

Trampled by Elephants

David Ingram

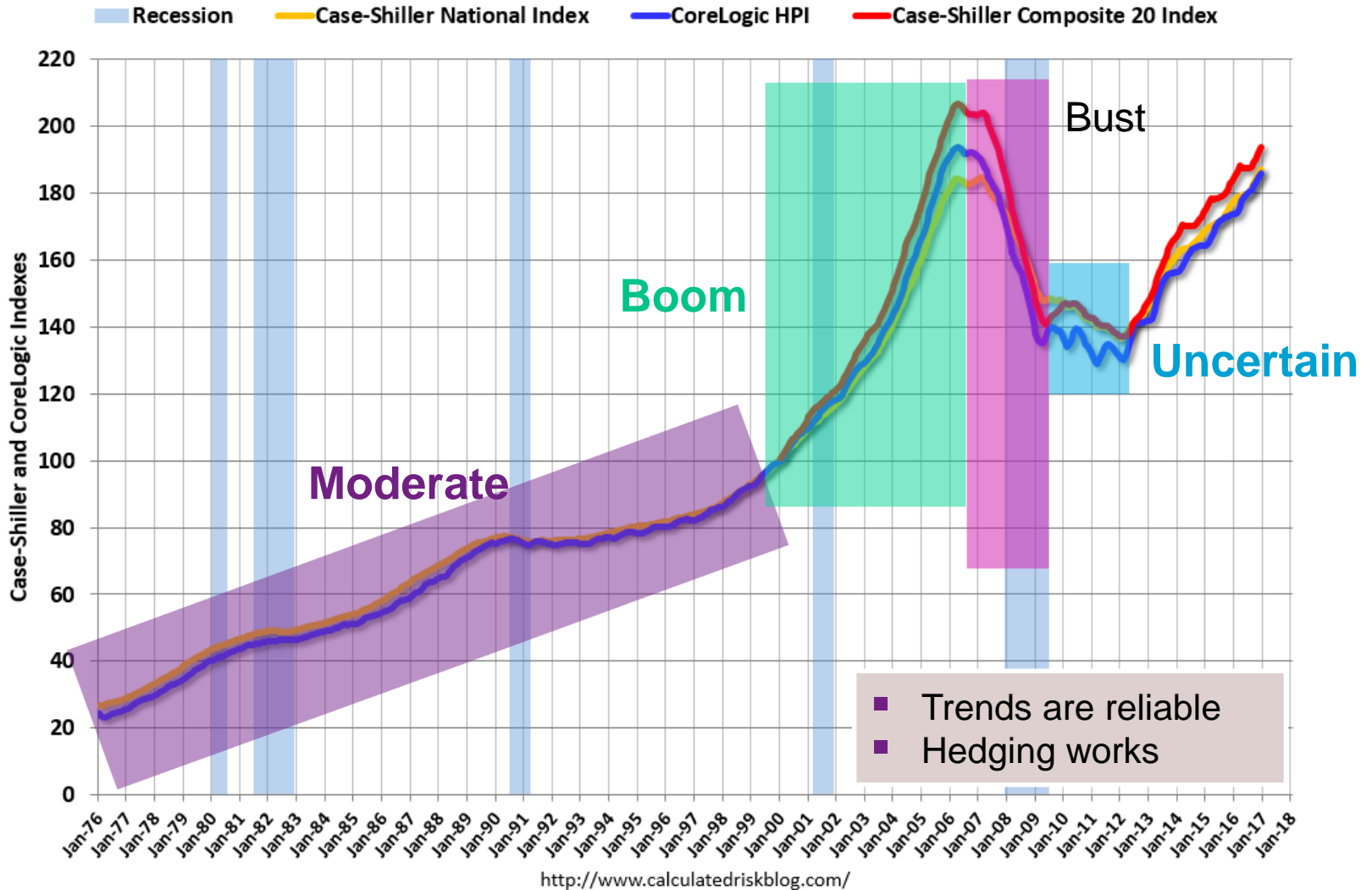
May 2019



Four seasons of risk

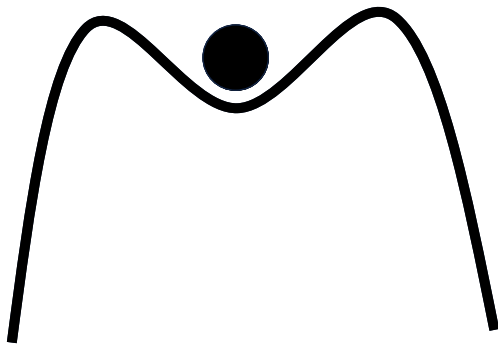
Moderate Season

Nominal House Prices

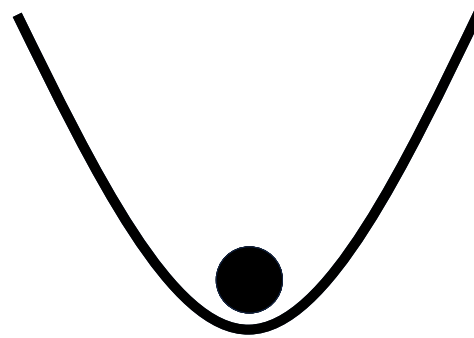


Four beliefs of risk

The Key Question is “What is next?”



