How Gender-Specific Are Payments? A Study Based on Austrian Survey Data from 1996 to 2011

Klaus Forstner, Karin Wagner¹ Based on payments surveys commissioned by the OeNB in 1996, 2000, 2005 and 2011, this study highlights patterns in consumer payment behavior in Austria with a view to establishing gender-specific patterns and changes thereof.

While cash continues to dominate, we find that its use contracted to a share of roughly two-thirds in value terms in the review period. This decline was almost twice as large for women as for men (–24 percentage points versus –12 percentage points), thus more than offsetting the significantly higher cash payment volume of women observed in 1996 (90% versus 81%). By 2011, women were heavier users of debit cards than men, in terms of transactions as well as in terms of value.

The higher tendency of women to use cashless payment systems evidently reflects safety concerns with cash. Women are also more risk averse than men in the sense that they are more likely to plan their monthly expenses and more likely to acknowledge the relevance of keeping an eye on what they spend.

JEL classification: E58, E41, D12, J16

Keywords: use of payment methods, payment behavior, gender, survey data

As in other countries, payment habits have been subject to considerable change in Austria: in the place of cash, the use of payment cards has become more widespread; consumers have adopted innovative forms of payment, such as mobile and online payments; there has been a substantial increase in point-of-sale terminals. The take-up of different payment methods varies, among other things, with different shopping amounts, which are in turn aligned with consumers' income levels and shopping purposes – and with gender. For instance, as is evident from the OeNB Payments Survey 2011, more women than men do the daily shopping for their families (see table 1). And the gender income gap continues to persist; in 2012, it was still significant at 81.7% for full-time employees.²

At the same time, fundamental social changes (such as a larger share of women earning their own money, decreasing birth rates, an increasing share of single or divorced women, and higher education for women) have had strong effects on the say of women in household finances — as a result of which the payment habits of women are likely to have changed as well.

How much women know about their partners' expenses and finances, and what role they play with regard to their household's finances (such as whether they have access to a joint account) is also fundamentally influenced by cultural habits. Being a migrant/having different cultural habits plays an important role (see also Björnberg and Kollind, 2005). For instance, according to the OeNB Payments

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² According to Statistics Austria, the average statistical income was EUR 32,540 for fully employed women but EUR 39,848 for fully employed men in 2012.

Table 1

Who Takes Care of What in Your Household?

		Respondent	Respon- dent's partner	Both	No answer
Keeping track of household finances	All Male respondents Female respondents Migrant female respondents	out of 100 34 23 43 33	13 18 8 23	53 58 48 44	0 1 0
Paying the bills	All Male respondents Female respondents Migrant female respondents	35 37 34 30	19 15 22 40	46 48 44 30	0 1 0 0
Doing the daily shopping	All Male respondents Female respondents Migrant female respondents	41 12 66 65	22 43 4 7	37 45 30 28	0 1 0 0
Making saving and investment decisions	All Male respondents Female respondents Migrant female respondents	19 23 16 9	14 10 17 28	64 65 69 58	3 3 3 5
Deciding about costly purchases	All Male respondents Female respondents Migrant female respondents	9 9 9 2	6 6 7 9	84 83 84 88	0 1 0 0

Source: OeNB Payments Survey 2011.

Note: Figures in rows may not add up to 100 due to rounding.

Survey 2011, the share of women who do not have a good idea of their partners' expenses is twice as high for migrant women as for women in general (see table 7).

These patterns and changes raise a number of fundamental questions. How have women reacted to the greater variety of payment options? How have these options affected their use of cash? Are there differences compared with men? The data of the 2011 OeNB Payments Survey permit detailed insights into the payment habits of women, and the comparison of the 2011 data with three earlier surveys allows us to establish what changes occurred from 1996 to 2011. Such an analysis is important input for assessing future trends — a key issue from a central banking perspec-

tive as regards the design and effectiveness of monetary policy.

First, this study aims to highlight shifting payment preferences among men and women in Austria (section 1). To put these figures in perspective, we test underlying social factors which correlate with the use of different payment methods and discuss possible reasons for gender-related differences (section 2). To round off the picture, we establish the pattern of intra-household control of finances and discuss how much women know about their partners' finances and which factors boost their decision-making power with regard to household finances (section 3). The final section summarizes and concludes.

