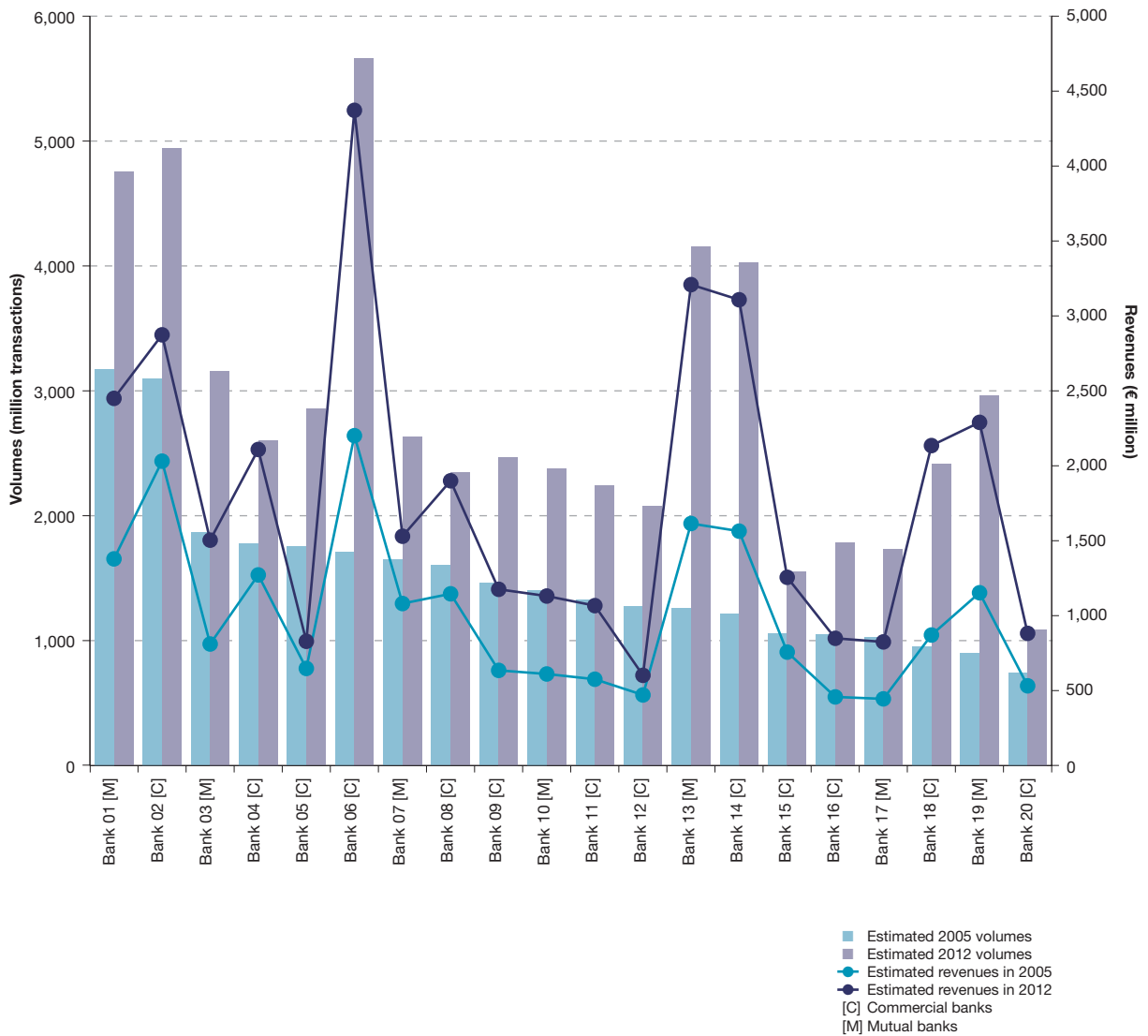
Regulation is bound to have an impact on bank performance as SEPA unfolds. Its effects have already been felt by banks conducting cross-border transactions, and it is likely to affect other revenues between now and 2012.

Banks have felt the impact of EC Regulation 2560/2001. Its primary objective was to reduce the fees banks charge their customers for Euro cross-border payments, putting them on a par with fees they charge for domestic transactions. The effects were significant,

with tariffs lowered by a factor of almost 10 for cross-border transactions (Source: EC). Prior to Regulation 2560/2001, for instance, the average fee for a credit transfer of €100 was €24, which plummeted under the regulation to an average of €2.46.

At the same time, side effects on national transaction prices were minimal. While the effect on prices is important and translates into some revenue loss for banks, this only affects cross-border transactions, which represent a limited portion (approximately 2%) of a bank's transactions volume.

Figure 4.1 Estimated Payments Volumes and Revenues Generated by Major European Banks in 2005 and 2012, Sorted by 2005 Volumes



Note: Projections driven by countries' 2012 volume growth, all other parameters kept at their 2005 situation—see details in the methodology section. Source: Capgemini analysis, 2007.

From the regulator's standpoint, Regulation 2560/2001 is only a first step toward SEPA. The PSD is the next regulatory tool designed to harmonise rules and introduce more competition in the payments industry.

Interchange fees for direct debits will only affect the few countries that already extensively use this instrument and that have a current interchange rate different from the proposed one. The EPC proposed a default interchange fee of maximum €0.093 per transaction from the creditor bank to the debtor bank. This unique fee, in which all return costs are included, will be implemented in 2009.

Five of the nine countries surveyed have no interchange fee for direct debits today, and two—France and Sweden—would experience only minimal revenue losses due to a lower interchange fee. France could lose about 4% of total interchange fees. The Netherlands is below the proposed maximum interchange fee.

Banks have not yet defined their positions on future interchange levels. In countries with no interchange fees today, alternative revenue models might be established. For direct debits, consumers in some countries might pay a reception fee directly to their bank for each direct debit, superseding the interchange fee. The problem in this case, however, is that banks would provide no incentive for their customers to use the more efficient direct debit transfer, and customers are key for the usage of direct debit payments. In other countries, such as Finland, consumers pay their bills with a “special” credit transfer, including a fee they pay directly to their bank, which as a result does not need an interchange fee in return.

The relationship between consumers, corporates, and their respective banks needs to be built on the basis of a virtuous circle. One SEPA goal is to provide consumers with more efficient and easily accessible payments instruments in a more competitive market. Consumers can be encouraged through differentiated pricing to use more efficient instruments such as cards and direct debits. Corporates, meanwhile, can be offered real added value when they use non-cash transactions, including the extra services they receive and the easier bill-to-payment match. Corporates should expect to pay a fee for these advantages, and they should not pass those charges back to consumers, as doing so would undoubtedly discourage their customers from using these more efficient and effective electronic non-cash transactions.

As noted earlier, we expect the evolution of float and potential regulator threat on card interchange to have an impact of maximum 28% of the payments revenues (see Figure 4.2). While direct debit

interchange fees have only a small impact on bank payments revenues, the impact of reduction of float (for all payments instruments) and card interchange contribute substantially.

Interbank float revenues will almost certainly decline, because PSD regulations will cut float to one day starting in 2012. As a result, we expect associated revenues to decrease by an average of 8%. Because banks in different countries today have different float time frames, the float regulation's impact on banks will range from 0% to 32% as shown in figure 4.2, depending on the practices of their current payments system. Aside from interbank float, value dating (which results from an agreement between banks and their clients) is put at risk by the requirement of the PSD that book date and value date have to be the same. This will be a concern in the Netherlands, for example, where value dating accounts for a significant part of bank revenues and where float is nonexistent (the clearing mechanism operates several times on the same day).

Cards have been under the regulator's scrutiny for some time, especially their interchange rates. If interchange were to disappear altogether due to EC regulatory action, it could cut payments revenues by an average 20% (with a range from 9% to 35%, depending on the country as shown by figure 4.2), and affect European countries more evenly than float risk.

