

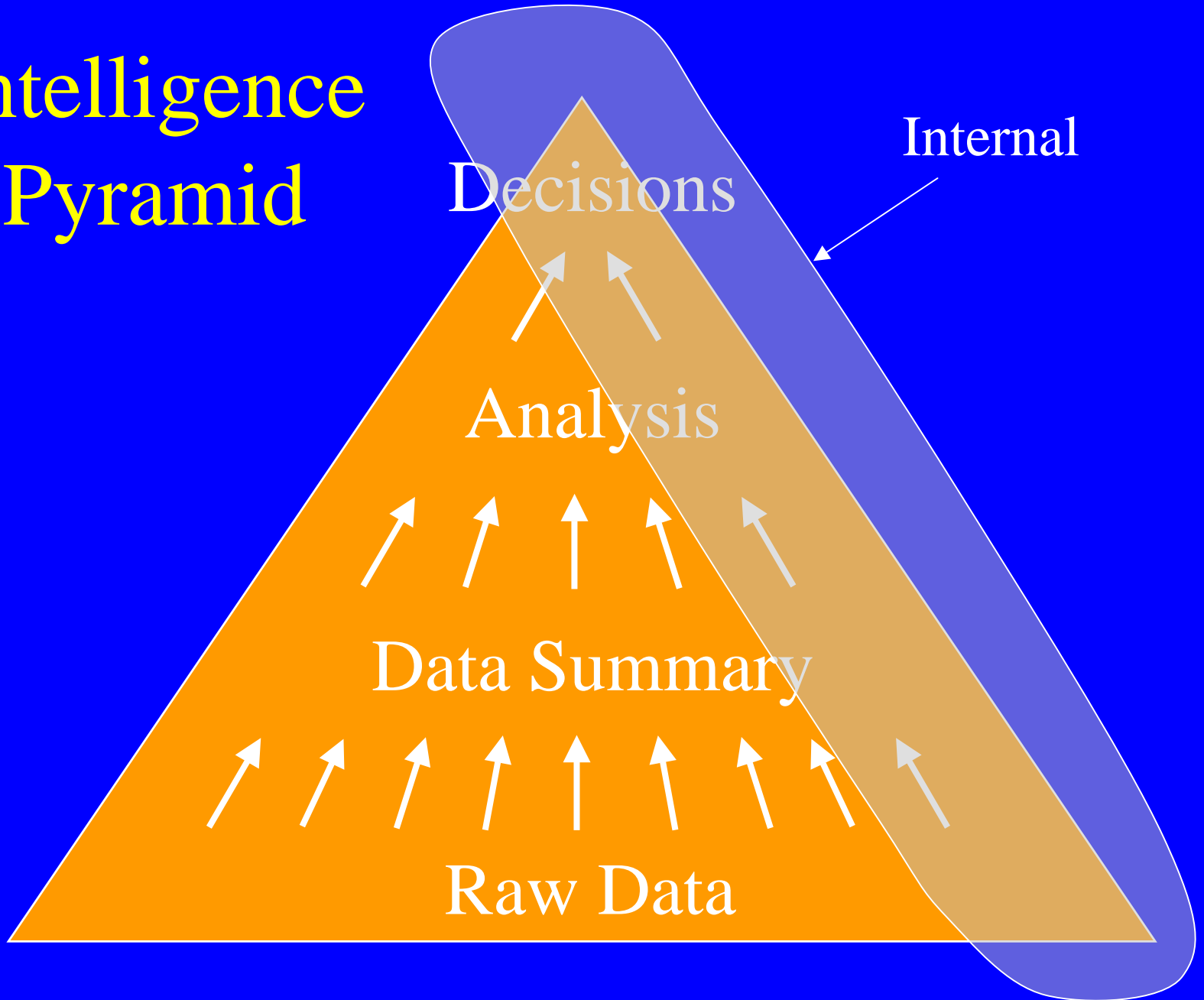
Market-Based Decision-Advice On Military Instability

Robin Hanson

George Mason University

Consultant, Net Exchange

Intelligence Pyramid



Why Surprise?