1 Gender-Related Findings of OeNB Payments Surveys Conducted between 1996 and 2011

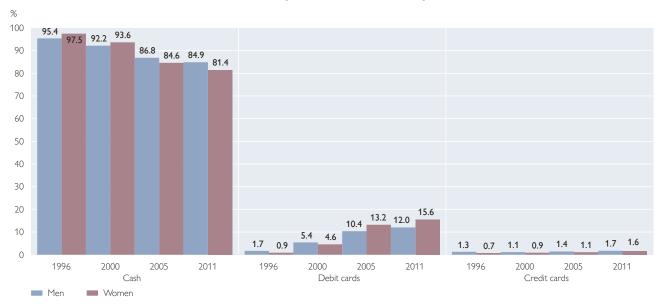
In the context of a 2011 OeNB survey on the payment habits of households in Austria³ (see Mooslechner et al., 2012, and the statistical background information at the end of this paper), survey respondents were asked to record all transactions - other than recurrent payments (e.g. rent, operating costs, insurance, phone bills, loan payments) - made for themselves, for other household members and for their household as a whole over a period of seven successive days. Of the 2,271 respondents surveyed, 1,165 actually kept a payment diary. Comparable surveys conducted earlier in 1996, 2000 and 2005 allow us to analyze how the payment behavior of women changed during this period.

1.1 Cash still Dominates but Debit Cards Have Become More Popular Especially among Women

According to the 2011 survey, cash remains the payment method of choice for shoppers in Austria, but its share has declined gradually (see chart 1), from over 95% of all payment transactions in 1996 to 85% for men, and from over 97% to over 81% for women. At the same time, the share of debit cards increased from 1.7% to 12% of transactions for men, and from 0.9% to 15.6% of transactions for women. In other words, cash use went down more among women than among men. Since the cash changeover to euro, women have been using debit cards more often than men in the place of cash. By 2011, women were using debit cards to pay roughly one-sixth of their transactions, compared with roughly one-eighth for

Chart 1

Share of Cash and Debit/Credit Cards in Payment Transactions by Gender

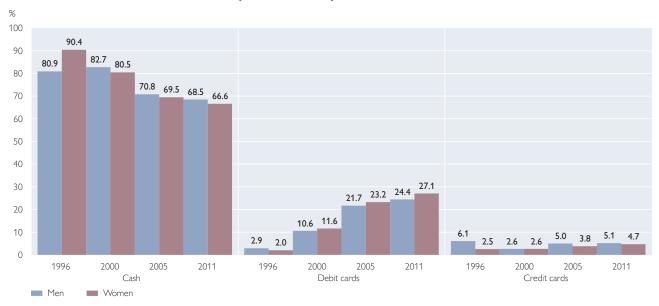


Source: OeNB Payments Survey 2011.

Note: The chart reflects the share of cash and cards as payment methods in a week's transactions as recorded by survey respondents. To ensure the comparability of data, bank transfers are excluded from this analysis.

³ The survey was open to all households resident in Austria, i.e. not limited to Austrian citizens.

Share of Cash and Debit/Cards in Payment Value by Gender



Source: OeNB Payments Survey 2011.

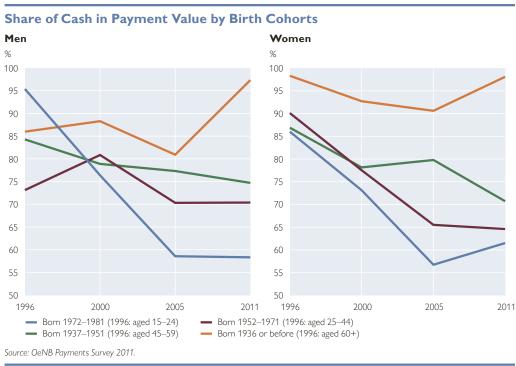
Note: The chart reflects the share of cash and cards as payment methods in a week's transactions as recorded by survey respondents. To ensure the comparability of data, bank transfers are excluded from this analysis.

men. In contrast, the share of credit card payments remains small, and women continue to pay fewer purchases with credit cards than men.

In terms of payment value, women used to make a significantly higher amount of payments in cash than men in 1996 (90% versus 81%; see chart 2). By 2000, however, such gender differences had ceased to be of real significance. Cash use by women has, in fact, contracted more than cash use by men over the 15-year horizon of the paper (−24 percentage points versus −12 percentage points). By 2011, women were using debit cards to settle 27% of all purchases in terms of value, compared with 24% for men. The higher preference of women for cards is evidently related to women's spending patterns, i.e. to the fact that more women than men do the daily shopping for their families.

Interestingly, cash use varies significantly with age (see chart 3). When

looking at payment value, we see that women started with a higher share of cash payments than men in all birth cohorts but the youngest age group, i.e. those who were born between 1972 and 1981. This age group also recorded the sharpest decline in cash use: While the youngest men and women used cash to settle more than 95% and 85% of their payments in 1996, their cash use was down to about 60% by 2011. At the same time, the oldest age group birth cohort (60 years or older in 1996) is an outlier: in this age group, growing older led to a renewed preference for cash, and in this age group women recorded a larger share of cash payments than men in all four surveys, whereas in general cash use went down more among women than among men. Moreover, the period from 1996 and 2011 saw a number of supply-side changes, for instance an increase in the number of point-of-sale terminals (which furthered evolving trends in payments, but



is unlikely to have been the only driver of these trends; see table A1) or, in the case of big retailers, the adoption of near-field communication (NFC) technology (a technology available since 2013 which allows customers to pay simply by swiping their smartphones at store checkouts).

