

## Why Free Markets Can Sometimes Turn into “Peacock Markets”: The Evolution of Credit Cards

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**Abstract:** The credit card market has evolved into what is defined here as a “peacock market.” Analogous to extravagant and inefficient male peacock displays, a “peacock market” has developed to become dominated by elaborate signals that are no longer connected in a meaningful way to price, quality, or efficiency.

The focus of this analysis is on how the institutional framework of the credit card market has evolved. It is concluded that while recent and proposed regulations are beneficial, a peacock market-based strategy is already embedded in current institutional thinking and will be very difficult to reverse.

**Keywords:** credit cards, lock-in, peacock, regulation

**JEL Classification Codes:** D4, L1, D8, B52, K2

In the period leading up to the current financial crisis, consumer lending products existed in an environment of relatively weak regulation. Many of these products are commodity-like in nature (such as credit cards), yet opportunities exist for lenders to create illusory price differentiation. This can cause the evolution of what has been defined in Frank (2009b) as a “peacock market,” based on the evolutionary development of the bird as postulated by Darwin. Early male peacocks initially showed a modest tail feather display of relatively low cost that became self-perpetuating, and eventually grew to absurd proportions (from a survival standpoint). The peacock remains a classic example in evolutionary biology of how signal value can displace efficiency and be evolutionarily self-perpetuating despite intense competition. A “peacock market” similarly has evolved to become dominated by elaborate signals that are no longer connected in a meaningful way to price, quality, or efficiency. In a peacock market, price competition can fail to function properly despite heavy

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competition. The signals are designed to take maximum advantage of information shortages, limited attention, hard-wired behavioral biases, and socially-reinforced beliefs, such as what has been described in Gabaix and Laibson (2005).

Just as male peacocks are rewarded in the natural selection process for their signals, peacock markets will reward firms that structure products and services around powerful but distorted signals that tend to suggest prices are low or quality is high. Firms will then ensure they are compensated for the prominently signaled pricing through complex, deferred, and other pricing mechanisms generally underweighted by consumers.

As described in Frank (2009b), signs of a peacock market include:

- Signals that are no longer strongly correlated to their underlying intended purpose. Unlike in traditional signaling theory where an intended signal is accompanied by random distortion (such as described in Spence 2001), in a peacock market the distortion is intentional.
- Increasing disparity *over time* between the signaled information and the underlying factor it is intended to represent. A peacock market is an evolving market with signals becoming further and further removed from the information they are intended to signal.
- The signal comes to dominate and drive product design. Signals in peacock markets are no longer merely marketing to enhance a core product, but become the primary driver of demand and profitability. Therefore, products evolve to be designed around the signal. This is a clear sign of market inefficiency since innovation is no longer focused on making fundamentally better products.
- The evolution of “fragmentation.” Fragmentation occurs when firms intentionally break price or quality into smaller pieces for the purpose of creating signals. The traditional economic literature on signaling theory indicates the signal is generally used to improve information in an uncertain environment (Spence 2001). Fragmentation works in the opposite direction, where a segment of price (or quality) is intentionally broken off from the whole to create an artificial signal. Therefore, fragmentation is actually an information reduction strategy.
- “Shrouded” costs (or reductions in benefits) are prevalent. These shrouded attributes are used to compensate for losses due to extreme signals and to generally enhance profits.
- Product and market efficiency is reduced as a result of the above.

Frank (2009b) finds multiple examples of each of these signs in the credit cards market, suggesting that the industry is an “archetypical peacock market.”

### ***The Path Dependent Nature of Peacock Markets***

The evolution of peacock markets depends both on historical accident and the nature of the market. Markets for purchases that are less inherently transparent both in quality and in pricing are more likely to evolve into peacock markets. When the underlying desirable qualities of a product are not transparent and when pricing is inherently complex, cues are more easily converted to a signal that has little relation to true quality or price.

