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## Prepaid Card Market Overview

March 2009  
Contents and Extract

# Synopsis

## Who should read this report?

- All those interested in the UK prepaid card market place either as a place for business or as a guide to develop business elsewhere
- Potential issuers of prepaid cards
- Existing prepaid card issuers
- Processors
- Banks and BIN sponsors
- Programme managers

## What's Covered

- The types of prepaid cards are discussed in detail. The relative consumer propositions, target audiences and relevant market research are all reviewed
- The report provides a background to the growth of the UK prepaid market, citing activity in the USA and Europe and compares the drivers in each market with particular reference to UK banks and their approach. Legislative and political influences are also discussed
- A fully detailed analysis of the infrastructure of prepaid card payments in the UK provides current relevant information on the capabilities and constraints on the players that help make the system work
- A full breakdown of fee structures for each live card in the UK
- A unique insight in fees and limits of UK cards which details trends over the past 27 months
- A comprehensive discussion on building the business case for prepaid cards with financial models for some key types
- The report outlines who is involved in issuing prepaid cards and all the competitors covering: programme managers, BIN sponsors and processors.

# Synopsis

- It looks at examples of new technology across the world with a special focus on mobile payment solutions, and analyses its relevance and impact on UK prepaid card activity
- Included are 24 case studies covering various types of prepaid card and giving details of specific activity and experiences
- The entire report is fully refreshed and updated each quarter with the fees analysis updated to reflect the frequent changes in the charging structures as well as keeping abreast of all the latest B2C cards launched or withdrawn in that quarter
- Regular subscribers received these updates by email each quarter with both hard copy and CD ROM options also available

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C	Prepaid Card Fee and Scenario Trend Analysis	35	This section capitalises on our research over the last 27 months to provide trend analysis
D	Background and History	47	History of prepaid. Benefits to all parties. What are the High Street banks doing?
E	Sizing the Market/Segments Market Drivers	56	Why the growth in prepaid? Market drivers. Cards versus cash. Prepaid versus cash. Debit compared. UK online sales boom. Market size. Growth in prepaid markets. US growth. UK and European growth. Closed versus open loop. Share of transactions. Where is spend moving? What is going to be successful? Country analysis. Share of total payments (Europe)

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## **Section B**

### **Analysis of Prepaid Card Fees**

# Purchase Fees

The purchase fee, is charged by the issuer at the initial purchase of the card

- x% of the cards we analysed have a purchase fee ranging from £2.01-£10
- x% of the cards have a purchase fee between £8.01 - £10
  - Most cards are valid for 12 months, but there are a handful that offer 24 and 36 month expiry
- x% of the cards have a purchase fee between £0.01 - £4
- X% of the cards have a fee of more than £10 . The Ryanair card has been excluded from the fees analysis as part of the price reflects other features such as free flights. However, the charge for the card is £60 annually.
- The basic cost to purchase the card has been used in this analysis. However, some cards do allow for upgrades and personalisation at extra cost.
  - Cards offering this include Club 18-30 card for £14.95 and the Ministry of Sound card for £19.99
- The overall average purchase fees is £x.xx broken down by category
  - General Cards: £x.xx
  - Gift: £x.xx
  - Travel: £x.xx
  - Money Remittance £x.xx

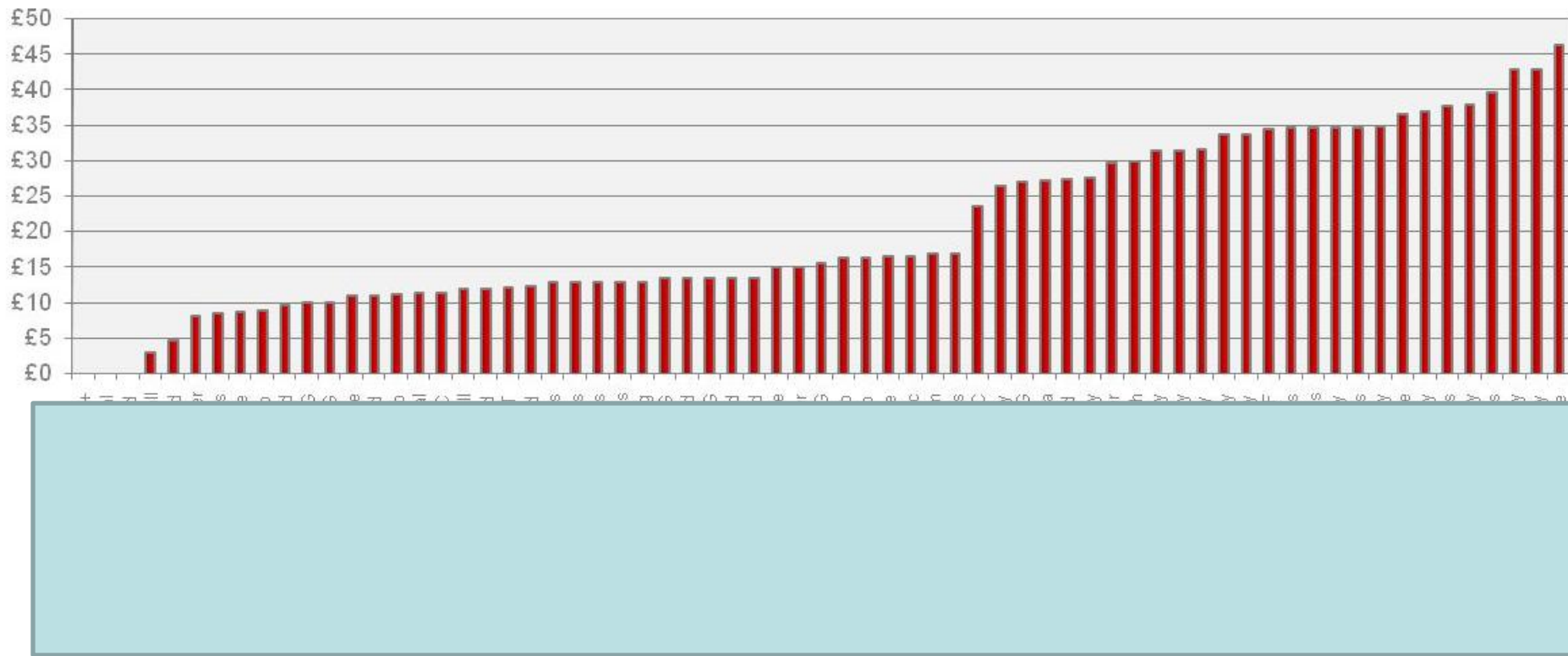
Note: In the analysis, Pepper takes the actual cost such that if there is a an initial fee which covers two years we do not average it over the 2 years but reflect the actual cost of obtaining the card in year one.



# Comparison of consumer costs – General Cards

## Scenario 2

- Taking the same position as Scenario 1 but with three uses over six months
  - Place of card purchase: PayPoint and Payzone (or Post Office when options were not available)
  - Amount loaded per top up: £40. Times loaded: 3. Total amount: £120
  - Period considered: 6 months (including the card purchase).
  - Total value of goods purchased online with the card: £120. Number of transactions (purchases): 3



Source: Pepper Analysis March 2009



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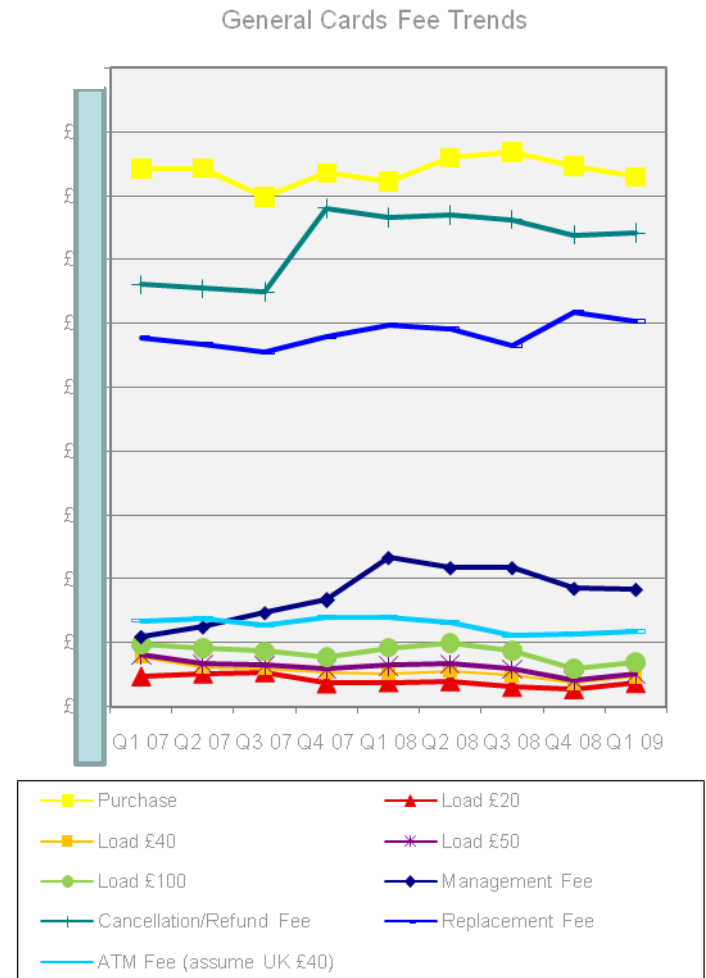
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## **Section C**

### **Prepaid Card Fee and Scenario Trend Analysis**

# General Cards – Fee Trends

- Purchase fees have show a generally stable trend over the last 3 quarters. Whilst reflecting some variance with the introduction of new cards there are also some changes to existing pricing. There has been an increase in numbers of general cards from 23 up to 69 during the period under analysis. The current average is £x.xx
- Top up fees have in general decreased during the analysis period
- The steady growth in the management (or monthly) fee has now stopped – the average is now £x.xx compared with £x.xx at the beginning of 2008
- Allowing for a slight jump at the end of last year, the trend for cancellation/refund fees seems to be levelling out – now averaging £x.xx. The average card replacement fee also shows signs of levelling out – currently £x.xx