Payment preferences also vary with payment amounts and are gender-specific also from this perspective (see table 2). This breakdown of the survey data for 2011 confirms that, for purchases of up to EUR 100, women use cash less often than men whereas they use debit cards more often than men. In

Table 2

Share of Payment Method for Different Transaction Values							
	Up to EUR 10	EUR 10 to 20	EUR 20 to 50	EUR 50 to 100	EUR 100 or more		
Men	%						
Cash Debit Credit Other	96.9 2.3 0.2 0.6	87.0 10.5 0.9 1.6	74.5 20.0 1.9 3.6	59.1 29.3 6.2 5.3	48.9 36.1 6.1 8.9		
	Up to EUR 10	EUR 10 to 20	EUR 20 to 50	EUR 50 to 100	EUR 100 or more		
Women	%						
Cash Debit Credit Other	94.7 3.7 0.3 1.2	86.5 11.6 0.5 1.4	68.7 27.1 1.9 2.3	53.4 35.9 6.5 4.2	48.9 31.9 9.6 9.6		
Source: OeNB Payments Survey 2011.							

Card Payments by Gender

1996 2000 ΑII Women Men ΑII Women Men Transactions 4,956 14,255 8,502 5,753 10,017 Total number of recorded transactions 14.973 12.8 12.7 12.8 12.5 12.4 12.7 Average number of weekly transactions per person Average number of daily transactions per person 1.8 1.8 1.8 1.8 1.8 1.8 Median number of weekly transactions per person 12.0 12.0 12.0 12.0 12.0 12.0 Median number of daily transactions per person 1.7 Value (EUR) Total value of recorded transactions 503,251.6 279,889.3 223,362.3 425,675.4 226,668.2 199,007.2 451.3 419.6 498.6 354.7 279.5 511.6 Mean value of transactions per person 268.2 271.4 262.3 279.0 277.7 286.2 Median value of weekly transactions per person Median value of daily transactions per person 383 388 37.5 399 39.7 40.9 2005 2011 ΑII Women Men ΑII Women Men Transactions 14,075 8123 5,952 12 811 5,090 Total number of recorded transactions 7.721 Average number of weekly transactions per person 12 12 12 11.1 10.9 11.4 Average number of daily transactions per person 2 2 2 1.6 1.6 1.6 Median number of weekly transactions per person 11 11 11 10.0 10.0 10.0 Median number of daily transactions per person 1.4 1.4 Value (EUR) 201,307.6 408,041.6 206,734.1 355,905.3 186,915.2 168,990.0 Total value of recorded transactions 339.8 2937 405.0 307.6 2633 3781 Mean value of transactions per person 255.6 251.6 209.2 217.1 Median value of weekly transactions per person 262.4 214.0 365 359 299 Median value of daily transactions per person 37.5 30.6 31.0

Source: OeNB Payments Survey 2011.

Note: Payments recorded in 1996, 2000 and 2005 were inflated with the CPI to the value of September 2011. The sample was weighted by age, gender and federal province to be representative of the target population.

addition, women use credit cards more often than men for very small amounts and for purchases worth EUR 50 or more.

When comparing figures on card transactions in greater detail, we see a gender difference: women make more card transactions than men in general, and they record a higher total value of card transactions. This can be explained by the fact that women are more likely to do the daily shopping for their families (see table 1). At the same time, men record a higher mean value

of transactions, i.e. they spend more on average when shopping (see table 3⁴).

Based on the 2011 survey data, the probability of owning a debit card increases with the level of education and with income while it decreases with age (see chart 4). Moreover, women with higher education and women in higher income quartiles outnumber male debit cardholders. Finally, debit card ownership is more widespread among the younger age cohorts, whereas the gender difference is higher in the older age cohorts.

⁴ The decline in the total value of recorded transactions cannot be explained (maybe major distortions remained in the sample although a weighting procedure was applied ex ante to achieve a representative sample).

Table

Number of Transactions by Product Group and Gender

	Men	Women
	%	
Food	35.0	40.0
Clothing, shoes	8.9	9.8
Drugstores, leisure activities	6.8	9.1
Tobacconists/news	10.0	6.6
Restaurants/hotels	20.4	13.4
Gas stations	7.3	5.1
Away-from-home services (hair care, repairs etc.)	0.7	0.6
In-home services	2.4	2.0
Other	8.7	13.3

Source: OeNB Payments Survey 2011.

