DISCUSSION PAPER
PAYMENT CARDS CENTER

Trends and Preferences in Consumer Payments: Lessons from the Visa Payment Panel Study

Susan Herbst-Murphy*

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Summary: *For two decades, Visa Inc. has contracted with a market research firm to gather detailed information from U.S. consumers about the forms of payment they use when carrying out transactions at many types of merchants. This omnibus project, the Visa Payment Panel Study, has recorded the migration away from paper forms of payment to electronic and plastic payment methods, identified variation in preferred payment methods based on consumer demographics, and calculated a share of use for each payment type at the merchant category level. The Payment Cards Center invited Michael Marx, senior business leader, Visa Inc. Research Services, to conduct a workshop on findings from the Visa Payment Panel Study. This paper summarizes the information presented at that workshop, including indications from panel data about changes in payment behavior during the recent recession.*

*Payment Cards Center, Federal Reserve Bank of Philadelphia, Ten Independence Mall, Philadelphia, PA 19106. E-mail: susan.herbst-murphy@phil.frb.org. The views expressed here are not necessarily those of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

FEDERAL RESERVE BANK OF PHILADELPHIA
Ten Independence Mall, Philadelphia, PA 19106-1574 • (215) 574-7220 • www.philadelphiafed.org/payment-cards-center/

I. Introduction

On July 15, 2009, the Payment Cards Center of the Federal Reserve Bank of Philadelphia hosted a workshop facilitated by Michael Marx, senior business leader, Visa Inc. Research Services. The center invited Marx to share information gathered by Visa's research function, including findings from the Visa Payment Panel Study. His insight into the consumer marketplace has been developed through 24 years of conducting and analyzing market and marketing research in financial services, as well as his experience with consumer packaged-goods giant Clorox and with research house Market Facts (now Synovate).

The panel study, which is conducted by TNS Research, is a hybrid mail/online consumer panel begun in the early 1990s. Panelists keep diaries for one month, noting all the transactions they conduct using any type of payment card (credit, charge, debit, ATM, and prepaid cards) checks, automatic deductions, money order, traveler's checks, convenience checks, gift certificates, food stamps, installment purchases, financing, electronic funds transfer (EFT), or bill payment by telephone or computer, and any expenditure of $5 or more using cash. The study yields 20,000 diaries a year completed by U. S. adults who own at least one payment card. Surveys that accompany the diaries are administered in English and ask about card features, interest rates, product type (premium or classic, debit or credit, rewards/nonrewards) and card brand. The panel results are cross-referenced to survey information, which includes demographics. Credit scores are appended to each record and updated quarterly. Although participants move on and off the panel, many panelists participate for an extended length of time. In 2009, there were over 2000 panelists who had participated for at least five years. The information Marx presented at the workshop included diaries completed through the first quarter of 2009.

The panel findings presented by Marx demonstrate increasing adoption over time of plastic and other electronic payment forms, while usage of cash and checks has declined. Particularly striking is the displacement of checks by debit cards. This adoption, however, is not occurring evenly among all consumers; preferred modes of payment vary with age and income. Observable differences also exist in how consumers prefer to pay across merchant categories. A distinctive benefit of the Visa Payment Panel Study, because of its long duration, is the ability to observe the long-term trends in payment preferences and how those trends can be affected by disruptive events such as recessions.

This summary will begin with a discussion of the recent recession's impact on consumer payment choices and then the long-term trends. The migration from paper forms of payment to cards will be viewed within specific merchant types, followed by some findings on the different preferences among demographic cohorts. The summary concludes by looking at how demography and market changes may affect use of payment methods in the future.

II. The Recession and Payment Choice

Recent findings from the study are of particular interest, since they represent consumer spending during a recession. Overall per capita spending decreased in 2008, even declining in the fourth quarter from the third quarter, a radical exception to normal seasonal trends. Year-over-year spending declines were observed in certain merchant categories, including mail order/telephone order, high-end restaurants, department stores, and toy stores. Essentially, discretionary spending is down, while spending in certain nondiscretionary or substitute categories is up: utilities, quick-service restaurants, and cable television.[1] The panel revealed that credit card spending in the first quarter of 2009 was down 9 percent over the same period in 2008, while debit card spending was up 5 percent. Some people have interpreted this change as a shift from credit to debit, but Marx indicated that the panel data show that the actual cause is that consumers have curtailed the type of spending for which they normally use credit cards (discretionary), while nondiscretionary spending, for which consumers tend to use debit cards, continues even during recessions. Support for this premise may come from Javelin Strategy & Research findings that indicate debit is

