RISK PERCEPTIONS AND THEIR IMPACT ON THE CYCLE

An Introduction to Cultural Theory of Risk

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The Insurance Cycle

1. Capital flows into insurance sector raising capacity
2. Premiums fall and Underwriting standards loosen as insurers seek to utilize capacity
3. Profits Erode and turn into Losses
4. Severe Underwriting Losses
5. Tighten Underwriting Standards & Raise Premiums
6. Dramatic Increase in Profits
7. Capital flows into insurance sector raising capacity

People Cause the Cycle

People are not all the same

But can be seen to fall into some groupings

- Economic Man of classical economics
- Emotional Man of behavioral finance
- Four groups from Cultural Theory

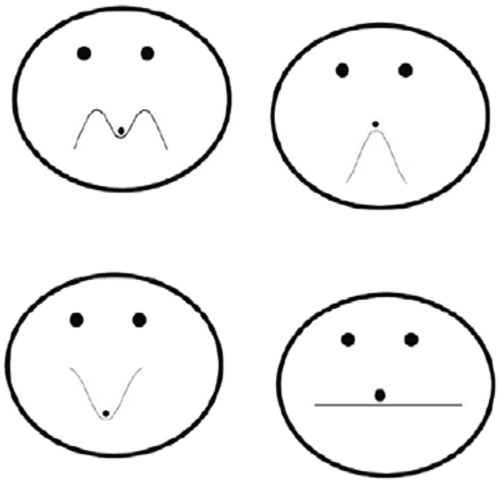
Cultural Theory

"Groups form because people share the same concept of risk!"

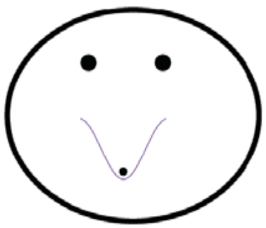
First proposed by Mary Douglas in 1983

Extended discussion in 1990 book

- Subsequent applications to many social/public policy risk discussions

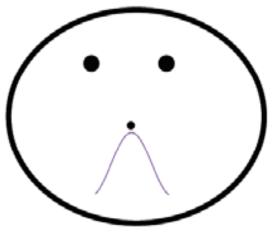


Ingrid



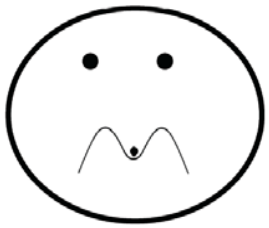
Risk is Mean Reverting

Edgar



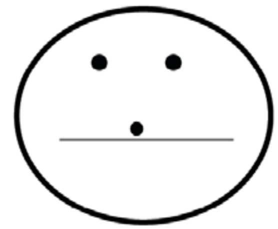
Risk is very Dangerous

Arthur



Risk Can be Controlled

Francine



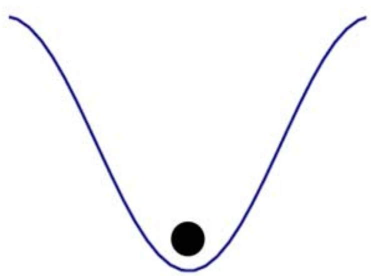
Risk is unpredictable

Individualists

World is self correcting.

No need to be overly concerned by risks.

Grow the pie



Individualists

- Unfettered Capitalism - self correcting Markets
  - Raw Materials infinite
  - – People with more ability should be paid more
  - – Give Companies the chance to prosper
  - – Life sorts out those who work harder
  - Insurance - Social Security
  - Strong/informal relationships - low responsibility
  - Disagreements ok - right idea will prevail
  - Growth of the company/markets/world

Egalitarians

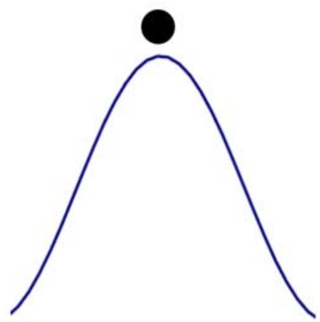
World is in a delicate balance.

