The Actuarial Profession
making financial sense of the future

KBW KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

Europe Equity Research

GIRO Conference and Exhibition 2012

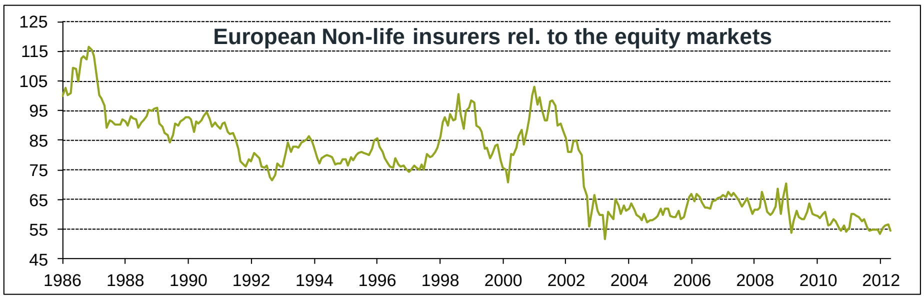
Cyclophilia:

an analyst's view of the pricing cycle

Chris Hitchings
Keefe, Bruyette & Woods Ltd

Investors do not like P&C insurance

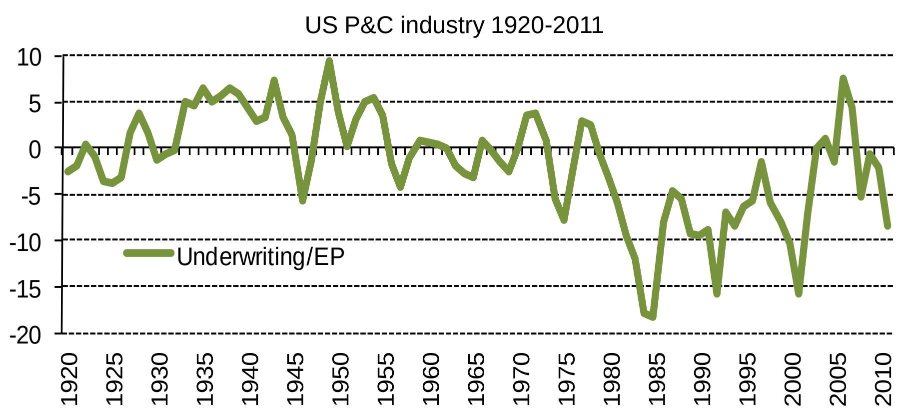
- P&C insurers have not been a good long-term investment
- Underperformed by 45% over past 25 years
- Periods of out-performance have been short, often associated with problems elsewhere.



Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

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



Please refer to important disclosures and analyst certification information on pages 24-25

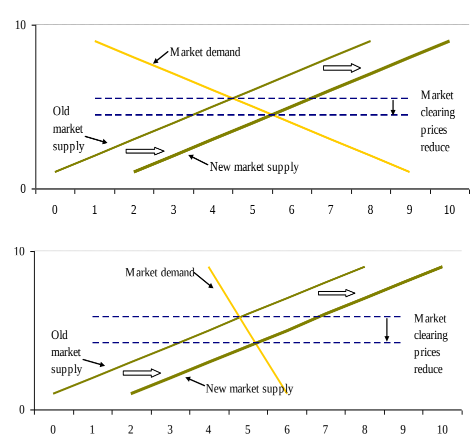
KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

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

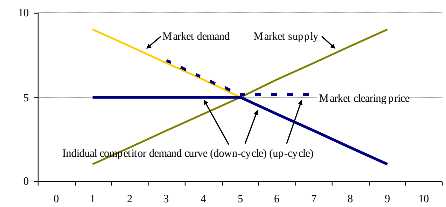
Economics of the cycle - demand

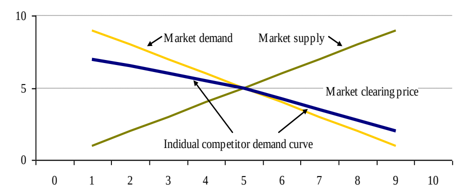
- Supply/demand curves:
- Shows market clearing price determined by intersection
- Increased capacity represented by a shift in the supply curve
- Inelastic demand:
  - No substitutes
  - No utility to additional consumption
- Generates steeper demand curve
- A given change in supply gives a larger change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