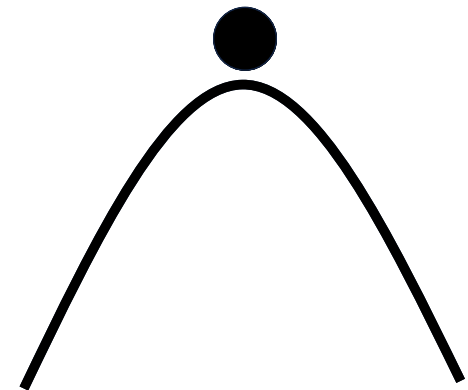
Managers



Maximizers



Pragmatists



Conservators

Risk environment impacts risk attitude

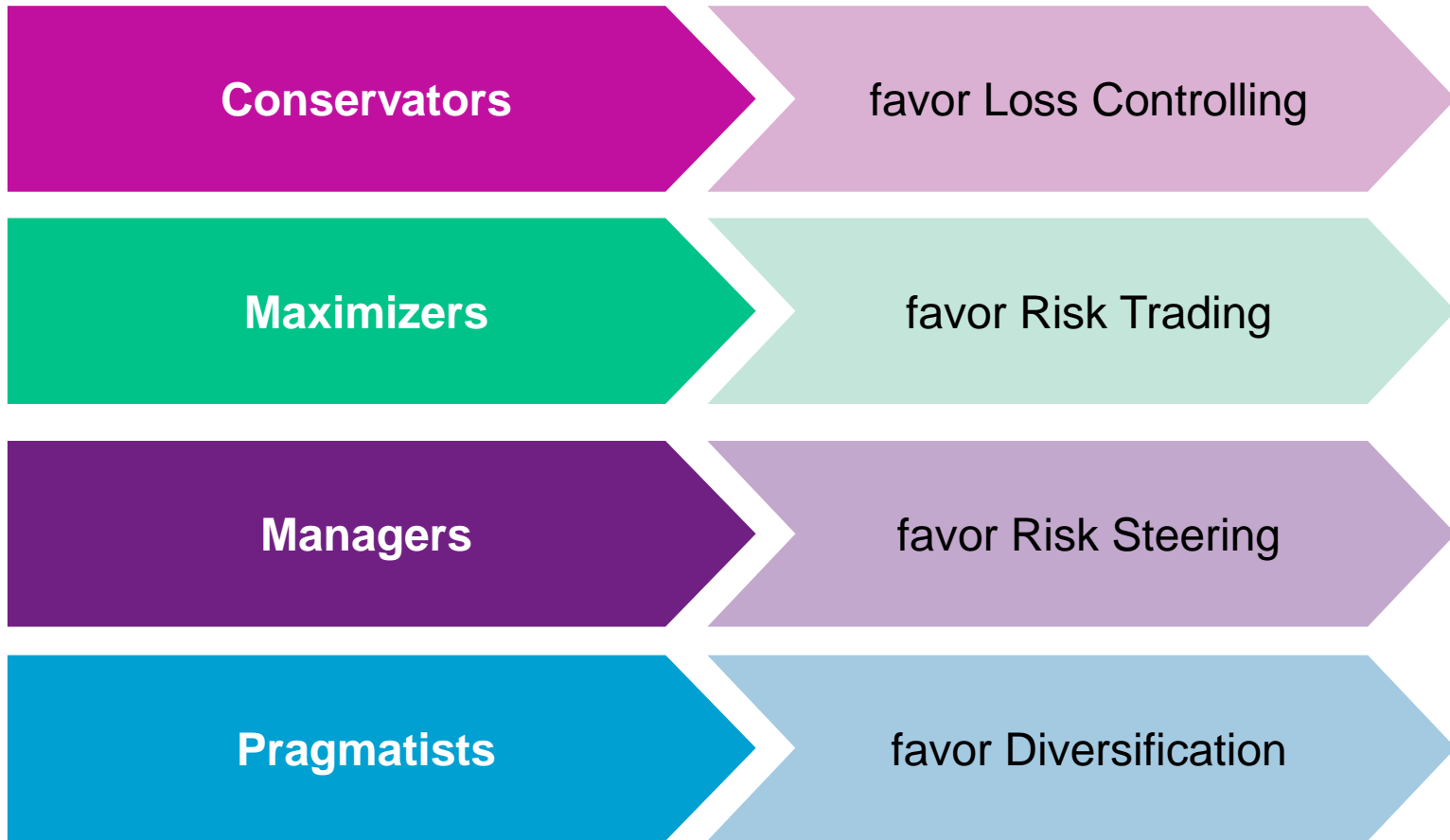
- In the insurance industry, this shifting can be delayed due to the time it takes to recognize losses – especially for long-tailed lines

