

# How Do Austrians Pay for Online Purchases?

The Internet has become an integral part of everyday life for many people: More than 60% of Austrians have access to the World Wide Web at their workplace or at home. The rapidly growing possibilities to access and use the Internet have also given rise to new forms of payment specifically designed for goods and services ordered online. Against this background, this study presents the results of a survey commissioned by the Oesterreichische Nationalbank on the payment methods Austrians choose when shopping on the Internet. The results showed that the vast majority of online payments (52%) are made via bank-based payment services (payment slips, preauthorized debit, etc.). Credit cards are used for 30% of transactions, and payment by COD (cash on delivery) accounts for a share of 13%. This study compares and complements these findings with the results of other surveys and also looks into the reasons respondents cited in favor of or against online shopping.

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## 1 Introduction

The importance of the Internet has increased strongly over the past few years. The World Wide Web has become an integral part of many people's lives, both at the workplace and at home. The substantial rise in online shopping, i.e. the purchase of goods or services over the Internet, is a by-product of this development. This study investigates how this trend has evolved in Austria and what payment methods Austrians use when shopping on the Internet.

The expansion of online shopping has been accompanied by the emergence of new forms of payment. Only a few years ago, when the dotcom boom had reached its climax, some market observers predicted that electronic money would soon completely replace traditional means of payment, which would limit central banks' possibilities to control monetary growth and inflation.

Today we know, of course, that this was an exaggerated assumption; still, it is particularly important for

central banks to know which means of payment are used for online shopping. Therefore, this study presents the results of a survey conducted in fall 2005 which the Oesterreichische Nationalbank (OeNB) commissioned to learn more about the methods of payment Austrians use when shopping on the Internet.

## 2 Strong Rise in Internet Use and Online Shopping

A vast range of data on Internet access and use in Austria is available, the majority of which is based on survey results. As the questions in these surveys differ, data comparability is often limited.<sup>1</sup> There are also comparative data from the European Commission, which, however, were already compiled in the second quarter of 2005.

### 2.1 Access and Use

According to survey data provided by Online Monitor (OM) and Austrian Internet Monitor (AIM) for the second quarter of 2006, around 66% to

<sup>1</sup> Table 6 in the annex contains a list of all surveys referred to in this study.

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Table 1

EU-Wide Data for Comparison (2005)			
%			
Share of households with Internet access at home		Share of persons who have used the Internet over the previous three months	
Netherlands	78	Sweden	81
Denmark	75	Netherlands	79
Sweden	73	Denmark	77
Luxembourg	65	Finland	73
Germany	62	Luxembourg	69
United Kingdom	60	United Kingdom	66
Finland	54	Germany	65
EU-15	53	Estonia	59
Euro area	50	Belgium	58
Belgium	50	EU-15	55
EU-25	48	<b>Austria</b>	<b>55</b>
Slovenia	48	EU-25	51
Ireland	47	Euro area	51
<b>Austria</b>	<b>47</b>	Slovak Republic	50
Estonia	39	Slovenia	47
Italy	39	Spain	44
Spain	36	Latvia	42
Cyprus	32	Ireland	37
Latvia	31	Hungary	37
Portugal	31	Poland	35
Poland	30	Italy	34
Slovak Republic	23	Lithuania	34
Greece	22	Czech Republic	32
Hungary	22	Portugal	32
Czech Republic	19	Cyprus	31
Lithuania	16	Greece	22

Source: European Commission.

68% of Austrians aged 14 years and over have access to the Internet. Internet market penetration surged in the 1990s: in 1996 only 14% of Austrian had online access, by 2000 this share had climbed to 46%, by 2003 to even 64%; more recently, it has been increasing at a slower pace. In an OeNB payment card survey, some 54% of respondents said in the second quarter of 2006 that they had Internet access at home. Broken down by provinces, Internet connectivity is highest in Vienna (70%), followed by Salzburg, Tyrol and Vorarlberg (between 55% and 60%) as well as Carinthia, Burgenland and Lower

Austria, where 1 out of 2 respondents said that they had access to the Internet at home. The share is somewhat lower in Upper Austria and Styria (45% each).<sup>2</sup>

Table 1 provides comparative data on Internet availability across Europe as a percentage of households (Information Society Benchmarking Report). These data are based on an EU-wide harmonized survey conducted in the second quarter of 2005. The questions asked in this survey differed from those of the OeNB survey mentioned above; therefore the surveys' absolute figures are comparable only to a limited extent. Home Internet

<sup>2</sup> These figures refer to Austrians aged 14 and over and not to households. Apart from the technical infrastructure, the structure of households also seems to influence the results; it is likely, for instance, that in Vienna the number of young single-person households is larger than in Burgenland.

connectivity still varied greatly across Europe in 2005, with slightly less than 20% of households having online access in Lithuania and the Czech Republic, whereas the Netherlands, Denmark and Sweden reported shares of above 70%. At 47%, Internet market penetration in Austria is in the EU-25 average, lower than in Slovenia, but considerably higher than in the Mediterranean countries Spain, Italy, Portugal and Greece. In Germany, 62% of households are hooked up to the Internet. Hence, among the EU Member States, Austria ranks only tenth as regards household Internet connectivity.

