

# CREDIT'S MID-LIFE CRISIS:

## Time to Get a Corvette?

David S. Evans\*

### Introduction and Summary

Next year, credit cards will turn 40—a milestone that marks their official passage into middle age. For many products and people, that's not always a pretty sight. Is it time for credit cards to get that condo on the golf course in Florida or that new red Corvette?

What's clear is that credit cards have lost a bit of their pizzazz. This innovative product allowed consumers to do something they had once only dreamed of: make purchases today and pay for them tomorrow. For issuers and consumers both, this was a significant innovation. Issuers once counted on consumers to rack up borrowing on their cards and collected a tidy profit on financing the receivables. And consumers did just that—U.S. consumers owed more than \$700 billion to credit card issuers in 2004, about 8 times as much as twenty years earlier (measured in constant dollars).<sup>1</sup>

But the meteoric growth in borrowing came to a grinding halt a few years ago. Why? Simply stated, the historical drivers of increased borrowing have run their course and issuers seem to have been caught unprepared. Instead of creating product innovations and growing the market, the credit card business seems to have stagnated. Stealing share is the name of the game. Banks flood consumers' mailboxes with solicitations in an attempt to lure customers from competitors. Overall borrowing isn't growing much—and neither are the finance fees that go with it. Credit card issuers have been able to count on interchange fee revenues to keep their cards in the black. Although interchange fees have increased in recent years, those increases won't and can't continue forever. The class action lawsuits that have been filed recently should make banks worry—not a lot, but a little—that their interchange fee income might, instead, start to reverse.

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<sup>1</sup> *The Nilson Report*, various issues

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Given the increased competition and slowed borrowing, banks have had to create new ways to find revenue. They've added or modified fees and other card features, including the length of the billing period. Some of these changes aren't all that transparent to cardholders. The result is an environment that has irritated some customers, resulted in a few lawsuits and increased the level of government scrutiny in this area.

Credit cards have reached middle age and it's time to make plans for the second half of their life. Ironically, the power of innovation that fueled the industry in its youth has all but dissipated. Part of the credit card introspection process, it seems, must include an exami-

WILL CREDIT CARD ISSUERS MIRROR MATURE INDUSTRIES LIKE LANDLINE TELEPHONES THAT FOUNDERED LATE IN THEIR LIFECYCLES? WILL THEY BECOME A CONCENTRATED COMMODITY-TYPE BUSINESS LIKE PERSONAL COMPUTER MANUFACTURING WHERE EFFICIENCY IS THE MAIN DIFFERENTIATOR? OR WILL THEY CREATIVELY DESTROY THIS PIECE OF THEIR BUSINESS AND FIND NEW SOURCES OF VALUE FOR THEIR CUSTOMERS?

nation of whether there are new ways to leverage credit cards into other kinds of business, as well as ways to build upon the successes of its youth—the combination of an easy-to-use method of payment and borrowing. Will credit card issuers mirror mature industries like landline telephones that founded late in their lifecycles? Will they become a concentrated commodity-type business like personal computer manufacturing where efficiency is the main differentiator? Or

will they creatively destruct this piece of their business and find new sources of value for their customers?

The second installment of the Inflection Point Series describes the mid-life crisis faced by credit card issuers and offers some thoughts on how to put the spark back into their business.

## The Mid-Life Crisis

Ah, the credit card. That plastic invention that changed the way products and services were bought and sold. Last year, that piece of plastic was the fuel behind more than \$1.8 trillion in sales in the United States.

## When We Were Young

Before we wax nostalgic about the golden youth of the credit card, let's first consider two things: they had a tough childhood and were an awkward teen. Cards had their best years in their 20s, from roughly the mid-1980s to the mid-1990s. Their formative years were very difficult. One doesn't look back at the late 1960s and early 1970s and see credit card fortunes being made.

1966 was really the year that the modern credit card was born. That's the year banks came together and started what are now known as MasterCard and Visa.<sup>2</sup> Eight years earlier, Bank of America had started a successful credit card in California, but state laws prevented it from operating outside the Golden State. Lots of other banks had tried to start more localized credit card programs during the 1950s and failed, due in large part to the limitations on the places that customers could use the cards. Credit cards are only valuable to consumers if their favorite merchants accept them. The associations had to create a credit card that people could use nationally at any participating merchant if they were to achieve a tipping point for the industry.

Unlike the earlier local programs, banks were able to make a go of it with these new nationally-branded cards. They became issuers and acquirers to varying degrees. But banks did not initially embrace cards as a mega-revenue producer. Many banks viewed credit

<sup>2</sup> Visa started as a franchise system owned by Bank of America. It didn't become a member-owned association until 1970.

cards as a value-added service for their customers, saw that everyone else was doing it, and hoped that some day they'd make money doing it too. Unfortunately, they'd have to wait a decade or so to profit from this product decision.

The 1970s saw credit card issuers exhibit the same kind of frenzied high-volume, low-profit customer acquisition strategies that sank many dot-coms a generation later. Banks, seeking to attract customers for their new products, mailed out massive numbers of cards with minimal screening of the lucky (for them) recipients. As is not uncommon with loss leaders, losses lead

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to more losses until banks—prodded by regulators, as well as their own financial losses—exercised more care.

The industry also had bad luck launching and growing their product during the stagflation years of the 1970s. The average rate of growth in real GDP between 1971 and 1983 was 2.9 percent compared to 6.0 percent between 1983 and 2004.<sup>3</sup> Interest rates also climbed, reaching a peak

of 14.8 percent for one-year treasury bills in 1981.<sup>4</sup> Many states imposed ceilings on the interest rate that credit cards could charge. As interest rates rose, many banks found that they were losing money on the cards they had already issued, and they decided that it didn't make sense to solicit many more customers—especially ones who might be a risk—with unprofitable finance terms.

<sup>3</sup> GDP figures from the Bureau of Economic Analysis, U.S. Department of Commerce, available at <http://www.bea.gov/bea/dn/home/gdp.htm> (based on chained 2000 dollars).

<sup>4</sup> Federal Reserve Board, available at <http://www.federalreserve.gov/releases/h15/data/a/tcm1y.txt>.

As a result, many credit card programs didn't earn a market rate of return on their investment for banks in the late 1970s and early 1980s. Then, in 1983, the storm clouds of the 1970s cleared. Interest rates plummeted, the economy perked up, and consumer demand rose. Home prices climbed, giving people great wealth, at least on paper. A court decision also made it easier for credit card issuers to skirt state interest ceilings. Rather than lose the business, many states started dropping these restrictions.

