Ultimate Risk Solutions

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FAIRFAX BRASIL LICENSES RISK EXPLORER™

Fairfax Brasil Seguros Corporativos S/A recently licensed Risk Explorer™, **David O'Gorman**, URS Managing Director-Latin America, announced. "We're pleased to provide Fairfax Brasil with financial analysis software to assist in strategic planning," he said.

Jacques Bergman, CEO of Fairfax Brasil, had this to say: "The acquisition of Risk Explorer™ will help us assess our risks and adapt our operations to a new market reality as well as measure the impact of the new solvency rules and implementation of IFRS (International Financial Reporting Standards), enabling us to use our capital more efficiently."

Fairfax Brasil is a subsidiary of Fairfax Financial Holdings, Ltd., a global insurance and reinsurance group that also licensed Risk Explorer™ recently. In 2010, the Fairfax Group operated in over 100 countries with a net premium of $5 billion and $8 billion in capital. The Company's compound annual return on investment was 15.7 percent from 1985 to 2009. Fairfax Brasil began operations in March 2010, working in the sectors of commercial and industrial insurance. Through August 2011, the Company recorded more than R$137m in written premium.

At present, Brasil's commercial insurance market is highly concentrated with the country's seven largest insurance companies accounting for some 60 percent of the market. "However, it is expected that the recent changes in capital allocation rules will impact market share in the coming years as companies look to a more efficient use of capital," Bergman predicted.

In 2010, the Brasilian insurance market recorded revenues of $162 billion, an increase of 14.85 percent over the previous year. In the same period, return on investment grew 1.20 percent. Commercial insurance accounts for 12 percent of the market with revenues of $19 billion, an increase of 6.67 percent over 2009.

AEGIS INSURANCE SELECTS RISK EXPLORER™

AEGIS Insurance Services, Inc. (AISI), the wholly-owned managing general agent for AEGIS Electric & Gas Insurance Services Limited. (AEGIS), a leading provider of insurance and risk management services to the energy industry, has selected Risk Explorer™ as its Internal Capital Model after an extensive review of several competing applications, **Tom Byrnes**, URS Managing Director-North America announced.

Byrnes and **Mario DiCaro**, URS Managing Director-Technical, worked closely with the AEGIS actuarial team over a number of months testing Risk Explorer™. "We're especially pleased that our product proved to be the best solution, and we're committed to providing a high level of ongoing support to this important client," Byrnes said.

AEGIS is a non-assessable mutual insurance company that opened for business in 1975. It is an eligible surplus lines insurer in all U.S. jurisdictions and maintains offices in New Jersey, Bermuda and London. The principal activity of the Company is to provide, directly and through affiliates and alliances, a full array of liability and property coverages to the utility and other energy-related industries.

NEW CLIENT IN ASIA – ARB

Asia Reinsurance Brokers (ARB) has joined a growing list of URS clients in Asia, **David Piesse**, URS Managing Director-Asia, reported. ARB licensed Risk Explorer Express Edition™, a fully integrated asset liability modeling platform designed specifically for mid-size companies. The Express Edition incorporates many features of Risk Explorer™ but with a simplified set of features tailored to the special needs of mid-size and regional insurers.

"We listened to prospective users of internal capital models and learned that there is a strong demand on the part of regional and smaller companies for a cost-effective model as they develop Enterprise Risk Management Programs to meet rating agency and regulatory standards. However, these users do not need the extensive functionality required by large companies that must build much larger and far more complex models," **Alex Bushel**, URS CEO, explained.

Founded in 2000, ARB is an independent specialist reinsurance and insurance provider of risk solutions. The Company arranges treaty, facultative, retakaful, trade and financial liability coverage among others. ARB clients include insurers, reinsurers, major corporations, agents and banks. The Company's main office is in Singapore, and it has a marketing office in Kuala Lumpur, Malaysia.