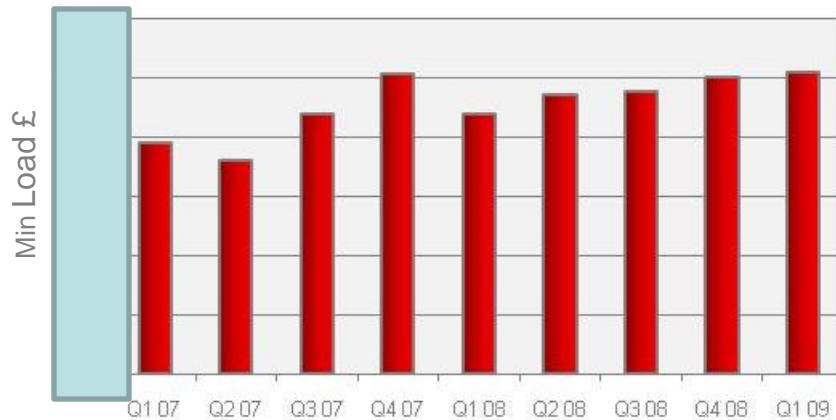
Source: Pepper Analysis March 2009

# General Cards – Limit Trends

- The maximum load and balance limits have fluctuated slightly during the period, but remain largely the same as a year ago
- The average maximum load figure is £xxxx and the maximum balance figure is £xxxx



General Cards Minimum Load Trend



- Minimum load figures have seen a slow but steady climb over the whole period
- The average figure for Q4 2008 is £x.xx



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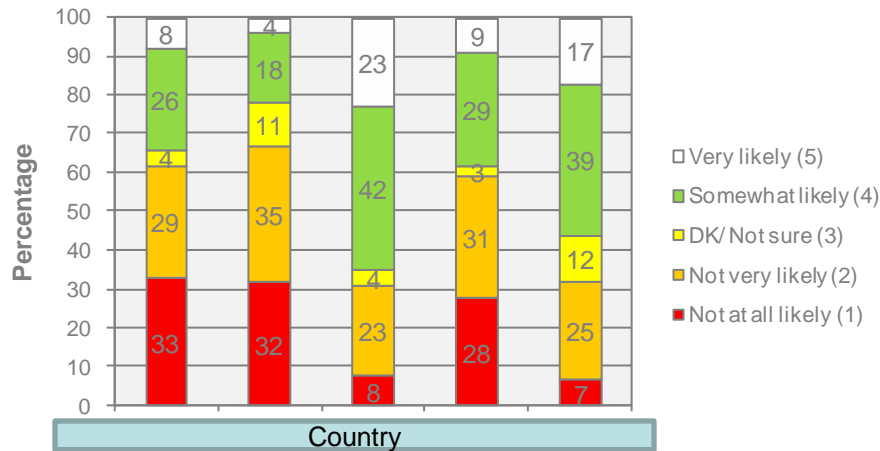
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## Section C Background and History

# Growth in Prepaid Markets

- In 2006 'ase' research commissioned by MasterCard's predicted that General Prepaid cards alone would see spending of €75 billion by 2010 with some €14 billion of that in Europe. Adding in the anticipated growth of other prepaid card types – gift, FX, and business the European market alone is expected to see €120 billion turnover ['ase' research 2008]



Source: ase 2008

- The main types of purchase for which a prepaid card would be used are shown in the table right.

Country				
Groceries/food (26%)	Groceries/food (24%)	Online purchases (41%)	Small expenses/ everyday spending (44%)	Groceries/food (27%)
Expenses while on holiday (19%)	Small expenses/ everyday spending (20%)	Small expenses/ everyday spending (24%)	Groceries/food (31%)	Small expenses/ everyday spending (25%)
Holidays (16%)	Appliances/ electrical/ furniture (18%)	Expenses while on holiday (12%)	Holidays (18%)	Expenses while on holiday (16%)
Large expensive purchases (14%)	Holidays (16%)	Holidays (9%)	Clothes (17%)	Appliances/ electrical/ furniture (16%)
Presents/Xmas/birthday (14%)	Bills (11%)	Appliances/ electrical/ furniture (8%)	Large expensive purchases (14%)	Online purchases (15%)

Source: ase 2008

- The 'ase' research also asked consumers in the light of information provided about prepaid cards and how they worked, how likely they would be to purchase one for any purpose. The results can be seen in the graph to the left.
- The highest positive response was from 18-24 year olds, part-time workers, students and those in manual occupations





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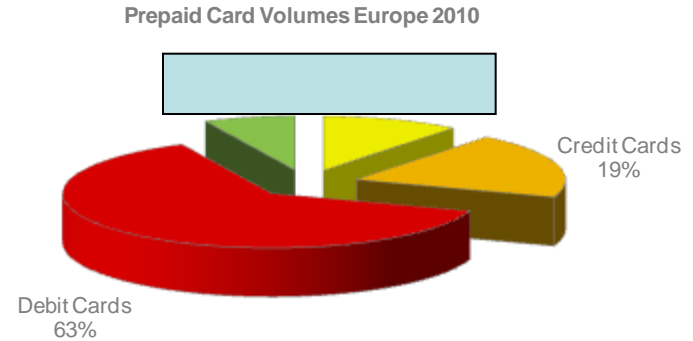
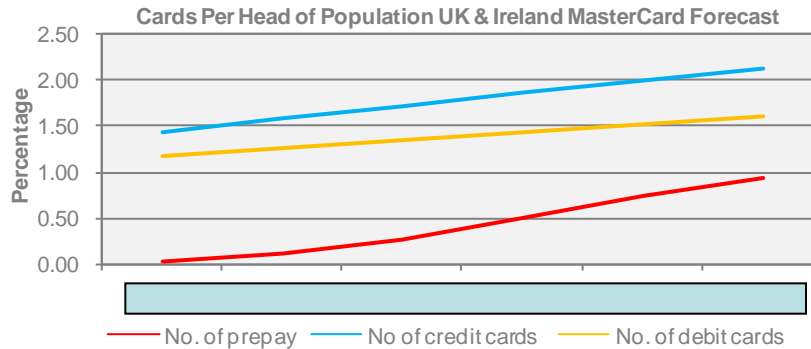
## **Section E**

### **Sizing the Market/Segments**

### **Market Drivers**

# European and UK Market Growth

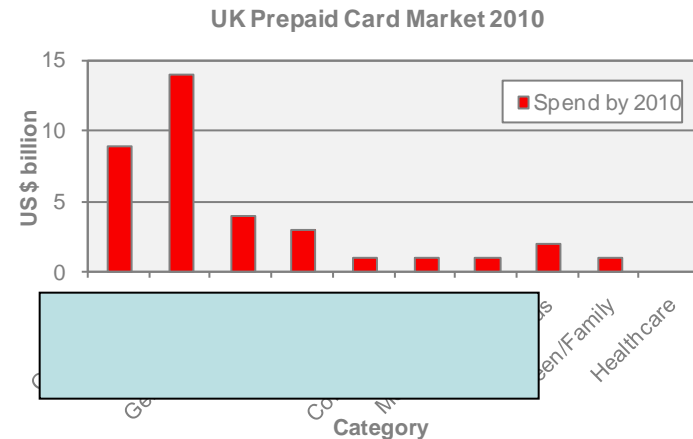
- According to MasterCard, prepaid cards are expected to represent 7.9% of card volumes in Europe by 2010.



Source: PSEL 2006

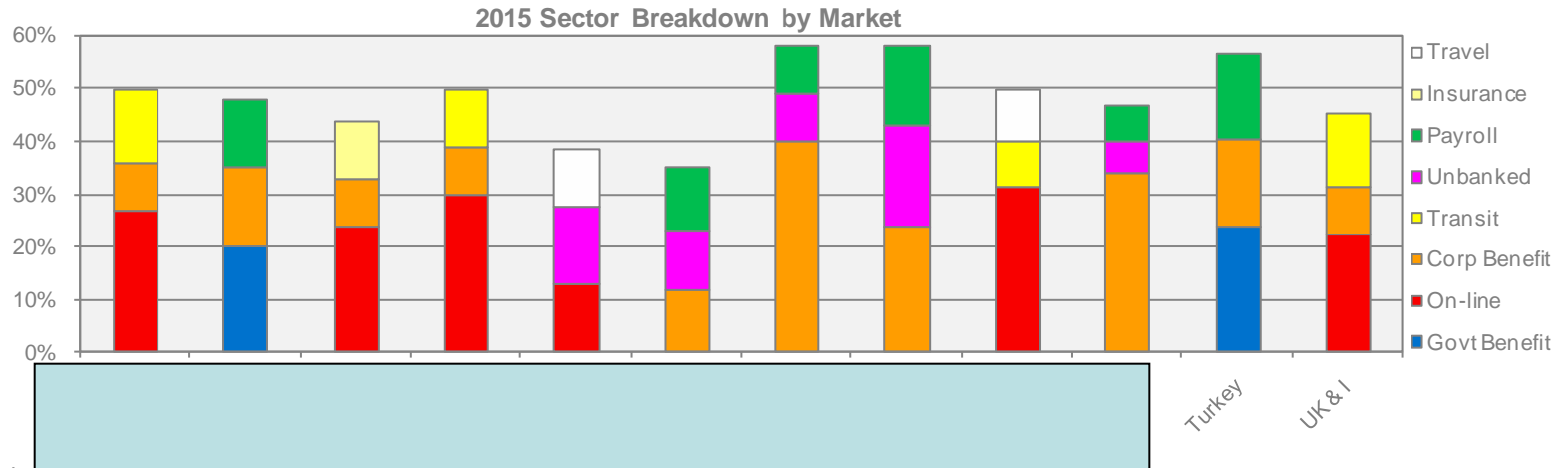
- MasterCard research indicates;
  - Total prepaid market size is €132 billion, from a card base of 418 million and 4.4 billion transactions
  - By 2015 prepaid will represent 4% of the total credit and debit market in Europe with average spend per card €315 with an average ticket value of €30
- Visa have looked at how the growth of prepaid will compare against debit and credit card volumes
- The Boston Consulting Group forecast a figure £18 billion for the UK by 2010 broken down as below

