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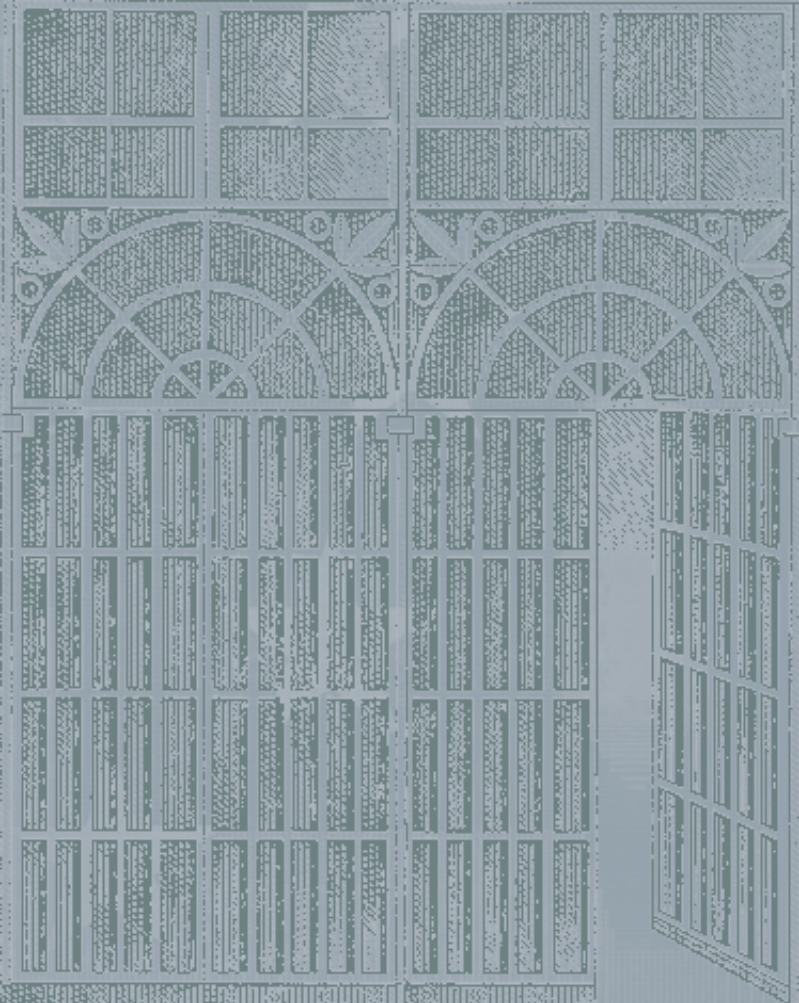


# RETAIL PAYMENTS – INTEGRATION AND INNOVATION

ECB EZB EKT EKP

2009

**A JOINT CONFERENCE  
BY THE ECB AND  
DE NEDERLANDSCHE BANK  
25-26 MAY 2009**





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## ABSTRACT

On 25-26 May 2009 the European Central Bank and De Nederlandsche Bank hosted a conference entitled “Retail payments: integration and innovation”. The aim of the conference was to better understand current developments in retail payment markets and to identify possible future trends by bringing together around 200 high-level policy-makers, academics, market practitioners and central bankers from all over the world. This document provides a comprehensive summary of the two-day conference and highlights the main messages and key policy issues identified. The keynote speeches, panel sessions and paper discussions centred around four main themes: the relevance of retail banking and payments for banks’ profitability; the integration, competition and regulation of retail payment markets; payment habits and the adoption of new payment innovations; and the future of retail banking and retail payment markets. This conference summary shows that the expectations and requirements of payment users are strongly influenced by major social trends and a growing demand for more innovative payment solutions. Overall, the conference findings will further stimulate our efforts to foster innovation and integration in retail banking and payments.

Keywords: retail banking, retail payments, innovation, integration, payment habits, interchange fees

JEL-classification: D11, D12, E58, F36, G20, L11

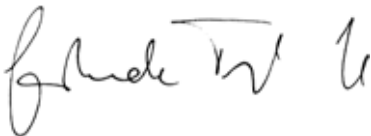
## PREFACE

“Retail payments: integration and innovation” was the title of the joint conference organised by the European Central Bank (ECB) and De Nederlandsche Bank (DNB) in Frankfurt am Main on 25 and 26 May 2009. Around 200 high-level policy-makers, academics, experts and central bankers from more than 30 countries of all five continents attended the conference, reflecting the high level of interest in retail payments.

The aim of the conference was to better understand current developments in retail payment markets and to identify possible future trends, by bringing together policy conduct, research activities and market practice. The conference was organised around two major topics: first, the economic and regulatory implications of a more integrated retail payments market and, second, the strands of innovation and modernisation in the retail payments business. To make innovations successful, expectations and requirements of retail payment users have to be taken seriously. The conference has shown that these expectations and requirements are strongly influenced by the growing demand for alternative banking solutions, the increasing international mobility of individuals and companies, a loss of trust in the banking industry and major social trends such as the ageing population in developed countries. There are signs that customers see a need for more innovative payment solutions. Overall, the conference led to valuable findings which will further stimulate our efforts to foster the economic underpinnings of innovation and integration in retail banking and payments.

We would like to take this opportunity to thank all participants in the conference. In particular, we would like to acknowledge the valuable contributions of all presenters, discussants, session chairs and panellists, whose names can be found in the enclosed conference programme. Their main statements are summarised in this document.

Behind the scenes, a number of colleagues from the ECB and DNB contributed to both the organisation of the conference and the preparation of this conference report. In alphabetical order, many thanks to Alexander Al-Haschimi, Wilko Bolt, Hans Brits, Maria Foskolou, Susan Germain de Urday, Philipp Hartmann, Päivi Heikkinen, Monika Hempel, Cornelia Holthausen, Nicole Jonker, Anneke Kosse, Thomas Lammer, Johannes Lindner, Tobias Linzert, Daniela Russo, Wiebe Ruttenberg, Heiko Schmiedel, Francisco Tur Hartmann, Liisa Väisänen, and Pirjo Väkeväinen.



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## I KEY MESSAGES OF THE ECB-DNB CONFERENCE ON RETAIL PAYMENTS: INTEGRATION AND INNOVATION

By Thomas Lammer and Heiko Schmiedel (European Central Bank), and Nicole Jonker and Anneke Kosse (De Nederlandsche Bank).

### I.1 INTRODUCTION

The European Central Bank and De Nederlandsche Bank hosted a conference entitled “Retail payments: integration and innovation” on 25–26 May 2009. The aim of this conference was to improve the general understanding of retail payment economics and to help identify possible developments and dynamics that will shape the future retail payments landscape. The conference provided a forum for high level dialogue between market participants, policy-makers and researchers. The conference led to valuable findings which will further stimulate efforts to foster the economic underpinnings of innovation and integration in retail banking and payments.

This note provides an overview and comprehensive summary of the two-day conference. It highlights the important issues related to retail payments which have been identified during the conference and which might warrant further reflection and analysis, not only from a European, but also from a global perspective.

The remainder of the paper is structured as follows: Section 1 highlights the main messages of the conference and draws out the key policy issues discussed within the conference themes; Section 2 provides the full text of three high-level speeches which were delivered during the conference; and Section 3 reviews the different themes individually and provides more detailed discussion and perspectives. The related papers and slides of the conference are available on the ECB website.<sup>1</sup> The conference programme can be found in the annex.

## I.2 RELEVANCE OF RETAIL BANKING AND RETAIL PAYMENTS FOR BANKS' PROFITABILITY

- Retail payment revenues account for about 25% of total bank revenues. An advantage of these revenues compared to other sources of bank income is their stable character over time. In addition, retail payment services often provide the foundation for long-term bank-customer relationships.
- Retail payment revenues are under pressure, because of the integration of the European payments market (increasing competition, additional investments), a more critical stance of competition authorities (float, interchange fees), and changing customer needs and technological developments.
- Retail payment revenues can be improved if banks invest in innovations, adapt their pricing models, cut back operational costs and increase payment volumes.
- Banks often lack a clear view on the costs and revenues of their retail payments activities.
- A fundamental relationship between retail payment business and overall bank performance exists. There is academic evidence that the performance of banks in countries with more developed retail payment service markets is better. This relationship is stronger in countries with a relatively high adoption of modern retail payment transaction technologies.

<sup>1</sup> Available at [http://www.ecb.int/events/conferences/html/integr\\_innov.en.html](http://www.ecb.int/events/conferences/html/integr_innov.en.html). Most of the conference papers were also published in the ECB Working Papers Series at the end of 2009.

### **1.3 INTEGRATION, COMPETITION AND REGULATION OF THE RETAIL PAYMENTS MARKET**

- Payment systems have withstood the financial turmoil very well, preventing risks from spreading even further. This has maintained the confidence in the payments sector. Structural reforms seem therefore not to be necessary. Banks have, however, become more reserved towards cross-border activities, although this effect is likely to be temporary.
- The financial crisis will have consequences for the banking sector with respect to size, scope of activities, governance and risk management. In addition, developments in retail payments are driven by i) changing technology, ii) increased cross-border activity between countries and between businesses, and iii) innovations that no longer require huge investments.
- There were diverging views, without a final conclusion being made, about the role of central banks in retail payments: should central banks offer payment services themselves (in order to stimulate participation in the market) or restrict themselves to the role of catalyst and overseer?
- Joint research by the ECB and DNB shows that the emergence of a new European card scheme could provide a decisive incentive to solve interoperability and overcome costly fragmentation in the European cards market. Consumers and merchants are likely to benefit most from the Single Euro Payments Area (SEPA) when there is sufficient competition in the card payments market to alleviate potential monopolistic tendencies.
- Country-level empirical evidence supports the view that the lowering of interchange fees for debit and credit card payments by regulation resulted in higher card acceptance among retailers and higher

card usage by consumers. Regulation of interchange fee arrangements seems to have resulted in welfare gains for retailers and consumers.

- Country level data confirm that over the past two decades, the costs of retail payments declined because of increased usage of electronic payment instruments (economies of scale, closure of bank branches). Overall processing costs remained fairly stable, while the number of payments processed quadrupled.

### **1.4 PAYMENT HABITS AND THE ADOPTION OF PAYMENT INNOVATIONS**

- Retail payments lag behind with respect to the implementation of technological developments such as mobile phones, chip technology and the internet.
- Prerequisites for successful payment innovations are an innovation-friendly legal and regulatory environment, cooperation within and across industry sectors, due attention to market maturity and wider social trends, and a successful integration of new payment services into the existing payments value chain.
- In order to stimulate payment innovation, public authorities might play an important role regarding the drawing up of general guidelines or standards. There is a strong market demand for technical standard setting bodies which can solve coordination problems and guarantee neutrality.
- All stakeholders (including, for example, older age groups or small and medium-sized enterprises) should be involved in the process of developing new payment solutions in order to accelerate wide-scale adoption. The introduction of new online payment instruments is demand driven.



They are, however, unlikely to entirely replace traditional payment instruments used for online payments.

- Corporations attach great importance to safety and security and therefore prefer to purchase payment services from banks rather than from non-banks. In addition, the speed of the payment process is an important issue for corporations and retailers. By contrast, per transaction costs, being one of many components in a corporation's economic calculations, are perceived to be of less importance.
- The threat posed to monetary policy by payment innovations in general and e-money in particular was intensively discussed some years ago. One of the outcomes of the conference is that this issue has been largely resolved.
- There is a need for a clear definition of e-payments. Is it to be perceived as a new payments category, and how do e-payments differ from "regular payments" (type of money used, method of authentication or initiation channel used)?

### **1.5 THE FUTURE OF RETAIL BANKING AND THE RETAIL PAYMENTS MARKET**

- Especially in the field of low-value cross-border person-to-person transactions, non-banks play an increasingly important role. The communication industry is expected to become an important player in the payments area, using mobile phones to initiate money transfers, especially in countries where "regular" payment systems are less developed and the number of "unbanked" and "underbanked" is high and a large proportion of the population has access to mobile phones.
- New payment solutions are expected to be developed on the basis of existing

infrastructures. Cooperation between banks and non-banks is therefore essential.

- The increasing entrance of non-banks into retail payment markets entails regulatory and supervisory challenges. Central banks should be aware of this and be ready for it. However, an optimal balance should be found between regulation and supervision on one hand, and market competition on the other.
- Financial integration may involve several risks: increased systemic risks due to participants increasingly settling their payments internally, new forms of interdependency due to increased interoperability, and security risks related to new payment solutions (e-payments and card payments).
- Due to these expected future trends in retail banking and payments, central banks and regulators are encountering new challenges: how to protect the rights of consumers, users and providers, how to mitigate risks, how to guarantee and stimulate policy transparency and competition and how to design the future regulatory framework?

### **1.6 CONCLUSION**

Taking up the conference's key messages, three main areas can be identified where future work might need to be undertaken.

One area is the relationship between retail banking and payments and the financial turmoil. There is likely to be a revival in the importance of retail banking and payments against the background of the ongoing financial market turmoil. In particular, at a time when other sources of income are more volatile, banks can count on the reliable and regular revenues generated by payment services. Against this background, further research into and understanding of the attractiveness of payments business for retail banks might be of interest

to policy-makers and regulatory and monetary authorities, as well as to experts and academics. Because of the increased economic relevance of retail banking and payments and greater interdependency between retail payment systems due to financial integration, the resilience of retail payment systems will become even more important in future. Although retail payment systems have proven to be very stable during the financial turmoil, it may be interesting to analyse the potential impact of possible failures and whether there is a need for structural reforms.

is constrained by a lack of relevant data. These issues should be seen and addressed not only from a European, but also from a global perspective, and require cross-border cooperation between relevant stakeholders.

The second area is multilateral interchange fees (MIFs). In this context, it would be interesting to review existing economic literature and to take a critical look at the theoretical justifications for interchange fees, to take stock of existing experiences, approaches, models, and interpretations of interchange fees in different countries, and to identify potential issues that interchange fees may give rise to in terms of innovation and efficiency in payment systems. This would improve understanding of the motivation for and possible impact of recent interchange fee interventions by public authorities. In this context the role of and cooperation between central banks and other relevant authorities could also be of particular interest for further examination. Is there a case for drawing up recommendations on how to set up multilateral interchange fees that meet the expectations of competition authorities and central banks?

