The Actuarial Profession
making financial sense of the future

# Risk/Value Trade-off in Strategic Investment Decisions (E04)

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# Contents

# 1. Introduction

*"You ought to be able to explain why … you're making the investment you're making, or whatever it may be. And if it can't stand applying pencil to paper, you'd better think it through some more. And if you can't write an intelligent answer to those questions, don't do it."*

** Warren Buffett*

# Purpose of this Session

To examine how risk and value measurement interact in the context of strategic capital investment with the objective of:

1. Formulating a framework for strategic decision making; and
2. Demonstrating how familiar techniques can be used to support this framework.

... making extensive use of “value investing” concepts.

# What is Value Investing?

- Originally formulated by Benjamin Graham, but popularised by Warren Buffet.
- Driven by market inefficiencies, aims to acquire assets at less than market value.
- Places a strong emphasis on:
  (a) Robust, realistic, valuation techniques; and
  (b) Understanding the fundamentals of the business; ie. risks to value.
- Typical "value investments" will:
  (c) Have strong defensible franchises; and
  (d) Will be run by competent management.

# 2. What shareholders are looking for

*“What is ‘investing' if it is not the act of seeking value at least sufficient to justify the amount paid?”**

** Warren Buffett: 1992 Letter to Berkshire Hathaway Shareholders*

# The investor's dilemma: Which company/project to invest in?

- How to identify investments generating economic profit?

  => Return on Capital Employed > WACC

- Is extra return worth additional risk?

  => How do we assess risk and measure value?

- Can sustainable economic profit be generated?

  => Do we have a franchise?

- If so, can it be defended long enough to recoup the initial investment?

  => Do we have competent management?

# Warren Buffett's principles for strategic investment decision making

**Warren Buffett's principles for strategic investment decision making***

1. Available at an attractive price
2. Invest in businesses you understand
3. Operated by honest and competent people
4. Invest in businesses with favourable long-term prospects

**Application of principles: Minimum criteria for investing in the Life industry**

1. Assessing value
2. Understanding the risks of the business
3. Business transparency and management competency
4. Identifying a sustainable franchise

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* From Berkshire Hathaway's 1977 Annual Report (reordered)

# What shareholders are looking for

## (1) Assessing value

*“Price is what you pay. Value is what you get.” **

** Warren Buffett*

# Identifying intrinsic value

- Intrinsic value can be defined as the discounted value of the cash that can be taken out of a business during its remaining life
- Intrinsic value for a business will consist of two components:
  - Value – ie cash flows from current business
  - Growth – ie cash flows from future business
- For a life insurance company these are:
  - Embedded Value
  - Franchise Value