**Compound Annual Growth Rates  
Global Visa Volume**



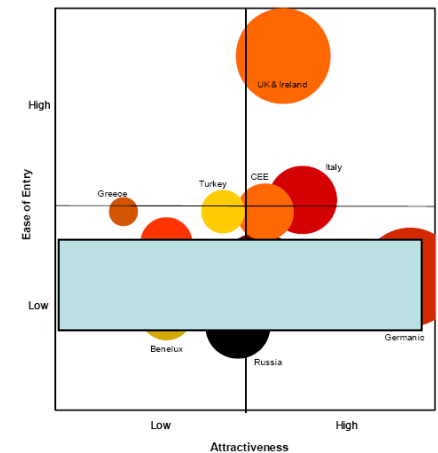
# European Market Breakdown

- MasterCard have forecast the three largest segments (excluding gift) as a proportion of total prepaid turnover for 2015



Largest Three Segments (Excluding Gift) as a Proportion of Total Prepaid Turnover  
Source: PSE Study, May 2008 Report Commissioned by MasterCard

- The key players in the European market are analysed comparing ease of entry and attractiveness of markets. Germany and UK & Ireland are the two largest markets, but the former is more attractive with higher barriers to entry and the UK & Ireland the opposite.

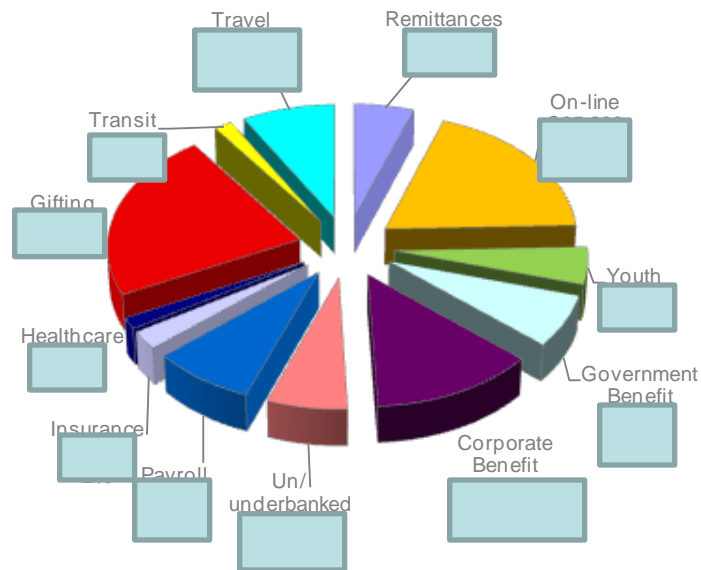


Source: PSE Consulting

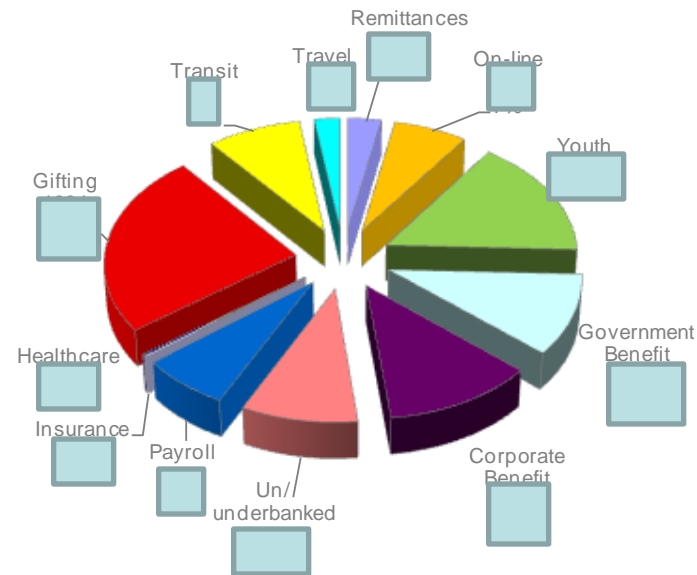
# European Market Growth

- MasterCard research (2008) indicates that the total prepaid market size is €132 billion from a card base of 418 million and 4.4 billion transactions
- The two charts represent the prepaid turnover by sector and transaction volume forecasts for the European market in 2015
- By the end of 2008, Visa Europe reported that new programmes are being launched at the rate of more than eight per month (Cards International, 28<sup>th</sup> January 2009).