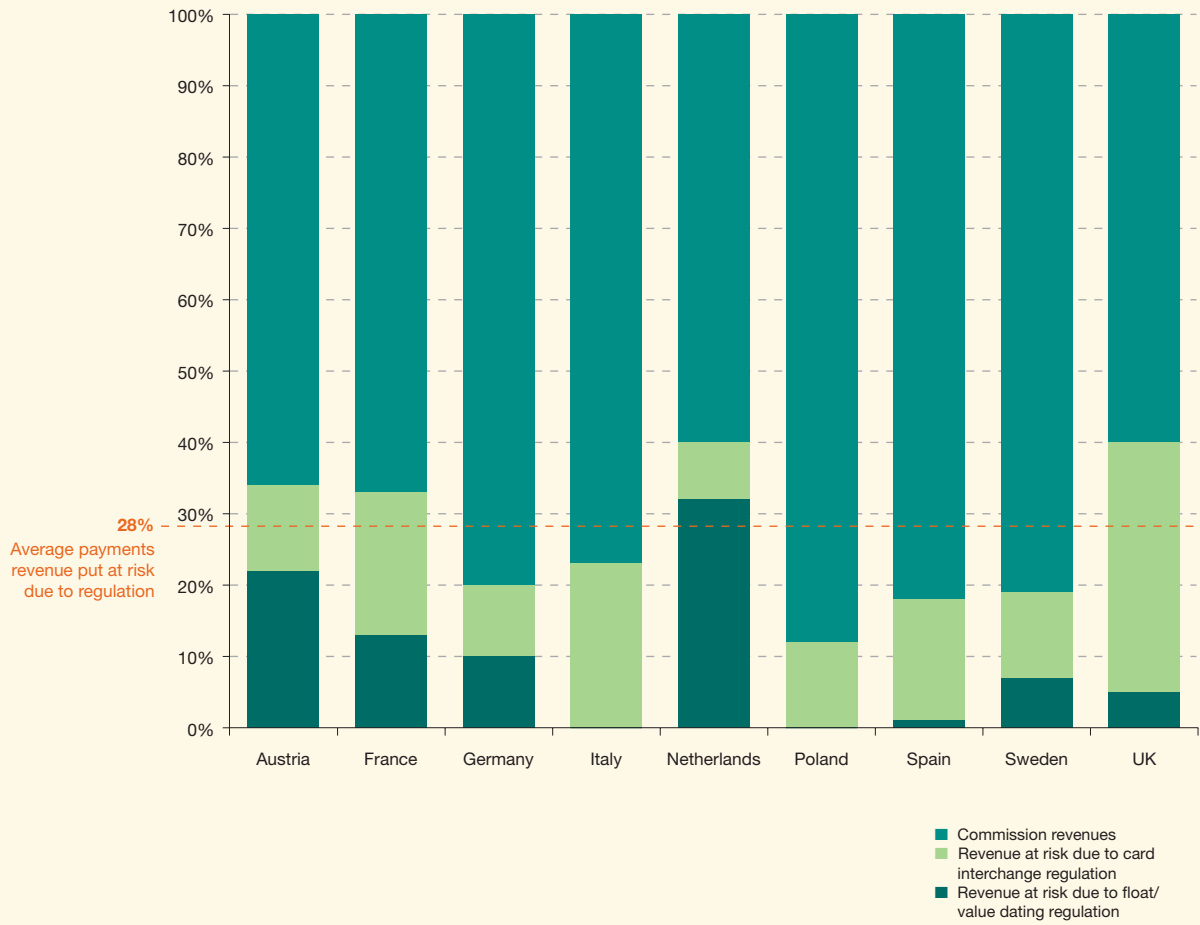
CONCLUSION

The payments market is growing and constantly changing. Our analysis and surveys conducted with major European banks and clients indicate that changing regulations under SEPA expose banks to three potential revenue loss risks in the short to middle term:

- In the short run, legislative impact loss as an indirect consequence of the EC's desire to improve and harmonise payments on a European scale will reach up to 28% as noted above.
- Competitive risk due to new banks entering current markets could cut a bank's direct payments revenue by approximately 38 to 62% as mentioned in the World Payments Report 2006.
- New non bank entrants (disintermediation risk) could account for another 20%.

(NB: Total payments revenues exposed at this maximum risk are not the sum of each individual risk, since they are interlinked. More precise risk exposure has to be calculated on a per bank basis.)

Figure 4.2 Potential Impacts on Payments Revenues with Regulatory Intervention



Note: See details in the methodology section.
 Source: Cappgemini analysis, 2007.



SEPA Will Accelerate Payments Industry Transformation

CHAPTER 5 HIGHLIGHTS

- The European payments market is undergoing substantial change due to such market forces as new regulations, more intense competition, technical changes, and evolving customer needs. Banks face three main challenges: pressure on their margins and selling prices, the need to differentiate themselves in a changing marketplace, and a new investment cycle.
- Becoming (or remaining) a top-tier player in the post-SEPA payments market depends foremost on increasing transactions volumes. Low-cost operations offer a significant competitive advantage. To be among the major players in SEPA, a bank will need to process at least 5 billion payments transactions a year.
- Based on the advantage they gain from their volume position (measured in terms of their unit cost per transaction), banks will have three primary strategic choices or a combination of them: niche strategy, low-cost strategy, or leader strategy. Banks unable or unwilling to adopt one of these strategies will have to outsource their payments processing functions.
- Successful banks will convert their delivery models into open architectures, which will enhance their product offerings, support the needed flexibility to bring white-label products quickly to market, outsource payments processing or insource processing from others, and permanently optimise this model by offering clients the most competitive integrated service products on the market.
- Our survey reveals:
 - The majority (58%) of banks already outsource or plan to outsource part or all of their payments activities within five years, and 68% plan to offshore this activity as well, whether back-office, IT, or support functions.
 - In most cases, banks have not yet quantified SEPA's impact.
 - Non-European banks see an opportunity to use SEPA to reposition themselves quickly in the market. European banks, in contrast, have a more relaxed vision of SEPA, either as a future threat or as an opportunity.
 - Most banks do not consider potential new market entrants (processors and telecoms) as a real competitive threat.
- Until PSD is transposed into local laws, banks have a time-frame advantage over payment service providers to propose a pan-European "payment-in-a-box" offer (end-to-end payment solution). Currently, payments processors cannot make as broad an offer as banks.

INTRODUCTION

With SEPA on the horizon of a payments market with volume growth averaging close to 9%, most players realise they must reassess their strategies. The creation of the single area offers new opportunities, and those with ambitions of market leadership will need to plan carefully.

Market forces are exerting tremendous pressure on the European payments market in the form of increased competition, evolving client needs, major technical changes, and a new legal context. It is not unusual for a bank's infrastructure to depend on old-fashioned technology with little or no flexibility. Banks will have to make the right strategic decisions to compete with new players, and they will have to change their payments infrastructure in order to offer customised products to demanding customers.

SEPA will enhance competition, which will have a direct effect on the payments business's profitability. The payments industry is volume-driven, essentially driven by fixed costs. Costs are difficult to control, and cannot be improved without significant strategic shift. Payments volume will rise substantially from now until 2012, but direct payments revenues will decline by between 38% to 62% in some parts of the market,⁷ over the same period, caused primarily by competition, regulation, and disintermediation.

SEPA's financial impact, however, will depend on how quickly market players—banks, ACHs, payment service providers, and other newcomers such as telecommunication firms—respond strategically and assert their individual competitive strength. Many of these mainstream payments players have already started to re-examine their strategies.

At the European level, SEPA is unifying the payments industry's rules and regulations and developing the required technical standards, and in the process is creating a larger competitive zone on a level playing field. Players can reposition themselves on a cross-border basis and try to meet the demands of their customers—corporations, public institutions, and consumers.

SEPA WILL INFLUENCE ALL CUSTOMERS' NEEDS

SEPA will affect not only the customer groups mentioned above, but also two other kinds of customers: merchants and small and medium-sized enterprises whether payments are made with traditional payments instruments or new payment instruments. Consumers

will be able to make payments (transfers, debits, card payments) more easily across the SEPA zone. For merchants, more security and the ability to accept any card payment from the entire SEPA zone will be the major impact. For small- and medium-sized corporates, SEPA's faster and simpler transactions process will reduce costs, and these clients will be able to receive and make payments in euros under identical conditions throughout the SEPA. Standards will help multinational corporates centralise and reconcile payments much more easily. Public institutions will be able to propose harmonised payments services to every user in the SEPA zone.