  ie Intrinsic Value = Appraisal Value

# What shareholders are looking for

## (2) Understanding the risks of the business

“Risk comes from not knowing what you're doing” *

* *Warren Buffett*

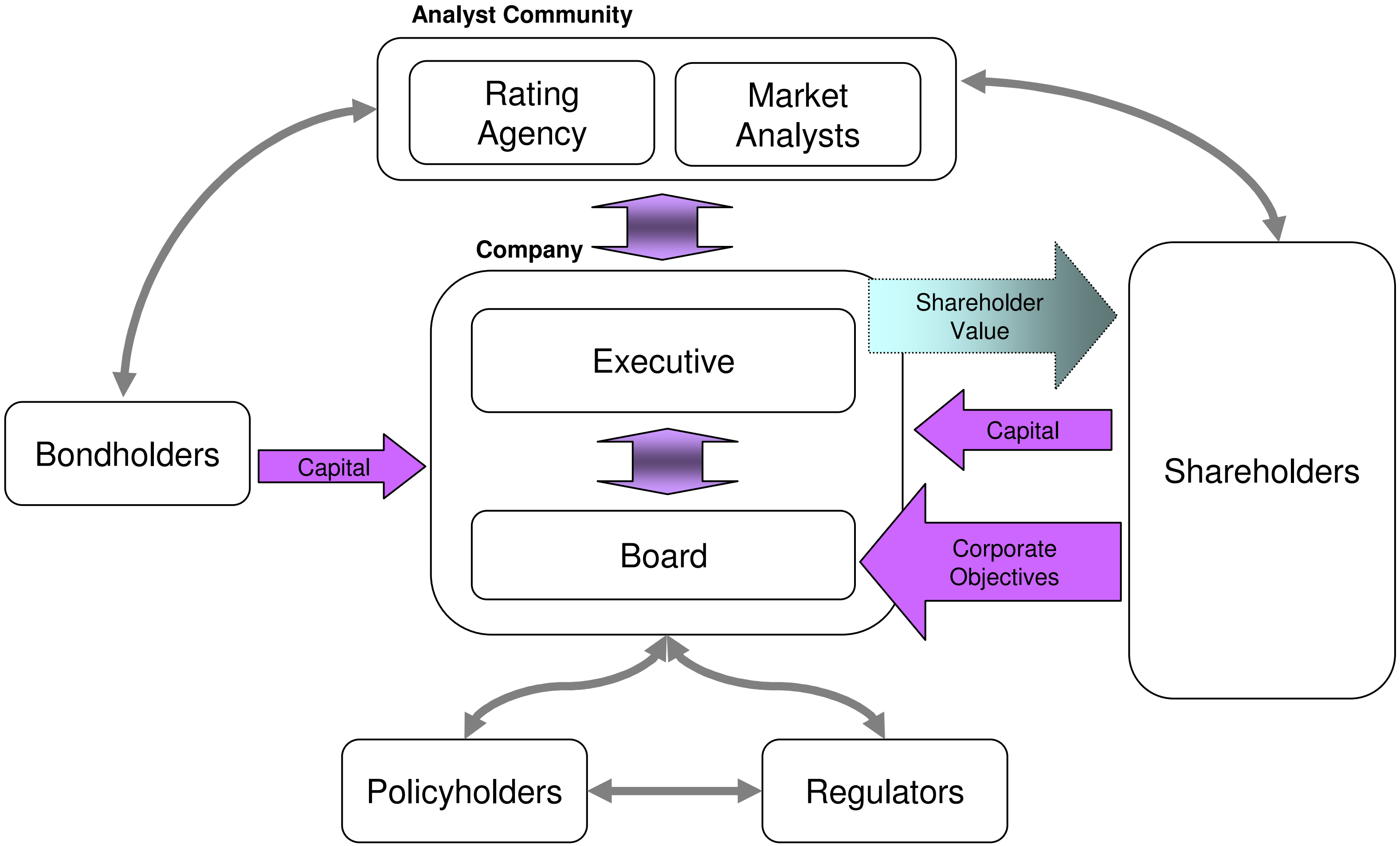
# Why risk management adds value

In a complete market, risk management would not add value, however:

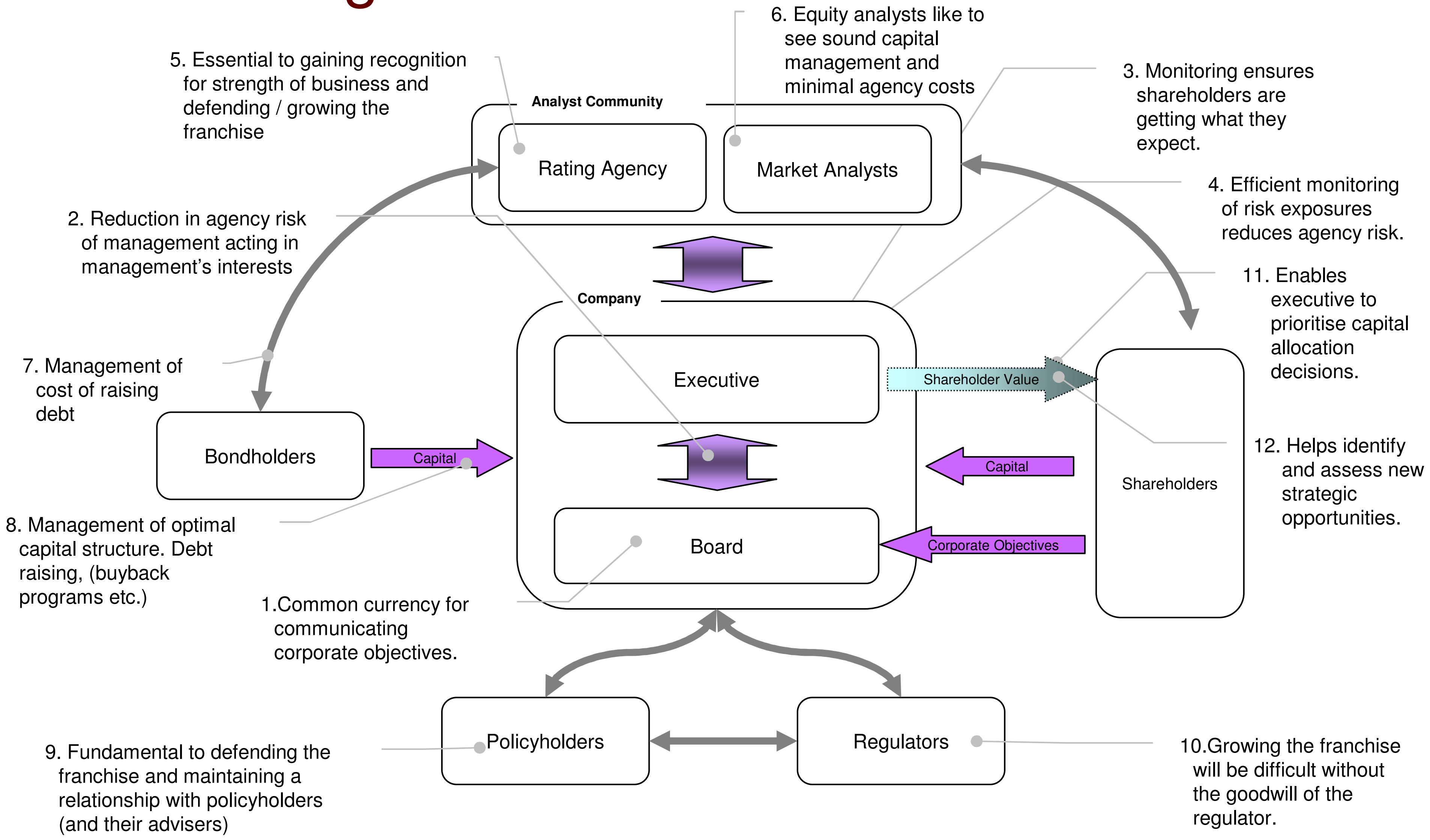
- Markets are incomplete
  - Not every risk has a hedge
    - Take risk to add value
    - Diversification in non-traded risks within a company can add value
  - Shareholders do not have direct access to markets in non-traded risks as companies do
    - Creates opportunities for companies to add value
  - Substantial transaction costs (and barriers to entry) exist
  - Management knows more about the business than shareholders
    - Upside opportunity can be identified
- Companies have limited capital to invest and investment opportunities need to be prioritised