**2015 European Total by Product**  
(Prepaid Turnover)

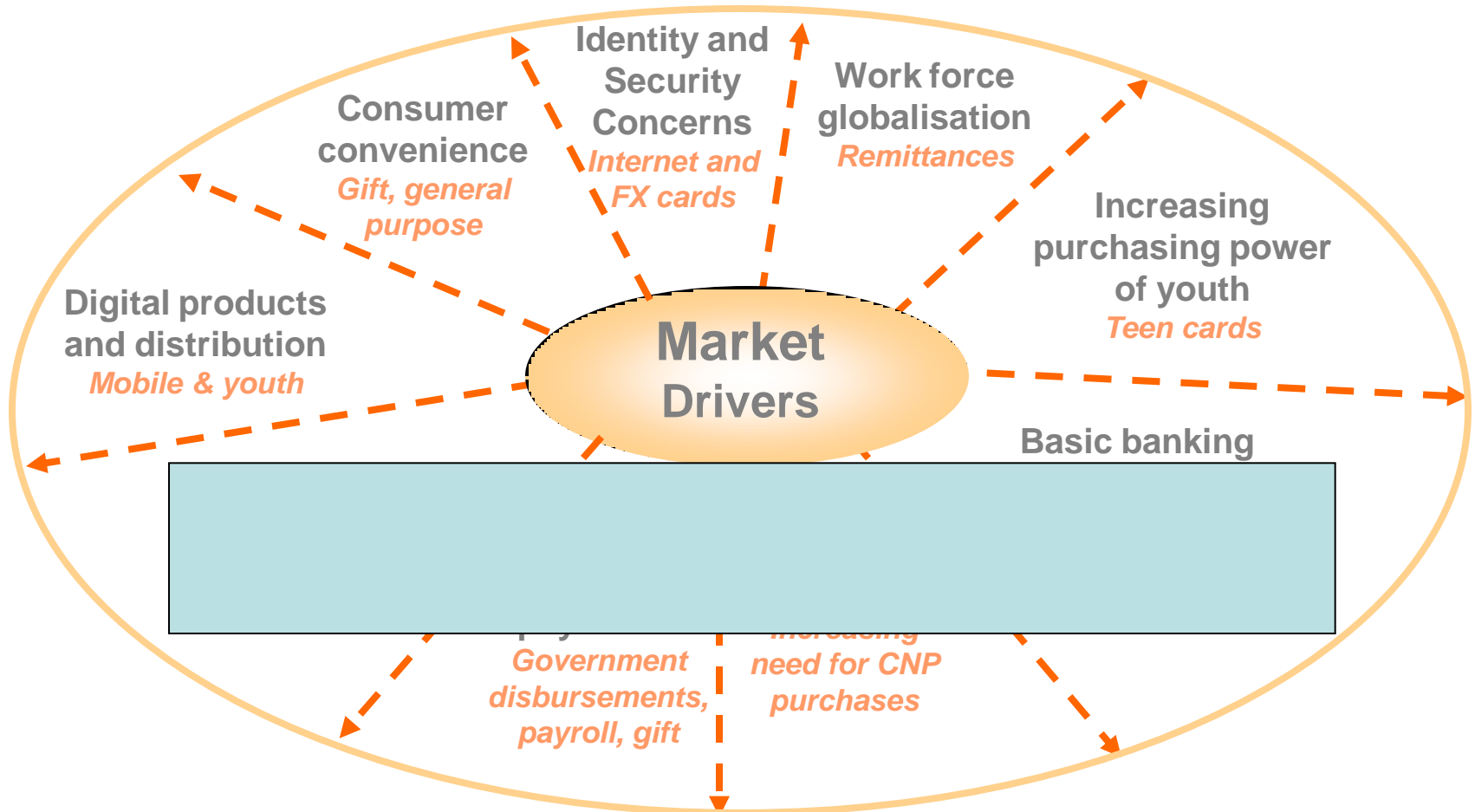


**2015 European Total by Product**  
(Transaction Volume)



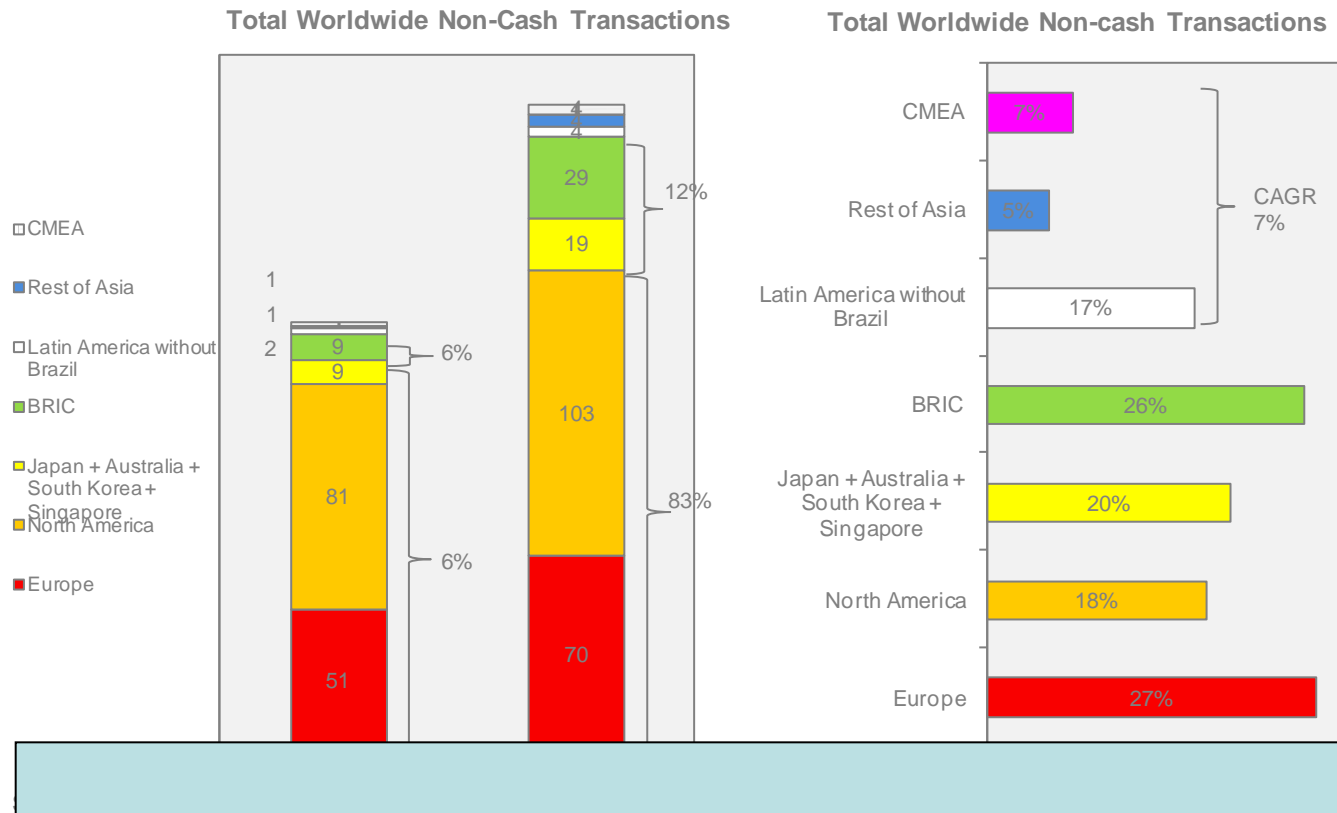
Source: PSE Study, May 2008 Report Commissioned by MasterCard

# Market Drivers



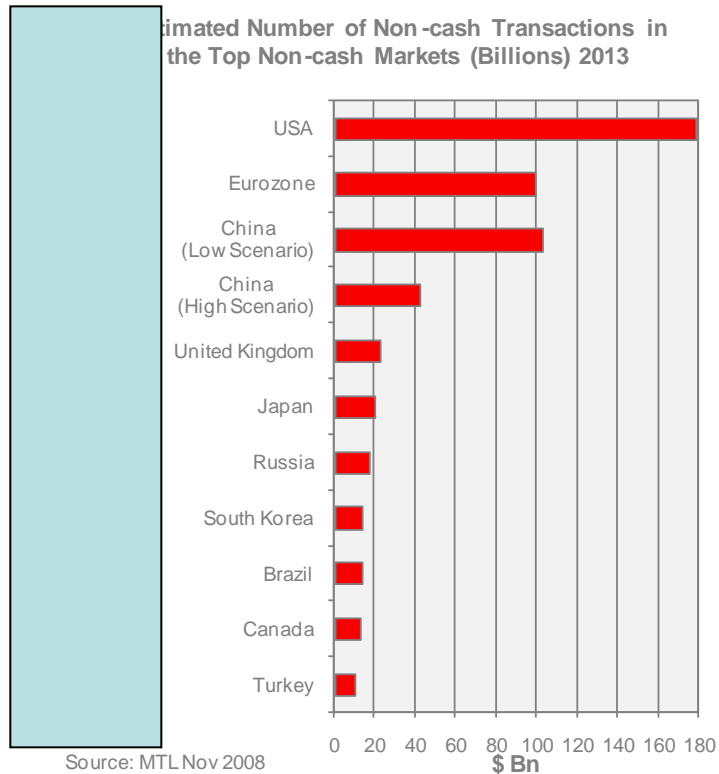
# Payment Trends - Global Overview

- Cards are the fastest growing means of noncash payments globally, accounting for 54% of payments worldwide (CapGemini)
- The developing countries dominate the market with the US and the Eurozone accounting for 63% of all volumes
- China is forecast to be as large as the Eurozone by 2013



# Payment Trends - Global Overview

- European non-cash payments will continue to grow at 10% per year up to 2013, but cash is also increasing significantly in the Eurozone (CapGemini)
- Non cash payments are growing in all regions with growth from 2001 – 2006 at 9% CAGR
- The UK is the 3<sup>rd</sup> largest country worldwide for non cash payments and the largest in Europe.

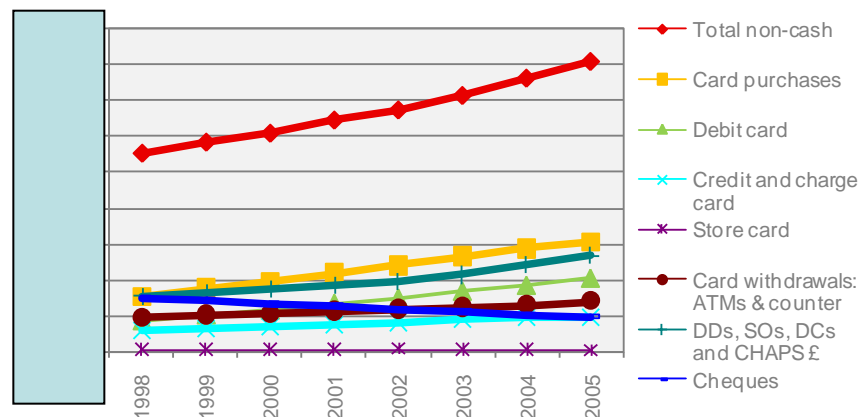


	% of Worldwide Market	CAGR 2001-2006	% of Global Population	% of GDP
USA	41%	5%	5%	27%
Eurozone	22%	7%	5%	22%
China (Low Scenario)	7%	46%	20%	6%
China (High Scenario)	6%	5%	1%	5%
United Kingdom	4%	6%	0.60%	3%
Japan	3%	9%	3%	2%
Russia	3%	15%	2%	9%
South Korea	3%	19%	1%	2%
Australia	2%	26%	0.30%	2%
Russia	1%	32%	2%	2%
<b>TOTAL</b>	<b>92%</b>		<b>39.9%</b>	<b>80%</b>

# Cards vs. Cash

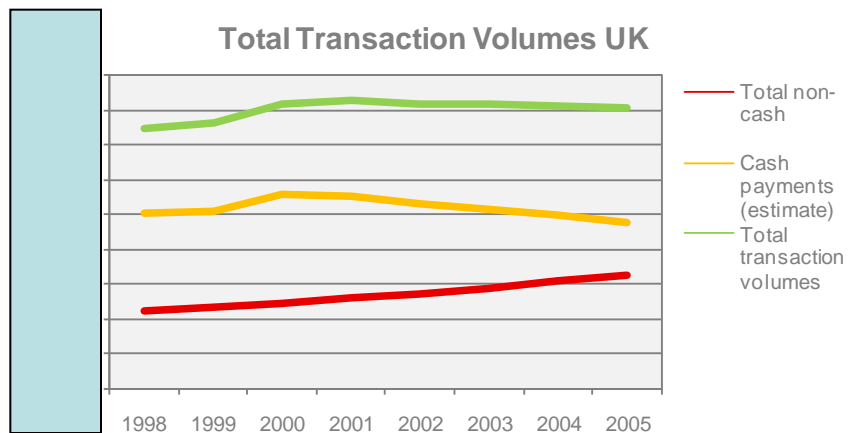
- Figures (2006) from APACS show a steady trend in the move from cash to non-cash payment methods
- APACS figures show debit card usage continues to grow – in 2007 it rose 13% and accounted for two thirds of all plastic purchases. Credit card usage, however, grew just 1.2% in the first 5 months of 2008
- APACS states that 82% of all cash payments in the UK are for less than £10 and that 66% are for less than £5
- In 2014, APACS projects that cash will still account for 52% of all payments (2006)

Non Cash Transaction Volumes UK



Source: APACS 2008

Total Transaction Volumes UK



Source: APACS 2008

- According to Cards International (CI) however, the BRC report that the recent financial strain on UK consumers has resulted in a move back to cash with 60% of transactions handled this way in the last 12 months as against 54% a year ago. By value, cash is used for 34% of retail spending (32% last year). (Apr 08)
- CI's analysis of Visa's 2008 fiscal year results, showed that cash withdrawals represented 36.5% of gross card holder expenditure in 2008, up from 33.3% in 2007 (Jan 09)





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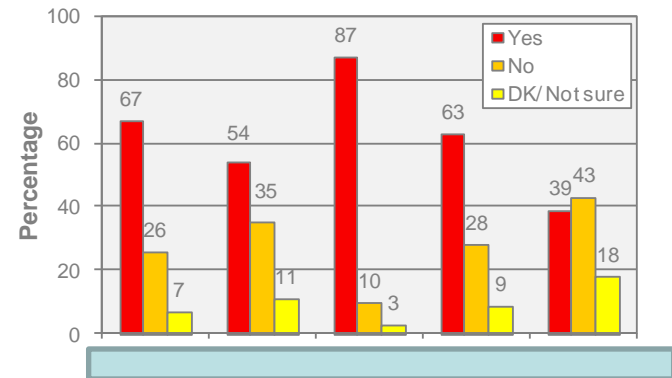
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## **Section F**