Of course Internet accessibility is not equal to actual Internet use. On the basis of Online Monitor data provided by FESSEL-GfK, chart 1 illustrates how the share of the population who at least occasionally uses the Internet has developed over time (left illustration, red line).<sup>3</sup> The green line shows the change in the number of those who use the Internet at least several times a month. The last few quarters include results from the Austrian Internet Monitor, the OeNB survey, the Media-Analyse survey as well as the Safer Internet report and Information Society Benchmarking Report by the European Commission. While the Austrian Internet Monitor (blue line) and the Online Monitor provide quite similar results (differing by only 2 percentage points), they deviate more strongly from the other surveys. The Safer Internet survey by the European Com-

mission refers to Internet use during the previous four weeks, whereas the OeNB and the Media-Analyse surveys investigated general Internet use without referring to a certain period of time. All three surveys showed that in the fourth quarter of 2005, some 50% of Austrians used the Internet, which was more than 10 percentage points below the share indicated by the Austrian Internet Monitor and the Online Monitor surveys. These results show that the rates of Internet use differ substantially. It may be assumed that the results strongly depend on the type of sampling, the formulation of questions and the timeframe the questions refer to.<sup>4</sup>

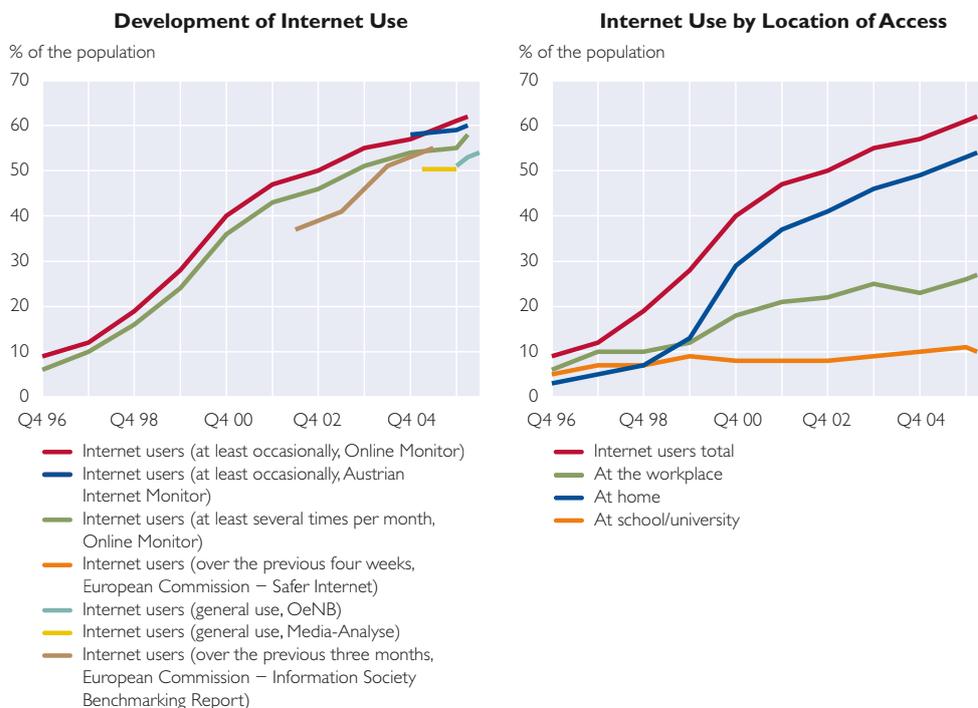
These variations notwithstanding, the data show that first, Internet use has increased sharply over time (six-fold since 1997, as illustrated by chart 1) and continues to do so, and second, the rate of Internet use in Austria most likely ranges between 55% and 62%. According to comparative data by the European Commission taken from the year 2005 (table 1, right column), this rate corresponds to the EU-15 average and is slightly above average among the EU-25.

The right illustration of chart 1 shows where people access the Internet. About 10% browse the Web at school or university, 27% at work and 54% at home. Internet use at home has increased most markedly over time, whereas the share of those accessing the Web at school or university has hardly grown.

<sup>3</sup> Up to 2003, these figures were published in the Austrian Internet Monitor by FESSEL-GfK and Integral.

<sup>4</sup> The European Commission's sample comprises all persons aged 15 and over, whereas the Online Monitor, Austrian Internet Monitor and OeNB surveys cover all Austrians aged 14 and over. This, however, most probably does not account for the different results.

**Internet Use in Austria**



Source: FESSEL-GfK, Integral, Eurostat, Media-Analyse, OeNB (left illustration), FESSEL-GfK (right illustration).

