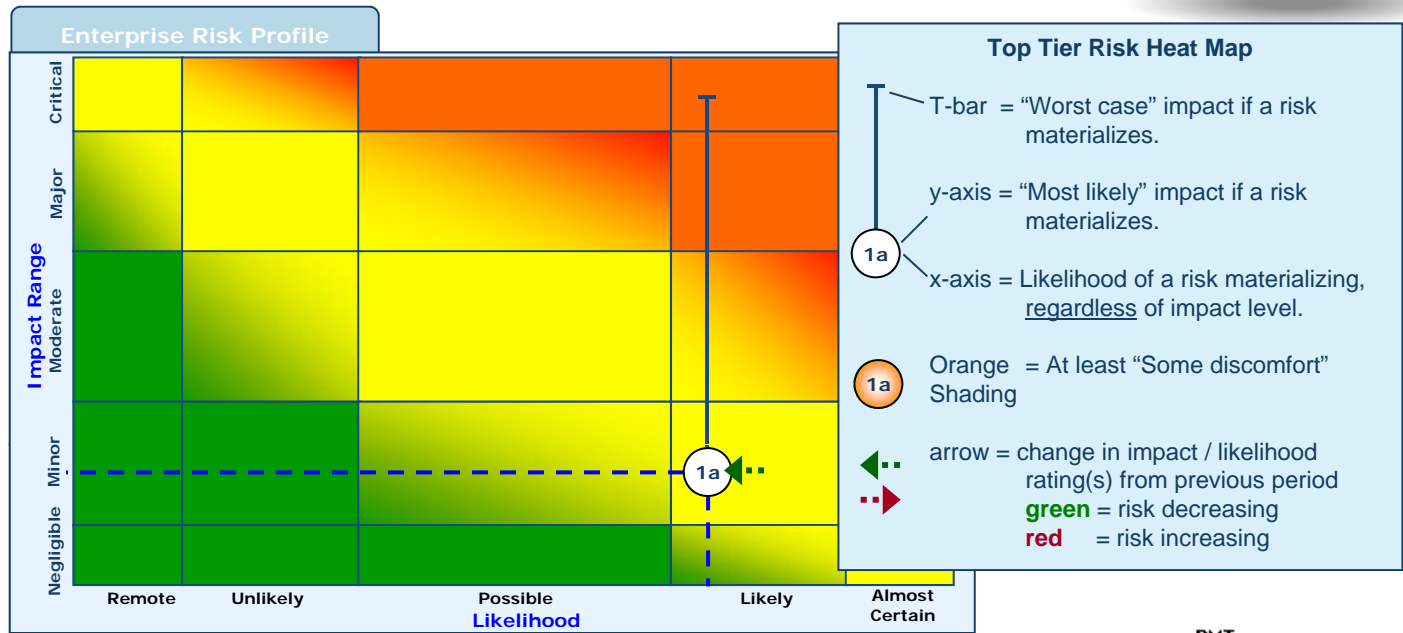


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Heat Map Plot of current assessment of all top tier risks



Key Risk Areas	Top Tier Risks	RMT Assessment
1. Trading	1a. Globex reliability, capacity, and performance	✓
	2. Clearing	▲
	2a. Significant market event (i.e. Clearing Firm issues)	✓
3. Products	2b. Clearing system reliability, capacity, and performance	✓
	3a. Decline in performance of existing product(s)	▲

RMT Assessment Legend:

- ✓ = Comfortable with risk at current level.
- ▲ = Some discomfort with risk at current level.
- !!! = Not comfortable with risk at current level.
- = Indicates change since previous quarter

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Detail on each top tier risk, highlighting developments over the previous quarter

