

The Crash Course:

Illuminating the Future

MN Energy Commission, June 2010

By Chris Martenson

Deepwater Horizon



The Global Financial System

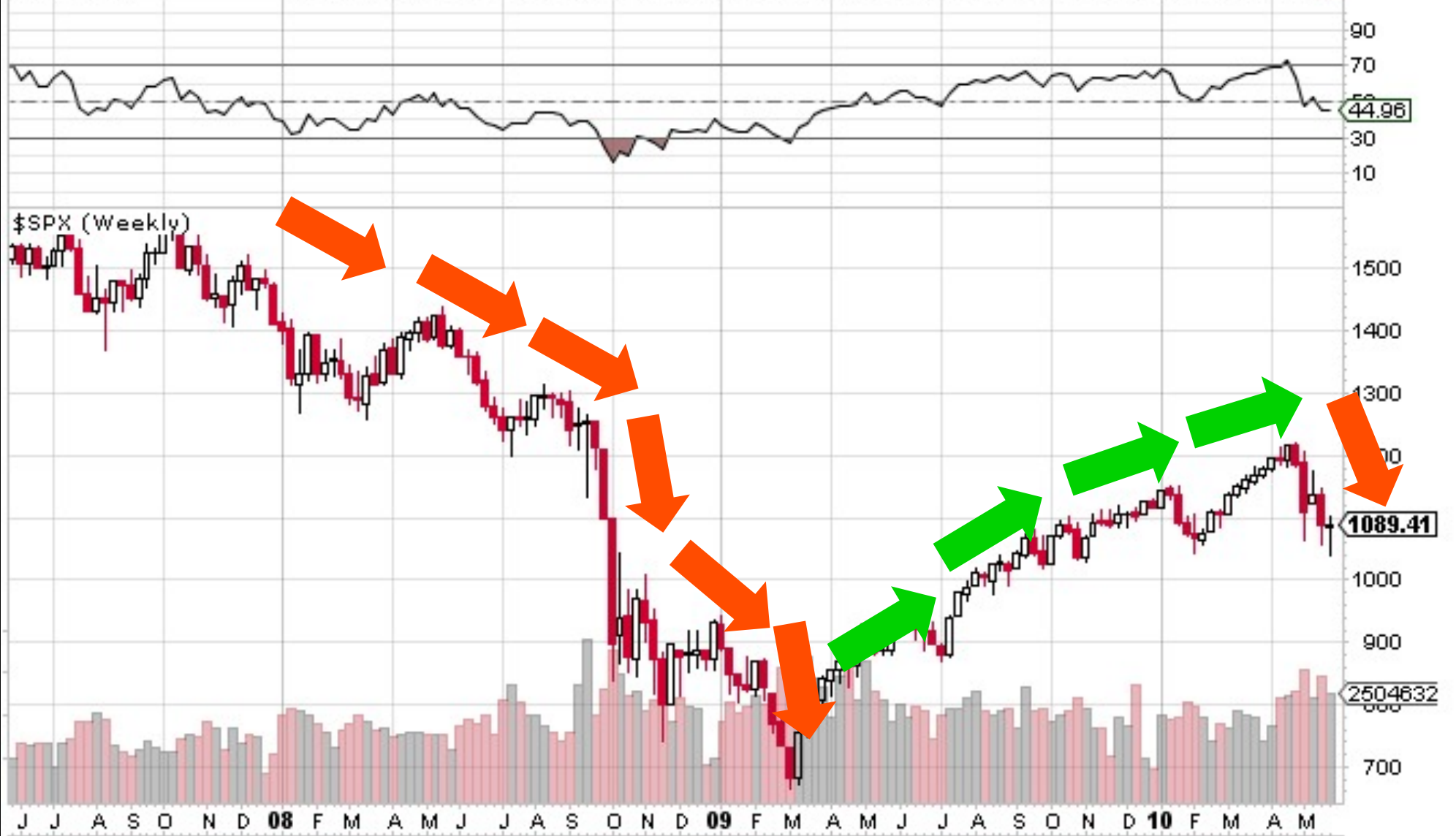


\$SPX (S&P 500 Large Cap Index) INDX

© StockCharts.com

28-May-2010

Open 1084.78 **High** 1103.52 **Low** 1040.78 **Close** 1089.41 **Volume** 25.0B **Chg** +1.72 (+0.16%) ▲



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The Three "E"s



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Friday, June 11, 2010

**The Next Twenty Years Are
Going To Be Completely
Unlike The Last Twenty
Years**



How Economists See the World

$$(x + a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k} \rightarrow \text{GROWTH}$$

What is Money?



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**All Money is
Loaned into
Existence**

Key Concept

All money is loaned into
existence.

Key Concept

Perpetual growth is a
requirement
of modern banking.

What's the implicit assumption?

US DEBT TO GDP



Source: Ned Davis Research <http://www.safehaven.com/article-5995.htm>

A Global Phenomenon...

