"Interpretations of the underwriting cycle abound. The majority presume that someone is erring: rate making methods are naive, underwriters are simplistic, regulation is rigid, or investment managers are deceived. Such explanations search for a cause where it is not to be found. Insurers are no less rational than other firms are. They exist in a highly competitive market, where the foolish firm does not long survive."  

**INTRODUCTION**

Like all industries, the property/casualty insurance industry experiences cycles of expansion and contraction over time. In the normal economy of growth or recession, these are often called business cycles. Unlike other industries, the insurance industry has historically experienced cycles that are typically independent of the business cycle in a somewhat repetitive nature with each lasting from two to 10 years. This phenomenon in the property/casualty insurance world is known as the underwriting cycle and consists of rising and falling premiums and profits, or “hard” and “soft” markets.

The insurance underwriting cycle has been studied extensively over the years and while there have been many theories put forward about its causes and mechanics, there is no generally accepted view as to why it exists. This article will explain why the cycle is important to the industry, regulators and policyholders. It will provide an overview of the property/casualty cycle and focus on a few of the theories of why the underwriting cycle exists. It will also show a history of the property/casualty cycle and attempt to explain at what point of the underwriting cycle the industry currently resides and where it might be headed.

**THE IMPORTANCE OF THE UNDERWRITING CYCLE**

According to Sir Isaac Newton, what goes up must come down. The same observation holds true for the property/casualty insurance underwriting cycle, which has a pattern of rising and falling prices and profits. Historically, property/casualty insurance markets have alternated between periods of hard and soft markets (Figure 1). In a soft market, insurance is plentiful and available at a reasonable price. Competition thrives in a soft market, leading to stable or falling insurance rates. Underwriting standards may be relaxed and profits fall. Prices are low and the quantity of insurance increases. Insurers compete over business by lowering rates and offering additional coverage. In this part of the cycle, companies may be practicing cash flow underwriting, where insurers lower rates in order to increase premium and investment income or retain market share. Insurers use investment earnings to make up for underwriting losses. As the industry moves through the underwriting cycle, insurer profits decline and there is a decrease in capital. Eventually, the cycle bottoms out.

As the market hardens, rates increase. Insurers reduce risks and may decrease policy limits. Some insurers withdraw from certain markets. In hard markets, underwriting standards tighten and prices and profits increase. Policy terms become more restrictive as the quantity of insurance decreases. Supply is limited in a hard market and, therefore, insurance comes at a high cost. There is often a decrease in competition and buyers have difficulty finding coverage. Premiums increase and coverage is restricted. At the height of the hard market, there is an increase in insurer profits leading to additional capital coming into the market. This leads to increased competition and pushes premiums down, turning the market yet again as premiums and profits fall.

The underwriting cycle is important, as it has implications on profitability, competition, availability, affordability and solvency. To remain profitable, insurers must pay attention to underwriting cycles and market competition. Occasionally, the cycle reaches a crisis level, as it did with the commercial liability crisis of the 1980s. During this crisis, many businesses saw significant increases in their liability insurance premiums, coverage narrowed, underwriting standards tightened, insurers withdrew from markets and businesses found it more difficult to obtain coverage. Consequently, many businesses increased prices, self-insured or went out of business.

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A combined ratio of less than 100% signifies an underwriting profit. The combined ratio is an imperfect measure of the actual price of insurance as it is based on calendar year data, which may exclude loss experience on policies written. Premium growth may be a result of either an increase in the price of insurance or an expansion in policies written or the quantity of insurance sold. Premium growth can signify an increase in supply in the marketplace. Total premiums may increase as new companies enter the market or existing companies write more policies in an attempt to increase market share.

Another way to measure the underwriting cycle is by examining profitability. The return on net worth, or return on equity as it is called in non-insurance institutions, is profit after taxes divided by allocated capital and surplus. Return on surplus shows after-tax profitability from underwriting and investment activity. Several metrics measuring the underwriting cycle will be shown later in this article.

### Theories of the Underwriting Cycle
Perhaps surprisingly, there is no universally accepted explanation as to the causes of the underwriting cycle or why it exists. Through the years, explanations for the cycle include lack of restraint, overreliance on the previous period’s experience and regulatory regulations. This article focuses on the effect of exogenous shocks on the underwriting cycle. These shocks could come in the form of economic effects, a disequilibrium between supply and demand, or other external shocks.

Economic effects such as changes in real gross domestic product (GDP), interest rates, unemployment or inflation can produce a shock to the insurance industry, causing a shift in the underwriting cycle. Shocks to supply, such as changes in interest rates and inflation, have a larger impact on the combined ratio, because the industry cannot respond to shocks to supply as well it might to shocks in demand.

Some have argued that the uncertainty of loss costs contribute to underwriting cycles. With economic downturns may come moderate inflation or reductions in the values of insured exposures, ensuring moderate rate revisions for several years. As the economy recovers, loss costs rise rapidly. The result is a time lag between data compilation and

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1 Available at [www.naic.org/store_pub_special.html#cycles_crisis_pc](http://www.naic.org/store_pub_special.html#cycles_crisis_pc).
4 Ibid.
rate implementation so necessary premiums are not earned immediately. However, this theory has recently been criticized because it assumes a lack of rational behavior by actuaries; i.e., that they are not capable of forecasting loss cost trends from experience.