Top-level Risk Area	Summary of Risks and Changes	Top Tier Risks (by risk area)	Summary of Impact Range ("I") and Likelihood ("L") ratings from Heat Map
Second-level Risk Area	OPERATIONAL		
Description of Top Tier Risk	1. Trading – (1a) Globex reliability, capacity and performance		
Description of any known activities planned or underway with regards to risk	<p>Definition: A negative impact on the capacity (our ability to handle transaction volumes and order traffic), reliability (our ability to process accurately) or performance (our ability to process quickly, latency and with equal access to our market participants) of the CME Globex system resulting in a market outage for greater than 15 minutes.</p> <p>Changes: none</p> <p>Activities:</p> <ul style="list-style-type: none"> Weekly capacity planning team reviews every element of performance and uses a standardized process. Daily performance reports are also reviewed for all components of Globex. Ongoing load balancing and performance tuning activities occur throughout system to accommodate high volumes. Bandwidth is closely monitored as part of ongoing capacity planning. Efforts to accommodate increased volumes include aggressive firm adoption of 100MBps improved packet shaping to accommodate microburst activity, and continuation of the FIX FAST market data protocol. There were two successful early market opens in Q3, which impacted both staffing and ongoing testing and maintenance windows. Increased incidence of early opens has significant impact on staffing and production releases, and should not be considered viable for regular occurrence without additional evaluation of staffing needs and impact on testing / production environments. 	<p>L = Possible I = Minor to Critical</p> <p>Explanation of any change in the impact or likelihood rating from previous period</p> <p>Explanation of any anticipated changes in the impact or likelihood rating over the coming 3-months.</p>	
Explanation of RMT's Assessment for risk	<p>Forecast: steady</p> <p>Assessment: ✓ There is a high level of confidence that systems are and will continue to be maintained at a level that ensures optimal performance.</p>		