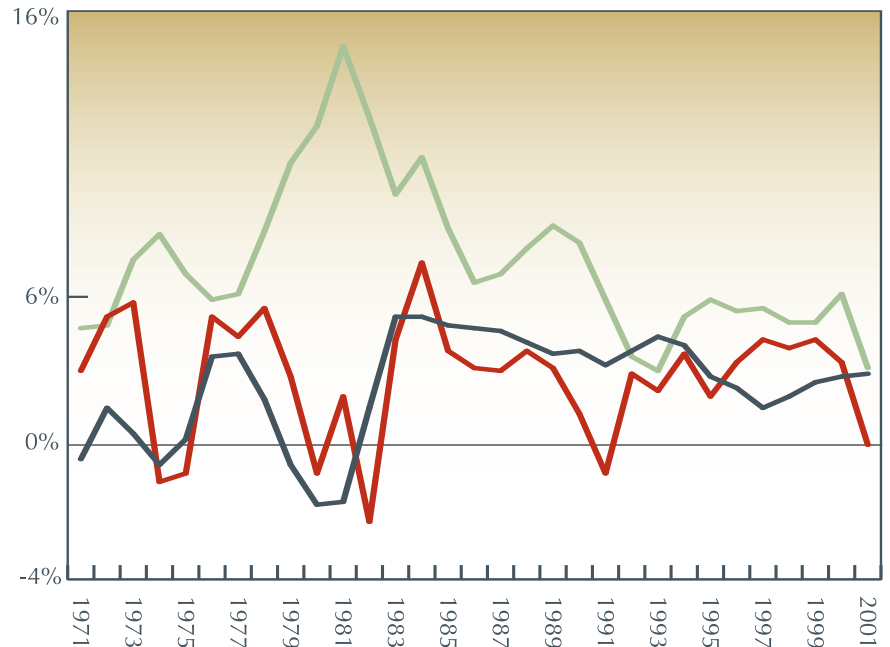
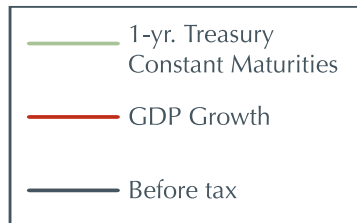
Banks that stuck it out during the 1970s were well positioned to capitalize on rising consumer demand for borrowing. Issuer profits climbed. Figure 1 shows one measure of issuer profits—before-tax earnings as a percentage of outstanding balances—between 1971 and 2002. The period from 1971 to 1982 was a roller coaster, with returns bouncing below zero three times. Returns skyrocketed from 1.2 percent to 5.3 percent between 1981 and 1983, as the economy emerged from recession, and declined only slightly from 1983 to 1990, when the economy slipped back into recession once again.

Profits in any industry beget competition and entry. The fertile ground laid by consumer demand for borrowing made it opportune to enter the credit card industry. And the credit card associations made market entry a snap. Any qualified financial institution could join MasterCard or Visa and immediately benefit from what the associations had to offer: the brand name these organizations had first established and invested in building, the merchants who had agreed to take these card brands and the state-of-the-art computer systems that authorized and settled transactions. More than four thousand banks entered the business between 1983 and 1991.<sup>5</sup> Tantalized by the promise of profits, some big industrials such as AT&T and General Motors wormed their way in too.

<sup>5</sup> This is the net increase in Visa issuers over this time period. See David S. Evans and Richard Schmalensee, *Paying with Plastic*, 2nd ed., MIT Press: Cambridge, MA, 2005, p. 231.

## Figure 1. Bankcard Earning and Comparative Statistics

Source: *The Nilson Report* (various issues) and Visa U.S.A., GDP figures from the Bureau of Economic Analysis and 1-yr Treasury constant maturities from the Federal Reserve Board.



By the mid-1990s, this intense rivalry took its toll on issuers. Profits fell steadily between 1993 and 1997. Many banks decided to sell their card portfolios and close up their card shops. Credit card issuing became more consolidated as only those with scale economies and other efficiencies found that they could survive in what had become a very competitive environment. Between 1993 and 1997, the share of MasterCard and Visa volume of the largest ten banks had increased from 52 percent to 63 percent.<sup>6</sup> That share currently stands at around 83 percent. Figure 2 illustrates this.

### When We Were 39

They say the 40s is the new 30s. That doesn't seem to be the case with credit cards. There is little to suggest that credit cards have maintained the vigor and vitality of their youth. Or are pursuing a path of self-evaluation or just plain getting into shape.

<sup>6</sup> *The Nilson Report*, various issues.

### A Tired Product

The credit card was revolutionary when it was introduced. It was to retail what the iPod is to music today: it changed the world. All of sudden, consumers could finance their purchases at a widening base of merchants across the country. They didn't have to go through a time-consuming process at their local banks to get consumer loans or have separate installment loans at every merchant they shopped at.

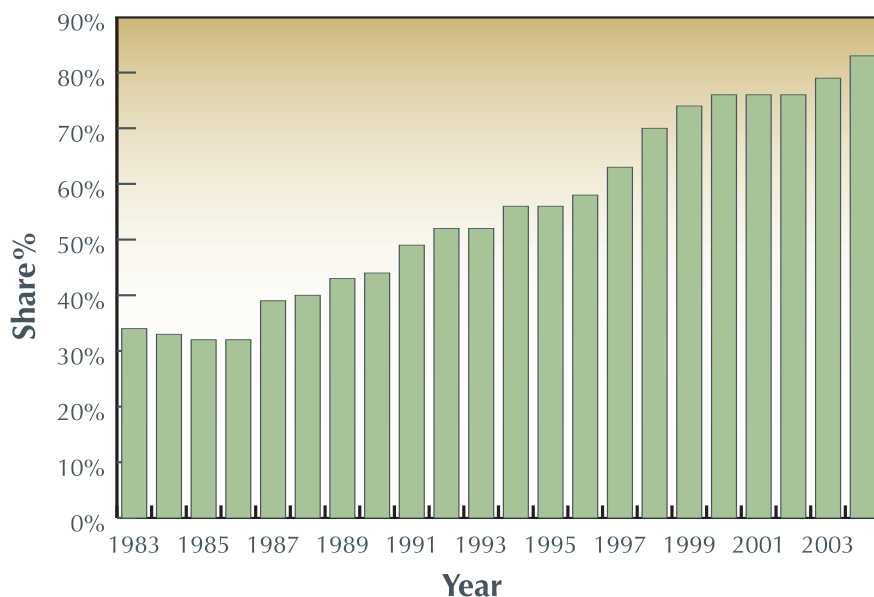
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Merchants benefited as well. Many didn't have the scale or expertise to operate profitable store card programs or installment loan programs. A national credit card helped a merchant's customers buy things without the merchant having to assume any of the risk of non-payment.

Credit cards have never really had a second act. The product

## Figure 2. Share of Top 10 Bank Issuers by Gross Total Charge Volume

Source: *The Nilson Report* (various issues).



itself has changed little over the last four decades, although it has certainly gotten better at what it set out to do. Two innovations really stand out:

1. Credit cards become more convenient as a result of investments made by the card associations (although debit cards have benefited equally from these investments).

2. Advances in credit scoring have made higher credit lines available to larger portions of society.

But the innovation well seems to have gone dry, and these two in particular are old news.