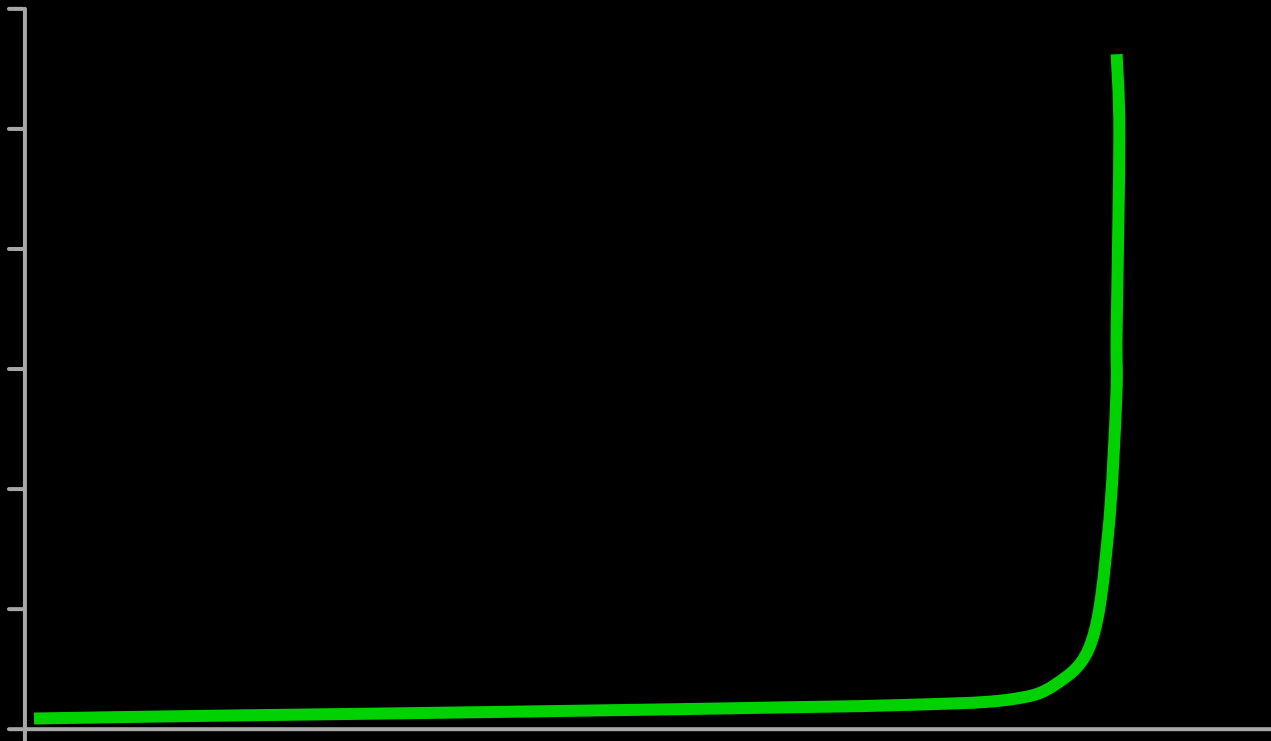


Must Grow



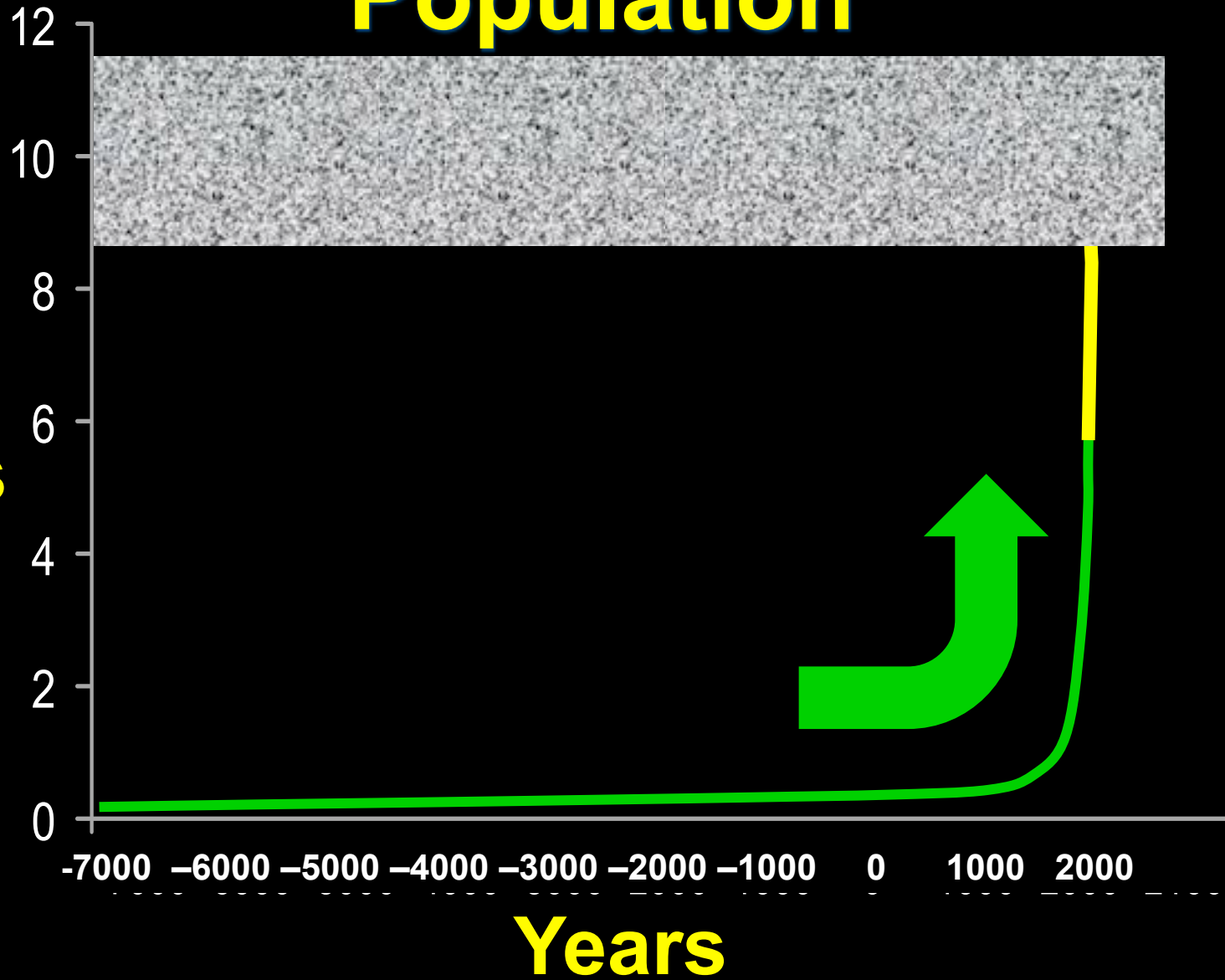
Exponential Growth

A Hockey Stick Chart



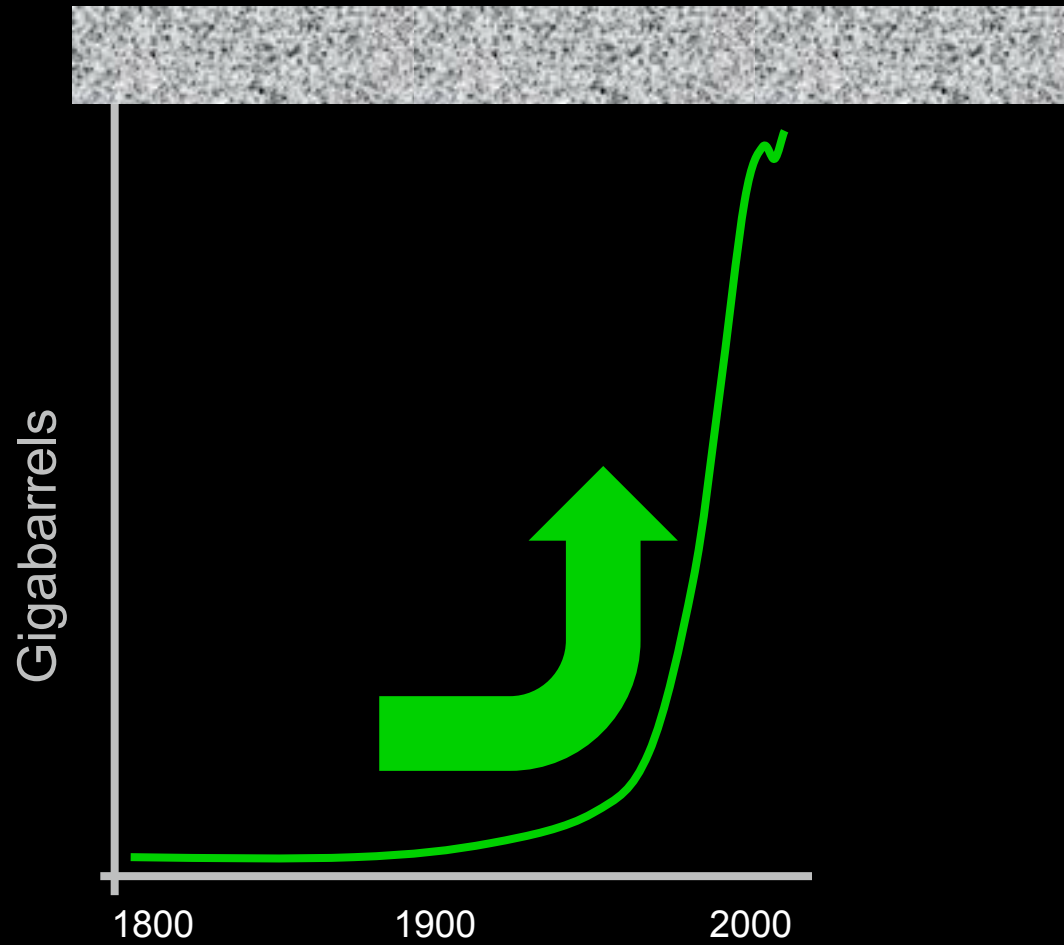
Population

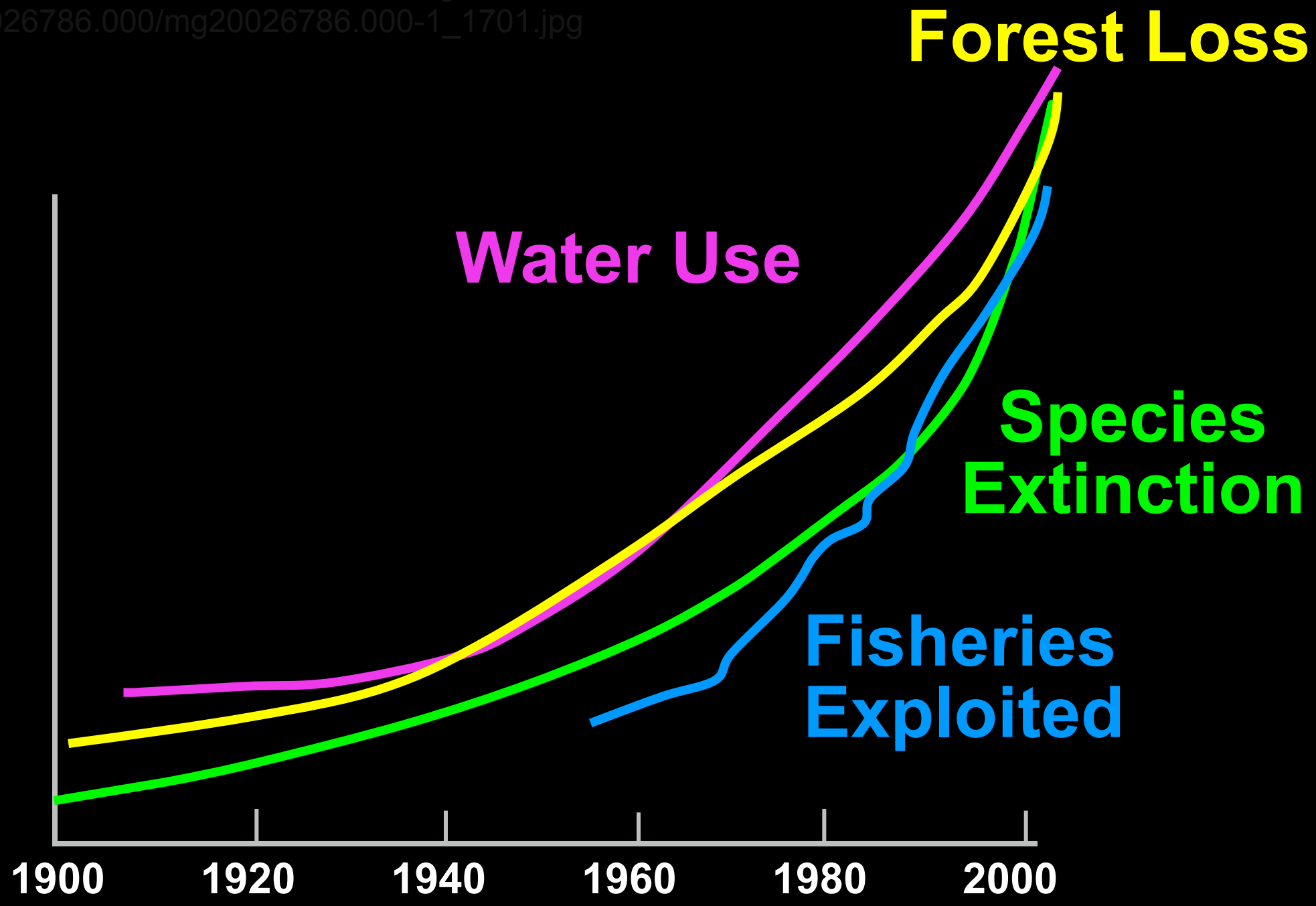