An analysis broken down by product group reveals that shopping for food, clothing and shoes is more often done by women than by men. This goes hand in hand with the fact that more women than men do the daily shopping for their families. In contrast, men will visit tobacconists and gas stations more often than women. No significant gender differences can be observed

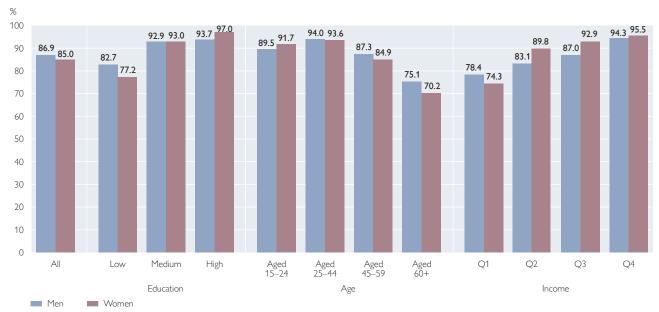
when it comes to shopping for services (see table 4).

There is even a gender difference with regard to average payment values on working days and weekend days (see chart 5). Whereas men spend roughly the same amount on average irrespective of the day of the week, women spend more on average than men on working days (EUR 46 versus EUR 43), evidently because they are more likely to do the daily shopping for their families (see table 1). On Saturdays and Sundays, though, men spend more than women on average. This translates into higher median amounts spent by men on weekends as well as on average.

Finally, 57% of the women versus 43% of the men surveyed in 2011 acknowledge planning their monthly expenses in advance. Women also consider it more important to keep track of their monthly expenses than men: 94% of the female respondents rate advance planning as (very) important compared

Chart 4

Debit Card Ownership by Gender



Source: OeNB Payments Survey 2011.

Chart 5

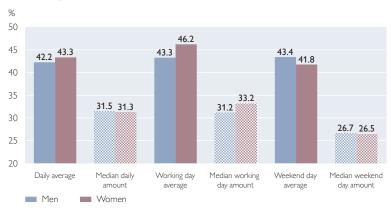
with 87% of the male respondents. Among those who do not plan their expenses in advance, 34% of the women versus 32% of the men at any rate target monthly spending limits that they do not want to exceed. Among those overdrawing their accounts, slightly outnumber women (but the numbers are nearly equal between women and men). Women are more keen than men to avoid overdrafts (87% versus 82%), and more women than men consider themselves to be careful with their finances (90% versus 86%).

86%). 1.2 Women Carry Less Cash Around

than Men for Safety Reasons

Many studies find women to be more risk averse with money than men (Bajtelsmit and VanDerhei, 1997; Jianakoplos and Bernasek, 1998; Hinz et al., 1997). Again, the gender income gap may be at play here, as the readiness to assume a risk grows with higher in-

Working Day and Weekend Day Purchases by Gender



Source: OeNB Payments Survey 2011.

come. Other reasons for the lower risk tolerance are less exposure to financial information and less confidence in economic affairs (Barber and Odean, 2001).

Concerning personal security, the OeNB Payments Survey 2011 found women to feel ill at ease when carrying

Table 5

Casn	ın	Po	ckets	by	Gender	

			Amount of cash that starts making respondents ill at ease		Cash in pocket at the start of the payment diary	
	Women	Men	Women	Men	Women	Men
	Average amount	(EUR)				
All	61.0	84.3	462.8	614.0	63.9	68.1
Single	43.8	70.5	361.7	678.6	62.2	63.5
Married	68.2	90.0	505.7	645.0	68.7	71.9
Divorced/separated	62.6	87.8	481.7	380.7	56.9	60.0
Widowed	61.6	93.9	443.4	285.7	58.3	82.1
Aged 15–24	36.6	46.9	364.2	990.1	32.4	62.3
Aged 25–44	59.4	84.7	437.7	684.0	62.1	57.0
Aged 45–59	64.7	81.7	408.1	535.7	72.1	64.9
Aged 60 or above	70.6	101.5	611.1	459.1	71.8	90.4
Low education Medium education High education 1st household income quartile 2nd household income quartile 3rd household income quartile 4th household income quartile	60.3	82.4	384.5	573.9	66.5	73.7
	65.4	93.2	734.1	763.9	56.0	63.7
	59.4	85.1	451.1	646.0	63.4	58.0
	52.9	57.3	524.3	475.1	57.7	54.0
	58.3	75.1	462.3	502.5	81.8	68.2
	69.0	91.1	509.4	795.4	72.3	73.3
	71.4	101.3	480.3	796.3	83.8	81.4

Source: OeNB Payments Survey 2011

amounts of EUR 463 or more on average with them, while men acknowledged feeling safe up to an amount of EUR 614. Around one-third (34%) of women feel safe even if they have a lot of money with them. Besides gender, net income, age and marital status have an effect on the amount of money respondents typically carry with them. Single persons carry less money around than divorcees or widows/widowers. Married persons carry more money with them than all other groups. The amount of cash in pockets increases with household income and with age, as does the amount respondents had with them when starting to record their payments. The pocket cash value from which respondents feel ill at ease also goes up with age in the case of women, but not in the case of men (table 5).

