

# The Usage, Cost and Pricing of Retail Payments in Ireland

Ronnie O'Toole<sup>1</sup>

## Abstract

Effective, safe and efficient payment systems are important to facilitate real and financial transactions in advanced economies, though the choice of payment channel differs widely across Europe. Ireland has the second highest usage of cheques in Europe, the highest ATM withdrawal per capita and still pays out half of all social welfare payments in cash. Cheques are a very expensive form of payment, and much less efficient than debit cards. Ireland could save up to €1bn per year by migrating to more efficient payment instruments. One impediment to a faster migration is that the pricing of payments in Ireland is not commensurate with the cost of provision. Only 46% of the costs of providing cash and cheques services are recouped by banks, with significant cross-subsidisation at the expense of electronic payments.

<sup>1</sup> The author is Programme Manager of the National Payments Plan, and works in the Payment and Security Settlements Division of the Central Bank of Ireland (email: ronnie.otoole@centralbank.ie). The views expressed in this article are those of the author only and do not necessarily reflect the views of the Central Bank of Ireland. The author would like to thank Tony Grimes, Maurice McGuire, Bernard Sheridan, David O'Riordan, Daragh Cronin, Stefan Gerlach, Peter Hopkins and Joe Doyle for helpful comments.

## 1. Introduction

Retail payments are mainly consumer payments of relatively low value. They are made by a large numbers of transactors, and relate to purchases of goods and services in both the consumer and business sectors. A retail payment can be made using a variety of payment instruments such as cash, cheques, debit and credit cards and by EFT (Electronic Funds Transfer) using credit transfer or direct debit. Effective, safe and efficient payment systems facilitate real and financial transactions in advanced economies.

Making a payment is costly. While bank charges in Ireland, particularly consumer charges, receive a lot of media and regulatory<sup>2</sup> attention, the cost to society of providing payment services do not. In the case of cash, these costs come from the printing of notes and minting of coins, the distribution of cash to users and the return of excess cash to banks, all of which requires a complex infrastructure involving security, transportation, insurance, cash depots, ATMs, etc. Cheques need to be printed, go through several stages of transportation and require a significant degree of manual processing. For non-cash payments such as debit cards or credit transfers, the cost comes from maintaining an information-processing infrastructure involving intermediaries such as banks, clearing houses and settlement system operators.

This paper examines the relative importance of different retail payments within the EU, and the cost of providing these. It then examines the bank charges faced by consumers in Ireland for the use of different payment alternatives, with particular emphasis on the cost of their provision. The paper is structured as follows; Section 2 compares the usage of payment methods within the EU, with a particular focus on Ireland; Section 3 sets out the main results of a recent ECB study of the cost of retail payments in Europe, while Section 4

discusses the role of pricing of retail payment instruments, and outlines the system of differential pricing used in Norway to drive more efficient consumer behaviour. Finally, Section 5 draws a number of conclusions.

## 2. The usage of retail payments

The relative importance of different retail payments instruments varies widely across countries. Ireland retains very high rates of use of paper-based payment instruments (i.e. cash and cheques) relative to the rest of Europe. Each of the main forms of payment is discussed below.

### 2.1 Cash

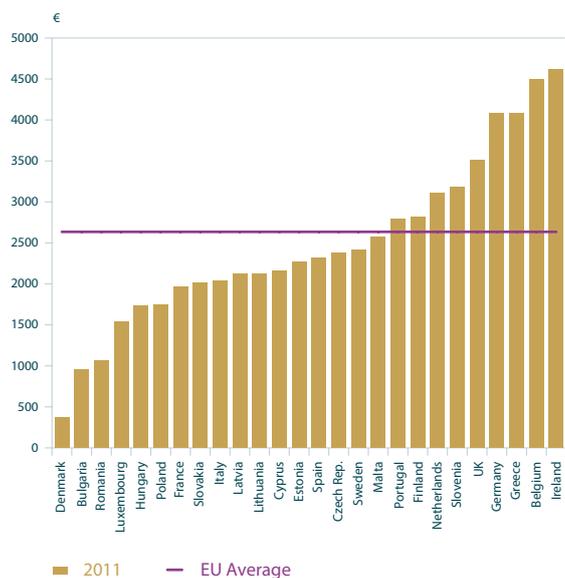
The measurement of cash transactions is difficult given their anonymous nature. However measures of the sources of cash are more readily available<sup>3</sup>, the most important of which are the ATM network and over-the-counter (OTC) withdrawals from financial institutions. Chart 1 below shows the ATM usage per capita in the EU in 2011. The chart shows that Ireland has a relatively high usage relative to other euro area countries. The Irish public withdrew €21.2 billion from ATMs in 2011, equivalent to €4,618 per capita, which is 65% higher than the EU average of €2,635 (ECB, 2012).