Billions



Years

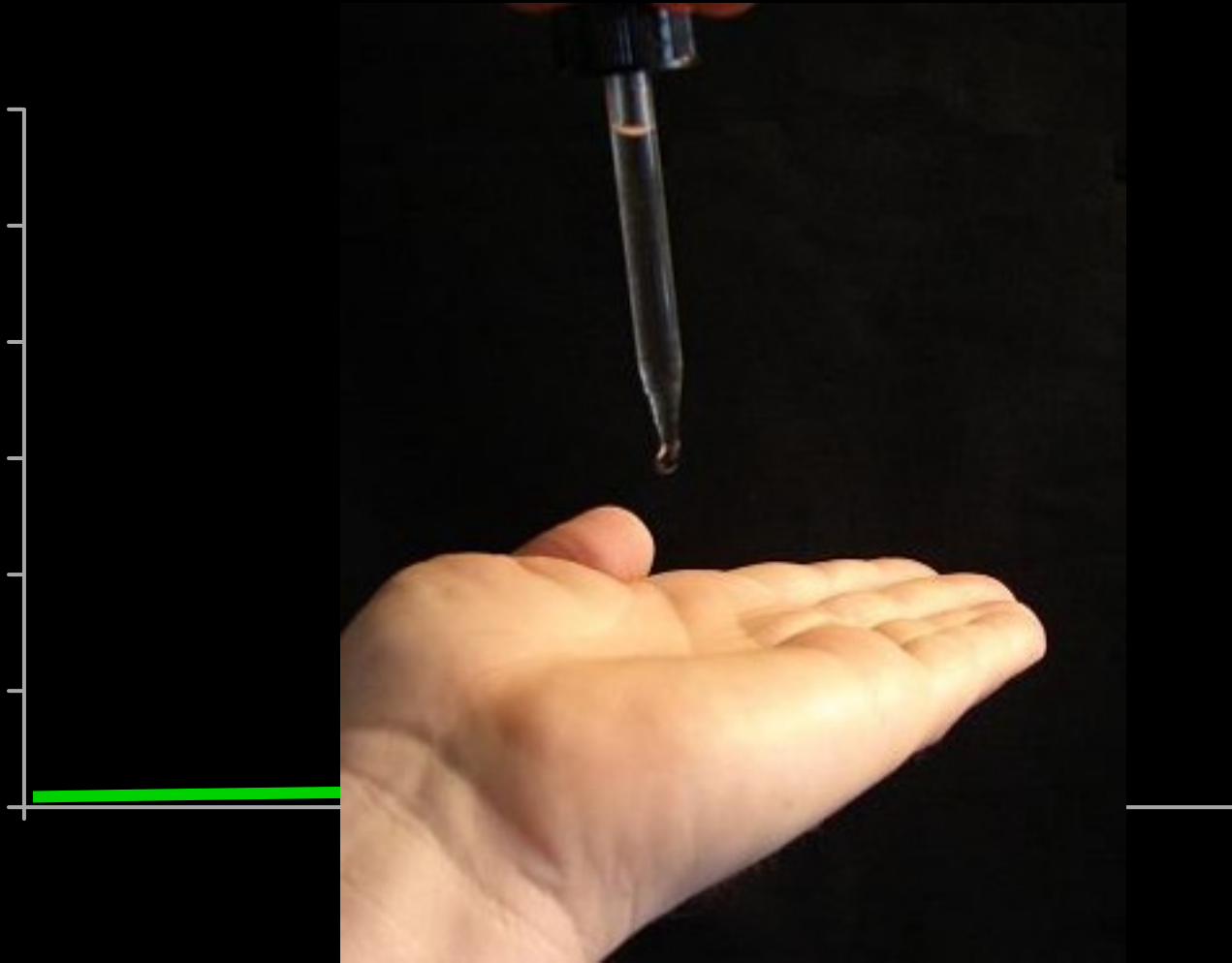
Oil





Compounding

The Power of Compounding



The Metrodome



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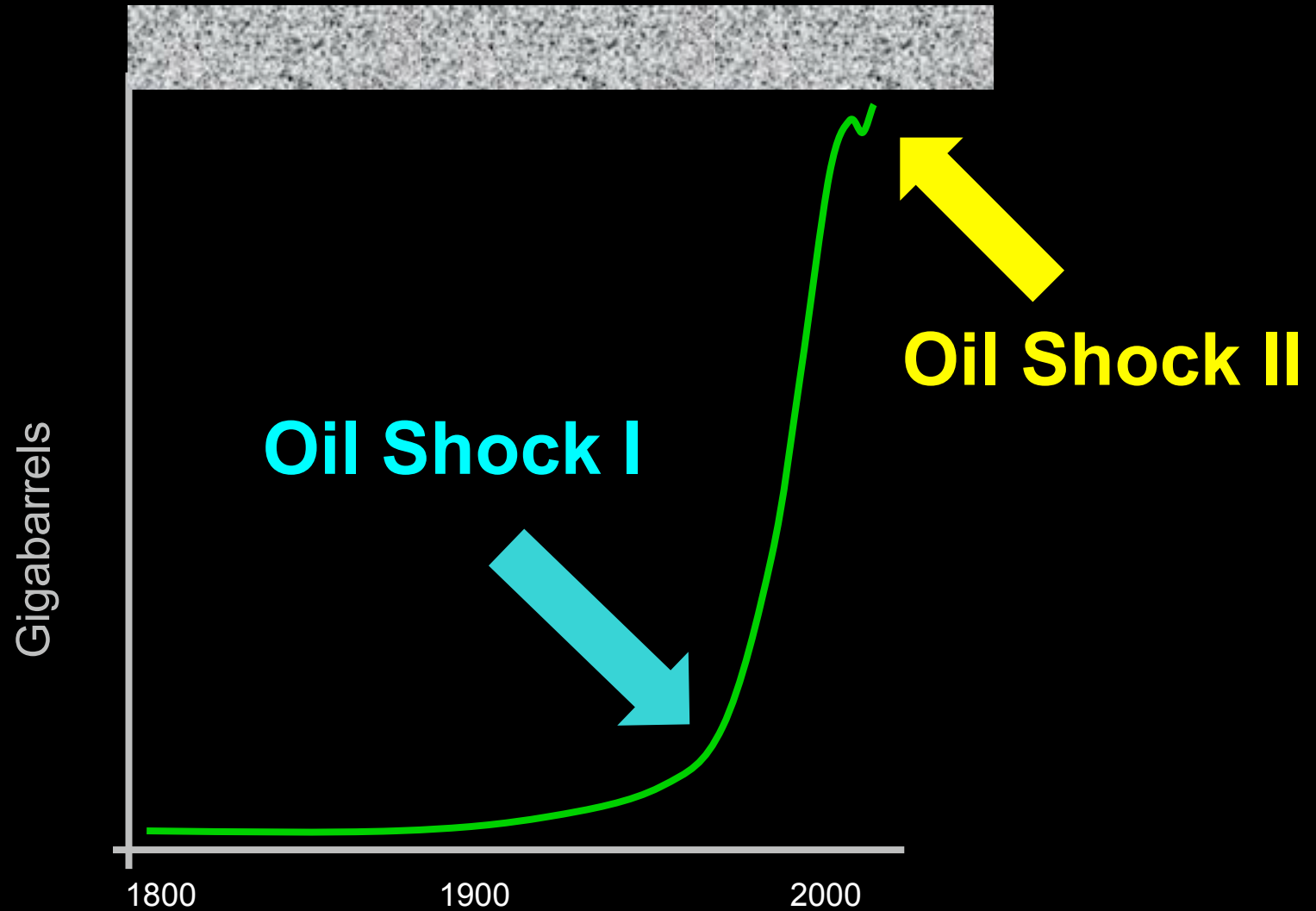
**If we began at 12:00, when would
the Metrodome be filled?**

12:50

**At what time would it still be
97% empty?**

12:45

Oil Consumption



Key Concepts

**Exponential charts are
everywhere.
Economy. Energy. Environment.**

Speeding up!

Problems

Vs.