Aside from consumers, each of these customer groups will have to make several investments to take full advantage of SEPA (in marketing, in information systems, in reorganisation, and so on). Investments linked to SEPA implementation are estimated by market surveys to be from €8 to €10 billion for the banking industry.

Large corporates, public institutions, merchants, and SMEs have expressed the same needs concerning transactions services and risk management. Their transactions services needs include optimising their payments process and developing such services as e-invoicing, mandate archiving, reporting and traceability tools, and quick payments. Their risk management needs concern fighting fraud, managing counterpart risks, and controlling operational risks.

Corporates have specific additional needs. Corporate clients will be looking for integrated banks that can help them both with matters not strictly related to payments as well as with excellent payments services themselves. They are primarily interested in reducing costs and optimising cash management. Many are attempting to centralise their payments, and are optimising their payments systems. To achieve the lowest possible costs, many corporates are pushing for standardisation and full straight-through processing (STP).

Private and public initiatives are making progress toward greater standardisation all along the supply chain, such as e-invoicing and payments. Some corporates—followed by SMEs—have launched efforts for a standard interface between corporates and their payments providers that would enable corporates to pass from a variety of proprietary systems to a single standard. Corporates and payments providers in this scenario would be better integrated in their payments relationship, which would enhance competition because

⁷ World Payments Report 2006, Page 5. Capgemini, ABN AMRO and EFMA.

a corporation could change providers quickly without the additional cost of changing its whole system to accommodate the change.

Corporates also focus on cash management, and want bank accounts restructured and cash management centralised. In addition, they want centralised platforms and are beginning to express a desire to outsource any payments-related functions that are outside their core business.

Consumers also have specific needs. Consumers want low-risk, maximum security payments services that preserve the confidentiality of any private information. They want user-friendly payments. They are attracted to the new payments services because of their simplicity and the security they offer. This consumer concern also applies to e- and m-payments or with contactless cards. When consumers use multi-application cards, they want them to be recognised in all channels. The cost factor does not enter the consumer's decision if the service offers real added value. However, consumer payments rely strongly on merchants accepting the instrument. The supply side drives payments instrument usage.

SEPA's implications, therefore, go much deeper than a simple question of compliance for banks. In this market, it is reasonable to anticipate that banks' offers will primarily influence demand from consumer clients. But banks will have to adapt their offers to corporate clients' demands as well, and take advantage of the opportunities SEPA generates.

Banks deliver services not only to consumers and corporate users, but also to other banks. Banks have to adapt here, too, because financial institutions have become sophisticated buyers of services.

In the process, banks will have to confront three major challenges. The first is pressure on prices and margins linked to SEPA through increasing competition. The second is a strong differentiation in the marketplace as it opens up across European borders and becomes much larger. The third is additional investment in updated or new systems to handle SEPA-compliant payments products and take into account future connections with other payments systems. With this current environment of change, many banks' existing operating platforms are under pressure. The traditional silos in bank businesses have yielded duplicate and separate payments systems that are often more than twenty years old; too old to be integrated or reconfigured. To meet these three challenges, banks need to re-examine their industrial strategies and their ability to implement them to serve the European market.

THE QUESTION OF CRITICAL SIZE AFFECTS STRATEGY

Banks involved in re-platforming have to recognise the benefits of lower cost and require further benefits to address operations. The main benefits would be better service quality, higher cost savings, an optimisation of capital, higher productivity, and more efficiency through rationalisation of operations and branch networks. To succeed in that strategic move, reaching the size needed to be a meaningful player in the new SEPA will be essential.

Capgemini's interviews with bankers revealed no shared definition of critical size in the payments market. About half those surveyed had no idea of what constituted a critical mass of payments—40% answered that critical size is linked to volumes or revenues, without giving more details. About 10% proposed a definition based on the notion of cash flow. Other interviews with payments players revealed that critical size could be based on market capitalisation, or more simply based on share of the home market.

Less than 40% of the large banks we surveyed could readily assess their payments-related costs. Bank revenues from payments activity and related costs are apparently not systematically measured. Aside from some major transaction banks, few have a consolidated picture of their payments cost structure.

Because we found no shared definition for critical size, we defined it as the minimum volume of payments business a bank should handle to be efficient. Critical size could also be the minimum volume a bank needs to be profitable in all market situations, which also requires a unit cost per transaction below the average market price. In order to figure out the unit cost per transaction for each bank, cost structure needs to be analysed to find and generate economies of scale. But it is hard to separate payments activity from account management costs or from distribution channel management (branches, for instance). So the assessed costs are mainly direct costs.

Direct costs related to payments activity can be split into three main categories. The first is the cost of the IT infrastructure, which automatically processes a major part of the payments operation. Then, a bank has the costs of human activities, such as manually processing rejections (rejected operations from the system) or staffing the help desk. Other costs include those for external services, such as fees for clearing and settlement services.

Besides size, the economic efficiency of the payments processing function can be improved using two main levers. A bank could improve the STP rate for operations through IT sophistication (requiring investments) to process rejections automatically as far as possible. In parallel, a bank has to offer clients incentives for using electronic channels and provide error-free payments orders.

The second lever is improving economies of scale on fixed costs (IT and staff). Higher volumes will help optimise IT costs, and staff efficiency can be increased through specialisation.

Finally, becoming less sensitive to volumes helps reduce the unit cost per transaction. To further reduce its sensitivity to strong volume variations, a bank could also share these fixed costs by adopting technical standards on a European scale.

MANAGING PRODUCTION COSTS

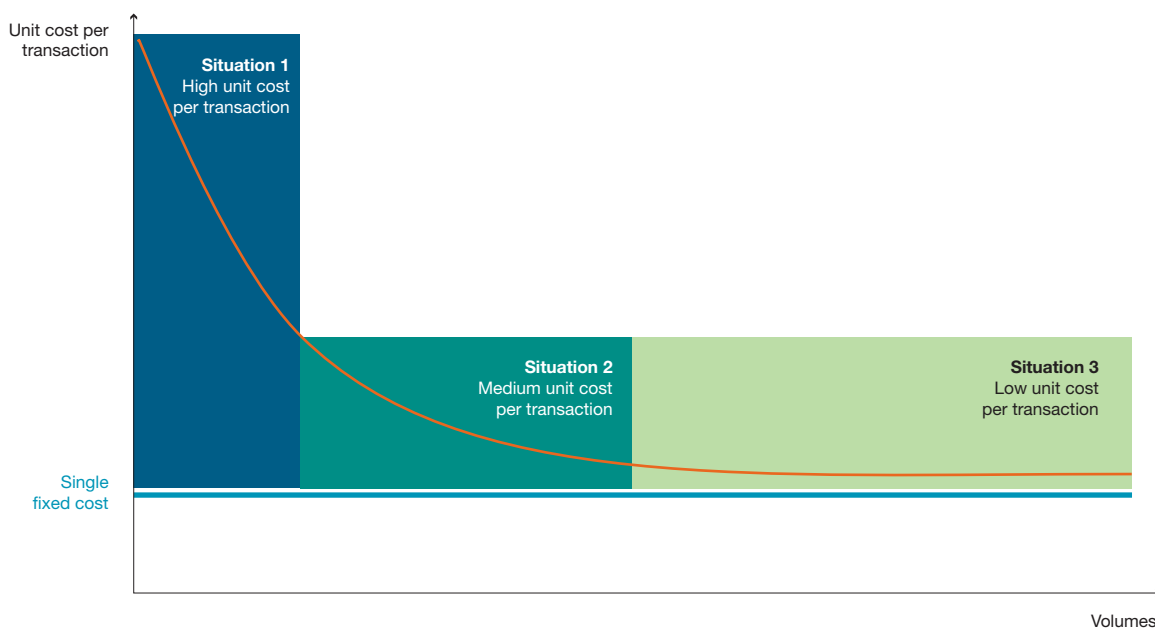
Serious players will carefully monitor their cost structures so they can effectively reduce the cost per operation and benefit from the SEPA-generated volume increases. Measuring a bank's payments system's sensitivity to volumes along the whole payments value chain or by

payment instrument generates valuable data a bank can use to produce a significant advantage versus its competitors. Banks can base monitoring efforts on a category of costs, such as card acquisition, processing of credit transfers or direct debits, card utility, card issuance for consumers, clearing and settlement flows, and cross-border payments.