These findings match the results with regard to the average amounts respondents indicated that they tend to carry around: EUR 61 in the case of women versus EUR 84 in the case of men. This difference was not fully aligned with the actual amounts respondents had in their wallets when they started their payment diary: here the average results were EUR 64 for women and EUR 68 for men.

Section 2 below will take a closer look at the gender-specific differences in the payment behavior outlined so far by analyzing the role of underlying factors. Thereafter, section 3 discusses household patterns (i.e., who is responsible for what?) and the degree of access to household finances as reasons that may explain the more intensive usage of particular payment instruments.

2 Factors Driving the Use of Cash Vary with Family Status

In the following, we cross-check gender-specific differences in the adoption of payment methods with statistical methods. As we have seen, cash is still widely used in Austria and women are more risk averse then men. In the OeNB Payments Survey 2011, 81% of the respondents indicated a preference for cash, as it allows them to keep track of how much they spend and how much money they have left, simply by checking their wallets. Von Kalckreuth et al. (2011) used German survey data to analyze whether paying cash indeed enables persons to monitor their liquidity. They defined persons who use cash to keep track of what they spend and to plan further expenses/investment as "pocket watchers." In other words, being a pocket watcher denotes a certain attitude toward cash. We chose to incorporate such an approach to establish whether women tend to qualify as pocket watchers significantly more often than men.⁵

The dependent variable POCKET-WATCHER takes the value 1 if respondents acknowledged the relevance of keeping track of their monthly expenses and indicated that cash allowed them to monitor their payments and was indispensable for controlling expenditure.

Besides respondents' sociodemographic characteristics, we include the variable INTERVIEW_LENGTH as an indicator of the costs of processing information during the face-to-face interviews. This variable captures the number of seconds the interview took, the

Von Kalckreuth et al. (2011) primarily analyzed the link between information costs, need to monitor and pocket watcher.

⁶ The survey was based on computer-assisted personal interviewing (CAPI).

underlying rationale being that persons who are quick at answering are presumed to be very good at mastering complex information. Furthermore, we use the variable MONITORING to capture the personal importance of

financial control (to single out those who have an idea of how much they can spend on daily purchases, leisure time activities, clothes and so on). The underlying rationale is to identify those respondents for whom planning and

Table 6

Pocket Watchers Marginal effects			
That girlar or rocks	[1]	[2]	[3]
	PROBIT	PROBIT	PROBIT
Sample:	All	Married couples	Singles
	POCKETWATCHER	POCKETWATCHER	POCKETWATCHER
MALE	-0.0756**	-0.0916*	0.00231
	(-2.69)	(-2.08)	(0.05)
MARRIED	-0.00855 (-0.31)		
AGE	-0.00164	-0.00250	-0.00612
	(-0.40)	(-0.33)	(-0.67)
AGE_2	0.0000537	0.0000773	0.000130
	(1.24)	(1.02)	(1.17)
EDU_MEDIUM	-0.0147	-0.0213	-0.0216
	(-0.39)	(-0.41)	(-0.26)
EDU_HIGH	-0.0612	-0.000831	-0.121*
	(-1.83)	(-0.02)	(-2.24)
EDU_UNI	−0.0757	-0.136	-0.126
	(−1.32)	(-1.60)	(-1.54)
EMPLOYED	0.0341	0.0688	0.0545
	(0.96)	(1.24)	(0.88)
PERSONAL_INCOME	-0.0126	-0.00613	-0.0332
	(-0.89)	(-0.32)	(-1.26)
INTERVIEW_LENGTH	-0.00731**	-0.00610	-0.00927*
	(-3.09)	(-1.62)	(-2.29)
MONITORING	0.185***	0.169***	0.152**
	(7.45)	(4.62)	(3.28)
MALE_MIGR	-0.199***	-0.311***	-0.162*
	(-4.15)	(-5.51)	(-2.25)
START_AMOUNT	0.000407***	0.000300	0.000362*
	(3.50)	(1.80)	(2.07)
uncertainty_amount	-0.00000594	-0.00000594	0.0000152
	(-1.11)	(-1.10)	(0.79)
CHILDREN	-0.0209	0.0113	-0.0892
	(-0.60)	(0.24)	(-1.28)
N	1,649	771	486
Pseudo R ²	0.0774434	0.08012149	0.0802454
Wald chi ² (15)	162.89	76.09	51.81
Prob > chi ²	0.0000	0.0000	0.0000
Log likelihood	-1,041.76	-486.20	-297.86

t statistics in parentheses, * p < 0.05, ** p < 0.01, *** p < 0.001 Source: OeNB (authors' calculations).

budgeting mistakes generate monetary or psychological costs (see von Kalckreuth et al., 2011). We incorporate two variables to capture risk awareness: START_AMOUNT, reflecting respondents' cash in pocket when they started to record their payments, and UNCER-TAINTY_AMOUNT, indicating the amount of cash at which they begin to feel ill at ease. To incorporate shopping habits, we create a variable SHOPPING HABITS for respondents who answered that they did the daily shopping. Furthermore we include a variable CHILDREN to indicate whether respondents had children or not. Finally, to reflect intercultural differences, we include MIGR as an indicator of persons whose mothers or fathers were not born in Austria.