The third possible area of future work concerns issues related to financial innovation and payment habits. Besides a common definition of the term “e-payments”, future work in this field may provide answers to the following questions: how can an innovation-friendly legal and regulatory environment be ensured? How do payment innovations contribute to overall social welfare? What are the implications of socio-demographic trends for payment innovations?

Typically, an empirical approach to addressing and investigating the above-mentioned issues

## 2 KEYNOTE SPEECHES

### 2.1 INTEGRATION AND INNOVATION – THE ALPHA AND OMEGA OF A SUCCESSFUL RETAIL PAYMENTS MARKET IN EUROPE

Opening remarks by Jean-Claude Trichet

It is a great pleasure for me to open this conference on integration and innovation of retail payments. This conference, organised jointly by the European Central Bank and De Nederlandsche Bank, brings together participants coming from more than 30 countries of all five continents. The research papers have been carefully selected from an amazing number of submissions.

Together, we will explore how to interlink policy conduct, research activities and market practice in a field of banking that is not always in the limelight, namely retail banking. Retail banking has proven to be an area of stability within the banking business during the recent period of financial turmoil. Payments business, which generates about one quarter of all banking revenues, has remained a source of strength. At a time when banks' other sources of income are more volatile, they can count on reliable and regular revenues being generated through payment services.

The other side of the coin is less alluring. Payments business roughly accounts for one third of the operational costs of the banks. In Europe, part of these costs is obviously related to the current fragmentation in the retail payments market. Overcoming such fragmentation by means of more integration would decrease the operational costs banks are confronted with. This is the link to our topic today.

Against this background, it is no surprise that today's first theme will be the relevance of retail banking and payments for banks' profitability. Mr Lavyssière, Director of Global Financial Services Capgemini, will make the keynote

speech on this theme, and I am sure that his remarks and the following academic session will provide fundamental insights into the economic rationale for the integration and innovation of the retail payments market.

Successful integration of retail payment markets will not only provide benefits in terms of diminishing costs, it will also contribute to financial stability. Restoring confidence in, and improving the resilience of, financial systems is of paramount importance.

Governments and central banks around the globe have made unprecedented use of their policy tools to fight further economic and financial decline. The ECB and the Eurosystem have taken rapid and bold actions in response to the crisis. These measures have been providing refinancing to the banks well above the usual levels and under more flexible conditions than usual. Executive branches have decided exceptional measures to support financial institutions and help stabilising the financial markets. You may now ask: does it make sense in current times to focus on the integration of payment markets and infrastructures? Does it make sense to invest in the integration and modernisation of retail payments business? Our answer is: Yes, it does.

Let me first briefly discuss how integrated payment instruments, systems and infrastructures have strengthened the backbone of modern economies. Second, I will explore how benefits by integration and innovation are to be realised in retail payments business.

Quite fundamentally, the availability of reliable and safe payment means for the transfer and settlement of funds is a *conditio sine qua non* for economic interaction. Due to the very rapid growth in the volume and the value of payment transactions stemming from the money, foreign exchange and securities markets, the importance of payment clearing and settlement infrastructures has grown considerably over the last two decades. The integration of these markets is closely correlated with the degree

of integration of the underlying payment infrastructure. Thus, the effective transmission of the single monetary policy throughout the euro area, the depth and liquidity of financial markets, and the resilience of the European financial system as a whole depend to a considerable extent on the integration of the payment infrastructure.

The ECB report on financial integration of April 2009 has assessed the state of the European financial integration process. The segment closest to the single monetary policy, the euro area money market, continued to be highly integrated until autumn 2008, when the financial crisis intensified. This integration has been supported by the high degree of integration of the underlying large-value payment system. The second generation of TARGET, TARGET2, has not only established an even more uniform wholesale payment service in the euro area, it has also introduced innovative functionalities. In fact, TARGET2 is the first market infrastructure to be completely integrated and harmonised at the European level. In the same way that TARGET2 backed the integration of the uncollateralised money market, the introduction of TARGET2-Securities (T2S) will further foster the integration process by supporting the collateralised money market.

The retail banking segment in Europe, by contrast, remains rather fragmented, as does the underlying market infrastructure. Despite the introduction of the euro, payment habits still vary widely across the euro area. In some countries, cash is making up more than 90% of retail payment transactions by households. In other countries, cashless payment instruments have driven down cash usage considerably. Likewise, retail payment clearing and settlement is organised differently in the various countries, reflecting local tradition and business preferences.

To overcome these entrenched differences, the banking industry joined forces in 2002 and launched the initiative to create the Single Euro Payments Area, SEPA. The primary objective of

this initiative is to achieve a fully integrated market for retail payment services. Distinctions between national and cross-border payments should vanish. Practically, one set of pan-European payment instruments should be available to serve the whole market, making national legacy payment instruments superfluous.

Needless to say, such an initiative, which requires unprecedented forms of cooperation among competing market actors, may give rise to competition concerns. It may also get to a situation where the self-regulatory powers of the banking community have reached their boundaries, and regulatory support is required. The European Commission and the Eurosystem have been supporting SEPA by closely monitoring the developments and by providing guidance to the market. The Payment Services Directive (PSD), which is to be transposed at national level in November of this year, and the revised Regulation (EC) No 2560/2001 on cross-border payments in euro, provide the harmonised legal basis for retail payments in Europe.

Today's second theme will look at competition and regulation issues that emerged in the integration process of retail payment markets. I am very pleased that Commissioner Neelie Kroes will deliver the keynote speech on this theme. The subsequent panel will focus on the role of central banks in shaping the future of retail banking and payments. Unlike for TARGET2 and TARGET2-Securities, the ECB and the Eurosystem have chosen not to approach the retail payments market as a system owner and operator – although some national central banks that are part of the Eurosystem have such operational role – but rather as a catalyst, supporting the market processes by using their technical and analytical expertise as well as consultative and cooperative contacts with the banking sector and other public authorities.

Tomorrow, we will look at the other challenging dimension that shapes the future of retail banking and payments, which is innovation. I regret to have to say that while the chip, the internet and



the mobile phone have fundamentally changed the way we communicate in the last 20 years, modernisation in the way we pay, be it as large companies or as individual retail clients, still has to catch up these developments. Therefore, I am pleased to see the focus on the requirements and expectations of large corporations and public administrations.

I wish you a fruitful conference, and I am confident that it will be another building block on our way to do what has to be done.

## 2.2 COMPETITION AND REGULATION IN RETAIL BANKING AND PAYMENT MARKETS

Keynote Speech by Neelie Kroes

I am very glad to be able to address you today at a moment when far reaching developments are taking place in the financial services sector and in European payment markets.

The crisis reveals new questions about the interaction between competition policy and regulation, and it will need the input of all of us to answer them.

When one looks across the various economic sectors it is apparent that competition enforcers are often left to deal with problems which regulators cannot solve or which bad regulation has helped to create. It seems likely that this pattern applies to financial services as well.

So if you will allow me to put my comments in the context of the wider crisis first, I will then move onto the detail of the payments markets.

### FINANCIAL CRISIS CONTEXT

It is too early to fully understand the implications the financial turmoil will have for competition on European retail banking and payment markets.

But we do know that many banks will need to redefine their business models – sometimes because of a restructuring plan agreed with the Commission. For many that will mean a greater focus on retail banking. At the same time, however, they may move to cut back their cross-border activities and to concentrate on their domestic markets. They may even be under pressure from their national governments to do so.

Let me be very clear. The Commission will not undermine the Single Market for banking in any of its guidelines or decisions.

We can't micro-manage lending decisions by banks, but state aid will only be available on a non-discriminatory basis.

This is the only way to deliver stability and a level playing field. And it is with a stable system that we can best hope to attain the basic goal of EU financial integration.

The complexities of the current situation highlight the need to further harmonise regulations within the EU and to create a real level playing field amongst banks.

European regulation has not achieved the desired degree of harmonisation, and at times national administrations have been bullied away from imposing regulation because of alleged competitive disadvantages such regulation might create for certain banks.

We see now that this fragmented, sometimes self-regulatory, approach was not beneficial for our long-term economic health.

And bearing this in mind, in one respect we should see the current state aid decisions as not only a part of the solution to the crisis, but also as a crucial opportunity to create a more level playing field in banking.

In doing that, the Commission is able to avoid a subsidy race between Member States, and a wider battle over protectionism.

What is more, we must also make sure that cross-border acquisitions are not stopped for non-competition reasons during the phase of consolidation that the financial sector will likely enter in the coming years.

So, overall, I am optimistic, therefore, that financial integration will proceed – despite, and maybe even because of the crisis. It has to, for the benefit of European consumers, retailers and corporate clients.

In moving forward though it is clear that some old practices need to go.

This includes the field of payments and it brings me directly to your areas of interest.

As I mentioned already, many banks will increase their focus on retail banking in coming months and years. Due to their pervasive role in our modern societies, integrated payment markets will therefore play a key role in the future of these banks.

In the past period through our competition enforcement policy we have contributed to the creation of effective, transparent payment markets and we will continue to do so.

It should be obvious that the need to obey the law does not change with GDP going up or down; competition law also applies when it rains.

#### **SEPA DIALOGUE**

Of particular relevance for the creation of integrated payment markets is the Single European Payment Area (SEPA) project.

SEPA is a self-regulatory project with laudable efficiency aims. We have always expected it to enhance competition, so the project of the European Payment Council has enjoyed the support of both the Commission and the ECB in regards to SEPA.

Our belief in the bigger picture of SEPA is one reason why the Commission, along with the ECB, has tried to address its concerns through informal dialogue rather than formal cases.

Given that SEPA is based on cooperation between competitors and potential competitors, this is an exceptional form of treatment that I am not sure the industry fully appreciates. I hope the industry does indeed understand the value of cooperating with us – because it would be a pity to lose this unique dialogue as wider regulatory reform takes place.

There are notable SEPA achievements we can point to. For example the EPC clarification that card schemes not covering the 31 states of the

SEPA territory can be compliant with the SEPA cards framework is a victory for the level playing field.<sup>2</sup> This means that cheap and efficient national systems do not have to be abandoned for the more expensive existing international schemes i.e. Maestro/V-Pay (for debit cards) and MasterCard/Visa (for credit cards). It also means new schemes stand a real chance of entering the market – I will come back to this.

Although we have had good outcomes on key issues to ensure competition and a level playing field, including standardisation, access and other stakeholders' involvement, these issues remain on our radar screen.

In the meantime we have tackled the issue of MIFs for SEPA direct debit transactions.

The SEPA direct debit story has been a clear case of interaction between competition and regulation.

MIFs have long been a concern for the Commission, as our MasterCard decision demonstrates. We had similar concerns regarding MIFs proposed for SEPA direct debit (SDD).

In spite of our repeated requests, the EPC failed to provide us with a convincing justification or evidence as to why the arrangement would be justified for efficiency reasons. Backing our concerns is the clear trend to direct incentives for consumers to use direct debit. Besides, only six countries have a “per transaction” direct debit MIF in place, and they too are moving towards a decreasing or zero MIF.

This initial deadlock over SEPA direct debit MIFs was a good example of the limits of self-regulation, and the resulting uncertainty could have led to the SDD not being launched.

<sup>2</sup> The EPC published an easy-to-read Questions and Answers clarifying key aspects of compliance with the SCF on 26 June 2008.

So it was for good reason that Commissioner McCreevy and I supported the ECB's 2008 proposal for a transitional regime to help the industry move forward and agree to launch the SEPA direct debit. Thankfully this transitional package was taken over in draft legislation which was adopted in first reading by the Council and European Parliament.

However, the banking industry still needed regulators and competition enforcers to work together to clarify long-term arrangements.

Recognising this need, the European Commission and the ECB jointly issued a statement stating that we see no convincing reason for per transaction MIFs to exist after 31 October 2012. That joint statement should, by the way, be recognised as an unprecedented form of interaction between financial regulation and competition enforcement. We do value the excellent cooperation with the European Central Bank in this area, which has made it possible to issue this "mini-guidance".

While the content of the statement may not reflect the industry's preferred way forward, it did allow the industry to make an informed assessment of which future SEPA direct debit business models would comply with competition rules. This smoothed the way for the scheme's launch.

This case study is of course far too specific to be a general template for interaction between regulation and competition policy – but it provides useful proof of how we can add value by working together. And it gives us the encouragement we need to provide full guidance for the long term on MIFs for SEPA direct debit by November this year – if the industry provides us with the input we need.

#### **MASTERCARD, VISA AND NEW PAYMENT CARD SCHEMES**

I will now turn to our current cases in the field of payment cards. These have an impact on SEPA and provide further lessons about the interface between competition and regulation.

If there's anywhere that can do with an overhaul of tired practices, it's the area of payment cards.

In April I announced MasterCard's undertakings to comply with our 2007 decision. Essentially, MasterCard agreed to new cross-border MIFs of less than half the previous MIFs for both credit and debit cards – giving Europeans its lowest rates worldwide: a big win for consumers.

MasterCard is also adopting transparency-enhancing measures. Merchants will be offered and charged different rates according to the type of card used ("unblended" rates). This system enables merchants to make better choices for their business needs, to impose charges that reflect their real costs for accepting different cards, and to explain these charges more clearly to customers. Merchants will also be informed that they do not need to accept MasterCard and Maestro as a bundle, but can choose to accept one, both or neither.

One might argue that MIFs for payment cards are clear candidates for regulatory intervention, such as the regulation adopted by the Australian Federal Reserve Bank. However, in Europe such regulation simply was not there. In a world which is moving to "plastic money" with a pace of 11% card usage growth a year we were faced with the increasingly harmful effect on consumers of a collectively agreed invisible fee at a level for which banks were not able to provide a convincing efficiency justification. When you consider that a series of opaque practices also make it impossible for merchants and consumers to detect what they pay to use each card, it is clear that competition law can and should bridge the regulatory void.

