Plan Management Navigator
Analytics for Health Plan Administration

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HOW IMPORTANT ARE ECONOMIES OF SCALE IN HEALTH INSURANCE COMPANIES?

Economies of scale can be central to the strategic case for business combinations, and they have been cited in recent press releases of publicly-traded health plans contemplating this step. The possibility of economies of scale has policy implications as well since the potential for cost declines can be weighed against the effect on consumer choice.

We recently completed an analysis of the economies of scale exhibited by 37 health insurers. Collectively, the 37 plans serve 39 million people. We analyzed each of the nearly sixty functions individually.

A range of 4.4% to 22.0% of costs reported by selected health plans were subject to economies of scale in 2014. For these scalable costs, a doubling of size led to costs that were 71.5% to 87.0% of their pre-doubling value. The proportion of the expenses subject to economies of scale, the functions subject to scale and their sensitivity to scale, varied by whether the set of plans analyzed was Independent / Provider – Sponsored plans, Blue Cross Blue Shield Plans or the combination of both.

What is Meant by Economies of Scale?

Economies of scale occur when per unit costs decline as volume of output increases. Because the "output" of a health plan is health coverage services to people, the specific definition of scalable expenses for health plans is Per Member Per Month (PMPM) administrative costs that fall as membership increases. The costs that are the subject of this analysis are administrative: claims, customer services, enrollment and so forth. To eliminate the effect of product mix differences, our analysis adjusts cost values to eliminate this effect. Our analysis also includes the effect of scale on staffing ratios.

Graphically, economies of scale are represented by a negative slope, which we express as costs that would exist if the enterprise doubles its membership, as a percent of the pre-doubled cost values. We consider scale significant if it has a P-Value of 10% or less, and only the significant relationships are shown below. We have omitted anti-scalable activities from this analysis.

For Blue Cross Blue Shield Plans, the following activities were subject to economies of scale: Media and Advertising, Pre-Certification, Information Systems Applications Maintenance, Information Systems Security Admin. & Enforcement, Legal - Compliance and Actuarial. Collectively, these comprise 10.3% of health plan administrative costs that are subject to true economies of scale.

The weighted scale slope is expressed as a 79.8% of the pre-doubling value for Blue Plans. For instance, suppose administrative costs of $33.37 PMPM. With scalable costs of 10.3% of the total, this would imply that costs of $3.43 PMPM are subject to economies of scale. And, using the scale slope, a doubling of the enterprise would lead to those scalable costs falling to $2.74 PMPM. So, the value of those savings due to economies of scale is $0.69 PMPM.

For Independent / Provider – Sponsored plans, the following activities were subject to economies of scale: Pre-Certification, Actuarial and Corp. Exec. & Governance. These activities comprise 4.4% of administrative costs.

The weighted scale slope is expressed as 71.5% of the pre-doubling value for the Independent / Provider-Sponsored plans. For instance, suppose administrative costs of $42.14 PMPM. The finding that 4.4% of costs are subject to economies of scale would imply that costs of $1.87 PMPM are subject to economies of scale. And, using the scale slope, a doubling of the enterprise would lead to those scalable costs falling to $1.34 PMPM. So, the value of those savings due to economies of scale is $0.53 PMPM.

The set comprised of both Independent / Provider - Sponsored plans has the benefit of sample size and broader range of plan size but also the complexity of different styles of operations. Of the activities, 22.0% were subject to economies of scale. The activities included Provider Contracting, Medical Management / Quality Assurance / Wellness, Information Systems Applications Maintenance, Benefit Configuration, Finance and Accounting, Finance and Accounting other than Credit Card Fees, Legal - Compliance and Actuarial.

The weighted scale slope is expressed as 87.0% of the pre-doubling value for the set of all plans. For instance, suppose administrative costs are $36.19 PMPM. Expenses subject to economies of scale are 22.0% or $7.97 PMPM. And, using the scale slope, a doubling of the enterprise would lead to those scalable costs falling to $6.94 PMPM. So, the value of those savings due to economies of scale is $1.03 PMPM.

Closing Thoughts

The results we present here may be contrary to conventional wisdom because the effect we calculate is not overwhelming when measured on a PMPM basis. The effect is less significant relative to the premium dollar and more significant relative to the operating margins in this low margin industry.

Perhaps two industry observations can be helpful in understanding our counterintuitive view on economies of scale in health plans. First, when thinking about scale, it is helpful to consider the actual activities of health plans and how they are executed. Many of the activities that health plans do are actually sensitive to membership volume. More members mean more customer service inquiries. Secondly, while very large plans have a very large share, their administrative costs, as reported in their publicly available financial statements are not too dissimilar from those of the plans reported in the *Plan Management Navigator*. Moreover, the fact that small plans can coexist with large ones suggests that whatever cost advantage exists is not an overwhelming competitive advantage.

Estimating economies of scale is inexact and may even be more so considering the environment of change. There may be distortions from the need to adapt to the Affordable Care Act, as well as the usual variations in operating styles and environments. But the proportions of expenses that are scalable and the slope of the scale in those scalable functions discovered are consistent with past studies.

Methodology

The analysis reported here is of data drawn from the 18th Annual 2015 Sherlock Benchmarking study, which reflects fiscal year 2014 results. Survey materials were distributed in March, collected in May, scrubbed in June and published in July. When plans report to us, costs are segmented by product. This allows us to compare the plans after the effect of mix adjustments. Staffing ratios include estimated outsourced staff for comparability, and are similarly adjusted in this analysis.

The significance of scale is determined using the mix adjusted methodology. Because the costs for each plan is expressed as differences from the mean values, weighted to each plan's product mix, the values can be negative or positive. The slopes of the relationships are based on as reported information since the calculation requires positive values.

We use P-Value to gauge the reliability of the relationships. Suppose a regression yields a 10% P-Value: it can be interpreted to mean "Assuming that there wasn't scale, you'd obtain the observed difference or more in 10% of such studies due to random sampling error." In other words, the lower the P-Value is, the more reliable the results.

Further Information is Available

A more in-depth report is available as part of the newsletter *PULSE* costing $375. This analysis includes slopes and P-Values for each function.

We have also provided this analysis for no charge to the participants of our benchmarking study. We are building a universe for the 2016 benchmarking cycle and the current results are available for license.

Please contact us with any questions concerning this analysis, the more in-depth analysis and the benchmarking study on which it is based.