Management must decide between different investments with equivalent returns on the basis of risk within a communicated risk appetite

# Running a "Model" Life Company



# Risk Management's Role in the Business



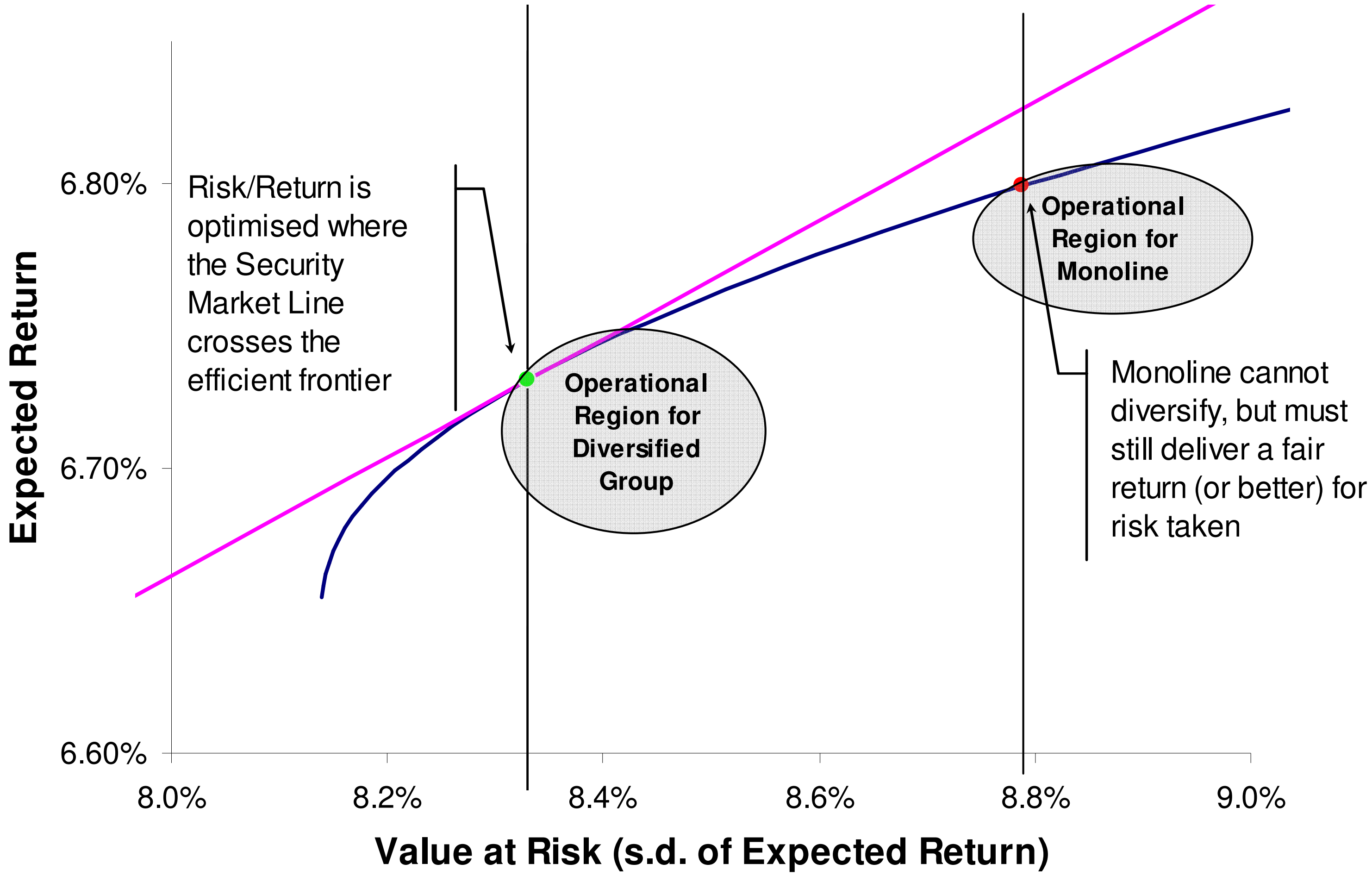
# Summary

1. Corporate governance:
   - Gives a “common currency” for internal decision making
   - Minimises risk of agency costs
2. External communication:
   - Supports and strengthens relationship with analyst community
   - Provides feedback to market and investors on corporate objectives
3. Informs capital structuring activities
4. Helps defend and grow the franchise:
   - Ensures support of both policyholders and regulator
   - Minimises risk of financial distress following regulatory intervention
5. Key driver of shareholder value:
   - Capital allocation can be prioritised (and early warning of future capital needs)
   - Enables management to identify opportunities