Of course, credit card issuers have devised numerous features that consumers seem to like. Reward miles were introduced in 1987<sup>7</sup> and, today, about one-third to one-half of all credit card issuers offer reward miles or a similar benefit when consumers use their cards.<sup>8</sup> These cards are often cobranded with a major merchant such as an airline or retailer. Affinity cards have

<sup>7</sup> See David S. Evans and Richard Schmalensee, *Paying with Plastic*, 2nd ed., MIT Press: Cambridge, MA, 2005, pp. 80, 222.

<sup>8</sup> Jennifer Bayot, "Credit Card Rewards Turn From Nouns to Verbs," *New York Times*, September 21, 2003.

also attracted many consumers who like using cards that are linked to a favorite organization or charity.

SO, IT MAY BE THAT THERE'S NOTHING MORE THAT A BANK CAN DO WITH CREDIT CARDS THAN SEARCH FOR SLIGHT ADVANTAGES IN DESIGN OR PRICING OR PERKS OVER ITS RIVALS. TO BE FAIR, THAT'S THE CASE WITH A LOT OF BUSINESSES AS THEY PROGRESS THROUGH THEIR PRODUCT LIFECYCLES.

But, beyond that, we start diving into the frivolous and redundant. American Express had a big hit with its Blue Card. American Express Blue was the smart card that people could use to pay for things online by inserting it into a card reader. Unfortunately, few did and its success in attracting customers seemed largely based

on its hip design. There are many different flavors of bankcards now. While each has its merits, they are about as innovative as Special K with Red Berries. And a lot less sticky: cardholders who would switch cards for the sake of a new color, reward or other easily-imitated feature are a very expensive acquisition for the card issuer—and are probably not all that desirable.

So, it may be that there's nothing more that a bank can do with credit cards than search for slight advantages in design or pricing or perks over its rivals. To be fair, that's the case with a lot of businesses as they progress through their product lifecycles. There are many businesses that seem content with serving the market they have and relying on replacement sales or renewals to produce ongoing revenue.

Then again, banks and the associations may need to give some serious and creative thought to finding a killer second act. Here's why.

#### Consumer Borrowing Fizzles

The lack of innovation in the credit card business would be less problematic if banks could count on consumer borrowing on the credit cards **they have issued** to keep increasing. Many issuers earn their greatest margins by lending money to cardholders who postpone paying their balances in full, but reliably send at least their minimum payment with every billing cycle. Consumer borrowing on cards, however, has

tailed off since 1997, with almost no growth at all in the last two years.<sup>9</sup>

Figure 3 shows what's happened. It looks just like the standard S-shaped curve of product lifecycles. Borrowing increases slowly through the early 1980s, then accelerates until the end of the century. It appears to slow way down in the early part of the 21st century. During this same time period, the economy was growing. Incomes were rising and more households were being formed. We examine this in more detail below.

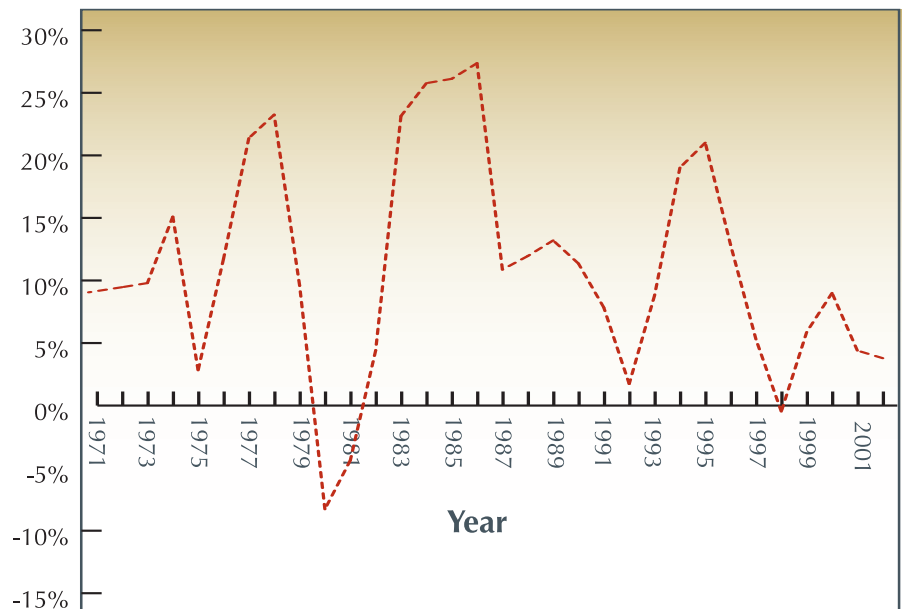
It appears that credit card receivables per capita got stuck at around \$2,500 in 2002. The availability of substitutes for credit card borrowing contributed to that stagnation. As a result, banks are now simply stealing share from a stagnant pool of credit card borrowing. (We examine the causes of this later in the report.) Of

<sup>9</sup> *The Nilson Report*, various issues.

**Figure 3. Outstandings for Visa, MasterCard, Amex, Discover and Diners Club/Carte Blanche, 1971-2004**

Source: *The Nilson Report*, various issues.

Outstandings/  
Capital Growth  
in 2004 (\$ billions)



course, businesses compete for a stable pool of sales in many mature industries—some just live with this, others figure out a way to create another growth curve.

#### *Getting a Paunch*

Credit card issuers have made up for the sluggishness in revenues once produced by revolving credit balances in two major ways.

First, card issuers get paid with interchange fees whenever cardholders use their cards. That's why the growth in card revenues has slowed less than the growth in card receivables. Moreover, interchange fees themselves have increased over time. Between 1983 and 1995, the average interchange fee declined at an average rate of about 2.1 percent. Since 1995, it has grown at an average rate of about 4.0 percent per year. As a result, the total interchange fee revenue received by banks increased from \$6.99 billion in 1995 to \$18.28 billion in 2004 (in 2004 dollars).<sup>10</sup> The average interchange fee revenue per credit card increased from \$19.14 to \$32.95 during that same time period.<sup>11</sup>

Unfortunately, this source of income has become quite controversial. Merchant groups and regulators have successfully beaten down interchange fees in Australia and the European Union (although, in Europe, only the fee for cross-border transactions) and now attacks are being waged in Israel, Spain and the United Kingdom to do the same. There are many reasons that the grounds for attacking interchange fees in foreign countries won't work in the courts or before the regulatory agencies here in the United States.

But, as widely expected, class action lawsuits have been filed seeking to declare interchange fees illegal. Given the uncertainties of litigation in the United States—and the enormous financial exposure faced by the associations and banks should the litigation become successful—it's only prudent to consider the

possibility that the associations may settle the case by agreeing to lower interchange fees or that a court will force them to do that as part of a judgment. Smart businesses plan for remote, but catastrophic, events.