To monitor effectively, a player can position itself on the unit-cost-per-transaction curve shown in Figure 5.1 for each segment of the payments value chain. Three situations can emerge from this placement:

- Situation 1: Production unit cost per transaction is high. The question is: Is it worth investing to fix this process?
- Situation 2: Production unit cost per transaction is medium. For situation 2, players have to determine whether it is more effective to make the effort alone or with a partner.
- Situation 3: Production unit cost per transaction is low. A bank facing this situation can reduce its cost per transaction by achieving high volumes and effective STP. In such situations, banks have a distinct competitive advantage, because in this scenario they can process added volume at a very low marginal cost.

Figure 5.1 Unit Cost per Payment Transaction Impacts on a Player's Potential Position



Source: Capgemini analysis, 2007.

Banks in situation 3 are in the best position to reach the top 10 in the payments market. Based on volume projections for 2012, compared to more consolidated industries where a significant player's market share is about 5%, being among the top 10 banks in 2012 will probably require a bank to process at least 5 billion transactions a year.

THE CHOICE OF A PAYMENTS STRATEGY

All payments players share the common goals of providing the lowest unit cost per transaction or value-added service to their customers. These services require short time to market for new products, innovation, flexibility, and continuous improvement of the offers. The objective is to offer these services while striking a balance with the industrial infrastructure's efficiency.

Our research indicates that banks that want to stay in payments can choose one of three potential strategies: niche player, leader, and low-cost provider (see Figure 5.2).

Niche player strategy. This first strategy is based on providing more value-added and highly efficient services to customers. It is a client-focused strategy similar to the one that services companies adopt. As a niche player, banks taking this strategic tack

concentrate on products providing real added value to particular customer groups. Added value tends to increase as the customer relationship becomes more intimate (business for corporations, habits for customers). Consequently, a niche player in payments would tend to differentiate itself by offering tailored, high-value services such as the provision of services across the entire payments value chain (see chapter 6).

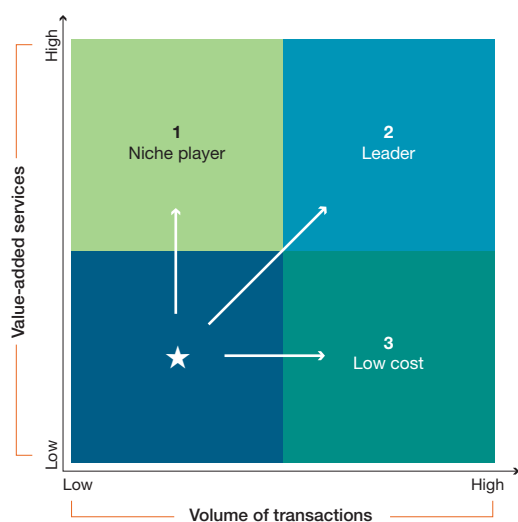
Leader strategy. The leader strategy is based on a mix of value-added services and the low transaction costs a pure volume player can develop. Its attractiveness for clients lies in its mix between value-added services and a reasonable price, usually achieved through a carefully monitored cost structure. The accent is on both gaining more volume while increasing the value delivered to the client. Products are attractive and valuable to the client, but can be delivered at low cost. This strategy also maximises profit.

Low-cost strategy. A low-cost strategy depends on acquiring volume to become a pure player in volumes. These players raise volume through attractive prices made possible by continuously decreasing their transaction costs, usually accomplished by standardising products. The continuous need to gain the additional low-cost volume required to maintain a competitive advantage never ceases.

Other strategies. Some players, of course, do not fall into any of the above categories. They have low volumes and a basic standard offering without sophisticated functions. Banks have to choose if they want to move toward one or a combination of the strategies covered above or to outsource parts of their payments.

Key to a successful payments strategy is a full understanding of the entire payments value chain, not simply the scale process areas; analysing how it may be unbundled; and identifying the most appropriate sourcing options for each element. In evaluating functions for outsourcing, banks have kept focus on four areas; core skills, pooling technology, maximising standardisation, and delivering uncompromised quality. Just as the IT debate de-linked traditional areas of core competency, so payments process can be deconstructed into market ready products, payments processing, and partnership value categories.

Figure 5.2 Strategic Payments Options for Banks



- ★ Players in this case have low volumes and basic offerings without sophisticated functions. Their choices are to:
- Increase their value-added offerings (moving to 1).
 - Increase their volumes (moving to 2 or 3) through additional capabilities (alliance, M&A, etc.).
 - Outsource their payments.
 - ...

Source: Capgemini analysis, 2007.

TOWARD AN OPEN ARCHITECTURE

To support the selected strategy under SEPA, each bank has to examine its industrial processing from a pan-European perspective. An “open architecture” is the solution to the new challenges banks face in the SEPA marketplace. As illustrated in Figure 5.3, an open architecture will meet banks’ industrial needs most effectively.

An open architecture is an industrial processing model that has the flexibility to satisfy customer needs along the entire payments value chain, and it can help both banks and their clients optimise their payments models. A bank with an open architecture has three key advantages:

- It can integrate and distribute white-label products coming from subcontractors. At the same time, it can establish “Chinese walls” (strict confidentiality) between its different banking clients and those of the subcontractor, enabling them to maintain total control of the marketing relationship with the end users.
- It can offer payments services along the entire value chain or just part of it. It can distribute services through the bank’s current network or through “external” distribution networks such as other financial institutions.
- It can assemble complete or partial services from external sources. The goal is to optimise the payments value chain by sourcing the best available competitive solutions on the outsourcing market.

Building an open architecture has some specific governance requirements in terms of the organisation and templates (use of sourcing service contracts, settlement of tenders to buy services), marketing for offers (clearly separate white-label from customised instruments), processes (division of tasks for operators), and IT systems (unbundled IT infrastructure and applications). An open architecture will eventually facilitate the mass production of payments services. It will enable the bank to plug a new client into the payments system quickly and simply, and to begin service right away. Standardised interfaces are essential, as they avoid integration complexity and help monitor potential deterioration of mass-produced payments services.

Developing an open architecture payments model has two operational difficulties a bank must confront. The first concerns the need for a close link with account management to authorise a transaction in case of an

insufficient balance. That process is currently largely automated and follows rules that check bank accounts. Since that process uses client information stored in the bank’s systems, problems arise when a subcontractor—which does not have access to the clients’ accounts—handles the client relationship.

The second difficulty concerns interference with client relationship management. The client should not notice any difference when connected to the system, wherever the client is (in the bank’s environment, or on a subcontractor’s system due to white labelling). An exchange between the bank’s payments services and the outsourced services must be ensured without any interruption for the client.

