DORINCO REINSURANCE COMPANY

NAIC GROUP CODE 0000 — NAIC COMPANY CODE 33499

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - 2021

1. Overview

This discussion provides an assessment by management of the current financial position, results of operations, cash flow and liquidity for Dorinco Reinsurance Company (Dorinco, the Company) for the year ended December 31, 2021. Information presented in this discussion supplements the financial statements, schedules, and exhibits in the 2021 Annual Statement.

Dorinco is a wholly owned subsidiary of Liana Limited which is ultimately a wholly owned subsidiary of Dow Inc. (Dow). Dorinco issues direct property and liability insurance policies to Dow and certain related companies and participates in property and casualty reinsurance treaties covering Dow or unrelated parties with other insurance companies.

1.1. General

Dorinco maintained its strong financial results in 2021. While continued strengthening of underwriting reserves led to a negative underwriting result it was more than offset by increased investment income. Dorinco's financial position remained steady with positive investment income and realized capital gains combined with unrealized capital gains during 2021.

Overall, Dorinco's admitted assets increased from $1.661 billion at year-end 2020 to $1.765 billion at year-end 2021, reflecting favorable investment income earned, partially offset by $45 million in dividends paid to stockholders during the year.

Dorinco's main focus is to provide an efficient vehicle to Dow to manage its risks and to complement it with top quality profitable unrelated business.

No preliminary merger or acquisition negotiations have taken place during the year.

DORINCO REINSURANCE COMPANY, 33499

I. FINANCIAL POSITION

Dorinco's financial position at December 31 was as follows:

	$MILLION 2021	$MILLION 2020
ADMITTED ASSETS		
Bonds	1,360.0	1,067.6
Equity	0.6	0.6
Other Invested Assets	182.3	233.8
Cash/Short Term Investments	119.9	248.9
Premium Balances	73.3	81.2
Funds Held	7.1	9.6
Reinsurance Recoverable on Loss/LAE Payments	6.3	4.8
Net Deferred Taxes	3.9	5.3
Other Assets	11.9	8.9
TOTAL ASSETS	1,765.3	1,660.7
LIABILITIES		
Unpaid Losses/LAE/IBNR	1,042.4	947.9
Unearned Premiums	66.0	57.6
Current Federal Income Taxes Payable	14.9	21.3
Ceded Reinsurance Premium Payable	13.9	11.6
Funds Held Under Reinsurance Treaties	1.5	1.8
Provision for Reinsurance	2.3	1.6
Other Liabilities	10.7	4.1
TOTAL LIABILITIES	1,151.7	1,045.9
TOTAL POLICYHOLDER'S SURPLUS	613.6	614.8
LIABILITIES & SURPLUS	1,765.3	1,660.7

IA. ASSETS

Dorinco's year-end 2021 admitted assets increased $104.6 million as compared with year-end 2020, inclining 6.3% during the year. Cash and invested assets increased by $112.1 million or 7.2% versus year-end 2020, primarily due to investment gains combined with positive cash flow from operations, offset in part by dividends paid to stockholders.

Premium receivables and reinsurance recoverables decreased by a combined $7.9 million in 2021 versus 2020 largely due to the timing of premiums written between the years combined with a slight decrease in reinsurance recoverables at year end. Premium receivable balances are gross of ceded reinsurance premiums payables of $13.9 million in 2021 and $11.6 million in 2020.

Cash and short-term investments decreased by $128.9 million and other invested assets decreased by $52.3 million while bonds increased $292.5 million in 2021, primarily due to a continued strategic decision to deploy cash back into the market during 2020 and 2021 following the conversion of appreciated assets to cash during 2019.

The goal of Dorinco's investment policy is to maximize its long-term rate of return. Dorinco, via a service contract, utilizes the portfolio management services of Dow's Portfolio Investment group. To accomplish the above stated goal, a diversified investment portfolio consisting of fixed income, equities, and alternative investments has traditionally been maintained. In addition, the Company uses currency and interest rate derivatives for income generation and enters into various future contracts with the objective of adjusting fixed income portfolio duration. The investments in derivatives are limited and the positions expire within the quarter of investment. The results are recorded in the Income Statement and are reported in Schedule DB. Dorinco has no off-balance sheet arrangements.