Second, banks have made revenue on cards through a variety of charges they impose on cardholders. Some banks have quietly reduced their billing cycles so that consumers get free float for about 9 fewer days than they did fifteen years ago.<sup>12</sup> Many banks have increased revenues from late charges and other service fees. One survey finds that the top ten credit card issuers have raised late fees by 23 percent over the last three years

CREDIT CARDS HAVE INCREASING COMPETITION, AND IT ISN'T JUST FROM COMPETING BANKS. HOME EQUITY LOANS HAVE HAD A MATERIAL IMPACT ON CREDIT CARD BORROWING.

and that issuers are also less generous in forgiving those late fees when payments are late.<sup>13</sup> Frankly, there's nothing wrong with this. Banks have every right to make money from consumers who get valuable services from their cards.

But not all banks have been transparent in how they impose these fees. Nickel-and-diming customers in ways that they don't understand—or have overlooked in the fine print—is hardly a way to keep them happy. Even if this practice is carried out a few banks, it gives the industry a reputation for being a bit tricky and perhaps even a bit shady.

If interchange fee revenues are reduced, banks will undoubtedly add fees to credit cards—possibly up to \$32 per customer in the extreme case of the complete elimination of these fees—on top of the other increases

12 Liz Pulliam Weston, "Don't fall for these stupid credit card tricks," *MSN Money*, 2005, available at <http://moneycentral.msn.com/content/Banking/creditcardsmarts/P41957.asp>.

13 Bob Sullivan, "Credit card late fees continue to climb," *MSNBC*, May 25, 2004, available at <http://www.msnbc.msn.com/id/5054056>.

10 *The Nilson Report* (various issues) and Visa U.S.A.

11 *Id.*

JUST HOW MUCH WILL  
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OTHER ALTERNATIVES?

in order to preserve their revenue stream. This addition wouldn't be greed—it would be simple survival. The unspoken question that must be answered before that happens is: Just how much will consumers pay for cards before they

start dropping them and switching to debit or other alternatives?

### Attractive and Younger Rivals

The middle age of people and products forces an interesting dynamic. Suddenly, the here and now—and even the future—is far less interesting than recapturing the “good old days” of youth. And the driver for that dynamic isn't so much other middle agers—it's those who have many years ahead of them before reaching that milestone, and those who can still turn heads.

Credit cards have increasing competition, and it isn't just from competing banks. Home equity loans have had a material impact on credit card borrowing. This market has exploded as a result of the surge in home values (partly the result of falling interest rates, which make mortgages cheaper). Banks have become more sophisticated and competitive in handing out these loans. Between 1999 and 2004, annual borrowing on home equity loans almost quadrupled, from \$114 billion to \$431 billion.<sup>14</sup> The dollar value of outstanding home equity loans over that period has more than doubled, from \$267 billion to \$719 billion.<sup>15</sup>

From the consumer's standpoint, these are attractive alternatives to credit cards. Consumers get significantly lower interest rates with these loans: an average of 6.4 percent in 2005 versus 12 to 13 percent for

borrowing done via credit card.<sup>16</sup> With home equity loans, consumers get a “two-fer”: they can pay off their outstanding card debt and they can finance new purchases from their home equity line.

The rise in popularity of debit cards has also had an impact on credit card usage. The use of debit cards has increased dramatically in the last decade. Now, virtually every individual with a credit card has a debit card that they can use to pay for just about anything. Many consumers prefer to do just that in order to better control household budgets and resist the temptation to finance purchases they can't pay off in less than 30 days. There isn't much evidence that debit has cut into credit purchases yet. But if the price of credit cards rises, credit card issuers must consider that most consumers have another piece of plastic that they can use to do everything **except** borrow with. And they have the convenient option of home equity loans for that.

A greater threat may be encroaching on card-issuing banks. The world's largest retailer may soon become the country's largest industrial bank. Wal-Mart has long expressed an interest in providing banking products for the 138 million customers who visit a Wal-Mart store each week.<sup>17</sup> Their plans are starting to become evident. As part of its efforts to reduce the amount of the merchant discount it pays, Wal-Mart did a deal in early 2005 with Discover and GE Money Bank. Wal-Mart customers now get a Discover card that they can use to pay for items at Wal-Mart. Wal-Mart pays a minimal merchant discount on in-store purchases. Wal-Mart customers can also use their Wal-Mart Discover card at other merchants—and Discover picks up a merchant discount on those purchases as well. As Wal-Mart develops this and other strategies for keeping its merchant discount bills in check, we can expect that it

14 Data from *MSN Money*, at <http://moneycentral.msn.com/content/Banking/Homefinancing/P107768.asp> (visited August 3, 2005).

15 *Id.*

16 Home equity loan rate from *Bankrate.com*, at <http://www.bankrate.com/brm/static/rate-roundup.asp> (visited July 27, 2005).

will push bank credit cards to the side and offer its customers, who are also now holding other cards, an attractive alternative for credit card spending.

## What's Happened to Consumer Borrowing?

Credit card receivables have grown historically for two major reasons: banks issued cards to people who didn't have them and those people borrowed, and people found it more convenient to use credit cards for financing purchases rather than alternative means. But the share of consumer borrowing held by credit cards reached a plateau around 1995 and it doesn't appear that there is much room for displacing other forms of credit.

Thus, growth has slowed because there are few people without cards and most people who want to finance purchases already do so. There is little opportunity left to expand the market.

### Paying with Plastic

The percentage of households with credit cards more than doubled between 1970 and 1983, from 16 percent to 43 percent.<sup>17</sup> The percentage almost doubled again between 1983 and 2001 so that 73 percent of households have at least one credit card.<sup>18</sup> Figure 4 shows the trends over time.

There is little opportunity for banks in the aggregate to increase credit card lending by finding more credit-

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worthy households. Many of those who don't have credit cards now and might want one are poor. The median income of U.S. households without a credit card was only about \$18,000 in 2001 (the most recent year for which these data are available).<sup>20</sup> Even if banks issued cards to these households they would contribute little to overall borrowing, given that their credit limits would be clearly restricted.

### More Than Money

Credit card borrowing has increasingly displaced other forms of consumer borrowing over time. Figure 5 shows how the composition of household debt from consumer loans has changed over time.

Since 1983, credit card debt as a percentage of total household debt from consumer loans has grown from 13 percent to about 62 percent in 2001 (the most recent year for which data are available). While roughly 38 percent of other consumer loans still represent an opportunity, it has proven difficult for credit cards to make significant inroads. This is likely, in part, because some merchants find it effective to offer discounts on their products in the form of no-interest financing, the kind of deal that is difficult for credit card issuers to match consistently.

