Primary Insurers: Carrier Operations and Economics

Interview preparation summary · IN track

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INT.NO.1.a · Economics and operating model

Describe a carrier's insurance value chain and operating model, say which function owns each part of the premium, and place a graduate role within it.

A primary insurer, or carrier, is the company that holds the policyholder relationship and the balance sheet: it designs a product, sells it, prices and selects the risk, issues the policy, pays claims and invests the money in between. The value chain runs from product and pricing through distribution, underwriting and policy administration to claims handling, with investment, finance, actuarial, risk and compliance supporting every stage. A useful habit is to follow one pound of premium through the chain: part goes to the distributor, part to running the business, part to claims and claims handling, and what is left is the underwriting profit. Different functions own different slices, which is why a carrier is measured by function as well as in total. Carriers use three lines of defence: the business owns its risks, risk and compliance oversee them, and internal audit gives independent assurance. A carrier can delegate work, for example to a managing general agent (see MGAs and Delegated Authority), but it stays accountable to policyholders and the regulator. Interviewers ask this to see whether you understand the whole business and not only the job you are applying for. A common mistake is to treat underwriting as the whole carrier, or to forget that definitions such as where claims handling cost sits differ between companies.

WORKED EXAMPLE: WHERE £100 OF MOTOR PREMIUM GOES AT HARLOW DIRECT

Harlow Direct is an invented motor insurer. For each £100 of premium it spends £16 on distribution and marketing, £5 on underwriting and policy administration, £63 on claims paid, £7 on claims handling and £4 on central costs. The figures are illustrative. Find the combined ratio and say which function owns each slice.

Answer: The combined ratio is 95%, an underwriting profit of £5 per £100 before investment income, and each function owns one slice.

> **Interview tip:** Follow a pound of premium through the chain, name the owner of each slice, and say that the split between loss and expense ratios depends on the definition used.

INT.NO.1.b · Economics and operating model

Explain how a carrier makes money from its underwriting result and its investment income, and work out the combined ratio, pre-tax profit, return on equity and break-even combined ratio.

A carrier earns money in two ways. The underwriting result is earned premium less claims and expenses, and the combined ratio, the sum of the loss ratio and the expense ratio, measures it as a percentage of premium: below 100% is an underwriting profit. The second source is investment income, earned on the float, which is the premium collected before claims are paid, plus the carrier's own capital. Together they give pre-tax profit, and after tax and divided by shareholders' equity they give return on equity, the number owners judge a carrier by. Because investment income is a second source of profit, a carrier can run a combined ratio above 100% and still earn a profit, and the break-even combined ratio is 100% plus investment income as a share of earned premium. When yields fall the break-even falls with them, so underwriting has to do more of the work. Interviewers look for the two-source picture and for care with what each ratio is measured against. A common mistake is to divide profit by premium and call it return on equity. See Capital and Regulation for how capital requirements shape the equity base, and Investments for how the portfolio is run.

WORKED EXAMPLE: FERNCLIFFE INSURANCE: FROM COMBINED RATIO TO RETURN ON EQUITY

Ferncliffe Insurance, an invented carrier, has net earned premium of £400m, a loss ratio of 63% and an expense ratio of 31%. It holds investments of £900m yielding 3.5%, pays tax at 25% and has equity of £600m. Illustrative figures. Find the underwriting result, investment income, profit after tax, return on equity and break-even combined ratio.

Answer: Underwriting profit £24.0m, investment income £31.5m, profit after tax £41.6m, return on equity 6.9%, break-even combined ratio about 107.9%.

> **Interview tip:** Show both profit sources, then divide after-tax profit by equity. Add that a fall in yield raises the combined ratio a carrier must achieve, and that a break-even above 100% is not a licence to underwrite badly.

INT.NO.1.c · Economics and operating model

Compare distribution channels (direct, brokers, aggregators, bancassurance, agents, MGAs) and work out the margin each earns a carrier per policy and over a customer's life.

A carrier reaches customers through several channels, each with a different cost and a different kind of customer. Direct sales need brand and marketing spend and give the carrier the data and the relationship. Brokers act for the customer and are paid commission, so the carrier buys access to advised and commercial business. Aggregators, the price comparison websites, charge a fee per sale and make price the main basis of choice, which raises volume but often lowers loyalty and margin. Bancassurance sells through a bank's customers, usually for a commission or profit share, and brings trust and volume with the risk that the partner can leave. Agents may be tied to one carrier. A managing general agent writes business under delegated authority and keeps part of the premium for its underwriting and service. The right comparison is the margin after claims and acquisition cost, since a channel with low commission can have a worse loss ratio, and over the customer's life, since a renewal costs far less to keep than a new customer costs to win. Interviewers want you to weigh cost, quality, control of data and dependence on a partner.

WORKED EXAMPLE: FOUR CHANNELS AT KESTREL MOTOR

Kestrel Motor, an invented insurer, sells a £500 policy. Illustrative figures per policy: direct has a loss ratio of 64% and acquisition cost of £70; an aggregator 66% and £85; a broker 62% and £75 of commission; a bank partner 60% and £125. Then find the lifetime margin of a direct customer if acquisition costs £90, retention is 70% and each renewal earns a margin of £60 before acquisition cost.

Answer: The margins are £110 direct, £85 aggregator, £115 broker and £75 bank, and the lifetime margin of a direct customer is £110.

> **Interview tip:** Compare channels on margin after claims and acquisition cost, then add retention. Mention data ownership and dependence on a partner, which a per-policy margin does not show.