The Company began 2021 with an investment portfolio allocated between domestic and international fixed income assets (69%), other invested assets (15%) and cash and short term investments (16%). The other invested assets portfolio included an allocation to alternative investments (8%) and a loan receivable from the parent (7%). A portion (13%) of the domestic and international fixed assets was invested in higher yield instruments which may carry lower non-investment grade ratings in exchange.

The investment allocations ended the year with increased market exposure and decreased cash. The allocation to cash and short term investments decreased to 7%. Domestic and international fixed income represented 82% of the portfolio assets while other invested assets decreased to 11%, with alternative investments increasing slightly to an allocation of 9% and the loan receivable from the parent decreasing to 2% in 2021. The portion of the domestic and international fixed income assets invested in higher yield instruments increased to 18% at the end of 2021.

An analysis of the credit quality, as determined by National Association of Insurance Commissioners ("NAIC") designation, of the total fixed income portfolio at December 31, 2021 and 2020, is set forth in the following table:

	$MILLION			
	2021		2020	
NAIC Designation	Carrying Value	% of Total Carrying Value	Carrying Value	% of Total Carrying Value
1	724.9	53.3%	682.7	63.9%
2	385.3	28.3%	246.9	23.1%
Investment Grade	1,110.1	81.6%	929.6	87.0%
3	91.4	6.7%	48.8	4.6%
4	91.5	6.7%	62.2	5.8%
5	64.3	4.8%	25.3	2.4%
6	2.7	0.2%	1.7	0.2%
Below Investment Grade	249.9	18.4%	138.0	13.0%
Total	1,360.0	100.0%	1,067.6	100.0%

The Company has non investment grade investments included in its fixed income portfolio totaling $249.9 million and $138.0 million in 2021 and 2020, respectively. The Company applies the same prudent principles in managing its high yield portfolio, emphasizing diversification standards (such as limits on issuer, industry and geographic locations to minimize concentration risks), credit quality and liquidity and manages its aggregate risk exposure to investment risks against an approved strategic risk allocation and other internal limits and guidelines.

In 2021, economic activity surged with Covid-19 vaccine rollout and accelerated as lockdowns were eased, with more upside driven by accommodative monetary policy, massive stimulus packages and infrastructure spending. A $1.9 trillion coronavirus relief package, extended unemployment insurance benefits and other tax credits were only part of the stimulus driving the US economy in 2021. A $1 trillion infrastructure bill was also passed by Congress in November, to target upgrades to roads, bridges and transit systems.

The easing of lockdowns was only a part of the story. As consumers shifted their spending habits from a service-led economy to a goods producing economy, demand for certain goods accelerated at the same time as global supply chain disruptions worsened, contributing to the fastest inflation growth rate since 1982. The Consumer Price Index climbed 6.8% over the previous year in November. Excluding food and energy, core inflation was 4.9%. Components with some of the fastest year-over-year price increases included used cars and trucks, gasoline and lumber.

At its December meeting, in an attempt to pre-emptively contain inflation, the Federal Reserve noted that it expected to raise rates three times in 2022, an increase from its March meeting when it indicated no hikes were likely through at least 2023. As we enter 2022, the market has priced in as many as seven 25 bps rate hikes. The Fed is behind the curve.

Record-high corporate earnings – propelled by increased pricing power due to higher energy prices being passed through, increases in demand for goods and scarcity of goods driven by supply chain glitches – boosted U.S. stocks. Earnings grew 45% year over year, the highest annual earnings growth rate in at least 13 years, pushing U.S. equities to new record highs. The S&P 500 Index gained 29% during the year and was led by the energy, real estate, information technology and financial sectors.

But higher inflation is not friendly to bondholders and bonds declined in the face of soaring inflation. U.S. Treasuries lost more than 2% while investment-grade corporates fell about 1%. The 10-year U.S. Treasury yield increased 59 basis points to 1.51%. The Bloomberg U.S. Aggregate Index declined 1.5%. Within corporate credit, spreads on high-yield and investment-grade bonds tightened 77 bps and 4 bps, respectively. The Bloomberg U.S. Corporate High Yield Index advanced 5.3%.