# Fundamental Principles

- Define risk appetite in line with corporate objectives:
  - Risk is assessed in terms of the expected volatility of the intrinsic value
  - And will allow for risk to franchise
- Target the best available return for any risk accepted:
- Optimise business plans
  - Optimal business plan delivers highest return for given risk appetite (consistent with objectives)
- Enhance MI systems to monitor profit and risk:
  - Use this information to actively inform strategic decision making
- Communicate effectively

# Optimising Risk and Value



# What shareholders are looking for

## (3) Business transparency and management competency

*“Investors can always buy toads at the going price for toads. If investors instead bankroll princesses who wish to pay double for the right to kiss the toad, those kisses had better pack some real dynamite. Nevertheless, many managerial princesses remain serenely confident about the future potency of their kisses – even after their corporate backyards are knee-deep in unresponsive toads...” **

** Warren Buffett: 1981 Letter to Berkshire Hathaway Shareholders*

# Transparent and competent management

- Business transparency
  - Company structured to minimise agency costs
    - Use of EVM framework to align management to shareholder value
  - Investor communications aligned with corporate objectives and management actions
- Management competency
  - Investments made according to core principles
    - Investing only for added value rather than scale or fashion
    - Rewards proportionate to risks taken
  - Understanding the business
    - EC quantifies risk taking consistently across the business
    - EC enables impact of management decisions to be assessed more accurately

Management should have confidence to make rational decisions based on the evidence and their understanding of business

# What shareholders are looking for

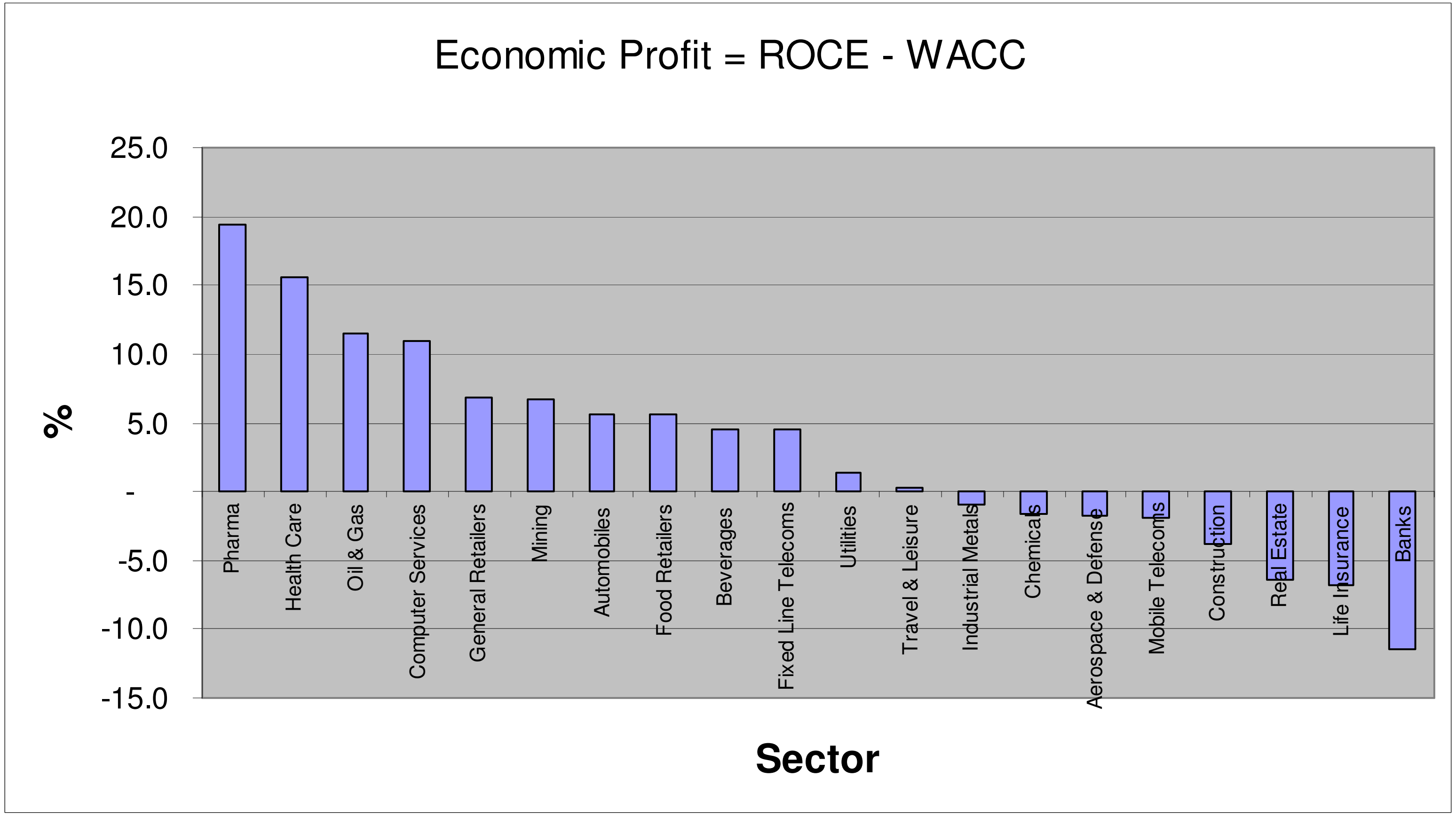
## (4) Identifying a sustainable franchise

