

SEPA: potential benefits at stake

Researching the impact of SEPA on the payments market and its stakeholders



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Preface

The European payments business is in turbulence. The advent of the Single Euro Payments Area (SEPA) promises massive change for the demand side (payments users), and even more so for suppliers - mainly banks.

Payments are an integral part of a bank's direct and indirect profit, and they are an essential element in keeping a bank's client relationships intact.

The SEPA initiative aims to create a standardised domestic payments market throughout the euro zone. Today the design phase is nearly finished, and public authorities have stressed that the project should be completed in 2010. SEPA overall goal is to create a more competitive and transparent European economy, which it will accomplish by standardising the rights and obligations of EU payments services providers and users, and establish a set of open and common industry payments standards across the region.

Achieving the SEPA goals depends on a combination of EU regulation and market self-regulation. Yet early feedback about regulation from various SEPA stakeholders has not all been positive. Many banks and retailers are worried about the relatively high investments they need to make, while many potential users are simply not yet aware of the potential benefits SEPA could bring to them.

The European Commission asked Capgemini to conduct a study that answers three key questions:

1. What are SEPA benefits, opportunities, and costs for different stakeholders?
2. What issues threaten the attainment of the single payments market SEPA promises?
3. What are the alternatives for remedying or mitigating these issues?

In the report we offer insights and conclusions across our findings that answer these questions.

Capgemini welcomed the opportunity to conduct this important study and present our findings to all those interested in SEPA outcome. We trust our efforts will help you understand the impact SEPA will have and the difficulties it faces, and clarify any uncertainties you might have about its impending arrival in the euro zone.

1 Management summary

Over the years payments have evolved from a basic service into a full-blown industry holding strategic value for suppliers and users of payments services.

In the euro countries, the United Kingdom, Sweden, and Poland combined, businesses, public entities, and consumers spent € 158 billion on payments in 2006, representing 1.3% of GDP (estimated at 2.3% including cash). If the current trends of 9.5% volume growth per year and minor price drops were to continue, banks would see their revenues increase significantly over time.

However, times have changed, and SEPA has arrived. Although it is clear that payments in Europe will change drastically in the coming years, many uncertainties exist, including the speed and extent of adaptation on both demand and supply sides, degrees of competitiveness or protectiveness, and differences in national legislation. As a result the market could look very different depending on how prices evolve, what investments are made and when, and to what extent operational costs will come down.

Given this high degree of uncertainty this report does not make any predictions on the most likely outcome. Instead it uses four extreme but credible market scenarios - All Tied Up, Supply Push, Demand Pull, and SEPA Big Time - to assess the impact of SEPA on the key stakeholders. Each of these four market scenarios represents a combination of possible values of the driving forces: limited or extensive take up by the demand side; and reactive or proactive SEPA strategies by the supply side.

Effect of SEPA on the market and its stakeholders

To evaluate the quantitative effects on stakeholders over time, the 'net SEPA effect' is defined as the logical sum of the necessary investments, change in

operational costs, and change in bank fees.

Overall the most important findings are:

- SEPA holds a market potential of up to € 123 billion in benefits (cumulative over 6 years) with a significant upside for all demand side stakeholders while allowing banks to retain current margins.
- Consumers gain in all scenarios, while other stakeholders (especially SMEs and corporates) benefit - by tens of billions of euros - in the Demand Pull and SEPA Big Time scenarios.
- SEPA clearly tempers the margins of the supply side; however, even in the most aggressive scenario the margins still grow in absolute terms compared to 2006, as decreases in operational costs outweigh revenue reductions.
- For all countries, demand and supply are at odds in the market outcome, except in Belgium, Finland, the Netherlands and Germany, where both sides prefer SEPA Big Time to All Tied Up.

A look at the different outcomes in each scenario makes clear that the preferred strategy for the supply side is to be reactive and patchy, as this strategy tempers profit growth the least. The demand side, however, has clear incentive to 'pull' SEPA products and move via the Demand Pull scenario toward the most aggressive scenario, SEPA Big Time, as there the operational cost savings are the highest. The market as a whole gains the most in the SEPA Big Time scenario, with € 123 billion of net accumulated effect over six years for the EU-16. In this net effect a loss on the supply

side compared to the baseline is outweighed largely by a gain on the demand side.

Regarding the outcomes by country, 0.2% of GDP is at stake on average; for all countries the difference between the most and least aggressive scenarios falls between 0.12% and 0.22% of GDP. Belgium, Finland, the Netherlands, and Germany are the only countries in which the supply side prefers the SEPA Big Time scenario to the All Tied Up scenario. This implies that in these countries one can expect a joint effort of the demand and supply side to reach the most aggressive scenario, whereas in other countries one can expect tension between the supply and demand side regarding the preferred outcome.

Issues and remedies for attaining SEPA

From a qualitative point of view the scenario with SEPA implemented most fully (SEPA Big Time) is the most favorable one. However, existing differences in local laws stand in the way of SEPA objectives. In choosing a pathway there, the most logical evolution toward SEPA Big Time would be via the Demand Pull scenario. If SEPA Big Time is the goal, it is clear that several issues must be addressed at the demand, supply and regulatory levels:

- The main barriers on the demand side are lack of awareness, the dual costs during transition, and inadequate incentives for each product.
- The main barriers on the supply side are lack of commercial interest, the significant investments needed (and the non-self-evident nature of the operating cost savings), a downward trend in revenues through

SEPA products, and high market entry barriers.

- The main barriers for the market as a whole are unclear barriers, the lack of product standards, country-specific laws and interests, and unbalanced benefits.

On the upside many feasible measures are available to help the market reach the preferred SEPA Big Time scenario. To mitigate the variety of barriers most effectively will require a balanced mix of facilitation, influencing, and regulation.

E-invoicing

Often e-invoicing is named in close relation to SEPA, as it could relieve some of the current barriers at the supply side. To a certain extent this is true, as banks are well positioned to offer services in this market, creating a potential extra revenue flow of € 0.4 billion to € 3.4 billion per year. Additional investments will be required to achieve these revenues.

However, the biggest benefits are expected on the demand side, with potential maximum cost savings of 0.8% of GDP per year on invoice-related processes. Although clearly there are hard benefits for both supply and demand side, the most important relationship between SEPA and e-invoicing is in relieving implementation barriers for e-invoicing: SEPA will standardise processing and simplify implementation and integration.



2 Introduction

In this chapter we will set out the scope of this study, explain the methodology used to answer the three research questions. In the last paragraph we explain how the report is structured.

This study gauges the direct effects of SEPA on sixteen EU countries, five payment instruments and six stakeholders.

An economic model has been developed to find answers to the research questions.

2.1 Objective of the study

The objective of the study is to examine whether additional incentives are required or desirable to ensure an optimal outcome for SEPA¹. In order to meet the objective the following research questions have been defined:

1. What are SEPA benefits, opportunities, and costs for different stakeholders?
2. What issues threaten the attainment of the single payments market SEPA promises?
3. What are the alternatives for remedying or mitigating these issues?

In this study these three research questions are answered.

2.2 Scope

The scope of this report has been set in terms of countries, payment instruments, and stakeholders.

- Sixteen EU countries are included in the quantitative analysis, representing 95% of the GDP of the EU-27.96% of the non-cash transaction volume, and 99% of the corresponding value². These countries are Austria, Belgium, Germany, Spain, Finland, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Sweden, Slovenia, and the United Kingdom. These are referred to as EU-16 in this report. For the qualitative analysis nine additional countries have been added.
- For payment instruments, all major cashless payment instruments are considered to be within scope: credit transfers, direct debits, card transactions (debit card, credit card, delayed debit), and checks. E-payments, mobile payments, and other payments represent less than 1% of the non-cash payments² and are

considered out of scope, as are cash transactions.

- For stakeholders, the study defines the following groups: consumers (individuals over fifteen years old), SMEs (companies with less than 250 employees), merchants (companies that trade goods or services and have more than 250 employees), corporates (companies that producing goods or services and have more than 250 employees); public entities (irrespective of size), and banks. White label service providers, processors, and ACHs are considered suppliers to the banks and thus part of the banks' operational costs.
- For fees and costs, the following items are within scope: reception and remittance fees for transactions, both per transaction and ad valorem; fixed fees for channels and accounts; remittance and reception value dates and float; and merchant fees. Balance earnings (earnings on debit or credit balances on accounts) and the cost for cash handling are out of scope (but ATM withdrawal fees are included).
- In this study only the direct effects of SEPA have been included (prices, operational costs, and investments). All indirect effects (such as mobile payments and replacement of cash) are excluded, as are non-payments-related effects (such as increased cross selling, lower interest rates, and increased cross-border trade). Only e-invoicing has been addressed as an additional related item and sized independently.

2.3 Methodology

To make an assessment of the impact and identify the main issues threatening the attainment of SEPA an economic model has been developed for

the scope defined above. To set the different parameters, multiple data sources have been used, including (but not limited to):

- **Interviews:** Interviews with 24 representatives from all supply and demand side stakeholders in ten EU countries.
- **Questionnaires:** Over 950 replies to a questionnaire on SEPA impact on the business of demand and supply side players across Europe.
- **Secondary research:** Policy documents, databases, news reports, independent studies, stakeholder and other interest group publications. A complete list of sources used is enclosed in Appendix B.

The model and its parameters have been thoroughly validated and tested for sensitivity. The resulting outcomes have been analysed and matched with the qualitative insights and linked to the analysis on barriers and the corresponding potential remedies.

Finally, before its release, the report underwent a validation process through a series of interviews and workshops.

2.4 Structure of the report

The report is structured around the three basic questions.

First, following this introduction, the study's baseline is described in chapter 3: the payments business in 2006 and its projected key developments up until 2012, assuming no further developments in SEPA.

Chapter 4: answers the first key question with a detailed analysis of SEPA costs and benefits under each scenario for each stakeholder, as well as from a country perspective. After introducing

the scenarios and their assumptions, the chapter discusses SEPA impact on banking fees. Next is a detailed overview of the impact on the supply side in terms of operational costs, margin, profitability, investments, and net SEPA effect. Then the demand side is analyzed in depth for benefits by origin and by stakeholder, after which both demand and supply are combined into an overview of the market as a whole. The chapter ends with an assessment of the impact of SEPA at country level.

Chapter 5: addresses the last two key questions fully through a regulatory perspective, examining the issues that threaten SEPA attainment and the alternatives for remedying them.