INT.NO.2.a · Portfolio, capital and performance

Explain portfolio management and the underwriting cycle at carrier level, and work out the expected loss ratio from rate change and loss trend to decide where to grow or shrink.

A carrier manages a portfolio of classes and segments, deciding where to grow, hold or shrink by comparing expected profit with the capital each segment uses. The main tool is the link between rate change and loss trend: if premiums per unit of exposure rise by less than claims costs, the expected loss ratio rises, and next year's loss ratio is roughly this year's multiplied by one plus the trend and divided by one plus the rate change. The underwriting cycle is the swing between soft markets, where plentiful capacity pushes rates down, and hard markets, where losses and a shortage of capital push them up. A disciplined carrier writes less when prices fall below its technical price, accepting lower volume, and grows when rates are adequate. Diversification across classes and regions lowers volatility, but accumulations in one place still need limits. Interviewers want a clear decision rule and the awareness that growth for its own sake in a soft market is the usual route to a later loss. See Underwriting and Pricing and Reserving for the technical work behind each number.

WORKED EXAMPLE: HOLLIN MUTUAL REVIEWS THREE PROPERTY AND LIABILITY SEGMENTS

Hollin Mutual, an invented carrier, has three commercial segments. Premium in £m, current loss ratio, expected rate change and loss trend for next year: SME property 100, 60%, plus 2%, plus 5%; large property 80, 58%, minus 4%, plus 4%; liability 120, 65%, plus 6%, plus 4%. Exposure is flat and expenses are 32%. Illustrative. Find each expected loss ratio, the portfolio combined ratio and the segment to act on first.

Answer: The expected loss ratios are 61.8%, 62.8% and 63.8%, the portfolio combined ratio is 94.9%, and large property is the segment to act on first.

> **Interview tip:** State the rule: rate against trend. Say you would give up volume in a soft segment before cutting price, and that you would check the trend assumption, which is the weakest number.

INT.NO.2.b · Portfolio, capital and performance

Explain at a high level how a carrier buys reinsurance and manages capital, and work out net premium, solvency coverage and the cost of capital relief from a quota share.

A carrier buys reinsurance to cut volatility, to protect capital and to write larger risks. Gross figures are before reinsurance and net figures after it, and the board looks at both. Capital is judged by a coverage ratio: own funds divided by the capital the regulator or the carrier's own model requires. Ceding part of the premium lowers the requirement, so reinsurance is a source of capital as well as protection. It is not free: the reinsurer expects a margin, the carrier may give up commission above or below its own costs, and there is a risk that the reinsurer does not pay. The sensible comparison is the cost of the capital relief against the cost of raising equity, and against other tools such as a cat programme or retaining more. Interviewers do not expect you to price a treaty; they expect you to link the buying decision to capital, risk appetite and cost. See Reinsurance for treaty mechanics and Capital and Regulation for requirements.

WORKED EXAMPLE: A QUOTA SHARE TO RESTORE CAPITAL COVER AT DUNMERE

Dunmere, an invented carrier, has gross premium of £800m, own funds of £300m and a requirement of 40% of net premium (an illustrative simplification). It considers a 25% quota share: ceded premium £200m, expected loss ratio 64%, ceding commission 31%. Its cost of equity is 10%. Find coverage before and after, the reinsurer's expected margin and the cost of the capital relief.

Answer: Coverage rises from 93.8% to 125%, the relief costs about £10m a year, which is 12.5% of the capital relieved, against a 10% cost of equity.

> **Interview tip:** Say what is gained (capital), what it costs (reinsurer margin and credit risk) and what it is compared with (the cost of equity and the alternatives).

INT.NO.2.c · Portfolio, capital and performance

Explain how a carrier is organised and measured through KPIs and management information, and read a combined ratio movement by splitting it into attritional, large, catastrophe, prior-year and expense parts.

A carrier is organised by function (underwriting, claims, actuarial, finance, risk, operations) and often also by line of business, and it is run on a monthly management information pack. The usual KPIs are gross and net written premium, rate change, retention and new business, claims frequency and severity, the loss, expense and combined ratios, reserve movements, solvency coverage and return on equity. The headline combined ratio hides what changed, so analysts split the loss ratio into attritional (everyday claims), large losses, catastrophe losses and prior-year development, then add the expense ratio. A rise caused by weather is different from a rise in attritional claims, and a good year helped by reserve releases is different from a good year of underlying profit. Graduates and analysts usually build and check these packs, explain variances to underwriters and claims teams, and support pricing and reserving work. Interviewers look for the habit of asking what changed and why, and for care with definitions.

WORKED EXAMPLE: WHY MARLOW GENERAL'S COMBINED RATIO ROSE 3.5 POINTS

Marlow General, an invented carrier, reports a combined ratio of 94.0% last year and 97.5% this year. Last year: attritional 57.0, large 5.0, catastrophe 3.0, prior-year development minus 2.0, expense 31.0. This year: attritional 58.0, large 4.0, catastrophe 6.5, prior-year minus 0.5, expense 29.5, all as points of earned premium. Explain the movement.

Answer: The combined ratio rose 3.5 points, driven by catastrophe losses and less reserve release, while the underlying business improved by 0.5 points.

> **Interview tip:** Split the headline into parts and say which are volatile and which are underlying before you give a view. Offer to check whether the expense fall is one-off or lasting.

Summary of the Charta interview-preparation topic. Companies and figures in the examples are invented. Draft content, not yet expert reviewed.