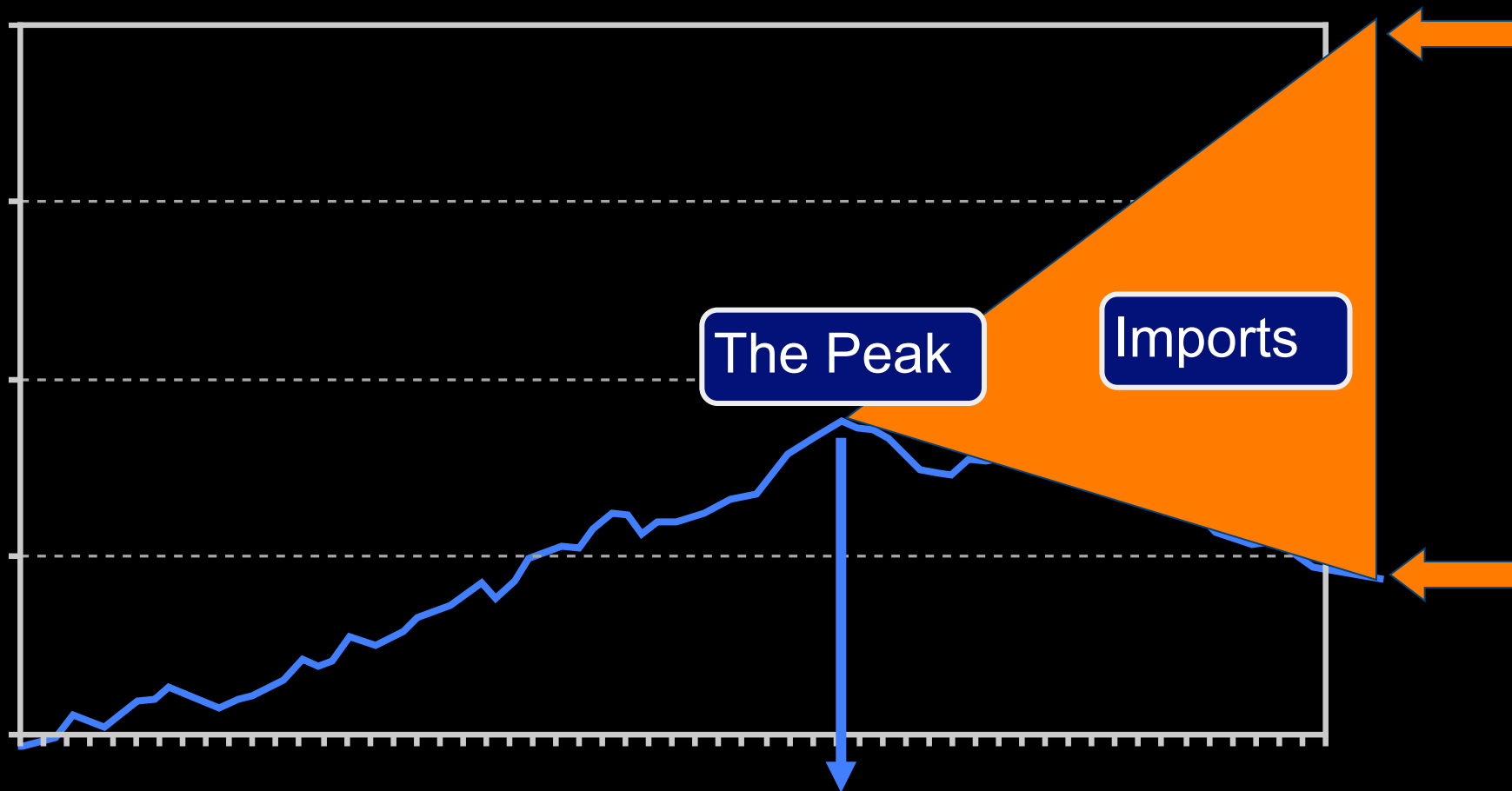
Predicaments



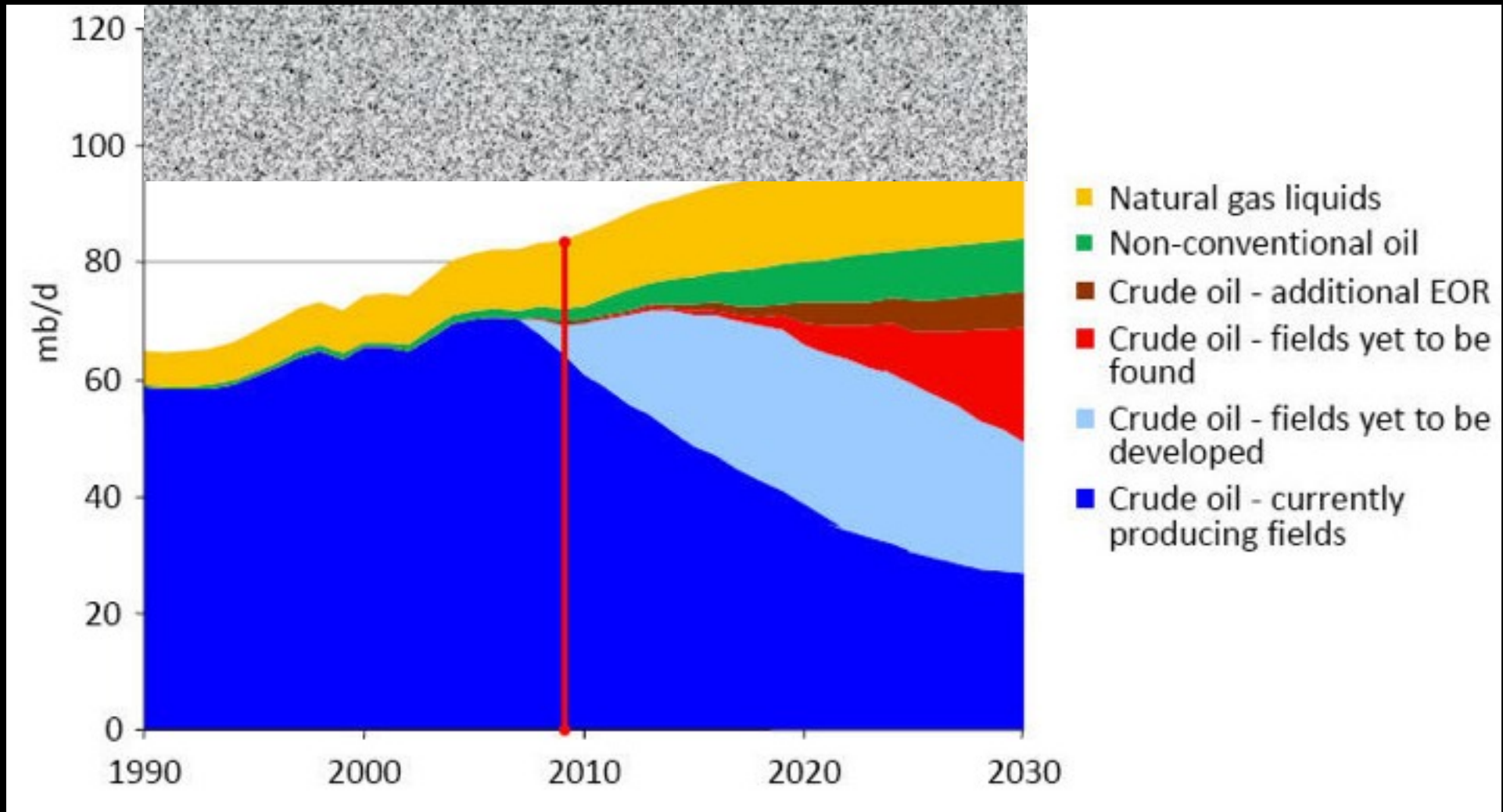
Energy

US Oil Production & Dependency

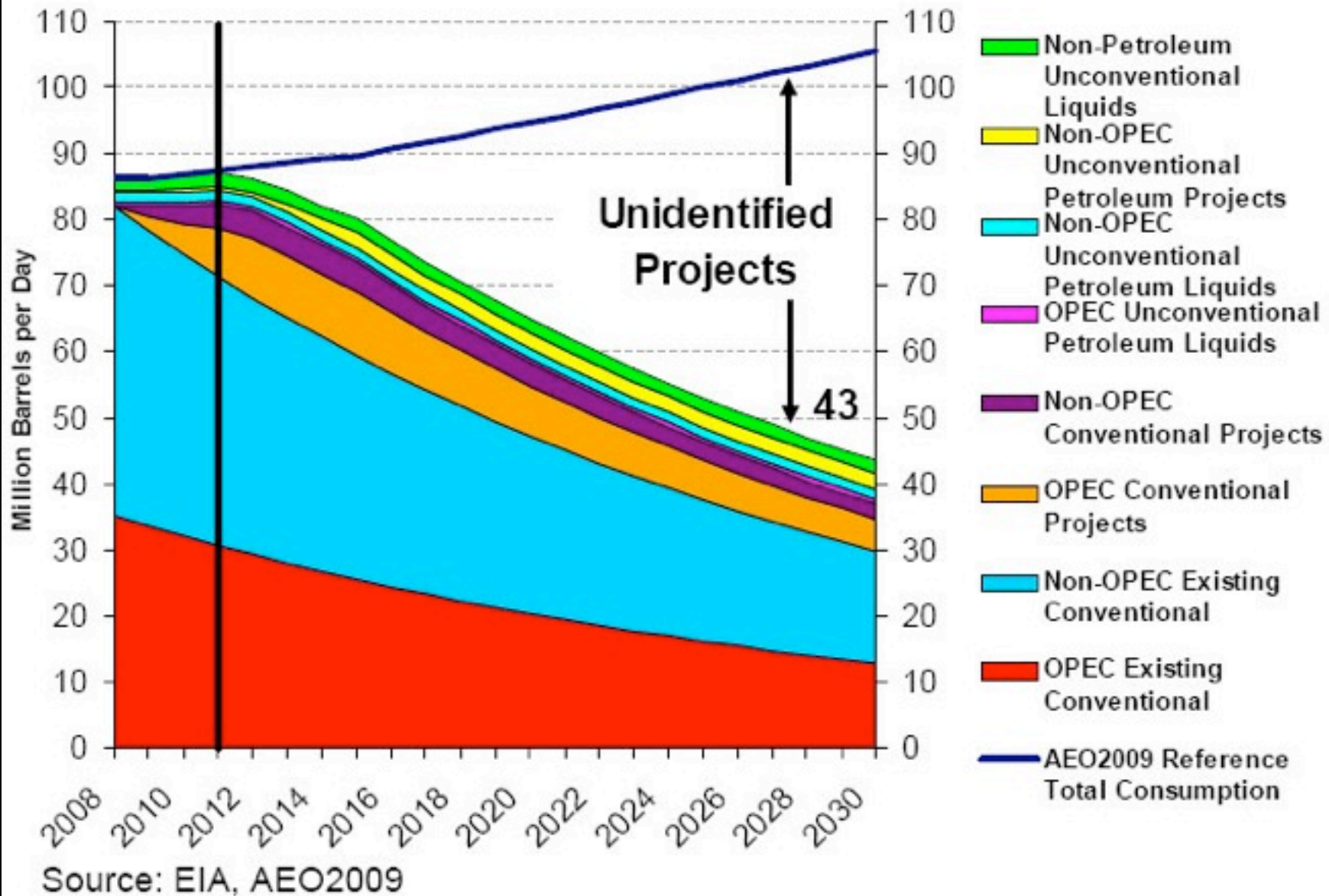
