GUY CARPENTER

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Underwriting Cycle Management

Not Complicated, Difficult

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Agenda

- Lessons Learned from the Credit Crisis
- Franchise Value
- Threats to Franchise Value
- Three Operational Changes
- Q & A

Underwriting Cycle Management

…is not complicated…

…it is difficult

1) Lessons Learned from the Credit Crisis

Opening Statement
Lessons Learned from the Credit Crisis

"When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing."

Chuck Prince
then-CEO of Citigroup
July 10, 2007

Sparks and Prairie Fires
Timur Kuran, USC

- Social scientist writing about revolutions
  - Revolutions are difficult to predict
  - France 1789, Russia 1917, Iran 1978-79, **Tunisia, Egypt et al 2011**, all surprised the world, the country, and the revolutionary leaders
  - Historical explanations attribute great knowledge and coordination to revolutionaries
- Prof. Kuran proposes that people have
  - An inner belief about a situation

    and
  - An external believe expressed through actions
- …and the two are often inconsistent

http://www-rcf.usc.edu/~kuran/

Sparks and Prairie Fires
Timur Kuran, USC

- In an oppressive regime, people keep their opposition hidden
  - If there are either benefits to be gained, or punishment to be avoided, from professing the "party line"…
  - …And the opposition movement appears weak in comparison to the existing regime
- Conditions for revolution arise when
  - the collective gradient between perceived and professed grows too large, and
  - A shock is introduced
  - Spreads like wildfire
- Prof. Kuran:
  - "*A suitable shock would put in motion a bandwagon process that exposes a panoply of social conflicts, until then largely hidden.*"

Sparks and Prairie Fires
Subprime Style

- Private belief
  - *A la Chuck Prince → we know what we are doing*
- Regime (music is playing)
  - *What choice do we have?*
  - *Act as if these tranches are AAA, I will keep trading if you will…*
- Spark
  - *Bear Stearns hedge funds declared valueless*
- Sweeping revolution = **Liquidity crisis**
  - *Dramatic, overnight change in public opinion…*
  - *…clearly stated by unwillingness to trade in anything credit related*

Sparks and Prairie Fires
Reinsurance Style

- Private belief
  - *Technical pricing, failure to act*
  - *How many defunct reinsurers had top actuarial staffs?*
- Regime (music is playing)
  - *Put that capital to work*
- Spark
  - *Industry "event," excuse, tide turning (example: credit crisis, AIG bailout)*
- Sweeping revolution = **Market turn**
  - *Dramatic, overnight change in public opinion…*
  - *…clearly stated by unwillingness to trade without large price increases*

Underwriting Cycle Management Conclusion #1

Companies will find it difficult (impossible) to predict market turns.

Companies can prepare to exploit the turns.

2) Franchise Value

Intellectual Capital (IC)
Definition

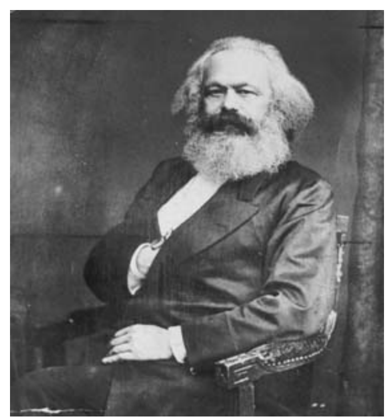
Microsoft

- IC is its intangible assets:
  – the knowledge and skill of its programmers
  – the software they write
  – the licenses through which the software is protected and made available to the marketplace
  – the share of the market held by that software

