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Underwriting Cycles and Crises*

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Abstract. The cyclicality of underwriting profits for the property-liability insurance industry has been extensively researched. The underwriting cycle refers to a repeating series of phases that insurance markets go through. The sequence of hard and soft markets may be observed in prices, profitability, and supply (capacity) for insurance. In this study we try to describe in detail phases of insurance cycles and its characteristics. We put a special emphasis into crises (hard markets). We also present some historical data about crises, its causes and consequence on the example of the US insurance market.
Keywords: underwriting cycles; insurance industry; crises.

Андеррайтинговые циклы и кризисы

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Аннотация. В статье исследуется цикличность прибыли андеррайтинга в страховании имущества и ответственности. Цикл андеррайтинга соотносится фазами страховых рынков. Чередование жестких и мягких фаз рынка может быть рассмотрена с точки зрения цен, рентабельности и емкости страхования. В данном исследовании подробно описаны этапы страховых циклов и его характеристик. Особый акцент сделан на кризисах (жестких рынках). Также приведены исторические данные о кризисах, их причинах и последствиях на примере страхового рынка США.
Ключевые слова: циклы андеррайтинга; индустрия страхования; кризисы.

1. Introduction

The underwriting cycle refers to a repeating series of phases that insurance markets go through [1, 2]. The sequence of “hard” and “soft” markets may be observed in prices, profitability, and supply (capacity) for insurance. In a “hard” market, the supply of insurance coverage shrinks amid high and rising insurance prices and profitability. In a “soft” market, the availability of insurance coverage expands as prices and profits tumble. The underwriting cycle does not necessarily synchronize with the general business cycle. In fact it is much more regular than the general business cycle.

Many studies have shown that an underwriting cycle exists in the United States insurance market [3–7], in other developed countries [4, 7, 8], as well as in different lines of insurance [3, 4, 7, 8]. The average cycle length is about six to seven years [3, 4], but sometimes reaches even 18 years [7].

As we mentioned before the underwriting cycle is defined as alternating periods of hard markets in

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which insurance prices and insurer profitability are high and soft markets with low insurance prices and low insurer profitability. However, sometimes (especially in older literature) description of the cycle includes four phases. The first phase is characterized by a period of low profitability (recession). In that phase premiums begin to increase and capacity starts to shrink. This is followed by a sudden change to rapidly increasing profitability (crisis) — rates are very high and capacity is restricted because many insurers have left the market. In the third stage (revival), profitability remains high but is no longer increasing. Premiums begin to decrease and capacity increases. Profitability gradually declines during the last stage (boom). The industry returns to a period of low profitability as there is too much capacity and rates are quite low [9].

Many causes for the underwriting cycle have been posited in the literature. One school of thought suggests that the causes are irrational behavior such as competitor-driven pricing and naive rate-making processes. Another school of thought, that is related to the rational expectations/institutional intervention hypothesis, does not agree that insurance markets and insurers are irrational. Instead, it suggests that the underwriting cycle is created by external factors and market characteristics that are outside the control of insurers. These factors include externalities affecting data collection, the regulatory approval process, policy renewal and accounting lags, interest rates changes, stock market inefficiencies, and the general business cycle [8].

Numerous studies and debates relating to the two schools of thought exist. Extant studies discuss specific reasons/explanations for the underwriting cycle such as: forecasting errors [3], insurer moral hazard [2], arbitrage theory [4], risky debt [10], interest rate variation [11], capacity constraints [1, 9, 12] and underwriters' sentiment [13]. Nevertheless, there is no integrated theory concerning the causes of the underwriting cycle.

The goal of this paper is to describe in detail phases of underwriting cycles with its characteristics. We put a special emphasis into crises by presenting some historical data, its causes and consequence on the example of the US insurance market.

2. Cycle description

It is obvious we cannot indicate the starting point of a cycle, however, usually we begin description from its bottom (*fig. 1*).

An impulse commencing this area should be seen in the earlier shock (eg. natural disaster or a crisis in some kind of insurance), resulting in the payment of above-average claims. Therefore, initially we can talk about the collapse of the insurance market. The rates are soaring, and the capacity decreases due to withdrawals [14]. For the same risk is now priced higher than in previous years, there are new exclusions.

This period can also be a consequence of the competitive war and mistakes made by market participants in the previous phase. It comes to light, the premium rates were wrong calculated (too low). In the earlier period of prosperity it appeared new companies (not experienced, without know-how and using incomplete statistical data) that wanted to face competition from experienced underwriters. Therefore they had to offer insurance coverage at low prices. This caused the falling of prices, as everyone fought for the clients and have to tempt policyholders competitive conditions [16, 17].

