ANNALS of the ORADEA UNIVERSITY.
Fascicle of Management and Technological Engineering, Volume VII (XVII), 2008

RISK MANAGEMENT – RISK SCORING IN CONSUMER CREDIT MARKET

Alexandru Constăngioară,
University Of Oradea
Faculty of Economic Studies
sandu_oradea@yahoo.com

Key words: risks management, propensity scorecard, business application.

Abstract: Risk management is relatively unexplored in Romania. Although Romanian specialists dwell on theoretical most often issues with practical relevance are neglected. This paper dwells on one of the most important issue of risks management namely risks scoring.

1. Introduction.

After 1980's the Consumer credit market has known a significant increase both in the value of outstanding amount and in the value of consumer credit relative to GDP and households revenues (Siddiqui, 2006). Empirical studies show that the development of market has led to over- indebtedness and consumer bankruptcy phenomena. Increasing competition has fueled aggressive marketing techniques which have resulted in a deeper penetration of the customers' pool, and especially of low income customers, that usually carry a higher debt burden, pay more interest and suffer more defaults. (Niu 2004) Under these circumstances, the risk management of consumer lending has become critical to protect the interest of both lenders and consumers.

There are two major categories of risk in the market: systemic risk and credit risk. Effective regulations and laws provide a safeguard for the industry from shocks that might pose a systemic risk. Since the early work of Durant (1941) there has been considerable interest in using statistical tools and risk management strategies to cope with credit risk. Hand and Henley (1997) offer a summary of the statistical methods used in the industry to predict credit risk.

2. Evolution of the market and products offering.

Consumer credit outstandings amounted to around €900 BN at the end of 2003 in EU 25. In comparison, the US market is larger, amounting at that time to $1.8 TN or around $6000 per capita. In Europe data show strong concentration. The United Kingdom, Germany and France are Europe's three biggest consumer credit markets (Mercer Oliver 2005 Report). The market penetration is better measured by consumer outstanding relative to GDP or relative to household income. Over the period 1996-2000, Weill (2004) argues that there was a quasi-general increase in both ratios for EU25 countries. Same author summarizes the factors which contribute to the differences in the development of consumer credit across EU25. Thus he points to demand side factors (development of financial markets, regulatory framework and judicial systems) and to supply side effects (cultural factors which might drive the attitude towards consumer credit). Mercer Oliver Wyman 2005 Report (Mercer Report) also shows that regulatory factors as responsible for the relatively low development of the market in countries like Switzerland for example, which has similar market penetration as Hungary, Poland or Czech Republic (~2% of GDP). Both Mercer Report and the White Paper point to the differences between EU 15 countries and the new entrants. Although new entrants have historically little consumer credit and les purchasing power, their consumer credit markets have high growth potential.

There are three main activities within consumer credit financing. Vehicle financing is one important activity within consumer credit, representing between one-fifth and two-thirds of consumer credit outstandings. Point-of-sale financing, the second important segment of consumer credit market offers credit facilities at a point of sale. It covers long term goods and also services as travel, health, entertainment, accounting for one fifth of the market by the same report. Direct financing segment has two main characteristic: the customer establish a direct relationship with the financing entity and the loan is not linked to a specific purchase. This segment is more developed in Germany and Netherlands and less developed in Italy, France and Spain (Mercer Report).

There are two main tendencies in the market, as anticipated by basic business logic. One of them is specialization. Some players have specialized in different value-adding services, such as risk management, call centers, IT platforms or business prospecting. The other tendency is concentration in order to achieve economies of scale. Going pan-European is a trend that already can be discerned by looking at the number of players that are operating across Europe.

A major concern regarding the consumer credit market is the increasing over-indebtedness. Household indebtedness has received much attention in recent empirical studies. The White paper on the reform of UK consumer credit market (White paper) uses three criteria to define over-indebtedness: 25% of the household income is spent on repaying consumer credits, 50% is spent on consumer credit and mortgages and the household has four or more credit commitments. Either one of them defines over-indebtedness.