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URS

WORLDWIDE INSURANCE INDUSTRY ADOPTING DFA

By Alex Bushel
Founder & CEO
Ultimate Risk Solutions, LLC

Insurers and reinsurers worldwide are integrating Dynamic Financial Analysis (DFA) into the process of making strategic decisions. DFA models have long been accepted by the industry in the UK, Europe and the USA. Today, we're seeing companies in Russia, the Middle East and Asia adopting financial risk modeling. In the global economy, decision makers recognize the need to identify and quantify all the risks they face when making critical decisions.

Two major developments influenced the recent growth of DFA models. Over the last few years, rating agencies began to evaluate companies on the quality of their Enterprise Risk Management programs and, for those doing business in the EU, preparing to comply with Solvency II became a high priority. The value of DFA software is now recognized by regulators around the world. Solvency II will require insurers to maintain capital based on financial risk models. In the USA, ERM programs fueled by financial risk software are being considered in financial stability ratings. Standard & Poor's and AM Best are expecting companies to show they have an ERM program that includes a DFA to quantify risk.

However, the wide acceptance of modeling technology to identify and quantify risks is based not only on rating agency pressure and regulatory compliance. Since the framework for ERM was published by the Casualty Actuarial Society in 2003, insurance industry chief executives have learned to depend on financial risk models to avoid the pitfalls of making decisions without knowing all the risks.

The word is spreading that DFA models facilitate good decisions, and insurance companies in the fast-growing economies of Asia and the financial centers of the Middle East are working with regulators and industry associations to take advantage of the sophisticated new technology. They are using DFA models to prepare for the impact of unanticipated events and to decide the level of risk to take in relation to their company's capital. The daunting list of risks confronting any insurer or reinsurer today requires more than traditional risk assessment tools to know the range of outcomes produced by different scenarios.

Risks cut across all aspects of a company's business. Without a formal ERM program, the different risks cannot be singled out, compared to other company risks and analysed in terms of their collective impact on the company. This is the holistic approach that leads to good decisions. Any successful ERM program depends on state-of-the-art DFA. This insight into a company's future balance sheets is vastly superior to the current 'what if?' or series of 'stress tests' that an organization may perform.

FACTORS TO CONSIDER WHEN BUILDING AN ECONOMIC CAPITAL MODEL

By Patrick Grealy
URS Managing Director-Technical
Europe

Three factors must be considered when you begin to build an economic capital model (ESG) – especially under Solvency II: Economic scenario generators; Adequate reserving; Underwriting profitability.

Economic Scenario Generators – You must generate the economic scenarios (ESG) that govern the movements of many of the financial items that affect an insurance undertaking. When performing an Economic Capital Model (ECM) analysis for Solvency II compliance, you need to model your opening balance sheet one year from now. The assets you hold now will certainly have different valuations in 12 months, and this will directly affect the free capital you have at that time. Interest rates, foreign exchange rates and equity and property values are likely to change during this period. Depending on your asset profiles (type, term, nature, currency and security) you need to be able to revalue these assets on the future scenarios that are created by a comprehensive ESG.

Adequate Reserving – Unless yours is a brand new company with no prior liabilities, you will have past earned exposures that cause you to hold a reserve for unpaid claims relating to these exposures. In the history of insurance and reinsurance, the run-off of these liabilities – substantially larger than you reserved for in your opening balance sheet – has been the single largest cause of company failures. Therefore, you will need to be able to simulate how these liabilities will perform in future and see if your existing capital will be sufficient (at least with a very high probability) to keep you solvent until these liabilities are fully paid off. You will need to be able to simulate the expected reserve in one year's time and, therefore, what may have further eroded your capital.

Underwriting Profitability – If you have future business that you are about to write, then you should be very keen to ensure that this business is profitable, particularly when you take into account the extensive and complex reinsurance you might be purchasing to limit your exposure. More tools are available to model this aspect of the process than the first two.

However, all three ingredients are combined and woven together, because changes to economic scenario generators and deterioration in prior year's business can have a significant simultaneous effect on your new business too. Combine the effects of taxation, expenses, bad debt and multiple balance sheets, and the economic modeling task appears more complicated and involved that it might have seemed at first.

Patrick Grealy is a Fellow of the Institute of Actuaries in the UK.

WHY URS FOR CAPITAL MODELING?