[1] Similar patterns have been reported elsewhere. Citing "The Liscio Report on the Economy," *Outside the Box*, a weekly e-newsletter (5:45, September 14, 2009), reported that for the year ending in July 2009, spending on "essentials" (food and beverage stores and drugstores) had risen by 0.6 percent, while "all other" spending (excluding cars and gasoline) was down 6.2 percent. The article further reported that the resulting 6.8 percent gap was "the widest since the new retail series began in 1992."

preferred when making certain nondiscretionary purchases.[2] The Javelin report also found that credit cards are the preferred payment method for large purchases — the kind that households often defer during a recession — while debit cards are preferred for small purchases

The Visa study also observed a recent increase in the use of cash, perhaps, Marx observed, as a budgeting device.

In response to a question about whether the panel indicated any evidence of issuers reducing credit lines in response to the current economic and regulatory environment, Marx stated that this was, indeed, occurring but that 90 percent of the credit line downsizing has taken place on dormant/inactive accounts.[3] An analysis by Moody's Investors Service echoes these findings from the Visa panel study. Moody's review, done in participation with the Department of Treasury's Capital Purchase Program, found that the five largest consumer credit card issuers reduced lines by $480 billion between October 2008 and July 2009, "primarily by closing inactive accounts." [4]

III. Card Preferences Increase, Check-Writing Declines

The use of plastic payment methods has steadily increased over time. In 2008, 91 percent of panelists reported using plastic in a given month, up from 78 percent in 2000. The incidence of check use declined from 84 percent to 69 percent during that period, meaning that about one-third of the population claims to write no paper checks in a given month. Cash use is also down: One in five consumers reports making no cash purchases of $5 or more in a given month. The Visa panel

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[2] As published in the *American Banker*, August 31, 2006, a Javelin survey also found that consumers prefer debit to credit three to one for bill payments, a nondiscretionary category, and over half prefer to use debit cards at gas stations/convenience stores, which would include purchases that are considered nondiscretionary. Seventy-three percent of Javelin survey respondents said that they preferred using credit cards for their biggest purchases, while 66 percent preferred debit cards for small purchases.

[3] Since the workshop was held, Visa has updated its data with information from a variety of sources, including its issuing clients. As of the first quarter 2010, 70 percent of credit line decreases had occurred on dormant/inactive accounts.

[4] See "Consumer Credit Lines Increase, Overall Credit Declines," *Collections & Credit Risk* (August 10, 2009). A further finding from the analysis was that the average credit line *increased* among *active* card accounts during the period studied. Moody's analysis would have accounted for 70 percent of the total credit card industry (based on credit outstanding) according to market share of the top five credit card companies as reported in *The Nilson Report*, Issue 923 (April 2009).

findings are consistent with findings from the triennial Federal Reserve payments study, which measures noncash payments. The Fed's study found that while the number of noncash payments had increased 4.6 percent from 2003 to 2006, the number of checks written had declined by 4.1 percent. During that period, debit card use was up 17.5 percent and credit card use increased by 4.6 percent.[5]

In observing the trends that have emerged from the Visa Payment Panel Study, Marx concludes that consumers appear to be getting more homogeneous in their payments. Less than 10 percent now use all payment methods in a seemingly random manner. Compared with consumers who submitted diaries and surveys in 2002, consumers now are more knowledgeable and rational about how they pay for things. Back then, panelists exhibited less dominant usage preference for one form of payment over another and were less able to articulate their reasons for using a particular payment form for a specific type of transaction. Diaries and surveys completed for the panel study reveal that individuals have settled on a preferred form of payment and have explicit reasons why they prefer that form over others when making certain types of purchases, Marx reported.

Consumers who prefer debit cards as their payment method of choice form the largest single group in the Visa study: 36 percent want to pay with debit "all the time." The two impediments preventing this group from using debit cards for all purchases are merchant acceptance (some payees do not accept cards) and cardholder means (insufficient funds available in the deposit account). This second reason creates an overlap between the prefer-debit group and the group identified in the study as users of revolving credit.