As 2020 came to a close, our fixed income portfolio represented roughly 70% of our invested assets. Cash was roughly 15% of our portfolio, a level higher than we typically target. In 2020, as bond market returns outpaced expectations, we elected to reallocate out of fixed income into cash. Through the course of 2021, we worked to *reverse* that strategy, deploying our cash to convertible and emerging market debt. As bond markets repriced to reflect higher levels of anticipated inflation, we were reducing our cash position and adding bonds at higher and higher yields. At the end of 2021, assets allocated to fixed income represented 82% of the invested assets with cash and short term investments representing only 7%.

The fixed income portfolio remains well diversified across asset classes, credit quality and duration with the different allocations each contributing to the portfolio performance (in decreasing order of asset allocation): Aggregate Credit (25% of the portfolio) down 2.2%, Emerging Market Debt (25%) down 1.7%, Long Government/Credit (21%) down 2.7%, and Convertible Debt (19%) up 7.7%. In addition to fixed income, the portfolio contains roughly 8% of alternative assets, including private equity, an allocation which finished the year with an incredible gain of roughly 40.2%.

Another source of positive returns has been our equity derivatives overlay, and that pattern held true in 2021. On a quarterly basis, we seek to establish synthetic exposure to the equity market via a long position in equity call options (a 'call spread') financed by short put options. The notional size of the put options is intended to be roughly equivalent to 5% of the total portfolio at inception. The tenor of the derivatives is limited so the positions expire within the current quarter, enabling a disciplined approach to quarterly and full-year risk and return targets. Since initiating the strategy at the beginning of 2018, the company has deployed the strategy 17 times. Eight of those instances resulted in gains, five resulted in losses and four other quarterly results were neutral. In 2021, every quarter with derivative activity had a positive result generating between $2.6 and $6.0 million dollars of profit, totaling $12.3 million in gains for the year.

In aggregate, the portfolio returned 2.9% for the year with positive contributions from alternative investments and convertible bonds overwhelming negative returns in the larger fixed income allocation attributable to higher anticipated inflation pushing bond prices lower. To maximize diversification and reduce correlations to traditional fixed income and equity assets, we continue to evaluate alternative investments, including those investments addressing climate risks. In 2021, an investment in a climate-focused private equity fund was underwritten and in 2022 we continue our due diligence on a 'net zero' fund. Both funds are draw-down style funds where capital calls will be initiated by the General Partner when investment opportunities arise.

With 2022 already underway and nearly one quarter complete, markets are coping with Russia's unprovoked invasion of Ukraine. With the conflict currently about four weeks in duration, no diplomatic progress has been seen and the brutal assault continues. Unprecedented sanctions have been levied on Russia, Vladimir Putin and Russian elites in order to cause Putin to pause and reflect on damage being inflicted on the Russian economy. The ruble has been decimated, Russian credit metrics have fallen to below investment grade and Russia has defaulted on dollar- and euro-denominated debt. This has pressured emerging market and high-yield indices, creating volatility in the assets in which we are invested. We are researching the exposures we have to Russia, Ukraine and other neighbors through passive allocations to emerging markets bonds.

What so far has been a delicate balancing act by NATO allies to avoid engaging in the war could at any time tip out of balance. Markets are reflecting the political uncertainty but also fully reflecting the impact on Russian exports of oil, natural gas, palladium, nickel, aluminum and wheat. The war in Ukraine has pushed inflation indices even higher as CPI for February 2022 being reported at 7.9%, the highest level since 1981, pressuring bond yields higher as a result.

IB. LIABILITIES

Loss and loss expense reserves are stated at Dorinco's estimate of the ultimate loss, net of ceded reinsurance recoverables. Included as a reduction to unpaid loss reserves are $461.2 million of recoverables from affiliate Dorintal Reinsurance Limited. This balance is fully collateralized by a reinsurance trust. The remaining recoverables are with companies rated A or better by a reputable insurance rating agency or are not material.

The amount of reserves related to reported claims for direct business is based upon a case-by-case estimate determined by the claims professionals employed by Dorinco. Other reserves on other business assumed are based on statements received from ceding companies. Loss and loss expense reserves are not discounted.

The estimate of losses arising from claims which have not yet been reported (IBNR) to Dorinco is based upon management's best judgment; however, the ultimate liability may be in excess of or less than the amounts provided. All unpaid reserves reported and IBNR are certified annually by a qualified independent actuary.

