10C´s PROJECT

WHITE PAPER

published by ryskex gmbh

What are the damages? Quantifying loss, and getting effective funds to the street

This discussion of insurance issues raised by COVID-19 economic outcomes pales in contrast with the dramatic toll on health and life across the globe. Recognition of those who have been affected personally by the outbreak and those who serve all through healthcare cannot be overstated.

COVID-19 has identified the mother of all coverage gaps- global systemic risk manifested in the form of a pandemic, a risk so broad in its effects and deep in its economic costs that property and casualty cover essentially does not exist for businesses' or individuals' incurred costs related to the outbreak. Business interruption costs alone from COVID-19 will account for some trillions of dollars of loss costs and millions of jobs lost. The economic effects of COVID-19 can only be mitigated at this point, and actions taken now are predicated on events that in many ways were either unanticipated or too extreme for concurrent management. COVID-19 was too big, too fast. And the global economic community were in the majority sorely unprepared.

This cannot happen next time (and there will be a next time), and it is incumbent on the insurance industry to ensure we have a response at the ready, and have predetermined partnerships with business, government, and regulatory stakeholders. In addition (and of key importance) there must be acceptance that layering finance of systemic risk onto the existing indemnity model of insurance is impractical. Improvements in AI and data analysis will enable a collective effort to engage risk modeling techniques needed to understand and harness predictive techniques.

This series of papers does not have as its goal a determination of what a systemic risk solution will be, nor do the authors presuppose that what is summarized is anything but the beginning of the beginning of the discussion of an answer. There are scoresof risk prediction firms, insurers, academics, consultants, government risk professionals, brokers, agents, etc. already considering what's next.

Our purpose in this paper is to suggest a framework from which answers can be focused and discussed. Input from anyone who hopes for a collective solution to addressing systemic risk is welcomed for commentary and discussion.

The Premise

Systemic risk with wide global effects such as pandemics and significant regional effects such as earthquakes have traditionally been beyond the risk financing scope of the insurance industry and become the province (ultimately) of government backstopping. The unmentioned problem of government financing of recoveries is that bureaucracy tends to exacerbate the physical and emotional damage caused by an occurrence.

Effective and affordable post-occurrence responses and planning for future events can only be planned holistically, meaning multiple avenues and multiple important players. A key position of the authors is that the indemnity insurance model is inadequate for systemic risk planning and use, primarily due to indemnity severity being difficult to estimate for indirect damage such as business interruption losses, and the claim-related delays in getting response funding to the street. The former concern being a barrier to carriers' pricing and determining affordability of policies, and the latter simply not being what economies need once a trigger event occurs or cover is confirmed- funds on the street.

Leveraging SME spending

The principle of velocity of money is exemplified in a post-disaster environment. Funds that are released to the working street post-disaster are received,

immediately spent, received again, spent, and so on across a local economy. The potential regional GDP will be reduced post-disaster, but with an influx of funds consumption can be maintained. One might even say the velocity factor increases as pent up demand is addressed after a disruption of revenue/pay is experienced immediately after an occurrence, so the more the local money supply is maintained the higher the local domestic product becomes. Placing recovery funds into the hands of SMEs and employees assures the best economic response after a disaster. Any recovery plan must recognize this.

As of this writing there are efforts being made to respond to the economic needs of SMEs, including loan programs, immediate grants, and collateral benefit individual grants. The rollout of some of these programs has been inhibited by scale, administration, funding and extreme demand issues.
The Ten C's that are the core focus of the project are noted at the end of this article. Can the Ten C's concept be applied without knowing the following points? Seems working backwards from anticipated needs towards a solution is prudent.

There's a need to know

Consider these questions from the response recipients' needs backwards:

- *What benefits to the SMEs is any response fund to provide? What are qualified economic damages?*
- *How are individual response amounts determined, how would an aggregate amount be determined for a fund goal, and how would the amounts be maintained for accuracy over time?*
- *How would funds be distributed?*
- *How will potential response recipients be organized for indicative data and eligibility?*
- *How will the indicative data be administered over time?*
- *How will overlapping benefits be communicated to the program?*

Economic Damage Benefits- Business Interruption

Immediate qualifier- any pandemic fund benefits presume a continuation of no business interruption coverage for pandemics by most business insurance policies, and/or that any fund benefits would be offset by insurance policy proceeds.
A significant concern for any indemnity-based response fund is: "what are the claimed damages, and how are those damages to be confirmed?" Direct property damage is an easier claim to support- physical damage is present, and there are estimated costs determined by accepted market practices to calculate repairs to the property.
Economic injury is more difficult as each business has a different set of economic circumstances that would prompt a claim, each has unique methods of operating, and each would have unique needs for mitigating the effects of business interruption. Compounding the ask for response funds in a traditional, indemnity sense is the need to validate the ask, an activity that generally requires adjuster review, a cumbersome undertaking for BI claims. Time, documentation, clarifications, and confirmation of policy cover are barriers to prompt settlement of BI claims within an indemnity model. And- for severity planning purposes- indemnity benefits are difficult to estimate individually and in the aggregate unless coverage limits are purposefully set at or below historic averages.

A parametric response - prompt and easier to plan

Changing from an indemnity model to a parametric model removes much of administration and validation overburden for a participants and sponsors; the financial benefit(s) would be predetermined as part of the parametric plan. The amounts and thresholds would be part of the design of the program, would be adaptable over time and as businesses evolve and grow, and would be calculable in aggregate thus keeping sponsors and contributors aware if

the needed breadth of overall benefits (dynamic calculation of probable loss.) There would be no need to adjust a volume of potential claims- the benefits would be defined within the parametric design.