Barrels Per Day



Oil – Past (conventional) Peak Already



World's Liquid Fuels Supply

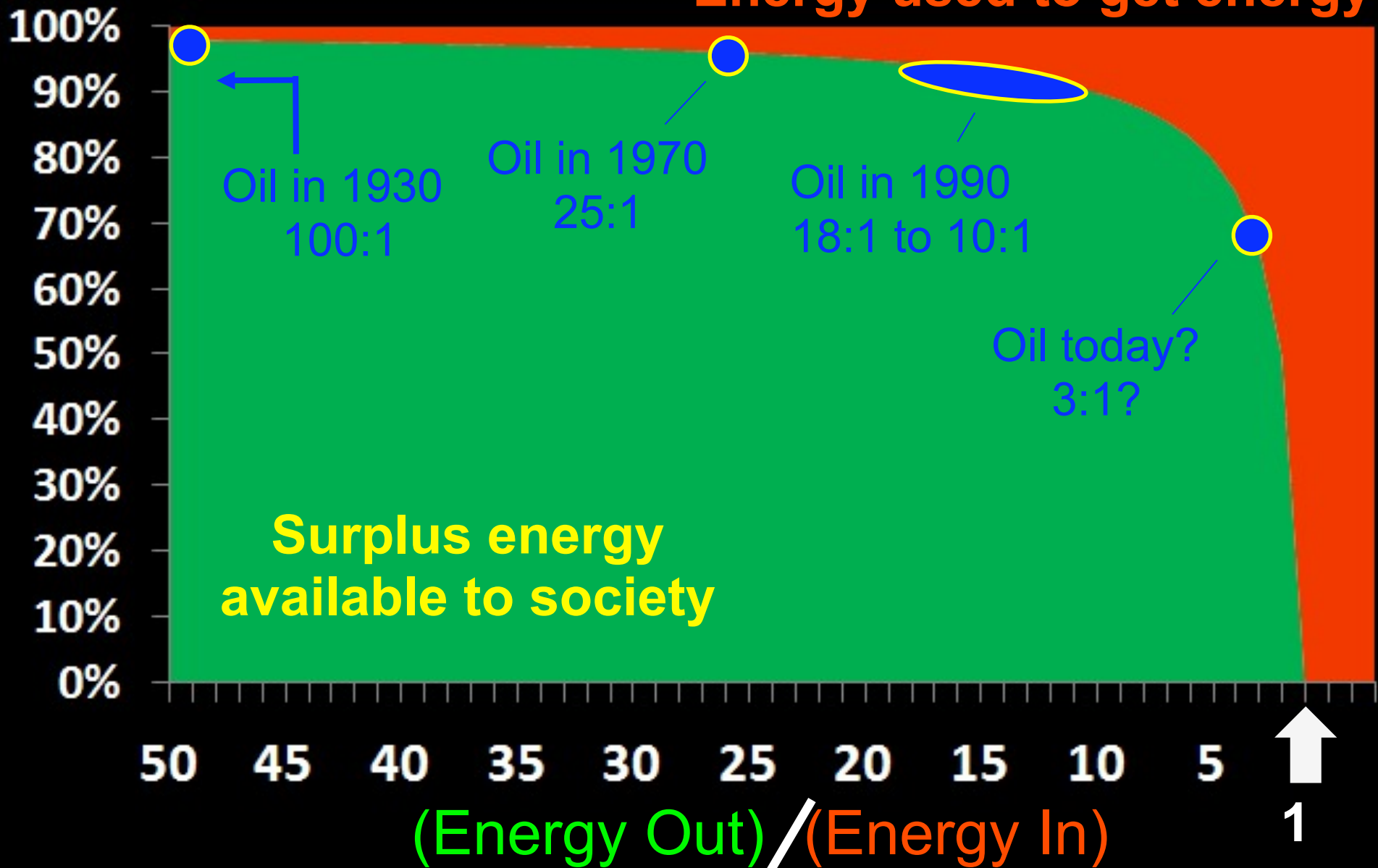


Quantity

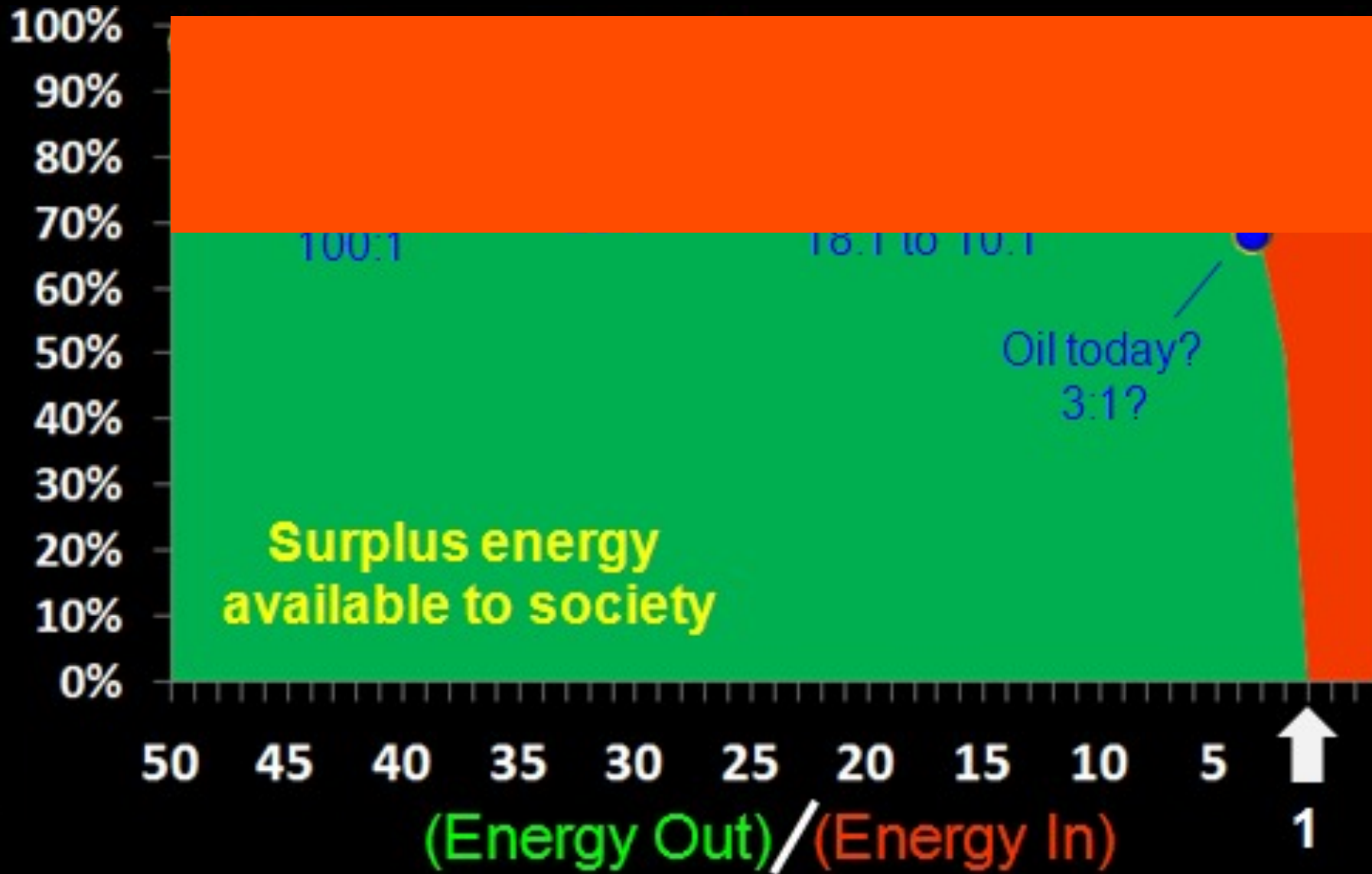
Is An Issue