Activity with respect to loss and loss expense reserves for the last two years is detailed below:

	$MILLION	
	2021	2020
Unpaid Losses and Loss Expense at Beginning of Year	947.9	907.6
Loss and Loss Expenses Incurred for Current Year	240.3	195.9
Increase (Decrease) in Estimates for Prior Loss Years	(23.7)	(19.6)
Loss and LAE Payments Made in Current Year	(122.1)	(136.0)
Unpaid Losses and Loss Expenses at End of Year	1,042.4	947.9

During 2021, Dorinco continued its review of outstanding reserves and, based on loss history, trends, claim reporting activity and analysis of existing claims, it was determined the total reserves were adequate.

Unearned premiums increased from $57.6 million in 2020 to $66.0 million in 2021, reflecting an increase in gross written premiums for the Company’s third party business.

IC. CAPITAL AND SURPLUS ACCOUNTS

There has been no change to the capital stock or paid in and contributed surplus for the last two years.

Dividends totaling $45 million were declared and paid in 2021. There were $85 million dividends declared and paid in 2020.

Policyholder's surplus decreased slightly from $614.8 million at December 31, 2020, to $613.6 million at December 31, 2021. During 2021, the Company generated a profit after tax of $27.4 million from operations. This was combined with $14.6 million in unrealized gains and $3.8 million in decreased non-admitted assets. However, these increases to surplus were slightly more than offset by a $45 million dividend, $1.2 million decrease in deferred taxes and $0.8 million impact as a result of changes in provision for reinsurance contributing to an overall decrease in policyholder's surplus of $1.2 million, or 0.2%, during 2021.

II. RESULTS FROM OPERATIONS

Dorinco produced net income of $27.4 million for the year. Earned premiums in 2021 were $227.0 million, as compared with $214.4 million in the previous year. The increase in earned premiums was due mainly to increased reinsurance business written during the year which is expected to continue through 2022.

The underwriting results for 2021 produced a loss of $28.9 million. This loss was offset by net investment income of $52.2 million, which included $31.7 million of net realized capital gains. The Company carried $14.6 million of unrealized capital gains (net of taxes) in a portfolio consisting of $1.7 billion of invested assets. The investment portfolio was split approximately 81.8% fixed income, 11.0% other investments, and 7.2% cash and short term investments at year end 2021.

Cash flow from operations was $108.5 million, increasing from $82.7 million in 2020, primarily due to a $31.0 million increase in premiums collected combined with a $5.6 million decrease in commissions and other expenses paid, and a decrease of $0.6 million in income taxes paid. These increases in cash were partially offset by a $9.2 million decrease in investment and other income and increase of $2.1 million in benefit and loss payments. (see also Cash Flow section below).

The Company continues to add value for policyholders in the related captive segment of its business which made up approximately 40% of 2021 earned premiums. The unrelated business, making up the remaining balance of 2021 premiums, continues to present opportunities in niche markets in which the Company participates. Dorinco has solidified its position as a niche market for assumed reinsurance, specializing in less volatile lines of business offering predictable and consistent results. The company is well-positioned for the current market cycle. Regional U.S. insurance companies continue to be the Company's targeted clients.

REINSURANCE PROGRAM

Dorinco participates in an intra group reinsurance plan that utilizes the capacity of each company within the group. Sister company Dorintal Reinsurance Limited participates as a reinsurer (all reserve balances are secured). Separate reinsurance arrangements with commercial insurers and reinsurers exist for the coverage provided to the ultimate parent.

ORGANIZATIONAL PROCESS

The Company utilizes a quantitative pricing model and has taken a 'hands on' approach to management of its reserving practices. The Company contracts actuarial services from Marsh, whose services are provided by an actuary exclusively dedicated to Dorinco, who is a former Dorinco employee. The actuary interfaces with the independent consulting actuary appointed by the Board of Directors.

RISK MANAGEMENT OF CATASTROPHE EXPOSURES

Guidelines are established for assumed contracts with catastrophe exposure to include a cap to the limit of liability. Maximum exposure by contract is monitored on a geographic basis. This information is used in establishing underwriting direction and the purchasing of reinsurance. With the reduction in the assumed reinsurance portfolio subject to catastrophe loss, the Company currently relies less on catastrophe modeling of probable maximum loss and more on the monitoring of its exposures on a gross limits exposed basis.