*"When a management with a reputation for brilliance tackles a business with a reputation for poor fundamental economics, it is the reputation of the business that remains intact" **

** Warren Buffett: 1980 Letter to Berkshire Hathaway Shareholders*

# Evidence of sustainable franchise value

## No barriers to entry => no economic profit

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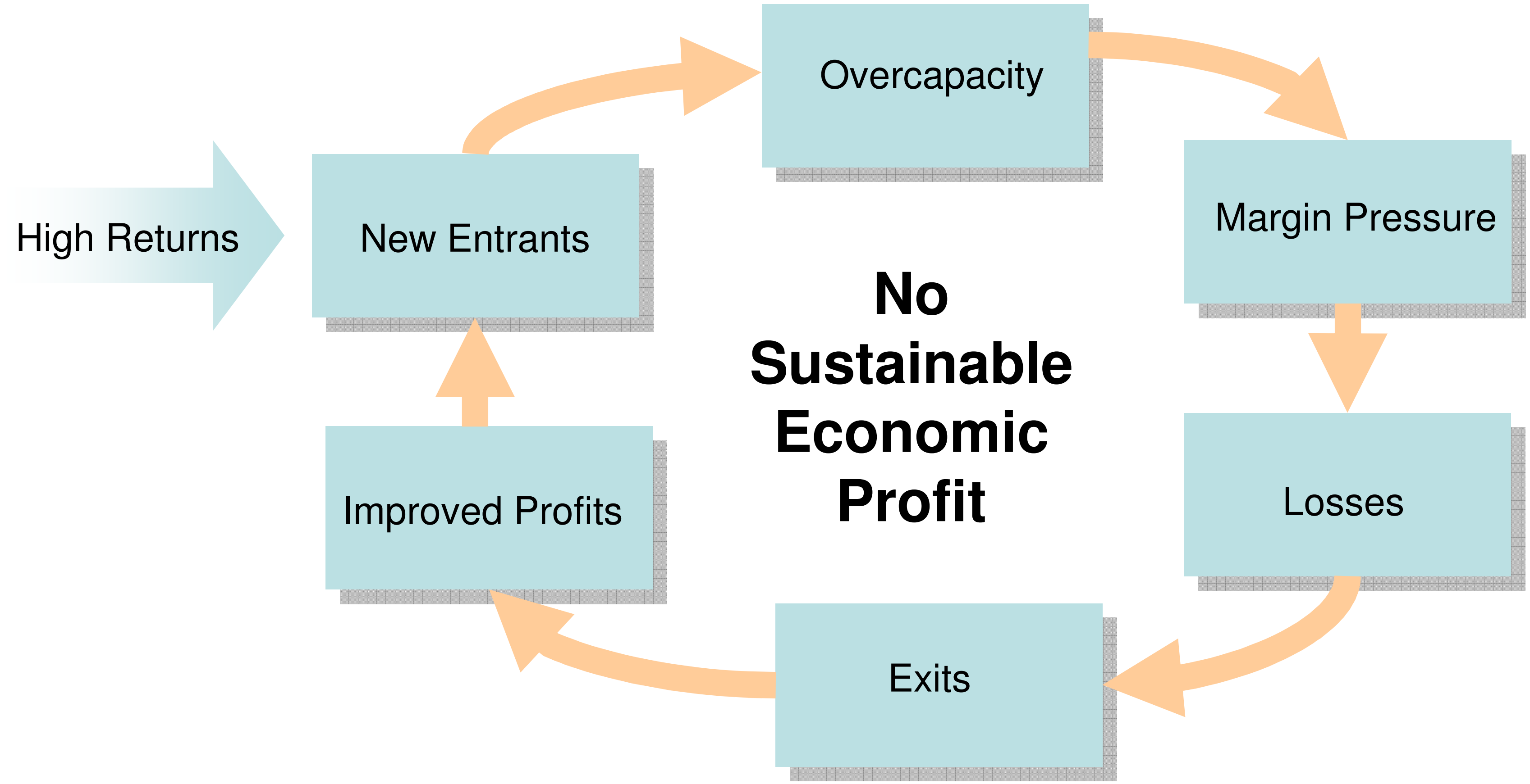
# The issue: how to identify markets where a company has competitive advantage

- No barriers to entry => no economic profit
- Thus analysis must focus on the sources of sustainable competitive advantage that a company has
- Considerations:
  - There are multiple players: incumbents and entrants
  - Players interact dynamically with each other over time
- The analysis cannot be static but must consider the incumbent and entrant strategies and interactions

# Entry dynamics of competitive industries



# Sources of sustainable competitive advantage

- Economies of scale => high fixed costs
  a) Production costs of smaller scale operation too high
  b) Incumbent temporarily cuts price to make entrants unprofitable
- Production => advantage
  - Proprietary technology (eg pharmaceutical patents)
  - Control of scarce resources
  - Learning advantage
- Demand => customer loyalty
  - Habit-based purchases (eg Coca Cola)
  - High search costs (eg changing insurance company)
  - High switch costs (eg changing computer operating system)
- Government policy
  - Regulation (eg insurance, utilities, telecommunications)
  - Subsidies (eg aircraft manufacture)

# Approach for analysing competitive advantage

1. Define the market
2. Test for existence of barriers to entry
   – Sustained high return on capital
   – Stability of market share
   – History of failed new entrants
3. Examine current barriers to entry
4. Assess future of barriers to entry