The sixth and final chapter discusses e-invoicing in terms of industry size, impact for supply and demand, and how it links into the topic of SEPA.

Next to this Word document there is a PowerPoint presentation available which includes all details on the process followed, the economic model, the analysis and the outcomes.

Sources

- ¹ European Commission. Open Call for Tenders n° MARKT/2006/10/H, April 2006.
- ² European Central Bank. Payment and Securities Settlement Systems in the European Union and in the Acceding Countries. Addendum Incorporating 2005 Figures, December 2006.

The report is structured to answer the three research questions: “What is the impact of SEPA on the market and what are the issues and remedies for successful attainment of SEPA?”

3 Payments landscape

We begin the analysis by establishing a baseline showing the developments of the payments market without SEPA.

Businesses and consumers spent € 158 billion, which is 1.3% of GDP, on payments costs in 2006.

Without SEPA, banks would increase their revenues through the growing demand for payments and minor price drops.

Using 2006 figures as its starting point, the baseline describes the market's appearance up to 2012 if SEPA were not implemented. SEPA potential effects are measured against this evaluation.

3.1 Value of the payments business in 2006

In 2006 the total number of non-cash transactions in the EU-16 was more than 72 billion, with a total revenue for banks of € 46 billion³. This total includes remitter and receiver transaction fees (which vary with the transaction amount), account fees, and float. It excludes balance-related earnings, cash payments and value dating. The total value of the payments business for the EU-16 is equal to the fees for payments instruments paid by companies, public entities and consumers.

The total value of the non-cash payments business in the EU-16 is 1.3% of GDP. If the cost of cash handling represents 1% of GDP⁴, total costs in 2006 amount to 2.3% of GDP⁴.

In this study 2006 is used as the base year.

3.2 Developments in the payments market from 2006 to 2012

Three major developments in the payments market are expected to change the market even without SEPA:

- **Transaction volume is growing rapidly.** The volume of electronic payments will continue to grow rapidly because of increasing GDP, substitution of cash, and a decreasing amount per transaction leading to a higher number of transactions per individual. Growth rates are taken from the Capgemini World Payments Report 2006. The average

volume growth for payment transactions is 9.5%² per year. This amounts to a 68% increase on average in the EU-16 over the six-year period.

- **Prices converge and decrease.** Prices are expected to drop and to gradually converge to the EU lowest in the EU-16 as competition increases and businesses rationalise their payments processing. Gaps between current prices and the EU's lowest will decline by 20% (prices will come 20% closer) over the six years, enabled by productivity increases.
- **Operational costs remain the same (even though volume increases).** The supply side's cost base remains at the 2006 level in absolute terms, meaning that all additional volumes will be absorbed by productivity increases. The average cost per transaction in 2012 is expected to be 40% lower than in 2006.

Given these trends, the total revenues for banks increase, even though the fees per transaction decrease. With the total cost base for the supply side staying the same as in 2006, the (now negative) margins would increase rapidly, turning positive between 2011 and 2012. Compared to 2006, the yearly margin increases by € 28 billion in 2012. The development of the payments market without SEPA is used as the baseline for comparing the effects of SEPA.

Sources

- ³ Source: Extension of the Capgemini. World Payments Report 2006, September 2006.
- ⁴ Sources: ESTA. Supporting the Case for Cash, 2006.; Hove, L. van. Why Fighting Cash Is a Worthy Cause, in Prochip, No. 2, October 2006; Friends of Europe. Policymakers' Dinner Debate: Is the EU Doing Enough to Promote the Cashless Single Market?, February 2005.



4 SEPA impact from a market perspective

In this study we have assessed the benefits, opportunities, and costs of SEPA for the stakeholders by using extreme market scenarios.

This chapter addresses the first key question by determining SEPA impact on banking fees, on the supply and demand side stakeholders, on the market as a whole, and on individual countries.

4.1 Scenarios

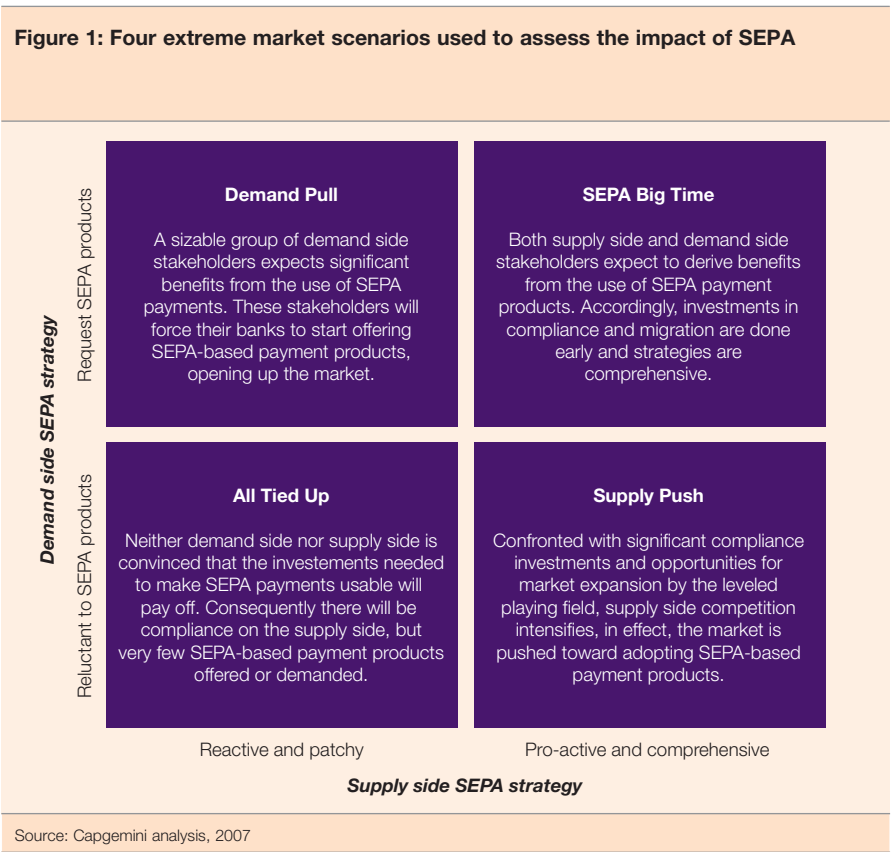
A market scenario model is used to explore SEPA impact on the payments market, its stakeholders, and individual countries. Scenarios reduce complexity by focusing on the two main critical drivers.

As shown in figure 1 four different scenarios - each of them significantly different but all very plausible - provide four different views, what the post-SEPA market could look like now.

The horizontal axis (x-axis) of the matrix reflects strategies of the supply side stakeholders (mainly banks). In the two extremes, supply side players are either reactive towards adoption of SEPA and choose a patchy implementation or, on the other end, are proactive in adoption and substitution and apply a comprehensive implementation strategy.

The vertical axis (y-axis) shows the strategy of the demand side stakeholders (consumers, merchants, corporates, and public entities). In the two extremes, the demand side stakeholders are either reluctant to use SEPA products or are actively requesting SEPA products.

Four extreme but credible market scenarios are defined to assess impact on the key stakeholders: All Tied Up, Supply Push, Demand Pull, and SEPA Big Time.



A 2x2 matrix results from combining the horizontal and the vertical axis, with in each quadrant one extreme market scenario. Each of these four market scenarios represents a combination of possible extremes: All Tied Up, Supply Push, Demand Pull, and SEPA Big Time. These four market scenarios are used throughout this report.

The four extremes show the boundaries within which the market as a whole will develop. It is likely that there will be different speeds and intensities of adoption across countries, across demand stakeholder groups, across payments providers and across payment instruments. These variations will all fall within the boundaries of the four extreme scenarios.

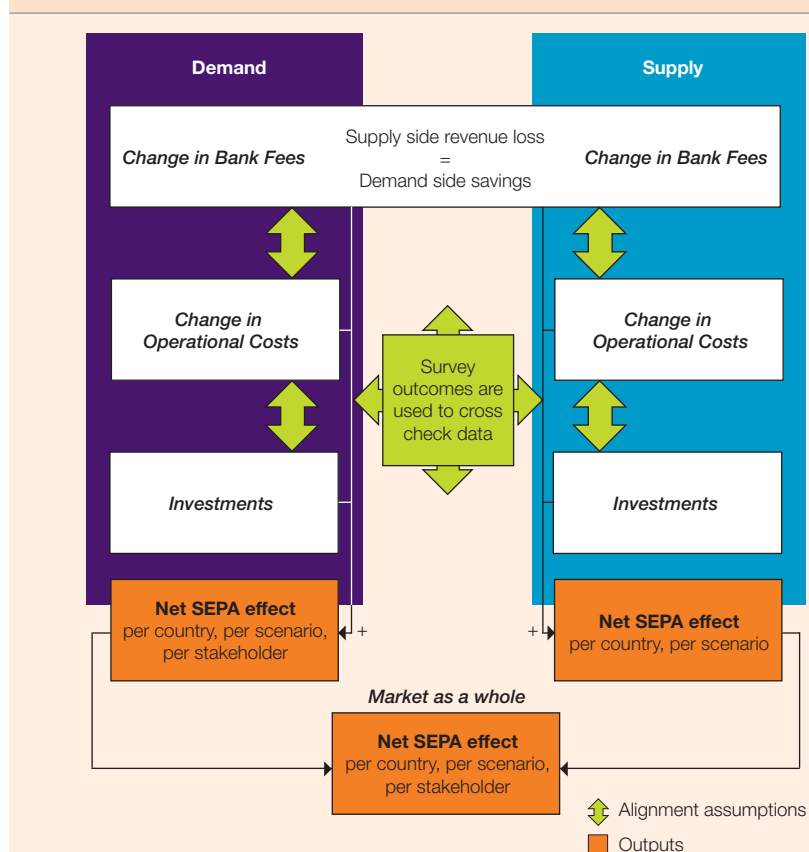
4.2 The model and the scenario assumptions

To evaluate the quantitative effects over time, this study has defined the 'net SEPA effect' as the logical sum of the investments, change in operational costs, and the change in banks fees. This is shown in figure 2.