Failures to Aggregate Info

- *Sources* - Don't know datum
- *Analysis* - Don't use what know
 - Bad statistics? Bad model? Fool?
- *Networks* - Don't think to say what know
- *Incentives* - Don't choose to say what know
- *Evaluation* - Don't believe what told

Speculative Markets Do Great

- Hard to predict prices! So include easy info
 - 100+ years of research on stocks, bets, etc.
 - If find else (on small scale), effect soon gone
- Also see in 20+ years of lab experiments
- O.J. futures beat govt. forecasts [Roll *AER* '84]

Markets Made To Aggregate Info

- Not just side-effect of hedge risk, entertain
- *Election Markets*
 - Iowa Electronic Markets, US President Races, '88 - '00, beat major polls 451/596 [Berg et al '01]
- *Corporate Markets*
 - Beat official HP sales forecast 15.5/16 [Plott *SEJ* '00]
- *Web Games* - HSX, FX [Pennock *Science* 9Feb'01]
 - Beat WSJ Oscar poll, but not Box Office Mojo

How Do They Do It?

“Put  Where  Is”

- *Incentives* – \$ to say what know, learn more
- *Anonymity* – avoids social pressures on talk
- *Self-select* – stay away if know don't know
 - traders biased, but most active less so [AER '92]
 - Horse race bets tap non-IQ smarts [J Exp Psy '86]
- *Loss-select* – lose \$ if wrongly think know

Apply To Military Instability?

- DARPA funding market estimate field test
 - market vs. status-quo-like defense estimates
 - enough data to compare in two years
- Huge potential predicting coups, wars, etc.?
 - Very high value in a few estimates
 - Especially decision-contingent estimates
 - Suspect estimates not now reflect all known
 - Cheap talk incentives, neglected gold out there

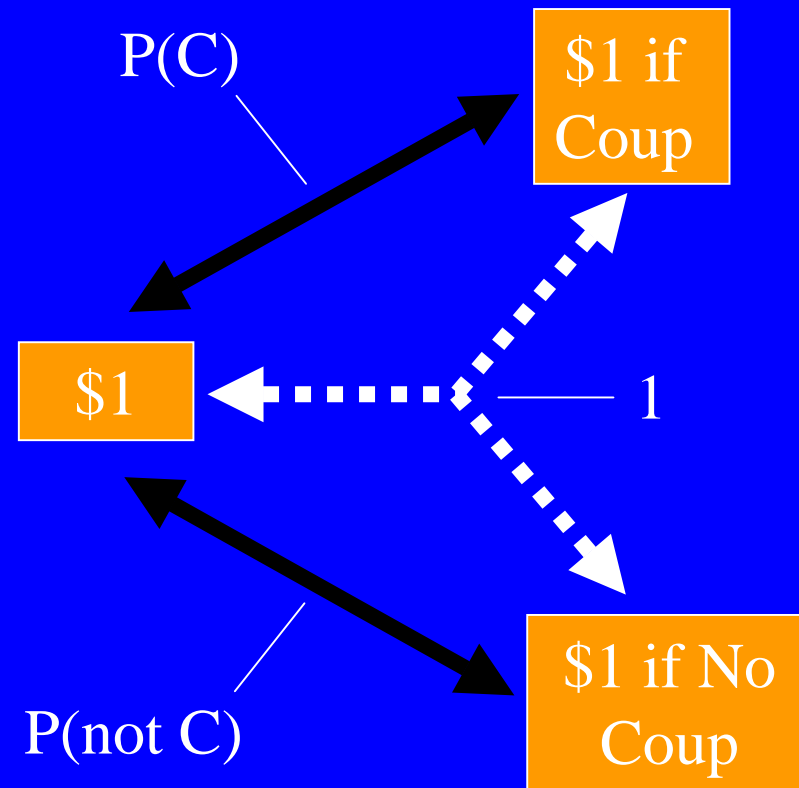
Imagine ...

- 50 - 500 diverse traders
 - Intelligence experts – as many as possible!
 - Academics – regression wonks, nation experts
 - Media, Wall St. – nation experts
- \$10 - \$1000 individual stakes
- 50 nations x 4 event types x ??
 - “War involving nation Z kills > 1000 in 2003”
 - “Coups in nation Q in 2004.”