# 3. Framework for Strategic Investment Decisions

*“It is better to be approximately right than precisely wrong.” **

* *Warren Buffett: 1989 Letter to Berkshire Hathaway Shareholders*

# Incumbent strategies to secure/exploit barriers

| Source of Competitive Advantage | Strategies to pursue to secure/exploit barriers |
|---|---|
| Economies of scale | • Increase efficiency<br>• Extend area of franchise<br>• Protect vigorously against new entrants |
| Production | • Invest in technology, etc to reinforce franchise<br>• Exploit franchise |
| Demand | • Invest in technology, etc to reinforce franchise<br>• Exploit franchise<br>• Set high prices |
| Government policy | • Lobby to maintain franchise<br>• Set prices at highest level while still avoiding government intervention |

# Strategies for incumbent competition*

Look for cooperation

Punish deviation

**Tit-for-tat**

- Respond quickly and strongly
- Make clear who the market leader is
- Match incursions like for like

**Automatic response**

- Match lowest price (removes incentives to undercut)

Signal cooperation

Respond quickly to cooperative signs

* Prof Bruce Greenwald, Columbia BS

# Entrant vs Incumbent Strategies*

| Entrant | Incumbent |
|---|---|
| **Options**<br>• Enter if Incumbent will accept<br>• Don't enter if Incumbent will fight | **Options**<br>• Fight if cost less than accepting entry<br>• Accept if cost of fighting too high |
| **Strategy**<br>• Minimise Incumbent losses if accepts:<br>➢ Enter small<br>➢ Aim initially for limited niche market<br>➢ Limit price competition<br>➢ Differentiate from other entrants<br>• Maximise Incumbent costs if fights:<br>➢ Chose an area of own competitive advantage<br>➢ Tie reputation to outcome | **Strategy**<br>• Minimise loss to Incumbent:<br>➢ High fixed costs; low variable costs<br>➢ Focus on areas of competitive advantage<br>➢ Strong focus on market share<br>• Minimise pay-off to Entrant<br>➢ Cover niches<br>➢ Match competitive prices<br>➢ Match Entrant market moves<br>➢ Strengthen competitive advantages |

**Entrant:** 'Seek to be accepted - think cooperation'
**Incumbent:** 'Hit the new entrants where it hurts them'

* Prof Bruce Greenwald, Columbia BS

# 4. Case Studies

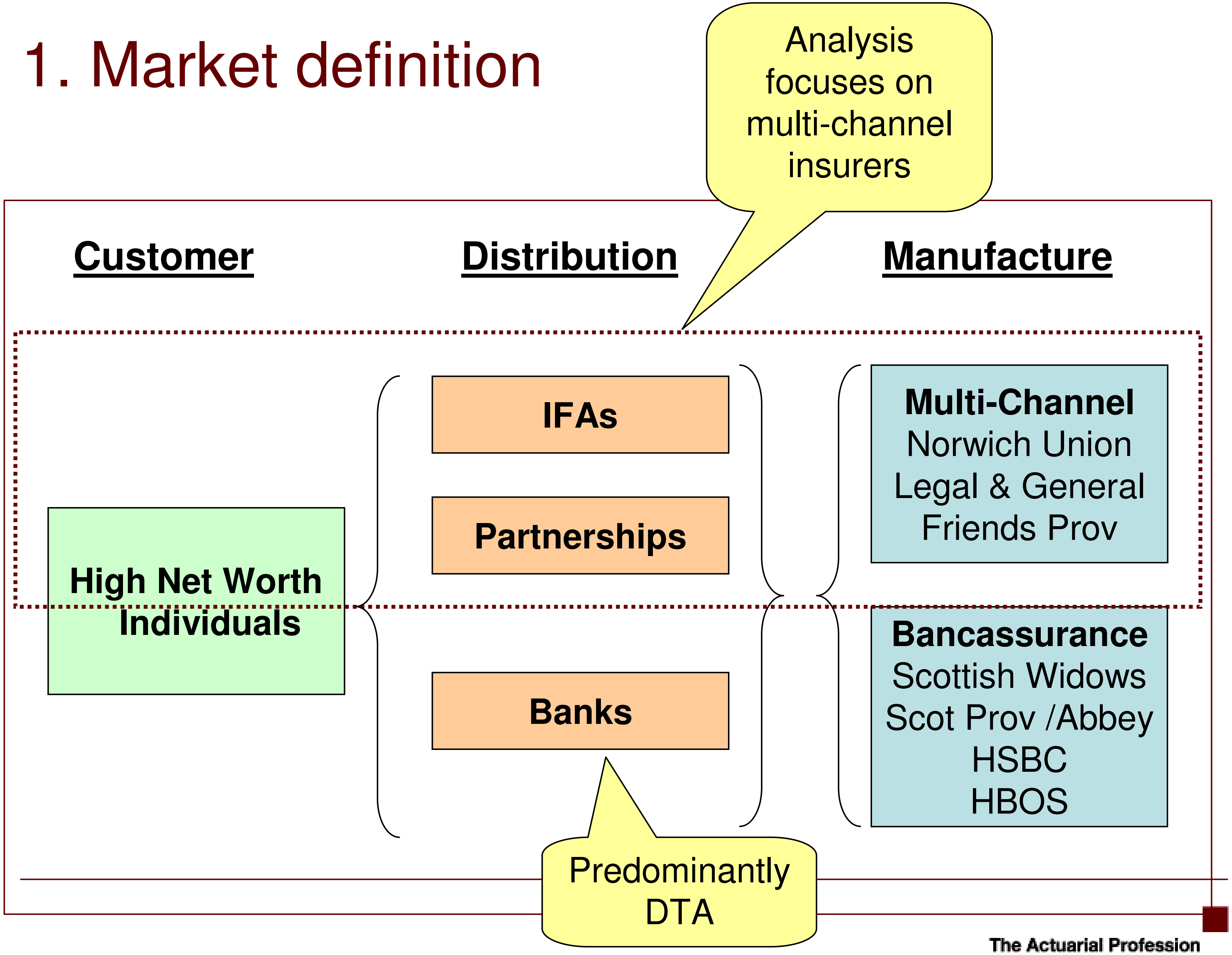
*"Insurance companies offer standardised policies which can be copied by anyone.  Their only products are promises.  It is not difficult to be licensed... There are no important advantages from trademarks, patents, ... raw material resources, etc, and very little consumer differentiation to produce insulation from competition." **