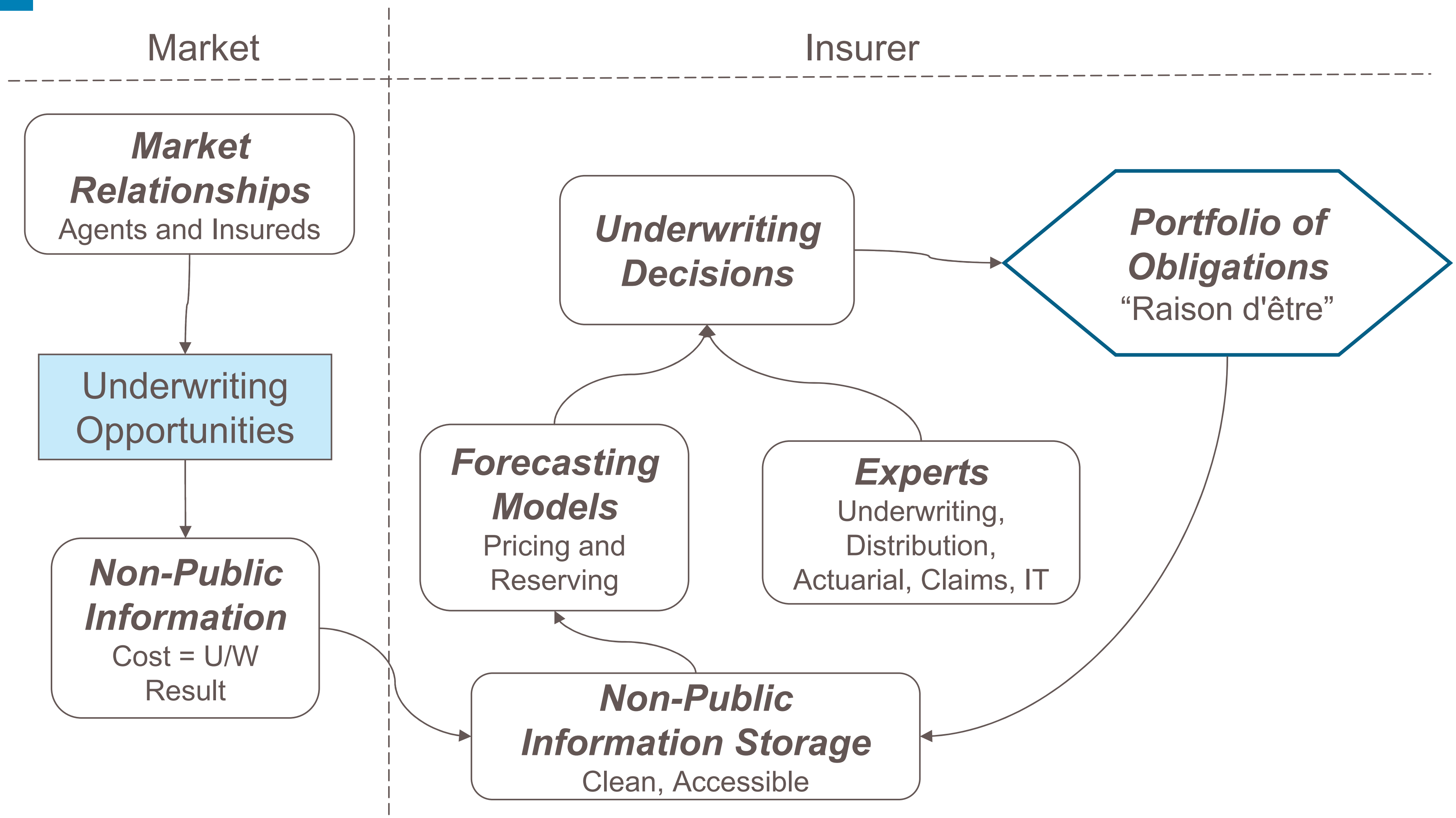
Insurer

- IC is its intangible assets:
  – the knowledge and skill of its underwriters, actuaries and claims staff
  – the policy information databases and systems
  – the renewal rights
  – the share of the market
  – the brand name recognition

In the Information Economy the "means of production" is in our heads



An Insurer is an Intellectual Capital Franchise



Insurance Franchise

- A “sticky” investment
  - Slow to build, quick to destroy
  - Accretes value over time
- Its purpose is persistence
- Not as liquid as securities market, hedge funds, mutual funds
- One must evaluate current and future prospects by line, region, …
- There is value in maintaining some market position
  - Poised to capitalize on market turns
  - Learn, amass knowledge and information
  - Improve forecasting techniques

Underwriting Cycle Management Conclusion #2

Companies must manage underwriting capacity deployment **and** franchise investments.

Completely exiting a line/region implies it will **never be profitable again**.

3) Threats to Franchise Value

Key Drivers and Dynamics

1	**Learning Assets**	Non-Public Information	Forecasting Models	Experts	**Illiquid Investment**
2	**Intangible Assets**	Renewal Rights	Production Relationships	Market Presence	**Exit may not be an Option**
3	**Market Structure**	Lack of Transparency	Timed, Blind Auctions	Intermediaries	**Irreducible Volatility**
4	**Group Effects**	Head Office Decisions	Battle for Capacity	Premium = Importance	**Agency Risk**

Not Simple
Consider the Interactions

Behavioral Finance + Scarcity of Data + Model Weakness = *“A technical price to match any market price”*

Auction Structure + Comparability + Buy-and-Hold = *“Our competitors are the problem”*

Pressure on the Capital + A Single Plan + Group Effects / Incentives = *“We made plan!”*

Realities

1. Over-correction → rarely (never) in “equilibrium” (adequacy)
2. Pressure on that capital → “put it to work”
3. Comparables and signal propagation → each price decrease sparks price decreases in similar programs
4. Expectations and reinforcing behavior → “forecasts” of the “market”
5. There is no “Market,” no isolated system we are observing

We are the System

What can Companies control?