#### **OTHER CHALLENGES AND POSSIBLE WAYS FORWARD**

Beyond those cross-border MIF issues, domestic MIFs will continue to present challenges.

High domestic MIFs not only raise prices; they are a barrier to new entrants, discouraging banks from issuing cards from new SEPA-compliant



payment schemes. At a time when the existing international schemes are also taking over the domestic markets, new entrants are therefore fighting an unequal battle.

This is why it was important that the SEPA cards framework created the possibility for new entrants to start, even if they do not yet cover the whole SEPA territory. It is also why it is important that the SEPA cards framework enables co-branding and gives consumers and merchants the choice which of the brands on a card to apply for an individual payment.

#### **CONCLUSIONS**

To finish my remarks, let me say that self-regulation efforts have a role to play in creating an integrated market and shaping conditions for effective competition. However, that is not enough – SEPA and other forms of self-regulation need critical monitoring and evaluation. Without this they won't reach their competition potential. In essence: the crisis in the financial markets has shown asking questions and sticking to rules is important to make markets work. That means regulation. Self regulation and competition law enforcement have complementary roles to play. This has made the need to work hand-in-hand clearer than ever.

### 2.3 PAYMENT INNOVATION IN A EUROPEAN LANDSCAPE

Keynote speech by Lex Hoogduin

It is a great pleasure to welcome you all on the second day of the joint ECB-DNB conference on retail payments. I hope you all enjoyed yesterday's programme about the integration of the retail payments markets. Today, we will focus on the second theme of this conference: payment innovations. There are three points I would like to make:

1. Payment innovations are important for social welfare,
2. Successful adoption of a payment innovation depends on bringing both buyers and sellers on board, and
3. Payment innovators in Europe: Please join forces!

Let me introduce my first message "payment innovations are important for social welfare" by sharing some of my own payment experiences with you. Last month I bought a car. I paid for it by means of an "urgent payment", using internet banking from home. With just a few simple mouse clicks I transferred my money to the account of my car dealer. Paying for my very first car was a completely different experience. Back then you had to go to your bank for an urgent payment. The payment was costly, in terms of both time and money. To begin with I had to go to the bank in person. And secondly, the fee was considerable, because it included a clerk's labour costs. Many car buyers probably opted for cash in order to avoid such a fee, but I preferred the safety of an urgent payment.

This personal experience illustrates some of the social benefits of payment innovations for society: they make life easier and safer for consumers and retailers and they reduce payment costs. In addition, they also enhance economic welfare by stimulating trade.

Not only can money be transferred much faster, consumers can also make unplanned purchase decisions using payment cards or effect cross-border purchases using online payment methods.

In general, innovations are one of the key driving forces behind economic growth. During the past decades many economists have studied the relationship between innovation, productivity growth and economic welfare. They have found that productivity growth leads to more economic welfare and that innovation is one of the driving forces behind productivity growth. Estimated elasticities between expenditures on R&D and productivity growth at the firm level indicate that 1% more expenditure on R&D leads to 0.1 to 0.2% additional productivity growth. That sounds like a rather good investment to me.

Investing in innovation in payments also leads to productivity gains. Cost studies, such as those conducted by DNB or the one presented yesterday by Olaf Gresvik for Norway, show that electronic payments are cheaper than paper-based payments. Several years ago, DNB calculated the costs saved by substituting payment cards for cash. The results revealed that the increased use of payment cards reduced the costs of retail payments by 6% between 1990 and 2004.

The development of electronic payment instruments has been driven by several factors, a crucial one being the rapid development of IT in the second half of the 20th century, which paved the way for electronic payment instruments for both point-of-sale payments and remote payments. Credit cards and debit cards were introduced for payments in shops, gas stations, hotels and restaurants. Now mobile and contactless payments are starting to take off at points of sale. For regular remote payments, such as rent or utility payments, electronic payment methods were introduced which included direct debits and electronic credit transfers. In the Netherlands, these have quite successfully replaced paper-based payments.

The advent of electronic credit transfers brings me to a second important factor leading to payment innovation, the internet. The internet has drastically changed the way consumers and businesses buy, and pay for, goods and services. Within a decade or so, transferring money via internet banking has become common practice in many countries. Moreover, on-line applications, such as electronic billing, are now a reality in some countries and underway in many others. The internet has also led to the advent of an entirely new sales channel for sellers, allowing them to sell their goods and services to people all over the world. This new on-line sales channel has stimulated the development of new payment instruments. In the Netherlands, the internet payment solution iDEAL has provided consumers and web retailers with a safe and user-friendly way of using internet banking for their on-line purchases in web shops, because consumers are directly linked to the on-line banking website of their own bank. Other countries like Germany and Austria have their own internet payment solutions. A global internet payment solution was introduced earlier by PayPal. All these payment innovations have in some way contributed to the social welfare of buyers and sellers. They have led to cost savings, they have brought buyers and sellers more user-friendly payment instruments, they have increased safety and, last but not least, they have stimulated trade.

We don't know yet whether these most recent innovations will be successful. But let's look at some past successes to see what made them so attractive in the eyes of both buyers and sellers and try to learn from them. This brings me to my second message: "Successful adoption of a payment innovation depends on bringing both buyers and sellers on board". Several research papers in the conference programme deal with adoption issues in payments. They focus on adoption mechanisms in two-sided markets, that is markets with two demand sides, in which both buyers and sellers are required to pay with a particular payment instrument. An important result from this research field is that the use of payment instruments on one side of the market

correlates positively with acceptance on the other side. That means that payment instruments should have features which make them attractive to both consumers and retailers. Payment instruments which score well on the following four aspects, namely added value, simplicity, safety and pricing, by comparison to existing payment instruments, stand a good chance of being used on a large scale.

Let's start by looking at the first factor: added value. Internet banking has enabled consumers to make payments or use other banking services from behind a computer anywhere in the world, 24 hours a day, seven days a week. That is highly convenient, especially for people who lack the time or are unable to visit their bank during regular opening hours. Payment cards are used widely because people no longer need to worry whether they are carrying enough cash to buy what they want. This feature is attractive to both consumers, and retailers.

Secondly, simplicity is one of the keys to a successful adoption. New payment instruments should be easy to obtain, install and use, since most consumers and retailers don't want to spend much time learning how to use them. Nor are they keen to install complicated hardware and software. In this respect, payment service providers could perhaps pay more attention to the needs of small enterprises. In the Netherlands, card acceptance used to be fairly low among small retailers, even when costs went down. Apparently, small retailers found card acceptance too cumbersome, and got lost in the wilderness of offers from banks, telecom companies and terminal suppliers. In order to increase card acceptance, banks, telecom companies and payment service providers have developed "smart debit card packages", tailored specifically to small retailers. These packages provide low-cost all-in-one solutions, including a contract for a payment terminal, a broadband internet connection, and often a contract with an acquiring bank as well.

Some consumers may feel insecure about their ability to use a new payment instrument.

Take, for instance, the less-educated, the elderly and people with a physical disability. As a central banker, responsible for the accessibility of the payment system, I would like to ask payment innovators to think of these groups of people when developing new payment instruments. This is especially important if, eventually, all consumers and retailers are compelled to use the new payment instrument because banks no longer support the old one. Then it is key that the new payment instrument can be used by every buyer or seller, or in other words, every one of us. Investing time and money to develop a payment instrument that is suitable for everyone is not only preferable from a moral point of view, but from a commercial one as well. Fewer adjustments may be needed afterwards if innovators take the needs of vulnerable groups into account at an early stage of development. The period during which banks and businesses incur double costs for supporting both the legacy and the new payment infrastructure could then be shortened considerably.

Another important adoption issue concerns safety. The adoption of a payment innovation will depend on how buyers and sellers perceive its level of safety compared to existing payment instruments. Therefore, I highly appreciate the investment made by payment innovators and sellers to enhance the safety of payment cards and internet banking. In the Netherlands, payment card fraud at the point of sale and ATMs has increased in recent years. Retailers have now agreed with banks to switch to the safer EMV payment technology faster than was originally planned. I realise it may be challenging to offer payment instruments that are both safe and easy to use and to strike the right balance between stricter safety measures and user-friendliness. On the one hand, one doesn't wish to scare off buyers and sellers with complicated and costly safety measures. On the other, however, buyers and sellers are sometimes the weakest link in the payment chain and one would like to see them protect themselves more adequately against criminals. It is important that banks continue to invest in safety and in consumer information about safe usage, so that both consumers and

retailers can make safe and efficient payment choices.

A final issue I would like to raise concerns payment fees. I know this is a very delicate topic. In order to provide an incentive for both buyers and sellers to use a new payment instrument, banks may need to charge them both user-friendly fees. You may wonder what I mean by user-friendly fees. I believe user-friendly fees should reflect the differences in costs of the different payment instruments for both buyers and sellers. That way, both buyers and sellers will benefit financially from adopting a cost-effective innovation, and both will be stimulated to use it.

Let me elaborate. In general, payment innovations enhance cost efficiency, which implies that the costs of a payment, based on the innovation, are lower than the costs of a payment made through an existing instrument. Pricing payment instruments in a way that reflects differences in costs will ensure that a new payment instrument is attractive to buyers and sellers alike. If the new payment instrument is always the cheapest available to both buyers and sellers, they will both be stimulated to use or accept it any time, and the adoption of the new payment instrument may run smoothly and rapidly.

Research among Dutch consumers and retailers has shown that if Dutch consumers have to pay for a payment instrument, they will often opt for an alternative that is free of charge, even if they appreciate the features of the priced payment instrument more. Moreover, we have found that lowering debit card charges leads to a higher acceptance rate of debit cards, a continuing increase in the number of debit card payments and a higher level of cost efficiency.

It may be challenging for banks to stimulate the adoption of a payment instrument in this way. In retail payments, buyers rarely pay for their payment behaviour; it is the sellers which shoulder the bulk of the costs. So, at first sight, buyers may think they are worse off

if they have to start paying for their payments. However, eventually they may actually be better off. Transparent pricing, with the payment innovation representing the cheapest payment instrument, provides both buyers and sellers with incentives to adjust their payment and acceptance behaviour and reduces payment costs for society. In the end, buyers will benefit from these social cost savings through lower consumer prices.

Now that we have discussed the conditions which may determine whether an innovation will be adopted on a large scale or not, I would like to look ahead and think about innovation in the future. My third and last message is addressed to payment innovators active in Europe: Please join forces!

Innovation is a creative process. It can take quite a while before the final specifications of a payment innovation have crystallised. Waiting until every country or bank is ready for innovation may hold up its development for years. This may prove harmful to the innovation, because it may turn out to be past its sell-by date before it is even born. Therefore, I would like to encourage communities with ideas for something new to start developing, to experiment, to learn and to share their experiences with their European counterparts. This can be done in a competitive environment. I would be in favour of having leading players in Europe develop open standards together and welcome other interested players to join this initiative when they are ready. In the Netherlands, three banks took such an approach when developing iDEAL, the Dutch e-payment solution. Other banks joined in at a later stage. iDEAL has become a great success.

I fully support standardisation at the European level. Too many variations in one basic type of payment innovation cannot be efficient and could cause all of them to fail. I realise that developing new payment innovations in a European context will be much more challenging than it used to be in national markets. Payment habits differ considerably among countries.

In some countries, people may be ready for a payment innovation, whereas elsewhere people may actually be quite content with the existing options. In addition, coordinating the development and introduction of an innovation has become much more complex, because of the increased number of parties involved. Despite the complexity, the European Payments Council successfully managed to develop the standards for the SEPA credit transfer and the SEPA direct debit, and to draw up the SEPA cards framework.

The next, and perhaps even bigger, challenge is to work on future European payment solutions such as e-payments and mobile payments. Each country has its own ideas and wishes as to the best specifications for a payment instrument. Finding compromises acceptable to all countries that could form the basis for a European payment solution is challenging and time-consuming. To be honest, this is a reason for concern. But perhaps it is even more of a concern to the banking community itself. Buyers and sellers in Europe may not wait patiently for a European payment solution developed by the banking community. If non-bank payment service providers or global players in payments come up with a suitable payment solution first, this solution might be chosen rather than one developed by the European banking community. Incidentally, this solution may be equally beneficial from a social welfare point of view, provided that sound standards are maintained for safety and reliability.

Public authorities, including central banks, support payment innovation. The best way of doing so is by providing a regulatory framework that ensures safety and gives plenty of opportunities for new initiatives.

I am coming to the end of my speech. Payment innovations are highly important. I have much faith in the innovative power of banks, card associations and payment service providers. And I am confident that they, too, will come up with new payment innovations and instruments in the future. Payment innovators, keep in mind

that for a successful adoption, you will have to focus on the future needs of both European buyers and sellers. I fully understand that innovating in a European landscape presents quite a challenge. But I trust that we will see new initiatives flourish in our market in the future. I thank you all very much for your attention and I wish you a pleasant and fruitful second conference day.

### 3 DETAILED SUMMARY OF THE THEMES

#### 3.1 RETAIL BANKING AND PAYMENTS

The first session of the conference, chaired by **Lucas Papademos** (Vice-President of the European Central Bank), brought together one keynote contribution and two papers on the relevance of retail banking and payments for banks' profitability.

The session started with the keynote presentation by **Bertrand Lavayssière** (Capgemini Group) providing a combined view of retail banking and payments and exploring whether retail payments are a profit earner or a cost driver for banks. Comparing time series data on retail net income and domestic retail banking return on equity (ROE) for selected banks, the main contribution of the presentation was to highlight the stable character of retail banking revenues and in particular that of payment revenues. Retail payment revenues amount up to 25% of total bank revenues and did not suffer massively from the current financial turmoil. In addition, Mr Lavayssière stressed that retail payment services may often result in a long term bank-customer relationship. Yet, retail payment revenues are under pressure, because of the integration of the European payments market (e.g. increasing competition, additional investments), a more critical stance of competition authorities (e.g. float, interchange fees), changing customer needs and technological developments. He concluded that retail payment revenues can be retained if banks invest in innovations, adapt their pricing models, cut back operational costs and increase payment volumes. A prerequisite for this is that banks have a clear view of the costs and revenues of their retail payments activities.