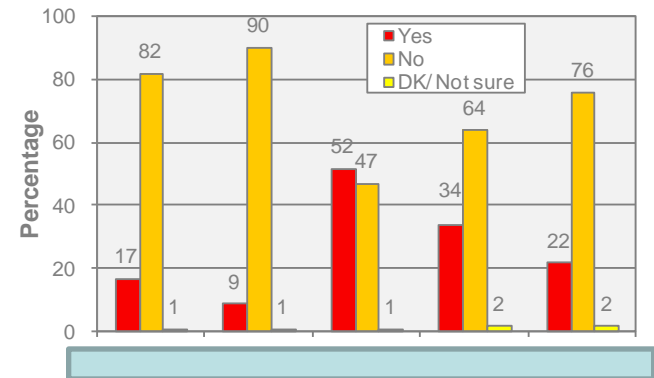
### **Do Customers Understand What a Prepaid Card is?**

# Awareness of Prepaid Cards

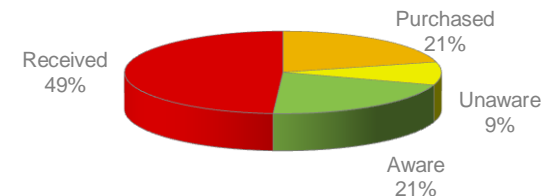
- The 'ase' research commissioned by MasterCard asked consumers about the awareness of Prepaid cards having previously explained to respondents what they are and how they work
- It concluded that awareness as highest in Italy – hardly surprising given the PostBank Italiana programme there. In the UK awareness was highest amongst 25-34 year olds, part-time workers and manual workers
- The survey continued by asking if they thought, therefore they owned a Prepaid card
- The conclusion was that 18-24 year olds in Italy and Germany were more likely to have Prepaid cards
- Edgar Dunn commissioned research with Australian consumers to identify awareness of prepaid cards. The study concluded that awareness was high with 91% of respondents had used or knew what a prepaid card is.



Source: ase May 2008



Source: ase May 2008



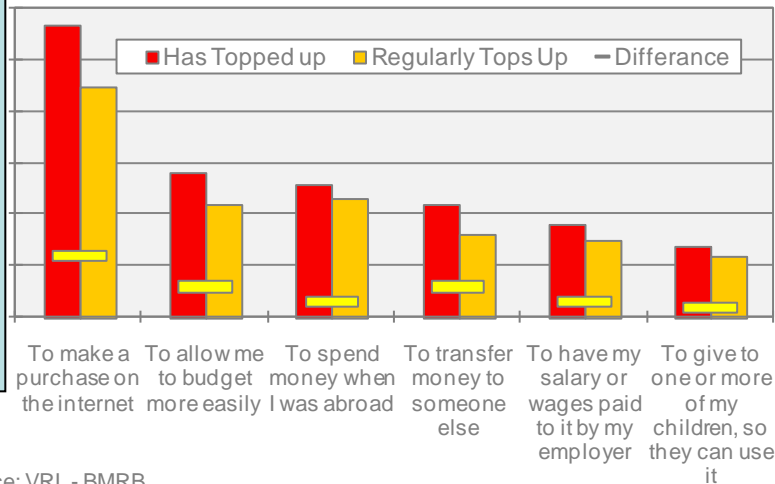
Source: Edgar Dunn survey - Based on 185 Respondents

# Card Loading

## BRMB / Cards International research suggests that

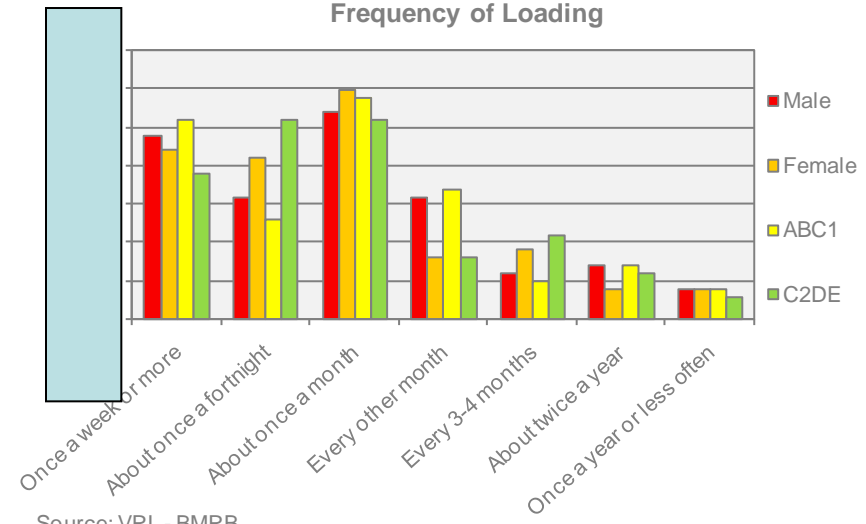
- 58% of consumers have reloaded a prepaid card at some time and it is slightly higher amongst men than women. The most common age group is 35 – 54 year olds to reload a card, with 30 – 44 year old women the least likely. ABC1 are more likely to reload than C2DE. Those that have purchased a card in the last six months are more likely to have reloaded it
- 75% of that that have reloaded say they have a regular card they reload (81% of females). Looking at key age groups, 35 - 54 year olds (80%) and 55 – 64 year olds (83%) regularly reload
- Those that use the internet to make a purchase are more likely to only reload once
- 70% of those that reload do it at least monthly, with 24% at least weekly. Those that bought the card in the last six months are more likely to reload the card weekly 34% vs. 8%.

Ever v Regular Loading by Card Type



Source: VRL - BMRB

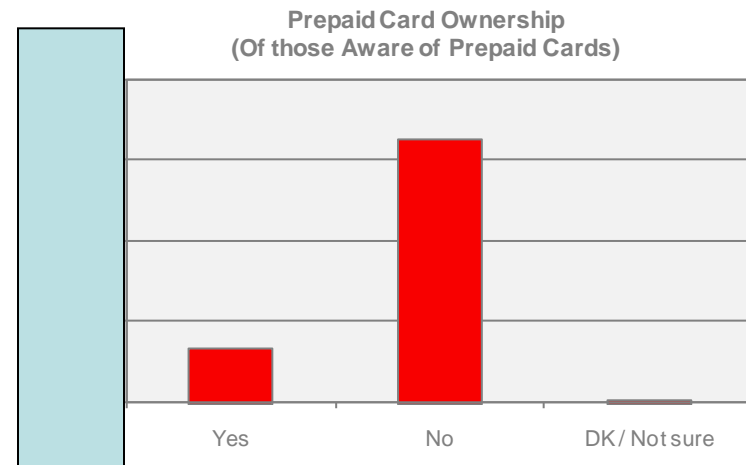
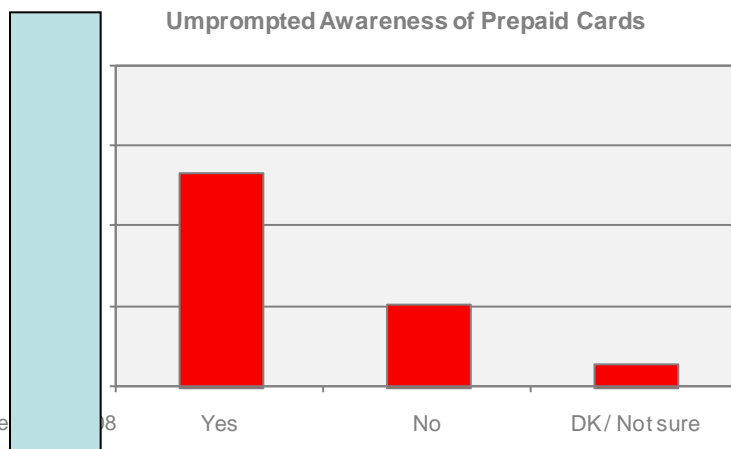
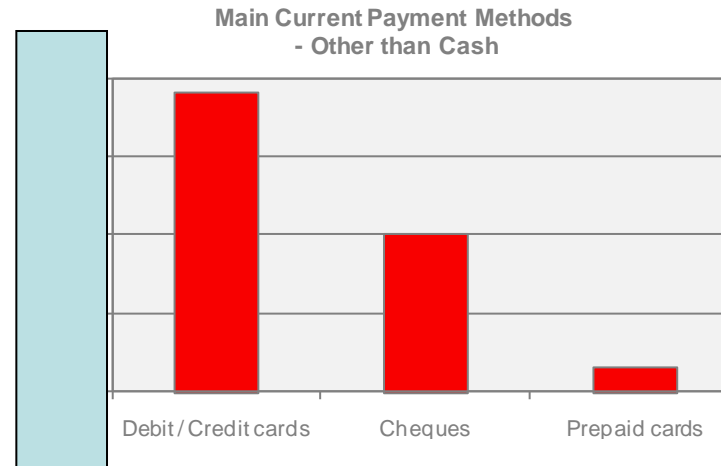
Frequency of Loading



Source: VRL - BMRB

# Market Take Up and Adoption

- On take up and adoption, the MasterCard commission ase research in 2008 revealed:
  - 96% of respondents use debit / credit cards every month, with prepaid use at 8%
  - Unprompted awareness of prepaid cards stands at 67% with 26% unaware
  - Of those aware of prepaid cards, 17% own a card.