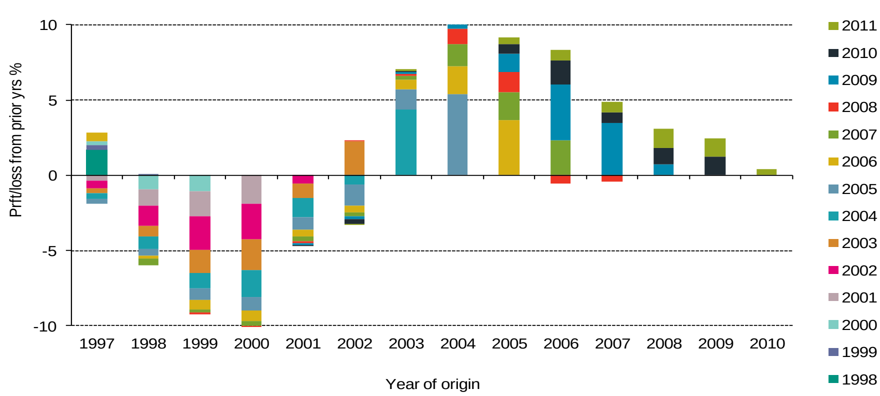




6

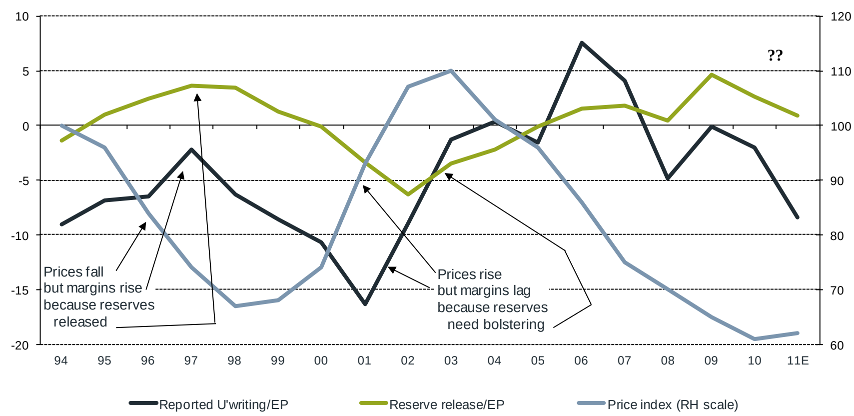
Margin uncertainty – US P&C reserve development by year of origin

Good years get better; bad ones get worse



7

Margin uncertainty – the drivers of reported results



Please refer to important disclosures and analyst certification information on pages 24-25

KBW KEEFE, BRUYETTE & WOODS *Specialists in Financial Services*

8

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

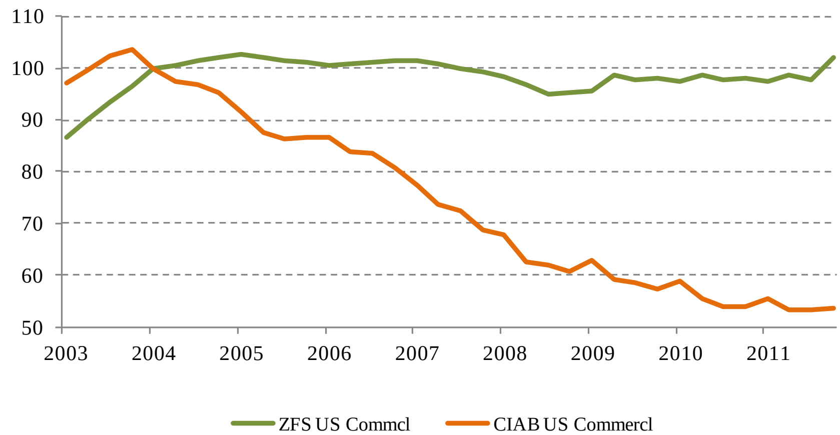
- Insurer A specialises in motor for over 60s:
  - Discovers clients with sports cars profitable so trims rates
- Insurer B specialises in sports cars:
  - Discovers clients in rural areas very profitable so trims rates
- Insurer A succeeds but client base is more city oriented so has more theft/vandalism claims
- Insurer B succeeds but client base is younger than he assumed

Please refer to important disclosures and analyst certification information on pages 24-25