The first paper presented in this session was by **Iftekhar Hasan** (Rensselaer Polytechnic Institute and Suomen Pankki), **Heiko Schmiedel** (European Central Bank) and **Liang Song** (Rensselaer Polytechnic Institute) and analyses

further the fundamental relationship between retail payment business and overall bank performance, also against the background of the current ongoing financial market turmoil. During periods when other sources of income are more volatile, payment services will contribute to banks' business as banks can count on the reliable and regular revenues generated by payment services. In this respect, the turmoil may cause banks to reconsider their business models and concentrate on their public role: namely to provide innovative and efficient pan-European payment services, as well as offering current accounts and business and personal loans. The paper takes Europe as the testing ground for the link between retail payments and bank performance because the current retail payment infrastructure in the European Union is still fragmented and largely based on traditional national payment habits and characteristics. At the same time, one can also obtain further insight into how SEPA will affect the banking industry once it has been fully implemented.

In their empirical analysis, Hasan, Schmiedel, and Song show that the performance of banks in countries with more developed retail payment service markets is better. This relationship is stronger in countries with a relatively high adoption of retail payment transaction technologies, like automatic teller machines (ATMs) and point-of-sale (POS) terminals. Retail payment transaction technology itself can also improve bank performance, and evidence shows that heterogeneity in retail payment instruments is associated with enhanced bank performance. Similarly, a higher usage of electronic retail payment instruments seems to stimulate banking business. The evidence also shows that retail payment services generate stable revenues for banks and decrease their risk. The results appear to be informative for the industry when reconsidering its business models in the light of current financial market developments and provide strong support for the SEPA initiative.

The second paper in this session, by **David Humphrey** (Florida State University), explores payment scale economies, competition

and pricing policy. The paper shows the existence of strong economies of scale in banks' payment activities for European countries. In fact, as a rule of thumb a doubling of payment volume increases operating expenses by only one third. Moreover, Mr Humphrey also demonstrates that cross-country differences in banking market competition are not substantial. This finding supports the view that different prices for individual banking services do not necessarily translate into large revenue differences among banks across European countries. Mr Humphrey shows his preference for direct transaction-based pricing of payment services. This would, according to him, not only improve consumer choice and transparency, but also has the potential to "automatically" increase revenues of banks. This would also permit a clearer assessment of price competition in payment services.

In his discussion, **Barry Scholnick** (University of Alberta) praised the paper by Hasan, Schmiedel, and Song as an important analysis of the fundamental relationship between retail banking and payments. The message that policy-makers and industry representatives should take away is that retail payments matter for bank performance. Hence, the paper allows for a useful discussion of the drivers and the impact of SEPA. However, the results depend on the assumptions on which they are based. In particular, the paper considers that retail payments cause performance, while reverse causality could also play a role. For example, individual banks or banking systems may need to become profitable before investing in retail payment businesses. Considering bank-specific characteristics and regime shifts (e.g. the introduction of the euro) might yield additional interesting results.

Regarding the paper by David Humphrey, Scholnick stressed that the study provides new, innovative insights, tackling hard problems with important policy implications. In particular, since usual methods yield mixed results, he welcomed the shedding of further light onto measuring competition in retail banking and payment markets by providing new alternative

measures. However, using residual methods requires many determinants to be controlled for and there is a risk that important variables may be omitted. As a possible extension of the paper, it might be interesting to investigate empirically and to provide explanations for differences in economies of scale in ATM markets across different countries.

## 3.2 INTEGRATION, COMPETITION AND REGULATION OF THE RETAIL PAYMENTS MARKET

### 3.2.1 INTERCHANGE FEES

**Damien Neven** (European Commission) introduced the session on payment cards and interchange fees by explaining that a collective determination of interchange fees is contrary to Article 81(1) of the EC Treaty, unless the conditions cited under Article 81(3) of the EC Treaty are fulfilled. Reference was made to the "tourist test". The purpose of this test is to set interchange fees at a level that internalises the external effects of the decision of the cardholder to use cards. Ultimately, what is measured is the benefit the merchant receives by accepting a payment card instead of a cash payment. There is no fundamental distinction between debit and credit cards in the way the "tourist test" was applied in the MasterCard case. However, the level of interchange fees calculated for credit cards is higher since the merchant benefit is higher than in the case of debit cards.

**Jean-Charles Rochet** (Toulouse School of Economics) presented his joint paper with **Julian Wright** (National University of Singapore) on "Credit card interchange fees". The purpose of the paper is to expand the benchmark model of the tourist test for cards with credit functionality. The paper shows that competition between networks alone is not sufficient to yield the socially optimal interchange fee level unless consumers "multi-home" (i.e. possess all card brands), which demonstrates the need for intervention. If regulators intervene in the case of credit



cards, two benchmarks may be used: a) the “tourist test” or “merchant avoided cost test” and b) the “consumer surplus maximisation” (as applied by the Reserve Bank of Australia, i.e. the issuer cost + some surplus). The conclusion of the paper is that benchmark b) is the preferred solution under some conditions, which, however, due to a lack of data, are difficult to prove. Therefore, it is safer in practice to follow benchmark a).

**Sujit Chakravorti** (Federal Reserve Bank of Chicago) presented his joint paper with **Santiago Carbó-Valverde** (University of Granada and Federal Reserve Bank of Chicago) and **Francisco Rodríguez Fernández** (University of Granada) on “The costs and benefits of interchange fee regulation: An empirical investigation”. The paper looks into the issue of the socially optimal interchange fee. The main conclusion is that interchange fee regulation has had a positive effect on consumer and merchant card adoption and usage. Some evidence suggests that even banks are better off after the intervention, since the increase in the volume of transactions offsets the decrease in per-transaction revenue. However, once the network (adoption and usage) externality is eliminated, interchange fee regulation may not further improve social welfare.

**Charles M. Kahn** (University of Illinois at Urbana-Champaign) served as a discussant of both papers. Regarding the paper of Carbó Valverde, Chakravorti and Rodríguez Fernández, Mr Kahn emphasised the need to “take on board” potential network effects between the two sides of the market when regulating interchange fees. Mr Kahn added that the paper makes a convincing case for interchange fee regulation in some cases but that it would be interesting to focus more in the modelling on the difference between credit and debit cards in the data.

Regarding the paper by Rochet and Wright, Mr Kahn noted that the idea of store credit (credit provided by retailers being cheaper than credit cards) is an interesting feature to

be considered. The costs of offering the credit functionality associated with a payment card are crucial for understanding the social benefits of payment cards. For future work, Mr Kahn recommended that debit cards be explicitly included in the analysis.

Questions from the audience focused in particular on surcharging – whether, in the presence of surcharging, the tourist test concept still holds. Participants from the audience also wondered if the tourist test calculation can also be applied in the case of card-not-present transactions (where a cash payment cannot be considered as an alternative). Comments were also made regarding the “no charge for cash” issue and the fact that the tourist test does not take into account the benefits for the merchant.

Responding to audience questions, members of the panel explained that surcharging could deliver a partial solution to the issue of setting interchange fees, which also appears to be an efficient practice. In the case of surcharging, there is no need for intervention. However, even when allowed, surcharging is in practice rarely applied by merchants and is perceived more as a negotiation tool. Furthermore, there is a risk that merchants may abuse surcharging if, for example, no limit is set on the amount surcharged, and this could hinder the use of payment cards. In short, surcharging has pros and cons and tends to diminish (but not necessarily extinguish) the need for regulation. It was also explained that the tourist test needs to be further refined, in order to capture card-not-present transactions and some hybrid (in-between credit and debit) payment instruments. Finally, the possibility that an intervention on interchange fees would benefit three-party schemes was also mentioned.

### 3.2.2 ISSUES IN RETAIL PAYMENT SYSTEMS IN EMERGING MARKETS AND THE EU

The session on issues in retail payment systems in emerging markets and the EU featured presentations from **Massimo Cirasino**

(World Bank) and **Stefan Schäfer** (Deutsche Bank). The session was chaired by **Andreas Dostal** (Oesterreichische Nationalbank).

Massimo Cirasino highlighted the World Bank's perspective on issues in retail payment systems in emerging markets. His presentation was based on two World Bank papers – “Measuring payment system development”, jointly written with **José Antonio Garcia**, and “Balancing cooperation and competition in retail payment systems”, coordinated by **Mario Guadamillas** and co-authored together with **Sergio Gorjón**, **Constantinos Stephanou**, **Tito Cordella** and **Jane Hwang**. The Payment System Development Group of the World Bank is at the centre of an international network which is helping developing countries to develop sound, efficient and accessible payment and securities settlement systems. The World Bank launched a Global Payment Systems Survey in 2008 in which 128 central banks and 142 countries participated and intends to repeat this survey in future. The survey is a first attempt to measure payment system development levels across countries and provides central banks with information on the performance of their payment and settlement system. In his presentation, Mr Cirasino focussed on the survey findings in the field of retail payment systems only. More than 15 years of discussion and reforms have led to important progress worldwide with regard to high value payment systems. Retail payment systems in developing countries, however, still lag behind. In order to assess the stage of development in retail payments, two indicators are discussed in the paper: i) the deployment of infrastructure to process retail payments and the oversight policy on it, and ii) the extensiveness and inherent efficiency of the retail payment instruments used. The survey results reveal huge cross-country differences. China, Eurasia, Eastern Europe and Latin America are among the forerunners compared to other emerging markets, according to both indicators.

The second paper, “Balancing cooperation and competition in retail payment systems”,

discusses the complex interplay between cooperation and competition among market players in retail payment systems. Retail payment instruments and infrastructures are essential for the development of a market economy and for the inclusion of all citizens and businesses in the financial system. Mr Cirasino stated that the proper functioning of a retail payment system depends on how well market players cooperate in some parts in the payment chain and compete with each other in other parts. Cooperation between payment service providers is needed in the standardisation of payment instruments, in payment processing and in the development of, for instance, shared payment processing platforms. Competition will be desirable in offering payment services to end-users, as it enhances accessibility and affordability of payment services. In general, payment service providers will cooperate upstream in the payment process and compete with each other downstream. Mr Cirasino recognises that balancing cooperation and competition may not always be easy, because of coordination failures. Too much competition may lead to interoperability issues and limit accessibility or generate inefficiencies due to duplications of payment instruments and infrastructures. Too much cooperation, however, may lead to collusive behaviour affecting the accessibility and affordability of retail payment services.

The Committee on Payment and Settlement Systems (CPSS) has identified the efficiency and the reliability of retail payment systems as public policy objectives. According to Mr Cirasino, at least three policy goals should be considered: i) the achievement of a socially optimal use of payment instruments, ii) the deployment of an efficient infrastructure to support payment services, and iii) affordability and ease of access to payment instruments and services. The achievement of these goals depends on finding the right balance between competition and cooperation. Mr Cirasino briefly described the four guidelines formulated by the World Bank that provide a set of tools for public authorities to examine whether

cooperation and competition are well balanced in their country.

The third paper of the session, “EU retail banking: measuring integration” by Stefan Schäfer, explores different indicators for measuring the degree of integration in the European retail banking market. Mr Schäfer introduced his paper by describing the circumstances that led public authorities to put the integration of the European retail banking sector on the European political agenda. The economic benefits of the integration of nationally oriented retail banking segments into a single European retail banking market (increased competition in retail banking, economies of scale) are beyond question. Therefore, public authorities think that the integration process should be stimulated, in some cases by means of regulation. However, Mr Schäfer argued that the need for regulatory action in a specific field is often claimed on insufficient empirical basis. One of the problems is the lack of clarity about what is meant by integration, leading to uncertainty concerning the indicators to be used for measuring integration. Mr Schäfer considered three different definitions of integration (market performance, market conduct and market structure) and discussed for each definition several qualitative and quantitative integration indicators to assess the degree of integration in that area, as well as the pitfalls associated with them. Mr Schäfer highlighted several indicators in particular and the problems associated with interpreting them. One of the issues with respect to measuring integration is the existence of natural barriers between countries (distance, language, etc.) that may prevent full integration even if artificial barriers have been removed. In his concluding remarks, he stressed the importance of a thorough assessment of the validity of indicators and the interpretation of them.

In her discussion, **Nicole Jonker** (De Nederlandsche Bank) praised the work done by Mr Cirasino and his colleagues at the World Bank, especially their comprehensive

cross-country overview with respect to the development of retail payment systems. To visualise the development of the retail payment markets she suggested relating past classifications of countries to future ones and constructing transition matrices from one classification category to another. Such matrices could be used by the World Bank to make predictions about the future development of retail payment systems.

Regarding the second World Bank paper, Ms Jonker noted that developing countries are often characterised by a lack of interoperability in ATM/POS networks, a lack of standardisation in payment services and by fragmentation of the processing market. In addition, more clarity may be desirable with respect to the responsibilities of different public authorities. She pointed out that the right balance between cooperation and competition may depend on the stage of development of the retail payment system. For developing countries it is crucial to develop a common smooth functioning and efficient payment infrastructure and to develop common standards for payment instruments with a stronger focus on mutual cooperation. Competition will become more important at a later stage of development.

Ms Jonker also commented Mr Schäfer’s paper and noted that it contains many original ideas and appreciated the balanced and clear writing style. With respect to the interpretation of the integration measures, she questioned whether the tendency of bank clients to switch banks is a suitable indicator of client satisfaction. A low tendency to change banks may indeed indicate a high level of satisfaction. However, it might also flag high switching costs (time, bank penalties for switching to another bank or banks offering to reduce fees when a customer wants to switch). Therefore, she suggested that switching rates and switching costs be measured simultaneously. Regarding the existence of natural barriers which prevent full integration, she argued that natural barriers may also be present

*within* countries. Therefore, she suggested that integration be measured both within and between countries in order to assess the seriousness of natural barriers between countries. She also briefly presented some results of a longitudinal consumer survey conducted by herself and **Anneke Kosse** to measure the degree of convergence between domestic and cross-border payment behaviour of Dutch consumers. Their goal is to examine the impact of SEPA on domestic and cross-border payment behaviour, focusing on market performance and market conduct, and to gain insight into the barriers the Dutch experience when making cross-border payments. The research results reveal that, in general, cross-border payment behaviour differs from domestic payment behaviour. Differences in the acceptance of payment instruments prevent the Dutch from using their preferred payment instrument abroad.