In the case of complex ongoing services, including many within the financial marketplace, important characteristics of quality are often difficult to measure, making selection among alternatives difficult. It is easy to add multidimensionality to pricing due to the complicated nature of the service. In addition, multiple contingencies often exist that require additional service or can be used as an excuse to change the cost of a service. The book *Gotcha Capitalism* (Sullivan 2007) focuses on hidden consumer pricing and tends to be dominated by multidimensional services received over an extended period of time such as cellular phone service, cable television, credit cards, and checking accounts.

Markets where true product or manufacturing cost innovation is difficult relative to the ease of price or other signal innovation also are more likely to become peacock markets. For example, manufactured technology products (such as digital cameras or computers) have considerable opportunity for innovation in technological features or manufacturing cost. Therefore, strategic focus will tend to concentrate on improvements in this area. However, credit card lending in large part is a loan product with underlying commodity-like features despite complex pricing strategies. Therefore strategic focus is more likely to concentrate on creating more perceived value or a lower perceived price on a product which offers the same underlying price and value as competitors, resulting in deceptive innovations.

Once an industry starts down this path, the tendency of a fledgling peacock market to be self-reinforcing occurs at a number of levels. Peacock markets can evolve in a self-perpetuating manner due to technology, behavioral factors, political institutions, consumer expectations, and habitual strategic perspectives of firms.

David (1985) and Arthur (1989) pioneered the concept of technological lock-in and path dependence. When technology is characterized by positive feedback or increasing returns there can be multiple equilibrium points or possible growth paths leading to distinct outcomes, with switching paths being extremely difficult. Self-reinforcing technology can be seen in the credit card market. One "innovation" in the credit card industry has been the ability to price different account balances separately. Credit cards originally started with a single price, but technology was developed requiring substantial information technology infrastructure that allowed issuers to charge a different annual percentage rate (APR) to purchases, balance transfers, and cash advances. This same infrastructure allowed issuers to change APRs routinely over time to allow teaser APRs. This same technology was later used to charge high penalty APRs and to arbitrarily change account terms. Piggy-backing off this technology was the ability to construct complex payment allocation strategies

designed specifically to maximize the APR in ways that have been shown to be incomprehensible to most consumers (Frank 2008b). Each deceptive pricing technological innovation gained economies of scale from the existence of technology infrastructure from prior innovations.

Another channel of self-reinforcement in peacock markets occurs because the ability to shroud new terms is a positive function of the complexity of terms already in existence. Behavioral economics suggests that people have limits on how many dimensions of price or quality they can consider at once when evaluating goods or services. If a credit card has a single APR, adding a single fee that must be clearly disclosed is likely to receive considerable consumer attention. However, with typical credit card terms currently containing dozens of different price points and often over 30 numbers even on the “simplified” summary page, adding a new hidden charge has much lower cost in terms of its impact on consumer demand simply because consumers are unlikely to attend to it.

Political institutions are also known to be an avenue of positive feedback that can lead to lock-in (North 1990). For example, in the case of credit cards, banks have invested considerable resources to influence regulators and lawmakers. In fact, Senator Durbin recently described banks as “the most powerful lobby on Capitol Hill. And they frankly own the place” (Weil 2009). Building that political influence is a valuable resource for banks, which increases their propensity to use questionable tactics that otherwise might receive regulatory attention.

Consumers have certain tacit expectations regarding the firms they interact with. In some interactions, consumers may feel they are on the same team with the firm, with both parties acting in a trustworthy manner that leads to mutual benefit. Firms in certain other fields earn a reputation for using “gotcha” tactics, and though an exchange takes place the relationship may be viewed as partially adversarial. The positive expectations of consumers are an important form of intangible capital that once damaged often does not return. This leads to another form of self-reinforcement in peacock markets. In markets with high consumer expectations, firms have an interest in preserving good relationships. However, in markets (like credit cards) where consumers already have low expectations of good firm behavior, firms may believe they have little to lose from poor behavior.