Any major change could send things into ruin

Need to tightly limit risks

Divide the pie

Fairness



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Egalitarians

- Resources finite - must be frugal
  - – If people were treated more equally would have less problems
  - – Govt should make sure everyone has good standard of living
  - – Those how get ahead should be taxed more to support the less fortunate
  - Insurance - Social Security
  - Strong relationships & Strong Responsibility
  - Doctrinaire and uncompromising
  - Disagreement - split group

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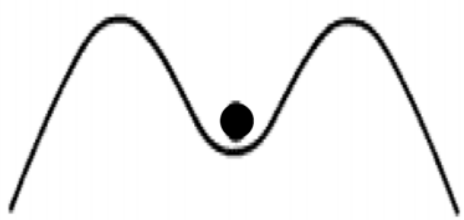
Authoritarian



There are risks but they are controllable.

Need to rely on experts to control them.

Need rules & laws – keep things under control

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Authoritarian

– One problem with people is that they challenge authority too often
- – I value tradition & timeliness
- – I research what the experts recommend before I make any important decision
- Insurance - Social Security
- Weak & formal relationships with high accountability
- Believe in controlled growth

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Fatalists

Who knows what is coming next. Might be good, might be bad. Cannot control risk.

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Fatalists

- Will not <u>conform</u> to rules of Authoritarians
  - Cannot muster the <u>fervor</u> of Egalitarians
  - Do not have the <u>ambition</u> to strike out on their own as Individualists
    - Cooperating rarely works
    - I am often treated unfairly
    - Even if you work hard - it might not help you to do better
  - Insurance - Social Security
  - Weak Relationships and weak responsibility
  - Majority of people in the world - small minority of those in control

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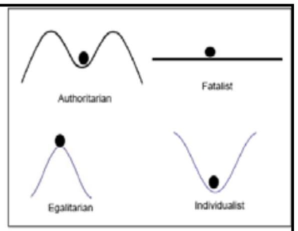
People within Companies



Individualists – Sales/Underwriting/Traders
- Incentive Compensation
- Argue with bean counters

Fatalists - Operations, IT
- Constantly changing priorities
- Help Desk

Egalitarian - Traditional Risk Management
- Compliance, Audit, Insurance Buyers, Legal, Actuarial

Authoritarian - CFO, ERM
- If top officer - Heavy Planning emphasis - Goals vs. Actual

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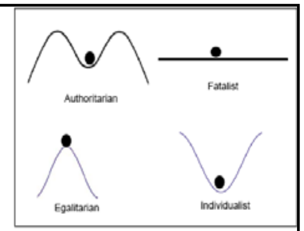
ERM is Authoritarian



- Risk Limits, Policies, Balancing & Optimizing risk
  - Risk Tolerance & Appetite
  - Org charts, policy statements, Reports

Insights

1. Authoritarian ERM will conflict with the other three risk views!
   - CFO vs CRO
2. Traditional Risk Managers will often be Egalitarians.
   - Will often be opponents of ERM!
   - Or if they lead ERM –it will not be the same

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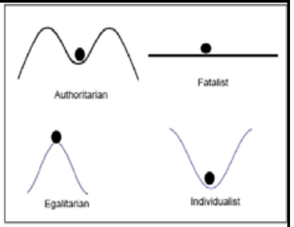
Apply to Insurance Cycle



- More and more of resources controlled by Individualists
- Minsky Cycle
- Why did that happen?
- Minsky -Stability is Destabilizing

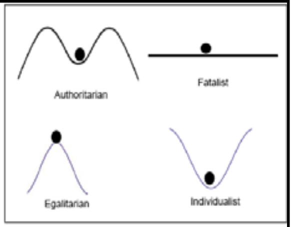
Cultural Theory

- People keep looking for their experiences to validate their view of risk

1. Each View is Correct some of the time
2. People Eventually Change their view if not validated

Insight 3: People shift from group to group because of experiences

But why did that cause a problem?



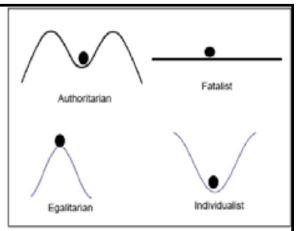
World actually does vary between different states of riskiness

Each of the views is correct some of the time.