Source: MasterCard 2008



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## **Section G**

### **Types of Prepaid Cards**

#### **10 Remittance Cards**

# Remittance Cards

## Target customer segments

- People with relatives abroad, the UN estimates that 175 million people live outside their country of origin. The World Bank estimates that there are over 200 million foreign workers worldwide
- Ethnic minorities in UK who have come from Eastern Europe

## What are they used for?

- Use Visa / MasterCard network to transfer money internationally
- 3 Main types:
  1. Card held in the UK and card in the foreigner's country
  2. No card in the UK, just a card in the foreigner's country
  3. Mobile in the UK, transferring to a card in the foreigner's country

## Competition

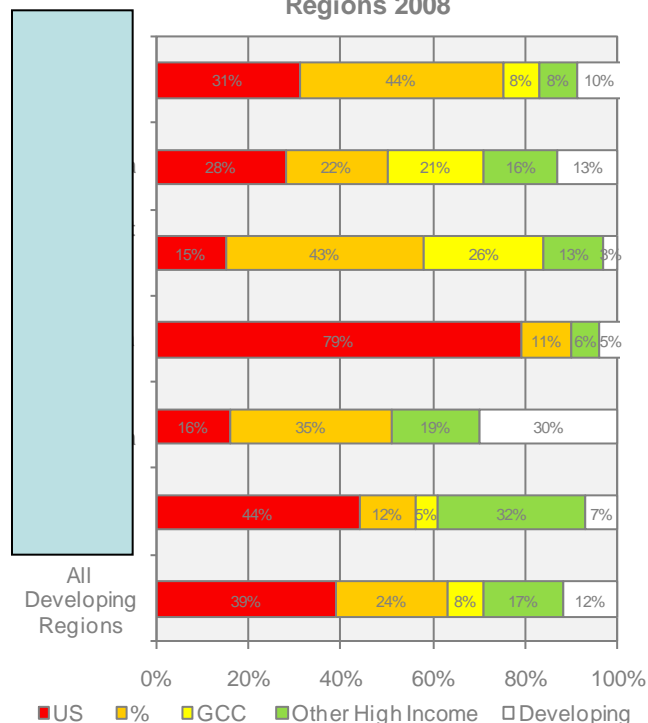
- Citibank have recently introduced a fee-free online instant money transmission service for Polish nationals living in the UK. This takes advantage of their representation on both countries and will challenge recently developed prepaid programmes from Lloyds TSB and Virgin Money, not to mention traditional operators like Western Union.
- Chequepoint, having combined their prepaid card and money transfer services, are now [Apr. 08] able to offer a card which does not need a secondary card to be held by the recipient. Initially in Poland, money can be transferred to Post Offices, branches of ING bank and direct to Polish bank accounts.

# Remittance Cards

## Remittance Flows

- India, China and Mexico are largest recipients by value, all with over US\$20bn coming into the country (IMF / The World Bank)
- The pattern of remittance flows is also changing. Flows from the US to Latin America and the Caribbean and from Western Europe to Europe and Central Asia are slowing. In contrast, flows from the GCC countries to East and South Asia have grown rapidly (The World Bank).

Sources of Remittances by Recipient Regions 2008



Source: The World Bank Nov 2008

Remittance Flows to Developing Countries 2006-2008 (\$ billion)

	2006	2007	2008e
<b>(US\$ billion)</b>			
Developing Countries			283
(as share of GDP, percentage)*			(1.8)
East Asia and Pacific			62
Europe and Central Asia			54
Latin America and Caribbean			61
Middle-East and North Africa			35
South Asia			51
Sub-Saharan Africa			20
<b>Growth Rate (Percentage)</b>			
Developing Countries			7%
East Asia and Pacific			7%
Europe and Central Asia	25%	31%	5%
Latin America and Caribbean	18%	6%	0%
Middle-East and North Africa	10%	20%	8%
South Asia	20%	11%	16%
Sub-Saharan Africa	35%	42%*	6%

Source: World Bank Nov 2008

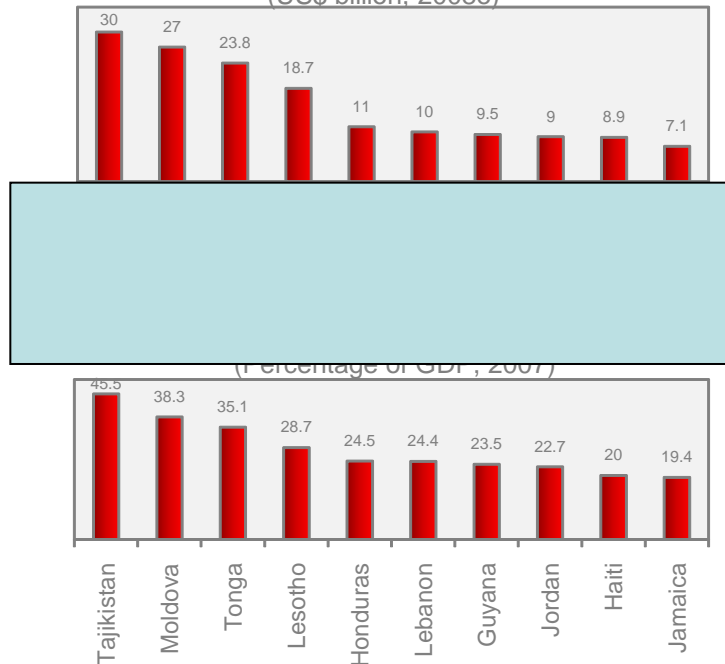
# Remittance Cards

- The Eurostat survey (2007) revealed that migrants in the EU sent home €26 billion (13% up on 2005). Remittances within the EU totalled €7 billion in 2006 (+13% on 2005) with Spain, UK, Italy Germany and France accounting for 85% of the total
- HM Revenue and Customs estimate the current figure for the UK is around £5.56 billion (UK Remittance Working Group). Eurostat data for 2006 suggests a total of €5.9 billion

Inbound flows of remittances for some of the more niche EU countries are shown in the table below.

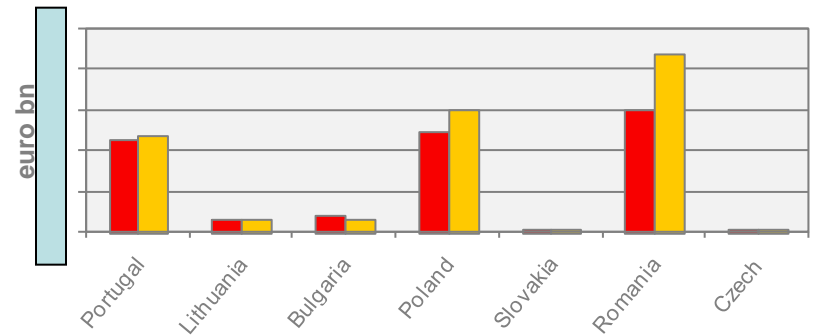
**Top 10 Remittance Recipient Countries in 2008**

(US\$ billion, 2008e)



Source: World Bank Nov 2008

**Inbound Remittance Flows**  
(euro billions)



Source: White Eagle 2008

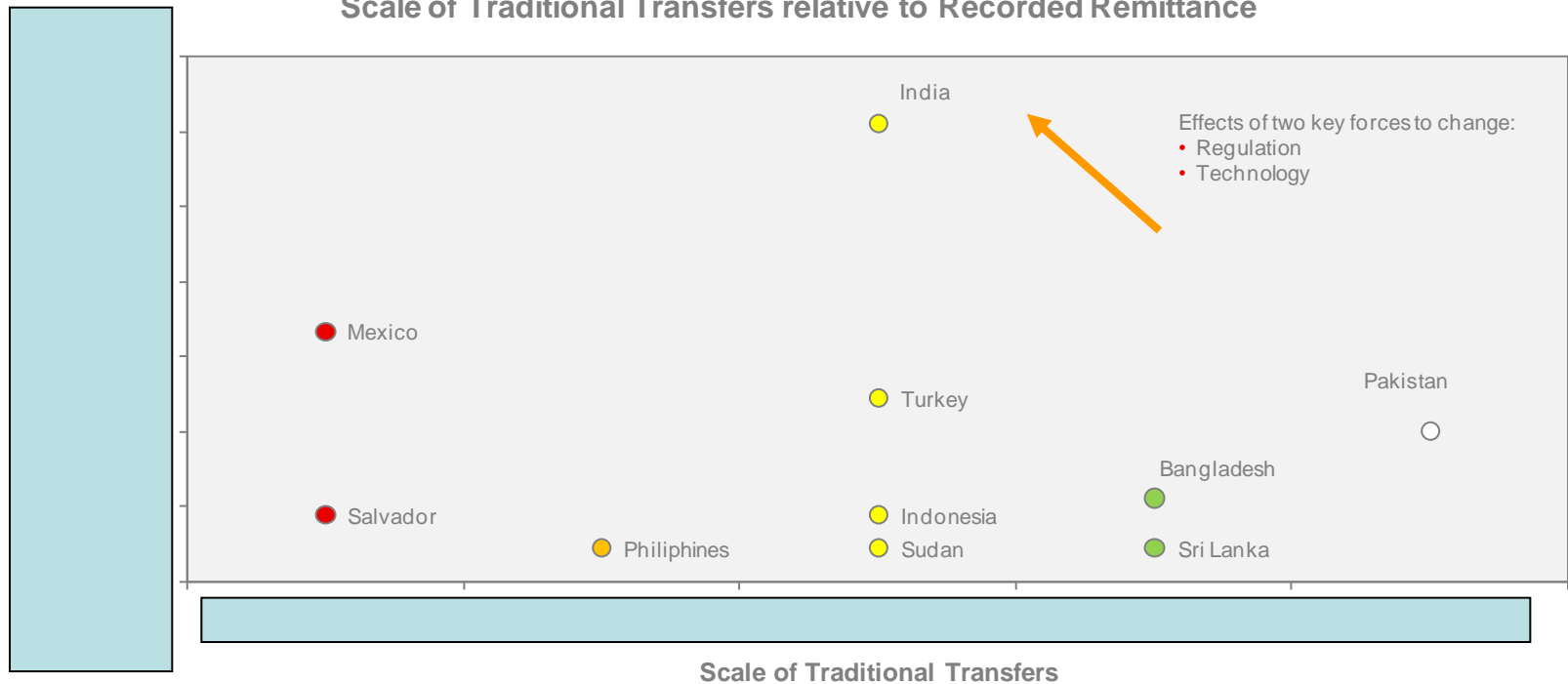


# Remittance Cards

## Money Remittance Routes

- Both recorded and traditional routes are being used to send money abroad
- India has the highest ratio of traditional transfer to recorded remittance.