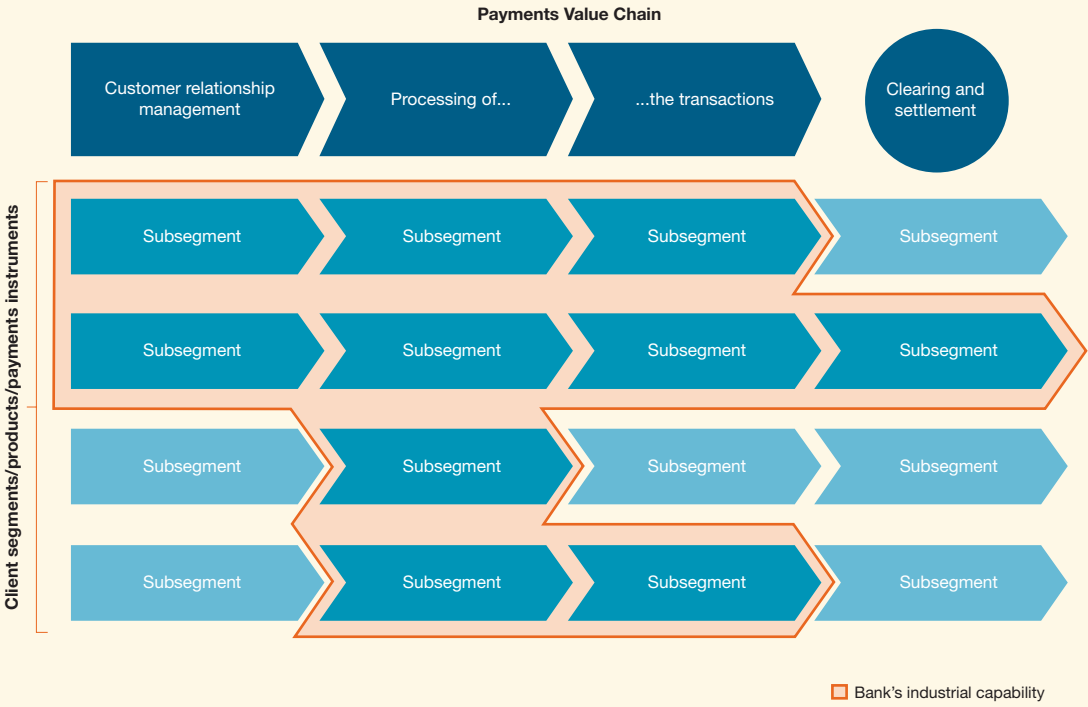
Building a pan-European industrial model based on an open architecture is technically realistic but hard to do. The overall context is favourable to that kind of solution with the generalisation of the producer/distributor model.

But the absence of a pan-European ACH (PE-ACH) that can reach all banks directly for SEPA payments is another reason for uncertainty in setting up such an industrial model. Banks must have pan-European reach to deliver euro payment services in all markets.

As payments instruments are standardised under SEPA, national ACHs will find themselves limited to commodity operators. To survive, they will have to move along the payments value chain and offer value-added services. Several ACHs are considering a strategy for insourcing the volumes of their clients, whether banks or large corporations. In the process they will become, to some extent, competitors to banks, and like card processors and other payments processors, they are maximising their advantage from the PSD. The result will be bigger markets and stronger competition between players across Europe.

In this payments market, where all competitors are looking for further volumes, banks have a competitive advantage because they can distribute payments services through all their clients’ distribution channels. They can also take advantage of their historic links to account management, which enables them to provide the best information to their clients (reporting for transactions) and also to have the best risk-management profile (to secure payment speed, for instance). Banks, it appears, have the assets required to be the ultimate winner of the competition in payments.

Figure 5.3 Open Architecture for an Industrialised Payments Infrastructure



Source: Capgemini analysis, 2007.

Banks Consider Outsourcing Their Payments Back Offices

Most major players currently develop their own payments offers in-house, with a few choosing a partnering solution for their back-office activities. Interviews conducted by Capgemini with major banks in Europe from 2006 through May 2007 reveal their current state of mind.

In the short to middle term, banks are seeking better cross-border integration of their back-office activities. Some (15%) currently process or plan to accept outsourced payments processing from other banks.

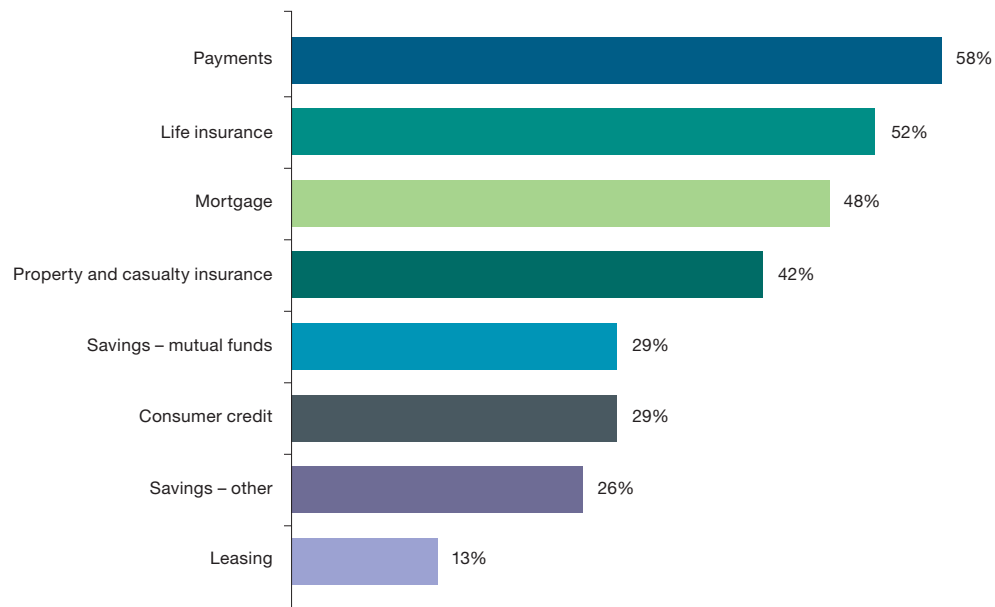
More commonly, however, the majority (58%) already outsource or plan to outsource part or all of their payments activities within five years, and 68% plan to offshore this activity as well, whether back-office, IT, or support functions (see figure).

While banks seem determined on the surface about the need to outsource, when asked about their wider vision of their payments activities, their answers were unclear:

- Most of them consider their payments activity as a cost centre, but do not provide figures supporting this assertion.
- In most cases, banks have not yet quantified SEPA's impact.
- Non-European banks see an opportunity to use SEPA to reposition themselves quickly in the market. European banks, in contrast, have a more relaxed vision of SEPA, either as a future threat or as an opportunity.
- Most banks do not consider potential new market entrants (processors and telecoms) as a real competitive threat.

European banks seem inclined to react and adapt to the changing market (including regulation), rather than analysing the situation in advance so they can innovate and anticipate in the payments industry. Such analysis, however, is a necessary prerequisite to choosing the right positioning and sourcing strategy.

Back-Office Outsourcing in Five Years (%)



Source: World Retail Banking Report 2007, page 50. Capgemini, ING and EFMA.

Maximising Outsourcing's Potential for Bank Payments Strategies

Based on the moves surveyed banks said they expect to make, we took a closer look at outsourcing in the payments industry.

A DEVELOPING OUTSOURCING MARKET

In 2005, surveyed banks' cost structures ranged between 70% and 90% of their payments revenue, and payments costs for all eurozone banks were approximately €26 billion. In the same period, five of the biggest outsourcers declared a total of more than €2.3 billion in revenues for their European subsidiaries.

We analysed more than 100 major published outsourcing deals occurring in the payments industry since 1997, covering a wide range of services. While these deals provide insights into the market, players do not reveal all of them: deals linking banks to their ACHs, and bank-to-bank deals, also account for a large part of the market due to mutual trust and other factors.

The outsourcing market is growing rapidly, both in revenue generated—deals grew by 149% between 2000 and 2006—and in the number of deals.

The outsourcing market is fragmented, with eight players leading the pack (81% of the surveyed deals), and many smaller companies focusing on specific segments.

Deals cover only part of the value chain, for specific payments instruments. Of these, 46% focus only on support functions (for instance, ATM network servicing or customer relationship management). The remaining deals concentrate on cards and, to a lesser extent, on paper-based operations.

The latest outsourcing deals are concentrated in the United Kingdom, Germany, and the Netherlands, which account for 98% of the deals.

From both an offering and demand perspective, several levers will empower the outsourcing market.