Thus, in the bottom of a cycle profitability is very low (the lowest), there is an underwriting loss, and prices start to rise. Therefore, the capacity decreases as a result of withdrawals, insolvencies and bankruptcies, which primarily relates to these new players. Also we observe mergers and acquisitions [18].

The process is continued during the hard market. It is not possible to raise rates to all customers from day to day, because you have to wait for the expiry of the current contracts. In extreme cases, it may be periods of one year or even longer, since sometimes more complex contracts are concluded for a period exceeding 12 months (during the soft market — both customers and insurance companies are interested in such solutions).

The market situation is becoming more serious. It should be emphasized the importance of this phase, both the macro and micro-economic point of view.

The crisis on the insurance market has an impact on the general economy, as it causes some restrictions in the access to insurance coverage for potential policyholders, who cannot meet their needs [19]. This is due to the fact that insurers not only raise rates, but also uses hard underwriting (tightened conditions of insurance protection) — for both new customers and those who renew their policies.

Negotiating position of those companies that survived the downturn, is so strong that they can reject number of applicants, fearing the payment of new big claims. As competition and the supply is

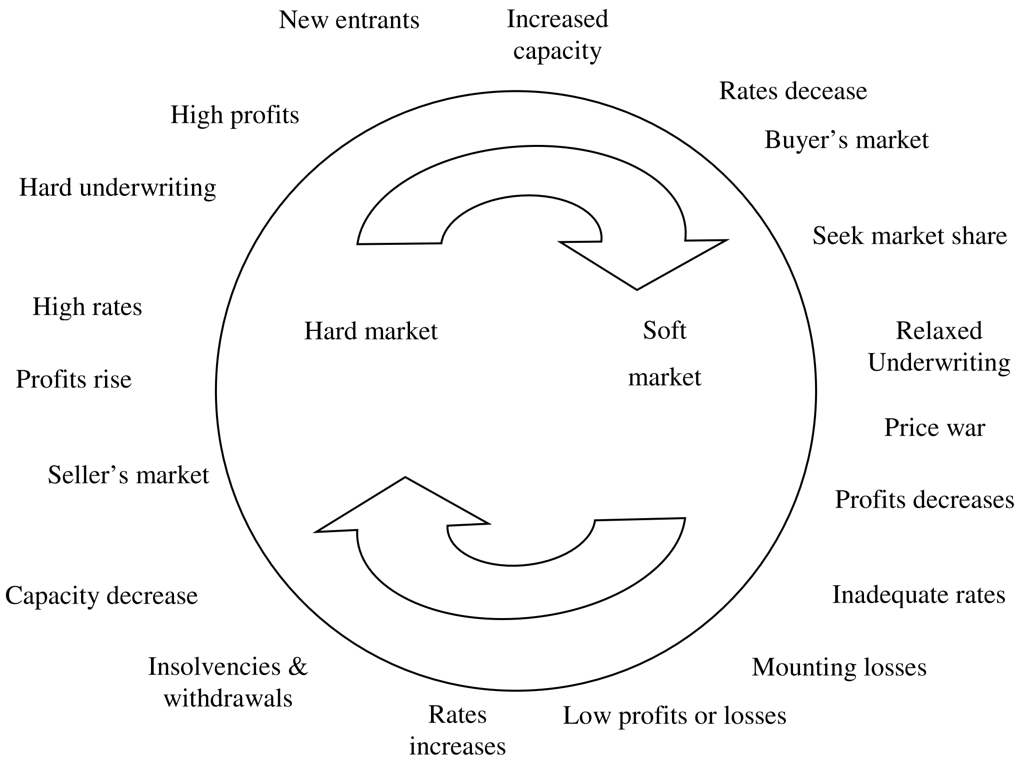

Fig. 1. **The underwriting cycle [15, p. 41]**

limited customers are sometimes unprotected and they must use other risk management techniques. Thus, at the beginning of the period the contributions may be reduced, but later, because of high rates premiums begin to rise [16]. Such a state of market conditions is good for insurers. This increase of rates takes into account not only the current level of risk, but also compensate for losses from previous periods in which they charged too low premiums. Therefore the policyholders (if they are able to get insurance coverage) have to participate in the losses of insurance companies from earlier times. Hence, it is not surprising that the loss ratio decreases rapidly and profitability increases.