Tentative estimates of aggregate cash withdrawals in Ireland also exist, and are estimated at €14,000 per capita in 2010, just over double the EU12 average of €7,000 (Takala and Viren (2012)). By this estimate, non-ATM access to cash in Ireland is also far higher than on average in the EU, despite Ireland having a relatively low bank branch penetration. In part this is because over half of all social welfare payments per annum in Ireland are still paid in cash through the post office network, representing €10bn in 2011 (Department of Social Protection (2012)).

<sup>2</sup> Financial institutions operating in Ireland are subject to Section 149 of the Consumer Credit Act, which obliges them to get approval from the Central Bank of Ireland of every proposal to increase an existing charge or introduce a new charge on customers of financial services. The approval criteria laid down in legislation are the promotion of fair competition; commercial justification; and the effect on customers.

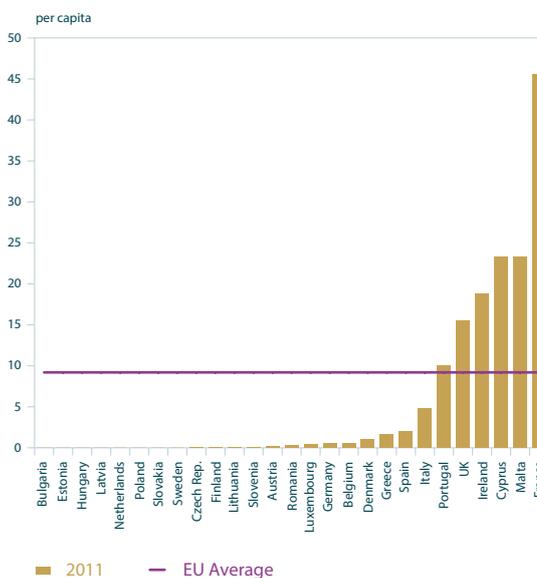
<sup>3</sup> Measuring the sources of cash raises the difficulty that cash can be used for purposes other than making payments, most notably as a store of value.

Chart 1: ATM usage per capita in the EU, 2011



Source: European Central Bank.

Chart 2: Cheque usage per capita in EU, 2011



Source: European Central Bank.

## 2.2 Cheques

Ireland is one of only six EU countries that use a significant volume of cheques. In 2011 84.2 million cheques were written in Ireland, equivalent to 18.8 cheques per capita. The average use in the EU is 9 per capita, though two out of three EU countries use on average one cheque per capita or less per annum. Cheque usage in the EU fell at a rate of 7.5% in 2011, in line with the rate of decline witnessed in Ireland (7.4%). Chart 2 shows the use of cheques by country in 2011.

Within Ireland, cheque usage is dominated by consumers and small- and medium-sized enterprises (SMEs), with 97% of all cheques written having a consumer or SME as either the payer or payee. Almost two-thirds of cheques (63%) feature consumers and/or SMEs as both payer and payee. Cheque usage among consumers is particularly prevalent among the elderly and the farming community (National Consumer Agency (2012)). Box 1 provides a breakdown of cheques users in Ireland in 2012 by issuer and beneficiary.

## 2.3 Debit and Credit Card Payments

Card usage in Ireland is extensive and growing rapidly, though relative to other Northern European countries remains low. Chart 3 shows that there were 76 card payments per capita in Ireland in 2011, which is low compared to Finland (203), the Netherlands (146) and Luxembourg (138). Most card payments in Ireland are now made using debit cards, which overtook credit cards in 2007 in terms of number of transactions; debit card use in Ireland is currently growing at an annual rate of 14%. Ireland's domestic debit card scheme ('Laser') is currently being phased out, and is being replaced mainly with Visa debit cards. In contrast to debit cards, the number of credit card payments has dropped by 14% since 2008, and is still falling. A longer-term trend of debit card payments displacing credit card payments has been evident since the inception of the Laser debit card scheme in 1996.