Standardisation efforts in response to SEPA will help broaden the outsourcing offerings. New geographic markets will become reachable. In addition to cards, new solutions will be proposed for direct debits and credit transfers, the two instruments representing an untapped potential that will account for 53% of total

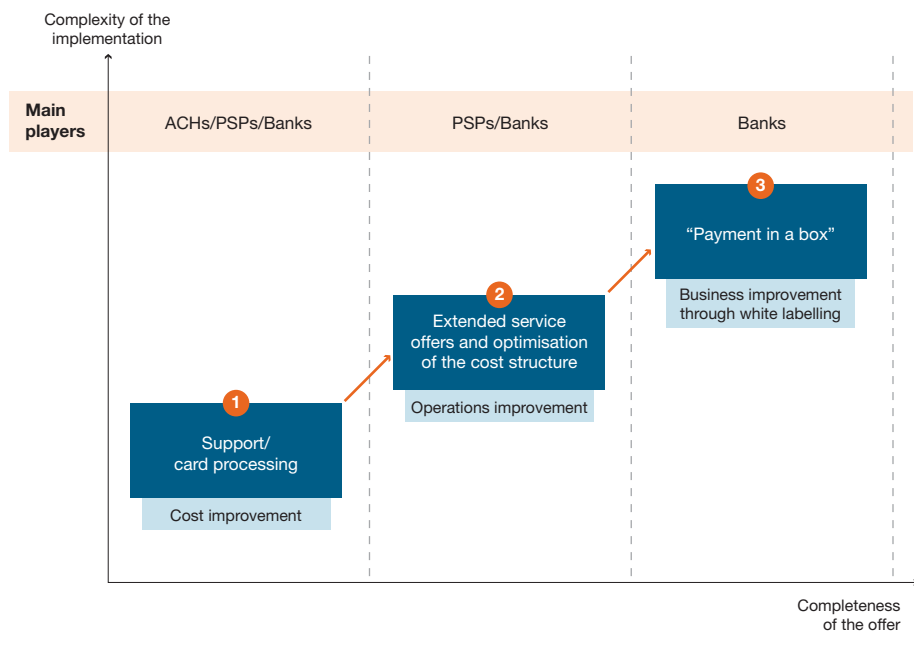
payments volumes by 2012. In the meantime, the EC's PSD enables the entrance of payment institutions, which might help processors strengthen their position among corporations.

At the same time, demand in the market will grow, as small and mid-sized banks seek to rationalise their payments costs via outsourcing. Legacy payments and residual cross-border transactions will also drive demand.

PERSPECTIVES FOR BANKS, AND RECOMMENDATIONS

As the figure below illustrates, banks currently have a competitive edge over the other players in building the most appropriate payments solution.

Optimisation and Evolution to a Full Payments Service Offering



Source: Capgemini analysis, 2007.

1. Current payments offers are focused on parts of the value chain (e.g. card processing) driven by IT cost improvements.
2. Small and medium-sized banks, while monitoring and reducing their cost structure in key areas, try to extend their service offerings.
3. Until PSD is transposed into local laws, banks have a time-frame advantage over payment service providers to propose a pan-European "payment-in-a-box" offer (end-to-end payment solution). Currently, payments processors (PSPs in above chart) cannot make as broad an offer as banks.

Opportunities are therefore broad for banks today, through co-sourcing, partnering, and outsourcing solutions.



The Emergence of Strategic Sourcing in Payments

CHAPTER 6 HIGHLIGHTS

Strategic sourcing partnerships will play an increasingly important role as the payments industry focuses on globalisation, regulation, market restructuring and performance. These partnerships will leverage a broad range of capabilities combining talent and experience to drive value, and not simply lower costs, from every aspect of their payments business.

In response to these industry pressures, the move to change is being driven by key factors; investment constraints making capital efficiency critical to success, the emergence of scale players delivering significant cost benefit and increasing sophistication of supply providing greater choice.

The strategic sourcing market is young and banks are dividing into three categories:

- Early adopters who have recognised the payments market dynamics and are partnering to leverage scale and capabilities.
- Those who intend to partner in the near future but remain undecided regarding a payments sourcing strategy.
- Those who are likely to respond tactically.

The decision will be based on unique circumstances and should allow greater focus on core skill and full leverage of limited capital investment.

Successful execution of a strategic sourcing strategy will reach across the organisation and will depend upon a bank's ability to recognise and select the right partner to provide the scale and sophistication capable of meeting its demands. The right execution model will vary depending on a bank's requirements and the stage it has reached in its own payments sourcing evolution.

In both mature and emerging markets, talent alone is not enough; to maintain business success requires experience to guide the bank towards its goals and to excel. The world's markets are becoming increasingly integrated and global banks need a continually broadening range of capabilities. Few will choose to face the challenges alone. Key players around the world are looking to strategic sourcing partnerships to leverage combined talent and experience to drive value, and not simply lower costs, from every aspect of their payments business.

STRATEGIC SOURCING PARTNERSHIPS DELIVERING FUEL FOR BUSINESS GROWTH

From correspondent banking to headline-making cross-border mergers, partnerships have always been the lifeblood of the banking sector. Examples abound: cheque processing, cash services, ATM networks, online and telephone banking, and many other financial innovations, all have been possible only because banks are willing to seek out partners within and beyond the sector to bring together the different elements of complex solutions. Shrewd investment is critical and these partnerships provide the fuel for business progress.

Partnerships are playing a key role as the payments industry focuses on globalisation, regulation, market restructuring and performance. The need to optimise capital investment for growth has never been greater and successful strategies will involve strategic sourcing partnerships to leverage assets, R&D and talent as they focus on both immediate and long term gains. For the longer term a growth agenda is imperative; this

will be based on business agility and speed to market, combined with a more immediate requirement for an operationally astute focus on value chain economics.

Outsourcing is a well-recognised method of taking cost and investment out of the delivery model, but for banks embarking on payments transformation, the provider landscape is diverse and disparate, typically requiring resources from a variety of providers. Key players are turning to strategic sourcing partnerships to deliver.

A bank looking for strategic sourcing partnerships in payments will find them exclusively in the banking arena as only banks can provide:

- The scale and technology necessary for addressing payments processing.
- A comprehensive portfolio of products to support business flexibility.
- The product innovation, multiple channels, global reach and industry influence to drive growth.
- A broader and deeper understanding of the business to support the strategic growth agenda of the bank.

The accelerating pace of change in payments technology and its associated infrastructure investments already places human and financial resources under immense pressure. However, the combined demands of the regulator (for cost transparency) and the shareholder (for performance) are driving a review of payments processing to deliver value from every aspect of the business. This is being achieved by value chain analysis

Figure 6.1 Strategic Sourcing Partnerships Support the Entire Payments Value Chain



Source: ABN AMRO analysis, 2007.

and unbundling, causing new sourcing options to be evaluated as banks consider partnerships in historically core processes (see Figure 6.1).

PARTNERSHIPS: THE PLATFORM FOR CHANGE ACROSS THE WORLD PAYMENTS LANDSCAPE

While still of primary importance, it is not the cost of payments alone that is reaching the boardroom agenda. Banks around the world are seeking more enduring results from partnerships to address both global and regional issues and drive growth.

In North America the market is facing consolidation and a growing demand for more sophisticated products in payments, foreign exchange, trade and securities for mid-tier and smaller market segments. This is driving the move towards partnerships for expertise both in the form of an accessible knowledge base and in leveraging labour arbitrage to support cost reduction.

At the same time, increasing pressures for new technology investments (Check 21 image processing, paper to electronic retail payments migration) have meant that banks are looking to increase scale and lower costs. In certain areas, outsourcing has evolved as a trend to address formerly core business with low or declining margins, providing an alternative strategy to exiting a market.

Asia is a geography of extremes; a mix of mature and emerging markets that are changing rapidly, intra-regional growth being the key driver. Japan is a vast and mature market with little growth, Australia and New Zealand are also mature, stable markets but still show growth potential. China has a strengthening infrastructure and India a powerful entrepreneurial focus. Both have huge populations and their rapidly developing economies are driving considerable intra-Asia trading volumes.

For these countries key considerations are the availability of capital to meet the requirements to invest significantly and quickly in new technologies that support their clients' global business needs and the need for language and business knowledge in sophisticated payment and trading technologies. These banks are partnering for speed to market, product innovation, global reach and access to talent and expertise.