The Energy Cliff - Oil

Energy used to get energy

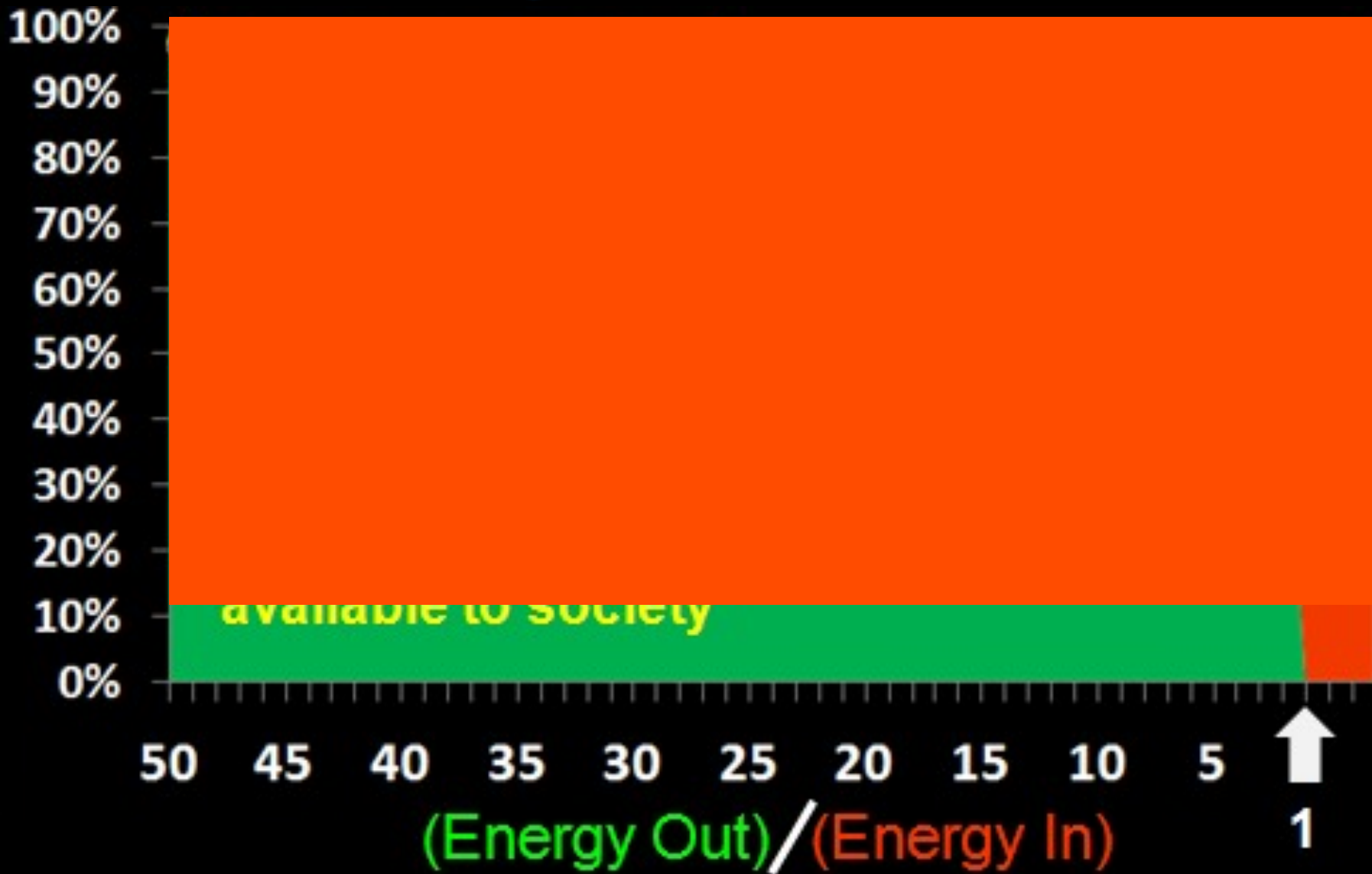


The Reality...



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The Worry...