Interest rate volatility has an effect on underwriting cycles as insurers pay losses sometimes years after they collect premiums, particularly in long-tail lines. The price of insurance reflects a discounted present value of anticipated losses, expenses and taxes. Longer tail lines such as medical professional liability and workers’ compensation may be more heavily impacted by interest rate changes due to the increased discount for the time value of money. Premiums are invested and income earned until losses are paid.

Interest rates rise during periods of inflation. As interest rates rise, insurers are able to rely more heavily on investment income and less so on underwriting income. Therefore, insurers may loosen underwriting standards, accept more risk or lower prices below loss costs in order to increase market share. This is called cash flow underwriting and is characteristic of a soft market in which supply is abundant and prices are low. Rising interest rates also cause an increase in expected loss payouts as nominal settlement values rise. The result of the increase in inflation is unclear, because rising interest rates increase investment income as well as anticipated losses.

As investment income increases, underwriting income decreases and insurers may write policies at expected underwriting losses. As interest rates fall, if insurers continue to write policies with underwriting losses, they may see loss of profits. In more recent years, there have been stable interest rates and yet the underwriting cycle persists. This theory also assumes that insurance companies are unable to adjust rates due to changes in investment income.

When interest rates are high, insurance markets usually are soft, meaning lower prices because insurers seek investment returns. With lower interest rates, investment income is low and insurance companies rely on income through underwriting profits. They, therefore, are more cautious about taking risks.

Claim trends affect pricing and underwriting cycles as trends in claim payouts impact loss costs. High liability losses cause prices to rise as loss costs are built into the rate. Claim trends can follow social and economic trends. During recessions, jury awards tend to be less liberal but in times of economic expansion, payouts can be extraordinary. Liability lines, such as medical professional liability and auto insurance with liability components, are more heavily impacted by claim trends.

Another theory of the underwriting cycle is based on capacity-constraint theory and focuses on the supply of insurance, as well as insurers’ access to capital or reinsurance. An increasing number of researchers now accept this capacity-constraint theory, which asserts that negative net worth shocks caused by such things as large natural catastrophes lead to rapid price increases (a hard market), which then erode slowly as net worth adjusts (a soft market).

The insurance pricing cycle can be viewed in terms of supply-and-demand economics. Surplus is a measurement of underwriting capacity. When the supply of insurance capacity increases faster than the demand for capacity, prices fall. Conversely, when supply constricts relative to demand, prices increase. In the soft phase of the cycle, prices are falling due to an abundance of insurance capacity relative to wafering demand. Insurers are overcapitalized during soft markets, and they compete to put the excess capacity to work.

We can use GDP as a proxy for demand. The change in GDP represents the change in demand for insurance capacity. Because most companies already are fully insured, the need to buy more insurance is directly tied to growth, represented by the change in GDP.

Growth in policyholders’ surplus measures a company’s overall financial condition. Major changes in policyholders’ surplus mark instability and are concerning, whether it is an increase or decrease in surplus.

Surplus tends to move up and down more than demand for insurance. As surplus falls, insurance companies are more selective of risk and the industry becomes less competitive, as the market hardens. As surplus rises, the industry becomes more competitive and rates fall. Insurers use the extra capital to write risks they might not ordinarily consider, leading to a soft market.

Increasing values in the surplus-to-GDP ratio mean growth in supply (policyholders’ surplus) exceeds the growth in demand (GDP), ultimately leading to falling premiums. Conversely, when values are decreasing, it means supply is shrinking relative to demand (or demand is increasing faster than supply), and premiums eventually will rise.

The role of reinsurance in underwriting cycles pertains to the supply of capital. When availability of reinsurance is abundant, insurers may be willing to write additional risk

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and use reinsurance to hedge against losses. In addition to reinsurance, other mechanisms that allow insurers to write policies and assign risk have a similar impact on the supply of insurance. For example, the price of catastrophe bonds may influence underwriting cycles, as they are used to insure against natural disaster. A lack of supply in capital markets, such as during recessionary times or market crashes, leads to restricted access to reinsurance and insurers are less willing to insure risk. Restricted access to reinsurance and, further, a reduced supply of insurance, leads to a hard market.

One way surplus can fall is through another exogenous shock of which insurers are well aware: catastrophes. This theory of the underwriting cycle focuses on external shocks such as natural catastrophic events. Such shocks can be planned for to an extent, but no one knows for certain if or when they will occur. The property/casualty insurance industry anticipates large losses through its surplus, but enormous losses are often large enough to turn a market. As large catastrophes occur, surplus can fall, causing companies to be more selective of risks and the industry to be less competitive, turning the market hard. Recent catastrophes, such as the terrorism events of 9/11 and Hurricane Katrina in 2005, have resulted in large losses but have failed to significantly impact the overall surplus of the industry.

