EARLY WARNING INDICATORS AND ACCEPTABLE RANGES

FOR THE

EGYPTIAN INSURANCE SUPERVISORY AUTHORITY

A GUIDE FOR SUPERVISORS AND ANALYSTS

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Note: The following ranges and benchmarks need to be tested in the context of the Egyptian insurance sector and adjusted appropriately. At some point in the future, EISA may consider adding other tests, in particular tests related to the operations of life insurance companies. BearingPoint insurance advisors can provide additional guidance in this area.

Capital Adequacy

An analysis of a company's underwriting, financial and asset leverage is very important in assessing its overall balance sheet strength. Balance sheet strength measures the exposure of a company's capital and surplus to its operating and financial practices. A highly leveraged or poorly capitalized company can show a high return on equity, but may be exposed to a high risk of instability. A conservative level of leverage or capitalization enables an insurer to better withstand catastrophes, unexpected losses and adverse changes in underwriting results, fluctuating investment returns or investment losses, and changes in regulatory or economic conditions.

Test C1 Net Risk Ratio: Net Premiums / Capital

This is a capital leverage test of insurance risk on a net basis retained by the company. This test measures the leverage associated with the level of premiums compared to the total capital & surplus of the company. Significantly higher values than the benchmark could be indicative of inadequacy of capital and surplus in relation to premium volume. The higher the number, the more leveraged the company. A low ratio could be indicative of lack of utilization of capital resources or inability to generate volume. To the extent that premium volume measures risk underwritten by an insurance company, this ratio reflects a company's capacity to absorb inadequate pricing of premiums and unfavorable experience.

Acceptable Benchmark for Life Companies: Not applicable

Acceptable Benchmark for Non-Life Companies: < 200%

Test C2 Asset Leverage Ratio: Capital / Total Assets

(This ratio does not appear on the list of ratios supplied by EISA – EISA may wish to consider adding this ratio)

This test measures the relationship of a company's capital & surplus to its asset base. This asset leverage ratio measures the exposure of a company's surplus to investment and market and credit risks.

Acceptable Benchmark for Life Companies: > 8%

Acceptable Benchmark for Non-Life Companies: > 20%

Test C3 Capital Leverage Ratio: Capital and Surplus / Technical Reserves

(Please note that this ratio is inverted on the list supplied by EISA – EISA may wish to reconsider the structure of its existing ratio)

The ratio of capital and surplus to technical reserves measure the relationship of capital and surplus to the company's unpaid obligations after reinsurance assumed and ceded. It reflects the extent to which the company has leveraged its capital and surplus base. On an individual company basis, this ratio will vary due to differences in product mix, balance sheet quality and spread of insurance risk.

This ratio is also indicative of the company's ability to withstand adverse experience (a low value indicating lesser capacity to handle adversity). In cases where there is volatility in the trend of this ratio, or a sharp decline is encountered, the situation should be reviewed in conjunction with the results from the other capital tests above. The absolute value of the total equity is also a factor to be borne in mind. Smaller companies with a relatively small amount of equity available would be viewed with greater concern than large companies whose absolute values would be fairly large despite the two companies reflecting similar ratios.

Acceptable Benchmark for Life Companies: > 10%

Acceptable Benchmark for Non-Life Companies: > 35%

Test C4 Change in Capital and Surplus

This ratio measures the increase/decrease in total equity over the current year as a percentage of the total equity at the end of the previous year. A trend of low or negative values or a value in the lower range and deteriorating further might indicate concern with respect to the operational efficiency and long term viability of the company and its ability to generate capital internally.

Acceptable Benchmark for Life Companies: <20%

Acceptable Benchmark for Non-Life Companies: <20%

Asset Quality

Asset leverage measures the exposure of a company's surplus to investment and market and credit risks. Investment and market risks measure the credit quality and volatility associated with the company's investment portfolio and the potential impact on its balance sheet strength.

The quality and diversification of assets contributes to a company's financial stability. Invested assets (principally bonds, common stocks, mortgages and real estate) are evaluated to assess the risk of default and the potential impact on surplus if the sale of these assets occurred unexpectedly. The better the liquidity, diversification and/or quality of the assets, the less uncertainty there is in the value to be realized upon their sale and the lesser the likelihood of default. Companies that hold liquid, undiversified and/or speculative assets and have a significant underwriting exposure to volatile lines of business that are vulnerable to unfavorable changes in underwriting and/or economic conditions is a combination that can jeopardize policyholders' surplus and the viability of the company in the long term.