Ms Jonker rounded off by stressing the importance of the studies by Cirasino and Schäfer. They provide policy-makers with useful information for formulating well-founded policies and for identifying issues that need to be resolved.

In the general discussion, the issue of cooperation between developed and developing countries in setting up a smooth functioning and efficient retail payment system was raised. It turns out that, at present, foreign banks stimulate cooperation in retail payment systems in developing countries. Another issue concerned mobile payments (m-payments). For citizens in developing countries, it may be easier to get access to m-payment services than to banking services. Therefore, it may be useful to look at m-payment services in future surveys.

The audience agreed with Mr Schäfer that it may be very hard to find good quality indicators of integration in retail banking. Finding good indicators to measure financial integration has also proved to be challenging. As a compromise, it was suggested that a broad set of indicators

be defined to examine integration and that integration be approached from different angles. Using different indicators may be of help in interpreting the results and identifying barriers to full integration.

### 3.2.3 PANEL SESSION: THE FUTURE OF RETAIL BANKING AND PAYMENTS – DEVELOPMENTS IN GLOBAL MARKETS AND THE ROLE OF CENTRAL BANKS

**Gertrude Tumpel-Gugerell** (member of the Executive Board of the European Central Bank) chaired the panel, which comprised a group of (current and former) central bankers: **Pentti Hakkarainen** (Deputy Governor of Suomen Pankki), **Thomas Hoenig** (President of the Federal Reserve Bank of Kansas City), **Randall Kroszner** (former member of the Board of Governors of the Federal Reserve System) and **Ling Tao** (Director General for Financial Stability and Statistics of the People's Bank of China). The panellists were invited to discuss their expectations with regard to future trends in retail banking and payments and to the future role of central banks. The panellists' responses centred largely on three broad issues: i) the factors influencing current retail banking and payment markets, ii) the growing role of non-banks, and iii) the challenges encountered by central banks. The following key insights were drawn from the session.

#### FACTORS INFLUENCING CURRENT RETAIL BANKING AND PAYMENT MARKETS

Payment systems have weathered the financial turmoil very well, preventing risks from being spread even further. This has sustained confidence in the payments sector. Moreover, during the financial crisis, retail banking has proved its merits. Unlike other banking activities, retail deposits continued to yield stable revenues. Nonetheless, the current crisis is expected to have a substantial impact on current retail banking and payment markets. A reference was made to the Finnish banking crisis between 1991 and 1995, which pushed Finnish banks to further enhance their efficiency as a means of

survival. This resulted in a sharp increase in the use of electronic payment systems. There was widespread agreement among the panellists that the current turmoil should be seen more as an incentive for further innovation than as a delay, and that it may speed up competition, the entry of non-banks into the market and cross-border activity in retail banking and payments.

In addition to the financial crisis, various other factors are expected to stimulate change in retail banking and payment markets. First, new technologies, such as ATMs, POS terminals, the internet and advances in the telecom industry, offer huge opportunities in terms of new ways of paying and doing business. Second, borders are increasingly disappearing, both between countries and between businesses. Third, it is no longer necessary to make a big investment to start a new business activity or payment service. There are several banking software suppliers and comprehensive banking systems available, making it possible to start a new banking service at relatively low cost. All these factors will affect the current market structure: markets will further integrate, competition will increase, new (bank and non-bank) players will enter the market, and concentration in the industry will increase.

Some special attention was paid to the integration of national markets. The view was shared that market integration will not only benefit the entire economy of the overall integrated market (e.g. at a European level), but individual countries as well, in terms of increased efficiency, bank performance, economic growth, local entrepreneurship and reduced prices for retail payment services. One panellist stressed the fact that effective competition can go hand in hand with increased levels of banking concentration at the national level, as long as the number of players active in wider regional markets increases. In order to further increase the integration of retail banking, cross-border banking should be stimulated. There might be a role for central banks in, for example, setting standards to open current national markets and by promoting interaction between market

participants. Issues such as national security and money laundering should not be used as a reason for protectionism.

#### **THE GROWING ROLE FOR NON-BANKS**

In addition to affecting the structure of the retail banking and payments industry, the ongoing and rapid development of new technologies will change consumer expectations as well. Consumers will increasingly ask for new electronic means of payment. Here an important role is expected for non-banks. Especially in the field of low-value, cross-border, person-to-person transactions (remittances), non-banks play an increasingly important role by offering payment services and products that make the payment process more convenient. Given the high efficiency of new electronic ways of paying, one panellist even argued that these kinds of service should be free of charge. The telecommunications industry is expected to become an important player in the payments area, using mobile phones as a money transfer tool, especially in developing countries where “regular” payment systems are less developed and a large proportion of the population has access to mobile phones. To illustrate the potential of mobile phones as a payment tool, reference was made to Kenya, where a mobile phone transfer system was introduced in 2007 and is now used by almost 40% of the population. In China too, the development of m-payments is expected to benefit the retail payment environment in the less developed rural areas in particular.

#### **CHALLENGES ENCOUNTERED BY CENTRAL BANKS AND THEIR ROLE IN PAYMENTS**

Due to these expected future trends in retail banking and payments and in consumer expectations, central banks are encountering new challenges: how to protect the rights of consumers, users and providers, how to mitigate risks, how to guarantee and stimulate policy transparency and competition and how to shape the regulatory framework.

The panellists held different views regarding the role of central banks in retail payments. Should

central banks have a regulatory role only, or are there good reasons for central banks to act as a player in the market at the same time as having a regulatory role? According to some panellists, outsourcing payment activities to service providers would increase overall efficiency because, in general, private banks are more efficient than central banks. In addition, central banks should not provide payment services themselves, because of the risk of crowding out private enterprises. Therefore, the role of central banks should be rather limited, mainly concerned with promoting efficiency, safety and reliability in the overall payment system and dialogue between market participants. However, this vision was not shared by all panellists. In some countries, such as the United States, the central bank has been active in the retail payment system for many years. In view of, in particular, the externalities associated with offering and using payment services, central banks might take over the operational role and give the market a push by creating critical mass, thus triggering the entry of financial and non-financial players into market. The US view is that central banks can stimulate the industry by acting as a participant in a market open to full competition.

There was a widespread agreement on the panel that, given the operational and systemic risks associated with the payment system, central banks should have a strong role in the oversight and supervision of bank and non-bank retail payment service providers. In particular, the increasing entrance of non-banks into retail markets entails regulatory and supervisory challenges. Central banks should be aware of this and be ready for it. However, an optimal balance should be found between regulation and supervision on one hand, and market competition on the other.

Finally, central banks could play an important role in stimulating cross-border banking, innovation and competition. Global standards are needed to facilitate cross-border innovation, for example with respect to the user-friendliness, security and costs of new initiatives. Here,

central banks could make an important contribution.

### 3.2.4 PRICING AND COMPETITION IN PAYMENT CARD MARKETS

**Michele Bullock** (Reserve Bank of Australia) introduced this session by saying that so far there has been little consensus – either among policy-makers or among economic theorists – on what constitutes an efficient fee structure for card-based payments. Society would be better off if it made more use of the most efficient payment system. But the efficiency of a payment system is measured not only in cost of resources, but also in the social benefits it generates. This makes good public policy a difficult matter. Therefore, empirical evidence should play a greater role to shed further light into this debate.

**Özlem Bedre** (Toulouse School of Economics) and **Emilio Calvano** (Toulouse School of Economics) have studied the determinants of socially and privately optimal interchange fees in a card scheme, where services to consumers and merchants are provided by a monopolistic issuer and perfectly competitive acquirers. The authors distinguish card membership from card usage decisions (and fees). In doing so, they reveal the implications of an asymmetry between consumers and merchants: the card usage decision at the point of sale is delegated to cardholders, since merchants are not allowed to turn down cards once they are affiliated to a card network. Ms Bedre argued that this asymmetry is sufficient to induce the card association to set a higher interchange fee than the socially optimal one. This distortion of the payment fee structure leads to excessively low card usage fees at the expense of excessively high merchant fees. Ms Bedre recommended regulatory caps on interchange fees as a way to improve economic welfare. These qualitative results are robust to imperfect issuer competition, imperfect acquirer competition, and to other factors affecting demand, such as elastic consumer participation or strategic card acceptance to attract consumers.

In their paper, **Wilko Bolt** (De Nederlandsche Bank) and **Heiko Schmiedel** (European Central Bank) analyse the welfare implications of the emergence of an additional European card scheme within SEPA. The authors study the effects of increased network compatibility and payment economies of scale on consumer and merchant card fees and the subsequent impact on card usage. In particular, Bolt and Schmiedel model competition between a debit card and credit card network. Competitive pressures depress merchant fees and thus increase total card acceptance. The paper demonstrates that there is room for multilateral interchange fee arrangements to achieve optimal consumer and merchant fees, taking safety, income uncertainty, default risk, merchant pricing power, and the avoided cost of cash on the merchant side into account. As a policy recommendation, the analysis shows that the launch of a new European card scheme could provide the impetus for solving the problem of interoperability and overcoming the costly fragmentation of the European card market. In effect, consumers and merchants are likely to benefit most from SEPA when there is sufficient payment card competition to alleviate any potential monopolistic tendencies.

**Jean-Charles Rochet** (Toulouse School of Economics) discussed both papers. Regarding the paper by Bedre and Calvano, Mr Rochet appreciated the main finding that socially optimal interchange fees are lower than privately set ones whenever fixed fees for consumers are introduced. It is crucial to distinguish between card holding and actual usage. It is not entirely clear which mechanism drives the level of the fixed fee. Complete rent extraction by the social planner could leave the issuing banks without profits – a situation that may endanger dynamic efficiency. If there is no room for investment, innovation might be stifled in the long run. Moreover, the question arises of whether these outcomes can also be obtained by only imposing transaction fees. For example, consumers in the United States pay hardly any fixed fee for holding cards. It would be worthwhile to better link the paper to the empirical literature which

attempts to explain cross-country variations in the payment fee structure of card payments.

In his discussion of the paper by Bolt and Schmiedel, Mr Rochet noted the clever and elegant way of modelling the European card industry, providing a first theoretical analysis of the potential effects of SEPA. The results are intuitive and interesting, but may benefit from further clarification of the new insights. Besides model calibration, he suggested considering additional scenarios, e.g. two competing debit card schemes. Moreover, default risk in the model is exogenous and entirely taken by banks, which may induce moral hazard. He concluded that the analysis provides fruitful grounds for further study into which new business models are most likely to emerge within SEPA.

Questions from the audience concerned the relationship between benefits and costs. Not only should the cost of card payments be modelled but also the benefits that they generate for consumers and merchants. Mr Bolt replied that in their analysis the benefits lie in increased safety and decreased income uncertainty at the level of the individual, and that positive economies of scale and overcoming costly fragmentation play an important role at a country level. Another question raised was why SEPA would not have evolved naturally from within the European banking communities, and instead required guidance and stimulus from public authorities such as the European Commission and the ECB. The United States serves as an example in this regard, where payment systems were harmonised and integrated without the help of public authorities. The obvious response lies in the multi-country dimension of the SEPA project: every country has its own payment habits, payment infrastructures, and payment processing procedures. This costly fragmentation may involve conflicts of interest which are difficult to overcome without external intervention.

A final remark concerned access to the banking market. Effective competition is obstructed when new entrants cannot access existing

bank infrastructures to process payments. This gives rise to the difficult issue of “access pricing”. Excessively low access prices would allow inefficient players to enter the market, but excessively high access prices would stifle competition. Examples from the liberalisation of telecom markets may give some guidance in this context.

### 3.2.5 COSTS AND BENEFITS OF PAYMENT INSTRUMENTS

**Huw Pill** (European Central Bank) chaired the session on the costs and benefits of different payment instruments. The objective of the paper by **Olaf Gresvik** (Norges Bank) and **Harald Haare** (Norges Bank), “Costs in the Norwegian payment system 2007”, was to conduct an empirical examination of the costs of payment instruments to society, to payment service providers and to households. Data for the study were collected in 2007. The study updates previous Norges Bank surveys on costs of payments in 1988, 1994 and 2001. The longitudinal aspect of the work also sheds light on cost developments and payment instrument usage.

The study aims to capture all costs related to the most common Norwegian payment instruments, including cash. Social costs and private costs for different agents and payment instruments are calculated on the basis of surveys of banks, merchants and households. In addition, the study makes use of payment statistics from Norges Bank and general population statistics from Statistics Norway. The study uses a social cost methodology in which private costs for each agent, including fees paid and fees received, are calculated separately. The payment service providers reported their own costs in detail on the basis of adjusted activity based costing. The social costs were calculated as the sum of each agent’s private costs minus subcontractor fees paid.

According to the study, the social costs of the payment systems covered by the survey was NOK 11.2 billion, equivalent to 0.49% of

Norwegian GDP. Some 44% of the social costs were incurred by banks and 21% by various subcontractors, meaning that around two thirds of the total social costs were generated by the production of payment services and the other third by the use of payment services. Time and pricing models were found to be relevant cost items. Fees paid were divided quite evenly between banks, merchants and households, at around one third each.

When calculated per payment instrument, card payments accounted for nearly half of the total social costs. Card payments also generated almost half of the payment volume. Calculated crudely, cash payments make up about 26% of the payments volume and over 31% of the social costs, of which the majority relates to withdrawal and deposit costs. The volume of cash payments, however, is somewhat ambiguous, as both national accounts and ATM surveys point to a far higher number of cash payments than the household survey used in the study. The paper does not delve very deeply into this anomaly.

In 2007 in Norway, 96% of non-cash payments were processed electronically. The share of electronic payments has been increasing for several years. The survey of banks’ unit costs showed a substantial decrease compared to the previous study in 2001, especially for internet banking. Also banks’ cost recovery had improved for all payment instruments other than cash, which still remains a highly cross-subsidised product. When cash operations are excluded, banks’ overall productivity in the area of payment transmission improved remarkably over the observation period of 1988-2007. Norges Bank has for years promoted a view that payment services should be priced and that the price level should reflect relative differences in the cost levels of producing these services. According to the authors, the prices of payment services in Norway do reflect their relative production costs.