Note: The data provided by the European Commission refer to the population aged 15 and over. All other data presented refer to the population aged 14 and over. Media-Analyse data refer to the entire year 2005.

**2.2 Internet Banking and Online Shopping Are Expanding Vigorously**

The various surveys also provide information on the type of activities the Internet is used for, the relevant results depending strongly on the predetermined response categories. However, all results show that almost 90% of Internet users write and/or read e-mails. A large majority searches the Web for specific information on products, services or other issues. 38% (Information Society Benchmarking Report) or 48% (Media-Analyse) of users read newspapers and magazines online. In the context of this study, two areas are of particular interest: online banking and shopping.

Current data for the second quarter of 2006 provided by the OeNB's payment card survey show that more than 26% of the total population and 47% of Internet users already do online banking.<sup>5</sup> The fact that at the end of 1999, only 5% of the population were Internet banking customers clearly highlights the structural changes that have taken place within a few years owing to the growing importance of the Internet. These figures refer to the Austrian average, however. In the age group below 44 years, the share is 37%; in the age group over 60, as low as 6%. Also, online banking services are used by some 50% of Austrians who have completed upper secondary education as well as 50% of self-

<sup>5</sup> The results of this survey are very similar to the results of the Media-Analyse poll.

Table 2

**Development of Online Shopping**

%	Q1 97	Q1 02	Q1 05	Q1 06	Q2 06
Ordered goods and services over the Internet					
At least once					
% of the population aged 14 and over	1	13	25	31	34
% of Internet users	6	35	49	58	61
Several times in the past three months					
% of Internet users	x	6	27	37	43

Source: OeNB (payment card survey), IFES.

Note: The formulation of the question has been changed slightly over time: First quarter of 1997: "Have you ever purchased goods or services over the Internet?"; from the first quarter of 2002 onward: "Have you ordered goods for dispatch (e.g. books, CDs, software) over the Internet in the past three months?"

employed persons or high income earners.

The popularity of online shopping has increased equally dramatically. Table 2 provides a summary of the results of the OeNB survey for selected points in time. In 1997, a mere 1% of the entire population or 6% of Internet users said that they had ordered goods or services over the Internet. By 2002, these shares had increased to 13% and 35%, respectively. Afterwards, online shopping soared: in the second quarter of 2006, 6 out of 10 internet users said they had ordered goods or services online.<sup>6</sup> The rise in the share of users who buy on the Internet was accompanied by an increase in the frequency of their online purchases. In 2002, 35% of Internet users had already bought goods or services online, and only one-sixth of those (or 6% of all Internet users) did so several times in the three months preceding the survey. By

comparison, in the second quarter of 2006, 43% of online shoppers polled said they had made several purchases on the Internet within the past three months.

### 3 How Do Austrians Pay for Goods and Services Ordered over the Internet? – Survey Results

#### 3.1 Some Remarks on the Applied Methodology

In fall 2005 a survey commissioned by the OeNB (conducted by IFES) investigated what payment methods Austrian households use for online purchases. The respondents were asked to record the payments they had made for goods and services ordered over the Internet in the four weeks preceding the survey. This so-called Internet diary included the payment amounts and the means of payment used<sup>7</sup> as well as the sector to which the goods or services purchased

<sup>6</sup> By comparison, the Austrian Internet Monitor data of the third quarter of 2005 indicate that 36% of Austrians have shopped online. According to the OeNB payment card survey, by contrast, this rate was between 25% (first quarter of 2005) and 31% (first quarter of 2006). The figures provided by the Austrian Internet Monitor survey are thus somewhat higher than the survey results shown in table 2

([http://www.integral.co.at/dImages/Presstext\\_AIM-C\\_3.Quartal05.pdf](http://www.integral.co.at/dImages/Presstext_AIM-C_3.Quartal05.pdf)). The results of the European Commission's survey of the second quarter of 2005 are slightly lower: 42% of Internet users or 23% of respondents have shopped on the Internet in the 12 months preceding the date of the survey.

<sup>7</sup> The range of payment means comprised: COD, credit card, bank transfer (payment slip, preauthorized debit, eps), mobile phone (paybox or through mobile phone bills), PayPal, paysafecard and "other."

could be assigned. This questionnaire was part of a more comprehensive survey on household's payment behavior, in which respondents were asked to record in a payment diary<sup>8</sup> all transactions made in the course of one week, including online orders.

The analysis in this study is limited to Internet diary data, leaving out altogether the transactions recorded in the payment diary. The latter, however, provide some indication of the scale of Internet retail trade. It should be noted that payment diary data do not include bank transfers, only households' direct payment transactions. The online payment transactions recorded in one week account for roughly 1.1% of all direct payment transactions or 2.3% of the value of all payments recorded in the payment diary. Obviously, the share of online payment transactions is not very high.