ERM – Early Stage

- Evolution of Toolset
- What is RISK?
- Framing RISK



ERM at CME Group

- Program Design
- Infrastructure
- Product



Seek the Truth

- Is ERM working?
- Effort and Focus
- Strategy Alignment

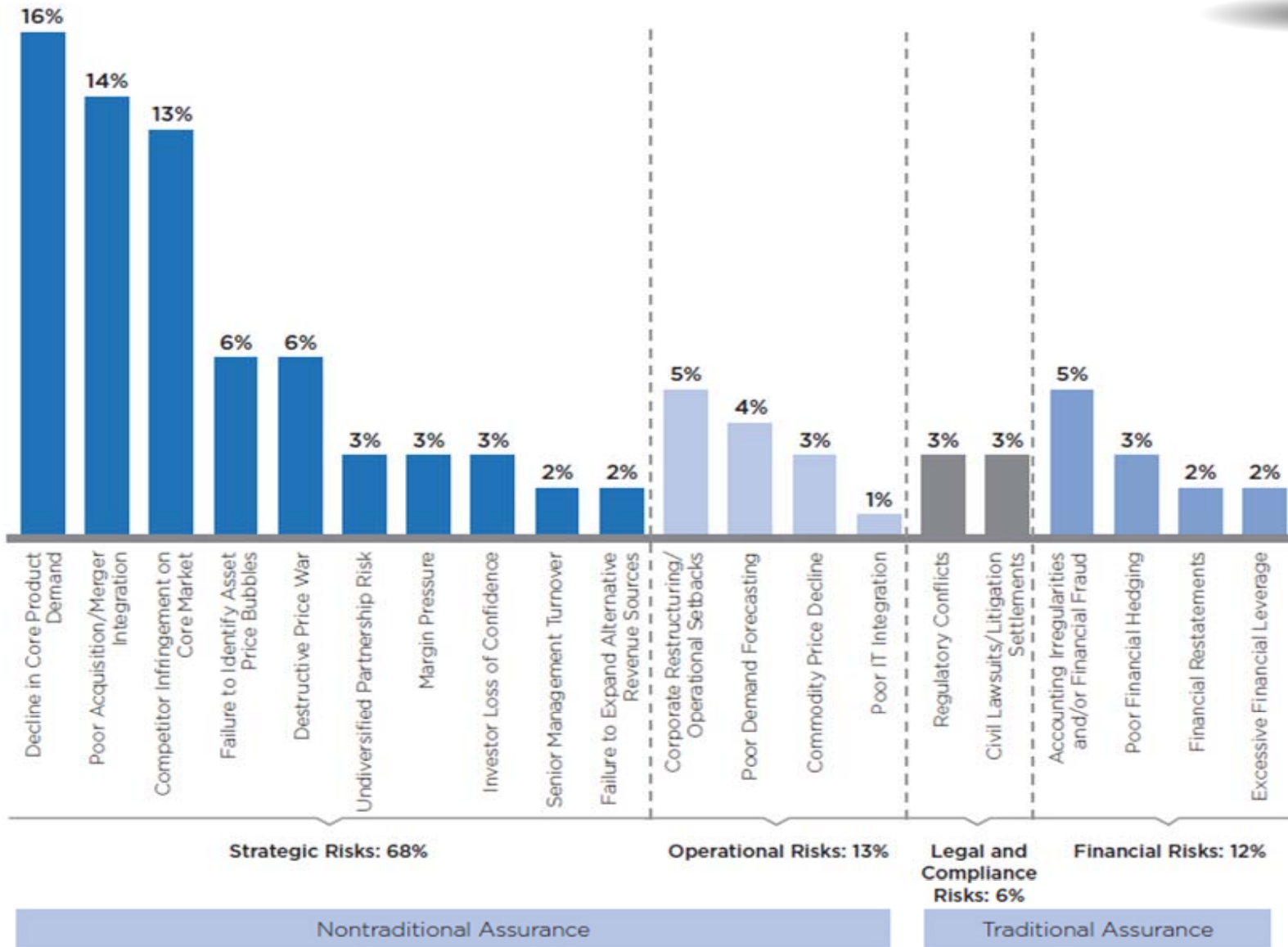


Is ERM Working? Are You Sure?

- 1. Focus on Risk Processes or Risk Agility**
- 2. Disregard for Risk Domino Effects**
- 3. Focus on Affirming Data or Negation**