Each of these impact drivers uses a different set of assumptions, with different values, for each scenario (based on a variety of sources):

- **Price development⁵:** Prices (bank fees) are expected to converge to the level of the EU's lowest price. However, the pace at which prices converge differs in each scenario. In All Tied Up there is limited price pressure as there is little demand for and supply of SEPA products. Prices are assumed to converge 25% to the EU-lowest In SEPA Big Time prices converge steeply to the EU low as both supply and demand are pick-

Figure 2: Overview of the model to determine SEPA impact



Source: Capgemini analysis, 2007

ing up, creating a market with fierce competition. In SEPA Big Time prices are assumed to converge 75% to the EU-lowest. In Supply Push prices converge fast to the EU low as price is used to gain/retain market share. In the Supply Push scenario prices are assumed to converge 65% to the EU-lowest In Demand Pull prices converge moderately to the EU low as banks are able to keep up prices because demand exceeds supply. In the Demand Pull scenario prices are

In each scenario the impact of SEPA on the market is assessed by determining the impact on the stakeholders in the market.

The impact on the demand and supply side players is assessed by determining the change in bank fees, the change in operational costs, and the required investment.

The pace of price convergence, the demand and supply side operational costs, and demand and supply side investment are varied for each scenario and these determine the differences in their outcomes.

Even though payments usage grows, SEPA reduces the potential bank revenues as the average fee per transaction decreases.

assumed to converge 45% to the EU-lowest.

- **Demand side operational costs⁶:** In All Tied Up and Supply Push the demand side operational costs increase by 5% due to extra handling costs of new and additional SEPA products. In Demand Pull the operational costs decrease as optimisations can be realised. Benefits cannot be fully reached as banks try to slow down the change. Legacy still needs to be supported. Cost reductions add up to 10% of the 2006 level. In SEPA Big Time the cost reduction is estimated to be 20% as legacy products are phased out.
- **Demand side investments:** In All Tied Up and Supply Push there is limited investment in SEPA. If the benefits are expected to be extensive, the demand side invests fully in SEPA to maximise these benefits.
- **Supply side operational costs⁷:** In All Tied Up and Demand Pull, as in the baseline, the supply side's cost base remains at the 2006 level in absolute terms, meaning that all additional volumes will be absorbed by productivity increases. In Supply Push the cost base in 2012 is 10% below the 2006 level due to increased efficiency and a reduced cost base of SEPA products (concentration and consolidation in the back office). In SEPA Big Time the supply side's cost base in 2012 is 20% below the 2006 level. This maximum efficiency gain is realised through optimisation and sourcing, and by phasing out legacy systems.
- **Supply side investments⁸:** Supply side investments consist of ones made for compliance, volume migration, and decommissioning. In All Tied Up and Demand Pull, only

compliance investments are made.

In Supply Push, volume migration investments are also taken into account. In SEPA Big Time, decommissioning investments are included as well.

4.3 Impact on banking fees

The costs for the demand side are the revenues for the supply side. A decrease in the banking fees is therefore a loss of income to the supply side and a benefit of an equal size to the demand side.

4.3.1 Total banking fees

As shown in figure 3, SEPA decreases the total of banking fees in the market compared to the baseline scenario. However, the total of banking fees is higher than in the base year except for the SEPA Big Time scenario, where the 2012 fee earnings by banks are lower than the 2006 level. The increase in banking fees compared to the base year can be attributed to the volume growth.

SEPA has a negative effect on the fees earned by banks. In all scenarios the total banking fees are lower than in the baseline. The total banking fees earned by the supply side are lower in those scenarios where the supply side applies a proactive and comprehensive strategy (Supply Push and SEPA Big Time).

The average fee per transaction decreases in all scenarios, whereas the total revenue grows. Compared to the baseline, the fee per transaction in 2012 is 43% lower in SEPA Big Time. The demand side benefits from SEPA effect on banking fees. This side spends more money on transaction fees due to increased usage (except for

SEPA Big Time), but the average price per transaction is much lower than in the baseline.

From a banking fees perspective the demand side is better off in the Supply Push than in the Demand Pull scenario. Price reductions are therefore not the only driver for the demand side to pull SEPA products. Please note that a change in bank fees has no impact on the net SEPA effect on the market as a whole.

4.3.2 Banking fees for giro payments

Credit Transfer and direct debit (giro payments) banking fees will increase in the baseline situation (see figure 4). This growth is the result of positive volume growth and slowly decreasing fees per transaction.

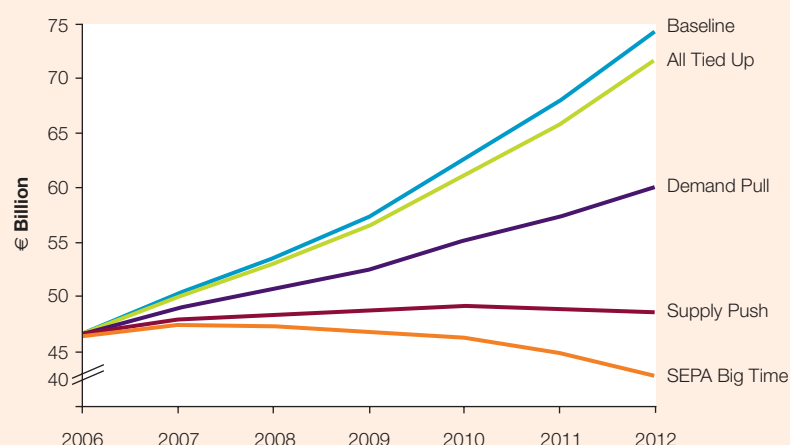
If SEPA Big Time would occur, giro banking fees in 2012 would be approximately € 11.6 billion lower than in the baseline situation. Roughly two thirds of this revenue loss would be credit transfer related.

Giro banking fees are expected to decrease over time compared to the present day in the SEPA Big Time scenario. The downward price effects are outweighing the positive volume growth, which approximates 4% for credit transfers and 7% for direct debits. Scale economies and competitive price pressures will be the main drivers for the revenue decrease.

4.3.3 Banking fees for card payments

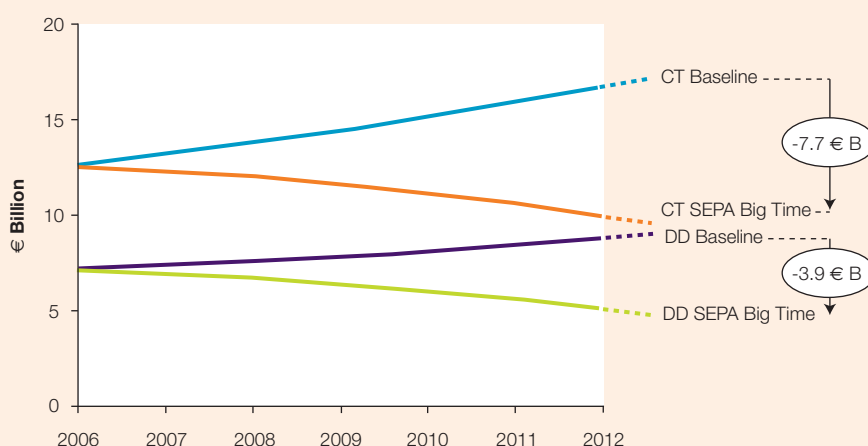
The card banking fees will also increase in the baseline situation (see figure 5). This growth results from a relatively strong volume growth and slowly decreasing fees.

Figure 3: Development of sum of banking fees for EU-16, by scenario



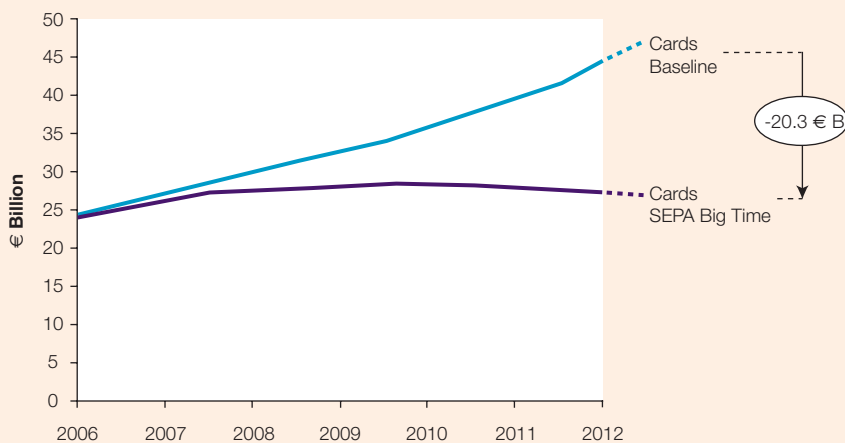
Source: Capgemini analysis, 2007

Figure 4: Development of sum of banking fees from giro payments for EU-16, in Baseline and SEPA Big Time scenario



Source: Capgemini analysis, 2007

Figure 5: Development of sum of banking fees from card payments for EU-16, in Baseline and SEPA Big Time scenario



Source: Capgemini analysis, 2007

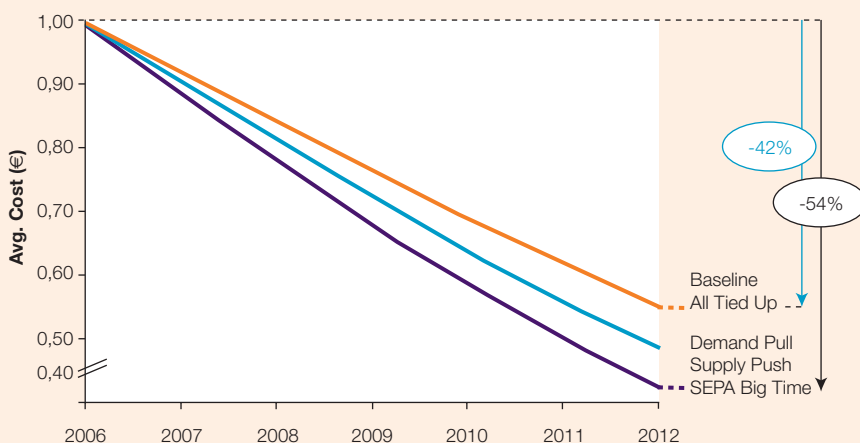
Card banking fees in 2012 will be roughly € 20.3 billion lower in the SEPA Big Time scenario than if the baseline situation would prevail. Approximately 60% of this revenue loss can be attributed to debit cards, the other 40% to credit cards.