18.3% of 1,204 respondents for whom data are available ordered goods or services over the Internet at least once within one month, conducting a total of 372 transactions and spending EUR 52,337. Thus, the average number of Internet payment transactions per person per month is 0.3 for all respondents and 1.6 for Internet shoppers. The average amount spent per purchase is EUR 141, the median is EUR 43. The highest single payment amount recorded in the survey was EUR 10,312.

Among the group of online shoppers, some 57% bought goods and services once, 26% twice and 17% three times or more.

While the results for all payment transactions covered in the survey as presented in Mooslechner et al. (2006) are at least adequately representative, it is difficult to assess representativeness as regards online payment transactions due to a lack of comparable data. In addition, the number of cases is relatively small, which implies that larger random fluctuations are likely. The data may also be influenced by seasonal effects. For these reasons, the results should be interpreted with caution and compared with other results, where possible. In addition, it would be advisable to interpret the results only indicatively, e.g. to ascertain which means of payment is used more frequently, etc.

These limitations notwithstanding, the data presented here provide essential primary statistical information on the use of payment means in Internet transactions.

### 3.2 Results

Of all payment methods for online purchases (chart 2), bank transfers (by payment slip, preauthorized debit, etc.) are used most often (roughly 52% of transactions). As credit cards account for around 30% of payments, it becomes evident that only two means of payment are used for more than 80% of transactions. Payment by COD is the third most frequently used payment method for Internet purchases, accounting for 13% of transactions. Other means of payment, i.e. those specifically designed for online shopping, play a negligible role.

<sup>8</sup> An analysis of the results of this large-scale survey was published in *Monetary Policy & the Economy Q2/06* (Mooslechner et al., 2006).

Chart 2

### Breakdown of Total Number of Online Payment Transactions by Payment Method

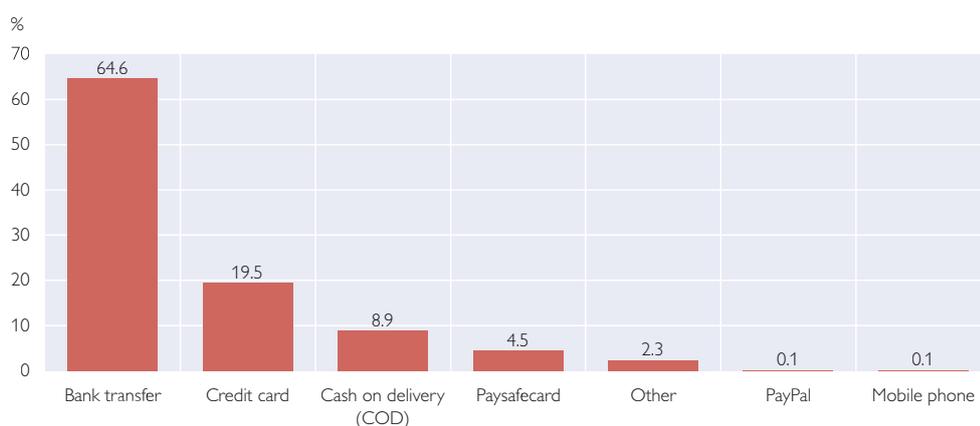


Source: OeNB (Internet diary).

Note: The chart shows the share of payment means in the total number of online payment transactions.

Chart 3

### Breakdown of Total Value of Online Payment Transactions by Payment Method



Source: OeNB (Internet diary).

Note: The chart shows the share of payment means in the total value of online payment transactions.

The shares of payment methods are similarly distributed in a breakdown by payment amounts (chart 3), although, at 64%, bank transfers account for an even higher share here. Credit card payments, by contrast, only make up 20% (10 percentage points less than in the breakdown of the number of transactions). This difference suggests that though credit cards are used relatively frequently, the individual amounts settled by credit card are not very high. The

same may hold true for payment by COD; an analysis of payments by amount confirms this conclusion.

A cross table of the payment methods used and payment amount ranges highlights the direct relation between these two factors (table 3). Small-value payments are made primarily by bank transfer (50% of payments up to EUR 10 and around 58% of payments up to EUR 25). The new payment instruments specifically designed for online purchases enable

Table 3

Breakdown of Payment Methods by Amount of Payment					
% of transactions	Cash on delivery (COD)	Credit card	Bank transfer	Other	Total
Up to EUR 10	4.5	31.8	50.0	13.6	100
EUR 10 to EUR 25	9.5	29.5	57.9	3.2	100
EUR 25 to EUR 100	17.7	30.6	47.6	4.1	100
EUR 100 to EUR 500	12.0	30.7	50.7	6.7	100
From EUR 500	6.3	12.5	62.5	18.8	100
<b>Total</b>	<b>13.0</b>	<b>29.6</b>	<b>51.8</b>	<b>5.6</b>	<b>100</b>

Source: Own calculations on the basis of an OeNB survey (Internet diary).