The second largest group identified by the study is made up of those who prefer to use credit cards, and the highest spending sub-category within this group consists of transactors those

[5] See "The 2007 Federal Reserve Payments Study: Noncash Payment Trends in the United States: 2003-2006," research sponsored by the Federal Reserve System, December 10, 2007. The total dollar value of payments is still skewed toward checks because business payments are still predominantly check-based and because the average amount of check transactions exceeds average credit and debit tickets.

credit card users who typically pay the balance in full each month. This segment, also called "convenience users," is estimated to be about 40 percent of credit-card-holding households. Within this group, there is very little cross-use of debit cards. The population of study participants who regularly take advantage of rewards programs is heavily skewed toward credit card transactors, who maximize reward benefits by concentrating their spending on their primary rewards credit card. Convenience use of credit cards has increased with the proliferation of rewards programs. But even before rewards became a credit card staple, a sizable percentage of consumers were already using credit cards as delayed-debit devices. While the percentage of card users who pay their credit card balance in full every month varies with the state of economy, prevailing interest rates, and promotions offered by card issuers, by the early 1990s the convenience user segment already accounted for about one in three cardholders.[6]

For credit card transactors, merchant acceptance creates a limitation on their use of cards, too, and is the reason cited by this group for not using their cards more frequently. Transactors tend to be older and have higher incomes. Credit card revolvers (those who carry balances from one billing cycle to another) are a little younger, less affluent, and more likely than transactors to also use debit cards for purchases. While the behavior of revolvers can be more means related than the behavior of transactors, Marx noted that American culture (and the construct of revolving credit) allows consumers to exercise the freedom to use borrowed funds to accomplish household objectives. "Americans are consumption-oriented and debt-tolerant," he observed.

Purchases made with prepaid cards are only one-fourth of 1 percent of total spending reported by panelists, and there is a great deal of fragmentation within the prepaid category. For these reasons, the panel study does not separate out prepaid spending but will do so when prepaid activity becomes more significant.

[6]Data from PSI Global cited in its Card Services and Strategies Research Program, 1999. PSI's annual survey research identified over 30 percent of cardholders in 1993 as convenience users. See also the graphic titled, "Convenience Users," *CardFlash* (March 23, 2004), which shows that convenience users were 29 percent of cardholders in 1990, rising to 44 percent in 2000, followed by three successive years of percentage declines.

IV. Changes in Card Use over Time

In 2008, 91 percent of panelists reported owning credit cards and 58 percent reported using them. These figures have been stable for many years, while debit card figures have risen. Debit card ownership was 92 percent in 2008, compared with 60 percent in 1997, and usage was 60 percent compared with 17 percent in 1997. Consumer dollar expenditures using signature and PIN debit were 19 percent of consumer purchases in 2008, up from only 7 percent in 2001. So in just a seven-year period, changes in American consumer payment preferences caused a shift in transactions from only $1 of every $14 being made with a debit card to nearly $1 in every $5.

According to their diaries, panelists pay for 2 percent of their purchases with private-label cards, a level that has remained flat since the late 1990s. Private-label card use has waned as consumers' preference for using general-purpose credit cards (GPCCs) has increased. Total credit card outstandings increased more than four-fold from 1990 to 2008, during which time private label's share declined from over 23 percent to 11.4 percent.[7] The number of private-label cards in circulation peaked at 585 million in 2002, then declined to 494 million by 2007.[8] In recent years, retailers, including Dillard's, Target, Sears, Kohl's, and Nieman Marcus, have divested their proprietary card programs as a means of infusing cash or offloading management of their loan portfolios,[9] which have become more problematic over time, generating charge-offs running about 180 basis points higher than the GPCC average.[10] Some retailers have opted to use co-branding — the partnership between a general-purpose credit card issuer and another party — to continue to offer their shoppers special promotions and discounts and access to a line of credit, without the burden of operating a proprietary card program.

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[7] See "Private Label Cards in the U.S.," *The Nilson Report*, Issue 913 (January 2009).

[8] Card Industry Directory, 20th edition (2009)

[9] Card Industry Directory, 17th edition (2006)

[10] "Private Label Cards in the U.S."; see footnote 7 for complete citation.

At an earlier phase in the GPCC product cycle, growth was driven by adding new card customers and new accounts. More recently, growth has come about from two mutually reinforcing developments: the proliferation of merchant locations accepting cards for payment, and cardholders conducting more card transactions on their existing accounts. By mid-decade, the number of merchant acceptance locations in the United States had increased by 50 percent over the previous 10 years.[11] And in a period of a single year (2000 to 2001), transaction activity reported by cardholders indicated an increase of over seven transactions per account per year.[12] Because of this change in sources of growth, marketing for new accounts has intensified. The mature environment of the consumer credit card category means that attracting a customer away from another card issuer is one of the few remaining ways to increase an issuer's cardholder base.