4.4 Impact on the supply side

4.4.1 Supply side operational costs

The All Tied Up and Demand Pull scenarios have the same operational costs development as the baseline. In these scenarios all additional volumes will be absorbed by productivity increases. As shown in figure 6, this results in a 42% decrease, compared to the base year, in the operating costs per transaction in six years (equal to CAGR 8.7%) for the baseline and these two scenarios.

Figure 6: Development of the average cost per transaction in EU-16



Source: Capgemini analysis, 2007

In SEPA Big Time the maximum savings in operating costs can be achieved. The channels can be simplified and, like the processing capabilities, fully optimised. Legacy products can be phased out. This enables economies of scale on a European level, reducing the costs for processing and clearing and settlement even further. It also allows sourcing strategies to further decrease costs. The reduction is estimated to be 20% compared to the baseline and, given the growing volumes, the operating cost reduction per transaction is even greater, at 54% compared to the base year 2006. The Supply Push scenario holds the middle between the baseline and SEPA Big Time. In this scenario the benefits of SEPA are reaped as in the SEPA Big Time scenario, but only partly, as legacy products still need to be offered and supported.

4.4.2 Supply side margin

Combining SEPA effects on fees and on the supply side operational costs establishes its effects on the margin. The most attractive scenario for banks, from the perspective of margin optimisation, is the All Tied Up scenario, as in this scenario fees will steadily increase while operating costs are assumed to benefit from autonomous (non-SEPA-driven) productivity increases.

Compared to All Tied Up, Demand Pull will decrease bank margin by € 12 billion (accumulated over the years 2007-2012), due to an assumed price decrease driven by the substitution of legacy products by commodity SEPA products. The margin in Supply Push is more severely hit by a price decrease, as suppliers (including new entrants) decrease prices in order to gain market share. Compared to the Supply Push scenario, the SEPA Big Time scenario adds € 1 billion margin to the banks (accumulated over the years 2007-2012), as additional decreases in operating costs outweigh the additional decreases in fees.

4.4.3 Supply side profitability: 2012 compared to 2006

In SEPA Big Time the banks' total payments revenues are reduced by € 3 billion even though volume increases significantly. As a result of SEPA the operational costs of € 71 billion can decrease 20% to € 56 billion. Since the operational costs for banks decrease faster than the revenues from fees decrease, the direct profit improves from minus € 25 billion to minus € 13 billion, but remains negative.

In this model we assume the indirect profits on balances (interest on debit or credit on the accounts) and the costs of handling cash as fixed. Using the McKinsey figures on bank profits on payments products and services, the profits in the SEPA Big Time scenario grow from € 10 billion in 2006 to € 21 billion in 2012. This is equal to a profit growth of 13.2% CAGR.

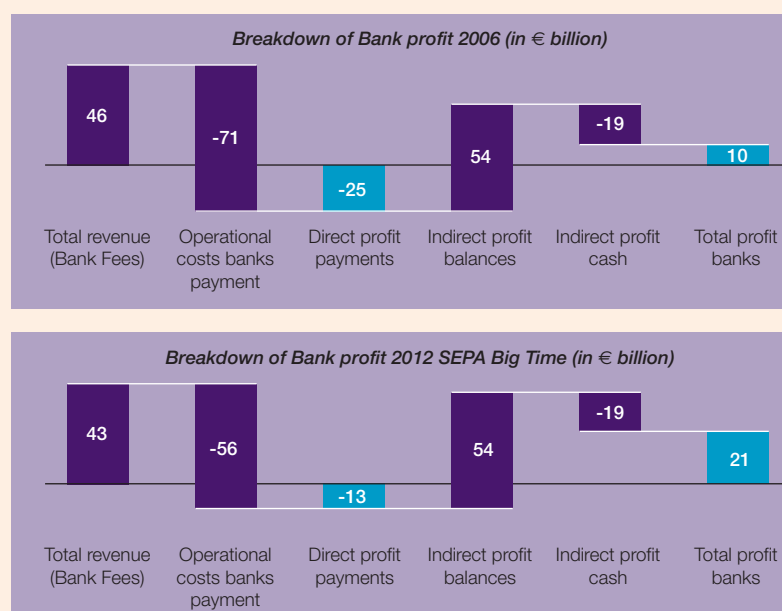
4.4.4 Supply side investments and net SEPA effect

From this paragraph on the impact of SEPA in the various scenarios is presented in cumulative terms, summing the impact in the years 2007 to 2012. The investments for the supply side are higher when applying the active and comprehensive strategies. In the

SEPA adoption enables further cost decreases for the supply side, in a market where operating costs already need to drop steeply.

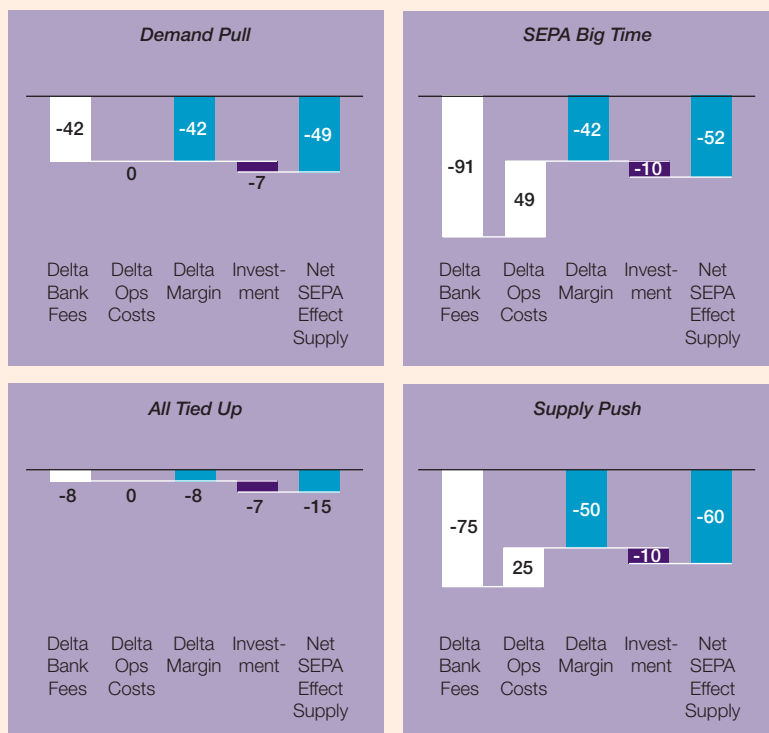
SEPA tempers the margin of the supply side, but even in the SEPA Big Time scenario the margin still grows in absolute terms compared to 2006.

Figure 7: Profitability of non-cash payments business in 2006 and 2012 (in SEPA Big Time)



Source: Capgemini analysis, 2007

Figure 8: Accumulated net SEPA effect (in billions €) for supply side per scenario, 2006-2012



Source: Capgemini analysis, 2007

The preferred supply side strategy is likely to be reactive and patchy, as this strategy tempers the profit growth the least.

The main differentiator between different scenarios is the magnitude of the revenue drop, and how much is offset by operational cost savings. Investments determine to a lesser extent the net SEPA effect for supply.

All Tied Up and Demand Pull scenarios the Supply Side invests only in compliance. In the Supply Push scenario additional investments are made for migrating volumes from legacy to SEPA products. In SEPA Big Time, the legacy systems are decommissioned, but this investment is small compared to the compliance and volume migration investments.

As shown in figure 8, the investments determine to a lesser extent the net SEPA effect for the supply side, accounting for less than 50% of it. In Supply Push and SEPA Big Time the

investments account for less than 20%. As a result the main differentiator between scenarios is the magnitude of the revenue drop, and how much is offset by operational cost savings:

- All scenarios have an overall negative effect.
- Supply Push is the most negative, as the revenue drop is large and the offset by operational cost efficiencies is rather limited.
- In SEPA Big Time the cost savings are almost twice as large, but as the revenue drop is also larger the net effect is only marginally better.
- The net effect in Demand Pull is very close to the one of SEPA Big Time, but reached in a very different way: the revenue drop is only half, but is not offset by any cost savings.
- For All Tied Up the net effect is low compared to other scenarios, and caused half by revenue drop and half by the investments.

4.5 Impact on the demand side

To assess SEPA impact on the demand side, two cross sections are most important: the breakdown by impact driver, which points to the *origin* of the benefits, and the *spread* of these benefits across the different demand side stakeholder groups.

4.5.1 Demand side benefits by origin

The first way of cross-sectioning demand side outcomes provides insight into the drivers of the total benefit for the demand side (see figure 9).

The only negative scenario for the demand side is All Tied Up. In this scenario the benefits of decreasing bank fees do not outweigh the investments. And there is an increase in

operational costs due to dual payments systems (SEPA and non-SEPA). Although this operational cost increase also exists for Supply Push, this scenario is overall very positive, as demand benefits from decreased bank costs (banks can only push by attractive price setting on these new products).

For both scenarios with extensive demand the reduction in bank fees largely outweighs the investments. On top of that, benefits are realised by very significant operational cost savings (e.g., straight-through processing, reconciliation, and cross-border optimisation). These operational efficiencies are highest in SEPA Big Time, as banks will offer SEPA products widely and both demand and supply can decommission the old less-efficient IT systems.

SEPA Big Time will be closest to a perfect competition for SEPA products, with a minimal price setting and consequent benefits for the demand side.

4.5.2 Demand side benefits by stakeholder

The second way of cross-sectioning demand side outcomes provides insight into how these net benefits are spread across the different demand side stakeholder groups (see figure 7). Corporates as a group benefit most in the SEPA Big Time scenario, followed by consumers and SMEs. At the same time, SMEs and corporates are the groups that suffer most in the All Tied Up scenario. Hence, we would expect these groups to pull hardest for SEPA, and demand most from the supply side.