Test A1 (Intangible Assets + RE + Unquoted Equities + Debtors) / Total Assets

(This ratio is not identical to the one presented by EISA on its list of ratios – EISA may wish to consider adding this ratio)

A high proportion of assets in relatively illiquid investments such as these above may lead to difficulties in meeting cash outflow in a stress scenario.

In general, the concern here is the ability of the company's actual investments to produce sufficient investment yield and cash flow to meet obligations after providing for operating expenses, and to produce a profit. Supervisors should perform a risk review of the investment portfolio, and methodology and the appropriateness of the provisions against the impaired investments.

Acceptable Range for Life Companies: < 50%

Acceptable Range for Non-Life Companies: < 35%

Test A2 Debtors / Gross Premiums

(Currently EISA has two ratios related to Debtors. The first one, Debtors to Shareholders; and the second, Debtors to Total Assets. While these ratios are no doubt valid, EISA may reconsider using the ratio above instead as it's tied to earnings and, as a result, gives a better measure of the extent earnings are subject to credit risks)

This ratio measures the extent to which an insurance company extends credit to its policyholders, agents and reinsurers. A high ratio compared to the benchmark will not only affect liquidity but also the quality of the underwriting and reserving. In other words, a company may be tempted to grant credit at all cost for the sake of meeting short term sales and profit targets. A high ratio will also have tendency to inflate the balance sheet. Supervisors should conduct a review of the company's methodology and practices with respect to writing off doubtful accounts.

Suggested Benchmark for Life Insurance Companies:	< 40%
Suggested Benchmark for Non-Life Companies:	< 20 %

Test A3 **Equity Shares / Total Assets**

(This ratio does not appear on the list of ratios supplied by EISA – EISA may wish to consider adding this ratio to its list)

A large holding of non-traded equity shares will make the company rather illiquid. In addition, significant investment in equity shares exposes the company to pricing risk if the company is forced to liquidate a portion of its equity holdings as a result of liquidity problem during a market downturn. The higher ratio for life companies compared to the non-life companies is indicative of the differences in the product mix and, nature and profile of the liabilities. In general, life companies underwrite more longer-tail products and therefore can allow themselves to invest in more risky, less liquid assets than would non-life companies with shorter term obligations.

Acceptable Benchmark for Life Companies:	< 50%
Acceptable Benchmark for Non-Life Companies:	< 25 %

Reinsurance and Actuarial Losses

Reinsurance plays an essential role in the risk spreading process and provides insurers with varying degrees of financial stability. A company's reinsurance program should be appropriate relative to its policy limits and underwriting risks, catastrophe exposures, business, financial capacity and credit quality of the reinsurers involved. In addition, a reinsurance program should involve time-risk transfer and include reinsurers of good credit quality, since in the event of a reinsurer's failure to respond to its share of a loss, the reinsured or counterparty would have to absorb a potentially large loss in its entirety.

An insurer's ability to meet its financial obligations can become overly dependent upon the performance of its reinsurers. A company can also become exposed to the state of reinsurance markets in general. A significant dependency on reinsurance can become problematic if a major reinsurer of the company becomes insolvent or disputes coverage for claims. It also can become a problem if general reinsurance rates, capacity, terms and conditions change dramatically following an industry event (e.g. the terrorist attack on the World Trade Center in New York in 2001). The more a company is dependent upon reinsurance, the more vulnerable its underwriting capacity becomes to adverse changes in the reinsurance market. The greater this dependency, the greater supervisors should scrutinize the company's reinsurance program to determine its appropriateness and credit quality and whether it is temporary or permanent in nature. (See Section 7 of the Guide on the Supervisory Framework for further guidance on reinsurance analysis).

Test R1 Retained Ratio: Net Premiums Earned / Total Premiums Earned

This reflects the reinsurance leverage, after reinsurance assumed and ceded. This test measures the company's exposure to pricing errors in its current book of business. This ratio tells a bit about a company's reinsurance program as well. A high ratio is indicative of less dependence on reinsurance arrangements but the company retains more underwriting risks such as pricing and adverse changes. The level of business retention will depend to a large extent on the types of business and product mix being written by the direct writer. For example, the need to reinsure long-tail insurance products such as professional liability for a non-life writer or long term disability for a life/health writer will be greater than a carrier that sells personal property insurance simply because long-tail products carry more inherent risks and, as a result, exposes the direct writer to greater underwriting risks.