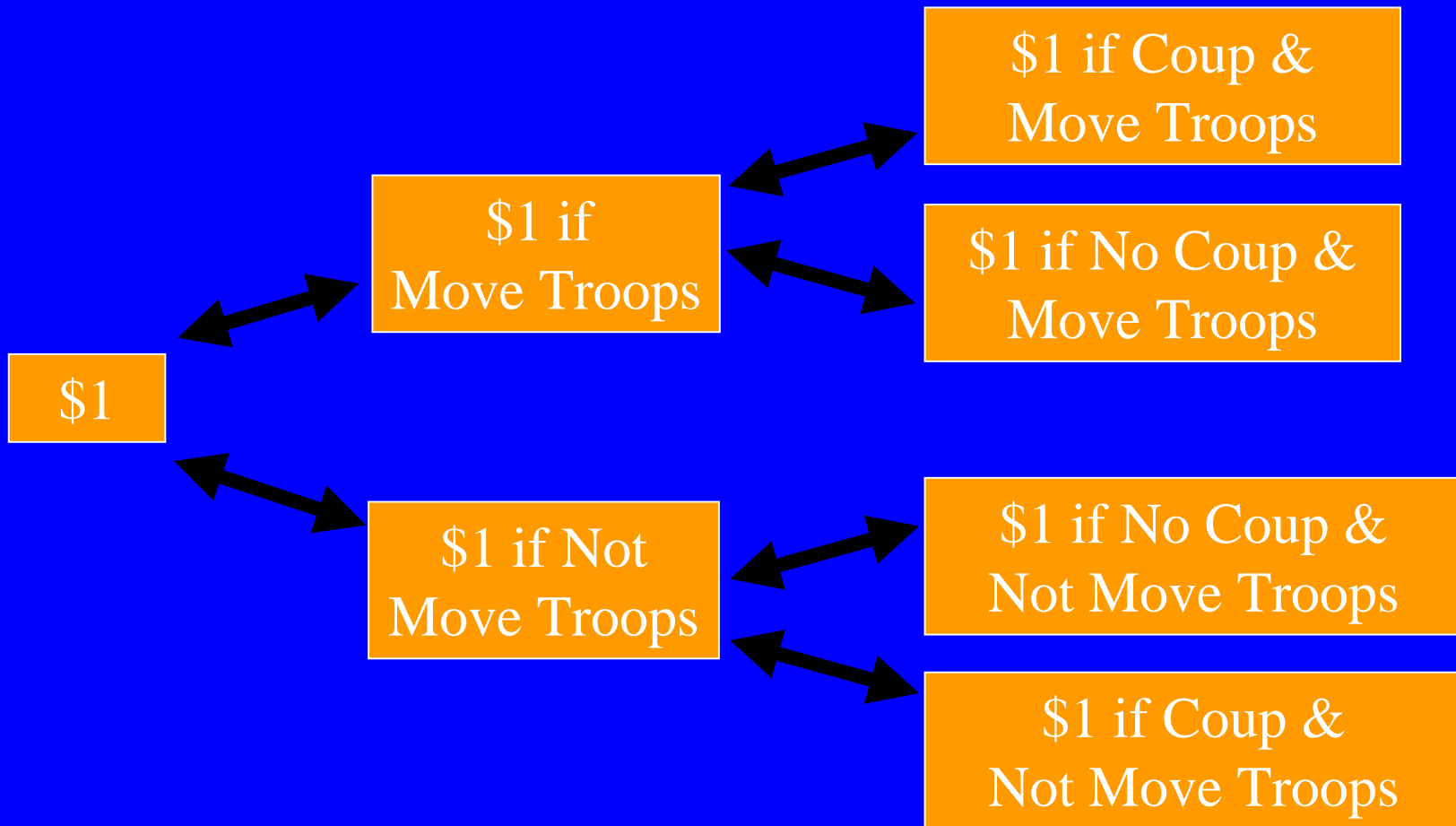
Design Issues

- *Secrecy* – Risk share output, if hide inputs?
- *Moral hazard* – Enough to limit stakes?
- *Lobbying* – Robust to modest level?
- *Regulation* – DOD shield, vary color of \$?
- *Participation* – \$, bragging rights enough?
- *Bozos* – Two-tiered trial?
- *Dimensionality* – NEX team expert here