Europe provides a very different scenario to Asia; a combination of mature and emerging markets being brought together through mandated change. The new Single Euro Payments Area is in the formative stages. The SEPA migration plans allow for an indefinite and protracted implementation period which will create

more complexity for European banks in managing multiple instruments and systems while forcing down revenues (Chapter 2).

Consequently, banks are re-evaluating their non-euro cross-border and SEPA requirements and identifying the most appropriate sourcing partnerships to address migration and co-existence strategies.

SOPHISTICATION OF SUPPLY IN PAYMENTS IS HELPING TO REDEFINE CORE CAPABILITIES

In addressing their growth and operational strategies banks are re-evaluating their core capabilities. Strategic sourcing partnerships are creating more choice through increased sophistication of supply, greatly facilitated by the availability and affordability of technology and telecommunications. These changing characteristics of supply are allowing for greater scope in the redefinition of core capability.

A key objective for leading players is how to focus capital spend on core capabilities - the areas of the business that differentiate them. The influence of private equity firms on business models is also becoming more apparent; a successful strategy will be one able to maximise capital efficiency, identify growth opportunities and direct investment decisions.

Core capabilities are typically those areas closest to the client, providing high margin and value. Many of the capabilities surrounding the payments infrastructure have traditionally been seen as core capabilities, but these are often necessary functions that need not be delivered in-house. In the past it was believed that outsourcing such services would result in a loss of control, but banks who have taken the partnership route have increased focus on performance resulting in greater control over the quality, cost, efficiency and scope of their entire payments value chain.

In order to categorise capabilities, a systematic and objective review of the organisation's capabilities must be performed. Clarity of thinking is essential; analysing and classifying the different functional areas will help to ensure rational rather than 'emotional' decisions are taken when identifying core skills.

Each section of the payments business and its supporting value chain should be evaluated with regard to core/non-core capability (and the strength of that capability) to identify where the bank should retain ownership and where partnership would be appropriate. Based on this analysis, the most appropriate form of partnership can then be identified, focusing on delivering strategic and enduring value rather than tactical results alone.

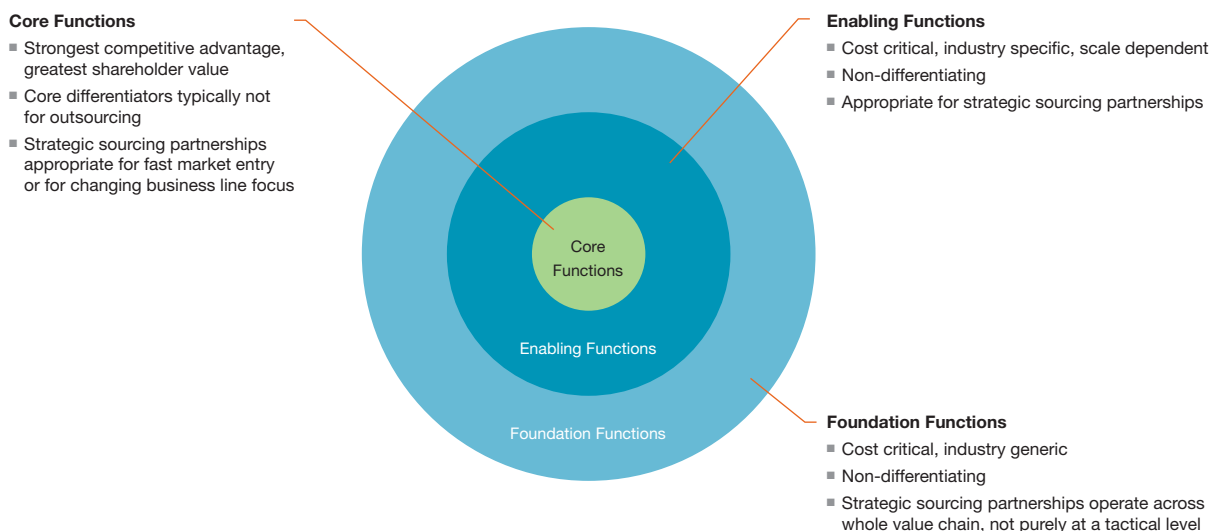
Functions within payments may be analysed according to three broad classifications (see Figure 6.2). Each of these classifications is equally important and business critical.

Core functions. These are functions considered unique to a bank in terms of capability and scalability, the areas where it can build strongest competitive advantage and create the greatest shareholder value. A bank will keep the highest level of skills in-house, and therefore would not consider these functions for outsourcing. It is important to stress here that not all banks have the same core capabilities and they may choose a strategic sourcing partnership to provide flexibility in their business model. For example, a bank with a dominant domestic business may need to support its clients' international needs without investing in costly international payments capabilities. Similarly, a bank may wish to enter a new market or refocus a business line as it revisits its business strategy. In all cases, a strategic sourcing partnership is an appropriate option to provide process, product/business line, or region support.

Enabling functions. These are industry-specific, scale-dependent functions for banks. They are costly to provide (in terms of technology investment and expertise) and can be considered as candidates for specialist outsourcing (or for insourcing from other banks for those institutions willing to make the investment). This is an area where banks form strategic sourcing partnerships and joint ventures to provide payments outsourcing services—for example, where a bank requires new channels to market and chooses to white-label a client interface, or where a bank leverages its existing expertise and scale to insource cross-border transactions from other banks, thus sharing value with its partner clients.

Foundation functions. This third group of functions is business generic and cost critical. These foundation functions are potentially suitable for broader outsourcing to specialist providers (for example, commodity services such as card processing, ATM networks, retail lockbox outsourcing in North America, and network management). In these cases a strategic sourcing partnership can help drive value from the whole value chain rather than purely at a tactical level.

Figure 6.2 Analysis and Classification of Business Functions



Source: ABN AMRO analysis, 2007.

KEY PLAYERS LEVERAGE ENDURING VALUE THROUGH PARTNERSHIP

Currently, banks are dividing into three categories; early adopters who have recognised the payment market dynamics and are partnering to leverage scale and capabilities, those who intend to partner in the near future but remain undecided regarding a payments sourcing strategy, and those who are likely to respond tactically.

Key players have recognised that adopting a strategic sourcing partnership model within payments operations provides benefits in a number of areas:

- Compliance through access to skills and governance models
- Cost savings & efficiencies through labour arbitrage and rationalisation
- Productivity through process re-engineering and improvement
- Capital optimisation through leverage of partner assets
- Service quality through process enhancement

and as part of a competitive payments revenue strategy:

- Human and financial capital focused on core capabilities
- Competitive agility and speed to market
- Product innovation and portfolio management
- Global business reach via branch network

Strategic sourcing partnerships address core, enabling, and foundation functions to support the whole value chain, not simply scale processing. They deliver more than just payments processing. In addition they provide enhanced value from a portfolio of market-ready products and add significant value through access to multiple channels across global networks, with continued product R&D. The solutions delivered are tailored to individual requirements; they can include traditional cash products, white-labelled systems, and business process outsourcing capabilities from one banking partner. As a bank's decision to outsource any part of its payments process will be driven by its own unique business circumstances, client sectors, and competition, strategic sourcing partnerships will allow greater focus on core skills and full leverage of limited capital investment.

UNDERSTANDING THE NEW DEFINITION OF PARTNERSHIP

Understanding the characteristics of partnership structures themselves is also fundamental as they may evolve to suit a bank's changing business and payments strategy. For example, the bank may envision a full branch service, where a partner provides services using its own systems and staff on a traditional, fee-for-service basis. Or a lift-out arrangement may be more appropriate, where a partner operates the client systems and/or staff while assuming responsibility for delivery and ongoing improvement. Or a joint venture-style partnership may be best, where two or more parties join forces to develop or provide a particular solution.