In addition to their own results, the authors make a brief comparison between their study and several other European cost surveys. Unfortunately



the comparability of the studies is limited due to differing scopes and methodologies. There is a clear need to improve and coordinate the development of methodologies in this field in order to be able to compare countries in a consistent manner. The Eurosystem's initiative to conduct a pan-European survey on payment costs may contribute to this.

The paper by **Santiago Carbó-Valverde** (University of Granada) and **José M. Liñares-Zegarra** (University of Granada) studies how consumers may be encouraged to use more debit and credit cards instead of cash through various reward programmes. As their inspiration, the authors refer to recent studies highlighting the efficiency gains for society from electronic payments in general and from paying by card rather than cash in particular. The hypothesis of the study is that reward programmes may significantly promote the use of cards and hence contribute to efficiency. The study goes even deeper in its analysis and discusses how different types of reward and different merchant categories affect the perceived utility for the cardholder. In addition, the paper benefits from a comprehensive literature review of previous related studies.

Using a binary mixed logit model, the authors examine the influence of incentive programmes on the payment behaviour of consumers. The dependent variable shows whether a consumer uses a payment card or cash at different types of merchant outlet and, in case of payment cards, the presence of different reward programmes is controlled for. The variables used to explain the probability of the consumer using a given electronic payment instrument include customer characteristics and card-specific attributes. Data for the survey were collected in 2005 in a national survey of nearly 3,000 individuals with payment cards.

The results of the study are reported in two sets: the overall effects of rewards for all sectors and the sector and reward-specific outcomes. The role of reward programmes is positive in all cases, and even higher for debit

cards than credit cards. There is considerable variation in the effects of reward programmes. Their impact differs depending on the type of reward and the merchant sector. Comparing different reward types, cashback was found to be the most efficient promoter of card usage. Cardholders were especially sensitive to rewards at department stores, hotels and travel, supermarkets and petrol stations. When compared both by reward and by merchant type, cashback in supermarkets and department stores had the most significant effect on cards usage. The authors noted that merchants are also willing to stimulate card usage.

In recent debates on payment card business models, the card industry has referred to the industry experience of higher spending at the point of sale when the payment is done with a card than with cash. The study of Carbó-Valverde and Liñares-Zegarra found that debit card holders receiving rewards increase their value of purchases by €326.89 for every 100 transactions made. In the case of credit cards, the value of increased sales per 100 transactions is as high as €531.10.

The paper concludes with some policy recommendations to look more closely at the structure of incentives in the payment industry and at substituting cash with payment cards. It is known that some of the reward programmes entail large costs for payment card issuers or merchants. This expenditure needs to be balanced against the effectiveness of the incentives for cardholders to use their cards at the point of sale.

Both papers were discussed by **Harry Leinonen** (Suomen Pankki). Regarding the paper by Olaf Gresvik and Harald Haare, he highlighted the importance and multifaceted nature of payment cost research due to the special characteristics of the market: network industries, hidden price elements and seignorage. He also praised the many merits of the groundbreaking Norwegian research in the field of payment costs. Both the authors and the discussant recognised that the efficiency of payment instruments is a

broad concept than costs, and that the public's choice of payment instrument is not based on costs alone.

The discussant took up the question of which costs should be allocated to payments, as in today's world many services are bundled, even across businesses, and this presents a special challenge to cost studies. Credit, insurance, electronic invoices and payment account interest rates were mentioned as examples of these kinds of payment-related service. However, the costs incurred in providing such services cannot be allocated directly to payments alone. The fact that payments is a "fixed cost industry" and volumes are determined externally also affects unit cost calculations, making their interpretation challenging. But at the end of the day, it is always the customers who pay for the production costs and profits of the payment industry. Those who are interested can find the detailed questionnaires used in the study in another Norges Bank publication.

In his discussion of the paper by Carbó-Valverde and Liñares-Zegarra, Leinonen highlighted how payment habits are influenced by multiple variables. He compared two ways of encouraging customers to use the socially most efficient payment instruments: first, the transparent costs based pricing model and, second, visible incentives in the form of rewards combined with hidden costs internalised by merchants. He concluded that the perceived value of the rewards is probably another important factor. Leinonen also discussed the heterogeneous developments in different parts of Europe: in northern Europe, where payment cards in general and debit cards in particular are heavily used, reward programmes are rare. However, according to Blue Book statistics, the usage of payments cards in Spain is still rather low, and it might be worth studying whether there are some other disincentives or frictions slowing down payment card usage. Also the overall benefits of reward programmes could be researched further. Overall, the quantitative study of the power of reward programmes to change customer behaviour provides valuable

understanding of this common phenomenon in many payment card markets, and provides a basis for further research.

### 3.3 PAYMENT HABITS AND THE ADOPTION OF PAYMENT INNOVATIONS

#### 3.3.1 PANEL SESSION: NEW PAYMENT INSTRUMENTS – REQUIREMENTS AND EXPECTATIONS OF LARGE USERS

The panel session on the uptake of new payment instruments and the role of large corporations, chaired by **Lance Blockley** (Edgar, Dunn & Company), brought together an interesting mix of people from the European Association of Corporate Treasurers, ING Netherlands, the Spanish Ministry of Economic Affairs and Finance, the Italian technology provider SIA-SSB and the Austrian treasury and financial management consultancy Schwabe, Ley & Greiner. Mr Blockley began the session by arguing that consumers have had little direct influence on innovations in payment markets, and that large retail groups have instead been the drivers of change. They value speed, convenience, security and customer loyalty. Clearly, on the supply-side financial incentives play an important role – i.e. the "business case" is king.

**Olivier Brissaud** (European Association of Corporate Treasurers and representative of the Payment System End Users Committee) was of the opinion that although, in his view, SEPA is a rather politically coloured project, it is clearly a good initiative. He admitted that banks have to play a major role in its implementation, but he also feels that users were "forgotten" at the beginning of the process and have only been involved for the past two years. Since, from a political viewpoint, the SEPA initiative must not be allowed to fail, regulation is looming. Mr Brissaud proposed a new democratic decision-making process in which all stakeholders are represented in order to find common ground and evaluate changes.

The European authorities should take the lead in organising the new structure. Clearly, users must have more say in the SEPA process. A first requirement for SEPA to become a success is that users accept the SEPA payment instruments. However, according to Mr Brissaud, SEPA is just an enabler for end-to-end straight through processing. It is important to move towards an “e-environment”, with e-invoicing being one of the most promising areas for efficiency gains and cost-saving potential.

**Mark Buitenhek** (ING) emphasised the tremendous efforts European banks have to exert to implement SEPA compliant payment instruments. SEPA direct debit looks like a simple, homogeneous type of instrument, but the involvement of banks across 31 countries made it a complex process to operationalise. However, in his opinion, this product provides a firm foundation on which over time banks, together with stakeholders, can build a fine product suite. Reaching agreement on SEPA cards will be even more difficult and complex. Involving more stakeholder groups at an earlier stage will make the decision-making process even more difficult. Therefore, in his opinion, a phased approach is necessary. He also pointed out two very expensive lessons learned in the Netherlands during the introduction of the stored value card (electronic purse), where two incompatible systems were introduced and ultimately failed: i) banks need to address the needs of customers and not focus too much on what the technology enables, and ii) standardisation is key in payments and cards. SEPA forms a good basis for an innovative payment landscape in Europe, but there is currently too little focus on payments for online sales, although online sales are currently growing at 25% a year. Since this is an area in which no single payments method yet dominates the market, an opportunity exists for the banking industry to set a European standard now. Mr Buitenhek argued that the very successful Dutch online payment system iDEAL could play an important role in the diffusion of payments based on online banking across European countries.

**Lucinio Muñoz Muñoz** (Spanish Ministry of Economic Affairs and Finance) argued that public sector innovation takes time. As an example, some current Spanish regulations have been in place since 1891, others since 1974. Mr Muñoz Muñoz said that attempting to increase economic welfare is a good thing, but that good burden sharing rules must be in place first. Sometimes increased transparency is not beneficial for innovation. For example, consumers in Spain are used to withdrawing money for free. Any new payment instrument which applies direct pricing on its service will face severe problems with customer acceptance, since Spanish customers expect payment instruments to be free, based on their experience with cash. Another burden for innovation is the requirement of security, and Mr Muñoz Muñoz admitted that public administrations are often particularly cautious. He found it ironic, however, that new systems are often expected to provide a high level of security that does not exist in legacy systems. He added that the current financial crisis makes it a difficult time to innovate. Finding simple efficient solutions is hard, especially for public authorities. Last but not least the public sector is a very specific type of customer and it is necessary not only to adapt the legal framework but also to change mentalities, procedures and processes too.

**Renzo Vanetti** (SIA SSB) saw four main drivers for innovation in the European payment landscape. First there is SEPA (and the PSD). New players, new instruments and new standards will dramatically change payment behaviour in Europe and will lead to a new level of payment competition. Second, the influence of consumer behaviour is underestimated. A new generation of internet users is emerging: these new users require new applications and they will ultimately become a completely new type of consumer. The new digital generation will experience payment services from a different perspective, looking for personalised and simple services anytime, anywhere. Innovation must be able to address this new generation’s trends and lifestyles.

Customer acceptance and usability will be the criteria for the success of innovations. This will have huge impact on, for example, the uptake of m-payments in the near future. Third, new technology has made real-time processing much easier and more accessible, empowering the business user and driving the convergence of business and IT. Fourth, the current financial crisis will slow things down for a while. This will probably pose problems for small and medium-sized enterprises. The global economic environment and restricted access to liquidity have highlighted the importance of an efficient cash management structure. The long-term success of any business depends on efficient management of working capital. Cooperation with a trusted banking partner with the range of cash management solutions required to optimally manage collections, payments and liquidity is therefore vital. There is a fantastic opportunity for fast-moving banks. Mr Vanetti is convinced that, ultimately, new users, both consumers and merchants, will push forward payment innovations, and SEPA provides the perfect platform to achieve this.

**Martin Winkler** (Schwabe, Ley & Greiner) presented some initial results of a SEPA survey conducted among 149 of the largest companies in Germany and Austria. One main finding was that not only are the vast majority of even the largest companies in Germany and Austria still far from ready for implementation, but they also have no plans to switch to using SEPA payment instruments in the foreseeable future. Nonetheless, most of the companies interviewed are aware of the SEPA initiative and attach considerable weight to the project. About half of the respondents see positive effects from the standardisation of payment formats and a reduction of bank payment fees. Only one in five companies said that they had fully switched to using SEPA credit transfers, which indicates the sluggish change in corporate behaviour regarding SEPA. Finally, uncertainty around the end-date for SEPA migration is adding to this apparent sluggishness.

Some of the questions from the audience were focused on security of payment instruments,

a prerequisite for widespread acceptance and usage. Panellists responded that the level of security is still a problem, especially when it is not clear beforehand how the cost of investing in payment infrastructure can be recovered from consumers and merchants. The panellists underlined the importance of having full clarity about the migration end-date beyond which national products need to be phased out. At present, public authorities are not providing this clarity. Moreover, payments provide a value-proposition to end-users and providers, but at present there is often not enough transparency about the way these payments are priced (e.g. the interchange fee issue in the MasterCard case). Finally, it was remarked that, although retailers should play a larger role in the SEPA process, they are not united among themselves, which may decrease their bargaining power vis-à-vis the commercial banks.

### 3.3.2 DETERMINANTS OF PAYMENT INSTRUMENTS AND CREDIT CARD USAGE

**Charles M. Kahn** (University of Illinois at Urbana-Champaign) chaired the session on determinants of payment instrument usage. The first paper, “Choosing and using payment instruments: Evidence from German micro-data”, was presented by **Tobias Schmidt** (Deutsche Bundesbank) and co-authored by **Ulf von Kalckreuth** (Deutsche Bundesbank) and **Helmut Stix** (Oesterreichische Nationalbank). The paper uses micro data on the payment behaviour of German consumers to determine how people use and choose payment instruments. Their study begins with the observation that, in Germany, consumers conduct 82% of all payments using cash, representing 58% of the overall transaction value. In order to explain the high use of cash in Germany, the authors employ a survey data set to identify the determinants for adopting and using a particular means of payment. The data are based on a survey conducted on behalf of the Deutsche Bundesbank in which 2,292 individuals across Germany were interviewed regarding their payment behaviour. The survey respondents were also asked to

complete a payment diary, recording detailed information about each transaction made by the respondent over the course of one week. Importantly, the cash share is calculated only for those transactions where the respondent actually had a choice (i.e. cash or card transactions where no other medium of payment was accepted by the merchant were excluded). The empirical analysis is conducted in two stages. First, a probit model is used to assess the decision to adopt a credit card in Germany. The data sample is restricted to persons who hold a debit card (Maestro, EC card or girocard), taking account of the fact that almost all (adult) respondents hold a debit card and hardly anybody holds a credit card without also holding a debit card. In a second stage, the authors examine the main factors underlying the intensity of cash usage by survey respondents.

The results indicate that consumer inertia appears to play only a limited role in both credit card adoption and in the intensity of cash usage. Instead, payment behaviour is explained by the nature of transactions, the characteristics of payment instruments and personal characteristics. Preferences in particular are an important determinant of behaviour, indicating that the choice of card or cash usage appears to be based on rational economic behaviour.

The second paper, “Credit card use after the final mortgage payment: Does the magnitude of income shocks matter?” was presented by **Barry Scholnick** (University of Alberta). The paper tests the hypothesis that the magnitude of an “expected income” shock affects consumption smoothing. Specifically, the life cycle/permanent income hypothesis (PIH) posits that individuals smooth income over time to reflect expected lifetime income. If there is a sudden increase in expected lifetime income (an “expected income” shock), the individual will adjust consumption by borrowing money today and repaying the loan when the expected future income materialises. The empirical evidence for the validity of the PIH is mixed.