** Warren Buffett: 1977 Letter to Berkshire Hathaway Shareholders*

# Case Study 1

Investing in the protection market –
Level Term Assurance (LTA)

# 1. Market definition



# 2. Test existence of barriers to entry

## Profitability of LTA[1]

| | 2000-2005 |
|---|---|
| VNB/APE | c. 30-40% |

## Market share stability of top four writers of LTA[2]

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Legal & General | 9% | 19% | 18% | 18% | 24% | 22% |
| Norwich Union | 19% | 20% | 20% | 17% | 16% | 17% |
| Scottish Widows | 9% | 7% | 7% | 10% | 10% | 8% |
| Scottish Provident | 12% | 6% | 6% | 8% | 8% | 8% |
| **TOTAL (Top 4)** | **49%** | **52%** | **51%** | **53%** | **58%** | **55%** |

**Hypothesis: Appear to be strong barriers to entry**

[1] From knowledge of M&A transactions

[2] From Swiss Re Term & Health Watch (based on number of policies written)

# 3. Analysis of barriers to entry

| Type of Barrier | Assessment | |
|---|---|---|
| **Economies of Scale** | High fixed costs (relative to profits) to set up online quotation platforms and broker servicing systems | M |
| **Production** | | |
| Proprietary technology | Broker support processes; complex to get right | M |
| Control of scarce resources | IFA distribution is a scarce resource; loyalties and incentives from existing relationships make entrant access difficult | H |
| Learning advantage | Use of reinsurance to improve return | L |
| **Demand** | | |
| Habit-based purchases | No | - |
| High search costs | No – IFAs and online search engines make easy | - |
| High switch costs | Yes – underwriting requirements limit frequent switching | M |
| **Government policy** | | |
| Regulation | Regulatory requirements only weak limit to new entrants | L |