1. Over-correction
   EXPLOIT

2. Pressure on the capital
   MANAGE OWNER EXPECTATIONS

3. Comparables and signal propagation
   EDUCATE CLIENTS

4. Expectations and reinforcing behavior
   RAISE AWARENESS

5. There is no “Market,” no isolated system we are observing
   STOP REFERRING TO “THE MARKET”

Operational Responses

- Technical pricing?
  - Swiss Re (Munich, Partner, …) have a million actuaries yet are subject to the same market dynamics
  - Same for AXA, Zurich, Chartis, Generali, Allianz…
- What does the underwriter do when market price is far below technical price?
  - Walk away?
  - Modify the technical price to conform to plan expectations?
- Can we inform our stakeholders of the strategic superiority of withholding capacity?
- Do we have scenario plans and alternative incentives to allow U/W decisions that owners would prefer ***given the market conditions?***
- That is, if our owners had perfect foresight, which portfolio would they prefer we underwrite?

Underwriting Cycle Management
Conclusion #3

Companies should consider three operational changes that would improve ability to manage the cycle

4) Three Operational Changes

Three Operational Changes
Pour votre considération

- How and when to grow
- Scenario planning
- Owner expectations

1. How and When to Grow
Not Smoothly

- Timed geometric growth
  - Massive expansion during over-priced phase (over-correction)
  - Slow decline in volume as prices soften (cull the renewals, manage capacity and franchise investment)
- Repeatedly communicate the strategy to underwriters (the franchise)
- Be prepared to redeploy or retrain underwriters (the franchise)
- Maintain key relationships with producers and clients (the franchise)
- Keep the information flow coming – feed and maintain the forecasting models (the franchise)
- Maintain some idle capacity for market turn

2. Scenario Planning (1/3)

- Large insurers often have one and only one plan
- Expectations are to deliver the target profit
- No consideration for:
  - Unforeseen market turns
  - Difficulty of predicting actual price levels and conditions
- Resulting portfolio may not be what owners would prefer ex post facto

2. Scenario Planning (2/3)

- Produce several, less detailed plans based on three or four scenarios
  - Example: Prices hold, prices drop, prices increase
- Each less detailed plan includes underwriting strategy and goals by line and region **for each scenario**
- Underwriting units are asked only to follow the scenario-specific strategy which may change during the year
- Staff monitors the state of the market and notifies the company of which scenario plan is in effect
- Gives operational freedom to underwriters to do what is best for the company
- Gives flexibility to respond to market conditions

2. Scenario Planning (3/3)

Most people think that they can predict the black swan, that with quantitative sophistication they can get answers. They don't get the idea that because we can't predict black swans, then we need to restructure institutions and **rethink strategies to be more robust in the face of uncertainty**…

You have to avoid optimization…**In the black swan world, optimization isn't possible. The best you can achieve is a reduction in fragility and greater robustness.**

- Nassim Taleb

Knowledge @ Wharton, April 13, 2011

3. Owner Expectations

- Explain the franchise investment – a true “**Prospectus for Owning an Insurer**”
- Explain the management around both constraints – **underwriting capacity and franchise investments**
- Explain how the financials might look during each of the different phases of the cycle
- Explain the value of idle capacity
- Explain the franchise value benefits of a more durable franchise with smaller negative surprises

Portrait of a Disciplined Underwriter

National Indemnity Company

Year	Written Premium (In $ millions)	No. of Employees at Year-End	Ratio of Operating Expenses to Written Premium	Underwriting Profit (Loss) as a Percentage of Premiums (Calculated as of year end 2004)*
1980	$79.6	372	32.3%	8.2%
1981	59.9	353	36.1%	(.8%)
1982	52.5	323	36.7%	(15.3%)
1983	58.2	308	35.6%	(18.7%)
1984	62.2	342	35.5%	(17.0%)
1985	160.7	380	28.0%	1.9%
1986	366.2	403	25.9%	30.7%
1987	232.3	368	29.5%	27.3%
1988	139.9	347	31.7%	24.8%
1989	98.4	320	35.9%	14.8%
1990	87.8	289	37.4%	7.0%
1991	88.3	284	35.7%	13.0%
1992	82.7	277	37.9%	5.2%
1993	86.8	279	36.1%	11.3%
1994	85.9	263	34.6%	4.6%
1995	78.0	258	36.6%	9.2%
1996	74.0	243	36.5%	6.8%
1997	65.3	240	40.4%	6.2%
1998	56.8	231	40.4%	9.4%
1999	54.5	222	41.2%	4.5%
2000	68.1	230	38.4%	2.9%
2001	161.3	254	28.8%	(11.6%)
2002	343.5	313	24.0%	16.8%
2003	594.5	337	22.2%	18.1%
2004	605.6	340	22.5%	5.1%

www.berkshirehathaway.com/letters/2004ltr.pdf

Underwriting Cycle Management

…is not complicated…

…it is difficult

Q & A

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