**Box 1: Cheque usage in Ireland 2012**

While the number and value of cheques has been measured for some time, little information about the issuers and beneficiaries of cheques was available. The first major cheque analysis of its type was undertaken in 2012 by participant banks, co-ordinated by the National Payments Plan programme office.

A total of 10,000 cheques were examined, with each of five cheque clearing banks sampling 1,000 cheques on two dates, April 18th 2012 and May 1st 2012. In each case the cheques were examined to determine the issuer, the beneficiary and the amount, with this information being categorised under a number of headings.

A summary of the analysis is provided in the table below, which shows the percentage of all cheques between each of the major categories of issuers and beneficiaries. For example, 16% of all cheques in the sample were written by households to SMEs (small and medium sized enterprises). This includes, for example, payments to plumbers, mechanics and doctors.

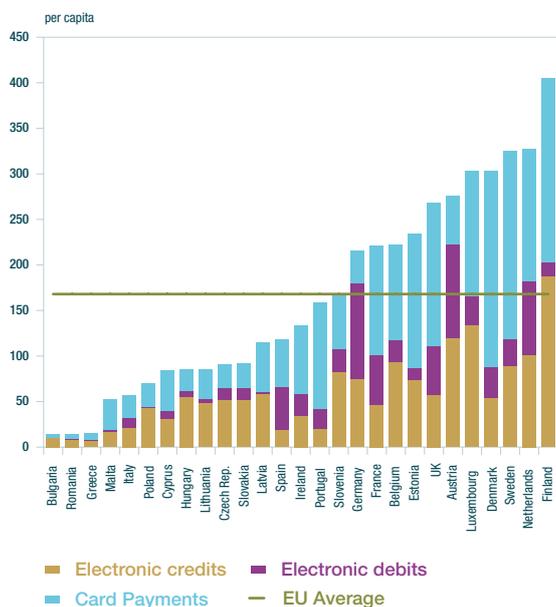
Issuer (Rows)	Beneficiary (Columns)					Total
	Personal	SME	Other Business	Public Sector	Uninc. Bodies	
Personal	12%	16%	4%	2%	2%	35%
SME	14%	21%	3%	1%	0%	40%
Other Business	3%	1%	1%	0%	0%	4%
Public sector	10%	1%	0%	0%	0%	11%
Financial Institutions	2%	1%	1%	0%	0%	4%
Unincorporated Bodies	2%	1%	0%	0%	0%	3%
Bank Drafts	1%	1%	1%	0%	0%	3%
<b>Total</b>	<b>44%</b>	<b>42%</b>	<b>8%</b>	<b>4%</b>	<b>3%</b>	<b>100%</b>

Source: Central Bank of Ireland (2013)

The main conclusions of the analysis are as follows:

- Businesses issue 44% of all cheques in Ireland (about 37 million cheques in 2011). Within the business sector cheque usage by SMEs dominates, accounting for 90% of cheques issued.
- The majority (57%) of cheques issued by businesses are payable to other businesses (21 million cheques per annum).
- Consumers account for more than one third of all cheques issued (35%), equivalent to nearly 30 million in 2011. The majority of these (56%) are payable to businesses, primarily to SMEs.
- Just over one third of all cheques issued by consumers are payable to other consumers, accounting for 12% of all cheques in the sample.
- 42% of cheques issued by consumers are for €100 or less.
- Other than the Department of Social Protection, the public sector is no longer a major issuer of cheques. Of eight million cheques issued by the public sector in 2011, six million were for social welfare payments.

Chart 3: Electronic payments usage in the EU, 2011



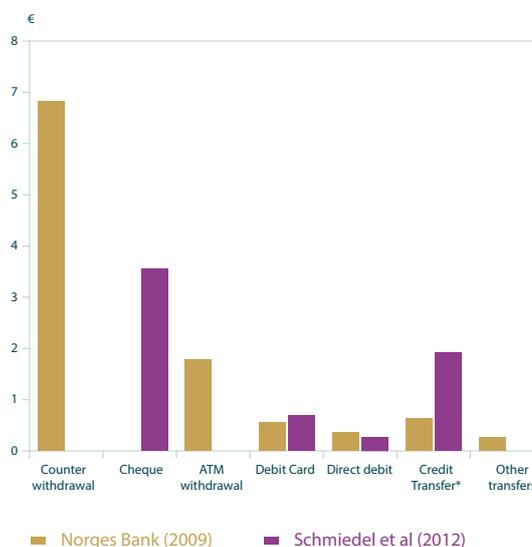
Source: European Central Bank.