- 4. ERM–Driven “Check the Box” Mentality**
- 5. Crippling Herd Behavior**
- 6. Best Practices and Frameworks**
- 7. Gut versus Measurement**

Where Does ERM Focus?

Market Capitalization Decline Drivers
Top 20% of Fortune 1,000 (1998-2009)



n = 128.



Value

The first step to getting the things you want out of life is this: Decide What You Want!

Ben Stein

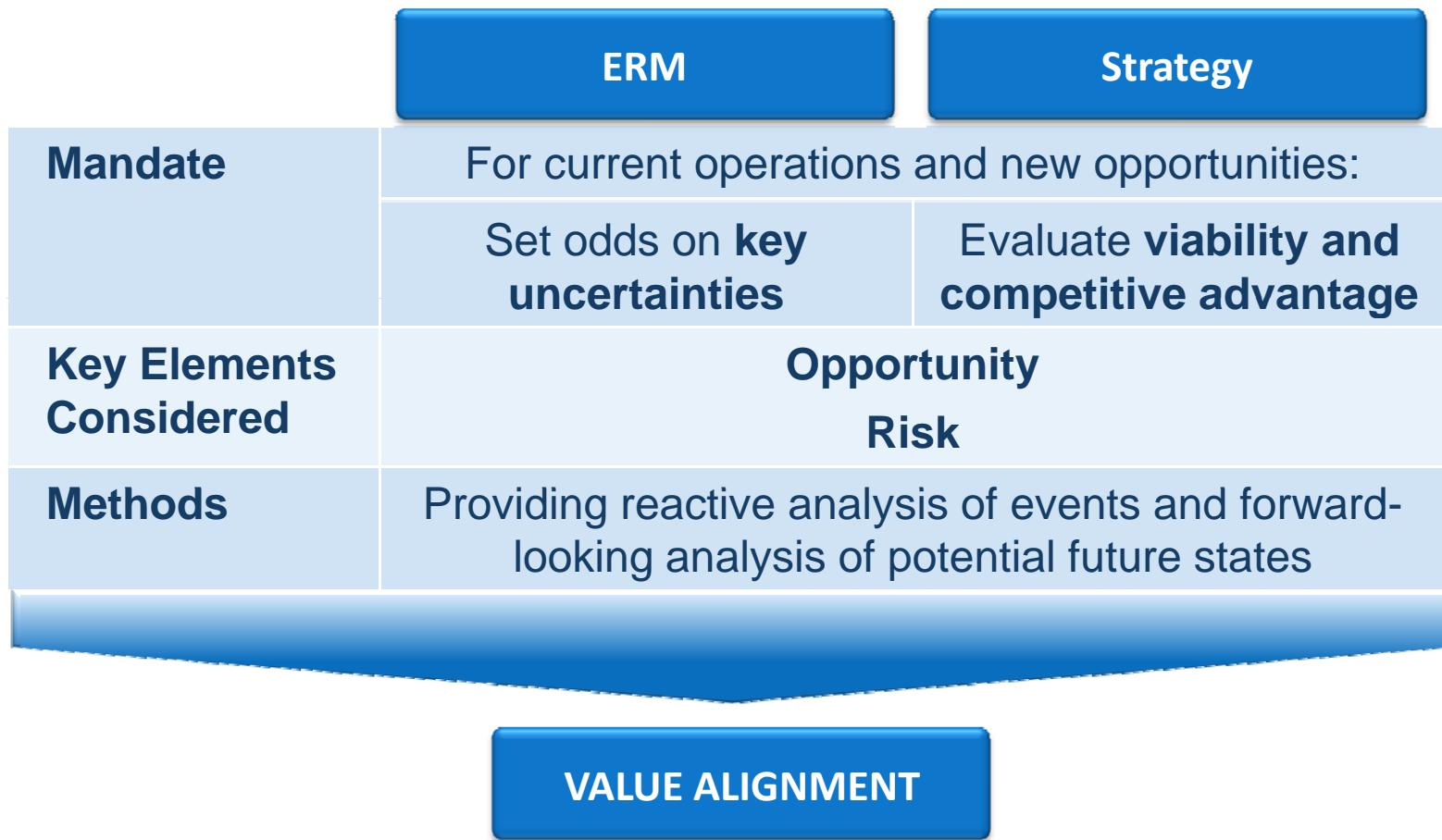
ERM Program Objective – Focus On...