In the later phase of the hard market rates stabilize at a high level and capacity remains low — still the demand for insurance services exceeds supply; not all customers are able to find satisfactory insurance protection.

The end of the hard market is the best time for insurance companies. You can see the effects of the earlier restrictions. On the one hand, customers have become accustomed to high insurance prices, so the dynamics of written premium is relatively high. On the other hand, due to tightened underwriting and new exclusions claims decrease. Premiums and profitability stabilize at a high level, but they are not growing [9].

However, these good times for the insurance companies do not last long. Because of the favorable situation on the insurance market is, we can observe new players attracted by the high profitability of the sector. However, sometimes they are not experienced, but they offer similar services to the rest of the companies. Therefore, the capacity increases and insurance cover is easier to get. In addition insurers accept a higher sum insured. A soft market begins. There are no longer problems with finding adequate insurance cover. This leads to a relative equilibrium between the supply and the demand. Rates begin to decline [20]. Customers are more interested in buying insurance, because it is cheaper and has a wider scope of cover.

Shareholders, however, expect a return on investment. Therefore, insurers begin to seek for market share. They think that by increasing written premiums they can gain higher profits [16]. They often believe that the profit rate remains unchanged — but unfortunately it decreases. This period can be called a war competition. Because of new insurers, customers are able to insure quite easily and relatively cheaply — even if they want to cover "bad" risk and / or they have suffered several losses. Capacity remains high, but it is difficult to attract new customers. Rates continue to fall, reaching a very low level — this period is known as the price war.

Despite the efforts inserted by the companies to the growth of the number of concluded insurance contracts (which generates additional high acquisition costs), the dynamics of written premium is very low or even declines (the increasing number of new contracts does not compensate the decrease in rates). In addition, in connection with the slowly growing amounts of claims paid, loss ratio is growing, which also means a rapid decline in the profitability [9]. At the end, it turns out that the rates were underestimated. Finally claims increases.

3. Existence of cycles and crises on the US insurance market

Figures 2–4 show some examples of fluctuations in basic market indices in the US insurance market as well as some events that could causes these variations. A cycle is apparent in all of these figures but is most apparent in term of the movement of the combine ratio (fig. 2–3). These figures reflect the accounting cycle as well as "real" changes in price and the amount of coverage provided. Measuring from trough to trough, 12 distinct cycles in the combined ratio have been observed since 1926: 1926–1932; 1932–1940; 1940–1946; 1946–1951; 1951–1957; 1957–1964; 1964–1969; 1969–1975; 1975–1984; 1984–1992; 1992–2001; 2001–2009. The US insurance market is currently in the midst of an 13th cycle [15]. The average cycle length is from about 6–7 years up to 9–10 years (in the recent years) (*fig. 2*).

Figures 3 and 4 show changes in ROE (return on equity) and premium growth on the US insurance market and indicate some very important events. Usually these events (mainly natural disasters) had a great impact on fluctuations in ROE and premium growth — they led to crises on US insurance market. In this context we should mention events such as: tort liability crisis (1985–1986), Hurricane Andrew (1992), earthquake in Northridge (1994), September 11 events (terrorist attacks, 2001), Hurricane Katrina (2005), financial crises (2008).

4. Closing remarks

The phenomenon of the underwriting cycle is related to a succession crises, which touched the market, and the periods of a return to relative stability. Contrary to appearances, these periods of downturn, despite initial problems, usually transformed in times of prosperity for insurance companies, which did survive the most difficult times. Then their role grew

