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INTERVIEW

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From Homeless to Millionaire

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COVID-19 in the Context of Insurers' Operating Environment

This review highlights the inter-connectedness of the 2020 COVID-19 pandemic, potential insurer liabilities, capital market behavior and their combined impact upon insurers' financial condition, an Enterprise view. The magnitude of direct and indirect economic loss, asymmetric distribution of deaths, progressives' demands for expanded entitlements and restorative justice, increasing frequency and diversity of natural catastrophes, faltering global political and economic frameworks compounded by fractured leadership failing to learn from history has become "The Perfect Storm", and perhaps, an existential threat to the industry.

We take no position on the legitimacy of insurer responsibility for indemnification of financial losses due to the pandemic or recoveries for the timely restoration of insureds' or claimants' financial position. The outcomes of capital market scenarios we show following the economic loss and government stimulus associated the pandemic are not forecasts but rather serve only to demonstrate a reasoned range of outcomes upon the industry's capital. A summary 2019 property/casualty industry operating results provides context for possible prospective outcomes.[1]

2019 OPERATING RESULTS AND INVESTMENT HIGHLIGHTS

Table 1 displays summary statistics of 2019 results and several pre/post financial crisis periods' results. Net premiums written increased 3.8% over the prior year to $637B in line with a direct premium increase of 3.8% and a 20-year compound annual growth rate of 3.9%. The combined ratio improved 0.4 points from the prior year to 98.9, in contrast to 101.2 and 101.8, the 20-year premium weighted and average annual combined ratios, respectively.[2]

Table 1. The Industry's Reported Financial Results

Metrics ($B)	2019	2018	2013	2008	2004
Direct Premiums Written	$704.4	$678.3	$546.3	$498.8	$481.4
Ceded Reinsurance Premiums	-67.4	-60.0	-64.4	-58.4	-56.0
Net Premiums Written	637.0	618.3	481.9	440.3	425.4
Combined Ratio	98.9	99.3	96.3	105.1	98.5
Investment earnings	56.1	57.0	49.3	53.1	40.5
Pre-tax Operating Income	60.8	57.3	65.3	31.7	43.8
Net Income	62.9	60.8	71.6	3.7	38.4
Return on Average Equity %	7.8	8.0	11.4	0.7	10.2
Underwriting Cash Flow	32.5	27.9	17.9	-1.5	62.9
Cash From Operations	85.2	84.4	59.3	40.7	91.1
Total Cash and Investments	$1,861.8	$1,702.9	$1,483.9	$1,205.4	$1,051.4
Affiliated Investments	213.0	195.7	166.9	97.7	66.9
Total Loss/UPR Reserves	965.7	936.7	820.4	771.0	659.8
Capital and Surplus	860.3	756.9	666.7	461.8	397.9
Net Capital Withdrawals	-35.6	-32.1	-34.0	-26.6	-14.7
Net Chg Unrealized Gains	$86.3	-$45.4	$39.7	-$58.2	$12.3
Leverage					
Premium/Capital	0.74	0.82	0.72	0.95	1.07
Invested Assets/Capital	2.16	2.25	2.23	2.61	2.64
Affiliated Investments/Capital	24.8	25.9	25.0	21.2	16.8

Source: U.S. Statutory Filings

Net (of expense) earned investment income declined $0.9B from the prior year to $56.1B. Both pre-tax operating income ($60.8B) and after-tax net income ($62.9B) were boosted by improved underwriting results offsetting the investment earnings decline. Although each metric achieved a 5-year high, they trailed their 2006 pre-crisis peak levels of $85.4B and $66.4B, respectively. The statutory average return on equity declined 20 bps to 7.8%, 10 bps less than the 20-year average of 7.9%.