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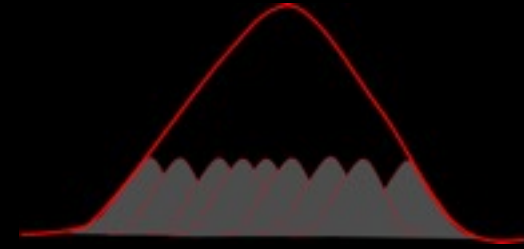
Quality

Is An Issue

Must Grow



Can't Grow



**Quantity & Quality:
Equally important!**



Environment

Copper Ore – 10%



Copper Nugget

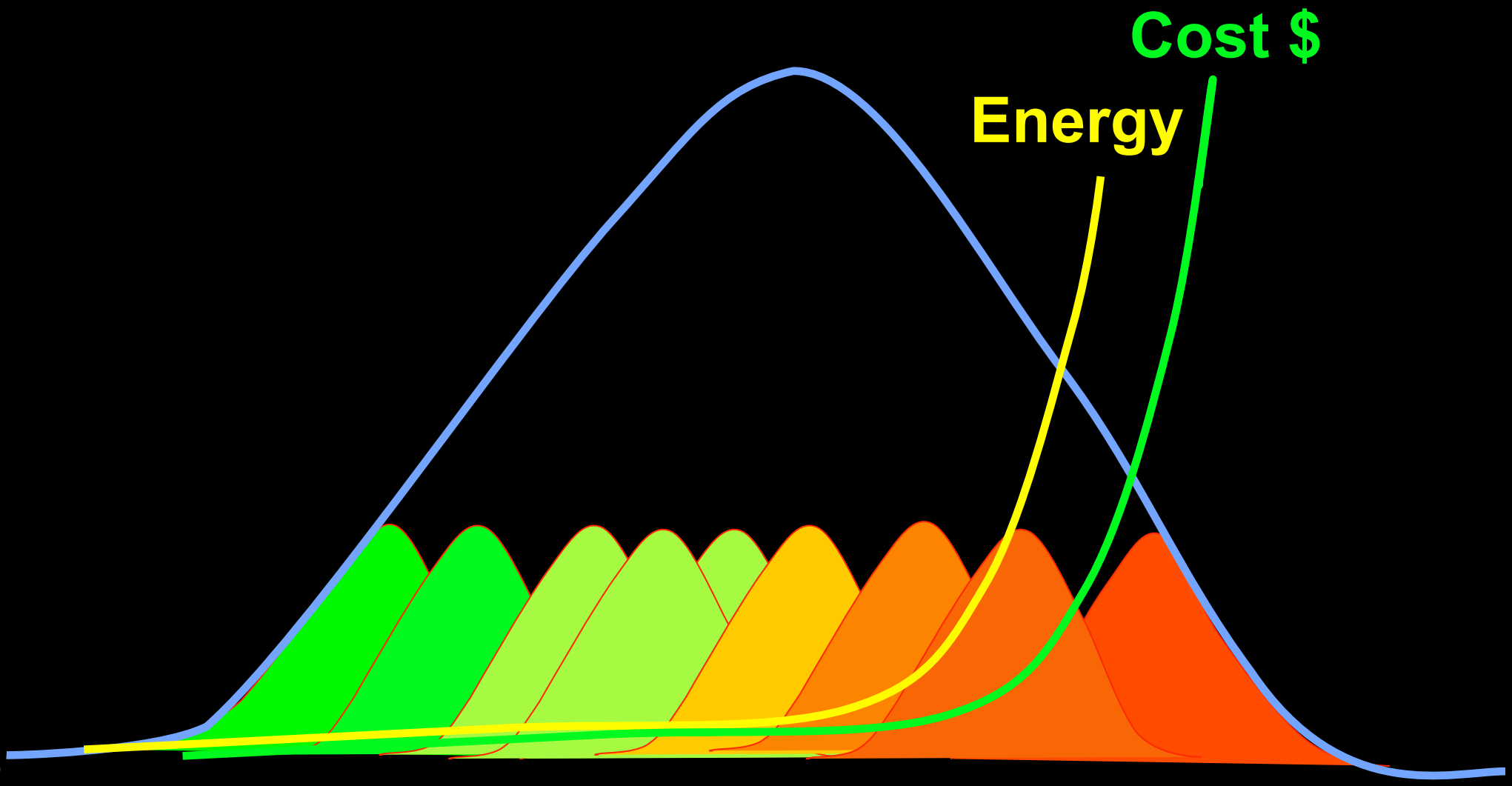
Copper Mining - Bingham Canyon Mine, Utah



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Resource Extraction Profile

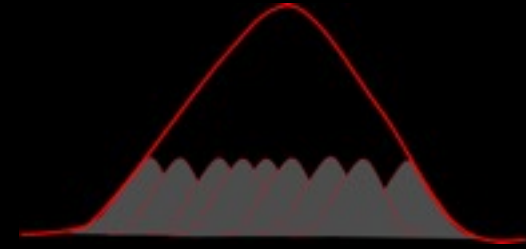


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Must Grow



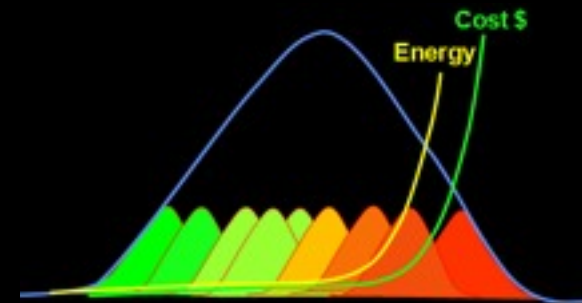
Can't Grow



Quantity & Quality;
equally important !



Depleting



Problem or Predicament?

What Are The Implications?

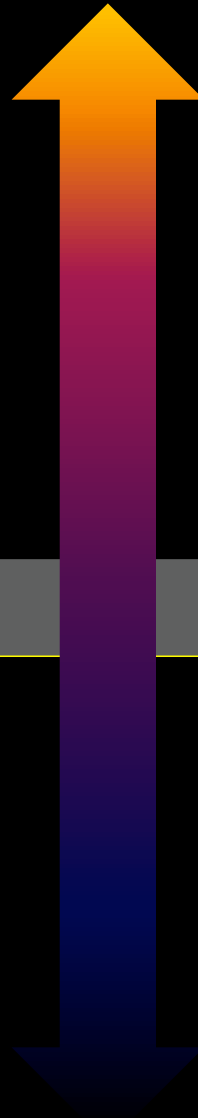


What Are The Implications?

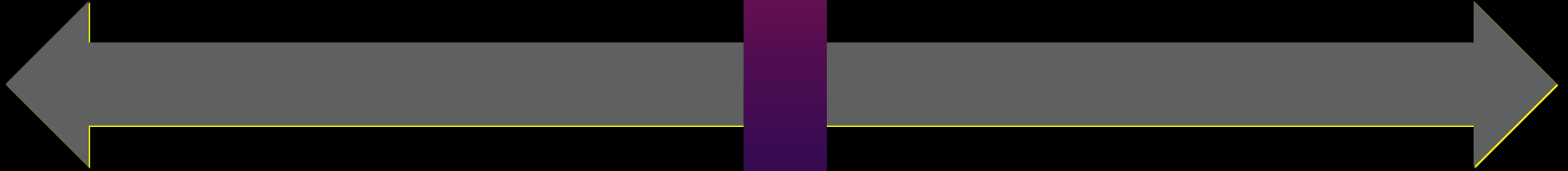


**What Do We
Do?**

RIGHT

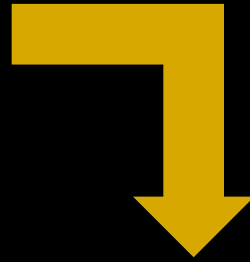


WRONG

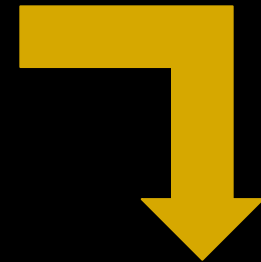


The Work

Awareness



Understanding



Solutions

Changing Paradigms

OLD

- More energy each year
- More resources each year
- Reliable economic growth each year

NEW

- Less energy each year
- Fewer resources
- Reliable economic shrinkage each year

Implication: Non-status quo solutions needed

Getting The Story Right



Painting the Vision



Thank You

For more information, please view
The Crash Course at ChrisMartenson.com