*Editor's Note: In a recent interview, **John Spencer**, URS Executive Director, and **David O'Gorman**, Managing Director-Spain/Portugal/Latin America, explained the URS approach to Economic Capital Modeling.*

Economic capital modeling (ECM) can benefit organizations not only in the context of a risk-based capital regime like Solvency II but also in their regular decision making strategies. We encourage companies to focus on embedding the use of models into their overall business planning. Companies should view risk management as a necessary means to understand their business.

Solvency II should be seen as an opportunity, not an obligation. An economic capital model is suitable for optimizing reinsurance. It is also ideal for illustrations of many before-and-after events, such as portfolio optimization, pricing individual risks, matching assets and liabilities more effectively or merger and acquisition opportunities.

What differentiates URS in the financial risk analysis marketplace? The answer is our independence. We do not sell products in conjunction with other services, so we are judged exclusively on the quality of our financial risk modeling software – not other relationships. We have full transparency of pricing and we stress to clients the importance of considering the overall cost of owning and running a model.

URS advocates a fully integrated approach, whereas some competitors favor a toolbox technique that is similar to the analogy of a kit car, where the components need to be painstakingly assembled part by part. This can consume valuable time and resources, not to mention expense. Ensuring that our software is as accessible as possible negates much of this, as the car is already built. The user need only turn the key and drive off.

With Risk Explorer™, clients need no programming skills and simply enter parameters into the model. This alleviates key-man dependency and variability in how the models are constructed. We offer a comprehensive out-of-the-box solution that is very flexible in terms of the types of risks it can simulate and also the complexity of the organization that is being modeled.

We have introduced a fully automated Solvency II wizard that calculates the Solvency II balance sheet and the required capital figure, incorporating the market value margin through nested stochastic simulations. Other enhancements include improving analytical, capital allocation and reporting capabilities, as well as the functionality for Excel to read results directly from Risk Explorer™ output data.

Another feature allows large companies and multi-national organizations to build even larger models. This has been particularly suitable for a new client, Swedish Club, the first Protection & Indemnity (P&I) Club to license Risk Explorer™. As a member of the thirteen-strong International Group of P&I Clubs, the client required a multi-dimensional model capable of modeling a high level of organizational complexity and intricate web of sources and exposures. It was crucial to have a pre-built architecture able to look at business units in their own right, aggregate results at a group level and also track any intra-group exposures such as counter-party risk.

Companies across the world are recognizing the benefits of economic capital modeling as they develop Enterprise Risk Management Programs to respond to rating agencies and regulatory bodies as well as to prepare for Solvency II. At URS we have developed powerful, flexible and user friendly software that addresses these needs specifically.

RISK EXPLORER™ – THE DFA DESIGNED FOR ERM

Rating agencies today expect insurance and reinsurance companies to have Enterprise Risk Management (ERM) programs that take into account all the risks a company faces. If your company is applying for a rating or seeking to improve its existing rating, you need Dynamic Financial Analysis software. Risk Explorer™ is the DFA model of choice for leading insurers and reinsurers including Munich Re, General Re, Groupama, Arch, the Fairfax Group and many others.

Risk Explorer™ is an ideal platform for building models that quantify and report on the risks identified in ERM. With Risk Explorer™ you have full financial statements, reinsurance structures, an infinitely flexible array of dependency structures and a full economic scenario generator right out of the box. Your analysts will not spend time learning a new programming language or linking various items together.

In Risk Explorer™ you can simultaneously analyze alternative business strategies and produce statistical reports comparing sources of risks across these strategies.

Contact **info@ultirisk.com** and we'll show you how to use Risk Explorer™ in creating an Enterprise Risk Management program that meets rating agency standards.

WHAT THEY'RE SAYING ABOUT RISK EXPLORER™

"By using this valuable tool, the INS wishes to achieve the goal of administrative management with a decision-making process, carried out using industry best practice with a solid actuarial base. This will allow us to maximize our potential as well as making rational use of our capital."

José Ángel Villalobos
General Manager & Chief Actuary
Instituto Nacional de Seguros (INS)

INS is the largest insurance company in Central America.