For the public entities, there is also much at stake (€ 34 billion, the differ-

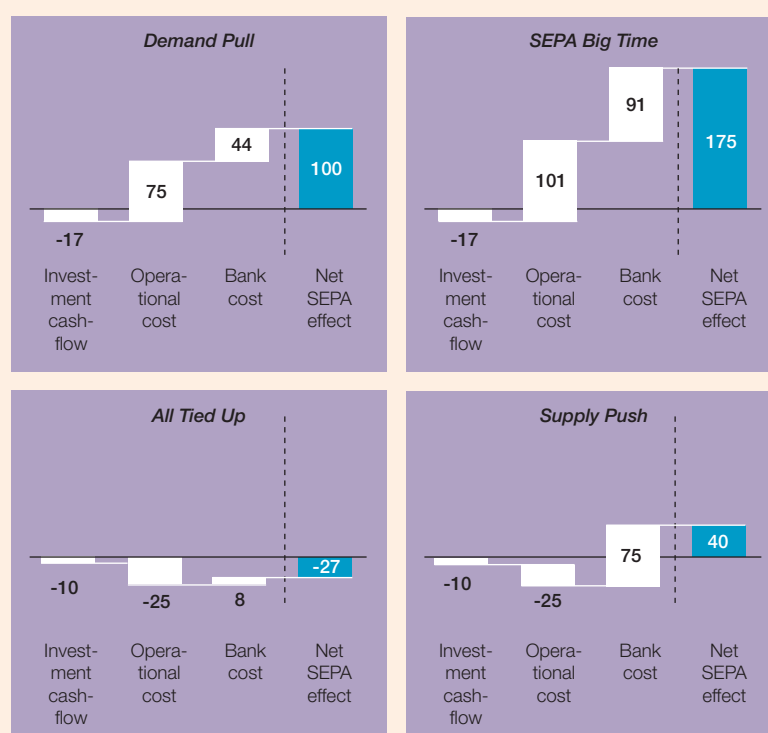
ence between the maximum scenario and the minimum scenario). The impact on the individual stakeholder level (per consumer or per company) is shown in table 1.

4.6 Impact on the market as a whole

Net benefits are calculated compared to the baseline, which assumes an autonomous market growth and limited price decrease. SEPA Big Time and Demand Pull are the only desirable scenarios from a total market perspective (see figure 11):

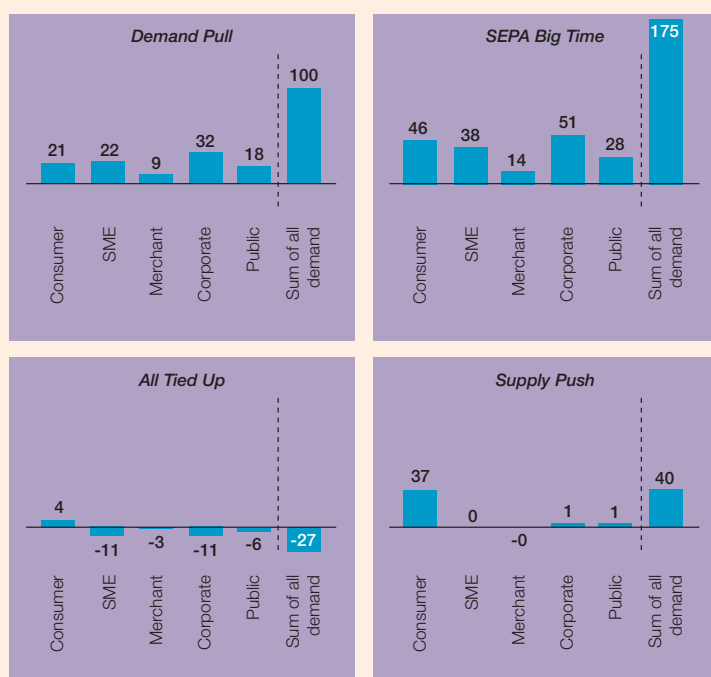
The demand side has clear incentive for Demand Pull and even more so for reaching the SEPA Big Time scenario.

Figure 9: Accumulated net SEPA effect (in billion €) for demand side per scenario, 2006-2012



Source: Capgemini analysis, 2007

Figure 10: Accumulated SEPA benefits (in billion €) by demand side stakeholder per scenario, 2006-2012



Source: Capgemini analysis, 2007

Consumers gain in all scenarios; other groups (especially SMEs and corporates) benefit - by tens of billions of euros - in the Demand Push and SEPA Big Time scenarios.

- Both scenarios hold a significant benefit for the demand side.
- For the supply side there is a loss in opportunity compared to the base-line (with increasing volume and decreasing prices).

All Tied Up is to be avoided, as it negatively affects all parties. However, banks may prefer this scenario above all other (less negative) scenarios. Demand Pull is preferable to (and more likely than) Supply Push. For the demand and supply sides Demand Pull is more attractive. The impact for supply is 22% more negative in Supply Push than in Demand Pull.

4.7 Impact on countries

At the country level, SEPA impact means that, on average, 0.2% of GDP is at stake; for all countries the difference between the most and least aggressive scenarios falls between 0.12% and 0.22% of GDP (see figure 12).

Countries with a high spread between the two extreme scenarios (All Tied Up and SEPA Big Time) have most at stake (in percentage of GDP). These countries should put significant effort into convincing stakeholders to embrace SEPA.

Countries with a relatively fragmented banking sector (Portugal, Slovenia, and Poland) are hit more than average in the All Tied Up scenario, due to relatively high investments they must make for compliance. In our calculations we have not differentiated between euro and non-euro countries. Practically however one will see minor differences between the euro and non-euro countries in terms of investments levels and the potential operational savings. The supply side investments in non-euro countries are expected to be slightly lower in the reactive and patchy scenarios, and slightly higher in the pro-active and comprehensive scenarios. The demand side effects are expected to be less beneficial for retail clients as bank fees are expected to drop less aggressively. For corporate clients a European level playing field will force non-euro countries to be in line with the euro countries.

The differences between supply and demand side net SEPA effects in the SEPA Big Time scenario appear in figure 13.

Countries can be grouped in three

Table 1: Average net SEPA effect per individual stakeholder

Stakeholder	All Tied Up				SEPA Big Time			
	Investment (2006-2012)		Net benefit/loss (2006-2012)		Investment (2006-2012)		Net benefit (2006-2012)	
	Total billion	Per stakeholder	Total billion	Per stakeholder	Total billion	Per stakeholder	Total billion	Per stakeholder
Consumer	€ 0	€ 0	€ 4	€ 12	€ 0	€ 0	€ 46	€ 129
SME	€ 5	€ 190	€ -11	€ -449	€ 8	€ 335	€ 38	€ 1557
Merchant	€ 1	€ 100K	€ -3	€ -347K	€ 2	€ 150K	€ 14	€ 1307K
Corporate	€ 3	€ 100K	€ -11	€ -340K	€ 5	€ 150K	€ 51	€ 1523K
Public entities	€ 1	€ 4K	€ -6	€ -18K	€ 2	€ 6K	€ 28	€ 89K

Source: Capgemini analysis, 2007

All individual stakeholders benefit in SEPA Big Time; in this scenario, the benefits largely outweigh the investments.

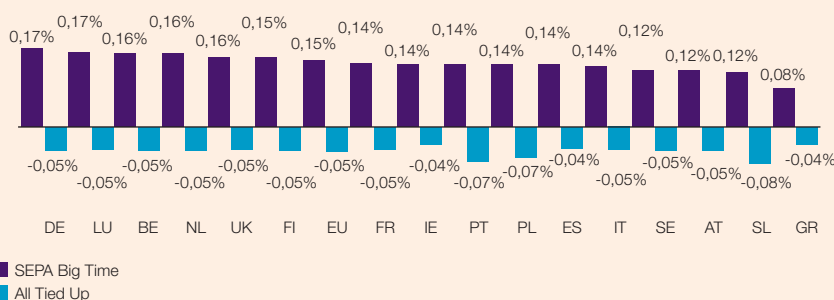
Figure 11: Accumulated net SEPA effect (in billion €) for the market per scenario, EU-16, 2006-2012

Source: Capgemini analysis, 2007

The gains of SEPA for the market are significant in the SEPA Big Time scenario, with the demand side gaining and the supply side losing compared to the baseline.

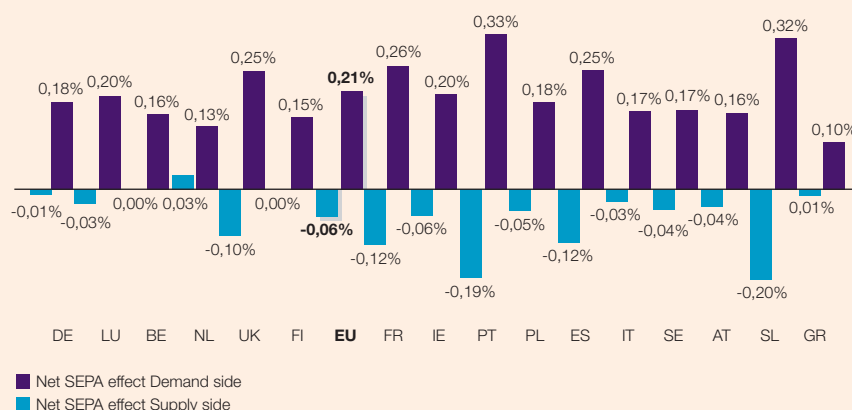
On average 0.2% of GDP is at stake.

Figure 12: Net SEPA effect: SEPA Big Time vs. All Tied Up as a percentage (EU-16, 2006-2012)⁹



Source: Capgemini analysis, 2007

Figure 13: Net SEPA effect in SEPA Big Time: demand and supply, as a percentage of GDP (EU-16, 2006-2012)



Source: Capgemini analysis, 2007

Netherlands. These countries are characterised by their high concentration level on the supply side. In all three countries the market share of the top five players is larger than 80%.

Category 2: Demand side loses in All Tied Up and wins in SEPA Big Time. Supply side experiences a negative effect from SEPA in both scenarios, but in the SEPA Big Time it is less negative. The likely supply side strategy is therefore expected to be proactive. The only country in this category is Germany. The low concentration of the supply side leads to relatively high investments in All Tied Up. These investments are almost offset in SEPA Big Time, due to operational cost reductions outweighing decreases in revenues.

Category 3: Similar to category 2, demand side loses in All Tied Up and wins in SEPA Big Time. However, supply side has a negative effect in both scenarios, but in the SEPA Big Time it is more negative than in All Tied Up. The likely supply side strategy is defensive: damage control. In this case, the market forces are opposite. The strength of the force largely depends on the level of organisation and concentration of the demand and the supply side. Most countries examined fall in this category: *Austria, France, Greece, Ireland, Italy, Luxembourg, Poland, Portugal, Slovenia, Spain, Sweden and the UK*.

