



This issue features an analysis of market concentration and profitability for several property/casualty lines of business. Insurer profitability results can be used in conjunction with concentration statistics to determine whether a market is attractive to insurers to enter (thereby creating greater competition) or unattractive (causing insurers that are in the market to leave). Persistently high levels of profitability could indicate that a market is failing to attract competitors, thus enabling non-competitive rates of return to be earned.

The data was derived from the *Competition Database Report* and compiled using information contained in the NAIC database, as well as information contained in the *NAIC Report on Profitability by Line by State (Profitability Report)*. The *Competition Database Report* provides data for five personal lines and 10 commercial lines country-wide, as well as by state or territory.<sup>1</sup>

◆ MARKET CONCENTRATION

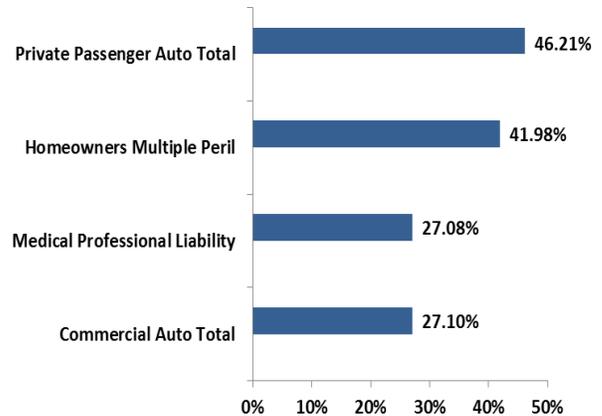
Market concentration reflects the degree of competition in a market. Several methods exist to examine market concentration. The *Competition Database Report* utilizes methods contained in the *Property and Casualty Commercial Rate and Policy Form Model Law (#777)* for determining competition.

One method, the concentration ratio, assesses the market share of the four largest groups in an insurance line. This traditional measure of market concentration is often used as a rough indicator of market competition. While there is no formal way to determine market competitiveness based on this calculation, values above 50% suggest that concentration at least be given a closer look in judging the overall competitiveness of a market.

Figure 1 shows the market share of the four largest groups, denoted as a percentage, for private passenger auto, homeowners multiple peril, medical professional liability and commercial auto. As illustrated in Figure 1, none of these lines exceed the 50% concentration threshold; however, the private passenger auto and homeowners multiple peril lines of business exhibit higher concentrations of 46.21% and 41.98%, respectively.

Another widely used measure of competitiveness listed in the *Competition Database Report* is the Herfindahl-Hirschman Index (HHI). The HHI measures the size of

FIGURE 1: MARKET SHARE OF THE FOUR LARGEST GROUPS



firms in relation to the industry and indicates the amount of competition among them. It is calculated by summing the squares of the market shares (as a percentage) of all groups in the market. Although there is no precise point at which the HHI indicates that a market or industry is concentrated highly enough to restrict competition, the U.S. Department of Justice (DOJ) has developed objective guidelines in regard to corporate mergers.

Under corporate merger guidelines used by the DOJ, a post-merger market with an HHI of less than 1,000 is considered to be a competitive marketplace; a post-merger market with an HHI between 1,000 and 1,800 is considered to be a moderately concentrated marketplace; and a post-merger market in excess of 1,800 is considered a highly concentrated market. It is important to note that, because these numbers are guidelines, judgment must be used to interpret what information is provided for a particular market by its HHI.

Figure 2 on the following page illustrates the HHI for these same four lines by written premiums. Based on the HHI

(Continued on page 29)

<sup>1</sup> More information concerning the homeowners and personal automobile insurance lines can be found in the *Auto Insurance Database* report and the *Dwelling Fire, Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/Cooperative Unit Owner's Insurance* report published by the NAIC. These reports include additional data concerning average premiums and expenditures and might be useful in studying the competitiveness of those markets. Along with the *Competition Database Report* and the *Profitability Report*, these reports are available for purchase from the NAIC store at [www.naic.org/store\\_pub\\_statistical.htm](http://www.naic.org/store_pub_statistical.htm).