## Scale of Traditional Transfers relative to Recorded Remittance

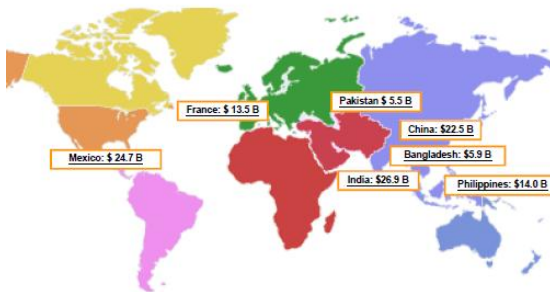


Source: UK Remittance Report

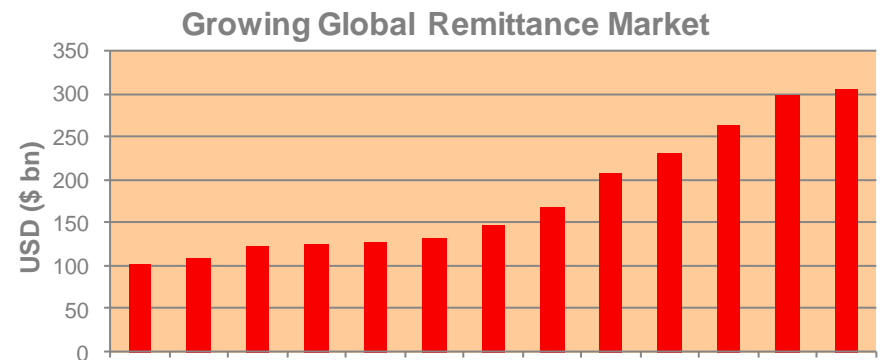
# Remittance Cards

## Market Size

- The World Bank's most recent release in March 09, noted that it expected remittance flows to developing countries to decrease by 5% to 8% in 2009, much sharper than previously predicted.
- The World Bank estimates remittances sent home to developing countries in 2007 at US\$240 billion, double the 2002 figure. It estimates total remittances in 2007 to be US\$318 billion worldwide. It estimates the average remittance value per transaction is US\$200
- The Aite Group estimates that the global remittance market is worth \$456 billion with money transfer revenues worth \$18.3 billion
- The global remittance market has been growing at an average of 11% year on year according to The World Bank (2007). However a year later, the outlook is uncertain due to the deepening financial crisis and volatile currency exchange rates (2008)
- Remittance flows to developing countries are estimated at US\$283 bn in 2008 up by 6.7% on 2007. However when viewing remittances as a share of GDP of the recipient countries, they will fall to 1.8% in 2008, a 0.2pts drop from 2008



Global: \$300+B...Expected to be £500B+ in 2011  
Source: Edgar, Dunn and Company



# UK Remittance Market

- The UK remittance market valuations vary but on average it is thought to be worth £3bn with 25 million transactions. Three countries account for over 40% of the market with Nigeria the largest market, with 17% of all remittances

UK Remittance Market Size		
Country	% of Remittances	Comments
Nigeria		
India		
Pakistan		
Jamaica		
Bangladesh		
Rest of Africa		
Rest of the world		
Australia, New Zealand, India, Pakistan, Bangladesh, Sri Lanka, China, Philippines, Poland, Lithuania, Romania, Albania, Ireland, Nigeria, Ghana, Kenya, Somalia, South Africa, Zimbabwe, Jamaica, West Indies		

Source: iAMTN-DMA

- The World Bank looked at pricing to send money from the UK to a number of key countries for \$200 and \$500
  - As one would expect, it is cheaper to send higher values
  - Nigeria has the cheapest rates at 6.7% for \$200 and 3.6% as a % of total cost. Conversely China was the most expensive for \$200 at 18.6% and Uganda for \$500 at 10%.

Receiving Country	Representative Pricing from UK for \$200				Representative Pricing from UK for \$500			
	Fee	Exchange Rate Margin %	Ave Total Cost %	Ave Total Cost \$	Fee	Exchange Rate Margin %	Ave Total Cost %	Ave Total Cost \$
Nigeria								
Pakistan								
Bangladesh								
India								
Philippines								
Sri Lanka								
Jamaica								
South Africa								
Kenya								
Uganda								
China								

Source: World Bank



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## Section J

### Prepaid Card Partners and Processors

# Pre-Paid Programme Components

## **BIN Sponsorship**

- Provides the access to the Network and usually the FSA compliance. Has full financial and compliance obligations and is responsible for submission and approval of the programmes through the network

## **Card Processing**

- Processor to manage the programme. Holds the virtual balance and processes the card payments

## **Brand**

- Generally the distributor of the card programme. In some cases it is a brand e.g. Hamleys for a gift card, but on a Corporate Payroll card it may be the same as the BIN Sponsor e.g. Lloyds TSB

## **Funds Holder**

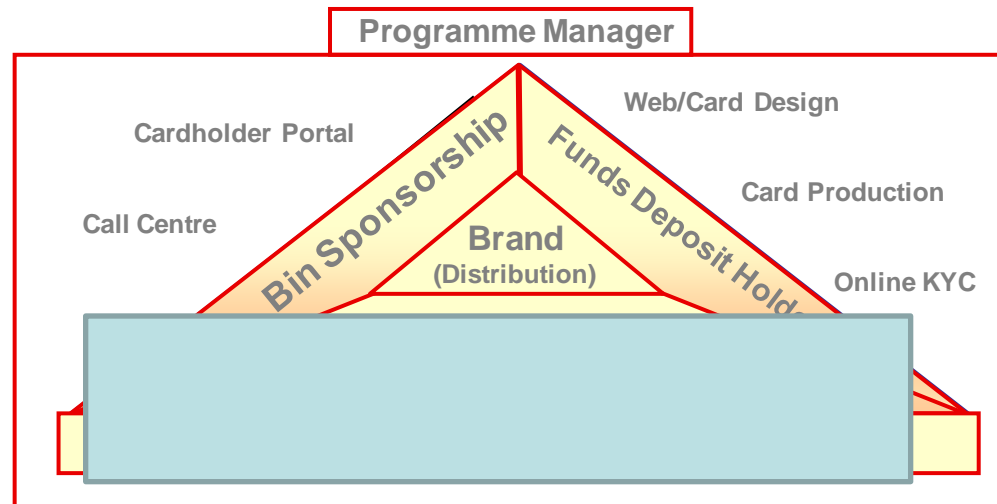
- This is normally the BIN Sponsor but with full EML holders who are also MasterCard members another bank will be used to hold the funds.

## **Card Production/Handling**

- The networks have strict rules, mainly from a fraud and security point of view regarding card production and handling. This latter covers both handling at production and at distribution. Contracts can either be direct or though the processor.

## **Programme Manager**

- Combines the many parts of these activities providing an end-to-end solution for the brand





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**Processors**

# Who Works with Whom?

- FDI only works with major banks and thus would in the past have provided services as part of its overall offering as is the case with TSYS and to some extent EDB who view prepaid as part of a broader debit offering. SSB works with Italian banks only in the same way as an FDI.
- A number of the major high street banks have launched prepaid cards: Lloyds TSB, Barclays, RBS/NatWest. RBS seems to be the most active in the market have also launched PayPal and believed to have a number of other projects in hand.
- At least one processor is known to be going through Visa certification. Several companies are also going through EML applications with the aim to take up MasterCard members
- Bank Invik (Luxemburg Based) and Transact Network both have a full SEPA licence.

Processors Services Available in UK/Ireland													
Main UK and Ireland BIN Sponsors													
	APS		MasterCard										
	Bank of Ireland	Visa											
	Blackhawk		Visa										
	Citi										Visa		
	Corner Bank											Visa	
	IDT Europe		MasterCard										
	JP Morgan Chase									Visa			
	MBNA								MasterCard				
	National Australia Group (Clydesdale)								Visa	MasterCard			
	Newcastle Building Society		MasterCard		MasterCard								
	PPT									MasterCard			
	Raphael	Visa	MasterCard		MasterCard				Visa				
	RBS	Visa											
	Transact								MasterCard				
	TransSend (Conister)		MasterCard			MasterCard						MasterCard	
	Vincento											MasterCard	



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**Programme Managers**



# Programme Managers

- Some key programme managers and their relationships are shown below. Retail specialists have not been included here.
- The market is currently very fluid with a number of new relationships expected to be announced in the next few months. Galileo will enter the European market as a processor in 2009 (VRL conference 2009), TXU have now set up a Dublin office.
- It is likely that some of these announcements will include arrangements for multiple processors along the lines of the US model.
- Whilst Visa do not formula have 'programme, Managers we have included Yes Group who are carrying out the same function.