## 2.4 Electronic Funds Transfer

The term 'Electronic Funds Transfer' (EFT) captures a variety of ways of making a payment by electronic means. An electronic credit transfer is a method of sending funds directly from one bank account to another using electronic means, the transfer being initiated by the sender. An electronic credit transfer could for example be a standing order for a monthly savings account or a once-off payment to a friend or family member. In Ireland the public currently makes 34 electronic credit transfers per capita, per annum. This compares to a EU average of 50 annually.

A direct debit is a regular payment debited from a bank account on the basis of an authorisation (referred to as a 'mandate') previously given by the payer to the payee. Direct debits are typically used to make recurring payments such as for insurance premiums, utility bills or mortgage repayments. Irish bank customers currently make 24 direct debits per capita, per annum. This compares to a EU per capita average of 44 annually.

Chart 4: Unit social costs of retail payment instruments



## 3. The societal cost of retail payments

Payment transactions involve significant costs. The unit costs per payment for the EU and Norway are shown in Chart 4. These are based on the total social cost of retail payments to all stakeholders divided by the number of transactions per service. Reliable estimates for the cost by payment channel are not available for Ireland, and are the subject of research being initiated by the Central Bank of Ireland.

The most expensive way to execute a payment is an OTC transaction. This is twice as expensive as a cheque, which is the second most expensive form. The cost of an ATM withdrawal is about three times as expensive as debit card transactions when all societal costs are included.

An ATM withdrawal is likely to fund numerous cash transactions, so despite ATMs being relatively expensive, cash payments show the lowest costs per transaction, followed closely by debit card payments. However given the huge

4 The Schmiedel et al. (2012) study does not include household costs.

**Table 1: Costs of payments in society by instrument and by stakeholder, % of total**

	Central Banks	Banks and infrastructures	Cash-in-transit companies	Retailers/ businesses	Total
Cash	3%	20%	1%	28%	51%
Cheques	-	2%	-	1%	3%
Cards	-	17%	-	5%	22%
- Debit cards	-	8%	-	2%	10%
- Credit cards	-	8%	-	1%	9%
- Combined cards	-	-	-	2%	2%
Direct debits	-	5%	-	4%	9%
Credit transfers	-	7%	-	6%	14%
<b>Total</b>	<b>3%</b>	<b>51%</b>	<b>1%</b>	<b>46%</b>	<b>100%</b>

**Source:** Derived from Schmiedel et al. (2012).

volume of cash usage (representing 68.8% of all transactions), the costs of cash are nearly half of the total economy-wide costs associated with payments. However in more than one-third of the sample countries in Schmiedel (2012), debit card transactions have lower unit costs than cash transactions.

The low average cost for cash payments derives from its efficiency for very low-value transactions. However, while the marginal cost of a cash transaction increases with the transaction amount, the marginal cost of a debit card transaction is largely invariant to the size of the transaction. This gives rise to the so-called 'switching point', the point above which debit cards become more efficient to use than cash.

This switching point has been the subject of a number of studies. Brits and Winder (2005) estimate a switching point of €11.63 in the Netherlands, close to the estimate of €13 also for the Netherlands by Ten Raa and Shestalova (2004). Bergman et al. (2007) estimate a switching point of €7.80 in Sweden based on data for 2002, though a more recent study by Segendorf and Jansson (2012) estimate this at just €1.88 based on data for 2009. Segendorf and Jansson suggest that an explanation for the decline in the switching point in Sweden is an increase in economies of scale in card

payments, while cash usage has been decreasing. Advances in payments technology, particularly the advent of contactless cards and/or mobile payments, could further lower this switching point in the future.