The countries not studied in detail in this study:

- *Denmark* can be categorised as a country with a relative high penetration rate of non-cash payment types¹⁰ and a high market concentration in the banking sector¹¹.

Demand and supply are at odds in the market outcome, except in Belgium, Finland, the Netherlands, and Germany, where both sides prefer SEPA Big Time to All Tied Up.

categories dependent on the net SEPA effect of SEPA on demand and supply side stakeholders.

Category 1: SEPA Big Time is the most successful scenario for both demand and supply side stakeholders. The market is likely to end up in SEPA Big Time. Countries in this category are *Belgium, Finland, and the*

The eleven EU countries that have not been studied in detail show similarities with the countries in scope; most countries have a high expected growth in payments.

It is considered a mature payments market. In that respect it is similar to the Netherlands, Belgium and Finland.

- *Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Rumania and Slovakia* can be categorised as countries with relatively low penetration rates of non-cash payment types¹⁰. These payments markets are considered to have relatively high growth rates. Therefore these countries can be compared to countries with low penetration rates, such as Italy, Poland, Portugal, Slovenia, and Spain, except for the fact that the latter ones have higher GDPs per capital.

Sources

- ⁵ Source: Capgemini. World Payments Report 2006, September 2006.
- ⁶ Sources: Capgemini. Finance Transformation Benchmarking Study, 2005; Capgemini Ernst & Young. Finance Transformed: How Leading Companies Are Succeeding, September 2003; CIMA. Financial Fitness: Benchmark the Total Cost of Your Function, http://www.cimaglobal.com/cps/rde/xchg/SID-0AAAC544-77652DB8/live/root.xml/Insight051672_1749.htm; Citron, L., and R. Walton. International Comparisons of Company Profitability, Bank of England, October 2002; EU KLEMS database. www.euklems.net/index/; Hackett Group. Complexity Cost Impact, <https://www.thehackett-group.com/portal/site/apresearch/me.nuitem.356e63f6d9fa000ad91dc21066f069a0/>; Timmer, M., M. O'Mahony, and B. Van Ark. EU KLEMS Growth and Productivity Accounts: An Overview, March

2007; EuroStat database. www.ec.europa.eu/eurostat.

- ⁷ Sources: Capgemini. World Payments Report 2006, September 2006; McKinsey & Company. SEPA: Winners & Losers. Presentation held at Siemens Financial Day, February 2007.
- ⁸ Sources: The Boston Consulting Group. Navigating to Win, May 2006; Fédération Bancaire Française. Economic Impacts of the SEPA Project, February 2007; Tower Group, 2005.
- ⁹ The EU-16 countries shown are Austria (AT), Belgium (BE), Germany (DE), Spain (ES), Finland (FI), France (FR), Greece (GR), Ireland (IE), Italy (IT), Luxembourg (LU), the Netherlands (NL), Poland (PL), Portugal (PT), Sweden (SE), Slovenia (SL), and the United Kingdom (UK)
- ¹⁰ European Central Bank. Payment and Securities Settlement Systems in the European Union and in the Accessing Countries. Addendum Incorporating 2005 Figures, December 2006.
- ¹¹ European Central Bank. EU Banking Structures, October 2006.

5 SEPA from a regulators' perspective

The previous chapters described SEPA impact on the market in quantitative terms. Here we see to what extent the objectives of the recent standardisation initiatives will be met and identify the most logical evolution path toward realising the SEPA Big Time scenario. Finally we discuss the barriers to achieving the objectives as well as potential measures to mitigate them.

From a qualitative point of view the scenario with SEPA implemented most fully is the most favorable one, meeting the joint PSD and SEPA objectives to a large extent.

5.1 Objectives of PSD and SEPA

With the supply side being more effective in realising industry standards, the Payment Service Directive (PSD) objectives will be more fully met. Therefore, both the PSD and the European Payments Council (EPC)'s SEPA objectives are reflected in this discussion.

Market objectives (as those within the scope of PSD) are¹²:

- a level playing field to enhance competition,
- increased market transparency,
- standardised rights and obligations.

Supply side objectives (as those covered by SEPA) are open and common industry standards for core payment instruments¹³.

More detailed operational objectives support each of these objectives.

Figure 14 shows the degree to which the scenarios meet the combined PSD/SEPA objectives.

For regulators, SEPA Big Time is the most desirable scenario; All Tied Up

the least. Supply Push and Demand Pull fulfil the regulators' objectives almost equally well.

None of the scenarios completely covers the set objectives, but SEPA Big Time comes close.

In all the scenarios, the standardised rights and obligations objectives were more than half met when the European Parliament accepted the PSD in April 2007. In the scenarios where these objectives were not fully met the demand side can not fully rely on the same conditions wherever they use payment services in the EU.

Meeting the EPC's SEPA objectives for open and common standards influences the scenario outcomes the most. All scenarios meet the objectives, but only SEPA Big Time does it fully.

5.2 Logical evolution path

Based on the outcomes of the various extreme scenarios one can envisage logical evolution paths between the scenarios. This is shown in figure 15. Game theory suggests that the most

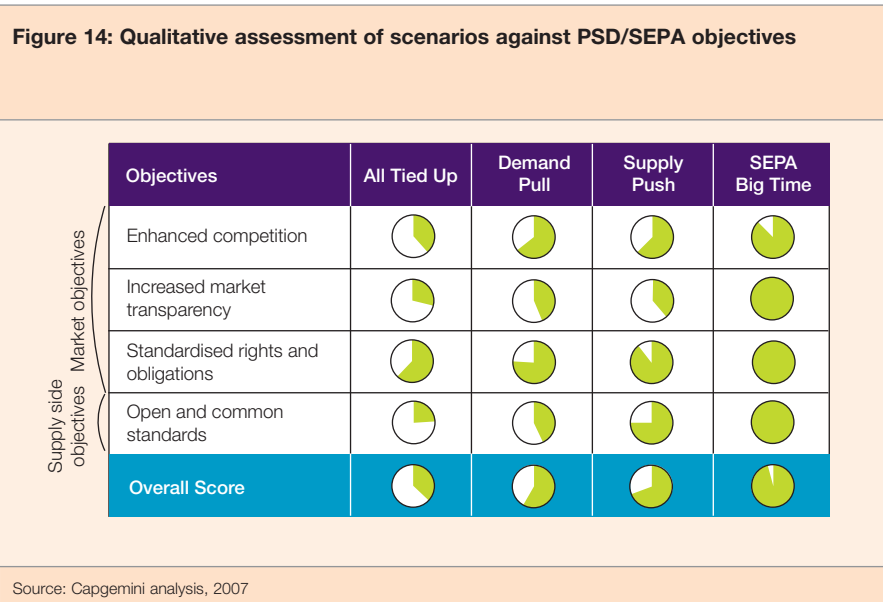
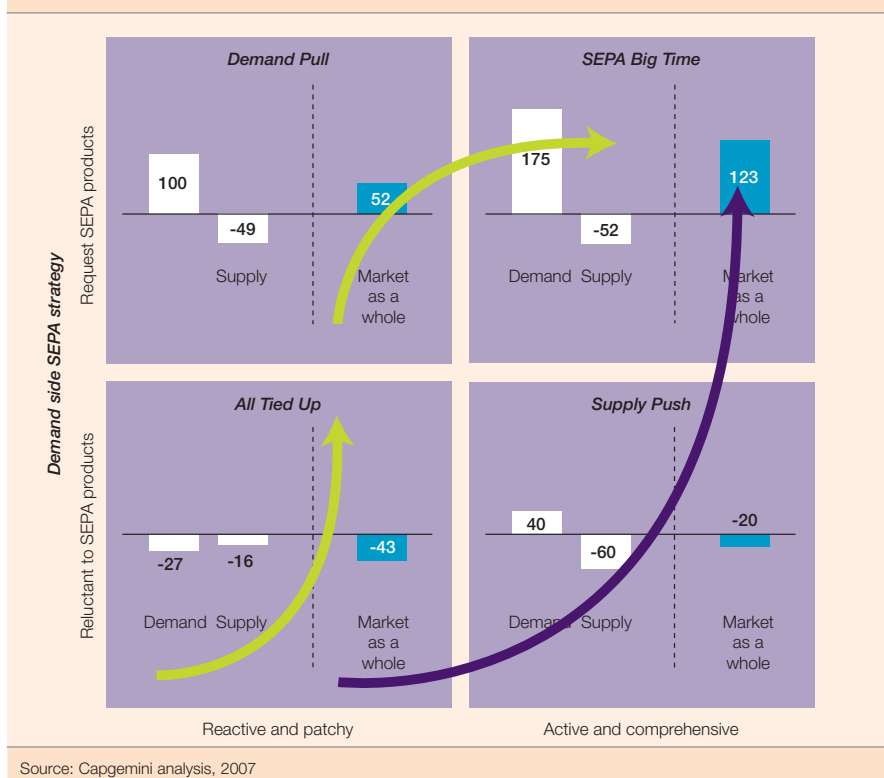


Figure 15: Logical evolution paths



Differences in local laws impede SEPA from fully reaching the market objectives.

The most logical evolution toward SEPA Big Time would be via Demand Pull.

logical outcome is the Demand Pull scenario. Supply can only influence the x-axis of the matrix, so it can choose between the left and right sides of the matrix. Demand, similarly, has the choice between the upper and lower halves.

If supply could choose freely, it would remain 'reactive and patchy' on the left-hand side of the matrix, as this holds better outcomes for it than the right-hand side. If demand could choose freely, it would prefer the upper half of the matrix, where its outcomes are better.

Crossing the preferences of the supply stakeholders with those of the demand

stakeholders means that the upper left quadrant, the Demand Pull scenario, is the most logical outcome.

However, the huge additional demand benefits, combined with marginal extra supply impact, transform Demand Pull from an end to a transitional stage toward SEPA Big Time. The benefits for demand would more than double by moving right. So demand can be considered to be very open to any sort of compensation that would bring it closer to the large extra benefits of moving to the right. The extra loss for the supply side is marginal. Thus it would be a logical step from All Tied Up through Demand Pull to end up at the desired SEPA Big Time.

If SEPA Big Time is the goal, several issues must be addressed at demand, supply and regulatory levels.

Supply Push is also likely to be an intermediate stage, triggered by new entrants. The only way to end up in Supply Push would be by competitive reaction to new entrants offering new SEPA-only products with attractive prices. (In a lean SEPA, this is the only way without any legacy products and systems.) Existing players would have to match these prices to keep their customers.