Acceptable Range for Life Companies:	not applicable
Acceptable Benchmark for Non-Life Companies:	>50%

Test R2 Net Technical Reserves / Average of Net Settled Claims in Last 3 years

(This ratio does not appear on the list of ratios supplied by EISA – EISA may wish to consider adding this ratio to its list)

This test measures the adequacy of the technical reserves to the average claims experienced in the preceding three years. The result is indicative of the company's methodology and practices in setting aside sufficient technical reserves for the underwriting risks that it retains on its books. The result of the test will also be indicative of the company's view and practices of booking short term profits. In other words, a company may deliberately neglect to set aside sufficient technical reserves in order to meet short term earning targets, especially if the earning results are tied to management performance bonuses. A ratio that is constantly below the suggested benchmark is indicative of a company that relies on its capital and surplus for adverse experience. In a situation where the company's capital and surplus is closed to the minimum regulatory capital and surplus requirement, hence leaving very little room to absorb unexpected or catastrophic losses, supervisor should review the company's strategy and ability to raise additional capital in case of a shortfall.

Suggested benchmark for Non-Life companies:	> 110%.
Acceptable Benchmark for Life Companies:	Not applicable

Test R3 Net Premiums / Total Capital and Surplus

This ratio is designed to measure the ability of the company to absorb above-average losses. This reflects the leverage after reinsurance assumed and ceded of the company's current volume of in relation to capital and surplus. It also measures the company's exposure to pricing risks (pricing errors) in its current book of business. For example, a company with $2 in net premiums written for every $1 of capital and surplus has a 2-to-1 premium to surplus ratio. The lower the ratio, the greater the company's financial strength. Some regulators have established a premium-to-surplus ratio of no higher than 3-to-1 as a guideline.

Acceptable Benchmark for Life Companies:	Not applicable
Acceptable Benchmark for Non-Life Companies:	< 200%

Test R4 Gross Premiums / Capital and Surplus

This ratio is designed to measure the ability of the company to absorb above-average losses before reinsurance.

Acceptable Benchmark for Life Companies:	Not applicable
Acceptable Benchmark for Non-Life Companies:	< 400%

Test R5 Change in Net Premiums

This test evaluates the net premiums (after reinsurance) generated by the company. In cases of the result falling outside the acceptable range the supervisor would review the trend of the change in net premiums written. A trend of decline would call for a review of the details of the premium-mix between new business premiums and renewal premiums. In case of a decline in renewal premiums, the concern should further be confirmed by the high lapse rate. Significant variations in the volume of net premiums written would be a cause for concern and a line of business review would be called for. Supervisors should also review the certified actuary's report as to changes in product mix and losses if any on new business issued. In addition, supervisors should review the company's strategic business plans and assess the results focusing on the actual vs. the expected results.

Acceptable Range for Life Companies:	< 20%
Acceptable Range for Non-Life Companies:	-10% < Change < 30%

(Please note that EISA does not have a lower limit for life companies - EISA may wish to reconsider adding one e.g. -10%)

Test R6 Change in Gross Premiums

This test evaluates the total premiums (before reinsurance) generated by the company. In cases of the result falling outside the acceptable range the supervisor would review the trend of the change in gross premiums written. A trend of decline would call for a review of the details of the premium-mix between new business premiums and renewal premiums. In case of a decline in renewal premiums, the concern should further be confirmed by the high lapse rate. Significant variations in the volume of gross premiums written would be a cause for concern and a line of business review would be called for. Supervisors should also review the certified actuary's report as to changes in product mix and losses if any on new business issued. In addition, supervisors should review the company's strategic business plans and assess the results focusing on the actual vs. the expected results.

Acceptable Benchmark for Life Companies:	Not applicable
Acceptable Benchmark for Non-Life Companies:	-10% < Change < 30%

(EISA has one additional ratio for non-life which it may consider removing from its list. This ratio is Policyholders + Shareholders to Net Premiums with a benchmark of more than 150%. We are not too sure what this ratio is trying to achieve and therefore should be removed from the list)

Earnings and Profitability

Profitable operations are essential for a company to operate as an ongoing concern. For an insurer to remain viable in the marketplace, it must generate a financially strong balance sheet for its policyholders. When evaluating operating performance, supervisors should test the stability and sustainability of the company's sources of earnings in relation to the liabilities that are retained by the company (see the Guide on the Supervisory Framework for further assistance on assessing earnings). Since long term balance sheet strength is generally driven by operating performance, greater importance is placed on operating performance when evaluating insurers writing long duration business. Conversely, operating performance is weighted less heavily for those insurers writing predominantly short duration business that also possess very strong capitalization and a stable business profile.