As was previously noted, credit card rewards are another reason for consolidating more spending on a single account. In 2008, 60 percent of the panelists held reward credit cards, compared with 40 percent in 2001. In 2008, 75 percent of the cards held by panelists had a rewards feature, and these cards account for 84 percent of card spending compared with 40 percent in 2001. Benchmark surveys conducted by loyalty marketing firm Colloquy, in 2007, corroborate the Visa panel study findings. Colloquy's studies found that membership in financial sector loyalty programs had increased by 164 percent since 2000 and that rewards influenced the purchasing behavior of nearly four in 10 (39.4 percent) participants.[13]

Use of cards to purchase gasoline has increased, driven largely by the adoption of pay-at-the-pump technology by the retail gasoline industry to lower its costs and increase sales. These self-service fuel dispensers require a payment card swipe to activate the pump. As a result, use of

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[11] See "Getting Closer to the Point of Sale," a presentation by Bev Wells, president of Vital Processing Services, a processor of merchant transactions, TSYS Client Conference, May 2005.

[12] See "State of the Card Market," NFO Financial Services (January 2002). Annual figure based on reported 5.3 transactions per card account during the previous month on the 2001 survey, compared with 4.7 during the prior month on the 2000 survey.

[13] Kelly Hlavinka, "The Golden Age of Financial Services Rewards," *Loyalty Special Report 2007*, a supplement to *Cards & Payments* magazine.

cash and checks to pay for gas has declined sharply. In 1997, cash represented 44 percent of dollars spent to purchase gas; checks represented 12 percent. By 2008, cash share was only 16 percent and checks had declined to a mere 3 percent.

At discount stores, debit card use accounts for nearly half (46 percent) of spending in this category, while check use has declined. At department stores, use of private-label cards is down and use of general-purpose credit cards is up, a change related, to some extent, Marx said, to general-purpose cards being co-branded with retailers. Debit card use in department stores is also up, while use of cash and checks is down. At hotels, 81 percent of transactions occur on credit cards, with no other payment forms surpassing 4 percent.

At high-end restaurants, credit cards are used for 57 percent of transactions. Cash use has declined considerably at high-end restaurants, but cash is still used for 18 percent of all transactions. At mid-priced restaurants, credit card use has increased to 39 percent, while cash use has declined to 28 percent from 56 percent in 1999. Debit cards benefited from this decline in cash use: Their share of payments at mid-priced restaurants is up to 29 percent from 7 percent in 1999.

Debit has also gained a substantial share at quick-service restaurants, accounting for 33 percent of receipts in 2008 compared with less than 2 percent in 1999. During the same 10-year period, use of cash declined from 87 percent to 50 percent at quick-service restaurants, and credit card use increased from 1 percent to 15 percent.

The panel study also shows that consumers are turning to cards for making recurring payments, such as subscriptions, cell phone plans, and insurance premiums, items for which households receive bills at regular intervals. Marx reported that about $1trillion is expended annually in this category, of which less than $125 billion is paid using cards. But Visa's panelists have shown a growing proclivity to use their cards for recurring payments. Only 17 percent of panelists in 2000 were using cards to make such payments, a proportion that more than doubled to 40 percent in 2008.

V. Demographics and Payment Preferences

According to the panel study, men are more likely to use credit cards; women are more likely to use debit cards and checks. Debit users tend to be female, younger, married with children, and employed. The profile of a typical debit card user is a 38-year-old woman. The credit card power-user tends to be an older male with a higher income[14] using a rewards card. The profile of the typical rewards credit card user is a 54 year-old man.

Individuals under 15 years of age, Marx reported, use cash. Card use begins at ages 16 and 17, when teenagers get their first jobs, first checking accounts, and first piece of plastic, either debit or credit. The age of first card ownership has declined from the 18-24 range, which used to be the tipping point for obtaining first plastic before debit cards became a standard adjunct of a deposit account.

Check writers tend to be older. Many payment industry observers anticipate that consumer check use will continue to decline as generations who developed check-writing habits and continue to prefer that payment method are succeeded by younger generations for whom cards have always been available as a means to access funds on deposit and who have formed their payment habits accordingly. Older consumers will use cards when it suits them (e.g., when traveling or booking reservations), and they will likely be credit, not debit, cards.

While shifts to cards may continue to cause a decline in checks, it remains to be seen whether preferences will shift between card types as demographic cohorts move from one life stage to another. The millennials[15] are currently avid debit card users, but as they enter what historically

[14] See "A Top Target: The Elite," *Cards & Payments,* 21:3 (March 2008). According to this article, over half of households earning $250,000 or more annually spend nearly $50,000 a year with credit cards. The article reported on analysis by Mercator Advisory Group LLC, using Mercator's survey results and data from the U.S. Census Bureau. Card spending of this magnitude also occurred in almost four of 10 (39 percent) households with incomes from $200,000-$249,999 and in 31 percent of households with incomes between $150,000 and $199,999. See also *The Nilson Report*, Issue 930 (July 2009). Nilson reports that 3 percent of upscale households account for 19 percent of all U.S. credit card spending.