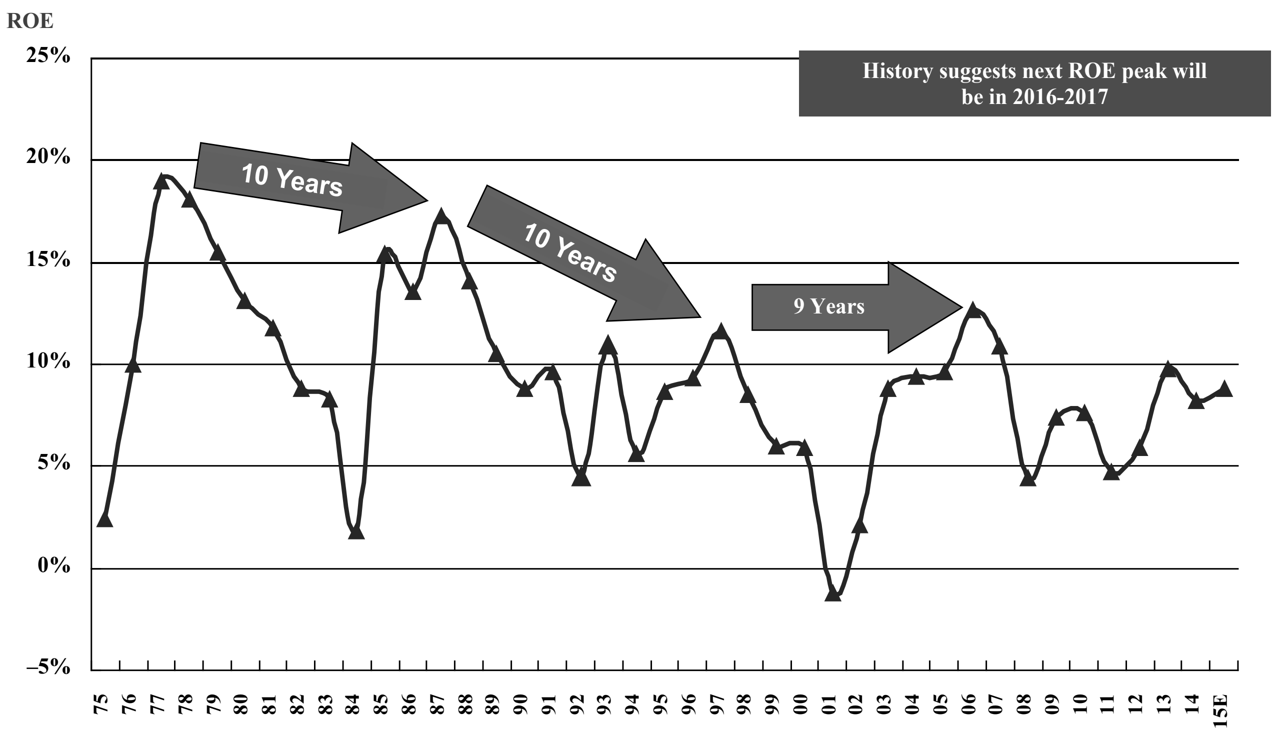

Fig. 2. **Profitability Peaks & Troughs in the P/C Insurance Industry**

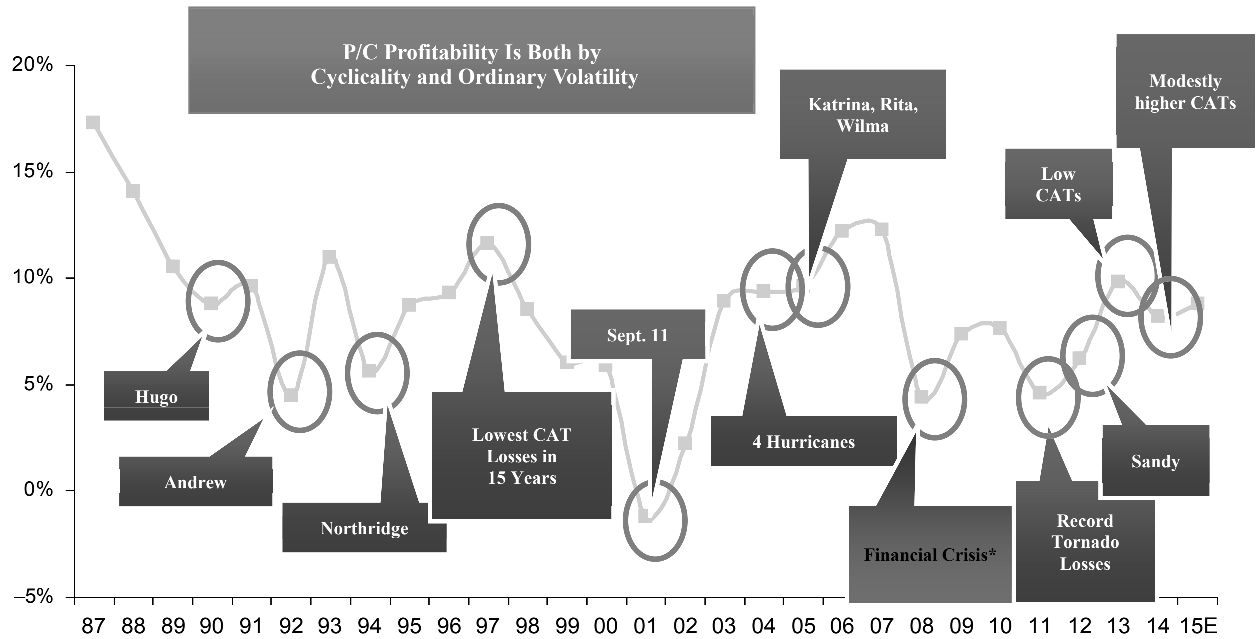

Fig. 3. **ROE: Property/Casualty Insurance by Major Event**

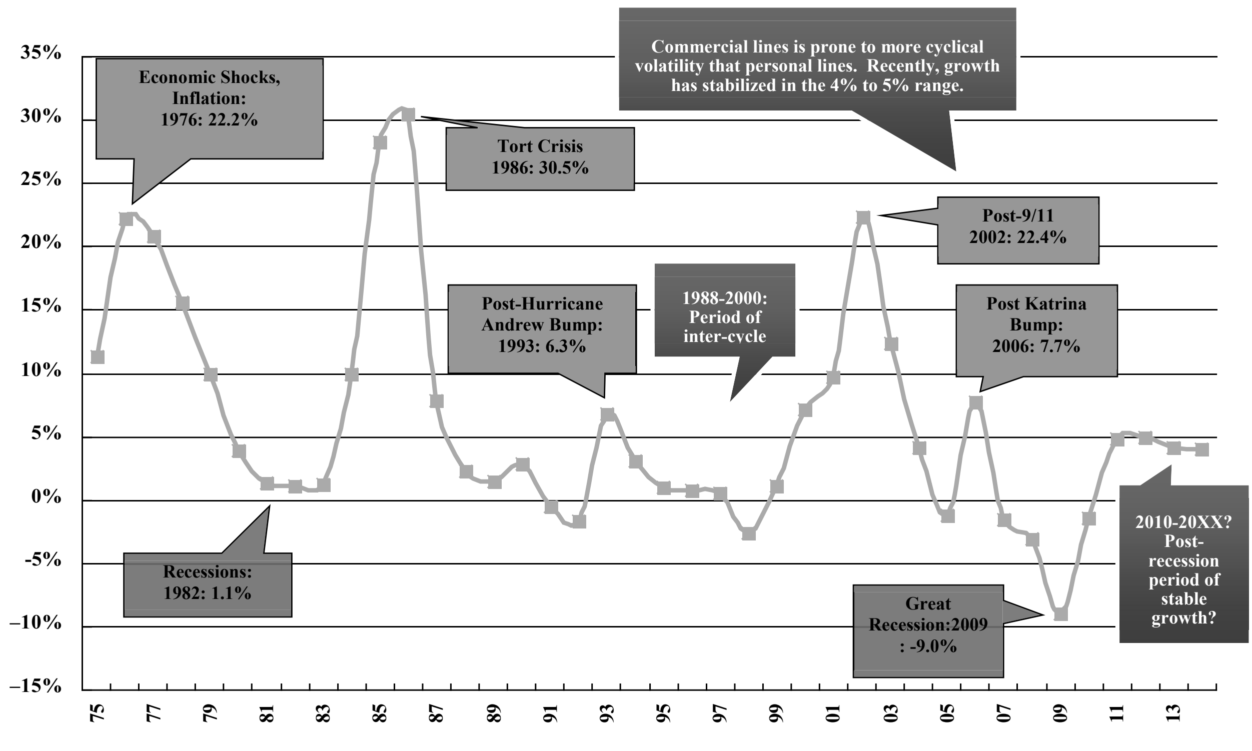

Fig. 4. **The US Commercial Lines Premium Growth**

in market, increased the possibility of raising prices and tightening conditions, and customers, who do not have a better alternative, had to adapt to the standards imposed on them.

One might expect that the high-price, restricted-supply phase would be short lived due to competition between insurers for profitable new business. In fact, this phase is persistent enough that it can be observed in annual data. Only when the market enters the new players — encouraged by the good results of other participants — the situation is returning to equilibrium. Then, due to growing competition, usually it occurs rates reductions, which admittedly are favorable for the demand side, but exceeding a certain level inevitably leads to the next disaster. There are always some insurers that are seeing for market share (written premiums) and because of that will be ready for lowering rates. After a time, it appears that the losses increases, the technical reserves are underestimated and we return to the starting point.

Accordingly, the research on underwriting cycles are needed. Of course, a number of possible explanations for this phenomenon have been suggested, but the mechanism of cyclical fluctuations at least partly remains unchanged. Despite of many years of observation, from time to time, there are new facts which show us, as many issues in this area should be still explained.

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