KBW KEEFE, BRUYETTE & WOODS *Specialists in Financial Services*

9

And market prices, thus, fall faster than renewal price indices suggest …



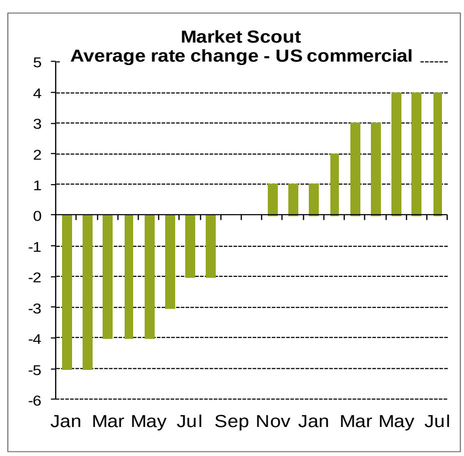
Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

10

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

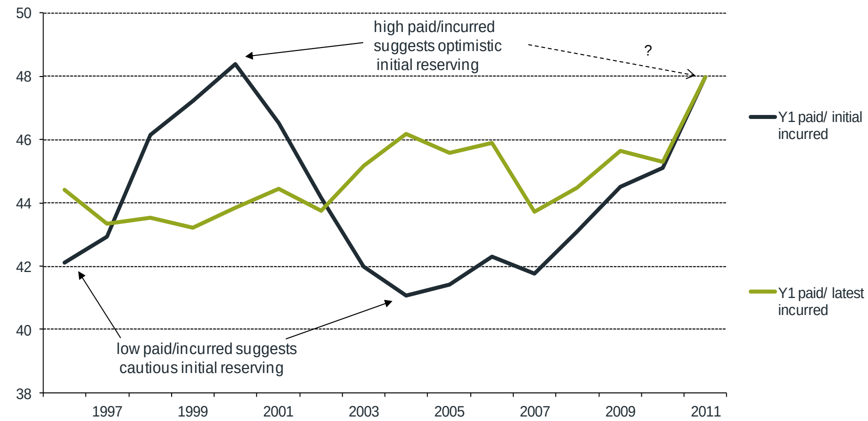


Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

11

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

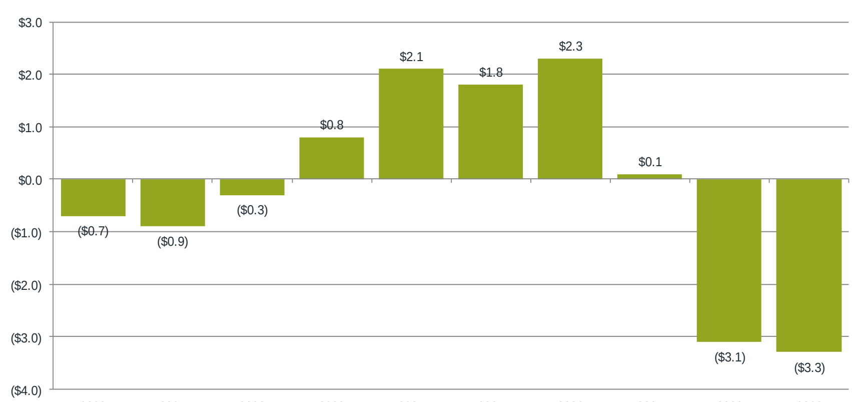


Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

External estimates are negative

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

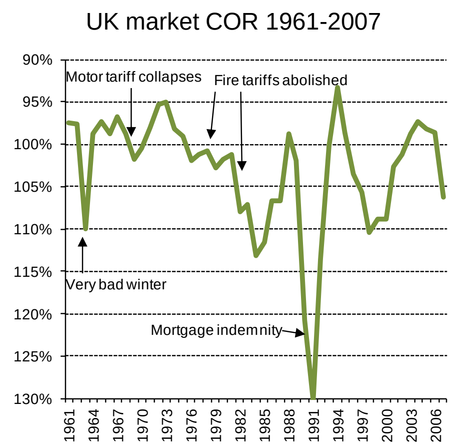


Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

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



Please refer to important disclosures and analyst certification information on pages 24-25

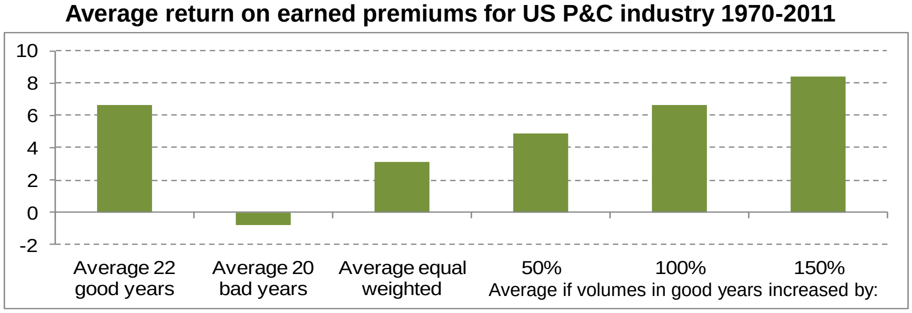
KEEFE, BRUYETTE & WOODS *Specialists in Financial Services*

14

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.