Empirical studies show an increase in the households' indebtedness. For the debtors most relevant is the extent of the impact of over-indebtedness on households' ability to service their debt. Rinaldi and Sanchis (2006) document the households' ability to service debt in spite of the development of new financial products and of deeper penetration of the market. However Bridges and Disney (2003), using the Survey of Low Income Families in UK have found evidence of increasing debt and arrears among the low income families in UK.

To address the over-indebtedness phenomenon regulation is essential. Thus regulation ensures a fair, safe and competitive market environment serving al the stakeholders. Its regulatory environment is rapidly catching with the US both at national and at EU level. In several central and northern European countries judicial debt adjustment lows are already in place whereas the Treaty of Amsterdam has already addressed the problem of cooperation in this field. However aspects such as consumer protection, debt collection and debt enforcement still have to be addressed. However both Merger Report and the White Paper agree that reform of the European Consumer Credit Market is still needed to promote "an open and fair consumer credit market where consumers can make fully informed decisions and businesses can compete aggressively on a fair and even basis" (White Paper).

3. Types of Scorecards.

There are three types of credit scorecards. Subjective scoring is based mainly on intuition. However Schreiner (2003) shows that it uses qualitative judgment and even quantitative guidelines to evaluate the creditworthiness of applicants. The main advantage of subjective scoring is convenience; in their case there is no need to build a credit history database. Of course, this comes at the expense of inadequate predictive accuracy and subjective judgment.

Expert systems provide the second category of scorecards. They are derived from the experience of managers and loan officers. While subjective scorecards use mainly implicit judgment, expert systems are based on explicit rules, statistics or mathematics. The simplest expert system is a Decisional tree those splits come from experience and not from statistical analysis of the data. However statistical analysis can be used to control the growth of the Tree.

The third type of scoring uses statistical analysis to predict the credit risk explicitly as a probability. Once the risk is determined, the credit committee selects applicants using existing policies. Most used is the four-class scoring policy. It consists in identifying four classes of risks:" super-good" class, "normal" risk class, "border-line", and "super-bad" risk class (Schreiner, 2003).

Credit scores indicate the trade-off between the risks and the penetration of the market, measured by depth, breadth and length. By making the process automatic (i.e. rejecting automatically super-bad applicants) scoring can save time which can be used to increase the market penetration. The credit officer will have more time to dedicate to low risk applications which will result in reaching more customers and more segments. Since the risk is better evaluated the scoring will increase the companies' efficiency. Schreiner (2003), analyzing the benefits of scoring concludes that it improves the efficiency of lenders. But he also identifies five type of costs associated with scoring: data accumulation, setup, operational, policy-induced and process costs. They are related to building and maintaining a credit history database needed to assess the credit risk. Most micro lenders simply do not have the data needed for this purpose. Then scoring takes time to build scorecards, to implement them and not ultimately to accommodate the personnel with them, due to the novelty of statistical scorecards (Schreiner, 2003).

One important aspect underlined by existing literature is the fact that different types of scoring should complement each other. Although the net benefits of statistical scoring might be considerable, not all the characteristics can be quantifies. All the literature on credit risk management shows that qualitative characteristics of the borrower, especially its willingness to pay of prime importance in assessing his credit risk. This might be one of the reasons why existing studies, although point to the increasing indebtedness of consumers and its potential impact on their ability to service their loans (Rinaldi and Sanchis, 2006), find similarities between low and high income borrowers in terms of the partial effect of the variable associated with the quality of the credit on the dependent variable (Sexton, 1977).

References.

1. Andreeva G., Ansell J., Crook J., 2007. "*Credit Scoring in the Context of the European Integration: Assessing the Performance of the Generic Models*", Credit Scoring & Credit Control 10th Conference, The University of Edinburgh Management School;
2. Avery Robert, Calem Paul, Canner Glenn, 2004. "*Consumer credit scoring: do situational circumstances matter*?" BIS Working paper no. 146;
3. Benson George, 1967. "Risk *on Consumer Finance Company Personal Loans*", The Journal Of Finance;
4. Carling K., Jacobson T., Roszbach K., 1998. "Duration of consumer loans and bank lending policy: Dormancy versus default risk", Working Paper Series for Economics and Finance No. 280;
5. Collard Sharon, 2006. "Consumer Financial Capability: Empowering European Consumers", European Credit Research Institute, Brussels;