During the boom Attitudes shift towards Maximizer	During the bust Attitudes shift towards Conservator
In uncertain times Attitudes shift towards Pragmatist	In moderate times Attitudes shift towards Manager

Risk management strategies



Favorite risk strategies



ERM development objectives

	Loss Controlling	Risk Trading	Risk Steering	Diversification
Risk Management Systems	<ul style="list-style-type: none"> ▪ Strict limits ▪ Strict authorities 	<ul style="list-style-type: none"> ▪ Flexible ▪ Opportunities 	<ul style="list-style-type: none"> ▪ Formal policies and standards ▪ CRO 	<ul style="list-style-type: none"> ▪ Flexible ▪ High communication
Risk Models	<ul style="list-style-type: none"> ▪ Stress testing 	<ul style="list-style-type: none"> ▪ Pricing models ▪ Rating agency 	<ul style="list-style-type: none"> ▪ Economic capital & value 	<ul style="list-style-type: none"> ▪ Simplified economic capital
Risk Management Reports	<ul style="list-style-type: none"> ▪ Limit breaches ▪ Emerging risks ▪ Extreme loss 	<ul style="list-style-type: none"> ▪ Profit and risk weighted sales 	<ul style="list-style-type: none"> ▪ ROE ▪ Capital budget 	<ul style="list-style-type: none"> ▪ Risk aggregates & concentrations

Typology of Surprises

		Actual World			
		Uncertain	Bust	Boom	Moderate
Expected World	Uncertain (Pragmatist)	No Surprise	Expected windfalls don't happen-only losses	Unexpected runs of good luck	Unexpected runs of good and bad luck
	Bust (Conservator)	Caution does not work	No Surprise	Others prosper (especially Maximizer)	Others prosper (especially managers)
	Boom (Maximizer)	Skill is not rewarded	Total Collapse	No Surprise	Partial Collapse
	Moderate (Manager)	Unpredictability	Total Collapse (when only partial was expected)	Competition	No Surprise

Risk management strategies

What if you could get it right?

Risk Environment	Boom	Bust	Uncertain	Moderate
Risk Attitude	Maximizer	Conservator	Pragmatist	Manager
Risk Management Strategy	Risk Trading	Loss Controlling	Diversification	Risk Steering

A perfect ERM program will adapt to the risk environment

Typology of Surprises

		Actual World			
		Uncertain	Bust	Boom	Moderate
Expected World	Uncertain (Pragmatist)	No Surprise	Expected windfalls don't happen-only losses	Unexpected runs of good luck	Unexpected runs of good and bad luck
	Bust (Conservator)	Caution does not work	No Surprise	Others prosper (especially Maximizer)	Others prosper (especially managers)
	Boom (Maximizer)	Skill is not rewarded	Total Collapse	No Surprise	Partial Collapse
	Moderate (Manager)	Unpredictability	Total Collapse (when only partial was expected)	Competition	No Surprise

Changes as a result of Surprise

Change to	Changes in behavior
Pragmatist	Reduce size and duration of commitments
Conservator	Pull back, reduce exposures as percent of capacity
Maximizer	Take advantage of market hardening to add high profit business
Manager	Adopt more formal risk management program

More often change will come via turnover at the top, rather than a change of belief at the top.

Plural Rationality becomes Rational Adaptability

- **ASTIN Bulletin**
 - SURPRISE, SURPRISE: From Neoclassical Economics To E-Life, 2012 (Thompson, Ingram, Tayler)
- **North American Actuarial Journal**
 - Collective Approaches to Risk in Business: An Introduction to Plural Rationalities 2013(Ingram, Bush)
- **Bulletin Français D'Actuariat**
 - ERM Rainbow 2012 (Underwood, Ingram)
- **InsuranceERM.com**
 - Rational adaptation for ERM in a Changing Environment, 2013, (Ingram, Thompson, Underwood)
- **Intelligent Risk**
 - All on the Same Train but Heading in Different Directions, 2014 (Ingram Thompson, Underwood)
 - Risk culture, neoclassical economics and enterprise risk management, 2014 (Ingram, Thompson , Underwood)

A Surprise Occurs

12 Subsequent Questions

12 Questions

1. Was the strategic risk trajectory appropriate for the company's financial situation, the risk environment and the primary strategic objectives of the firm?
2. Did the specific plans of the company in the years prior to the loss support the chosen trajectory?
3. Were the risk appetite, tolerance and limits set through a robust process that considered the pertinent factors?
4. Was compliance monitored regularly?