Market competition can also put pressure on individual firms to continue down the path toward peacock markets. For example, in a private conversation with the president of one major bank’s credit card division, he said they were reluctantly forced to adopt some hidden pricing tactics because not doing so made their prices appear higher than their competition.

Perhaps the most powerful form of positive feedback and path dependence for peacock markets and credit cards in particular is in the form of habit formation in management and strategy by firms. Institutional economists such as Veblen (1899), Commons (1934), and Hodgson (2004) have all argued that habits play a very important role in driving the economic behavior of decision-makers. Related to habits, North (1993) stated that part of the explanation for path dependence comes from the way that perceptions limit choice sets. This is likely to be very important in

driving firm behavior in peacock markets. When interviewed by Lowell Bergman of *Frontline* (2009), the former CEO of credit card issuer Provident described the industry mind-set this way: "You make the stupid laws, I'll comply, and I'll make money. . . . Tell me the rules, and then I'll outsmart you all." This is an entrenched habit in thinking and reflects a belief system regarding firm strategy that cannot be easily altered. Even when new laws or rules are enacted that alter the competitive environment, the perspective and habits of management are likely to persist.

### ***Peacock Markets and Credit Card Industry Evolution***

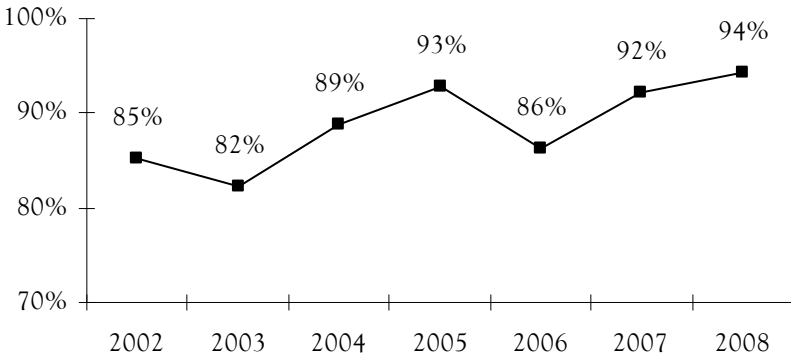
A Federal Reserve paper describes the evolution of the industry this way:

[T]he relatively straightforward pricing model of a single APR, an annual fee, and modest penalty fees has been replaced by a model with a complex set of APRs, new and increased fee structures, and sophisticated finance charge computation techniques. (Furletti 2003)

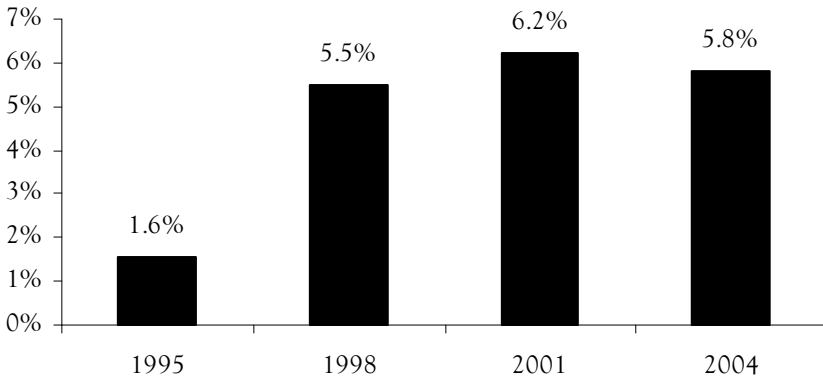
While it is not possible here to give the full historical perspective on credit cards, a few key dates stand out. A 1978 court ruling, *Marquette National Bank v. First Omaha Service Corp.*, allowed banks to use the credit card interest rate regulations in their home state rather than complying with the state regulations at the consumer's location. This began a "race to the bottom," with issuers locating their national business in the states with the least regulation. The ruling was later expanded to include fees, making issuers immune in most respects to state authority. Since that time, the credit card market has developed into a full "peacock market," with new deceptive tactics invented and proliferating over time. In May 2009, significant reform occurred at the Federal level with passage of the Credit Card Accountability, Responsibility and Disclosure (CARD) Act. The Federal Reserve also announced important changes to their Unfair and Deceptive Acts or Practices (UDAP) in December 2008. We will now briefly examine trends before and after industry reform.