ENTERPRISE RISK MANAGEMENT

The Company utilizes several models, metrics and evaluation methodologies in effectuating enterprise risk management. Insurance risk management techniques include: underwriting, catastrophe management, and reserve adequacy management. Dorinco looks for non-correlation of Dow and third-party risks. Third party risks are mainly U.S.-only exposed, primarily short-tail non-standard auto risks. Geographic exposure accumulation is described under "Risk Management of Catastrophe Exposures." Reserves are established internally by claim, line of business, and/or policy. Reserves are reviewed internally on a quarterly basis and annually by external actuaries. Methodologies used in reserve analysis include: Company loss development, industry loss development, adjusted loss development and Bornheutter Ferguson.

Investment risk management includes setting parameters for asset allocation, volatility appetite, and investment policy. These investment measures are monitored by the Finance Committee and presented to the Board of Directors.

There is a Board-approved delegation of authority for policy underwriting, based upon business type, premium level, and exposure limits. There is an established delegation of authority for claim payments, with larger payments requiring formal review prior to authorization.

Optimization of capital structure is reviewed quarterly and maximum policy limits and investment risk are monitored at that time. The Finance Committee and Board of Directors meet quarterly; the management team meets monthly, at a minimum. Dorinco leverages its formal disaster recovery program from its ultimate parent.

UNDERWRITING RESULTS

	$MILLION 2021	2020
Underwriting Results:		
Gross premiums written	339.7	304.8
Net premiums written	235.4	205.0
Net premiums earned	227.0	214.4
Loss and loss adjustment expense ratio	95.4%	82.3%
Underwriting expense ratio	16.4%	18.0%
Combined ratio	111.8%	100.3%

Gross premiums written increased to $339.7 million in 2021, from $304.8 million in 2020, primarily due to an increase in assumed business from the unrelated business segment of the Company's business during 2021 in the Company's primary regional target. Net premiums written were impacted by the increased written premiums with a $5.3 million increase in the related business segment for 2021 in addition to a $25.1 million increase in assumed business from the unrelated business segment of the Company's business. Net premiums earned increased similarly.

Dorinco's combined ratio as reported in the Annual Statement for 2021 amounted to 111.8%, an increase from 100.3% in 2020. Refer to 1B Liabilities.

Dorinco is a part of Dow's consolidated federal income tax return. Dorinco and Dow have entered into a tax allocation agreement whereby Dorinco computes and pays its tax obligation as if separate returns were being filed.

III. CASH FLOW AND LIQUIDITY

CASH FLOW

Primary sources of cash for the Company include cash provided from premiums collected, dividend and interest income, and proceeds from the sale or maturities of invested assets. The cash flows for Dorinco for 2021 and 2020 are summarized below:

	$MILLION	
	2021	2020
Cash Provided by Operations	108.5	82.7
Cash From Investment Activities	(192.2)	(40.0)
Other Cash Used	(45.2)	(85.0)
Net Change in Cash and Short-Term Investments	(128.9)	(42.3)

Operating cash flow in 2021 was $25.9 million higher than in 2020, primarily due to a $31.0 million increase in premiums collected, combined with $5.6 million decrease in commission expenses, and $0.6 million decreased income taxes paid. These operating cash flow increases were offset by $8.4 million in decreased investment income, $2.1 million increase in benefit and loss payments, and a $0.9 million decrease in miscellaneous income.

Net cash from investment activities was $152.3 million lower in 2021 mainly due to acquiring $303.4 million more bonds than disposing during 2021, when compared to 2020 when $43.7 million more bonds were acquired than sold. Other invested assets and miscellaneous investment activity provided $94.7 million and $16.5 million investing cash flow in 2021 when compared to 2020 when $8.3 million and $(4.6) million was recorded, respectively.

Other cash used decreased in 2021, primarily due to a stockholder's dividend payment in 2021 of $45 million, as compared to $85 million paid in 2020. See also Note 13D to the 2021 Annual Statement.

Dorinco made no significant capital expenditures in 2021.

LIQUIDITY

Dorinco collects and invests premiums written in advance of payments for associated claims. Funds available for investment which exceed the amount required to satisfy liabilities are primarily invested in fixed income, equities and short-term securities.

For 2021 and 2020, Dorinco met its cash needs from internally generated funds. Dorinco does not anticipate any difficulties in meeting its future cash needs.