Note: The table summarizes the share of the respective payment method in Internet transactions in several payment amount ranges (e.g. credit cards were used for 31.8% of payments below EUR 10).

payments of small amounts. This is reflected in the data, which show that these payment methods are used for around 14% of very low amounts of up to EUR 10. Interestingly, consumers use credit cards also for small payments; they amount to approximately 30% of payments of up to EUR 500. In the case of payments of over EUR 500, the share of credit cards drops to one-third (some 13%), quite in contrast to bank transfers, whose share rises to roughly 63% in the category of payments over EUR 500.

Due to the small number of transactions, a more detailed breakdown of payment amounts does not seem useful.

The respondents were also asked to record in the Internet diary the sector to which the respective good or service they ordered over the Internet may be assigned. An evaluation of data by sector makes sense only if a category accounts for a share of at least 10% of transactions. Four sectors meet this criterion: “CDs, DVDs, other audio media” (13.7%), “electrical equipment and computers” (11.6%), “books and stationery” (19.9%) as well as “culture, recreation and sport” (9.9%). All other sectors had shares of less than 10%.

The data reveal sector-related differences as regards the method of payment (chart 4).

In all sectors shown, except for online orders in “culture, recreation, sport,” more than half of all payment transactions are settled by bank transfer. Credit cards rank second, with an average of around one-third of Internet purchases across sectors being paid for by credit card. In the area “culture, recreation, sport,” shoppers use their credit cards to settle even 46% of transactions. All in all, bank transfers and credit card payments taken together account for more than 85% of payment transactions across these four sectors. Payment by COD seems to be fairly popular for purchases of CDs, DVDs and other audio media, making up 16% of all transactions in this sector, but plays a subordinate role in the other sectors (below 10%).

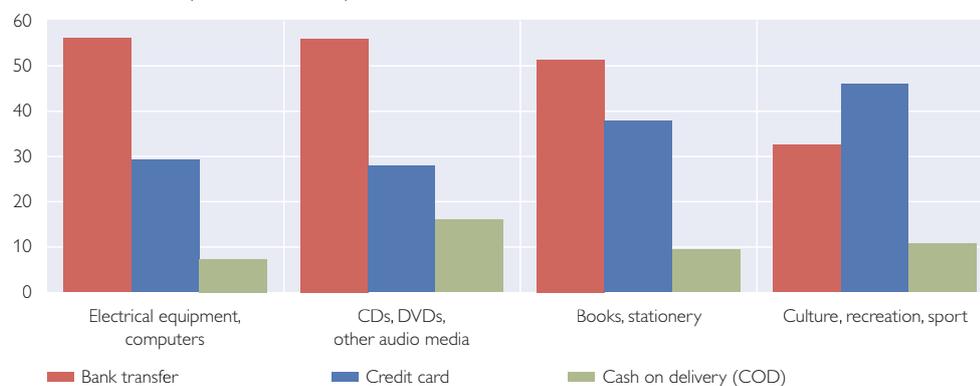
### 3.3 Comparison with Other Results

Owing to the small size of the sample it is crucial to compare these results with those from other sources, like, for instance, the quarterly OeNB payment card survey, in which respondents are asked at irregular intervals about their choice of payment

Chart 4

### Internet Payments

Breakdown of Online Payment Transactions by Sector, %



Source: OeNB.

Table 4

### Use of Various Payment Methods on the Internet

% of respondents

	Bank transfer	Credit card	Cash on delivery (COD)	Mobile phone	Other
2002 (Q1 + Q2)	43	32	23	0.5	8
2005 (Q3 + Q4)	46	38	21	0.3	6
2006 (Q1 + Q2)	42	40	24	0.3	6

Source: OeNB (payment card survey).

Note: Percentages of users who have ordered goods or services over the Internet at least once. In 2006, for instance, 42% of respondents said that they had paid for online orders by bank transfer. Due to multiple answers, the totals are higher than 100%. For 2002, 2005 and 2006, the data are based on 438, 1,131 and 1,304 persons, respectively.

method when buying online. The results are summarized in table 4; it should be borne in mind that in the survey multiple responses are allowed. Also, the values displayed are percentages of respondents and not percentages of transactions, therefore they are not directly comparable with the values mentioned above.<sup>9</sup>

Turning to the results which refer to the same period as the survey presented earlier, i.e. the third and fourth quarters of 2005, it can be observed that the ranking of the most frequently used payment methods exactly matches the Internet diary data: 46% of respondents said they paid by bank transfer, 38% by credit card,

and payments by COD ranked third, way behind the other two methods.

Apparently, bank transfers have remained the most popular means of payment for online purchases since the first data were compiled in 2002. Credit cards seem to be catching up, though: in the first half of 2006, credit card payments and bank transfers accounted for an almost equal share of transactions. No particular changes have been recorded for other forms of payment.