Average return on earned premiums for US P&C industry 1970-2011

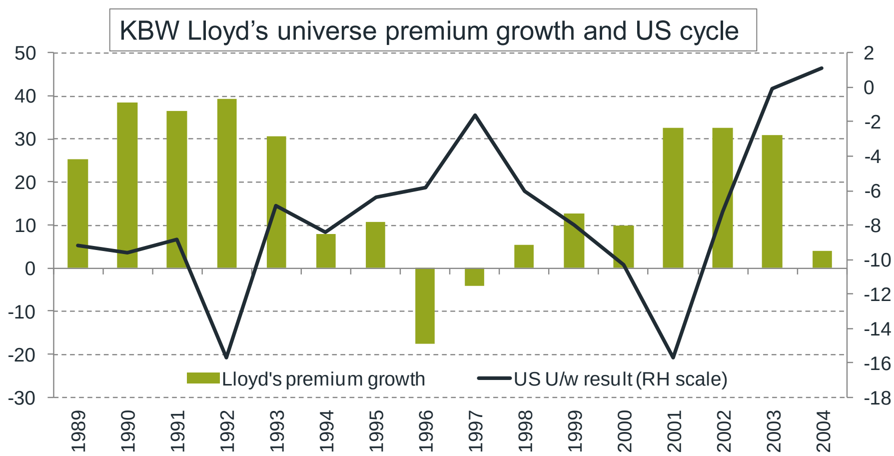


Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS *Specialists in Financial Services*

15

Lloyd's insurers manage it



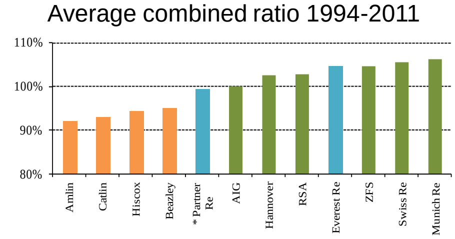
Please refer to important disclosures and analyst certification information on pages 24-25

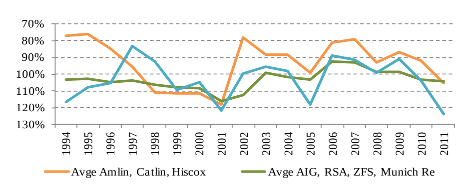
KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

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

Average combined ratio 1994-2011

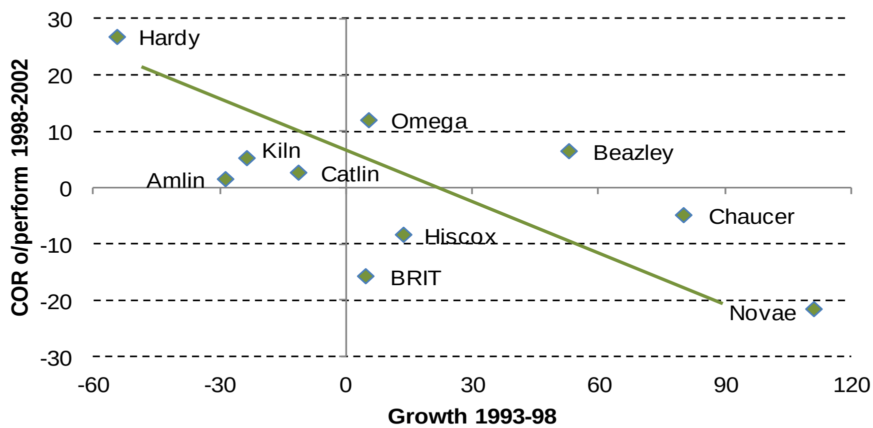




Please refer to important disclosures and analyst certification information on pages 24-25