World works best when all four of the views have some sort of balance of power

- For example, Individualists actually need Authoritarian laws to protect their property
  - But you would not be able to easily get Individualists to admit that they need the laws. Or to get the Egalitarians to say that some changes are good.

Insights

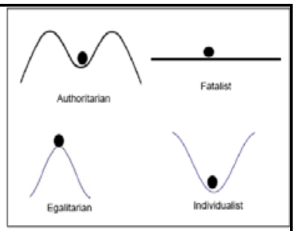


3. People shift their view of risk over time

Back to Cycle

- Benign environment made more and more people adopt Individualist point of view
- Individualists controlled more and more resources
- Minsky Cycle

Own set of facts



"Everyone is entitled to his own opinion but not his own facts"

Daniel Patrick Moynahan

But Everyone Filters out what is unimportant

Their view of risk is one of the filters!

Some people have much stronger filters than others.

INSIGHT 4: Everyone DOES have their own facts!

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
Overall Strategy	Momentum	Totally off Cycle	Market Timers	Survivalists

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
1. Capital Flows into sector	Target 25% Growth!	Be Careful! We just lost lots of money.	Let's find the opportunities with the best ROEs.	Not sure that we can handle much more volume.
	↑	↓	↔	↔

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
2. Premiums fall and Underwriting standards loosen as insurers seek to utilize capacity	Profit Margins are more than fat enough to absorb this.	Now is the time to grow!	Just Maintain Market Share. Don't Grow Now!	We cannot handle the volumes we are writing. Slow Down!
	↑	↔	↓	↓

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
3. Profits Erode and turn into Losses	This will turn around.	There is no end in sight for these losses.	Need to tighten limits and prices. Make adjustments.	One day at a time. This is bad luck.
	↓	↑	↔	↔

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
4. Severe Underwriting Losses	There are still pockets of opportunity.	Panic. Shut down units. Buy Reinsurance at peak cost.	Need to tighten limits and prices. More approvals & oversight.	One day at a time. This is bad luck.
	↓	↔	↔	↑

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
5. Tighten Underwriting Standards & Raise Premiums	We won't be able to write any business at those rates.	Those rates are still too low!	Need to tighten limits and prices. Make adjustments.	We need to cover our expenses.
	↔	↓	↑	↔

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
6. Dramatic Increase in Profits	Competition is killing us. We have to cut rates.	Time to Strengthen reserves.	More fine tuning – we really have this running well.	Things are running well. We are just about at capacity.
	↔	↓	↑	↔

Cycle Strategies

	Individualists	Egalitarians	Authoritarians	Fatalists
1. Capital Flows into sector	Target 25% Growth!	Be Careful! We just lost lots of money.	Let's find the opportunities with the best ROEs.	Not sure that we can handle much more volume.
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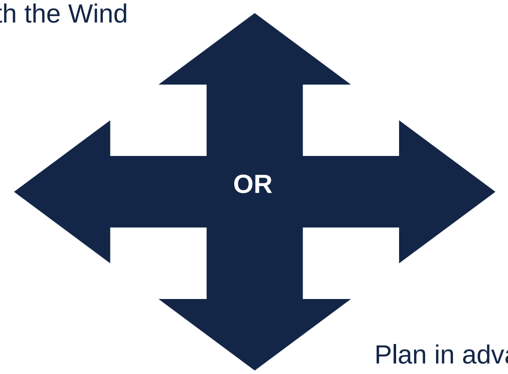
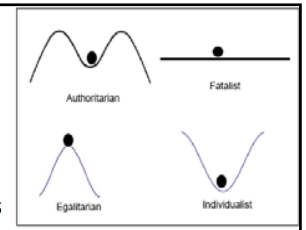
Cycle Strategies

Blow with the Wind



Plan in advance

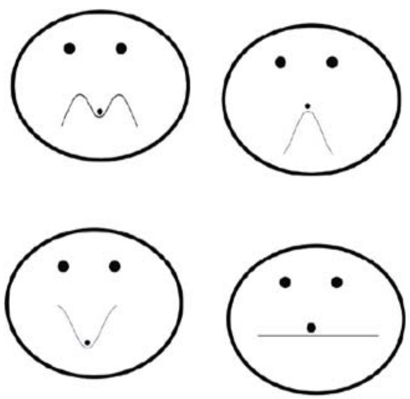
Final Insight



- You should not seek to WIN.
- Best to not all have the same facts

- Would miss
  – Opportunities that Individualists see
  – Flexibility that Fatalists have
  – Fatal risk that the Authoritarians warn

New Cycle Management Committee



Key Insights from Cultural Theory

• FIRST INSIGHT – Authoritarian ERM will conflict with all the other risk views!