In fall 2005 Krüger et al. (2006) conducted an online survey in Germany on the payment methods used for purchases of immaterial and material goods. The results corre-

<sup>9</sup> To obtain a sufficient number of observations, two quarters are aggregated for each reference period in table 4.

sponded to those of the OeNB survey in so far as bank-based payment (bank transfers, preauthorized debit), credit card and COD were the most widely used payment methods for material goods. As regards immaterial goods, it turned out that credit cards are the most frequently used means of payment. Krüger and Leibold (2006) estimated the shares of different payment methods in transactions for the same survey of 2004 and concluded that 66% of payments (for material goods) were made by bank transfer or preauthorized debit in 2004, 18% by credit card and 10% by COD. Hence, the results of the surveys from 2004 and 2005 suggest that the payment habits of German online shoppers are similar to those of Austrians.

Thus, all in all, the results described in section 3 are consistent with results based on other surveys, at least as regards the ranking of payment methods.

Interestingly, though, Austrians' payment behavior seems to deviate from the European average. According to an international survey by ACNielsen (2005), across Europe, credit cards are used much more frequently than bank transfers.<sup>10</sup> The fact that Austrians do not use credit cards more frequently for online purchases may be attributable to the relatively small role credit cards generally play in Austria (and this may also be the case in Germany). According to a recent OeNB survey, apparently only some 20% of Austrians (aged 14 and over) own a credit card. Mooslechner et al. (2006) show that only about

1 in 80 direct payment transactions is carried out by credit card. Those Austrians who own a credit card, however, use it to settle more than half (55%) of their payments for Internet purchases, which suggests that in countries with a higher diffusion of credit cards, this payment method is also used more frequently in Internet transactions. In addition, the ACNielsen (2005) survey shows that payments by COD, PayPal and debit card are roughly equally common. This is another result differing greatly from the survey which is the focus of this study, as PayPal and debit cards have so far played a subordinate role in Austria.

#### 4 Who Shops Online and Why?

Whether people shop online largely depends on their overall Internet use.

An evaluation of Internet usage rates by sociodemographic criteria shows that – as expected – the shares of people browsing the Web varies widely across the population. The most important determining factors seem to be age, education level and gender; usage rates are lower in the higher age groups, and women use the Internet significantly less frequently than men. Also, Internet usage among people with higher education levels is much more widespread than among the rest of the population. Furthermore, people's place of residence seems to play a key role: the Internet usage rate among residents of communities with less than 2,000 inhabitants is 42%, whereas in cities

<sup>10</sup> ACNielsen (2005) does not provide any details on the compilation of data. Therefore it is not possible to ascertain the comparability of this survey with the survey discussed in this paper. Also, the ACNielsen survey does not present separate results for Austria.

Table 5

**Internet Orders by Sociodemographic Characteristics**

	Do you use the Internet?	Have you ordered goods or services over the Internet in the past three months?
	yes	yes
	% of respondents	% of Internet users
<b>Age</b>		
14 to 29 years	81	51
30 to 44 years	72	50
45 to 59 years	53	40
Over 60 years	15	29
<b>Education</b>		
Compulsory education	32	34
Secondary education	43	42
Higher secondary education	55	35
University	85	58
<b>Gender</b>		
Women	49	42
Men	61	50
<b>Community size</b>		
Up to 2,000 residents	42	39
Up to 5,000 residents	50	40
Up to 50,000 residents	48	43
Up to 300,000 residents	68	49
Vienna	71	57

Source: OeNB (payment card survey), first and second quarters of 2006.

Note: % of the respective group.

with up to 300,000 inhabitants, more than two-thirds of residents are Internet users (table 5, left column).

Also the rates of those Internet users who shop online differ across sociodemographic groups (table 5, right column), albeit not as markedly as Internet usage rates. Again, age plays a crucial role: the older the Internet users, the lower the share of online shoppers, which comes to only 29% in the age group 60 and over (more than 20 percentage points below the rate in the age group under 30). In the youngest age group – those under 30, who record the highest Internet usage share (more than 80%) – 51% ordered goods or services online in the three months preceding the survey. Similarly, the level of education has an impact: the higher the education level, the higher the share of those Internet users who

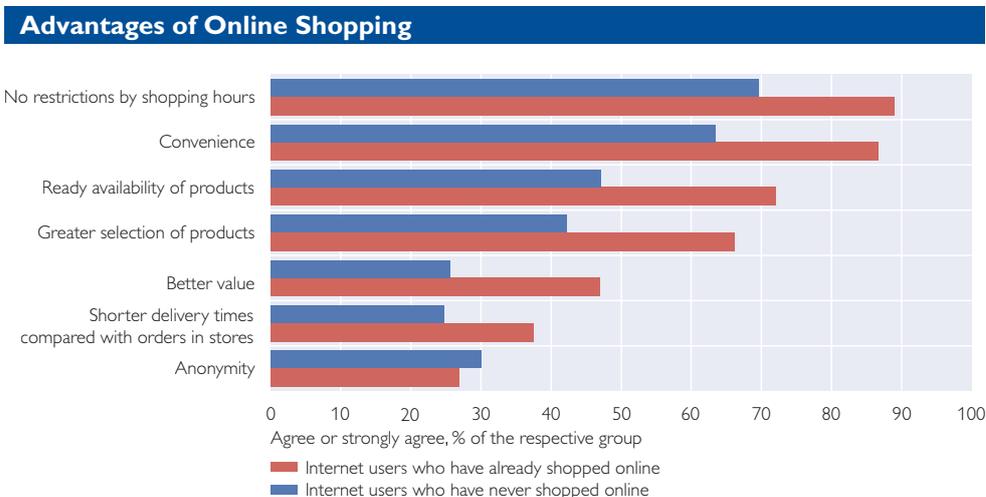
shop online (e.g. 58% among respondents with an university degree). Women Internet users shop less frequently online than men.