A number of studies find that the magnitude of the income shock affects consumption behaviour. The “absolute magnitude hypothesis” holds that in response to a small shock, the individual does not smooth consumption. If the income shock is large enough, however, the individual is likely to smooth consumption by borrowing additional funds and adjusting the optimal consumption path over time.

The paper employs a unique dataset to test the absolute magnitude hypothesis. The database comprises individual-level monthly credit card and mortgage statements, which were provided on a confidential basis by a Canadian bank. The unique feature of this dataset is that it matches the credit card statements with associated monthly mortgage account data. The latter can be used to measure predictable income shocks. In particular, the income shock arises in the month when the final mortgage payment is made, as the value of the monthly mortgage payment amounts to additional disposable income after the mortgage is paid off. The dataset comprises approximately 20,000 individuals who hold both mortgages and credit cards, and the data span the time period from December 2004 to June 2006. The author identified 147 individuals who paid off their mortgages gradually during the sample period. The final mortgage payment is classified as large if its size is above the mean sample value, and as small otherwise.

The author also aims to test the “relative magnitude hypothesis”, whereby consumption behaviour is a function of the size of the income shock relative to the individual’s income. In order to estimate the income level of the individual, which is not reported in the bank’s dataset, the author uses the Canadian postal code for each individual, and matches it with the average income level for residents in that postal code area, as reported by the Canadian Census data.

The author finds that when the magnitude of the final mortgage payment is large, consumption

behaviour does not change significantly after the final mortgage payment is made. Conversely, when the final mortgage payment is of a small magnitude, individuals tend to increase their consumption significantly after the mortgage is paid off. This result supports the absolute magnitude hypothesis.

The hypothesis not only predicts that, following large income shocks, consumption patterns will remain approximately unchanged, but also that the debt accumulated to smooth consumption will be paid off once the income shock materialises. The author again finds evidence in support of this hypothesis. Following a small income shock, credit card debt did not change significantly. When the final mortgage payment was large, individuals reduced their credit card debt significantly. The results for the relative income hypothesis, where the income shock is measured relative to the individual's income, largely replicate the results for the "absolute magnitude hypothesis".

The discussant for both papers was **Cyril Monnet** (Federal Reserve Bank of Philadelphia), who cited a number of notable differences between payment instruments in the United States and Germany. Whereas in the United States, credit cards represent one way to access credit, a German credit card does not typically carry revolving credit. As such, the latter functions more like a short-term overdraft facility.

With regard to the paper presented by Mr Schmidt, the discussant described a number of other explanatory factors for preferring cash as a means of payment, including the anonymity associated with cash transactions. As for the choice of adopting credit cards, other potential factors include the financial sophistication of the individual as well as decisions by merchants to accept or reject certain payment instruments, which in turn may drive customer behaviour. Some of the results of the first paper were also found to be counter-intuitive. For example, while 54% of those without credit cards report that the possibility of conducting transactions on the internet is an important factor in deciding

to adopt a payment instrument, only 25% of credit card holders found the online payment possibility to be important. Similarly, 93% of non-credit card holders found the ability to make payments abroad to be a significant variable in adopting a payment instrument, while only 76% of credit card holders cited this factor as significant. The discussant would have expected the reverse trend in the results. Overall, however, the first paper was found to largely confirm what is currently known about the German credit card market. The two papers together also reveal the importance of path dependency and institutions in explaining differences in credit card usage between Germany and the United States.

As for Mr Scholnick's paper, the discussant emphasised that the data do not reflect transactions on accounts other than the observed credit card. Therefore, individuals could have increased consumption financed by other payment methods and/or reduced debt other than the credit card balance. The differing consumption effects across large and small income shocks may also be related to the individuals' age, as the elderly are known to have a smoother consumption pattern because they consume less durable goods. If smaller income shocks (smaller mortgage payments) are observed more often for the elderly, then age may drive part of the results.

A number of comments were raised by the audience. With regard to the first paper, it was mentioned that the type of bank may have an effect on payment instrument choice. In particular, savings banks often carry higher cost for access to cash because their ATM networks tend to be sparser than those of large commercial banks. It was also pointed out that uncertainty about acceptance of card payments could be a decision variable for card adoption in Germany.

### 3.3.3 E-MONEY AND E-PAYMENTS

This session, chaired by **Coen Voormeulen** (De Nederlandsche Bank), brought together two

papers on payment habits and the adoption of new payment innovations. The first paper of the session “Factors determining the acceptance of payment methods by online shops in Poland”, was presented by **Michał Polasik** (Nicolaus Copernicus University) and co-authored with **Piotr Fiszedler** (Nicolaus Copernicus University). There are a wide range of payment methods used in Polish e-commerce, each one distinguishing itself with respect to the timing of the transaction and the extent to which banks and non-banks are involved. Figures show that online payment habits in Poland are quite different from payment habits in Western European countries. The favourite way of paying for online purchases in Poland is by cash on delivery, followed by paper bank transfers and via the intermediation of (non-bank) payment service providers. The usage of electronic bank transfers and credit cards, which are commonly used in western Europe, is rather limited. The vital reason for the large usage of cash in Poland is the low penetration of bank accounts in society. This, together with the fact that most payment methods accepted and used in Poland have a low usability for cross-border transactions, offers good opportunities for non-bank payment providers to become major players in the Polish e-commerce payments market.

The objective of the paper is to analyse the factors determining the decision of Polish online shop managers to accept particular payment instruments. To this end, online interviews were held between December 2008 and March 2009 among 117 Polish online shop managers covering about 3.6% of all 3,257 online shops in Poland. The survey yielded an extensive set of variables, 89 of which were used as explanatory variables in the study. The factors influencing the acceptance of payment methods by Polish online shops were divided into five major categories representing e-shop characteristics, customer characteristics, management preferences, and the usage and acceptance of other payment methods. For the empirical analysis, binomial logit models were used to assess the probability of accepting a particular payment method.

The results indicate that online shops’ strategies regarding distribution channels strongly influence their strategies with respect to the acceptance of particular payment methods. Online shops using traditional local points of sale alongside the internet have a higher tendency to accept cash on delivery, card payments and payments in person, whereas shops participating in online auctions more often tend to apply innovative methods offered by non-banks. A striking finding is that safety and security seem to play no important role in the decision making of online retailers. Instead, more importance is attached to competitiveness and sales factors.

The second paper “Reassessing the ‘threat’ of e-money: New evidence from the euro area” was presented by **Matthew Greenwood-Nimmo** (Leeds University Business School). Around the turn of the millennium, many papers were published on the implications of e-money for monetary policy. After some years of silence, the author raises the issue again. The paper starts with a short overview of the existing literature which largely focuses on the potential of e-money to substitute for central bank money and replace settlement facilities of central banks. The overall conclusion is that e-money could possibly reduce demand for real currency and that private banks could possibly take over the settlement role of central banks. However, the actual threat to the efficacy of monetary policy is assumed to be small. That is because, among other things, e-money issuers in the EU are required to be able to redeem e-money for “traditional” currency at any time. Moreover, given the risk-free nature of central banks and their ability to act as lender of last resort, it is unlikely that demand for central bank money will totally disappear. However, there are other more serious issues associated with e-money which have received little attention in the existing literature, such as the threat of bank runs and liquidity shortages, circumventive innovation, inaccuracy of monetary aggregates, systemic risks arising from offshore or insolvent issuers and social exclusion.

Since the extent to which e-money poses a real threat depends on the degree of e-money usage, the paper evaluates the historical development of e-money in Singapore and in a number of European countries using e-money data recorded by the Bank for International Settlements (BIS). The conclusion is that in Europe the uptake of e-money to date has been slow. It has only succeeded in limited-purpose applications, but does not possess sufficient comparative advantages relative to existing means of payment due to safety concerns, high adoption costs and regulatory uncertainty. Only in Singapore is e-money widely used. Regulation has played an important role there. E-money usage in Singapore received a major impetus in 2001 when the Monetary Authority of Singapore announced that e-money would be made legal tender (the SELT initiative).

The paper ends with some forecasts of the growth potential of e-money in the euro area. Three forecasts are computed: a benchmark geometric random walk, a simple average model combining 28 equally weighted candidate models, and a nonlinear Gompertz curve. The forecasts suggest that e-money usage will continue to grow at a moderate rate in the medium-term but that a significant shift towards e-money is unlikely to occur. In the long-term, however, regulatory reform might be necessary, given the strong incentives for innovators to enter the market and to try to circumvent regulation.

The discussion of the papers was led by **Leo van Hove** (Free University of Brussels). He expressed his appreciation of Michal Polasik's and Piotr Fiszeder's paper, since merchant acceptance of payment instruments is still an under-researched topic. The discussant's comments on the paper mainly concerned suggestions regarding the presentation of the results and recommendations for further research. One suggestion is to include some more descriptive statistics of the sample results. Moreover, instead of analysing the acceptance decisions per payment method individually, it might be useful to compare decisions across

payment methods. Furthermore, there might be a case for defining e-shop characteristics at a more aggregated level, such as digital and physical goods or the average size of transactions, and to divide the sample into "pure-play" and "bricks-and-clicks" electronic retailers (e-tailers).<sup>3</sup> The same holds for customer characteristics. The discussant wondered what measures and indicators were used for management preferences and suggests that this could be further explained in the paper. Regarding further research, the authors might usefully investigate the differences between pay-before, pay-now and pay-later methods and assess the popularity of payment instruments amongst e-tailers and customers in terms of number of (accepted) payment transactions.

Regarding the paper of Matthew Greenwood-Nimmo, the discussant raised the issue of how to correctly define e-money, e-payments and, for example, the new category of m-payments. Mr Van Hove made reference to one of his recent papers in which all payment instruments are classified according to the "matryoska" approach. In this classification model, a distinction is made between different types of money, payment channels, payment networks, forms of authentication device and general payment methods. Under this approach, it is argued that m-payments are not a new category of payment, but just a new combination of a certain type of money, form of authentication device and payment channel. The discussant suggests that this method of classification be taken into account when defining e-money and e-payments. Furthermore, it would be valuable to extend the list of more immediate concerns associated with e-money, for example by analysing the potential social efficiency gains and social costs of e-money usage. Regarding the paper's analysis of the current uptake of e-money in Singapore and Europe, the discussant emphasised that the data collected by the BIS requires further

<sup>3</sup> A pure-play e-tailer uses the internet as its primary means of retailing (e.g. Amazon). A bricks-and-clicks e-tailer uses traditional physical outlets (bricks) as well as the internet (clicks) to market its goods or services.



interpretation. The national trends in e-money usage, e-money cards and e-money terminals are strongly affected by national circumstances and national market characteristics. Therefore, the researcher might usefully take a closer look at national developments and their possible causes. Finally, there might be a case for forecasting the future growth of e-money at the national level, instead of at the European level. The development of e-money is strongly affected by network externalities which only arise at the national level because of non-comparability and non-interoperability of European e-money schemes.

A number of comments were made by the audience. Regarding the impact of e-money, it was mentioned that in Hong Kong all coins have been withdrawn from circulation. It would be interesting to analyse the extent to which the introduction of the electronic cash system “Octopus” has affected the demand for and usage of cash in Hong Kong. Also the possible implications for seignorage income are worth studying. The central bank of Hong Kong is currently looking into this issue. A question was also raised about the low penetration of bank accounts in Poland. One important reason for this is that all pension payments are still sent by mail. In addition, the unemployment rate in Poland is quite high (over 10%), so many people are reluctant to have their “unofficial” incomes showing up in regular bank accounts.

### 3.3.4 PANEL SESSION: PAYMENT INNOVATIONS – OPPORTUNITIES AND CHALLENGES OF NEW PAYMENT INSTRUMENTS

The panel session on payment innovations, chaired by **Daniela Russo** (Director General Payments and Market Infrastructure at the European Central Bank) brought together representatives from academia, the banking industry, the corporate sector and non-bank payment service providers, to discuss the possible role of innovation in the field of retail payments. In particular, the panel was asked first to elaborate in general terms about various

forms of innovation, as well as on possible driving forces or hurdles that may facilitate or hamper it, and second to provide some specific examples by looking at the different approaches of developed and emerging countries as well as the current debate in the EU about the emergence of a new European card scheme.

**Jürgen Bott** (University of Applied Sciences, Kaiserslautern) opened the panel by suggesting three possible ways to innovate i) innovation by new invention, ii) innovation by bringing new ideas into existing business models and iii) innovation through the adaptation of existing business models.

He argued that payment innovation will probably not occur by new invention but rather by improving the existing value chain of payments for customers, e.g. in the initiation and authorisation of payments. The success of SEPA will depend on the ability of banks to provide innovative services within the existing value chain. There have been and will be competing service offerings to bank customers from non-banks, and there also have been and will be new alliances, both within the banking sector and across sectors, i.e. between the banking sector and non banks. As an example of cross-sector cooperation, he mentioned the partnership of WestLB, MasterCard and Payback in providing the debit card “Payback Plus”. Furthermore, payment innovation needs to be considered in the context of wider social trends: population ageing (in the industrial countries), mobility of individuals and companies all over Europe, the emergence of new middle classes and a loss of trust in banks.

**Maria Chiara Malaguti** (University of Salento and the World Bank) discussed the role of regulation in payment innovation. She argued that regulation can have both negative and positive effects on payment innovation. On one hand, regulation might slow down or reduce innovation because the legislative process is by nature a slow process, lagging behind developments in the market. Furthermore, regulation is often adopted in a piecemeal

fashion focussing on specific aspects, rather than consistently addressing each issue under a common framework, thereby missing the big picture in which innovation takes place. On the other hand, if it is well-drafted, regulation can facilitate innovation, as it can take into account general welfare considerations, remove possible barriers and balance the (sometimes conflicting) interests of the different stakeholders. Ms Malaguti therefore argues that regulators should adopt a more pro-active attitude, looking beyond the technical issues associated with innovation and taking into account its consequences for the functioning of society as a whole.