Test E1 Underwriting Gain (Loss) Ratio: Net Claims[1] / Net Premium Earned

This test is indicative of the company's ability to absorb claims with the influx of new premiums. A value in excess of the acceptable benchmark could be indicative of a company's inability to maintain its market share or its operations are in start up mode. The higher the ratio, the more likely the company will be incurring an operating loss for the period.

Acceptable Benchmark for Life Companies:	not applicable
Acceptable Benchmark for Non-Life Companies:	< 70%

Test E2 Expense Ratio: Expenses[2] / Net Premium Earned

This ratio measures the company's operational efficiency in underwriting its book of business. A value in excess of the acceptable benchmark might indicate inadequate components in pricing the products to cover actual selling and administrative overhead costs. It might also indicate a smaller scale of operations and the non-attainment of critical mass needed to reduce unit costs of operations to a profitable, viable level.

Acceptable Benchmark for Life Companies:	not applicable
Acceptable Benchmark for Non-Life Companies:	< 20%*

(Some regulators would accept an expense ratio of up to 30% for non-life and 45% for life companies)

Test E3 Combined Ratio: E4 = Test E1 + Test E2

(This ratio does not appear on the list of ratios supplied by EISA – EISA may wish to consider adding this ratio to its list)

This ratio measures the company's overall underwriting profitability. A combined ratio of less than 100% indicates an underwriting profit. For example, a combined ratio of 98% would mean that the insurance company made a 2% profit on its underwriting operations (not counting any money made from investment income).

Acceptable Benchmark for Life Companies:	non applicable
Acceptable Benchmark for Non-Life Companies:	< 105%

[1] Net claims are the sum of settled claims, net of reinsurance, and change in loss reserve net of reinsurance

[2] Expenses = Insurance Management Expenses + Acquisition Expenses

Test E4 Operating Ratio: Admin. and General Expenses / Net Premiuns Earned

This ratio doesn't reflect other operating income/expenses, capital gains or income taxes. A value in excess of the benchmark over time will limit the company's ability to grow, develop new products, compete on pricing, and eventually put strain on the company's capital and surplus.

Acceptable Benchmark for Life Companies: <10%

Acceptable Benchmark for Non-Life Companies: <10%

Test E5 Yield Ratio: Investment Profit / Average Invested Assets

This ratio tests the investment yield earned by the company net of investment expenses and before capital gains/losses and income taxes. Where a company's value for this ratio remains below the industry's norm for an extended period of time, it may encounter difficulty attracting and retaining its yield-sensitive business (life companies). It might also find it difficult to maintain its dividend scale to participating policyholders and net earnings to shareholders.

Values that are positioned consistently outside the normal range call for review to examine the probable cause and the significance of any associated asset default risk exposures not recognized and not adequately provided for by the company

Acceptable Range for Life Companies: 7% < yield < 10%

Acceptable Range for Non-Life Companies: 3% < yield < 8%

Test E6 ROE: Net Profit / Average Total Capital

(This ratio does not appear on the list of ratios supplied by EISA – EISA may wish to consider adding this ratio to its list)

This ratio is indicative of the company's ability to generate business at appropriate equity leverage and to convert gross income from sales and investments into profit. A low or negative value over an extended period of time will lead to financial difficulty.

Acceptable Range for Life Companies: 5% < ROE <15%

Acceptable Range for Non-Life Companies: 5% < ROE < 10%

Liquidity

Liquidity measures a company's ability to meet its anticipated short and long term obligations to policyholders and other creditors. A company's liquidity depends upon the degree to which it can satisfy its financial obligations by holding cash and investments that are sound, diversified and liquid or through operating cash flow. A high degree of liquidity enables an insurer to meet unexpected needs for cash without the untimely sale of investments or fixed assets, which may result in substantial realized losses due to temporary market conditions and/or tax consequences.

Test L1 Quick Ratio: Liquid Assets / Liabilities

This test measures the proportion of liabilities covered by cash and quickly convertible investments. It indicates a company's ability to meet its maturing obligations without requiring the sale of long term investments or the borrowing of money.

This liquidity ratio gives an indication of the company's ability to meet its obligations in a timely manner. A satisfactory ratio would depend on the mix of business underwritten.

Acceptable Benchmark for Life Companies:	> 100%
Acceptable Benchmark for Non-Life Companies:	> 100%

(EISA has two other ratios related to liquidity. The first one, Liabilities to Liquid Assets for Non-Life with a benchmark of less than 105%; the second, Liquid Assets to Liabilities for Life with a benchmark of more than 60%. While the first one seems reasonable, there appears to be a problem with the second one. EISA may wish to reconsider these two ratios and adopt the Quick Ratio instead for both ife and non-life companies.)

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