THE CASE FOR SELF FUNDING IN MOTOR FLEET INSURANCE

EXECUTIVE OVERVIEW

This brief report outlines the case for businesses with motor fleets to self fund their own damage costs arising out of motor accidents. It shows how traditional insurance premiums are structured.

An explanation is given, in simple terms, on how losses are projected and handled without resorting to conventional insurance products.

The benefits are:

• Immediate cost saving
• Improved cash flow.
• Additional Savings in the event of a better than expected loss history
• Isolation from the insurance market cycle
• Incentive to practice safety and risk management
We offer our services in assisting to set up, and monitor the systems involved. Additionally we offer to prepare a Motor Vehicle Risk Management Manual to help reduce costs in both insurance and general motor vehicle running costs.

To assess the suitability of the self funding techniques for you, it will be necessary for us to obtain:

- Accurate and detailed Loss data (for at least 3 years).
- Detailed fleet Information.
- Conventional Motor fleet Insurance quotation (for comparison purpose).
- Motor Third Party Liability quotation.

THE PREMIUM

To understand why self funding may be an alternative to conventional insurance, it helps to understand the basic model upon which all non-life insurance is based. This is best described through a diagram, commonly used in the insurance fraternity to explain how the premium paid over to insurers is distributed.

The percentages shown may vary from insurer to insurer and between classes of business but the principle never changes. There is only a certain amount that can be returned by way of claims.

It can be seen that, for each SR100 paid over to insurers, they can only return back SR65 without falling into a loss situation.

CALCULATING FUTURE ESTIMATED LOSSES

Insurers rely on “the law of large numbers” or statistics, to ensure that overall, total of all the accounts never suffer losses of more than 65%. Some may show a zero percentage of losses, others, 200%. Effectively losses must remain below 65%.

If situations arise where there is an indication that any of the sections comprising the pie increase, for example overheads increase due to higher reinsurance costs or claims paid are higher than expected, insures increase the premium so that the percentages are maintained.
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Often, clients reach the stage where they perceive that the cost of the premium is excessive given the nature of the risk, and their own claims history. This is where a decision has to be made. Do we continue to pay away premiums and subsidize the insurers and their clients with higher claims histories? Or do we investigate alternatives to conventional insurance? If we choose the latter, this is called “Alternative Risk Funding”.

The most basic form of “Alternative Risk Funding” is Self Insurance. Self Insurance may take the form of just accepting the risk, doing nothing, and dealing with each loss as and when it happens. Alternatively, it may include setting up internal funds specifically set aside for the particular risks involved.

The form of self insurance chosen will depend on the size and number of losses expected.

High frequency, relatively low cost losses such as Motor Own Damage are well suited to self funding.

We suggested that Third party injury and damage losses are, initially, omitted from the exercise. Third Party claims are less controllable than Own Damage. It is preferable that the funds set aside for self insurance are closed off as soon as possible at the end of each year to ensure the accuracy of loss data upon which the following years’ Self Insurance will be based. Typically, third party claims, especially those involving injury, take far longer to settle than “in house” own damage losses.

Insurers apply varying level of analysis to past claims histories to establish future premiums. For large motor fleets, the “Burning Cost” basis is frequently used. Other, more statistically accurate, methods are also used.

However for the purpose of this exercise, we will follow the method commonly used in the industry.

Basic information required is:

1) Historical loss data – a minimum of three years, maximum of five years.
2) The data is to consist of details of each individual loss showing the gross amount of the own damage cost and the date of the loss.
3) The losses are then sorted in date order to coincide with the insurance year.
4) The number of vehicles in the fleet during each insurance year.

For more sophisticated analysis additional information is supplied but for the purpose of simplicity in this exercise we are using the very minimum.

1. Establish the total cost of all losses in each year for all own damage losses paid and estimated (outstanding):

   2005_USD 500,000
   2006_USD 650 000
   2007_USD 400 000
   2008_USD 420 000

There will be accidents which have happened toward the end of 2008 but we either have not been advised of them or we have been advised but we do not have an estimated cost, we have to make an allowance for these. Insurers call these “Incurred but not reported” (IBNR) losses. We have to add an amount to the 2008 figures for these.

It is not the intention of this exercise to set out how IBNR allowances are calculated.