As a peacock market would imply, there is strong evidence of a growing disparity between the signal price and other dimensions of credit card pricing. The number and magnitude of penalty and miscellaneous service fees have increased over time. Frank (2008a) studied the use of penalty fees in the credit card industry. Their use was shown to be increasing over time both in its appearance in the product contract (Figure 1), and in terms of how many people were at a penalty rate (Figure 2).

The study also found a growing disparity between the penalty rate and the regular purchase APR, referred to as "penalty shock" (see Figure 3). This suggests growing fragmentation of price signals. With fragmentation, a uniform price or quality is broken into smaller pieces for the purpose of creating signals. Unlike the traditional literature on signaling where information is naturally fragmented and the signal is used to improve information (Spence 2001), in a peacock market fragmentation is an information reduction strategy. A firm manipulates a product

**Figure 1. Percent of Credit Card Solicitations with a Penalty Rate**

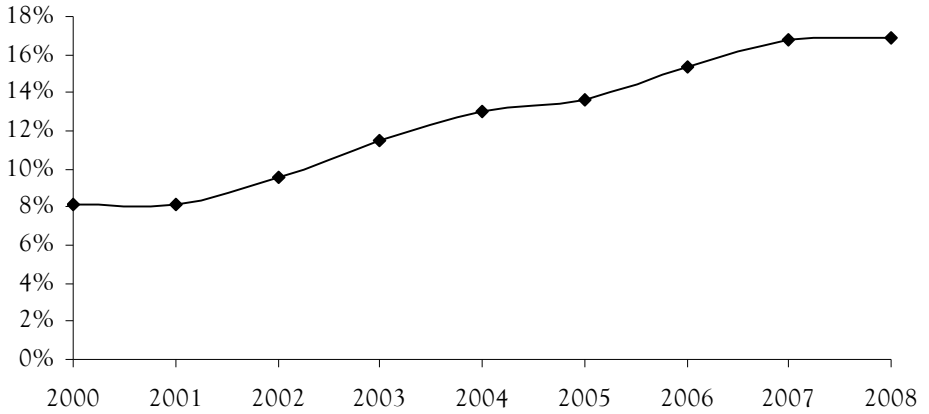
Source: Mintel Comperemedia.

**Figure 2. SCF-Reported Credit Card Balances at Penalty Rates**

Source: Federal Reserve Survey of Consumer Finances

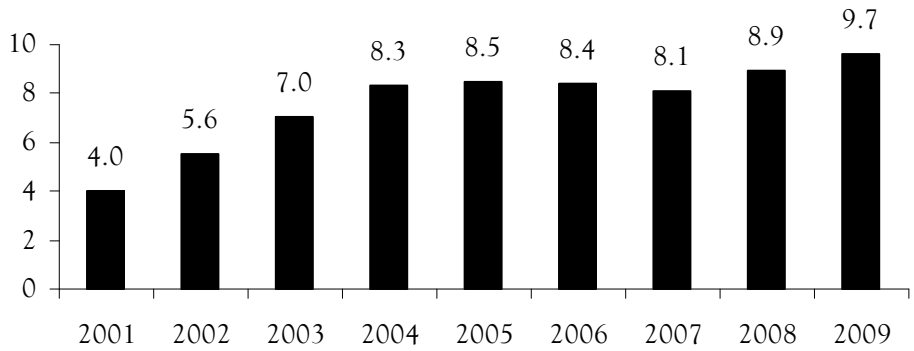
Note: Balances at penalty rate for this table are taken as aggregated from dataset rather than taking bias into account.

Figure 3. Penalty Shock (Penalty APR - Purchase APR in solicitations)



Source: Comperemedia data and CRL calculations.