Underwriting cash flow of $32.5B achieved its highest level in 12 years, albeit barely half of 2004's record of $62.9B. Operating cash flow of $85.2B showed continued improvement, the best result since 2004. Cash and invested assets increased nearly $160B to $1.86T, a record increase to an all-time high, lead about equally by operating cash flow and common stock appreciation.[3]

[1] The focus is on statutory results of U.S. domiciled P&C companies. However, we account the prospective market valuation of fixed income portfolios because it is a critical component of liquidity. Generally Accepted Accounting Principles (GAAP) will not materially impact the directional outcome of the results.
[2] Further details of annual results from 2000 are available upon request.
[3] *Dollar* increases occurred in all broad sectors of invested assets. The principal changes in *allocation* were the decrease in bonds, the noted market value appreciation in equities and an increase in cash/cash equivalents. Credit quality, duration, concentration, etc. (largely unchanged), pale in comparison to immediate concerns associated with the potential fallout from COVID-19. Affiliated Assets (AA) increased over $17B to $213B or 11.4% of total cash and invested assets. AA remain the overwhelming portion of "Alternative" Schedule BA assets which are concentrated among few insurance companies and within their affiliated operating entities. Unaffiliated Alternatives have not been widely embraced by insurers at the operating company level.

Capital and surplus increased by more than $100B to a record high of $860B, reflecting contributions from net income and common stock appreciation offsetting shareholder dividends and capital withdrawals totaling $35.6B. Continued surplus accumulation and capital management programs continue to drive leverage to lower levels further dampening return on equity.

THE COVID-19 PANDEMIC

There are multiple inter-related factors to consider when assessing the impact of the pandemic on insurers' financial position. These include the magnitude of insured losses and legal costs associated with their determination, the timing of payouts, the amount of premium credits and the eventual restoration of economic activity. At an Enterprise level, these combine with an already present level of record low interest rates, volatile financial markets, shrinking U.S. domestic/global economies and rapidly growing debt levels.

We rely on a variety of sources for range of insurance underwriting outcomes and how they might develop over the next several months and years.[4] We combine these with alternative investment outcomes to determine the impact upon insurers capital levels in the near-to-intermediate term. We compare a base case scenario, Calm Waters, to two adverse scenarios, Bounded Pandemic and End of Days reflecting insurance and investment results over a five-year time period.[5]

INSURANCE UNDERWRITING CONSIDERATIONS

Table 2 displays several key underwriting metrics for each scenario. The results show either a 5-year cumulative sum, a weighted average or a terminal amount at the end of 5-years. Also displayed are the 2019 annual year-end reference values. For example, 2019 year-end net premium equaled $637B; the Calm Waters scenario 5-year premium totals $3.7Tr; and, the End of Days scenario premium totals $2.8Tr.

Table 2. Industry Underwriting Outcomes

2019 Values	Underwriting Metrics 5 Year	Calm Waters	Bounded Pandemic	End of Days
637.0	Net Premium $B	3,712.6	3,290.7	2,815.5
99%	Wgt Combined Ratio	100%	109%	121%
7.6	U/W Income $B	-5.6	-298.7	-586.5
406.5	Total Paid Claims $B	-2,668.1	-2,693.5	-2,676.1
32.5	Net U/W Cash Flow $B	185.3	-147.1	-480.9
991.6	Total Net Reserves $B	1,381.3	1,319.7	1,252.5
0.0	Excess Attritional Loss $B	55.7	49.4	42.2
24.4	Total Cat Loss $B	100.2	188.3	275.0
0.0	COVID Loss $B	0.0	202.2	391.0

Source: Scenario projections

The Bounded Pandemic and End of Days scenarios' premiums reflect differing levels of economic contraction/ recovery and the ability to reset premium levels following loss events (insurers paying their fair share").[6] The End of Days premium changes mirror 2005 – 2009 of nil growth.

Combined ratios reflect the incidence of cumulative attritional losses, catastrophe events and COVID 19 claims. Annual excess attritional losses range from $8.1B (End of Days) to $11Billion (Calm Waters). The lesser amount of End of Days excess attritional losses is due to an assumed greater level of economic contraction and slower recovery driving lower exposure and premium growth. Annual catastrophe losses range from $20B (Calm Waters) to $55B (End of Days). These contrast to an average of $33B ($60B) of insured losses for the ten (three) years ending 2019[7].

COVID claims range from a cumulative loss of $0.0 to nearly $400 billion. Some claim types are possibly non-controversial and quickly resolved, some claims might fail due to specific contract language while other claims might succeed due to judicial interpretation and contract reformation. As economic recovery progresses individuals might seek redress from employers, healthcare providers and governmental agencies for damages. And then, there are nearly two hundred thousand dead whose demise is beyond simple economic "damages".[8]

[4] For example, see *CORONA VIRUS - All The Time*, Dowling and Partners, April 20, 2020, and subsequent IBNR weekly publications.

