GIRO Conference and Exhibition 2012
Juggling uncertainty the actuary’s part to play

Cyclophilia:
an analyst’s view of the pricing cycle

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Investors do not like P&C insurance

- P&C insurers have not been a good long-term investment
- Underperformed by 45% over past 25 years
- Periods of out-performance have been short, often associated with problems elsewhere.

Why? – one reason is a long-standing profit cycle

Please refer to important disclosures and analyst certification information on pages 24-25.
Why? – features of the cycle

- A ‘business cycle’ like any other; but much worse
- Product issues:
  - Competing products identical (and perceived to be)
  - No substitutes; no utility to additional consumption
- Market issues:
  - No capacity constraints – easy of entry/exit
  - Capacity can be dependent on financial markets
- Industry issues:
  - Margins are uncertain
  - Easy for companies to delude themselves that they are profitable
  - They discover they are not only after a delay

Economics of the cycle - demand

- Supply/demand curves:
- Shows market clearing price determined by intersection
- Increased capacity represented by a shift in the supply curve
- Inelastic demand:
  - No substitutes
  - No utility to additional consumption
- Generates steeper demand curve
- A given change in supply gives a larger change in price
Economics of the cycle - supply

- Competing products identical
- No short-run supply constraint
- Individual competitors perceive a ‘kinked demand curve’
  - If price raised, no-one follows so demand collapses
  - If price reduced, all follow so market demand curve
  - Causes extreme price instability and tends to exacerbate cycle
- Even with some ‘brand loyalty’, still a demand curve kink (lower chart)

Margin uncertainty – US P&C reserve development by year of origin

Good years get better; bad ones get worse

Please refer to important disclosures and analyst certification information on pages 24-25
Margin uncertainty – the drivers of reported results

Uncertainty of margin – Why?

**Theory**
- Insurers do not just cut prices in order to grow
- They target growth in segments believed as exceptionally profitable
- The target involves tweaks to cover/criteria to broaden appeal
- Other insurers are pursuing similar but not identical strategies
- Buyers will go with cheapest quote
- The enlarged sample may have different characteristics from the pricing basis

**Practice**
- Insurer A specialises in motor for over 60s:
  - Discovers clients with sports cars profitable so trims rates
- Insurer B specialises in sports cars:
  - Discovers clients in rural areas very profitable so trims rates
- Insurer A succeeds but client base is more city oriented so has more theft/vandalism claims
- Insurer B succeeds but client base is younger than he assumed
And market prices, thus, fall faster than renewal price indices suggest …

How to recognise a turn in the cycle (1)

- It is not what they say but what they do!
- Actual price rises suggest insurers would prefer to lose all market share rather than keep writing (the kink in the demand curve)
- Suggests panic as prior year problems emerge
- Initial estimates of reserve problem too optimistic since hard to believe technical pricing could have got it so wrong

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How to recognise a turn in the cycle (2 - actuarial)

- High paid/incurred suggests optimistic initial reserving
- Low paid/incurred suggests cautious initial reserving

External estimates are negative

- KBW Estimated Accident Year Redundancy (Deficiency) at Year-End 2009

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Can the cycle be ameliorated?

- Tendency of P&C industry to ruin itself every 7-9 years was unpopular with companies
- Cartels were popular up until 1970s
- UK market was very stable until its cartels (tariffs) disappeared in 1969 (motor) and mid-80s (fire)
- Since then, highly cyclical
- Governments sometimes regulated prices (Germany, US)
- Regulation in US peculiar since its aim was to keep prices low

How to maximise returns

- P&C is an industry where the good years are good and the bad years are bad.
- The trick of P&C insurance is to grow in pricing upturns and shrink in downturns.
Lloyd’s insurers manage it

And significantly outperform the industry

- Long-term track record of the best Lloyd’s businesses is better than anything else in the P&C market
- Second chart shows record of mainstream insurers (green), Bermudans (pale blue) and Lloyd’s (orange)
- Bermudans make better returns in good years but worse returns in bad years
- Lloyd’s makes good return in good years; average in bad

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The few Lloyd’s businesses which do try to grow in cyclical downturns pay the penalty

![Graph showing growth 1993-98 for various Lloyd's businesses]  

But only because specialty and primary insurance market works that way

• Primary insurers like high volumes and low risk  
  – This can be priced statistically and underwritten mechanically

• Specialty insurers write higher risks, lower volumes  
  – This requires technical pricing and individual underwriting

• In a cyclical downturn, primary insurers grow by raising their risk appetite

• In a cyclical upturn, they retreat to their ‘core business’
Prognosis for this cycle: Reinsurers have behaved more rationally?

Reinsurance and US Primary lines showing historical prices over time, with events like the collapse of Lehman, low interest rates, and RMS11 highlighted.

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They have not been rewarded by it … but perhaps that is why …

- This may reflect that Reinsurers did vary badly in the previous cycle trough
- They are thus more lowly valued
- They are thus under less pressure to grow
Could modern technology solve the cycle?

If so, we might have expected it to have done so already …

Questions or comments?

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