Parametric responses would still need to reflect a projected need and be affordable. The current concern with the economic damage from COVID-19 is that each business in an affected area has suffered economic effects, and the aggregated damage business by business is in the trillions of dollars.

Can we step back and see what the money supply influx needed would be if a principle of velocity of money is used? An economy that represents $500 million of activity for a disruption period may not need $500 million for status quo; if the region has a 1.5 factor for application (use) of the funds a distribution of $333 million will result in an ultimate effect of $500 million. It's a simplistic application of the theory but the thought process applies to parametric applications- immediate funds to the SMEs, let the spending begin to buoy the local economies. Indemnity plans take time, direct government plans take legislation and are inhibited by political friction.

This thought process speaks to how would a parametric response plan determine the quantity of funds, a question that needs answer support through comprehensive analysis of how current losses have been estimated. Work backwards from the roots of those losses, recognize there is a velocity of funds, and determine the threshold amount of funds needed. It's certainly not to be an easy task but may find an affordable outcome that currently does not exist for SMEs.

The identification of the basis economic need (or estimation) will make the rest of the bullet points into an administrative exercise- finding the most effective, adaptable, and scalable method to accomplish the needed end result- uniform, accurate distribution of response funds once an index has been met. In that it seems distributed ledger technology may be a best method.

Ten C's

The approach being espoused will for at least the short term be referenced as the Ten C's of Parametric Disaster Response, the respective C's noted below with a brief description.

<01 concept>

Systemic risk management is beyond any one constituency to collect data for, analyze, underwrite, price, determine indexes, sell product, administer, coordinate, pay, etc., and its effects cross over many jurisdictions. As such any solution needs to embrace the strengths of constituencies, and recognize the weaknesses therein. In addition, application of sources of funding, administration, legalities must be leveraged.

<02 cover>

This is the basis of any program- what is covered, how is it determined, are all constituencies attended, are there layers of cover, or different types of cover? Application of historic data analysis, artificial intelligence, and complex data aggregation is just a start for this C.

The approach would not be indemnity-based but reflect an agreed parameter or parameters and afford benefits to a contributing constituency, and/or constituency that has significant effects in an economy.

<03 catastrophe>

What will trigger a parametric response constitutes this factor. What disaster will prompt the cover, and what index/trigger will drive the enactment of a payment? Cyber? Climate change? Pandemic? The measure must be uniform, easily verified and a direct function of an economic loss.

<04 capacity>

The breadth of the current pandemic suggests enormous capacity is needed in the market, even in a parametric response. How will adequate capacity levels be projected to ensure the program is viable to all involved regions when a covered disaster occurs? Capacity also suggests sufficient involvement of

capital to satisfy demand and accommodate pricing models.

An exemplar $500 Bn fund would be difficult to fund immediately, but could be funded over eight years, $5 Bn contribution per month at 4% interest. Having a balance of backing/contribution would produce many capital investment options, hedging options and participation options for capital markets. There are examples of regional disaster bonds/funds in the market now; this program would expand the breadth of and financial extent of cover. With rei and government backing the initiative can even prompt formation of more localized response cover.

<05 captives>

There is precedent for large organizations in self-insurance- captive organizations. Adaptation and expansion of the captive insurance concept in terms of systemic risk is a recommended key factor. There is experience that can be applied, and a regional or global fund can serve as backstop for organizations who choose to have captive arrangements as their primary response. Political-based captives may be an option.

<06 capital>

Traditional insurance reserving and capitalization is inadequate for systemic risk planning. COVID-19 has proven a needed recovery would exhaust existing capital held by insurers for all lines. Engaging capital markets, cat bonds, ILS, etc. would be required and potentially beneficial for investors and those who would apply the finds for response. Designating funds as tax-free vehicles would build attraction for investors. Government backing would be present not as primary, but as backstopping availability.

<07 collaboration>

Probably the most important factor- the need for active collaboration from multiple constituencies, multiple countries, multiple regions, governments, funding sources, insurance organizations, etc. Encouraging participation and benefits for agents/ brokers and syndicates would ensure more robust participation and understanding of benefits of parametric plans.

<08 continuity>

Another key- funding, involvement, admin, data analysis, investment, projections must be vigorous over time. Involvement must be compelled either overtly or indirectly to counter political tendencies to forget issues. Ongoing effort from all collaborators is vital to ensuring that when an index is triggered there will be funding and response efforts sufficient to the need. An example- backing bonds that remain uncallable for an extended period, or regulation/laws that mandate policyholder contributions to the initiative.

<09 collection>

As has been seen post-COVID the burden of bureaucracy and legislation is proving to be an impediment to releasing resources to businesses and individuals.

There must be assurance that when a trigger moment is reached there will be accurate and prompt distribution of parametric payments, with a focus on business for an insurance product (individuals' response would be seemingly an insurmountable insurance task.) Implementation of distributed ledger technology would be a meaningful addition to a systemic risk coverage response- trigger, payment data, payment.

<10 Contribution>

How to encourage business contributions? Employment of tax credit or favorable tax handling of premiums and contributions to associated insurance policies or funds. Reduction of moral hazard views of the funding is important.

Mandating funding (such as is applied for TRIA funding) levels the funding playing field.

Conclusion

The Ten C's framework is designed to encourage utilization of existing industry expertise, relationships, insurance principles, and distribution networks. The greatest recommended changes are- step back from the indemnity model that currently exists and migrate to parametric products, include the capital markets as primary sources of funding for the initiative, and foster a collaboration of government and private administration and building reliance on DLT for efficiency and transparency.

The undertaking is daunting and represents a new version of the Insurance Elephant- Ten C's comprise the beast, but each of the C's are integral in understanding the beast.