[15] The millennial generation, also called "generation Y" and "echo boomers," includes young adults, teenagers, and children born in the 1980s and 1990s. At about 80 million members, larger than the preceding

are peak credit-using years, might they migrate to credit cards? Some evidence that the introduction of debit cards has delayed the adoption of credit until later into adulthood is found in trend data from annual surveys conducted by the former PSI Global-NFO WorldGroup. Credit card ownership among adults under 35 years of age declined from 76.7 percent to 72.3 percent during the period in which debit card ownership and use exploded. During the same time, credit card ownership for adults 35 years of age and older grew from 78.5 percent to 85.6 percent.[16] Another factor that could influence a shift from debit to credit card use is increased earnings as young adults advance in their careers. As their incomes and consumption increase, young adults may direct their increased spending in order to obtain the benefit of rewards credit cards.

VI. Conclusion

When it comes to payment preferences, American consumers have decidedly resolved the "paper or plastic" question. A clear migration away from cash and checks to card and other electronic payment forms has been observed in the nearly two decades that Visa has been conducting its Payment Panel Study. This trend has also been reported from other sources, including the Federal Reserve's payments study. After a period of "experimentation" with the various payment options available to them as they entered the 21st century, consumers have settled on preferred methods of payment. These preferences vary with age, gender, life stage, and income, and they also vary depending on the type of purchase and its amount. Once a payment preference is established, it tends to endure over time, as we've witnessed with today's older consumers, who have seen no compelling reason to abandon their preference for checks for the sake of adopting new payment methods as they have been introduced in the marketplace.

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generation X by about 15 million, this generation is expected to affect trends and culture in much the same degree as did the baby boomers, who numbered 78 million.

[16] Findings from annual credit card research surveys 1990 through 2001. Ownership of credit cards among younger adults peaked at 81 percent between 1996 and 1999, just prior to the surge in debit card use that culminated in a five-year increase of 252 percent from 1998 to 2003, according to *The Nilson Report*, Issue 818 (September 2004).

Generational shifts to card use, along with dramatic growth in the numbers and types of merchants who accept cards, suggest that cash and check transactions will continue to migrate to payment cards.[17] What remains to be seen is whether the huge millennial generation, comparable in size to the baby boom cohort, will shift its current preference for debit to credit as it moves through life stages. In this respect, the coming years might be reminiscent of the 1970s, when the oldest boomers (who married at a younger age than the current average age of first marriage) entered their household-formation years. These young families were among the consumers who took advantage of expanded access to revolving credit in the form of the national network of general-purpose bank credit cards introduced in the late 1960s. During the 1970s, inflation-adjusted revolving balances increased by more than 600 percent ($127 billion in 2009 dollars).[18] The burgeoning use of credit in the 1970s occurred despite a rising prime rate that approached 20 percent as the decade ended.[19] While the high rate of inflation and the tax deductibility of credit card interest in the 1970s affected the real cost of credit during the period, the expanded use of credit during that decade suggests that when households of young families need to purchase washers, dryers, television sets, lawn mowers, baby cribs, and backyard fences, they may opt to do so using credit.

What the future holds for prepaid cards will also be interesting to observe. While these nascent products are currently being used for a minuscule proportion of consumer purchases, their growth rates have been impressive and consumers have adapted the use of prepaid cards in several innovative ways. For example, Mercator Advisory Group research revealed that 14 percent of prepaid gift card purchasers used gift cards as a way to budget their own household expenses; 10

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[17]Future-oriented statements are the opinions of the author and do not represent the position of Visa Inc.

[18] Federal Reserve Statistical Release, G.19 Historical Data, revolving balances deflated by the consumer price index

[19] Federal Reserve Statistical Release, H.15 Historical Data

percent used them as a safe way to buy online; 7 percent used them to pay bills; and 11 percent used them as an alternative to a checking account or debit card.[20]

What cannot be derived from the panel study is how the trends it identifies will be affected if the economy continues to be weak for an extended period. Another inflection point comes in the form of the Credit Card Accountability Responsibility and Disclosure Act of 2009. The act will change the risk management and revenue dynamics of the payment card business and could have an impact on the supply side, especially for payment cards that include a credit line (i.e., credit cards). As shifts occur in the consumer payments landscape, the data collected through research such as the Visa Payment Panel Study will provide valuable insight into how those changes affect the payment vehicles Americans own and how they choose to use them.[21]

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[20] Data from Mercator Advisory Group cited in "Prepaid Market Overview," a presentation by its director of prepaid services, Tim Sloane, Prepaid Expo, February 2010.

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