The costs by instrument and stakeholder are shown in Table 1 (adopted from Schmiedel et al. (2012))<sup>5</sup>. It shows that the cost of cash in Europe represents over half (51%) of the total societal cost of payment. A further 22% of total costs are for cards, which are evenly split between debit and credit cards. Cheque usage only costs 3%, though this figure would be far higher in high cheque-using countries like Ireland.

Turning to costs by stakeholder, around half (51%) of the overall costs of payments are incurred by banks and payment systems infrastructures, with most of the remainder (46%) being incurred by retailers and other businesses. The costs related to central banks and cash-in-transit companies account for 3% and 1% respectively.

The aggregate costs of retail payments in the EU are substantial and amount to 0.96% of GDP<sup>6</sup> though there is a variation of 0.8% between the most efficient and least efficient countries. Reducing the aggregate cost of payments could potentially improve national

<sup>5</sup> It does not include any payment made to other participants in the payment chain, for example fees or tariffs, to avoid double counting of costs.

<sup>6</sup> The payments considered in the study were cash, cheque, debit and credit card, direct debit and credit transfer payments up to €50,000, which account for at least 5% of all payments in terms of volume in each country. This estimate is the average of the 13 sample participating countries.

competitiveness and result in better value for the customer, lower back-office administration cost for Government, lower administration cost for businesses and lower operating costs for financial institutions. The costs incurred by consumers and households were not considered in the study, though data from Denmark and Hungary<sup>7</sup> suggest that on average these costs account for about 0.2% of GDP. Household costs of payments cover items such as the time spent on activities relating to making payments, fees paid to banks and interest income lost on their cash holdings (Danmarks Nationalbank (2011)).

The study includes Ireland in the cluster of the most expensive countries, with an estimate of the cost of payments of 1.2% of GDP. This cluster includes France, Greece, Italy, Cyprus and Malta which are typified by high cash and cheque usage by comparison with the European average, with a correspondingly low card usage.

There are a number of non-monetary costs and benefits associated with different payment methods. Most notably, there is a correlation between cash usage in an economy and the size of that economy's shadow economy. De Grauwe et al. (2006) show that the ratio of the shadow economy to the regular economy has a strong and negative impact on the choice of a debit card payment relative to cash. Studies of Scandinavian countries have shown that between 28% and 65% of cash in circulation is not accounted for by recorded payment activity, which is suggestive of a very significant element of shadow economy payments<sup>8</sup>.

In conclusion, while bank charges in Ireland receive considerable media and regulatory attention (particularly consumer charges), the corresponding costs of payment services do not. The evidence presented in this review shows that there are significant differences in the cost of provision of different payment instruments, which drives a higher overall cost

of payments in countries with payment usage exhibited in Ireland. The next section looks at the issue of bank pricing, which shows that there is little price differential which might provide an incentive to consumers to use more efficient means of payment.

#### 4. The pricing of retail payments

Pricing plays an important role in the payment system and can be applied by banks<sup>9</sup> or merchants, though in practice is mainly applied by the former. The most important role of pricing is to recover costs. Fee income is an attractive source of revenue for banks as it is less volatile than other sources of income<sup>10</sup>. Pricing can also signal the different costs associated with different instruments to users and change behaviour accordingly. However, non-price incentives – such as availability, convenience and security - can also be important in influencing payment behaviour.

While the use by merchants of a 'payment surcharge' or 'handling fee' is not widespread in Ireland, a number of merchants in the passenger travel, package travel, utilities and other sectors apply fees to debit or credit card payments (Department of Jobs, Enterprise and Innovation (2012)). Surcharging in retail outlets is rare as it is thought to generate confusion among consumers and would involve additional costs for merchants. Instead, retailers cover their payment costs by applying a general average mark-up on all customer prices.

For banks, payment related fee-income comes from three primary sources:

1. *Direct customer charges*: These can be applied to consumers (e.g., fees for use of a debit card) or corporate customers (e.g. fees paid by retailers for depositing cash)<sup>11</sup>;
2. *Debit/credit card interchange*: Merchants in Ireland have to pay a 'Merchant Service Charge' every time they accept a debit or

<sup>7</sup> As cited in Schmiedel et al. (2012).

<sup>8</sup> Further details can be found in Humphrey et al. (2000) and Paunonen and Jyrkönen (2002).

<sup>9</sup> Including merchant acquirers.

