John Birkenhead
Independent Consulting Actuary
Strategic Insurance Consultancy
Qualified actuary since 1995

Typical Case Studies (various dates, multiple clients: specific examples below)

Case Study Name	I: Effective Risk Quantification	II: Asset-Liability Management
Client problem requiring Actuarial Thought	○ **Reduce Insurance Premium Spend at acceptable level of risk**	○ **Reduce Insurance Premium Spend at acceptable level of risk**
Current Client Insurance Issues	○ **Current insurance premium spend c£1m p.a.** ***(+IPT, c10%)*** ○ **Insurance broker says that cannot negotiate premiums lower** ○ **Very few insurers interested in the risks, lack of competition** ○ **Current insurance buying process controlled by broker** ○ **Substantial internal unused relevant risk data** ○ **Substantial Insurer profit** ***(premiums less claims)*****: c85% of premium**	○ **Very risk averse for insurance purchase** ***(excesses <£25k per claim)*** ○ **Insurance manager unaware of balance sheet asset mix/risks** ○ **Insurance (liability) risk managed separately from asset risk** ○ **No account of strong balance sheet when buying insurance** ○ **Substantial risk quantification expertise – but only for assets** ○ **Substantial internal unused relevant risk data** ○ **Substantial Insurer profit** ***(premiums less claims)*****: c80% of premium**
Client Profile	○ In existence for over 40 years ○ Very long-term time horizon (existing loans of 40+ years) ○ Annual Revenue: c£400m, Net Assets: c£30m ○ Typical Cash: 10% of annual revenue, Investments: mostly A rated ○ Loans (creditors): c£150m ○ Loans duration: 75% of loans due more than 10 years ○ Not covered by FSCS in event of insurer failure	○ In existence for over 40 years ○ Surplus funds (c£200m+) all invested in equities ○ Client in-house asset management philosophy: ○ *content with short-term equity risk (e.g. potential 25% drop in single day) and long-term (probable recovery of short-term losses/outpace inflation)* ○ *preferred capital growth assets (accepting market movements/volatility)* ○ *aimed to minimise cash outgo (to maximise investible cash)* ○ Not covered by FSCS in event of insurer failure
Results of Holistic Insurance Approach	○ Insurance premiums reduced to c£0.2m pa +IPT *(80% reduction)* ○ New internal insurance fund set up, conservatively funded@ c£0.4m pa ○ New insurers quoted for the risk ○ Complete ownership of insurance submission by client, not broker ○ Independent actuarial advice on premiums before risk was submitted ○ **Forecast Net Savings** ○ **Year 1: £0.3m (c30% of original premium)** ○ **Year 2+: Net: savings: £0.4m p.a.** ○ **Actual net savings after 5 years: £3.5m, £1.5m more than plan** ○ Additional review of broker advice over many years opened the way to litigation for failure to give best advice, indicative estimate c£10m+ loss *(consistent with actual 5-year savings)*	○ Asset-liability analysis showed insurance risks ○ *much lower than substantial balance sheet asset risks* ○ *uncorrelated with substantial balance sheet asset risks* ○ Transformed insurance programme, some covers no longer required (well below risk appetite) ○ Other covers transformed to high excess backed by equity funding to cover tail/inflationary risks ○ Dramatic transformational/cultural change:***managing all risks together*** ○ Premiums dramatically reduced (c80% reduction) ○ Premium cash-outgo dramatically reduced = more retained cash ○ New insurers ○ New brokers appointed following stringent "beauty parade" tender
Premium Savings	○ **c80% of original premium, per year**	○ **c80% of original premium, per year**
Net Savings *(after new retained risks, fees etc)*	○ **Expected: c30% of original premium, per year** ○ **Actual: c60% of original premium, per year, after 5 years**	○ **Expected: c30% of original premium, per year** ○ **Actual: c50% of original premium, per year, after 2 years**
Net Savings: AvE reasons	○ Excessive historic insurer pricing / profit and expense loadings ○ Insurance fund funding more conservative than actual claims out-turn	○ Excessive historic insurer pricing / profit and expense loadings ○ Insurance fund funding more conservative than actual claims out-turn
How are large claims funded?	○ Before: By Insurers (large claims <15% of total premiums paid, over 25 years) ○ After: From substantial net savings; no large claims since new strategy ○ New strategy led to more focussed, improved, holistic risk management	○ Before: By Insurers (large claims <25% of total premiums paid, over 25 years) ○ After: From net savings/net assets; no large claims since new strategy ○ New strategy led to more focussed, improved, holistic risk management
Actuarial Fees ***(Project Cost)***	○ **Less than the £0.1m saved in IPT alone**	○ **Less than the £0.1m saved in IPT alone**

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