• SECOND INSIGHT – traditional risk management folks with Egalitarian point of view will not easily be converted to supporting ERM!

• THIRD INSIGHT – Allegiances to these four risk views shift over time.

• FOURTH INSIGHT –People do have their own facts.

• FIFTH INSIGHT – Invite all four risk views into the Cycle Management discussion and learn to value the continual challenges and differing sets of facts that they will bring to the discussions.

Cultural Theory and the Financial Crisis

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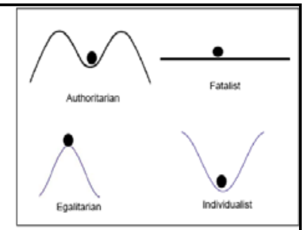
Apply CT to Credit Crisis



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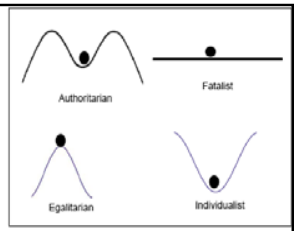
But why did that cause a problem?



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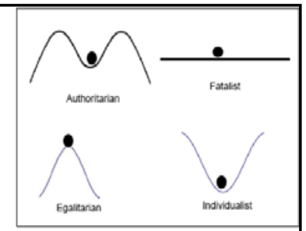
Financial Crisis



- Benign environment made more and more people adopt Individualist point of view
- Individualists controlled more and more resources
- Minsky Cycle
  - Hedge (Investment)
  - Speculation
  - Ponzi
  - (Crash)

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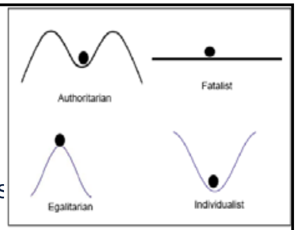
What's Next -in CT Terms



- Fewer Individualists controlling less
- More Fatalists, Egalitarians & Authoritarians
- Egalitarians eliminate bonuses -take much less risk
- Fatalists -more reactive. Adapt. Adapt. Adapt
- Authoritarians -more rules -more expert studies
- ERM programs will shift
  - – No longer play up to Individualists
  - – Now play to Egalitarians, Fatalists or Authoritarians

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Hyman Minsky (in his own words)

▪**Hedge financing units** are those which can fulfill all of their contractual payment obligations by their cash flows:

- the greater the weight of equity financing in the liability structure, the greater the likelihood that the unit is a hedge financing unit.

▪**Speculative finance units** are units that can meet their payment commitments on 'income account' on their liabilities, even as they cannot repay the principal out of income cash flows.

- Such units need to 'roll over' their liabilities – issue new debt - to meet commitments on maturing debt.

▪For **Ponzi [finance] units**, the cash flows from operations are not sufficient to fill either the repayment of principal or the interest on outstanding debts by their cash flows from operations.

- Such units can sell assets or borrow. Borrowing to pay interest or selling assets to pay interest (and even dividends) on common stocks lowers the equity of a unit, even as it increases liabilities and the prior commitment of future incomes.

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Financial Instability Hypothesis

▪Asset/debt markets are not equilibrium seeking like markets for goods and services.

- There is a feedback loop involved
- When an asset increases in value, wealth increases.
- The increased value can be used for collateral for more borrowing
- increasing money supply
- increasing demand for the asset
- further increasing prices.

(Same thing happens in reverse with decreases in asset prices.)

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Impact on the Real Economy

▪Asset value increases will also drive activity in the "real" economy

- some of the increase in asset values bleeds into other spending (as was mentioned frequently in the housing run up).
- Increase in money available stimulates spending which creates profits which stimulates more investment.