ENTERPRISE RISK MANAGEMENT FOR THE ASIAN MARKET

By David Piesse
URS Managing Director-Asia

Reinsurance markets are keeping pace with the dynamic growth of the insurance industry in Asia to meet the needs of the region's expanding economies. As the industry takes on more risk, insurers and reinsurers are adopting the most sophisticated technology to assure that all the risks a company faces are considered in business decisions.

More and more Asian companies are developing Enterprise Risk Management Programs (ERM) to identify and quantify risks on a holistic basis as an integral part of their business plans. Regulatory authorities and rating agencies also are beginning to evaluate insurers and reinsurers on the basis of their ERM programs. To meet this demand, URS recently committed resources to the Asian markets with a presence in Hong Kong, Singapore and Bangkok. We are working with companies in the region to provide them with the financial risk assessment tools they need to meet ERM standards.

Our Dynamic Financial Analysis (DFA) model, Risk Explorer™ and associated URS analytical products enable companies to meet the most rigorous standards of evaluating ERM programs. That's why Risk Explorer™ is the financial risk modeling solution used by many of the world's leading insurers and reinsurers. As you approach the creation of an ERM program, here are some considerations to bear in mind:

RISK CONTROL

ERM is a risk control process. Rating agencies assess insurers within credit, market, insurance and operational risks. Processes to enforce limits and learning from past losses and their combined quality and effectiveness influence rating agency opinion.

EXTREME-EVENT MANAGEMENT

Assessing the reliability and adequacy of catastrophe risk reinsurance and retrocession is essential to reduce the impact of conceivable disasters. Extreme-event management includes all possible shocks including early warnings.

RISK MODELS

For most risks, the degree of exposure is not apparent from company accounts. Indicative, predictive and risk measures are needed. Indicative measures are available from accounting/administrative/underwriting systems – they indicate risk trend. Predictive measures are estimated using stochastic simulation.

ECONOMIC CAPITAL

Economic capital is the amount needed by enterprises to provide support for retained risks in severe loss situations. For insurance companies under Solvency II, economic capital determined by internal models is recognized by regulators as the minimum regulatory capital requirement.

STRATEGIC RISK MANAGEMENT

Starting with required risk capital and a process for allocating that capital among products and businesses, companies develop programs that support optimization of risk adjusted return. Capital allocation amongst risk sources is the ultimate step.

Risk Explorer™ addresses all of these considerations and will give your company an integrated, easy-to-use tool to create an ERM program.

RISK EXPLORER™ – THE ANSWER TO YOUR MODELING REQUIREMENTS FOR SOLVENCY II

If you're struggling with how to meet the internal modeling requirements of Solvency II, let us take you on a test run of Risk Explorer™. Our model meets Solvency II standards for designing, specifying functionality, programming and coding, re-specifying following industry and market changes, integration with information technology systems, testing, maintaining legacy products and backwards compatibility, training, documentation, specific enhancements and interfacing with new operating and network systems.

When Solvency II goes into effect, Companies may achieve reduced capital requirements if they have well designed reinsurance structures, reinsurance placed with highly rated reinsurers, diversified lines of uncorrelated business, appropriate types of assets with respect to liability profiles, and internal models that are used in day-to-day operations. Risk Explorer™ can help you meet the modeling standard. It is used by many of the world's leading insurers and reinsurers as an integral component of business planning. Contact **info@ultirisk.com** to arrange a demonstration.

DE DIOS HONORED AT PHILIPPINE INSURANCE CONFERENCE

Reynaldo De Dios, Founding Editor of Insurance Asia and Editorial Consultant to Asia Insurance Review Magazine was honored with a Lifetime Achievement Award by the Philippine Insurers and Reinsurers Association at a recent conference where Ultimate Risk Solutions was a sponsor.

"We were pleased to be a sponsor of the PIRA conference. Reynaldo De Dios is a revered leader in the Philippine insurance industry and richly deserved this award," said **David Piesse**, URS Managing Director-Asia.

Piesse said Philippine companies are becoming increasingly interested in financial risk modeling, and URS is meeting with the Country's regulatory authorities to discuss the role of dynamic financial analysis in developing Enterprise Risk Management programs.