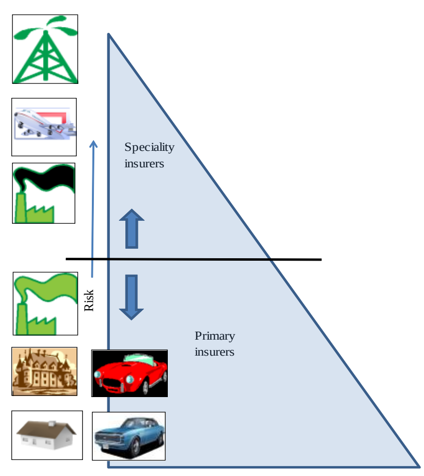
KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

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

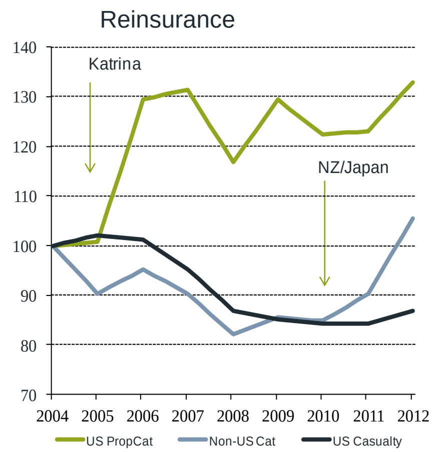


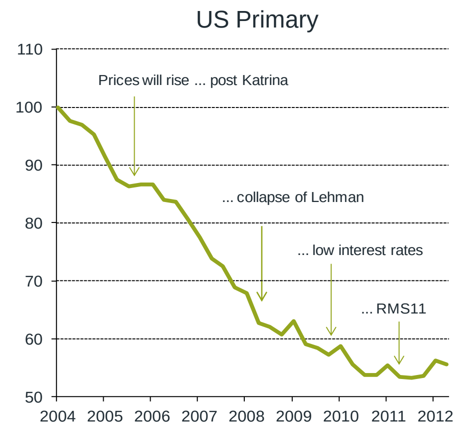
But only because specialty and primary insurance market works that way

- 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?





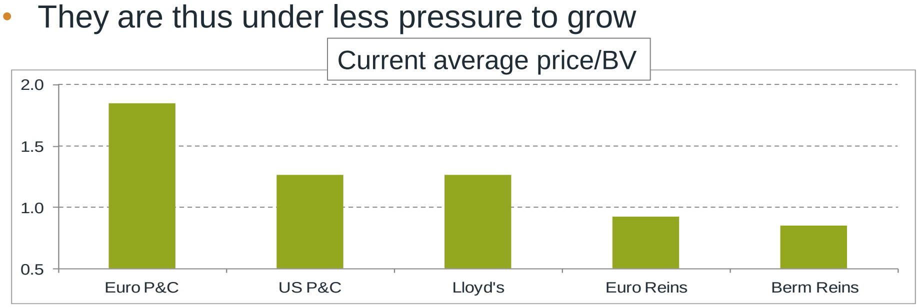
Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

20

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

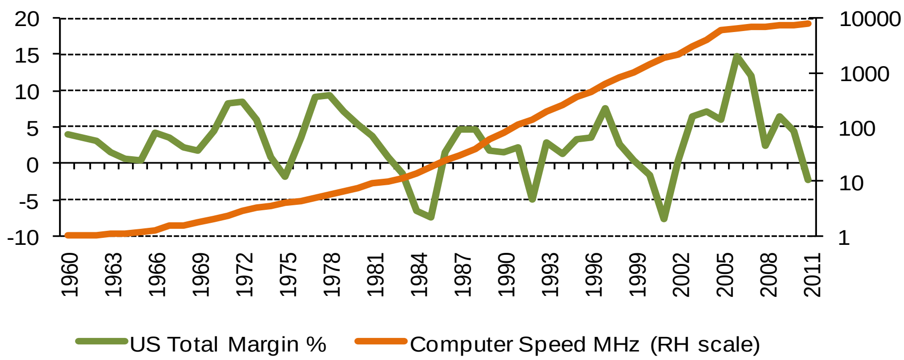


Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

21

Could modern technology solve the cycle?