▪When the asset values reverse, this process sucks up money dampening economic activity.

- Overinvestment means overcapacity because of distortion in the understanding of demand.

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FIH and the Insurance Cycle

Hedge Financing Units
- Is when business is clearly priced at a sustainable level
- *Insurer is self financing*

Speculative Financing Units
- Is when business can support a reasonable profit level, but not the growth of the business
- *Needs regular additions to capital or reinsurance*

Ponzi Financing Units
- Is when business only makes sense in terms of (remote) future profits
- *Insurer gets bigger but not more profitable*
- *Completely funded from outside the firm*

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Using CT Ideas

Stages of Risk

A four part model of risk and risk management

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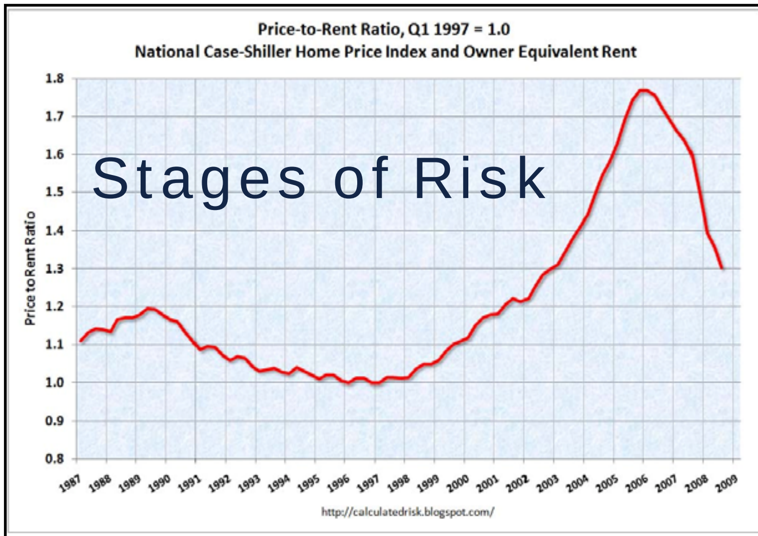

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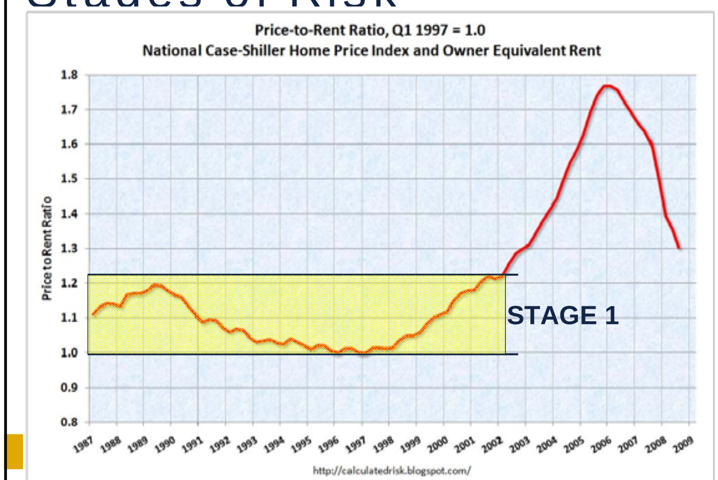
Stages of Risk