20 Id.

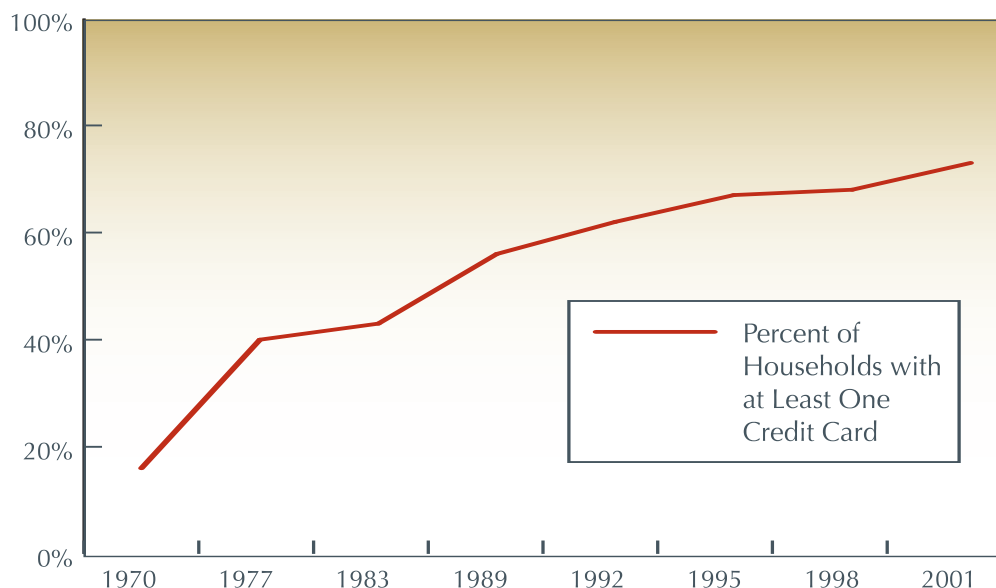
17 See "Wal-Mart Facts," at <http://www.walmartfacts.com/newsdesk/wal-mart-fact-sheets.aspx> (visited August 3, 2005).

18 Federal Reserve Board, 2001 Survey of Consumer Finances, available at <http://www.federalreserve.gov/pubs/oss/oss2/2001/scf2001home.html>.

19 *Id.*

**Figure 4. Share of Households with at Least One Credit Card**

Source: Federal Reserve Board, Surveys of Consumer Finances, 1983-2001.



## Interchange Fees

Interchange fees have become an increasing source of profits for credit card issuers. Indeed, for the roughly 40 percent of credit card customers who pay their bill in full every month, these fees are almost the only source of revenue that justifies keeping the accounts open at the existing fee levels.

For many card issuers, interchange fees are the difference between a profitable and unprofitable account, especially for customers who tend not to revolve their balances.

The threat to interchange fees is well-known and will be the subject of a report later in this Series. In this report, our focus is on the financial consequences to issuers of a decrease in interchange fees and how they should both plan for and react to this remote but serious risk. We begin by establishing the relative importance of interchange fee revenues for banks.

Banks have historically earned decent returns on credit cards. But while these profits are relatively good,

some years they are relatively poor and other years about average. Over time, banks don't earn much better returns than other industries, after adjusting for risk.

FOR MANY CARD ISSUERS, INTERCHANGE FEES ARE THE DIFFERENCE BETWEEN A PROFITABLE AND UNPROFITABLE ACCOUNT, ESPECIALLY FOR CUSTOMERS WHO TEND NOT TO REVOLVE THEIR BALANCES.

interchange fee revenue per active credit card account was \$32.25 in 2004.<sup>22</sup> If the interchange fee revenues disappeared entirely, banks would lose more than half of the pre-tax profits on their cards. If the interchange fee revenues were cut in half, and nothing else happened, bank pre-tax profits would fall by over a

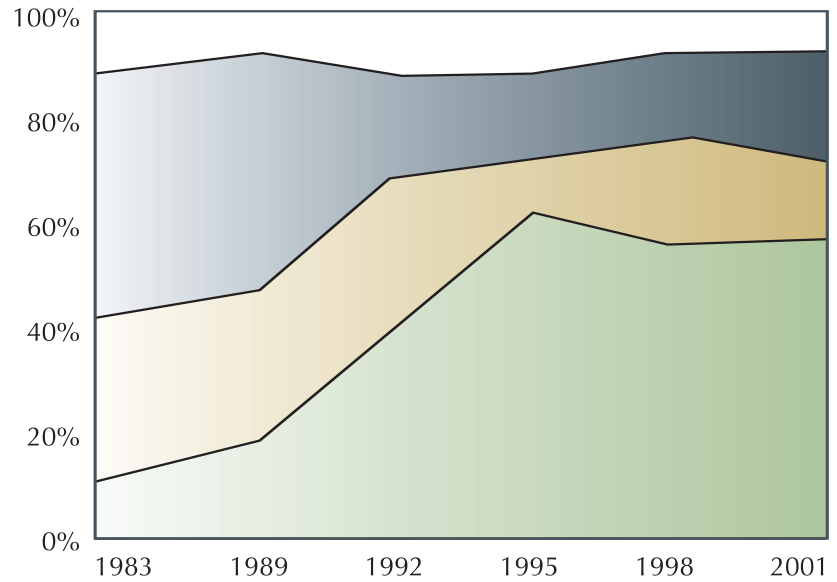
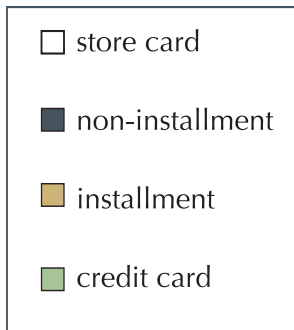
We can see this most clearly in banks that specialize mainly in cards. The average pre-tax profit per active credit card account was \$58.17 in 2004—roughly what banks need to earn in order to keep earning competitive returns.<sup>21</sup> The average

<sup>21</sup> *The Nilson Report* (various issues) and James J. Daly, "Smooth Sailing," *Credit Card Management*, May 2005, p. 31.

<sup>22</sup> *The Nilson Report* (various issues) and Visa U.S.A.

**Figure 5. Substitution of Credit Card Debt for Other Forms of Consumer Debt, 1983-2001**

Source: Federal Reserve Board, Surveys of Consumer Finances, 1983-2001. The Fed defines consumer loans as loans for "household appliances, furniture, hobby or recreational equipment, medical bills, loans from friends or relatives or other loans" and excludes mortgage loans, real estate loans or home equity lines of credit and car loans.



quarter. Credit card lending would not be a profitable business relative to other alternatives.

THE RESERVE BANK OF AUSTRALIA (RBA) FORCED MASTERCARD AND VISA ISSUERS TO REDUCE INTERCHANGE FEES BY NEARLY ONE-HALF IN 2003, FROM 0.95 PERCENT TO 0.55 PERCENT. AND AUSTRALIAN BANKS TOOK A HUGE PROFIT HIT.

Credit card issuers would have to adjust to these falling interchange fees. Just as the rising interchange fees have helped them eliminate annual fees and increase reward miles for consumers, issuers would be forced to raise fees and reduce card perks in order to offset the loss of revenue, if in fact they decide to offer a product at all. Some card issuers wouldn't be able to make a financial go of it and would be forced to sell their portfolios.