The breakdown by the size of the place of residence reveals an interesting fact: People in communities of up to 50,000 residents order fewer goods and services over the Internet than residents of large cities, even though the larger range of products available online should be particularly attractive to residents of smaller communities.

All considered, the survey demonstrates that people who use the Internet are also very likely to shop online.

What are the reasons why people buy or do not buy goods and services over the Internet? Chart 5 lists the advantages respondents see in shopping online. A differentiation is made

Chart 5



Source: OeNB.

Note: Figures of the second quarter of 2006.

between respondents who have already shopped online and those who use the Internet but have never bought goods or services over the Web.

In the group of online shoppers, the majority said that not being restricted by shopping hours, convenience and time saving were their main motivations for shopping online. In addition, a broader selection of goods and services and the opportunity to buy products that are hard to find anywhere else are considered to be advantages.

There is no agreement among online shoppers as to whether buying online saves money, which slightly less than 50% believe; the rest feels that this is not the case or is undecided. Short delivery times and the anonymity of online transactions were the arguments considered least important.

What do those who use the Internet but have never shopped online think of these issues? Interestingly, the advantages identified by this group and their ranking broadly correspond

to the assessment made by online shoppers; the percentages of those who believe in the various advantages are, however, substantially smaller among those who do not shop online.<sup>11</sup> The only factor to which these potential online shoppers seem to attach more importance is the anonymity of Internet shopping. At the same time, these respondents expressed bigger doubts than those who have already shopped online as to whether buying on the Internet saves money.

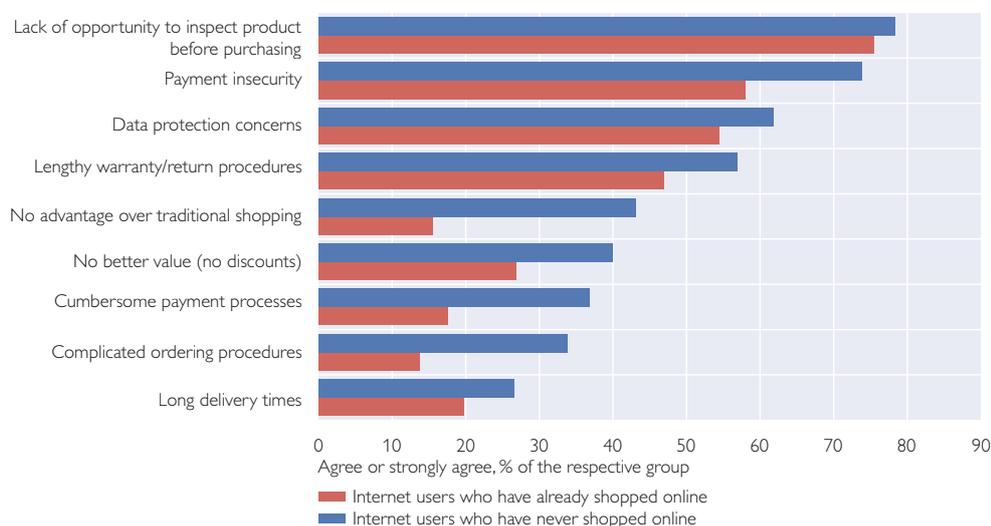
What are the arguments against buying goods and services over the Internet? Those who use the Internet but have not shopped online yet are particularly critical of the lacking opportunity to see or try a product before purchasing and potential problems when claiming warranty or returning the product. In addition, they are concerned about payment security and consumer privacy issues.

These objections are more or less shared by the group of online shoppers. By contrast, difficulties in placing orders, delivery or payment are

<sup>11</sup> As expected, the share of respondents indifferent to this issue is higher in this group.

Chart 6

### Disadvantages of Online Shopping



Source: OeNB.

Note: Figures of the second quarter of 2006 in % of the respective group, including "no answer" responses.

apparently not considered to be big issues.