Figure 4. Cash-Purchase APR Difference



Source: Mintel Comperemedia and CRL estimates.

design to shroud underlying pricing or quality while prominently presenting the factors optimized to draw in consumers.

While the most highly-weighted dimension of APR is probably the teaser rate, the regular purchase rate likely receives the second most weight. Cash advance APRs and other conditional APRs probably receive little attention given the number of fees and other terms consumers must simultaneously digest. Previous research backs this up, finding that half of people, even when they are cash advance users, do not know that they are charged a different rate for these balances (Frank 2008b). Consistent with a peacock market, there has been a growing disparity over time between the purchase APR and the cash advance APR (as shown in Figure 4 from Frank 2009b).

Frank (2009a) focuses on issuer activity around the time of the December 2008 Federal Reserve rules and implementation of the May 2009 Credit CARD Act. Both actions were intended to create a credit card pricing environment that was more transparent and no longer dominated by deceptive tactics. However, while the laws limit some of the most powerful tactics historically used by issuers, the study finds that issuers have in fact attempted to dodge the intended purposes of credit card industry reform. Specifically, issuers have increased their use of hidden pricing techniques not covered by the Act. These include methods of manipulating finance charges and variable APRs, deceptive penalty fee systems, and the increased use of other fees.

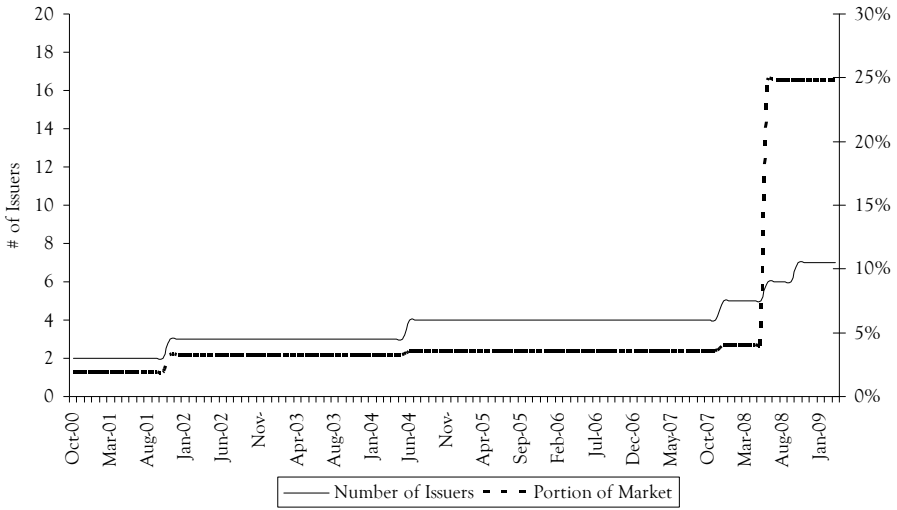
One tactic involves defining a variable rate index as the highest rate over a period of time (such as 3 months) rather than the rate on a specific day of the month. This hidden tactic was found to increase APRs by 0.3 percentage points on average. Furthermore, as Figure 5 shows, there has been growth in use of the tactic, especially recently.

An additional finance charge manipulation analyzed involves the use of minimum finance charges. As shown in Figure 6, this tactic has increased in prevalence.

Frank (2009a) also argues that tiered late fees, where the late fee differs based on balance categories, is also primarily designed to deceive. The study finds that close to 90% of people pay the highest late fee, while the other tiers are split among the remaining tenth of consumers. Therefore, the tiered structure does little to create proportional fees. Instead it creates fee complexity and creates an environment where consumers may tend to focus on the first fee they see which has gone down over time while the average fee has instead gone up (see Figure 7). This increased average fee has primarily been caused by “tier compression” where rather than raising the explicit fee by much, the lower fee categories have become compressed over time such that the highest category applies to an increasing portion of the population.