[5] Arguably, the COVID-19 did not cause a pandemic. Rather, failing leadership, globally and domestically at all levels, and disjointed directives flowing from political calculation exploded a known virus' damage to epic proportions of economic loss, human suffering and death. Since the pandemic of 1918 it appears human behavior and preparedness has not advanced. See, Barry, John M., The Great Influenza: The Story of the Deadliest Pandemic in History. Penguin Group, USA. 2004.

[6] Congressional Budget Office of Economics, April 24, 2020. Q1 6.5% GDP contraction followed by further reduction.

[7] 2019 insured U.S. catastrophe losses reported by Insurance Information Institute (I.I.I.) totaled $24b down from the 2018 estimated loss of $50b about equal to the 10-year average excluding the 2017 all-time high amount of $106B.

Estimated Insured Property Losses, U.S. Catastrophes, 2010-2019 (1)

Year	Number of catastrophes	Number of claims #M	Dollars when occurred $B	In 2019 dollars $B (2)
2010	34	2.4	14.3	16.7
2011	30	4.9	33.6	38.5
2012	26	4.0	35.0	39.3
2013	29	1.8	12.9	14.2
2014	32	2.1	15.5	16.8
2015	40	2.0	15.2	16.4
2016	43	3.0	21.7	23.0
2017	46	5.3	106.5	111.0
2018	55	3.0	50.0	50.9
2019	61	2.3	24.4	24.4

(1) Includes catastrophes causing insured property losses of at least $25 million in 1997 dollars and affecting a significant number of policyholders and insurers. Excludes losses covered by the federally administered National Flood Insurance Program. As of April 17, 2020.
(2) Adjusted for inflation through 2019 by the Insurance Information Institute using the GDP implicit price deflator. Source: Property Claim Services® (PCS®), a unit of ISO®, a Verisk Analytics® company; Bureau of Economic Analysis.

[8] These individuals' deaths cannot be ignored as we sort through causes and remedies. We cannot merely fumble and say, "What difference does it make, they are all dead?".

The politicians call for insurers to "pay their fair share" will be heard by legions of plaintiffs' lawyers driving defense costs at least and possible indemnity payments. Tobacco, environmental/asbestosis and opioids settlements and awards can serve as guideposts for COVID cases. And, then there is the risk of further losses arising from possible multiple waves of infection as those during the 1918 Pandemic. The adjudication of these claims will occur in an environment of rising entitlement feeding an escalation of social inflation.[9]

In sum, as shown in **Table 2**, if underwriting income were to collapse negative cash flow quickly follows. The underwriting combined ratios contrast to the five-year rolling calendar combined ratios in the mid-1980s (112-113) and the peak years of 1984, 1992 and 20011 (118, 116 and 116, respectively). The range of outcomes can be reviewed within a long-term historical context[10].

INVESTMENT CONSIDERATIONS

Table 3 displays select investment metrics leading with total earned investment income (EII). The Calm Waters scenario average annual EII is about $63.6B ($318/5), or $7.5B greater than year-end 2019's $56.1B. The increase is driven by a combination of assumed nominal interest rate rises across the term structure resulting in higher embedded yields, and large operating cash flow and equity value appreciation furthering an increase in invested assets.

The average annual Bounded Pandemic EII is $57.6B ($288/5) and only slightly greater than the year-end 2019 amount of $56.1B. And, the $30B total shortfall from the Calm Waters scenario EII is due nearly entirely by underwriting metrics: a $330B cumulative reduction in underwriting cash flow shown in Table 2 leading to lower invested assets. In the Bounded Pandemic scenario prospective interest rates were assumed to be the same as in the Calm Waters scenario.

Table 3. Industry Investment Metrics

2019 Values	Investment Metrics 5 Year	Calm Waters	Bounded Pandemic	End of Days
56.1	Earned Investment Inc. $B	318.1	288.1	230.7
85.2	Operating Cash Flow $B	455.7	162.1	-157.9
1,825.7	Cash & Inv. Assets-BV $B	2,428.5	2,135.1	1,598.8
1,900.7	Cash & Inv. Assets-MV $B	2,358.6	2,078.3	1,617.4
3.31%	Embedded Taxable Yield	4.17%	4.12%	3.43%
3.31%	Embedded Exempt Yield	3.16%	3.17%	2.91%
541.5	Total Equities $B	908.5	850.6	570.7
80.0	Equities UNRGL $B	253.4	246.8	23.0

Source: Scenario projections

In the End of Days scenario prospective rates are assumed to be flat to the 2019 year-end term structure levels allowing for only slight changes in embedded book yields as maturity and pay-downs occur. However, a $600B reduction in operating cash flow and $230B lesser of unrealized equity appreciation reduces invested assets considerably in contrast to the Calm Waters scenario.