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

Please refer to important disclosures and analyst certification information on pages 24-25

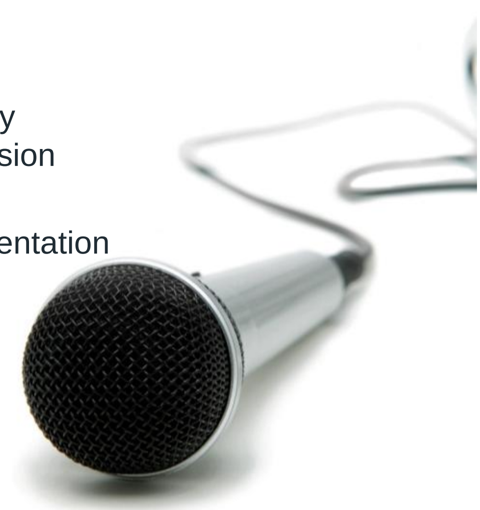
KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

22

Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

23

Important Disclosures

RESEARCH ANALYST CERTIFICATION: I, Chris Hitchings, hereby certify that the views expressed in this document accurately reflect my personal views about the subject companies and their securities. I also certify that I have not been, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation in this document.

Analysts' Compensation: The equity research analysts responsible for the preparation of this document receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues, which include revenues from, among other business units, Institutional Equities and Investment Banking.

AFFILIATE DISCLOSURES: This document has been prepared by Keefe, Bruyette & Woods Inc. ("KBWI") and/or its affiliates Keefe, Bruyette & Woods Limited and Keefe, Bruyette & Woods Asia Limited all of which are subsidiaries of KBW, Inc. (collectively "KBW"). Keefe, Bruyette & Woods Inc. is regulated by FINRA, NYSE, and the United States Securities and Exchange Commission, and its headquarters is located at 787 7th Avenue, New York, NY 10019. Keefe, Bruyette & Woods Limited is registered in England and Wales, no. 04605071 and its registered office is 7th Floor, One Broadgate, London EC2M 2QS. KBWL is authorised and regulated by the UK Financial Services Authority ("FSA"), entered on the FSA's register, no. 221627 and is a member of the London Stock Exchange. Keefe, Bruyette & Woods Asia Limited is a licensed corporation regulated by the Securities and Futures Commission of Hong Kong ("SFC") (CE No.: AUI281). Its headquarters is located at 3101, 31/F Central Plaza, 18 Harbour Road, Wanchai, Hong Kong. Disclosures in the Important Disclosures section referencing KBW include one or all affiliated entities unless otherwise specified.

Registration of non-US Analysts: Any non-US Research Analyst employed by a non-US affiliate of KBWI contributing to this document is not registered/qualified as research analyst with FINRA and/or the NYSE and may not be an associated person of KBWI and therefore may not be subject to NASD Rule 2711 or NYSE Rule 472 restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account.

Disclosure Information: For current company specific disclosures please write to one of the KBW entities: Keefe, Bruyette & Woods Research Department at the following address: 787 7th Avenue, 4th Floor, New York, NY 10019. The Compliance Officer, Keefe, Bruyette and Woods Limited, 7th Floor, One Broadgate, London EC2M 2QS. The Compliance Officer, Keefe, Bruyette and Woods Asia Limited, 3101, 31/F Central Plaza, 18 Harbour Road, Wanchai, Hong Kong. Or visit our website at http://www.kbw.com/research/disclosures.html. KBW has arrangements in place to manage conflicts of interest including information barriers between the Research Department and certain other business groups. As a result, KBW does not disclose certain client relationships with, or compensation received from, such companies in its research documents.
General Risk Disclosure: Investments in securities or financial instrument involve numerous risks which may include market risk, counterparty default risk, liquidity risk and exchange rate risk. No security or financial instrument is suitable for all investors and some investors may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in this communication. The securities of some issuers may not be subject to the audit and reporting standards, practices and requirements comparable to those companies located in the investor's local jurisdiction. Where net dividends to ADR investors are discussed, these are estimated, using withholding tax rate conventions, and deemed accurate, but recipients should always consult their tax advisor for exact dividend computations.

ONLY DISTRIBUTE UNDER REGULATORY LICENSE: This communication is only intended for and will only be distributed to persons residing in any jurisdictions where such distribution or availability would not be contrary to local law or regulation. This communication must not be acted upon or relied on by persons in any jurisdiction other than in accordance with local law or regulation and where such person is an investment professional with the requisite sophistication and resources to understand an investment in such securities of the type communicated and assume the risks associated therewith.