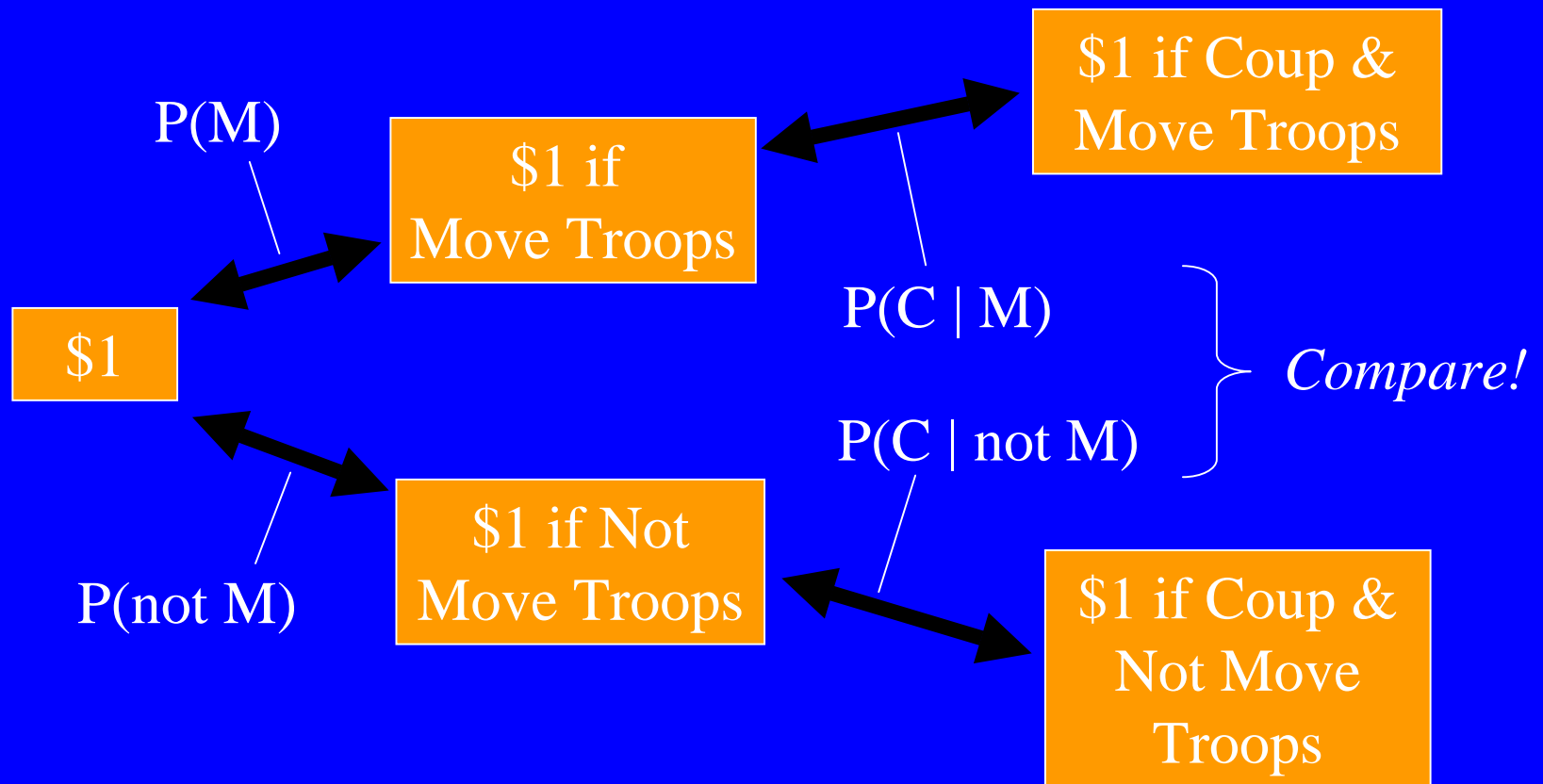
Predicting a Coup



Coup & Troop Move Assets



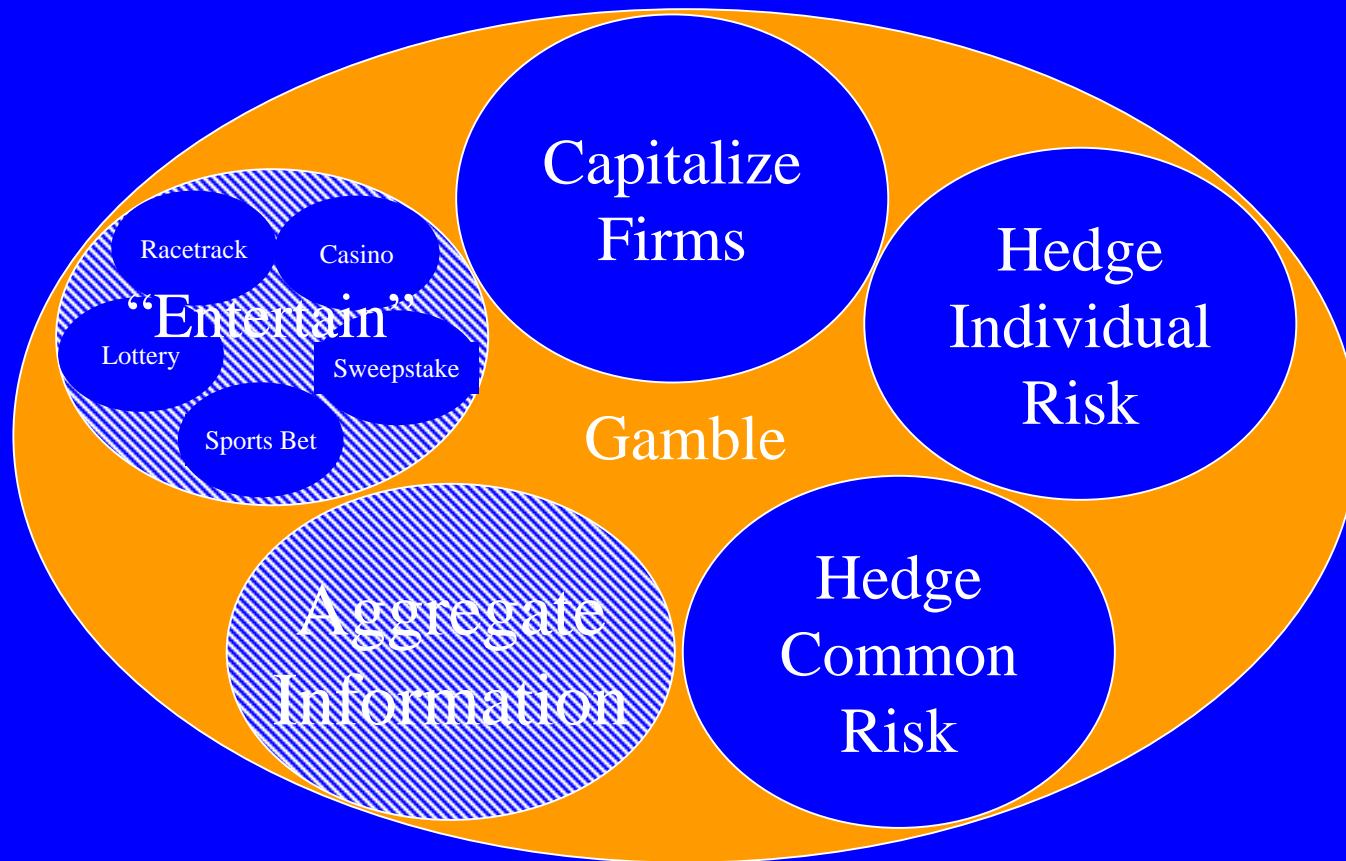
Troop Move Decision Markets



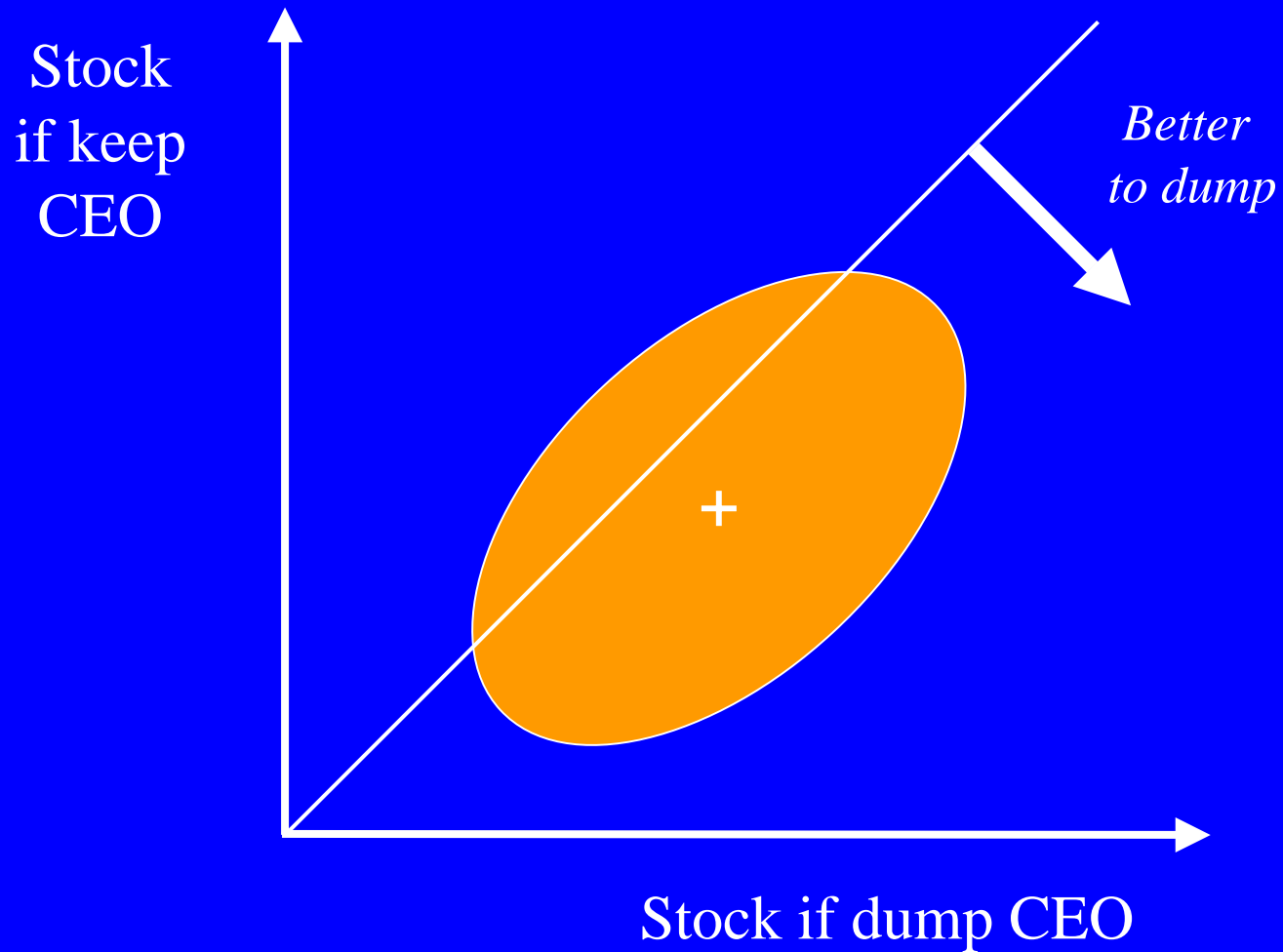
In Summary

- Speculative markets aggregate info well
- Might improve military instability estimates
- Might estimate decision consequences
- We now grappling with design – help!
- We will need intelligence experts to join
 - Come prove your ability on level playing field
 - You decide what claims you expert on

Regulation of Speculation



Distributions Over Consequences



Trouble: More-Informed Decider