<sup>10</sup> Non-interest income increased from 26% to 41% of total income between 1989 and 1998 (ECB (2000)).

<sup>11</sup> Financial institutions operating in Ireland are subject to Section 149 of the Consumer Credit Act, 1995.

credit card payment. Part of this payment (called ‘interchange’) goes to the bank that issued the card;

3. *ATM interchange*: This is an interbank flow that compensates a bank when one of its ATMs is used by the customer of a different bank.

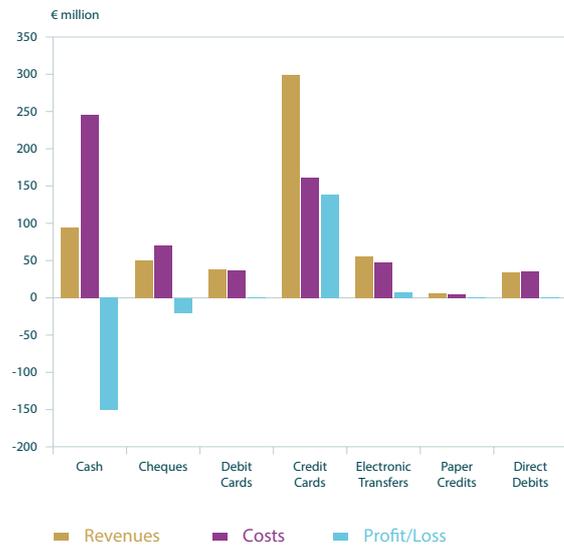
As Chart 5 shows, there is significant cross-subsidisation within the banking sector. Banks in Ireland suffered combined losses of €172m in the provision of cash and cheque services in 2009, which were largely offset by their highly profitable credit card business, which showed a profit of €140m<sup>12</sup>.

Since 2009, the degree of this cross-subsidisation is likely to have risen. The level of debit card interchange fees paid to the banks has increased to 10c per transaction with Visa debit cards, up from 3.8c per transaction under the domestic ‘Laser’ debit card scheme. Further, the re-introduction of per-transaction charging by the main banks in Ireland is likely to have generated more fee income on debit cards (with 238m transactions annually) than on ATM withdrawals (173m), despite the fact that the costs of maintaining the debit card infrastructure is far lower than that of providing cash services.

This cross-subsidisation has a number of potential drawbacks. It could alter the cost-benefit trade-offs that banks need to make to profitably allocate internal investment funds; it can also discourage merchant card acceptance, prevent consumers from making an informed choice among the payment services being offered, and make it more difficult for niche players to enter the market (Hakkarainen (2009)).

The persistence of cross-subsidisation may in part be explained by an intertwining of market structure and political considerations. A portion of revenue from cards is through card interchange fees set by the card schemes (e.g. VISA and MasterCard), though competition between card schemes is likely to push up interchange fees rather than reduce them. As with all merchant costs, the ultimate payers

Chart 5: Revenues and costs for different Payment methods in Irish banks, 2009



Source: Central Bank of Ireland.

Note: This data was compiled based on the methodology of Schmiedel et al (2012).

of interchange are the merchants’ customers, though these costs are recovered by a general average mark-up on customer prices that is not as obvious to the public. In contrast, a bank risks losing market share if it tries to impose cost-based pricing directly on its own customers, or may face political and/or regulatory barriers which prevent it from doing so. As such, raising revenue from interchange fees rather than directly via consumer charges may represent the path of least resistance, though may end up costing consumers more.

From an efficiency perspective, the mispricing of payments matters if customers’ demand for payment services is sensitive to pricing. Assessing this sensitivity is difficult because of the lack of available evidence. Transaction pricing of consumers is rare in Europe and the U.S., since banks fear a loss of deposit market share if they are the first bank to introduce such fees (Bolt et al. (2008)). In many countries banks cover their costs by other means, such as through fixed account management fees, applying zero interest rates on current accounts or by cross-subsidisation of one payment type by another.

<sup>12</sup> Central Bank Survey conducted as part of the contribution to Schmiedel et al. (2012).