We run the regression three times with varying sample sizes — the whole sample, married couples and singles — with a view to establishing whether single women behave differently than married ones.

The results (first data column) confirm the existence of a gender effect: women have a higher propensity to be pocket watchers than men. This underlines the descriptive findings that women are more conservative about payments and more risk averse, i.e. that they care more about their finances than men. The variable MONITOR-ING shows a highly significant influence on the propensity to be a pocket watcher, as does the variable INTER-VIEW_LENGTH, yet with a negative sign: the better respondents are able to take in complex information, the lower the need to carefully monitor expenses. And the initial amount of cash in pocket matters, too: the higher this amount is, the more likely someone is to be a pocket watcher.

Turning to the sample split into married (second data column) and sin-

gle persons (third data column), we find a negative gender effect and a negative migration influence for married persons, i.e. married and married migrant women have a lower propensity to be pocket watchers than single women. Moreover, the influence of monitoring one's finances is again highly significant and positive: married respondents who monitor their finances have a high propensity to be pocket watchers. Because of the questionnaire design, we were unable to control for shopping habits (the questionnaire did not generate enough information; we tried taking the variable "doing the daily shopping," but this variable is highly correlated with the gender variable, which would have led to multicollinearity). For singles, gender does not have a significant influence on the propensity to use cash to control liquidity. After all, persons living alone need to take all decisions on their own: how much to spend, where to invest, how to control their finances. Within this column, all significant variables indicated above therefore remain the same, with higher education showing a negative influence; in other words, the higher educated a person, the lower his or her propensity to be a pocket watcher is.

What we see after running these three regressions is, first, that women have a higher propensity to acknowledge the benefits of cash for monitoring liquidity. This pattern underlines the persistence of women's traditional role as the household member responsible for doing the daily shopping for their families. To accomplish these duties, they have a certain amount of money (cash and other) with which they must do. In this context, paying cash is simply the easiest way to control day-to-day spending. Men seem to see less of a need to control their finances, or they

do not really care whether they use cash or other payment instruments to do so. Second, the regressions show that the payment habits of women are closely aligned with their family status: the gender effect observed with married women does not exist for single women. The gender effect established here is not totally clear, however, as we were unable to capture all effects (when we tried to include shopping habits, the gender variable turned insignificant but nevertheless remained nearly significant — with a p-value of 0.066)

3 Women Know More about Their Partners' Finances If They Are the Earner with the Higher Income

The intensity of women's involvement in their household's financial decisions and the degree of insight into their partners' finances may be further factors when explaining the gender difference in payment. What does the literature say on this issue, and what do the results of the Payments Survey 2011 say?

In recent decades, family patterns have undergone important structural changes in European countries. As women started to participate more strongly in the labor market, they also gained financial decision-making influence within the household. The variables accounting for the wife's influence within the household has been analyzed widely (Davis, 1970; Munsiger et al., 1975; Spiro, 1983; Lee and Beatty, 2002). The classic resource theory of power by Blood and Wolfe (1960) links household power to income and prestige derived from accomplishment of paid work. At the same time, a number of papers show that women with a higher income and socio-professional status than that of their partners do not automatically have a greater say in financial decision-making (Hochschild and Machung, 1989; Brines, 1994; Tichenor, 1999).

To gain more control over their household's finances, women first need to know how much their partners earn and where the household stands financially. How much women know about their partners' expenses and finances and what role they play within the household – for instance whether they have access to a joint account – is also dependent on cultural habits. According to the OeNB Payments Survey 2011 (see table 7), the share of women who do not have a good idea of their partners' expenses is twice as high for migrant women as for women in general. Female respondents less frequently reported a joint account and joint decision-making on expenses. Moreover, as shown by Dema-Moreno (2009), many decisions related to household finances result from daily practice or social reform rather than from prior negotia-

Table 7

What Do You Know about Your Partner's Finances?

	Men	Women	Migrant women
	%		
I have a good idea of my partner's expenses	60.0	61.8	39.5
I have a good idea of my partner's major expenses	30.4	27.7	39.5
I do not have a good idea of my partner's expenses	8.3	9.2	18.6
No answer	1.4	1.3	2.3

Do You Make Your Payments Out of a Joint Account?

Source: OeNB Payments Survey 2011.