These results show that, interestingly, the arguments against Internet shopping have not changed markedly since 2000. In a survey in late 1999 and early 2000, Latzer and Schmitz (2000) found that uncertainty about consumer and data protection, the limited opportunity to inspect products and lacking payment security were the main reasons that may keep people from shopping online. The results of 2006 exactly match the results of 2000 as regards the argument "payment insecurity" and are only slightly lower for "consumer and data protection." This suggests that there is still substantial room for improvement in these two areas. The absence of the opportunity to inspect products in advance is of course a structural disadvantage of the Internet that

cannot be remedied. The importance attached to this motive by respondents has decreased only slightly since 2000.<sup>12</sup>

## 5 Summary and Conclusions

Both Internet accessibility and Internet use increased markedly in Austria in the 1990s, which resulted, among other things, in a substantial rise in online shopping. One side-effect of this development has been the emergence of new forms of payment. Since this aspect is of crucial importance to a central bank, this study focuses on the structure of payment methods used in Internet transactions. Also, it looks into the arguments in favor of and against ordering goods or services online.

The analyses are primarily based on two surveys: the first was commissioned by the OeNB and carried

<sup>12</sup> It is not possible to carry out an exact comparison of the arguments against online shopping as questions and response categories are defined differently. The change over time mentioned here is based on the authors' own assessment.

out in fall 2005. It explored Austrian households' payment behavior in Internet transactions. Respondents were asked to record the type of payments they made for goods and services ordered over the Internet over the four weeks preceding the start of the survey (Internet diary).<sup>13</sup> These records included the payment amount, the payment method and the sector to which the goods and services ordered could be assigned. The other survey used is the quarterly payment card survey, which makes it possible to verify the records of the Internet diary and put the results of both surveys in relation to each other.

What does the Internet diary reveal? At approximately 52%, bank transfers (payment slip, preauthorized debit) account for the largest share in payment transactions by far. Credit cards are used for 30% of payments. In other words, only two – rather traditional – means of payment, are used for more than 80% of all transactions on the Internet. Payment by COD is the third most frequently used payment method for Internet purchases, accounting for 13% of transactions. Other means of payment, that is instruments that have been developed specifically for Internet use, are not (yet) very popular in Austria. The analysis of payment value yields a similar picture. The share of payment amounts that are settled by bank transfers in the overall payment value spent for online

purchases is more than 64%; the share of credit cards in this analysis is only 20%, i.e. 10 percentage points lower than in the analysis by number of transactions. This difference suggests that though credit cards are used also for small payments frequently, the individual amounts settled by credit card are not very high. Among payments below EUR 500 they have a share of 30%, for higher amounts this share declines to 13%.

As expected, the share of Internet users varies greatly across sociodemographic groups. Age, education level and gender seem to have a substantial impact. The variations in percentages are significantly larger with regard to Internet use than with regard to online shopping by Internet users. The inhabitants of large cities use the Internet more extensively, also for ordering goods and services online, than people who live in smaller communities. As a rule, people also tend to shop online when they are general Internet users.

When asked about the advantages of Internet shopping, most respondents (both online shoppers and non-shoppers) said that not being restricted by shopping hours and the availability of a larger selection of products was most important to them. Arguments cited against online shopping include the fact that products cannot be inspected in advance, payment insecurity and data protection concerns.

<sup>13</sup> This questionnaire was part of a larger survey on households' payment behavior, in the course of which all transactions of the involved households within a week were recorded (Mooslechner et al., 2006).

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<http://www.media-analyse.at/frmdata2005.html>

**Annex**

Table 6

**Surveys Used in the Study**

Retrieved on August 23, 2006

Survey and source	Data refer to
European Commission – Information Society Benchmarking Report <a href="http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/051222%20Final%20Benchmarking%20Report.pdf">http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/051222%20Final%20Benchmarking%20Report.pdf</a>	2 <sup>nd</sup> quarter of 2005
European Commission – Safer Internet (SI) <a href="http://europa.eu.int/information_society/activities/sip/docs/eurobarometer/eurobarometer_2005_25_ms.pdf">http://europa.eu.int/information_society/activities/sip/docs/eurobarometer/eurobarometer_2005_25_ms.pdf</a>	4 <sup>th</sup> quarter of 2005
FESSEL-GfK – Online Monitor (OM) <a href="http://www.gfk.at/de/download/PRESS/GfK_Online_Monitor_2_Qu_06.pdf">http://www.gfk.at/de/download/PRESS/GfK_Online_Monitor_2_Qu_06.pdf</a>	up to the 2 <sup>nd</sup> quarter of 2006
Integral – Austrian Internet Monitor (AIM) <a href="http://www.integral.co.at/dlimages/AIM-C_1.Quartal_2006.pdf">http://www.integral.co.at/dlimages/AIM-C_1.Quartal_2006.pdf</a>	up to the 1 <sup>st</sup> quarter of 2006
Media-Analyse (MA) <a href="http://www.media-analyse.at/frmdata2005.html">http://www.media-analyse.at/frmdata2005.html</a>	average for 2005
OeNB payment card survey (conducted by IFES)	up to the 2 <sup>nd</sup> quarter of 2006