COUNTRY SPECIFIC AND JURISDICTIONAL DISCLOSURES: United States: This document is being distributed in the US by Keefe, Bruyette & Woods Inc. Where the document has been prepared by a non-US affiliate, Keefe, Bruyette & Woods Inc., accepts responsibility for its contents. **U.K. and European Economic Area (EEA):** This document is issued and approved for distribution in the EEA by Keefe Bruyette & Woods Limited, which is regulated in the United Kingdom by the Financial Services Authority. **Hong Kong:** This document has been distributed by Keefe, Bruyette & Woods Asia Limited for the information of institutional customers and is not intended for, and should not be distributed to, retail investors in Hong Kong. Keefe, Bruyette & Woods Asia Limited accepts responsibility for the information set out in this document. **Singapore:** This communication is distributed in Singapore only to persons who are "institutional investors" as defined in the Securities and Futures Act, Chapter 289 of Singapore and is not intended for, and should not be distributed to, any person in Singapore who is not an "institutional investor".
In jurisdictions where KBW is not already licensed or registered to trade securities, transactions will only be affected in accordance with local securities legislation which will vary from jurisdiction to jurisdiction and may require that a transaction is carried out in accordance with applicable exemptions from registration and licensing requirements. Non US customers wishing to effect a transaction should contact a representative of the KBW entity in their regional jurisdiction except where governing law permits otherwise. US customers wishing to effect a transaction should do so by contacting a representative of Keefe, Bruyette & Woods Inc.

Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services

Important Disclosures, continued...

KBW Research Universe Research Distribution

KBW maintains separate research departments; however, the above chart, "Distribution of Ratings/IB Services," reflects combined information related to the distribution of research ratings and the receipt of investment banking fees globally.

Explanation of Ratings: KBW Research Department provides three core ratings: Outperform, Market Perform and Underperform, and three ancillary ratings: Suspended, Restricted, and Not Rated. For purposes of New York Stock Exchange Rule 472 and FINRA Rule 2711, Outperform is classified as a Buy, Market Perform is classified as a Hold, and Underperform is classified as a Sell. Suspended indicates that KBW's investment rating and/or target price have been temporarily suspended due to applicable regulations and/or KBW policies. Restricted indicates that KBW is precluded from providing an investment rating or price target due to the firm's role in connection with a merger or other strategic financial transaction. Not Rated indicates that KBW is not providing an investment rating and/or price target due to the lack of publicly available information and/or its inability to adequately quantify the publicly available information to sufficiently to produce such metrics.

North American Stocks are rated based on an absolute rate of return (percentage price change plus dividend yield).Outperform represents a total rate of return of 15% or greater. Market Perform represents a total rate of return in a range between -5% and +15%.Underperform represents a total rate of return at or below -5%.
European and Asian Stocks are rated based on the share price upside to target price relative to the relevant sector index performance on a 12-month horizon. Outperform rated stocks have a greater than 10 percentage point ("pp") relative performance versus the sector, Market Perform rated stocks between +10pp to -10pp relative performance versus the sector, and Underperform rated stocks a lower than 10pp relative performance versus the sector. The 12-month price target may be determined by the stock's fundamentally-driven fair value and/or other factors (e.g., takeover premium or illiquidity discount).

CONFIDENTIAL INFO: This communication is confidential and is intended solely for the addressee. It is not to be forwarded to any other person or copied without the permission of the sender. Please notify the sender in the event you have received this communication in error.

NO SOLICITATION OR PERSONAL ADVICE: This communication is provided for information purposes only. It is not a personal recommendation or an offer to sell or a solicitation to buy the securities mentioned. Investors should obtain independent professional advice before making an investment.

ASSUMPTIONS, EFFECTIVE DATE AND UPDATES: Certain assumptions may have been made in connection with the analysis presented herein, so changes to assumptions may have a material impact on the conclusions or statements made in this communication. Facts and views presented in this communication have not been reviewed by, and may not reflect information known to, professionals in other business areas of KBW, including investment banking personnel.
The information relating to any company herein is derived from publicly available sources and KBW makes no representation as to the accuracy or completeness of such information. Neither KBW nor any of its officers or employees accept any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this document or its content.
This communication has been prepared as of the date of the document.
KBW does not undertake to advise clients of any changes in information, estimates, price targets or ratings, all of which are subject to change without notice. The recipients should assume that KBW will not update any fact, circumstance or opinion contained in this document.

Please refer to important disclosures and analyst certification information on pages 24-25

KEEFE, BRUYETTE & WOODS
Specialists in Financial Services