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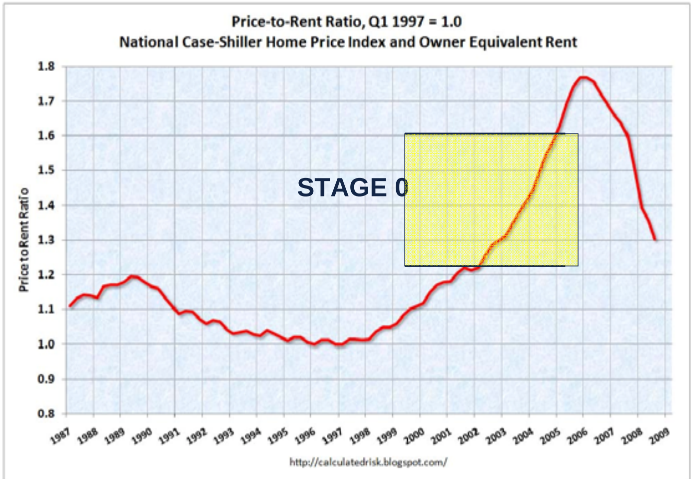
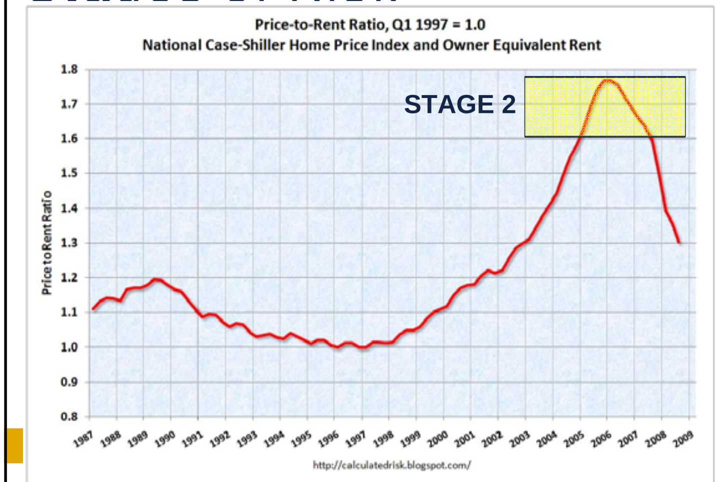
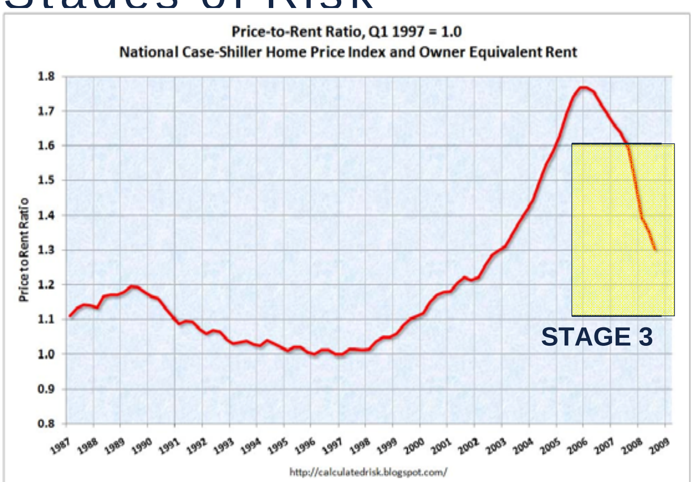
Stages of Risk



Stages of Risk



Stages of Risk



Stages of Risk

Stage 1 – Normal Risk Environment.

- long term averages seem to hold up well.
- Investors and insurers experience mostly gains, but with enough losses to maintain focus on appropriate risk management.
- Volatility is in the normal range, so hedging and reinsurance programs have the expected impact.
- Risk management seems to be designed for this environment – because it was.
- Capacity for risk taking is carefully matched up to risks, but taking risks up to capacity is usually seen to be the best course in this environment.
- Capacity is usually defined in terms of something like a one in 200 year loss, but no one really expects to experience a loss of that size. That just wouldn't be normal.

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Stages of Risk

Stage 0 – Low Risk Environment.

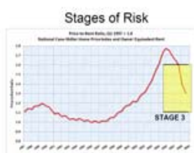
- Does not seem to matter how much risk is taken
- Every decision to take an additional risk pays off handsomely.
- Over and over again the naked, unhedged position beats out the carefully hedged position, the uninsured risk beats the insured risk.
- People slowly drift away from being concerned about risk and risk management because they are looking at others who are not concerned making lots and lots of money.
- Capacity for risk taking does not seem to be an issue and some will take much more risk than could possibly be prudent in any other environment.

Stages of Risk

Stage 2 – High Risk Environment.