Regardless, the industry would settle down to a new competitive equilibrium: with cardholders paying

more and merchants paying less (putting aside scenarios in which courts or regulators jeopardized the very survival of the card industry).

This isn't just a matter of theory. We can examine Australia to see what happens in practice. The Reserve Bank of Australia (RBA) forced MasterCard and Visa issuers to reduce interchange fees by nearly one-half in 2003, from 0.95 percent to 0.55 percent. And Australian banks took a huge profit hit.

It is important to note that the Australian economy differs from the United States in several ways that reflect how this massive decrease in interchange fees worked its way through the system. First, card issuing is more concentrated in Australia. Four banks account for about 90 percent of card issuing.<sup>23</sup> In the United States, it takes 34 issuers to account for the same

23 Reserve Bank of Australia, "Reform of Credit Card Schemes in Australia I: A Consultation Document," December 2002.

percentage.<sup>24</sup> The U.S. credit card issuing business is much more competitive than that in Australia. Second, the retailer sector is also more concentrated Down Under. For example, two supermarkets account for 75

THE AUSTRALIAN EXPERIENCE CONFIRMS THAT CREDIT CARD ISSUERS WOULDN'T JUST IDLY SIT BY AND TAKE A REDUCTION IN PROFIT WITHOUT DOING WHAT IS NEEDED TO RE-EQUILIBRATE THEIR BUSINESSES AND RETURN TO PROFITABILITY.

percent of all supermarket sales and many other retail businesses are highly concentrated.<sup>25</sup>

Australian banks were clued into the fact that a reduction in interchange fees was a near certainty in April 2001 when the RBA first announced its investigation. Between that time and August 2002, when it reached its decision, Australian banks started increasing the fees—both

annual and service fees—on their cards. A careful statistical analysis, controlling for many changes in the Australian economy, found that, overall, banks regained about a third of their lost interchange fee revenues through higher fees in the short run. There is some anecdotal evidence that some banks reduced reward miles and other perks, but, on balance, it appears that the major adjustment to this loss in revenue was to raise fees for cardholders.

Nevertheless, Australian banks lost over \$300 million (in U.S. dollars) in lower interchange revenues that they have not yet recovered from.<sup>26</sup> Acquirers apparently passed on the interchange fee decrease dollar-for-dollar. Merchants made out—and there is no

evidence that any savings were passed on to their customers.

The RBA case offers U.S. card issuers two lessons:

1. First, the Australian experience confirms that credit card issuers wouldn't just idly sit by and take a reduction in profit without doing what is needed to re-equilibrate their businesses and return to profitability. With lower interchange fee revenues, credit card accounts had become significantly less profitable and the only way to fix that was to raise fees to cardholders (or go out of business).

2. Second, credit card issuers in the United States will probably pass on a much higher fraction of the interchange fee revenue to cardholders than was the case in Australia. The U.S. card industry is much more competitive than its Australian counterpart. Bank profits are closer to competitive levels and, therefore, they don't have much of a cushion to absorb some (or any) of the lost interchange fee revenues themselves. (This, by the way, follows from elementary economics; economists have studied these kinds of pass-through issues, particularly in the context of the theory of tax incidence.)

The fact that banks would collectively pass on interchange fee revenues in the form of higher fees doesn't mean that this is a matter of indifference to banks. Indeed, there are two further lessons from Australia:

It pays to be prepared. It takes time to adjust credit card rates without alienating consumers. The best time to do this is in soliciting new accounts or in renewing accounts. Australian banks started working on this as soon as they saw the direction the RBA was taking. As a result, they were able to minimize their profit exposure significantly by the time the interchange fee reduction was actually imposed.

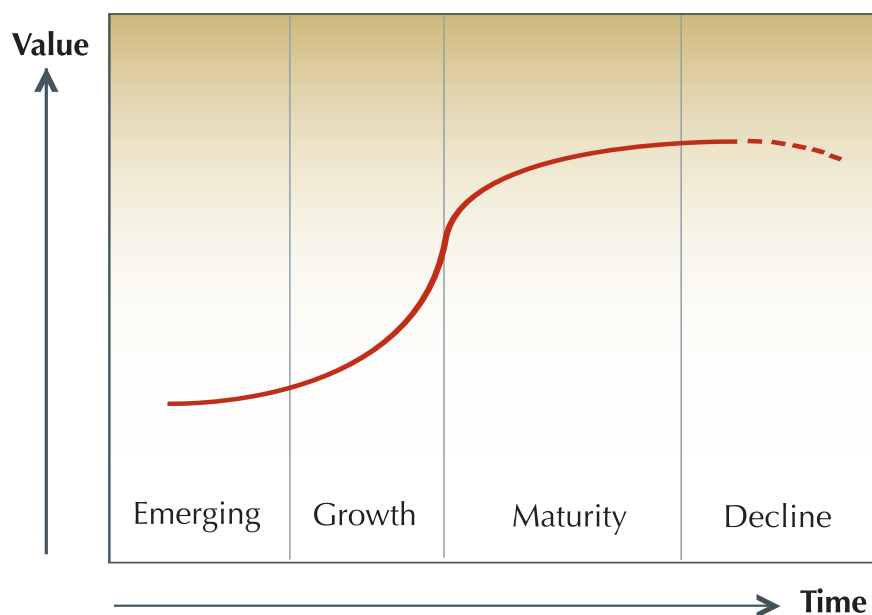
The spoils go to the creative. Consumers aren't going to be happy to see the cost of using their credit cards

<sup>24</sup> *The Nilson Report*, Issue 826.

<sup>25</sup> Euromonitor International, "Grocery Stores, Food Retailers and Supermarkets in Australia," October 2005.

<sup>26</sup> Richard Gluyas, "Card regulation deals some bad hand," *The Australian*, June 23, 2005, available at <http://www.theaustralian.news.com.au/printpage/0,5942,15698934,00.html>.

**Figure 6. Traditional Product Lifecycle Curve**



increase. Further, banks can reduce merchant resistance—and both keep their own customers and attract their rivals—by seeking fee increases that pose the least risk of alienating their customers. The Australian banks decided that it wasn't smart to tamper with reward programs. Instead they divided the pain between increases in annual fees and increases in service fees, at least for now.

The final word: American banks should be innovative in how they respond to any reduction in interchange fees.

### The Red Corvette?

The problem faced by credit cards is hardly unique. It is well known that products, like people, have lifecycles.

Many products have the familiar S-shaped lifecycle shown in Figure 6.

Slow growth at first, then rapid growth and then slow growth in maturity. The S shape doesn't tell the

whole story though. While some products survive as mature products for decades, others eventually die.

Firms that produce mature products face several choices.