2. Set IBNR amount – say USD 10 000.
3. Obtain the number of motor vehicles in the fleet for each year.
4. Calculate the trend of losses. i.e. Is there a trend in the amount of the losses and/the frequency?
This is all best set out on a simple Excel spreadsheet using very simple mathematics. This is not essential and can be calculated manually.

For the purpose of this exercise we have used a simple Excel spreadsheet.

Each year must be expressed in terms of the FORTHCOMING year’s currency. That means increasing the past years figures by an amount to take into account “future value” in this instance we have chosen a nominal 5%.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF LOSSES</th>
<th>GROSS AMOUNT (PAID + OUTSTANDING)</th>
<th>IBNR ALLOWANCE</th>
<th>TOTAL CASH CIRCULATED</th>
<th>TOTAL COST IN F2005 TERMS (5%PA)</th>
<th>COST PER LOSS</th>
<th>COST PER vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>300</td>
<td>500,000</td>
<td>0</td>
<td>500,000</td>
<td>607,753</td>
<td>2,026</td>
<td>3,039</td>
</tr>
<tr>
<td>2006</td>
<td>375</td>
<td>650,000</td>
<td>0</td>
<td>650,000</td>
<td>752,456</td>
<td>2,007</td>
<td>3,762</td>
</tr>
<tr>
<td>2007</td>
<td>350</td>
<td>400,000</td>
<td>0</td>
<td>400,000</td>
<td>441,000</td>
<td>1,260</td>
<td>2,205</td>
</tr>
<tr>
<td>2008</td>
<td>315</td>
<td>420,000</td>
<td>10,000</td>
<td>430,000</td>
<td>451,500</td>
<td>1,433</td>
<td>2,258</td>
</tr>
<tr>
<td>TOTAL OF ALL LOSSES 2005 - 2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,252,709</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVERAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>563,177</td>
<td>1,681</td>
<td>2,816</td>
</tr>
<tr>
<td>2009 (Projected)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>563,177</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOSS RATIO REQUIRED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROSS PREMIUM (OWN DAMAGE ONLY) REQUIRED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>866,427</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diagramme 2 – Calculation of projected losses

We have not allowed for trend in respect of an increased or decreased accident frequency.

The calculation shows that underwriters require an annual premium for 2009 of: **USD 866,427**

Based on expected losses of: **USD 563,177**

A difference of: **USD 303,259**
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Given that there was an original commitment to pay the premium, we can undertake to set aside the value of the expected losses as a provision.

However, we cannot assume that the balance of USD 303,259 is all saving. We have to make provision for:

- Setting up and running a system to handle the expected losses.
- Purchasing “Excess of Loss” cover to protect the fund in the event that the fund is depleted by heavier losses than expected.
- Purchasing “Stop Loss” cover to protect the fund from any individual loss impacting upon the fund. This will only be needed where there are high value vehicles.

Assume the cost of protecting the fund by insurance is: **USD 50,000**

We have a balance of: **USD 253,259**.

Assume an average cost of handling each loss as USD 400. The number of expected losses in our example is 335, giving USD134,000 for the year.

The ultimate saving is estimated at: **USD 119,249**

**OTHER SIGNIFICANT BENEFITS:**

1. **CASH FLOW** - With conventional insurance, premiums are usually paid “up front” – that is at the beginning of the insurance year. The Self Fund Option keeps funds (with the exception of the Excess of Loss and Stop Loss premiums) with the client. They are only paid as and when losses are incurred. Statistically this means that the funds are kept on hand for 6 months.

2. **SAVINGS IN THE EVENT OF BETTER THAN EXPECTED LOSS EXPERIENCE** – The client has the benefit of fund not spent. In conventional insurance, the insurers benefit.

3. **ISOLATION FROM THE “INSURANCE MARKET CYCLE”** – Historically, the Insurance market has been cyclical. This is shown in the following diagramme. The timing of the cycle may vary from 3 to 8 years. The current situation (2008/2009) reflects a softening market, returning from a peak hard market in mid 2006.

   ![Diagramme 3 – The Insurance Market Cycle](image)

4. **INCENTIVE TO PRACTICE RISK MANAGEMENT** – The fact that the fund is kept on balance sheet and losses are seen as directly impacting upon the company’s performance rather than “an insurance claim” there is an opportunity to inculcate a culture of safety and risk management in those responsible for vehicles. This may involve introducing a formalized motor fleet risk plan. CIC are able to assist by developing a **GROUP MOTOR RISK MANUAL** for you.