**Table 2:** Per-transaction consumer bank charges 2012

	Ireland €	Norway €
<b>EFT vs. Cheque</b>		
EFT	14c	23c
Cheque <sup>15</sup>	67c	€5.48
Price Differentiation (euro/cent)	53c	€5.25
Price Differentiation (%)	379%	2283%
<b>Point of Sale</b>		
Debit Card	14c	24c
ATM (Other bank) <sup>16</sup>	14c	65c
Price Differentiation (euro/cent)	0c	41c
Price Differentiation (%)	0%	171%
<b>Internet vs. Over-the-counter</b>		
Internet	13c	22c
OTC	19c	€10.57
Price Differentiation (euro/cent)	6c	€10.35
Price Differentiation (%)	46%	4705%

**Source:** Figures for Norway from Norges Bank (2012). Figures for individual Irish banks downloaded from www.nca.ie, and weighted by market share.

The notable exception is Norway, where pricing of payments to consumers based on the cost of provision of payment services commenced in the 1980s with the explicit support of both the Norwegian Government and Norges Bank<sup>13</sup>. After the largest Norwegian commercial banks introduced charges, smaller commercial banks and savings banks followed suit (Enge (2006)). The pricing of transactions intensified following the banking crisis in Norway in the late 1980s and early 1990s.

In Ireland in 2011-2012 transaction pricing was extended by a number of banks struggling to return to profitability following the economic crisis. Table 2 shows that the consumer transaction pricing currently in place Ireland<sup>14</sup> generally lacks the significant differentiation by channel evident in Norway. The one exception is cheques, which are on average 379% dearer in Ireland than an EFT, though this is mostly because of Government Stamp Duty of 50c per cheque rather than being attributable to bank fees.

However for point of sale transactions, where the principal choice for the consumer is to either use a payment card or withdraw cash from an ATM, there is no differentiation in Ireland. In contrast, Norwegian consumers have a clear price differentiation between ATM usage and card usage, with the former being 171% dearer than the latter when using another banks ATM. In Norway charges for 'over-the-counter' (OTC) transactions are the most evident, being 47 times (4705%) more expensive than making an EFT. In Ireland the differential is only 6c, or 46%. However the charge for using your own banks ATM in Norway is only 0.3 NOK, far below the costs of production. As such, the application of cost-based pricing is not uniformly practiced, even in Norway.

Bolt et al. (2008) assessed the importance of price incentives by comparing the Norwegian experience with that of Netherlands, which experienced a significant shift towards electronic payments without explicit pricing of consumers. In the Netherlands, it was found

<sup>13</sup> A narrower example of the impact of pricing on usage of payment instruments is given by Nyberg et al. (2003), who attribute the sharp fall in the use of cheques in Sweden when banks started to charge for their use.

<sup>14</sup> Data downloaded on 28th December 2012.

<sup>15</sup> This includes the Stamp Duty of 50c levied on each cheque in Ireland.

<sup>16</sup> The charges in Norway for use of an ATM owned by a customer's own bank is 37c.

that controlling for other factors, the differential pricing of instruments accelerated the shift of consumers to electronic forms of payment by around 20%. De Grauwe et al. (2006) estimate that a switch to cost-based pricing would lead to a reduction in resource costs of €150-€200m in each of Belgium and the Netherlands. Given Ireland's comparable size, a cost saving of the same order of magnitude could possibly be expected.

The conclusion can be drawn that payments pricing in Ireland exhibits heavy cross-subsidisation of cash and cheques at the expense of card payments. A realignment of pricing of cash and cheques on the one hand, and electronic means of payment on the other, could lead to a more efficient usage of payments, and ultimately to lower costs for consumers.

## 5. Conclusion

The overall aim of this paper is to show the usage of payments in Ireland, the cost implications that this usage pattern has for the economy, and the role of pricing in influencing societal choices about which payment instrument to use. The picture that emerges is of a society whose payment patterns are moving towards an increasing usage of electronic payments, though at the same time remaining relatively cash- and cheque-intensive.

The cost of these choices has recently been the subject of an ECB study, which shows that cheques are almost three times more expensive than their electronic equivalent. The evidence for cash is more ambiguous. Cash is the most efficient form of payment for low value transactions of up to around €10, though debit cards are more efficient for larger transactions. Ireland is in a cluster of the most expensive cohort of countries, with an estimate of the social cost of payments of 1.2% of GDP. Reducing the aggregate cost of payments could improve national competitiveness and result in better value for users of payments services.

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