“Get the right information to
the right people
at the right time
so they can make
informed decisions.”



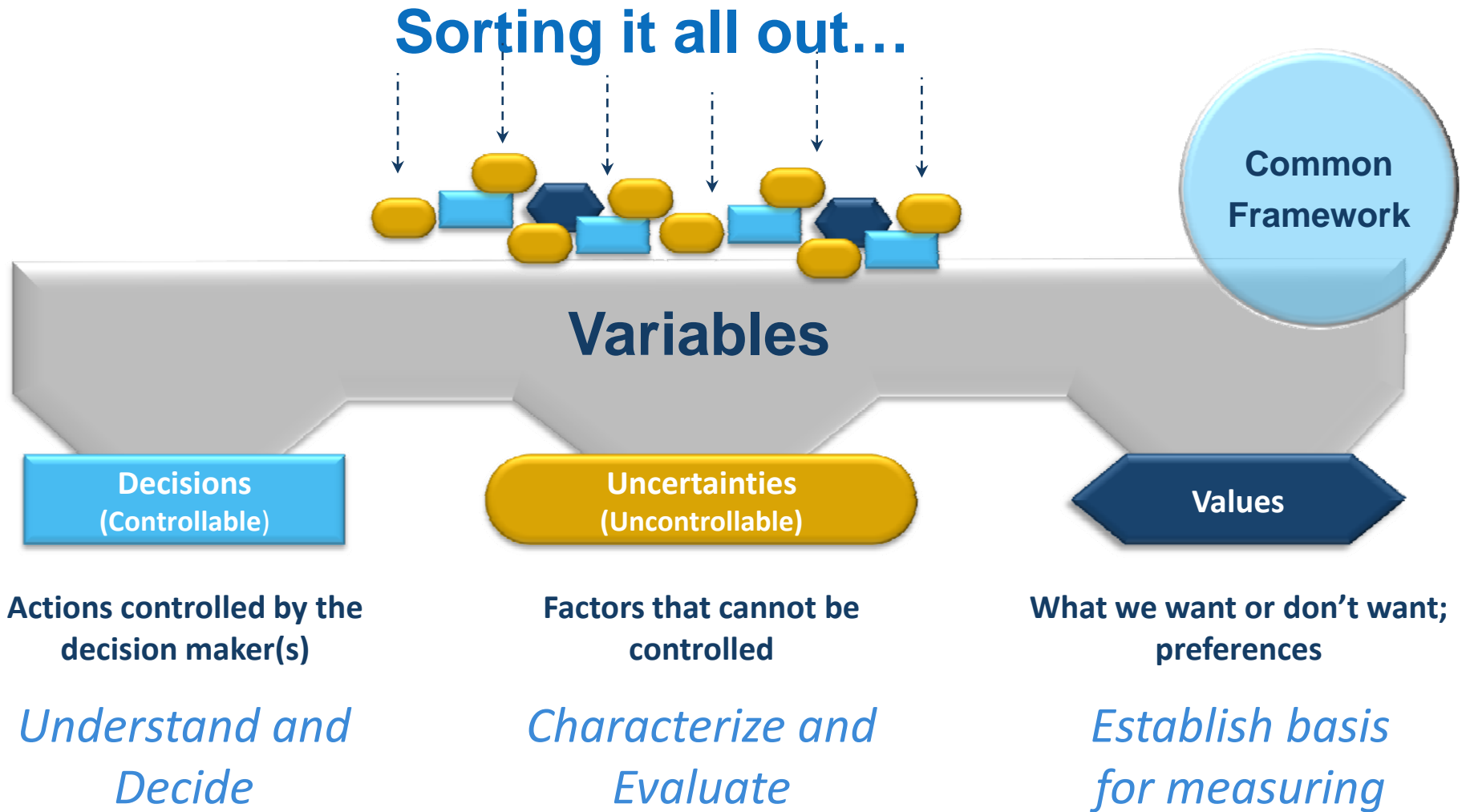
Add Value – Align ERM and Strategy



Add Value – Align ERM and Strategy



Add Value - Alignment to Strategy - Common Framework



Add Value

1. This is very **HARD WORK !!!**
2. **VALUE** is hard to produce – harder to **DEMONSTRATE !!!**
3. Small **SUCCESES** are feasible
4. **CULTURE** is a key success factor **!!!**
5. **PROCESS** keys – **LIQUIDITY, TRANSPARENCY, EFFICIENCY, SAFE-FAIR & RELIABLE**
6. Always – **CAPABILITY** is way more important than **PROCESS**

As we know, there are known knowns. There are things we know we know.

We also know there are known unknowns. That is to say we know there are some things we do not know.

But there are also unknown unknowns, the ones we don't know we don't know.

Donald Rumsfeld, US Secretary of Defense, 12 February 2002 DOD Briefing

Adi Agrawal, Director, Enterprise Risk Management, CME Group – adi.agrawal@cmegroup.com

Adi leads ERM at CME Group, the world's largest and most diverse derivatives marketplace. Prior to this, he led the Internal Audit team for CME Group and participated in the early stage build-out of the ERM program at CME Group. Before joining CME Group in 2005, Adi held leadership roles in management consulting, operations, technology and internal audit. Throughout his career, Adi has been an active student and practitioner of strategy and risk management disciplines. Adi has completed the Stanford University certificate in Strategic Decisions and Risk Management, has an MBA from University of Chicago Booth School of Business and an MS in Computer Science from SUNY Institute of Technology.

Ahmed Jamil, Manager, Enterprise Risk Management, CME Group – ahmed.jamil@cmegroup.com

Ahmed is Manager of Enterprise Risk Management (ERM) at CME Group. Ahmed works with the organization's Risk Management Team, which consists of senior leaders from across the organization, the ERM function fosters a cross-functional view into enterprise risk. Prior to his current role, Mr. Jamil served in the Internal Audit practice at CME Group for 2.5 years, working with the ERM function on various collaboration initiatives during that time. He was previously with Ernst & Young, working in the Risk Advisory practice in a wide variety of client-serving roles. Ahmed earned his Bachelor's in Business Administration from the University of Michigan and his Masters in Business Administration from the University of Chicago Booth School of Business.

Discussion...

Sorting it all out...

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ERM Program

CME Group ERM

Let Us Dissect a RISK

RISK (early Italian - risicare - to dare) - A CHOICE - TO DO - DECISIONS!

How will humans recognize and respond to the probabilities they confront?

Inflection Point

Period	Key Characteristics
Beginnings 3500 BC to 500 AD	<ul style="list-style-type: none"> Greeks Arabs and Hindus Gambling Philosophy & Probability
Math & Algebra 500 to 1600 AD	<ul style="list-style-type: none"> Arabs and Hindus Math and Algebra
High Math & Stat. 1600 to 1900 AD	<ul style="list-style-type: none"> High Mathematics Threshold to RISK
Modern Era 1900 to Present	<ul style="list-style-type: none"> High Mathematics Threshold to RISK

Historical Milestones:

- 4000 BC - Games of Chance (Anubian)
- 3500 BC - Games of Chance (Anubian)
- 500 AD - Hindu Numerical system
- 1000 AD - Arab Numerical system
- 1200 AD - Arab Numerical system
- 1500 AD - Arab Numerical system
- 1600 AD - Arab Numerical system
- 1700 AD - Arab Numerical system
- 1800 AD - Arab Numerical system
- 1900 AD - Arab Numerical system
- 2000 AD - Arab Numerical system

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