- Suddenly, things get really RISKY.
- Almost any course of action presents potentially fatal threats.
- Some unexpected event sometimes triggers a shift to a Stage 2 environment.
  - Natural or man-made catastrophes or sudden major shifts in markets might be triggers.
- Capacity that during Stage 0 or 1 was seen as a perpetual resource now suddenly seems like it may or may be sufficient.
- Suddenly people are extremely concerned with how risks are (and were) managed.

Stages of Risk



Stage 3 - High Loss Environment.

- Many of those Stage 2 risks have turned into LOSSES.
- Survival of the institution (and potentially the entire financial system) is uncertain.
- The market senses that many previously respected firms will not make it through this period and that suspicion drastically slows business activity.
- Risk management focus needs to be on helping to opportunistically finding that course of action that will save the firm.
- For the firms that fail, risk management efforts shift to workout.

How to Frame the Problem? (A)

Is the problem: How do we keep things in a Stage 1 environment for as long as possible?

Or is that just another “it is different this time” point of view?

How to Frame the Problem? (A)

If we frame the problem that way,

We optimistically say that in the future we can pull off something that has never, ever been done before – to tame the cycles of capitalism!

We never plan for failure of our solution!

- Since we do not admit the future possibility of Stage 0, Stage 2 or Stage 3 environments, then we cannot see them when they happen!

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How to Frame the Problem (B)

Alternate – assuming that in the future all four Risk Environments will happen.

Keep alive the idea that we need to look out for those different stages.

- As soon as you hear the first person say "it's different this time, you know it is Stage 0"

Keep updating plans for how to react in those environments.

Keep practicing how to implement those plans as things change

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Analogy to Fire

For high-rise fires, almost everything imaginable is built into buildings to make them safe from fire.

- Standards, regulation, monitoring also.

But the possibility of failure of all of that is never thought to be zero

- Still hold fire drills
- Still make plans for back-ups, secondary sites, etc.

Keep plans alive for how to deal with Stage 2 & 3 environment

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Planning for All Four Stages

Stage 1 – Plan for Stage 1 is the plan that we have been talking about.

- A complete ERM system within an environment with reasonable volatility
- Systems to monitor risk and show when Stage 2/3 environment might be too near
- Plans for how to keep risks from crossing into Stage 2 or 3

If all goes well, we will spend the majority of our future in Stage 1.

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Planning for All Four Stages

Stage 0 – Plan for how to keep attention on risk during extended benign environment

- If there is no Stage 0 plan, then likely result of Stage 0 will be a major decrease in Risk Management activity
- The use of the multi stage risk story is a part of that plan.

The most important thing that we can now do is to set in place a system that will last through the next Stage 0 Environment!

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Planning for All Four Stages

Stage 2 – Plan for what wasn't done this time. Recognize impending crisis and steer away.

- May need additional tools than what the Fed has
- Coordination of all Regulatory, Monetary, Fiscal and Tax levers
- Plan & Hold Fire Drills

If we pretend that we are wise enough to stay out of Stage 2, then we will always avoid noticing Stage 2 and miss opportunities to avoid Stage 3

(1987, 1998, 2001)

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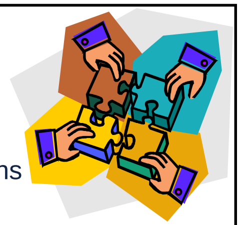
Conclusions:



1. Risk Perceptions of People Drive Actions
2. Four general groups: Individualists, Egalitarians, Authoritarians, Fatalists
3. People's alignment to groups shifts with experiences
4. People have their own facts
5. Need to be prepared for 4 Different Environments
6. Applies to Insurance Markets & Financial Markets

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Thank You!

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For further Reading on Cultural Theory:

Organising and Disorganising (2008) by Michael Thompson

- http://www.amazon.com/gp/product/0955768144

Cultural Theory (1990) by Michael Thompson, Richard J. Ellis, Aaron Wildavsky

- http://www.amazon.com/Cultural-Political-Cultures-MichaelThompson/dp/0813378648/ref=sr_1_5?ie=UTF8&s=books&qid=1241284258&sr=1-5

Thanks to Michael Thompson for his encouragement in these effort to take CT into these new areas where it seems to fit quite well.

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