### Consolidation, Efficiency and Price Competition

One option for companies is to face the music and recognize that they are competing in a mature market and do the best they can. That means seeking cost efficiencies that will enable them to earn profits while undercutting their competitors. This is a common business strategy and results in industry consolidation as the more-efficient firms take market share from less-efficient firms. The personal computer manufacturing industry is a good example. There used to be hundreds of competing manufacturers making Intel-compatible computers. Over time, this industry has consolidated, and the current leaders, Dell and Lenovo, have focused on securing cost efficiencies. While PC manufacturers still seek to differentiate their products, they mainly compete on price and therefore must wring out cost savings to remain profitable.

However, companies must take care not to wring out the efficiencies that create value for customers. Customer service is one example of a business function that companies seem to target in order to reduce their costs, yet sometimes at the expense of customer satisfaction. The PC manufacturers, most recently Dell, are taking a hit on customer satisfaction ratings as they have unwisely traded-off customer service in an effort to reduce those costs. In a market where there are ready substitutes for the product or service, this is a risky strategy.

The U.S. automobile industry also learned this lesson. There were hundreds of automobile companies around the turn of the century. The number shrunk drastically by the beginning of World War II and eventually decreased to the Big Three in the 1980s.<sup>27</sup> The consolidation yielded tremendous efficiencies. It also led to a lack of innovation and customer service, which made the industry ripe for the picking by foreign competitors.

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This process of consolidation has been playing itself out in the credit card industry (and it played itself out years ago in acquiring). While there are still many national issuers, the industry has become more concentrated over time as the more

efficient players acquire portfolios from the smaller players. The acquisition of MBNA by Bank of America is just one recent example. As we noted above, the

share of the top ten issuers is currently at 83 percent, up from 34 percent in 1983.

Living in a mature market also means constantly trying to differentiate your product from the other guy's. Everyone does this, even though the results in some industries are laughable. There's more room for differentiating credit card products than there is in differentiating household bleach. But credit card issuers will be challenged to think big as they develop the next-generation credit card product.

### Horizontal Expansion

Firms with mature products can take their expertise in the mature market and leverage it into similar markets in order to add additional sources of profits and create value for their customers. American Express, as an example, moved from travelers' checks to charge cards in the late 1950s. IBM diversified itself away from just making and selling computer hardware—a decidedly mature business—into information technology consulting services in the late 1990s. Microsoft has been moving from operating systems for personal computers into operating systems for mobile phones and other handheld devices, not to mention video games and media.

To date, horizontal expansion has been the main area of growth for the card business overall. Debit cards were the hot product of the 1990s and various versions of stored value cards are the hot products of the 2000s. However, it doesn't appear that the most successful credit card-issuing banks have become the most successful debit card or stored value card issuers. Several of the large credit card issuers don't have a significant presence as debit card issuers. Moreover, there is little national debit card competition, since it is only local bank competition that results in customers getting a debit card.

Stored value cards are emerging as popular payment card product extensions. Customers like them because they are convenient. In the case of the payroll card

<sup>27</sup> See "AMC American Motors," at <http://www.american-motors.de/amcfreng.html> (visited August 2, 2005).

product for the unbanked, they provide a less-costly and more secure alternative to check cashing services.

THE NEW HEALTH SAVINGS ACCOUNT CARDS OFFER AN ALTERNATIVE TO EMPLOYERS WHO WISH TO REDUCE THE COST OF HEALTH CARE AT THE SAME TIME THAT THEY PROVIDE A SECURE AND RELIABLE WAY OF DELIVERING HEALTH CARE BENEFITS.

The new health savings account cards offer an alternative to employers who wish to reduce the cost of health care at the same time that they provide a secure and reliable way of delivering health care benefits.<sup>28</sup> Gift cards have become so popular that nearly every major retailer offers them.

Banks like all of these products because they offer at least one way to capture fees, and sometimes two. In the case of stored value cards, banks count on at least some portion of those who receive them never to redeem them for their full value. In the case of gift cards, recent statistics suggest that 10 percent of the value on gift cards goes unredeemed, creating “found” revenue opportunities for both the retailer and the bank.<sup>29</sup> (This isn’t a new trick: it has been the secret to the profitability of American Express travelers’ checks for more than a century now.)

## Vertical Expansion

Firms with mature products sometimes try to invent a drastic innovation that can reignite the growth of their business. Their strategy is to move to another S-curve with the next-generation product, as shown in Figure 7. This may involve adding a killer feature to an existing product that drives growth, or it could mean

grafting an entirely new product onto the existing product to stimulate the growth of the market.

Japan’s DoCoMo mobile phone system is a good example of a firm’s successful implementation of this strategy. In the late 1990s, DoCoMo, along with other mobile operators in Japan, recognized that they were approaching the plateau of the S-curve: most Japanese residents had mobile phones and were already using them to make calls. Soon, there would be no further growth opportunities since there were no more people who either needed to buy phones or wanted to make more calls. DoCoMo decided that the way to create a new S-curve was to graft on what essentially became a new product. They created i-mode—a Web portal that provided mobile phone users with a rich menu of content, including news, travel and entertainment. In addition

to having a mobile phone that only made calls, i-mode

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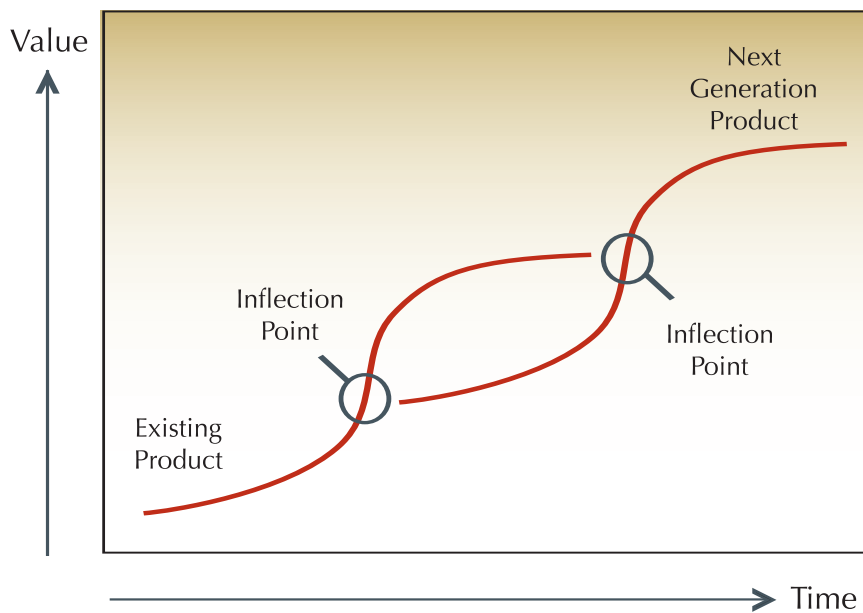
transformed the mobile phone into an entertainment and communications platform. i-mode now has hundreds of official content providers that are listed on its menu and hundreds more unofficial content providers. Customers embraced this innovation, which has in turn generated a significant and growing revenue stream for DoCoMo. The company now earns money from subscribers based on their use

of their mobile phone to view and download content. Interestingly, DoCoMo has added payment transaction functionality to i-mode phones, which enables subscribers to use their phones to pay for goods and services at thousands of participating merchants by simply waving the phone in front of a device. (This development is discussed further in a report later in the Series.)