Bank	N	C	C	C	N	C	N	C	T	C	C	C
Processor												
Altair												
APS												
BOI												
ChequePoint												
Corporate Pay												
CredeCard												
IDT												
i-Neda												
M Cube												
PCT												
PixPay												
PPT												
Quantum Loyalty												
Transact												
TransSend (Conister)												
Tuxedo												
Ukash												
Vincento												
White Eagle												
Yes Money												

 Visa  
 MasterCard



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## **Section B**

### **Near Field Communications**

# Near Field Communications (NFC)

- NFC in the payments industry (also known as “contactless”), is the ability to transfer card payment details wirelessly across short distances, speeding up and simplifying the transaction for the consumer and the merchant at point of sale. It avoids the need for the merchant to handle the card and also avoids the need for the consumer to enter a PIN
- Trials by some banks and retailers in the UK started in 2006, and the Autumn of 2007 has seen these gradually rolling out – initially across London.
- In November 2007, Barclaycard announced a trial of mobile phone payments to establish consumer appetite for such types of payment. Their plans for NFC for 2008 are to have 1 million contactless cards in circulation by the year end when they also hope to have increased the number of retailers accepting them from the current [Apr. 2008] 4000 to 20000
- Transactions are limited to a maximum of £10 and security features include the card being forced to PIN verification after a set number of transactions. This limits the overall exposure of the bank to potential fraud
- NFC is not a technology specific to Prepaid Cards – debit, credit and charge cards can establish similar propositions. MasterCard have over 28 million MasterCard and Maestro cards or devices with PayPass (100 implementations in 32 countries) enabled and live across the globe

## Drivers

- Consumers have not been overt in their demand for NFC development but there is always a requirement from the consumer to make things easier, quicker and with less hassle. It is expected that NFC will help fulfil this need particularly in relation to retailers where speed is important and low transaction values occur e.g. convenience stores
- For issuers, there is the opportunity to present a new proposition to consumers
- Acquirers find that the new proposition of speedier checkout at POS means they have the opportunity to grow their base. They can target not only traditional card accepting retailers, but new sectors with lower average transaction values where the business case for card acceptance has traditionally been less clear

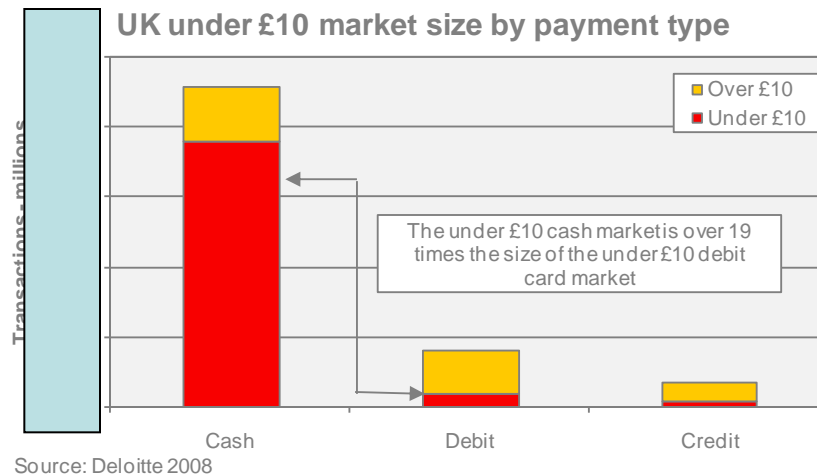


Example PayPass Receipt

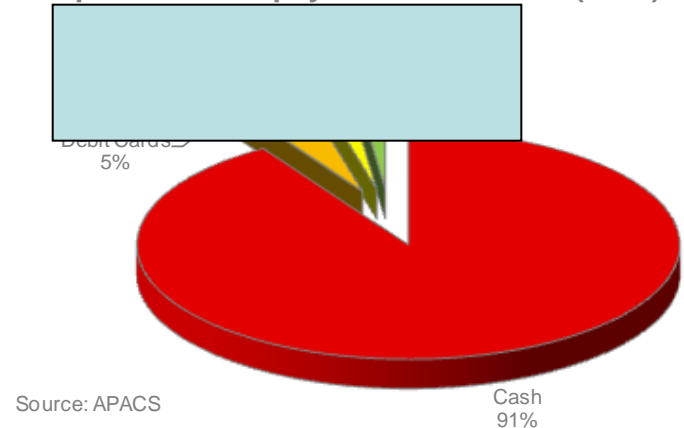
# Near Field Communications (NFC)

## The Opportunity

- Cash still represents the most popular form of payment and as such continues to present a significant target and opportunity for card payments to infiltrate
- The opportunity to link NFC with non-traditional payment interfaces (see the section on Mobile payments) brings new opportunities for issuers of prepaid cards
- MasterCard estimate there are in excess of 20 billion payments under £10 in the UK with a value of around £200 billion a year and the graph from Deloitte below supports that estimate



Proportion of UK payments under £10 (2006)



- The dominance of cash is clear, partly reflecting the considerable number of consumers who do not, or choose not to, have any other method of payment apart from cash. In addition, the market has an inertia based on past experience amongst card carrying consumers (Mondex wallet trial)
- The habit of paying for small items with cash is hard to break and so the opportunity to convert the consumer to card usage for low value payments needs to address this key factor
- There are, never-the-less, a significant number of low value payments being made on payment cards

# European Transit Programmes

## Bucharest Activ

- Launched November 2006 to replace paper tickets and magnetic cards
- Circa 400k cards issued in 2007
- Contactless, load capability through special electronic devices
- Card free to customer
- Card holds customer personal identity data



## Copenhagen Metro

- Rail rapid transit system in several cities in Denmark
- Opened 2002, now evolving into integrated transport system for Denmark
- The contactless travel card is the future electronic ticket system for public transport in Denmark – it will work for trains, buses and metro trains
  - Either super-personal, personal or anonymous cards issued to passengers
  - Card checked at start and end of journey
  - Money deducted from prepaid amount or bank account
  - Roll-out plans 2008-11, Scania in Sweden expected to introduce similar system
- Prepaid card estimates 2007-9 – 1 million.



Source: Edgar, Dunn & Company

# European Transit Programmes

## Dublin LUAS

- LUAS smartcard launched in March 2005 for light rail/ tram system
- Credit is pre-loaded on to card at ticket machines by cash, debit or credit card
- Minimum top-up of €5, maximum credit on card €100
- Used by tagging on/ tagging off at validating machines, which show balance on card
- Cards cannot store multiple journey tickets unlike Oyster-tickets issued on paper
- Card costs €10-a €3 non-refundable charge for the card, €3 of credit and €4 reserve fund-allowing travel even if insufficient credit on the card for the journey
- Fares are cheaper when smartcard used



## Future

- Travellers to use one card to pay for all public transport in Ireland-now smart card readers on all Dublin buses
- Next stage is integrated ticketing for all transport operators in the Dublin area-s so single ticket for different modes of transport
- Customers want to use for Park and Ride facilities

## Gothenburg VT Travel Cards

- Integrated smart card fare collection system on the public transport system of Vastra Gotaland County
- Population catchment area of 1.5 million people
- 350k smart cards in regular use-system capacity 1 million cards
- Cards can be used on all forms of transport-buses, trains, trams and ferries
- Reload possible at 450 shops
- Objectives to increase ticket sales efficiency but also to generate data re revenue distribution and traffic flows



## Future

- Parking, banking and toll road applications.

Source: Edgar, Dunn & Company



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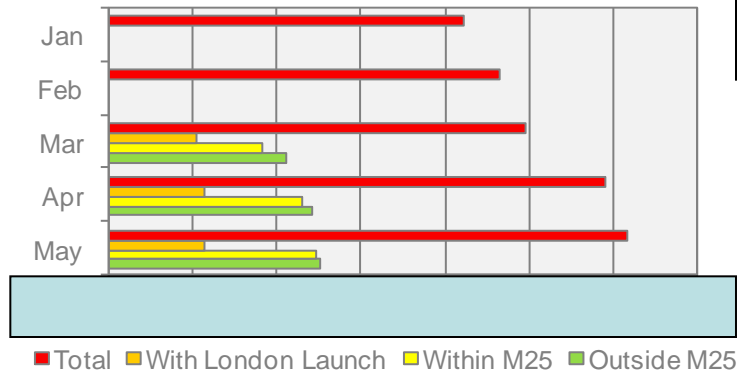
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## Section P Near Field Communications

# The Future of NFC payments

- APACS reports that the UK roll out programme for contactless cards to May 2008 is as shown right

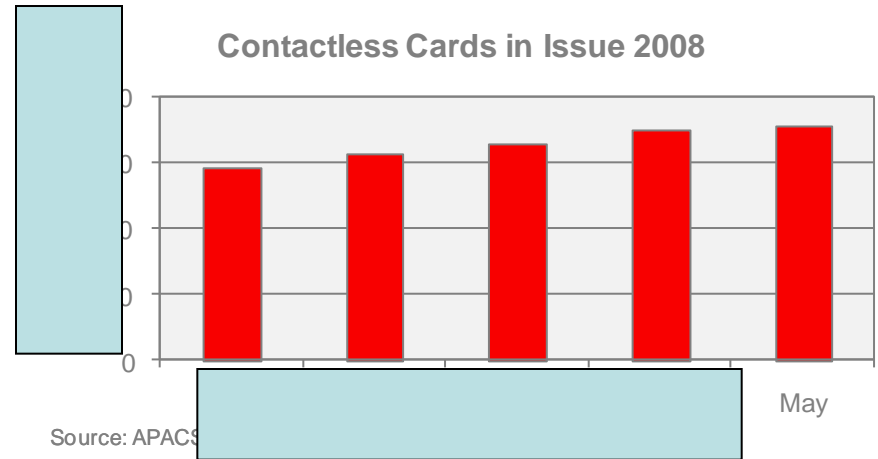
**Contactless Terminal Numbers 2008**



Source: APACS 2008

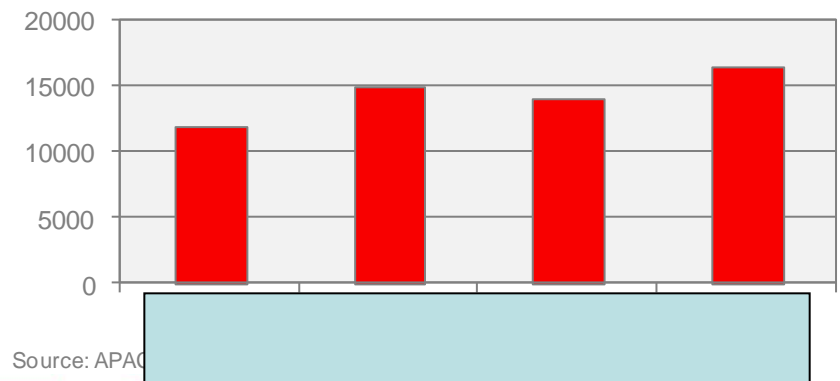
- Transaction volumes for the first four months of 2008 are shown right
- Average transaction value is £4 - £5
- Users are early adopters and remain very positively disposed to the idea
- 81% of users say it is a good idea
- 62% think it is quicker than cash
- 61% feel it is safe and secure

**Contactless Cards in Issue 2008**



- The approximate totals for contactless terminal roll out to May 2008 is as shown left

**Contactless Transaction Volumes 2008**







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