**DATA AT A GLANCE (CONTINUED)**

guidelines, all four markets are considered relatively concentrated, and the DOJ would most likely not challenge a merger that would leave the HHI in that range.

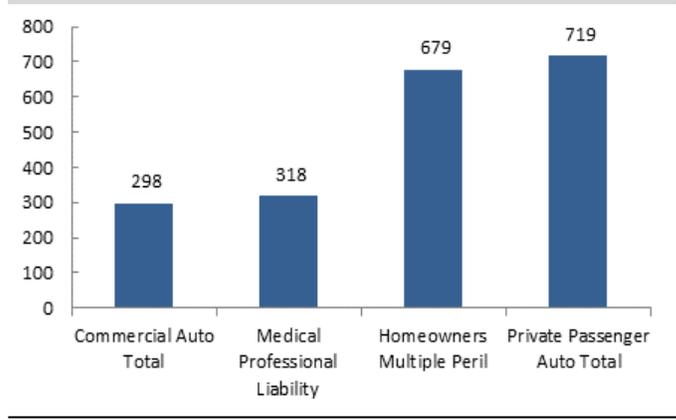
**◆ PROFITABILITY**

The *Competition Database Report* also includes information by line by state on premiums written, number of sellers (groups), number of entries in the past five years, number of exits in the past five years, market growth over the past 10 years, market shares for risk retention groups and surplus lines insurers, and a 10-year mean of return on net worth.

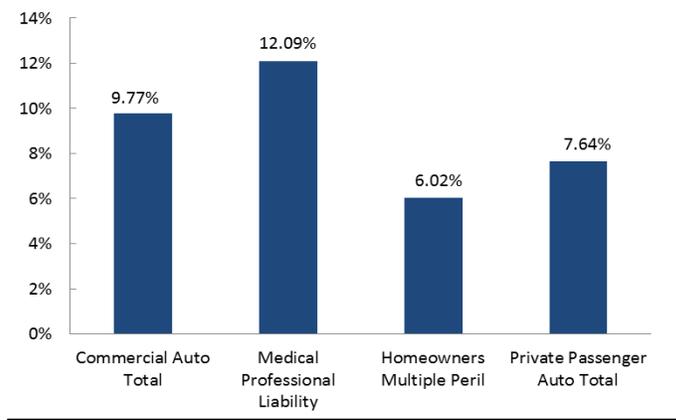
The return on net worth stated in the *Competition Database Report* is obtained from the *Profitability Report*. It is calculated to help regulators and others evaluate the profits earned in a particular market in relation to the net worth committed to that market. Figure 3 displays the 10-year mean return on net worth for the four largest property/casualty lines of business.

Figure 4 shows the return on net worth in the property/casualty insurance industry over the past 10 years. Over the period of 2003 to 2012, the property/casualty insurance industry had an average return on net worth of 6.9%.

**FIGURE 2: HHI BASED ON PREMIUM**



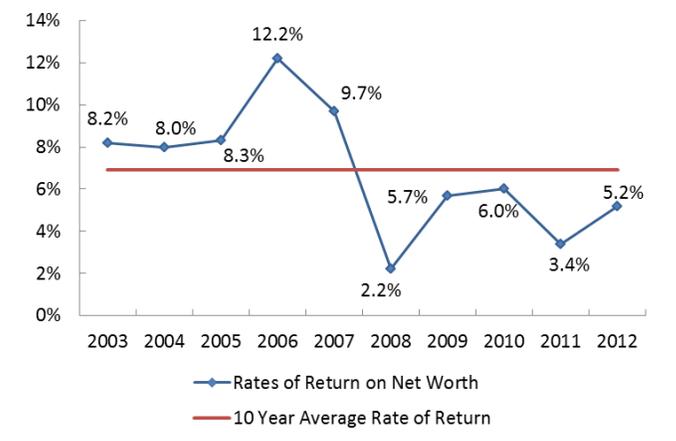
**FIGURE 3: RETURN ON NET WORTH (10 YEAR MEAN)**



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**FIGURE 4: RATES OF RETURN ON NET WORTH FOR PROPERTY/CASUALTY INSURANCE**





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