28 Jennifer Kingston, “Health Care at the Swipe of a Card,” *New York Times*, July 16, 2005, sec. C, p. 5, col. 1.

29 See John Gould, “Prepaid Gift Cards: A Unique Business Model,” *PayingwithPlastic.org*, June 2005, available at <http://www.payingwithplastic.org/index.cfm?gesture=shapeTheDebatePrinter>.

**Figure 7: Moving from the Existing to the Next-Generation Product S-Curve**



Such drastic innovation is no doubt difficult for credit card issuers in the United States. The credit card platform is great for what it does. The issuers and the industry have a highly efficient computerized system for authorization and settlement. Risk management technologies have made incredible advances. But it is hard to see how significant new features could be added to the existing magnetic stripe product.

The Internet holds great possibilities for credit cards, just as it has for the mobile phone business, music companies, travel businesses and many others. Remarkably, although credit cards can be used for Internet transactions, they remain, as a product, quite disconnected from a technology that is slowly transforming many other industries.

Tapping into the Internet would require two related changes to the credit card platform. First, it would have to be connected relatively seamlessly to the Internet. Second, this would require a software platform—much as mobile phones and digital music devices do—that permits the development of creative new applications.

In other parts of the economy, these two technological developments have fueled the growth of many new industries and sparked life into old ones.

Of course, smart cards have held out this hope for many years, but the industry has not been able to develop a good enough business application—or a customer value proposition—to make the large-scale deployment of smart cards profitable. The credit card issuer that figures out how to tap into the power of the Internet and the creativity of software developers has the best chance of leaping to the next S-curve.

Teaming up with mobile carriers may be one way of jump-starting a smarter credit card business. Alternatively, as card issuers become bigger, one of them may

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find that it commands enough of the market—and can take on enough risk—that it could seed the market with smart cards. This would be an investment in generating the positive feedback effects that have created so many other significant industries in the last two decades.

There is a further way to tap into the Internet—or the software revolution—that doesn't require the large-scale deployment of smart cards. The credit card account could just provide access to features and functionality that resides on software on the servers deployed by the issuers, their processors or the card associations.

The challenge faced by credit cards (and other cards based on magnetic stripes) can be seen if we consider a similar debate that has taken place in the personal

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computer industry. With the emergence of the Internet, there was considerable discussion about having consumers use “thin clients”—barebones computers with little functionality—to interact with “thick servers”—heavy-duty computers on which most software applica-

tions would reside and do most of the work. Thus far, it seems that most users prefer personal computer devices—and this includes mobile phones—that provide a lot of features and a functionality that doesn't require a continual Internet connection. Magnetic stripe cards are somewhat like the dumb terminals—not just “thin clients,” but “anorexic clients”—that businesses had before the 1980s.

As a result, the current credit card industry has left open a flank to businesses that figure out a way to provide to consumers and merchants “smarter cards”

that release the power of software platforms and the Internet. The mobile phone operators pose a risk. They could bundle payment card functionality into their phones—which increasingly have powerful chips, memory and full-featured software platforms. The high penetration of mobile phones among the population would make it relatively easy to gain share on the cardholder side. The challenge comes when trying to get the merchant side onboard. But by teaming up with a payment system that already has significant merchant penetration, that problem could possibly be solved. As with most of the risks highlighted in the Inflection Point Series, this is a small risk that carries catastrophic results for many of the current players.

As DoCoMo has shown in Japan, it's very easy to add a smart credit card to an existing mobile phone. In fact, more than 4 million of its 51 million customers now carry handsets that contain an embedded credit card that can be used in over 20,000 retail outlets.<sup>30</sup>

Purchases are made by waving the phone in front of special scanners. It appears that DoCoMo is subsidizing the purchase of these scanners so that more merchants offer the service. DoCoMo understands how to ignite this two-sided market: there must be enough merchants and customers in order for this service to be attractive to either side. Even though the average transactions made using this device are still small, this payment innovation is changing the way that a once credit-adverse population now makes purchases.

IN THE END, IT'S THE  
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WHO CAN OFFER THE  
BEST CREDIT CARD  
SERVICES FOR THE  
LOWEST PRICES THAT  
WILL PREVAIL.

30 “Pay with a wave of your phone,” *The Economist*, July 23, 2005.

## Finding the Balance

Like anyone or anything that goes through a mid-life crisis, there is no single answer for the best way to survive it and prosper. Industries, like people, need to be realistic about their capabilities and prospects.

It may be that the credit card industry glides through its mature years—much like the long-distance telephone companies did—recognizing that their growth prospects are limited and that they will become a smaller and smaller portion of electronic payment methods. Successful credit card issuers in that environment will be those who, like Dell and Lenovo, find ways to offer quality products very efficiently. As that process shakes out, there will be the inevitable effort to differentiate your products from the other guy's. In the end, it's the handful of issuers who can offer the best credit card services for the lowest prices that will prevail.

Or it may be that some issuer figures out how to get a jump on to a new growth curve. That's what Verizon is trying to do with its entry into broadband, Internet telephony and video-on-demand. If that were to happen, it would be the issuer that figures out how to create an Internet-enabled smart card that provides

significant value-added services to consumers. And that issuer would take the spoils.

LOOKING AT THE LANDSCAPE OF POSSIBILITIES, THE MOBILE PHONE INDUSTRY OFFERS THE GREATEST THREAT TO CARD ISSUERS. MOBILE PHONES ARE ABOUT AS UBIQUITOUS AS CREDIT CARDS AND ARE BACKED BY WELL-CAPITALIZED OPERATORS THAT HAVE THEIR OWN EFFICIENT BILLING SYSTEMS AND BASE OF SUBSCRIBERS. IT'S NOT A STRETCH TO THINK THAT SMART PHONES COULD BECOME A SMART PHONE/CARD COMBO IN THE NOT TOO DISTANT FUTURE.

We also can't rule out the possibility that another industry disrupts with a drastic innovation that attracts credit card borrowers to its product. Looking at the landscape of possibilities, the mobile phone industry offers the greatest threat to card issuers. Mobile phones are about as ubiquitous as credit cards and are backed by well-capitalized operators that have their own efficient billing systems and base of subscribers.

It's not a stretch to think that smart phones could become a smart phone/card combo in the not too distant future.

The next report in the Inflection Point Series will evaluate this real and emerging threat in more detail.

## TAKE-AWAY POINTS

- The slowing growth in consumer borrowing, the rise in debit cards and the increasing use of home equity loans will make life increasingly difficult for credit cards.
- The credit card industry has done little to re-invent itself or its products in the last two decades.
- Credit card businesses that hope to survive will need to leverage their existing products into new markets, invent a dramatic innovation that creates new value in their existing market or reap efficiencies from scaling a commodity business.

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