Chapter 8
Overconfidence in the Credit Card Market

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ABSTRACT

High credit card debt default has been symptomatic for the U.S. and other countries in the last decades. Different explanations for this situation exist in the literature. One explanation is overconfidence, which has become a key concept in behavioural economics for explaining anomalies in financial markets such as excessive trading volume. There is also the idea that overconfidence is to blame for high credit card debt. In this paper, an agent-based model is presented that examines the effects of overconfidence on credit card usage. Overconfidence is used here to explain why people who never intend to borrow on their credit card(s) do so anyway. The model contains consumption, two means of payment (credit card and cash), and a distortion to agents' income expectations via overconfidence. It was found that overconfidence leads to more "accidental" borrowing and higher interest rates.

INTRODUCTION

In 2011, Americans had approximately $793.1 billion in credit card debt, equating to over $15,799 in credit card debt per card holder (Census, 2011).With average annual interest rates of 12.83%, varying between 4.25% and 22.99% (Consumer Action, 2010/2011), having the wrong credit card can be costly, especially if one borrows on it. It is therefore expected that consumers switch to credit card issuers offering lower rates, and by doing so "force" credit card issuers to compete for new customers by lowering interest rates.

A lack of banks and non-banks issuing credit cards in the U.S. cannot be the reason. Around 88% of credit card balances were held by the top 10 issuers, but in total there are over 6,000 potential issuers (GAO, 2009), even if some of these companies only operate in a small local area, there would still be enough to choose from, particularly since all credit card issuers offer an identical product. Several

DOI: 10.4018/978-1-4666-8745-5.ch008

authors (see for example Ausubel, 1991; Calem & Mester, 1995; or Stango, 2003) consider these – and the low entry barriers for new entrants in the credit card market – as evidence for a market with perfect competition, where issuers should, as economic theory suggests, try to attract new customers by lowering interest rates and therefore not be able to earn an economic profit in the long-run.

Empirical evidence proves this wrong: large issuers of credit cards have been, besides a steep decline during the financial crisis, among the most profitable banking institutions (GAO, 2009). Looking at the development of credit card interest rates compared to other interest rates in the last decades (Figure 1), credit card interest rates remained sticky and there is no sign of competing for new customers through competitive interest rates. Ausubel (1991) conjectured three reasons for the non-existing competition in the credit card market: consumers face switch and search costs when looking for and signing up with a different issuer, and credit card issuers face an adverse selection problem if they were to reduce their interest rates unilaterally.

The adverse selection problem can be described as follows: There are both customers who obtain a credit card solely for convenience usage and there are those who always intended to borrow on their credit card, the so-called "revolvers". Out of the first group of customers, there are some who accidental borrow on their credit card ("unintended borrowers"); this is the preferred customer group for credit card issuers, since they are more likely to repay their debt and since borrowing on their credit cards was not intended, they do not shop around for a credit card with low interest rates. Given these potential customers, banks will hesitate to compete by lowering interest rates, since this would mainly attract bad customers. Whereas, through improving credit card conditions like a low annual fee, enticements and bonus programs, more good customers are attracted (Ausubel, 1991). This is true in real-life: empirical studies suggest that bonus and enticement programs are indeed a crucial point for customers' credit card choice (Consumer Action, 2010/2011). Credit card companies also profit by charging the merchant commission and intercharge fees for accepting a credit card payment, leading true convenient users to accrue profit to the credit card company.

Figure 1. Development of various U.S. interest rates over time.