	Men	Women	Migrant women
	%		
We make all our payments out of a joint account We make all our payments out of a joint account	42.1	39.8	37.2
but have separate accounts as well	37.9	39.6	39.5
We have separate accounts	18.5	20.1	20.9
No answer	1.5	0.5	2.3

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Financial Decision-Making	Power of Women
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Marginal effects

	PROBIT
	FEMALE_DECISION_POWER
AGE	-0.001 (-0.41)
AGE_2	0.000 (0.68)
EDU_MEDIUM	0.053 (1.77)
EDU_HIGH	-0.012 (-0.72)
EMPLOYED	0.007 (0.45)
PERSONAL_INCOME	-0.0270556*** (-4.44)
INSIGHT_PARTNER_INCOME	0.0330162*** (3.28)
HH_SIZE	0.033 (0.143)
HH_SIZE_2	-0.003 (-1.09)
EDU_PARTNER	-0.0359599*** (-3.71)
EDU_WIFE_HIGHER	0.021 (0.99)
INCOME_WIFE_HIGHER	0.0654125* (-2.34)
MIGR	0.013 (0.54)
N Pseudo R ² Wald chi ² (13) Prob > chi ² Log likelihood	760 0.226 86.540 0.000 –150.765

t statistics in parentheses, * p < 0.05, ** p < 0.01, *** p < 0.001 Source: OeNB (authors' calculations).

tions. In other words, this is another area where intercultural differences come into play. In Spain, Dema-Moreno (2009) found both partners to view the money earned by the household as joint funds and no evidence for negotiations allocating a certain amount to either of

the partners. In other countries in contrast, e.g. in Sweden, keeping part of the money for oneself is common practice (Nyman, 1999; Björnberg and Kollind, 2005). To sum it up, migration and culture matter more than gender because, as table 7 shows, the gender-related differences are minor.

As we saw in the regression on pocket watchers, the attitude of women on the relevance of keeping track of monthly expenses and on the relevance of cash for monitoring expenses tends to differ depending on whether they are in a partnership or not. Therefore, it would appear insightful to test intrahousehold decisions in the same way. The characteristics that women would need to exhibit with a view to achieving the role of head of household have been assessed by Bertocchi et al. (2012). The data generated with the OeNB Payments Survey do not allow us to replicate their approach, though.⁷ Instead, we try to quantify the financial decision-making power of women based on the self-assessment data of the survey. Although self-assessment data can lead to a bias, they do highlight some trends. At the same time, social interactions are, to a large extent, hard or impossible to capture with an econometric model. So what follows is a rather vague attempt to establish which sociodemographic factors boost the financial decision-making power of women.

We incorporate sociodemographic factors (age, education, employment status and personal income, migration status), showing the number of household members. Additionally we include the educational level of the partner (EDU_PARTNER) and two series that

Most prominently because the concept of household head is old-fashioned and has therefore tended to disappear from surveys over time.

Table 9

Intra-Household	Correlation	of E	Education ,	Employment and Income
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Education		Education of men			
		Low	Medium	High	
		%	1	1	
Education of women	Low Medium High	90.3 47.1 23.2	3.9 41.3 10.1	5.8 11.6 66.7	
Employment status		Employment status of men			
		Employed	Not employed	Retired	
		%			
Employment status of women	Employed Not employed Retired	87.6 32.2 16.7	5.7 29.9 0.0	6.7 37.9 83.3	
Personal income		Income of men			
		1st quartile	2 nd quartile	3 rd quartile	4 th quartile
		%			
Income of women	1 st quartile 2 nd quartile 3 rd quartile 4 th quartile	9.4 10.5 3.8 12.8	25.6 32.9 17.0 10.3	34.5 28.9 45.3 15.4	30.5 27.6 34.0 61.5
Income of women	2 nd quartile 3 rd quartile	% 9.4 10.5 3.8	25.6 32.9 17.0	34.5 28.9 45.3	30.5 27.6 34.0

cross-check women's income and education attributes with those of their partners (INCOME_WIFE_HIGHER, EDU_WIFE_HIGHER). The variable INSIGHT_PARTNER_INCOME takes the value 1 for women who indicated to have a good idea of their partners' finances. Taking a sample of married households, we constructed a variable FEMALE_DECISION_POWER as a proxy for a high financial decision-making power of women. This variable takes the value 1 for women who have a good idea of their partners' finances and of the household's finances and who are the bill-payers (see table 8).

Source: OeNB Payments Survey 2011.

The probit regression shows personal income to be of high significance.

At the same time, high income and higher education as such do not automatically give women a larger say in household finances – what matters is how a woman's education and income level correlates with that of her partner (see table 9). Highly educated partners will have a highly significant negative effect on a woman's propensity to have a lot of decision-making power. A woman's financial decision-making power within the household will increase only if she is also the earner with the higher income. A woman is also likely to have a greater say in the household's financial decisions when she has a better idea of her partner's finances.8

The assumption that women pay smaller amounts and that this may be one of the reasons for explaining the lesser financial decision-making power of women is refuted by the results displayed in chart 5.