The right model depends on a bank's requirements and the stage it has reached in its own payments sourcing evolution; it must therefore choose a partner that is able to provide the scale and sophistication capable of meeting its demands in the rapidly changing global marketplace. Certain characteristics are increasingly sought in selecting a partner:

- Strong payments process expertise and delivery track record
- Expert skills pool with proven experience
- Strong culture in service quality
- Geographic reach across the world
- Breadth of portfolio and innovation in market-ready products
- Industry influence and key presence in industry bodies
- Innovation in industry partnerships and partnership solutions
- Low cost
- Existing relationship

To work well, payments partnerships must reach across the organisation, be multilevel and part of the bank's strategic payments agenda—from the boardroom to the operational level. Partnership skills are themselves a critical success factor (from complex integration considerations to relationship management) and the ability to recognise the opportunities for partnership and to forge strong alliances has always been a core skill for successful banks. These skills have never been more important than today, as change in the payments industry is accelerating.

The successful payments institutions of the future will be those who have made the skills of partnership and partnership management a core capability, and a major component of their payments sourcing strategy for growth.

Open Questions: Food for Thought

CONCERNING THE IMPLEMENTATION OF SEPA

- Version 2.3 of the SEPA Direct Debit Scheme Rulebook imposes a mandate management scheme based on a creditor-initiated process. How will the countries where the debtor bank manages mandates deal with this new mandate flow?
- The SEPA Testing Framework specifies the steps players must take to ensure self-assessment compliance in each banking community. However, how will end-to-end tests be reliably conducted today at a cross-border level?
- In most eurozone countries today, the public sector is closely linked to national central banks. How could local governments' actions help extend competition in that area of the economy?
- What incentives would encourage banks to help achieve the necessary critical mass of SEPA payments? If no incentive is proposed to encourage end users to use SEPA instruments, should the deadline for arriving at critical mass be postponed to the end of 2012? Are e-SEPA and other initiatives to achieve end-to-end STP the right incentives to help users reach critical mass?

CONCERNING CARDS

- How may European banks and national schemes respond to the ECB request regarding a new card scheme for debit cards?

CONCERNING CASH

- To what extent would a rise in card use lower cash use? What impact would the growth of e- and m-payments have on small transactions?
- With cash becoming a European issue, and the risk that future m-payments might be developed by individual players, what is the best strategy to ensure a successful alternative to cash?

CONCERNING THE IMPACT ON EUROPEAN BANKS' BUSINESS MODEL

- What market share should a bank expect to generate sufficient cash flows to finance its own transformation?
- What is the best strategic position a particular bank can take to exploit the expected growth in transactions volume SEPA causes and transform payments into an attractive offering for prospective clients?
- How will big banks react to the possible competition with big ACHs for the processing of volumes?



Methodology

SEPA ACHIEVEMENTS AND CHALLENGES

Our quantitative analysis is based on the eurozone countries that published SEPA migration plans. For credit transfers, we considered currency, straight-through processing, processing delays, message length, IBAN/BIC features, reject and refund procedures, and refusal dispositions. For direct debits, we considered those same criteria, along with mandate, mandate lodging, advance notice, and advance notice delays. For both, we also took a closer look at rejections, refusals, refunds, and returns.

Our qualitative analysis is also based on the eurozone countries that published SEPA migration plans. We assessed each plan according to the following criteria for each means of payment (SEPA direct debits, SEPA credit transfers):

- **Dates:** whether the plan gives dates for beginning the SEPA implementation (first availability of the instruments), achieving the critical mass for volumes, decommissioning legacy instruments, and reaching full SEPA implementation (end of the SEPA migration).
- **Evaluation of the complexity of the SEPA migration:** whether the plan mentions the gap between the country's current payments system and what the EPC is calling for in the Frameworks and Rulebooks.
- **Means to achieve migration:** whether the plan provides any explanation of the operational means to achieve the SEPA migration, from both a banking and a client point of view.
- **Problems encountered:** whether the plan mentions any specific barriers to the migration.
- **Testing period:** whether a testing period is planned for chequing the bank-to-bank interoperability of SEPA instruments from both a national and a pan-European perspective.
- **Additional notes:** whether the plan gives further information about issues specific to each country (e.g., decommissioning legacy payments).

COUNTRY MIGRATION PLANS

The highest SEPA adoption scenario (green curve in Figure 2.4) relies on the following hypotheses:

- The introduction of the SDD by November 2009 gives a boost to the migration to SEPA instruments.
- Strong commitment from both corporations and public institutions helps to close the manageable gap on SCT and SDD by the end of 2010, and reach 89% of the critical mass of volumes by then.
- Full decommissioning of legacy instruments ends 18 months (best case) after the critical mass of volumes is reached.

The average SEPA adoption scenario (blue curve) supposes that:

- The full potential is not reached. Only 70% of corporations and public institutions make a quick migration to SEPA instruments by the end of 2010. This might mean that a critical mass of volumes would concern 61% of transactions (supported by the fact that at least four countries already say that they will reach a critical mass of volumes).
- The critical mass of volumes is reached later. Depending on the goals, this leads to a later decommissioning date.

From that average scenario, the lowest SEPA adoption scenario (red curve) suggests that public institutions might start their migration to SEPA instruments one year later than originally planned.

CONVERGENCE OF EUROZONE NON-CASH PAYMENTS LEVELS

This year's analysis has been conducted with greater focus on relevant countries. For macro descriptive graphs (volumes, cards, ATM, and number of transactions), 17 countries have been surveyed, which is the same as last year. This includes all eurozone countries (Germany, France, Spain, the Netherlands, Italy, Belgium, Austria, Finland, Portugal, Ireland, Greece, Luxembourg, and Slovenia), as well as 4 non-eurozone countries (the United Kingdom because it is the biggest non-eurozone country, Sweden and Denmark to represent Nordic countries, and Poland to represent eastern Europe).

Values and projections for 2012 focus on 13 countries: this year's projections include four new countries and go two years further than the previous *World Payments Report*. More specifically, nine of those countries are the same as last year (France, the Netherlands, Austria, Sweden, the UK, Germany, Italy, Poland, and Spain). Additionally, Belgium falls between Italy and Austria in volume, while Greece and Portugal complete the southern countries overview. Finally, the United States has as big a payments market as the whole of Europe, though it has different usage patterns.

For the focus on cash, ATM figures include all 17 countries listed above, for the broadest panorama possible. Cash withdrawals were studied at ATMs located in each country, by cards issued in the country. The analysis of cash in circulation versus GDP and non-cash transactions was conducted for six countries, the same ones as last year: the five main eurozone countries, which account for 85% of the area's payments volumes, and the UK, as the biggest non-eurozone country. These countries are also the biggest cash issuers in Europe.

Common sources were used to build our analysis. Volumes were consolidated from the latest European Central Bank's payments statistics (published in the Bluebook in December 2006). Macroeconomic indicators were collected from the Organisation for Economic Co-Operation and Development (OECD) for greater accuracy. Cash figures were provided by national central banks and the European Central Bank.

Of special note: while some sharp peaks appear in historical data (2001–2004) for 2012 projections, they have to be interpreted as a methodology bias rather than actual erratic fluctuations in payments volumes. Therefore, they do not alter projections from 2005 to 2012. Indeed, Bluebook methodology is constantly being updated, with no possible retroactive calculation most of the time. This holds especially true for paper-based non-cash transactions prior to 2004, which were hard to track. We believe that recent data offer greater accuracy and consistency.

THE REGULATOR'S IMPACT ON BANK REVENUES

Banks' payments volumes have been estimated from their national market shares, including sub-member banks. From those volumes and the surveyed prices in each country, banks' payments revenues have been calculated. Volumes and revenues focus only on operations in their national market (defined as the country where those banks are principally listed), while their cross-border international activity is not taken into account. A survey of Capgemini's own clients showed that those estimates are close enough to actual figures to be considered a good representation of the European payments market.

The calculation of the regulator's action was made on a country-by-country basis, to avoid a bias depending on the consumer or corporate aspect of a given bank.

DEFINITION OF A CRITICAL SIZE

From the projected bank revenues calculated using the same methodology as above, we looked for a limit that would make 10 players at most reign over the payments market. Considering the future increase in competition and possible mergers and acquisitions, this led us to consider that such a player would hold 5% of the eurozone payments market. Thus the limit was identified at 5 billion transactions processed per year, per player, in a 2012 horizon.

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