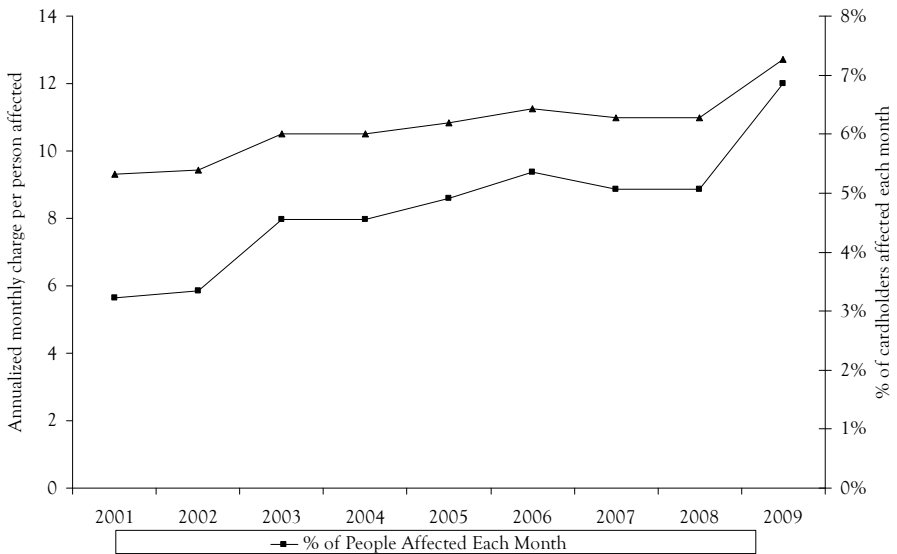


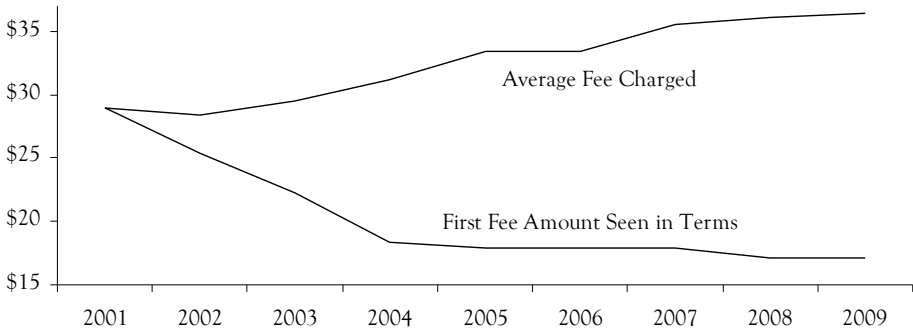
Figure 5. Growth in Products Defining Index as Highest Rate over 90 Days



Source: Mintel Comperemedia and CRL estimates.

Figure 6. Effect of Minimum Finance Charges



**Figure 7. Headline vs. Average Late Fee Amount (Average of Top 8 Issuers)**

Source: Mintel Compermedia, Survey of Consumer Finances, Center for Responsible Lending Calculations.

### **Conclusions**

All of these techniques demonstrate the “lock-in” effect that was previously discussed. While the law may have changed, the philosophy of management at many top issuers apparently has not. Regulation may have improved the marketplace, but it has not stopped the credit card industry from being a “peacock market.” Firms continue to heavily use very low teaser rates, seeking to focus consumer attention on elaborate price signals while at the same time adding new tactics to insure these signals remain fragmented from the true underlying price.

An important question is what the appropriate regulatory response should be to this type of dysfunctional market. Changes in law can help, but market tactics typically evolve more quickly than the legal institutions can respond with specific laws. A more successful response long-term would be a larger scale institutional shift on the part of government. Specifically, a strong regulator that can quickly respond to market changes may be the best solution. Such a regulatory body is currently being considered in Congress for consumer financial services. However, it is vital that such a regulator remains strong, active, and independent of the industry it regulates. While the industry mind-set likely would not change right away, over time it would shift if deceptive strategies keep failing to yield profits.

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