4 Conclusions and Summary

Social changes over time, as a result of which women have become better educated and more independent, more likely to be single or divorced than married, etc., have had strong effects on women's lives and on their spending behavior and payment habits. We used OeNB Payments Survey data spanning 15 years to empirically analyze how gender-specific payments are in Austria. During this period, cashless payment options developed rapidly and payment cards became more widespread. Our aim was to check whether these trends were transmitted to men and to women alike or not.

We find the decline in cash use from 1996 to 2011 to have been more pronounced among women than among men (–24 percentage points versus −12 percentage points in value terms). Nonetheless, cash continues to dominate. Benefits include the fact that cash does not come with extra costs (such as account fees), and that cash is handy for monitoring expenses. While more women than men acknowledged these benefits in the 2011 Payments Survey (92% versus 88%, and 85% versus 79%, respectively), women at the same time also more readily acknowledged debit card payments to be fast (83% versus 80%). Against this backdrop, and considering the fact that debit cards are found to be more useful than credit cards for avoiding account overdrafts, women in Austria have become heavier debit card users than men – both in terms of payment transactions and in terms of payment value.

The fact that women seem to be quite open to cashless payment systems may be related to safety concerns, i.e. to the fact that women are more risk averse than men and start to feel ill at ease carrying around large amounts at lower levels than men. Women start to

worry with amounts higher than EUR 463, while men continue to feel safe with another EUR 150 in their pockets. The finding that women are open for new products, while attaching great importance to safety and convenient features for monitoring expenses – as more women than men tend to plan their monthly expenses and consider it important to keep an eye on what they spend – will be important for the take-up of new payment methods, such as solutions based on near-field communication technology or other forms of contactless payment. These results may be of interest for commercial banks' information and advertisement policies.

Statistical regressions showed men less to be likely than women to acknowledge the benefits of cash as a tool to monitor payments. This underlined the descriptive findings that women are more conservative about payments and more risk averse, i.e. they care more about their finances than men. Additionally, the regressions showed that women's spending behavior also depends on whether they are in a partnership or not – the other effects remaining the same, in the case of singles, gender has no significant influence on the relevance of cash for monitoring liquidity.

Insights into the determinants of bargaining power help to understand how economic and portfolio decisions come about and how gender-based policies should be designed. Keeping this in mind, we analyzed the factors behind the financial decision-making process on the basis of a variable measuring the financial decision-making power of women and regressing it on various sociodemographic factors. According to these results, being well educated or having a high income does not matter as such. Only women earning more than

their partners significantly gain in intra-household bargaining power.

Gender-specific differences in payments affect many more aspects not touched upon in this paper for space constraints. At the same time, the paper does show that social trends seem to have strong effects other than purely economic ones. They affect payment patterns and habits as well as the portfolio decision-making of households.

Further research will be required to establish in greater detail whether the gender-specific differences observed in payments indeed reflect purely gender-related differences, or much rather the impact of gender differences relating to people's jobs (resulting in different levels of income, different numbers of hours worked, etc.) and consumer behavior (including such details as to whether they drive a car or not).

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Statistical Background Information

Survey institute:

Institut für empirische Sozialforschung GmbH (IFES, Institute for Empirical Social Research).

Survey period:

September 2011 to January 2012, with 91.4% of the payment diaries maintained between September and November.

Survey population:

Persons aged 15+ who reside in Austria and speak German.

Survey sample:

3,992 (less neutral nonresponses⁹: adjusted sample of 3,802) persons.

Interviews held with:

2,271 persons (1,293 women, 978 men).

Response rate (based on the adjusted sample): 59.7%.

Number of completed payment diaries returned:

1,165 (713 women, 452 men).

Sample design:

Stratified multistage clustered random sampling. Stratification is by federal province, political district and size (category) of municipality.

Weighting:

By age, gender and federal province.

Survey method:

Computer-assisted personal interviewing (CAPI). Following the interview, respondents who had not indicated a prior unwillingness to record payments were given a payment diary together with a reply envelope (handed out to some 75% of respondents).

Data Annex

Table A

Number of POS Terminals in Austria

1996	5,095
1997	13,331
1998	19,240
1999	28,763
2000	40,170
2001	58,073
2002	68,939
2003	73,333
2004	86,690
2005	89,271
2006	99,106
2007	104,400
2008	106,807
2009	123,704
2010	107,629
2011	107,397
2012	112,614
2013	118,752

Source: ECB.

⁹ False addresses, clearly unoccupied flats/houses and people who do not speak German or who are mentally unable to answer are designed as neutral nonresponses.