In this case, either demand accepts the newly available products and the market ends up in SEPA Big Time or (less likely) these newcomers have little effect and the market 'relapses' back to All Tied Up.

There is a risk of getting 'stuck' in All Tied Up. If demand is not fully aware of the benefits it can reap, the market

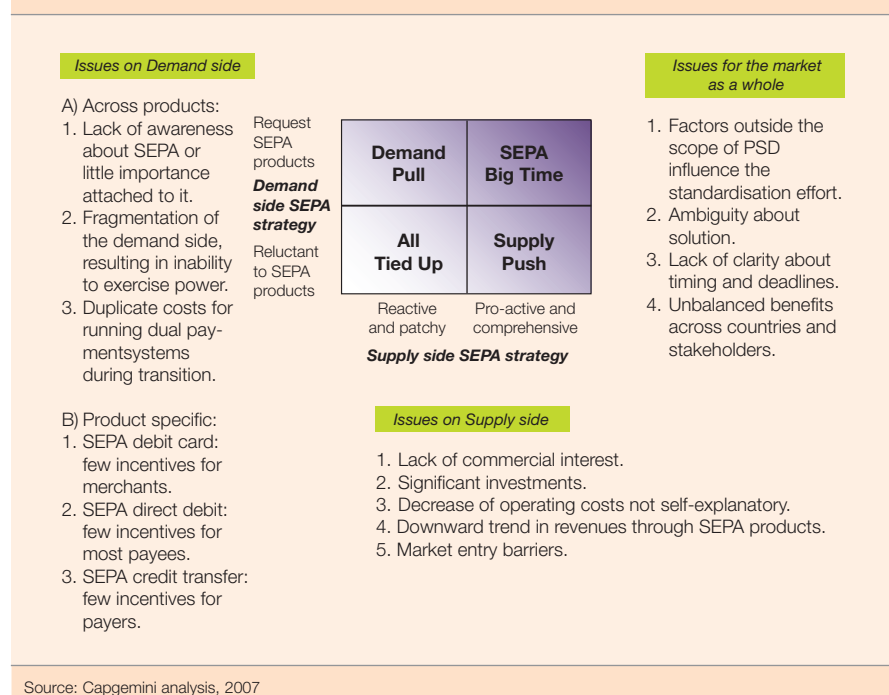
as a whole could easily get stuck there. After all, judging from these outcomes, the banks will not exert a proactive and comprehensive SEPA push unless they are forced to or unless they find larger related indirect benefits.

5.3 Barriers to achieving the objectives

Although this study shows that reaching the SEPA Big Time generates the most benefits for the market as a whole, it is not self-evident that this scenario will be reached. Barriers exist at the demand and supply sides and more generally at the market and regulatory sides, impeding fast movement toward the Demand Pull, Supply Push, or SEPA Big Time scenario. In figure 16 the identified barriers are shown.

At the demand side, the barriers can be split into generic barriers and product-specific barriers. The generic ones are related to a lack of awareness of SEPA and its potential benefits and to the fragmentation of the demand side. These barriers impede the ability to generate a critical mass necessary to reach the 'tipping point'. This in turn leads to another barrier: the occurrence of duplicate costs prior to SEPA Big Time taking place. Companies trying to avoid these duplicate costs will be inclined to wait. Product-specific barriers at the demand side center mainly around perceived lack of added value of the products and even increases in prices, such as for the debit card. At the supply side, barriers are mainly of an economic and/or strategic nature. Banks are apprehensive of incurring high investments, of longer-term duplicate operational costs, and of decreasing prices as a consequence of decreasing added value or competitive positioning.

Figure 16: Issues threatening the attainment of SEPA



In general, at the regulatory and legislative levels, barriers persist, caused by unclear or ambiguous product specifications, unclear deadlines for abolishment of legacy products, and differences in local laws leading to a lack of standardisation of the products and/or related (reporting) processes and systems. With banks seeking competitive differentiation in a market characterised by standards, it is not unlikely that additional optional services (AOS) will lead to a new fragmentation and limitation of price drop. It is expected that the EPC will steadily work toward an increase in uniformity of the products and clarity around the deadlines. Without this, the SEPA Big Time scenario will remain a theoretical one.

Barriers with respect to cards

The change in the debit cards market is highly unpredictable at this moment. There is a threat that the SEPA debit card offers few incentives for merchants if there are no savings in operational costs expected and there is a fear of negative side effects from exclusive dealing with large international firms.

The short-medium term outcome at this moment is highly unpredictable as there are too many uncertainties and interrelations between different payment types, because of the uncertain state of the four drivers.

- **Driver: supplier market situation.** As a consequence of SEPA domestic schemes will need to be interoperable though-out Europe. At this moment this is not the case. This leaves only the international schemes to be able to provide solutions. There is also the option of a third scheme. European Alliance Payment Scheme (EAPS) is a joint effort of

the domestic schemes to create a interoperability between domestic schemes.

- **Driver: regulation and prescription.** The level of regulation is expected to put a downward pressure on prices, either by increasing the competition in the market or by regulation of prices (i.e. maximum fees). The latter one could be temporarily until there is a market where multiple parties are able to compete.
- **Driver: political pressure and or pressure by the public or interest groups.** Example Belgium: Belgium's banking association had decided not to migrate the country's national debit card scheme to MasterCard's Maestro platform by January 2008. Due to the pressure from the public and merchant organisations opposing the price increase this has been delayed.
- **Driver: the commercial interest of banks.** Payment by means of a debit card are relatively cheap compared a cash alternative. It is also in the bank's interest to increase the penetration rate of card payments. Next to that new fee structures can be introduced for transparency or harmonisation reasons.

In the long run, assuming an open and competitive market, the most logical outcome would be a situation with multiple providers and lower prices than the existing ones. In such a situation, prices are expected to be driven down as costs can be lowered through economies of scale and increased competition.

5.4 Mitigating measures

Based on interviews with several stakeholders in the market, Capgemini has defined a set of measures to address the barriers; together, they are designed

The change in the debit cards market is highly unpredictable at this moment. There are four drivers which will determine the outcome: supplier market situation, regulation, political pressure and the commercial interest of banks.

to optimise the chances of reaching SEPA Big Time. These measures range from pure facilitation, to help the stakeholders adopt SEPA standards quickly, to more strict policies and guidelines aimed at implementing SEPA and abolishing legacy products. Any given measure influences the behavior of the demand stakeholders and/or the supply side to a greater or lesser degree. Table 2 shows the measures prioritised based on impact (on demand and supply) and feasibility.

Mapping these measures to the barriers described in the previous section leads to the following conclusions.

Demand side barriers can be addressed up to 75% by priority 1 and 2 measures:

- Lack of awareness can be addressed by an intensive communication program.
- SMEs can be helped to lower their initial investments through SEPA facilitation kits.

A mix of facilitation, influencing and regulation will be needed to increase the chances of achieving the SEPA Big Time scenario.

The suggested measures with priority 1 and 2 will address most of the barriers, in particular those at the demand side.

Table 2: Mitigating measures

Type of measure	Possible measure	Description	Impact on Demand side	Impact on Supply side	Feasibility of execution	Priority
Facilitate	Facilitation Kit Offer best practices	A set of tools (detailed guides on conversion of processes, systems and other) allowing companies to adopt SEPA with minimal investments	H	L	H	1
	Organize demand side	Bring demand side parties with common interests for implementation of SEPA together on a national and international scale	H	L	H / M	1
Influence	SEPA communication program	Targeting specific stakeholders with information about benefits and importance of SEPA	M	M / L	H	1
	Publish progress	A regular reporting of the degree of adoption of the SEPA products per country and/or per provider aimed at increasing peer pressure	L	M	H	2
	Fuel competition	A proactive approach from local and central policy makers to decrease the entry barriers for external parties and/or new entrants into established markets	M / L	H	M	2
	Mobilize publics and semi-publics	Local governmental power used to speed up the adoption of SEPA in (semi-)public institutions (tax, social security, energy sector, possibly telco's)	H / M	H / M	H / M	2
Stimulate	Provide subsidies for early movers	Investment subsidies provided to early adopters (demand side), to compensate for higher costs/risks incurred	H / M	M	L	3
(Self-) Regulate	Set hard standards for all products within agreed scope	Define the detailed common standards for all elements of the product/process within pre-set scope, thereby eliminating the degrees of freedom per country	H	H	M	1
	Set fixed/hard deadlines for full adoption	Define deadlines not only for availability of products but also for abolishment of legacy products	H	H	M / L	1
	Pricing policies	Define maximum prices for SEPA products, thereby increasing the need to standardise and consolidate Define standard interchange fees	M	H	L	3

Source: Capgemini analysis, 2007

- Fragmentation of the demand side can be reduced by putting an effort into organising stakeholder communities around the SEPA theme.
- Duplicate costs can partially be overcome by minimising the existence of dual standards through a clear and relatively short transition plan.
- Barriers with respect to debit cards are best addressed by fueling competition in this segment.
- Notwithstanding these measures, some barriers will remain to a certain extent, such as those surrounding investments and the fragmentation of the demand side.
- Imbalances in the perceived importance of SEPA (varying by country and stakeholder) will remain, which will lead to differences in speed of adoption.

It is up to the regulating and coordinating bodies to define the right mix of measures - for Europe, for each country, and for each stakeholder.

5.5 Conclusions on risks and remedies

The overall conclusion of this chapter is that only in the most aggressive scenario (SEPA Big Time) are the objectives of the regulators met, and therefore it is crucial to strive for this scenario. Furthermore, the most logical evolution path from the current state leads through Demand Pull, but at the demand side, the supply side, and the regulatory side there are still important barriers to realising the SEPA Big Time scenario. Finally, we conclude that a mix of measures must be taken by various parties (such as the EPC, EC, and local coordinating bodies) to remove these barriers.

Sources

- ¹² European Commission. Impact Assessment, Proposal for a Directive of the European Parliament and of the Council on Payment Services in the Internal Market. Commission Staff Working Document, December 2005; European Central Bank. Towards a Single Euro Payments Area - Objectives and Deadlines, 4th Progress Report, February 2006.
- ¹³ European Payments Council, Euroland: Our Single Payment Area, White Paper, May 2002.