**A LOOK AT THE OVERALL ECONOMY**

Before examining where the property/casualty underwriting cycle might currently stand, we will first look at the overall economy. As noted earlier, economic conditions can have a large impact on the underwriting cycle. Despite some signs of an improving economy, real GDP surprisingly declined 2.9% in the first quarter of 2014. The slowdown reflected a downturn in exports, business investment, inventory investment and consumer spending. Growth in GDP can be seen as a prerequisite for demand for insurance. As market growth occurs, so does the need to increase insurance. This can be seen as inventories and labor markets grow.

Unemployment was unchanged in May at 6.3% after falling by 0.4% in April. Over the past 10 years, unemployment peaked in 2009 at 9.9%. This was a marked increase from the 4.4% unemployment rate in 2006. Since 2009, unemployment has steadily come down to the 6.3% seen today.

Inflation rose by 1.4% in the first quarter of 2014 after rising 1.5% in the fourth quarter of 2013. The price of goods and services, excluding food and energy, rose 1.4% in the first quarter versus 1.8% in the fourth quarter of 2014. As inflation rises so, too, may anticipated losses due to increased nominal settlement values.

The Federal Reserve Bank purchased more than $3 trillion in government bonds since the 2008 global financial crisis. This was done in an effort to lower long-term interest rates and stimulate the economy. Meanwhile, the central bank has kept its short-term interest rate near zero since the crisis began. While there are mixed reviews regarding the actual effects of the Fed’s attempted stimulation of the economy, one thing is for sure: rates will have to rise at some point. As stated above, an increase in interest rates may increase insurer’s investment income, leading to a soft market.

**THE CURRENT STATE OF THE UNDERWRITING CYCLE**

The industry experienced a soft market post-2003 as premium growth declined, and actually became negative in 2008 and 2009. Since then, the market has shown signs of hardening, with price increases in many lines, particularly commercial ones. Rates rose in 2013 due to above average losses and low investment returns.

The combined ratio for 2013 fell to 95.8% from 103.7% in 2012. This marks the first year of underwriting profit since 2007 (Figure 2). Written premiums in 2013 increased to $486 billion from $465 billion in 2012. Property/casualty insurance premium has been rising in recent years due to higher prices and increased exposures in the slowly expanding economy (Figure 3 on the following page).

![Figure 2: Combined Ratio—All P&C Lines](image-url)
Policyholders’ surplus in the U.S. property/casualty industry is at a record high of $665 billion at year-end 2013 (Figure 4).

The capacity-constraint theory showed the insurance pricing cycle is driven by the law of supply and demand. For the past several years, the supply of insurance capacity has exceeded the demand for capacity, forcing prices down. For the market to fully harden, demand will need to increase with an improved economy and increased exposures or the supply will need to fall via a decrease in surplus (Figure 5).

The property/casualty insurance industry was profitable from 2003 through 2007; however, rates declined after that. Profitability remains weak, although it increased in 2013 due to low catastrophe losses and favorable combined ratios. Underwriting results were much improved although investment results remain tepid (Figure 6 on the following page).

Overall, it is difficult to say where the industry currently sits in the underwriting cycle. Certainly, the soft market seems to have turned, but we appear to be in a weak hard market. In addition, recent history shows that cycles do not seem as severe.

*What’s Ahead for the Cycle*

Several factors are typically needed to turn a market. One is a sustained period of large losses. The insurance industry experienced near-record insured catastrophe losses in 2011 and 2012. The average insured catastrophic losses in the U.S. are around $20 billion; losses were $33 billion and $35 billion in 2011 and 2012, respectively. However, 2013 saw much better results with insured catastrophe losses at only $13 billion.

Another factor that can turn a market is a decline in surplus or capacity. Policyholders’ surplus in the U.S. property/casualty industry is at a record high of $665 billion at year-end (Continued on page 21)
end 2013. Figure 4 on the previous page shows surplus has continued to rise in recent years. A weak growth in demand has been insufficient to absorb the excess capacity.

Commercial and personal lines rates have started to move upward. As noted earlier, the combined ratio was low last year, with the industry exhibiting underwriting discipline. Recently, insiders have predicted the market to harden due to low interest rates, but this has only partially occurred. A recent Towers Watson survey found that 75% of responding chief financial officers believe the property market is hardening or already at the top of the cycle. As we’ve seen, surplus has not declined, but instead is at a record high. This has put pressure on the hardening of the market.

Record levels of surplus and aggressive competition are moderating the growth in price increases. Low interest rates have tempered investment earnings. Most think prices will rise but capacity is high and competition remains strong, so it is doubtful if rate increases will be extreme. Catastrophe losses are the great unknown. Significant rate increases seem unlikely unless there is an exogenous shock to the industry, such as a major catastrophic event.

**SUMMARY**

Even with the tremendous amount of research devoted to underwriting cycles, they remain unpredictable and, at times, difficult to even define, at least in present terms. Their importance, however, remains paramount for the industry and for regulators.

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