12 Questions

5. Was the company in compliance, especially for the risk that resulted in the major loss?
6. If risks exceeded their limits, where actions taken to get back in compliance
7. Did the risk assessment process use the best available methodology?
8. Was that methodology actually used?

12 Questions

9. Were the risk assessments performed and reported in a timely manner?
10. Were the planned mitigations capable of reducing the frequency and/or severity of losses in the manner expected?
11. Were the planned mitigations carried out as expected?
12. Did your peers suffer comparable losses?

Thank you!

- David Ingram
D +1 212 915 8039
M Dave.Ingram@WillisTowersWatson.com

Willis Re disclaimers

This analysis has been prepared by Willis Limited and/or Willis Re Inc. and/or the “Willis Towers Watson” entity with which you are dealing (“Willis Towers Watson” is defined as Willis Limited, Willis Re Inc., and each of their respective parent companies, sister companies, subsidiaries, affiliates, Willis Towers Watson PLC, and all member companies thereof) on condition that it shall be treated as strictly confidential and shall not be communicated in whole, in part, or in summary to any third party without prior written consent from the Willis Towers Watson entity with which you are dealing.

Willis Towers Watson has relied upon data from public and/or other sources when preparing this analysis. No attempt has been made to verify independently the accuracy of this data. Willis Towers Watson does not represent or otherwise guarantee the accuracy or completeness of such data nor assume responsibility for the result of any error or omission in the data or other materials gathered from any source in the preparation of this analysis. Willis Towers Watson shall have no liability in connection with any results, including, without limitation, those arising from based upon or in connection with errors, omissions, inaccuracies, or inadequacies associated with the data or arising from, based upon or in connection with any methodologies used or applied by Willis Towers Watson in producing this analysis or any results contained herein. Willis Towers Watson expressly disclaims any and all liability, based on any legal theory, arising from, based upon or in connection with this analysis. Willis Towers Watson assumes no duty in contract, tort or otherwise to any party arising from, based upon or in connection with this analysis, and no party should expect Willis Towers Watson to owe it any such duty.

There are many uncertainties inherent in this analysis including, but not limited to, issues such as limitations in the available data, reliance on client data and outside data sources, the underlying volatility of loss and other random processes, uncertainties that characterize the application of professional judgment in estimates and assumptions. Ultimate losses, liabilities and claims depend upon future contingent events, including but not limited to unanticipated changes in inflation, laws, and regulations. As a result of these uncertainties, the actual outcomes could vary significantly from Willis Towers Watson’s estimates in either direction. Willis Towers Watson makes no representation about and does not guarantee the outcome, results, success, or profitability of any insurance or reinsurance program or venture, whether or not the analyses or conclusions contained herein apply to such program or venture.

Willis Towers Watson does not recommend making decisions based solely on the information contained in this analysis. Rather, this analysis should be viewed as a supplement to other information, including specific business practice, claims experience, and financial situation. Independent professional advisors should be consulted with respect to the issues and conclusions presented herein and their possible application. Willis Towers Watson makes no representation or warranty as to the accuracy or completeness of this document and its contents.

This analysis is not intended to be a complete actuarial communication, and as such is not intended to be relied upon. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Willis Towers Watson actuaries are available to answer questions about this analysis.

Willis Towers Watson does not provide legal, accounting, or tax advice. This analysis does not constitute, is not intended to provide, and should not be construed as such advice. Qualified advisers should be consulted in these areas.

Willis Towers Watson makes no representation, does not guarantee and assumes no liability for the accuracy or completeness of, or any results obtained by application of, this analysis and conclusions provided herein.

Where data is supplied by way of CD or other electronic format, Willis Towers Watson accepts no liability for any loss or damage caused to the Recipient directly or indirectly through use of any such CD or other electronic format, even where caused by negligence. Without limitation, Willis Towers Watson shall not be liable for: loss or corruption of data, damage to any computer or communications system, indirect or consequential losses. The Recipient should take proper precautions to prevent loss or damage – including the use of a virus checker.

This limitation of liability does not apply to losses or damage caused by death, personal injury, dishonesty or any other liability which cannot be excluded by law.

This analysis is not intended to be a complete Financial Analysis communication. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Willis Towers Watson analysts are available to answer questions about this analysis.

Willis Towers Watson does not guarantee any specific financial result or outcome, level of profitability, valuation, or rating agency outcome with respect to A.M. Best or any other agency. Willis Towers Watson specifically disclaims any and all liability for any and all damages of any amount or any type, including without limitation, lost profits, unrealized profits, compensatory damages based on any legal theory, punitive, multiple or statutory damages or fines of any type, based upon, arising from, in connection with or in any manner related to the services provided hereunder.

Acceptance of this document shall be deemed agreement to the above.