Supply side barriers can be addressed up to 45% by priority 1 and 2 measures:

- Lack of market pull can best be addressed by mobilising public stakeholders.
- Duplicate costs can partially be overcome by minimising the existence of dual standards.
- Fear over price reduction and revenue decrease is likely to remain a barrier to implementation, as well as reluctance to invest in a market that is becoming more and more commoditised.

Market side barriers can be overcome up to 75% by priority 1 and 2 measures:

- Local legal differences are expected to remain; however, these can be made very transparent through a overview of performance measurements and manageable through facilitation kits.
- Product standardisation and setting of deadlines can eliminate crucial barriers at the demand and supply sides; the EPC is working on these measures.

6 E-invoicing

This chapter presents an assessment of e-invoicing's potential benefits for demand and supply side stakeholders and for the market as a whole.

SEPA is expected to help the e-invoicing market to grow by relieving barriers, opening up a larger market.

E-invoicing improves process efficiency, quality control, and responsiveness and supports geographic independence.

E-invoicing can reduce the costs of the invoicing process, with a potential value for the market of 0.8% of GDP per year.

6.1 SEPA and e-invoicing

SEPA will standardise and harmonise payments processing across borders. This will significantly reduce the complexity of implementing e-invoicing solutions and integrate them into the back offices of sellers and buyers, lowering the barrier of compatibility with internal systems. And because both supplier and buyer are using the same standards for payments processing, this also lowers the barrier of compatibility between supplier and buyer. The PSD harmonises regulation and legislation, which lowers the barrier that regulation and legislation represent, though certain related barriers still remain (for example taxation).

6.2 Benefit areas of e-invoicing

Electronic invoicing (e-invoicing) refers to sending invoices (and storing data and other related activities) by any number of wired, radio, or other electromagnetic means. It includes all steps of the purchase-to-pay and the order-to-receive cycle: sending and receiving invoices, dispute handling, acceptance, payment and collection, reconciliation, and archiving¹⁴.

E-invoicing improves efficiency by eliminating manual tasks, achieving higher reconciliation rates, shortening processing cycle times, and reducing penalty interest¹⁴. It also improves quality control and responsiveness by providing real-time information; enabling electronic authorisation, as well as authorisation schemes and control points in workflow; enhancing information integrity through authorisation measures and event logging; and allowing better decision support. E-invoicing also supports geographic independence through web-enabled workflow and electronic filing.

6.3 Size of e-invoicing potential

The estimated payments-related operational cost on the demand side is € 112 billion (2006), or 0.8% of the GDP in the EU-16. Currently, 80% to 90% of invoices are based on paper¹⁵, and a paper invoice costs between € 1.13 and € 1.65¹⁶. Electronic invoicing, an automated way for suppliers and buyers to send, process, and collect invoices, reduces the cost per invoice to between € 0.28 and € 0.47, a reduction of 70% to 75%¹⁶. The maximum total value that could have been reduced by e-invoicing in 2006 is € 84 billion, or 0.8% of GDP. The Capgemini questionnaire reveals that nearly 26% of the responding companies have started using e-invoicing.

6.4 E-invoicing market

The revenue generated by e-invoicing providers is estimated to be € 113 million¹⁷. The main parties interested are the corporates and public entities, having large volumes of payments to process and consequently large potential savings to realise. Banks, clearing-houses, and SWIFT are expected to play a key role in providing e-invoicing services. The e-invoicing service provider's degree of lock-in will be a selection criterium for large clients. In addition, processors, point solution providers, and outsourcing service providers will benefit from the increased market for solutions and processing services.

6.5 Potential revenues and savings from e-invoicing (2007-2012)

Assuming the best case scenario and a linear evolution of the revenue generated with e-invoicing for the supply side, the cumulative revenue generated over six years would be almost € 12 billion. With a penetration rate of 77% the benefit for the demand side would be € 64.5 billion in 2012 compared to the base year 2006. Cumulated over a period of six years, and assuming a linear evolution, the total demand side benefit would be € 226 billion. Note that investments in e-invoicing have not been taken into account, but these are expected lower than the revenue potential. Also note that banks, in their role of user of invoicing services, will also benefit from the further penetration of e-invoicing. The potential benefits from e-invoicing are added to the net SEPA effect for the market (figure 17),

resulting in a cumulated net effect for the market of plus € 362 billion. Explain investments say something qualitative.

6.6 Conclusion on SEPA and e-invoicing

Often e-invoicing is named in close relation to SEPA, as it could relieve some of the current barriers at the supply side. To a certain extent this is true, as banks are well positioned to offer services in this market, creating a potential extra revenue flow of € 0.4 billion to € 3.4 billion per year. Additional investments will be required to achieve these revenues. However, the biggest benefits are expected on the demand side, with potential maximum cost savings of 0.8% of GDP per year on invoice-related processes. Although clearly there are hard benefits for both supply and demand sides, the most important relationship between SEPA and

e-invoicing is in relieving implementation barriers for e-invoicing: SEPA will standardise processing and simplify implementation and integration.

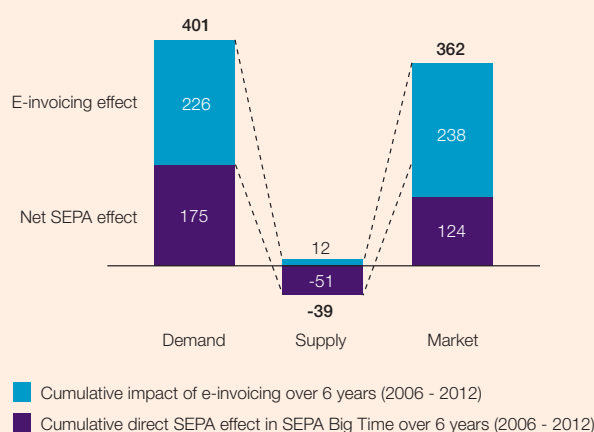
E-invoicing is a rapidly growing market currently valued at € 113 million, primarily fueled by large corporates.

The potential extra revenue flow for payments service providers is estimated in the best case at € 12 billion between 2006 and 2012. However, benefits are biggest for the demand side.

Sources

- ¹⁴ Sources: Accenture. The European Payments Revolution, 2006; e-Business W@tch. Electronic Payments and E-Invoicing: Opportunities, Challenges and Security Issues, May 2005; GT News. The Developing Electronic Invoicing Market, 2005. PricewaterhouseCoopers. E-Invoicing and E-Archiving: Taking the Next Step, 2005.
- ¹⁵ Billentis and B. Koch. E-Billing and E-Invoicing, Market Comparison Europe - US, May 2007.
- ¹⁶ Aberdeen Group. Electronic Invoicing Solution Selection Report: Leading an Accounts Payable Extreme Make Over, December 2005.
- ¹⁷ Source: e-Aberdeen Group. Electronic Invoicing Solution Selection Report: Leading an Accounts Payable Extreme Make Over, December 2005; € values based on EUR/USD exchange rates of 1 January 2007

Figure 17: Cumulative effect of e-invoicing on the market outcome in SEPA Big Time (in billion €, 2006-2012)



Source: Capgemini analysis, 2007

Appendix A: Glossary

ACH

Automated Clearing House. *Supply side* entity that sends and receives payment information to and from (central) *banks*. ACHs sometimes directly provide *payment services* to *businesses*, but offer their services mostly indirectly through *banks*.

Bank

A *supply side* entity that holds a banking license and provides *payments services* directly to the *demand side*.

Base year

The year 2006 is used as the base year against which developments can be measured.

Baseline

The baseline is a projection of the development of the market (in 2007-2012) if SEPA were not further implemented.

Business

Either an *SME*, a *merchant*, or a *corporate*; *public entities* are not businesses.

Company

A *business* entity (*SME*, *merchant*, or *corporate*).

Consumer

An individual person.

Corporate

A *company* with more than 250 employees, creating value by producing goods and/or services.

Demand side

People or entities that make use of *payment services* provided by banks and other *supply side stakeholders*. Demand side = *consumers* + *businesses* + *public entities*.

Direct effect

Immediate effect of SEPA on a *stakeholder*, e.g., price, *operational cost*, or investment.

Duplicate costs

The increased costs of running multiple systems simultaneously during the migration phase to SEPA.

Electronic invoicing (E-invoicing)

The sending of invoices 'by electronic means', i.e., transmission or making available to the recipient and storage using electronic equipment for processing (including digital compression) and storage of data, and employing wires, radio transmission, optical technologies or other electromagnetic means.

EU-16

Austria (AT), Belgium (BE), Germany (DE), Spain (ES), Finland (FI), France (FR), Greece (GR), Ireland (IE), Italy (IT), Luxembourg (LU), Netherlands (NL), Poland (PL), Portugal (PT), Sweden (SE), Slovenia (SL), United Kingdom (UK). These countries are included in the qualitative and quantitative analysis.

Full-service ACH

An *ACH* that not only sends and receives, but also processes payment information.

Gross output

The sum of Gross Domestic Product (GDP) and *intermediate consumption*.

Indirect effect

An effect triggered or enabled by SEPA, though not directly attributable to SEPA, e.g., replacement of cash and the growth of electronic invoicing.

Intermediate consumption

The total monetary value of goods and services consumed or used up as inputs in production by businesses, including raw materials, services, and various other operating expenses.

Market scenario

An extreme, though not unrealistic possible outcome of the way the market will have evolved in the future.

Merchant

A company with more than 250 employees, creating value by trading goods and/or services.

Net SEPA effect/-benefit

The resulting effect that SEPA has on a stakeholder's revenues, operational costs, margin, and investment.

Payments service

A service that either directly or indirectly enables a demand side stakeholder to make payments.

Payments service provider

A supply side stakeholder that either directly or indirectly provides payments services to the demand side.

Processor

A supply side stakeholder that processes payments.

Public entities

All public institutions, such as municipalities, ministries, tax authorities, public schools, et cetera.

SME

Small and Medium sized Enterprises (SME) are enterprises with less than 250 employees.

Stakeholder (group)

(A group of) people or entities that has the same interests in and is being influenced by the outcome of SEPA in the same manner.

Supply side

In the context of this report, the supply side offers payments services to the demand side, either directly or indirectly. Banks are stakeholders that directly provide payments services to the demand side, while processors, for example, are indirectly providing payments services to the demand side.

Supply side = *banks* + *ACHs* + *full-service ACHs* + *processors*.

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