# 4. Assessment of future barriers to entry

- Term has simple benefit structure facilitating easy online price comparison

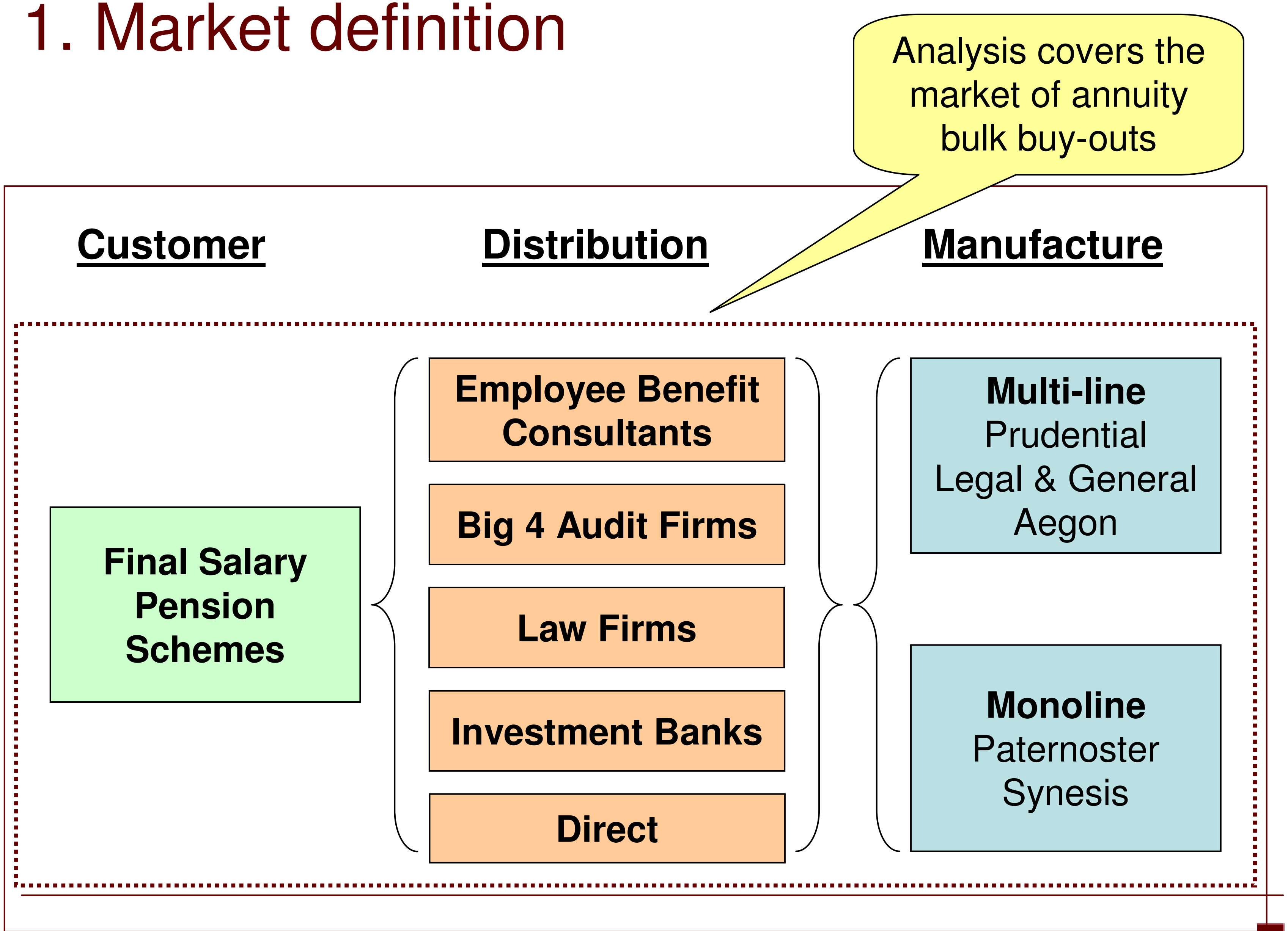
  => First impression: commodity product
- However, market is dominated by a few players; stable market share
- Indicates barriers to entry which is borne out by analysis – in particular, IFA access, fixed costs for technology; servicing proposition
- In future, some pressure to commoditise:
  - Dis-intermediation of the IFA as LTA increasingly purchased over the internet
- Against this:
  - Life company ownership of multi-tied IFAs will act as a further constraint to distribution access
  - A-Day tax incentives term assurance within a SIPP wrapper favourable which is a more complex sale requiring intermediaries

**Conclusion: Defensible franchise**

# Case Study 2

Investing in the annuity bulk buy-out market

# 1. Market definition



# 2. Test existence of barriers to entry

## Profitability of immediate annuity bulk buy-outs[1]

| | 2000-2005 |
|---|---|
| VNB/APE | c. 40%+ |

## Market share stability of top four writers of bulk buy-outs[2]

| | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|
| Prudential | N/A | N/A | 52% | 52% |
| Legal & General | N/A | N/A | 22% | 20% |
| Paternoster | - | - | - | - |
| Synesis | - | - | - | - |
| TOTAL (Top 4) | N/A | N/A | 74% | 72% |

**Hypothesis: Appear to be strong barriers to entry**

1 From knowledge of M&A transactions

2 From company press releases

# 3. Analysis of barriers to entry

| Type of Barrier | Assessment | |
|---|---|---|
| **Economies of Scale** | Annuity administration is not complex and arrangements with third parties substantially reduce fixed cost | L |
| **Production** | | |
| Proprietary technology | Annuity administration systems are offered by various third parties so there is no exclusive proprietary technology | - |
| Control scarce resources | EBCs will act independently for clients on a fee basis | - |
| Learning advantage | Processes and experienced staff to quote for and to transfer schemes with poor data are not readily available | M |
| **Demand** | | |
| Habit-based purchases | No | - |
| High search costs | No – EBCs and other advisors undertake the search | - |
| High switch costs | N/A – once purchased, scheme has no further interest | - |
| **Government policy** | | |
| Regulation | Regulatory environment may act to limit certain new entrants by placing high capital requirements; however, existing insurers will not face this barrier | L |

# 4. Assessment of future barriers to entry

- First impression is that they may be strong barriers to entry

  => Profitable market dominated by two players
- However, this is not borne out by the analysis: there are very few barriers to entry – main one is know-how, but this is only short term
- A number of players stated their intention to enter in 2005/6, which we expect to cause considerable margin erosion for incumbents
- There is limited protection against new entrants:
  – Know-how is not long-term defensible (people can and have switched company)
- Against this:
  – Current incumbents have lower capital requirements arising from diversification benefits that monoline insurers do not enjoy
  – However, this does not apply to other diversified insurers that enter

**Conclusion: No defensible franchise**

# 5. Discussion

*“The behaviour of peer companies, whether they are expanding, acquiring, setting executive compensation or whatever, will be mindlessly imitated.” **

** Warren Buffett: 1989 Letter to Berkshire Hathaway Shareholders*

# Questions for discussion

**LTA Market**

- Can a company enter the term market profitably? If so, how?
- How should the Incumbents respond to a new entrant?
- What could cause the barriers to entry to reduce?
- What would that mean for profits?

**Annuity Bulk Buy-out Market**

- What barriers to entry currently exist?
- If so, how long can they be expected to last?
- Can other barriers to entry be created? If so, how?
- What are the profit expectations for this market?

**General**

- How else could you decide which markets to enter?
- How else could you determine your entry strategy into the new market?

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