**Brent Bellm** (PayPal Europe) revisited and complemented the categories of innovation suggested by Jürgen Bott. He pointed out that disruptive innovation can happen either by offering an existing service with a lower quality at a lower cost or by providing a new service to a customer segment that has not been served before. For instance, online commerce created an unprecedented need for instant electronic payments. In his view, there are three areas in retail payments where innovation will be required within the next five years: i) micro-payments for digital content, which would allow, among other things, the publishing industry to cost-effectively sell individual newspaper/journal articles electronically, ii) cross-border remittances, to supplement the existing high-quality, high-cost services of e.g. Western Union with lower quality, lower cost services, and iii) person-to-person payments in social networks, e.g. by offering person-to-person m-payments.

He expects that payment innovations will be built on the existing payment infrastructure. As prerequisites for payment innovation, he mentioned an innovation-friendly legal and regulatory environment, a general openness to competition and innovation, and an open market environment.

**Karim Taga** (Arthur D. Little) argued that the potential and success of innovative

payment means and payment channels, such as m-payments, depends to a large extent on the market environment. Overall, m-payment growth has been higher in emerging markets than in developed countries because there are fewer alternative payment channels and means available. The reasons for this are the lower penetration of bank accounts, the lower level of income per capita, and the lower penetration of internet services in emerging countries.

Given the presence of sufficient alternative payment means and channels, m-payments in the industrial countries will not substitute but rather supplement existing payment services. Therefore, consumers need to be made more aware of the advantages of these complementary payment services.

**Gerard Hartsink** (European Payments Council) discussed the prospects of the emergence of a new European card scheme. Setting the context, he emphasised that, while cards are not suitable for e-commerce, and while the mobile chip will compete heavily with the card chip, cards are and will remain the number one non-cash payment instrument. In various initiatives to create a European card scheme (e.g. Monnet, EAPS), different clusters of cooperation have emerged. Mr Hartsink questioned whether ultimately there will be sufficient willingness in the banking community to cooperate to make these initiatives successful. He emphasised that the emergence of a new European card scheme depends on the willingness of banks to cooperate in, for instance, the field of standardisation. In addition, he invited the public sector to further encourage these initiatives by providing clarity with respect to multilateral interchange fees and by acting as a catalyst.

It was concluded that the prerequisites for successful payment innovation identified in the session are: i) an innovation-friendly legal and regulatory environment with appropriate support and encouragement from the public authorities, ii) cooperation within and across industry sectors, iii) due attention to market maturity and wider social trends, and iv) the successful

integration of innovative payment services into the existing payment value chain. In particular, regulation may have positive or negative effects on innovation. In order to avoid negative effects, an holistic approach that looks at the effects of the innovation in a broader perspective seems preferable to targeted interventions looking only at specific aspects.

### 3.4 THE FUTURE OF THE RETAIL BANKING AND PAYMENTS MARKET – LESSONS LEARNED FROM THE FINANCIAL TURMOIL AND OUTLOOK FOR THE EUROPEAN RETAIL BANKING AND PAYMENTS MARKET

The panel session on the future of retail banking and payment markets, chaired by **Gertrude Tumpel-Gugerell** (member of the Executive Board of the European Central Bank), brought together board members of four euro area central banks with the aim of examining the lessons learned from the financial turmoil and discussing the outlook for the European retail banking and payments market.

**Giovanni Carosio** (member of the Governing Board of the Banca d'Italia) was of the opinion that the financial crisis has led to a fundamental rethinking of certain aspects of retail banking and payments. As regards their business potential, retail banking and payments seem to have gained in attractiveness in the view of banks' decision-makers. The financial crisis is expected to also have an impact on cross-border banking and banks' willingness to move towards SEPA, which a lot of banks now see as less important or even too risky. However, it is unlikely that this nation-centric approach will persist for a long time.

For Mr Carosio standardisation is a major driver of innovation. However, the increasing pressure on the pricing of retail payments might discourage banks from being innovative. In order to address the challenges of SEPA, the governance of the project should be

reconsidered. The existing insecurity about the period of coexistence of SEPA instruments and legacy instruments seems to be a major obstacle to adoption. The current governance approach has already shown some shortcomings. These will become even more severe if SEPA is extended to innovative products, since this step would require a number of critical decisions regarding standards.

An optimal balance should be found between regulation, cooperation and competition. A more prominent role for national central banks might be a feasible way forward, since the ESCB has a natural and statutory interest in the security and efficiency of payment systems and might provide the increased level of neutrality which is needed in steering the project.

**Christian Noyer** (Governor of the Banque de France) emphasised that one of the major lessons learned from the crisis is that the payment infrastructure has proven to be extremely resilient. This has been very important for public confidence in the means of payment and their timely settlement. This has proven the relevance of the Core Principles defined by the central banks and has confirmed that the implementation of appropriate risk management standards has to remain a priority for payment system operators. Whereas the current financial crisis has seriously affected financial markets and the profitability of investment banking, retail activities have been an important source of steady income for commercial banks. Balanced and diversified business models have proven to be of benefit, with retail payments being a factor of stability for banks in critical times.

Mr Noyer identified several future trends. In his view, concentration is likely to increase through cross-border mergers. Moreover, he believes that concentration, as well as harmonisation, will lead to increased financial integration, with SEPA being one of the core components of the future European financial market. Financial integration will bring new challenges as regards coordination and risk management, which have to be properly addressed. In addition, as

already shown in the SEPA project, the role of central banks as catalyst will become even more relevant. He stressed that, although some major achievements have already been made as regards SEPA, a lot of effort is still needed. The phasing out of legacy national payment instruments will be a difficult but necessary task, since parallel systems increase costs and prolong fragmentation. To accelerate the migration process, a clear migration end-date after which national systems will be phased out should be defined as soon as possible. Regarding cards, the Eurosystem has a clear view that at least one additional European card scheme is needed.

**Peter Praet** (member of the Board of Directors of the Nationale Bank van België/Banque Nationale de Belgique) emphasised that the crisis has led to a fundamental rethinking. One of the major problems revealed by the crisis was that far too often banks decided to diversify without fully understanding the field of business they were entering. Banks are now rediscovering the attractiveness of retail banking and are returning to their core businesses. Other future trends identified by Mr Praet include concentration and integration of retail banking and payment markets and increased importance of non-banks in payment services. Mr Praet stressed the importance of trust and safety in retail payment markets. In this context, coordination efforts and oversight will become increasingly important. The challenge, however, is to find the right balance between regulation, competition and innovation.

**Ivan Šramko** (Governor of Národná Banka Slovenska) explained that the impact of the crisis on the Slovakian banking market has been limited. Since the restructuring and privatisation of the Slovakian banking industry in 2001, the largely foreign-owned Slovakian banks have built up a strong liquidity base and have focussed mainly on the domestic market. Moreover, when setting up its new payment system in 1993, Slovakia was able to take advantage of being a latecomer. This enabled it to set up a modern and robust payment system, which proved resistant to the financial turmoil. As regards SEPA, the

central bank will build on the experience it has gained in its leading role during the euro cash changeover. Concerning SDD, a lot of open issues still have to be resolved, according to Mr Šramko.

**Gertrude Tumpel-Gugerell** concluded by emphasising that market integration has shown its merits in the financial crisis. An important lesson to be drawn from the crisis is that it is even more important to have a broad perspective, a clear vision and an overall objective. In order to successfully complete the SEPA project, a high degree of dedication and organisation, good communication and the support of the general public and the private sector is needed.

## **ANNEX: CONFERENCE PROGRAMME**

### **A JOINT CONFERENCE BY THE EUROPEAN CENTRAL BANK AND DE NEDERLANDSCHE BANK ON RETAIL PAYMENTS: INTEGRATION AND INNOVATION**

**MONDAY, 25 MAY 2009**

#### **OPENING REMARKS**

Jean-Claude Trichet (President, European Central Bank)

#### **THEME I**

##### **RELEVANCE OF RETAIL BANKING AND PAYMENTS FOR BANKS' PROFITABILITY**

Chair: Lucas Papademos (Vice-President, European Central Bank)

#### **KEYNOTE SPEECH**

Bertrand Lavayssière (Capgemini Group)

Profit earner or cost driver? A combined view of retail banking and payments

Iftekhar Hasan (Rensselaer Polytechnic Institute and Suomen Pankki), Heiko Schmiedel (European Central Bank) and Liang Song (Rensselaer Polytechnic Institute)

Return to retail banking and payments

David B. Humphrey (Florida State University)

Payment scale economies, competition, and pricing

Discussant: Barry Scholnick (University of Alberta)

#### **THEME II**

##### **INTEGRATION, COMPETITION AND REGULATION OF THE RETAIL PAYMENTS MARKET PARALLEL SESSIONS**

Chair: Damien Neven (European Commission)

Santiago Carbó-Valverde (University of Granada and Federal Reserve Bank of Chicago), Sujit Chakravorti (Federal Reserve Bank of Chicago) and Francisco Rodríguez Fernández (University of Granada):  
The costs and benefits of interchange fee regulation – an empirical investigation

Jean-Charles Rochet (Toulouse School of Economics) and Julian Wright (National University of Singapore)

Credit card interchange fees

Discussant: Charles M. Kahn (University of Illinois at Urbana-Champaign)

Chair: Andreas Dostal (Oesterreichische Nationalbank)

Massimo Cirasino et al. (World Bank)

Issues in retail payment systems in emerging markets – the World Bank perspective

Stefan Schäfer (Deutsche Bank)

EU retail banking – measuring integration

Discussant: Nicole Jonker (De Nederlandsche Bank)

**KEYNOTE SPEECH**

Neelie Kroes (Commissioner for Competition, European Commission)  
 Competition and regulation in retail banking and payment markets

**PANEL SESSION****THE FUTURE OF RETAIL BANKING AND PAYMENTS – DEVELOPMENTS IN GLOBAL MARKETS AND THE ROLE OF CENTRAL BANKS**

Chair: Gertrude Tumpel-Gugerell (Member of the Executive Board, European Central Bank)

Pentti Hakkarainen (Deputy Governor, Suomen Pankki)

Thomas M. Hoenig (President, Federal Reserve Bank of Kansas City)

Randall S. Kroszner (University of Chicago)

Ling Tao (Director General for Financial Stability and Statistics of the People's Bank of China).

**PARALLEL SESSIONS**

Chair: Michele Bullock (Reserve Bank of Australia)

Özlem Bedre (Toulouse School of Economics) and Emilio Calvano (Toulouse School of Economics and Harvard University)

Pricing payment cards

Wilko Bolt (De Nederlandsche Bank) and Heiko Schmiedel (European Central Bank)

Payment card competition and SEPA

Discussant: Jean-Charles Rochet (University of Toulouse I)

Chair: Huw Pill (European Central Bank)

Olaf Gresvik (Norges Bank) and Harald Haare (Norges Bank)

Costs in the Norwegian payment system 2007

Santiago Carbó-Valverde (University of Granada and Federal Reserve Bank of Chicago) and José M. Liñares-Zegarra (University of Granada)

How effective are reward programmes in promoting payment card usage? Empirical evidence

Discussant: Harry Leinonen (Suomen Pankki)

**CLOSE OF DAY I****CONFERENCE DINNER****DINNER SPEECH**

Hermann-Josef Lamberti (Member of Management Board, Deutsche Bank)

**TUESDAY, 26 MAY 2009**

**THEME III**

**PAYMENT HABITS AND THE ADOPTION OF PAYMENT INNOVATIONS**

**KEYNOTE SPEECH**

Lex Hoogduin (Member of the Executive Board, De Nederlandsche Bank)  
Payment innovation in a European landscape

**PANEL SESSION**

**NEW PAYMENT INSTRUMENTS – REQUIREMENTS AND EXPECTATIONS OF LARGE USERS**

Chair: Lance Blockley (Edgar, Dunn & Company)

Olivier Brissaud (European Association of Corporate Treasurers and Volkswagen Group Services)

Mark Buitenhek (ING)

Lucinio Muñoz Muñoz (Spanish Ministry of Economic Affairs and Finance)

Renzo Vanetti (SIA SSB)

Martin Winkler (Schwabe, Ley & Greiner)

**PARALLEL SESSIONS**

Chair: Charles M. Kahn (University of Illinois at Urbana-Champaign)

Ulf von Kalckreuth (Deutsche Bundesbank), Tobias Schmidt (Deutsche Bundesbank), and Helmut Stix (Oesterreichische Nationalbank)

Choosing and using payment instruments – Evidence from German micro-data

Barry Scholnick (University of Alberta)

Credit card use after the final mortgage payment – does the magnitude of income shocks matter?

Discussant: Cyril Monnet (Federal Reserve Bank of Philadelphia)

Chair: Coen Voormeulen (De Nederlandsche Bank)

Matthew Greenwood-Nimmo (Leeds University Business School)

Reassessing the “threat” of e-money – New evidence from the euro area

Michal Polasik (Nicolaus Copernicus University) and Piotr Fiszeder (Nicolaus Copernicus University)

Factors determining the acceptance of payment methods by online shops in Poland

Discussant: Leo van Hove (Free University of Brussels)

**KEYNOTE SPEECH**

Lance Blockley (Edgar, Dunn & Company)  
Innovation in retail payments

**PANEL SESSION****PAYMENT INNOVATIONS – OPPORTUNITIES AND CHALLENGES OF NEW PAYMENT INSTRUMENTS**

Chair: Daniela Russo (European Central Bank)

Brent Bellm (PayPal Europe)

Jürgen Bott (University of Applied Sciences, Kaiserslautern)

Gerard Hartsink (European Payments Council)

Maria Chiara Malaguti (University of Salento and World Bank)

Karim Taga (Arthur D. Little)

**THEME IV****THE FUTURE OF THE RETAIL BANKING AND PAYMENTS MARKET****CLOSING PANEL****LESSONS LEARNED FROM THE FINANCIAL TURMOIL AND OUTLOOK FOR THE EUROPEAN RETAIL BANKING AND PAYMENTS MARKET**

Chair: Gertrude Tumpel-Gugerell (Member of the Executive Board, European Central Bank)

Giovanni Carosio (Member of the Governing Board, Banca d'Italia)

Christian Noyer (Governor, Banque de France)

Peter Praet (Member of the Board of Directors, Nationale Bank van België/Banque Nationale de Belgique)

Ivan Šramko (Governor, Národná Banka Slovenska)

**CLOSE OF CONFERENCE**