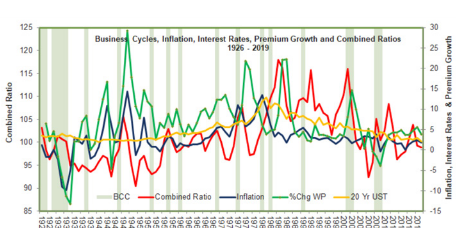
In the Calm Waters scenario rising rates depress bond market values eclipsing the assumed equity market appreciation causing the market value of the portfolio to trail its book value. In End of Days, the opposite occurs with the market value exceeding the book value but of a much diminished in size portfolio.[11]

CAPITAL MATTERS

The Calm Waters scenario annual pre-tax operating income on a statutory basis averages about $59.5B ($297.8/5), or about $1.3B less than at year-end 2019. The End of Days average pre-tax annual operating loss totals about $73B driven by the combination of severe underwriting losses and declining earned investment income. Ending statutory surplus ranges from a gain of nearly $390B from year-end 2019 to a loss in excess $310B.

[9] See, The Institutes-Risk & Insurance Knowledge Group, Social Inflation: Evidence and Impact on Property-Casualty Insurance. Insurance Research Council. June 2020. And, see, Baribeau, Annmarie Geddes., Tipping the Scales: Measuring the Impact of Social Inflation. Actuarial Review. July 23, 2020.

[10] For example, the following serves as a refresher of property-casualty results (premium growth and combined ratios) in contrast to business cycle contractions, inflation and interest rates over an extended period of time.



Source: Nat'l Bureau Economic Research, St. Louis Federal Reserve, AMBest

[11] Total liquidity is defined as underwriting cash flow (premium receipts less paid losses, expenses and policyholder dividends – all net of reinsurance flows) plus earned investment income received less taxes paid plus cash available from fixed income pay downs and maturities. Shortfalls within the calendar year are expected to be covered by cash management and lines of credit, such as available through the Federal Home Loan Bank.

Calm Waters scenario results in leverage continuing its post-World War II decline. The End of Days scenario reverses the trend but for reasons of diminished surplus rather than robust profitable growth eroding the industries capacity to absorb future adverse fortuitous events. The results are shown in **Table 4.**

Table 4. Capital Matters' Metrics Comparative

2019 Values	Capital Matters Metrics 5 Year	Calm Waters	Bounded Pandemic	End of Days
60.8	Pre-tax Operating income	297.8	-23.2	-366.8
637.0	2024 Premium $B	819.7	727.4	643.2
1,825.7	Cash & Inv. Assets-BV $B	2,428.5	2,135.1	1,598.8
836.4	Statutory Surplus $B	1,222.0	966.4	521.7
0.76	Premium/Surplus (STAT)	0.67	0.75	1.23
2.18	Inv. Assets/Surplus (STAT)	1.99	2.21	3.06

Source: Scenario projections

IN SUMMARY – AN ENTERPRISE VIEW

The COVID-19 crisis has taken a serious human and economic toll throughout the world. As the severity of losses increase, so do efforts to find relief and compensation for the damages inflicted. The primary P&C insurance industry has been targeted as a source of funds for reasons of either "hardship" relief, acceleration of telematics rating or contractual obligations. While insurers have been generous in their support, some critics say they are not doing their "fair share." Some companies warn of the erosion of Constitutional protection to the sanctity of contracts; other hanger-ons offer their services to pierce that veil.

The damages are significant. The issues are complicated. And, the outcomes are highly inter-connected from the virus's infection and contagion to long-term economic damage following initial economic losses and consequence of stimulus' efforts to social upheaval. For the industry to succeed it must recognize these interdependences, understand the societal lens under which it is scrutinized and clearly communicate its position while remaining resourceful to seek solutions for the benefit of all current and future stakeholders.

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