



## Performance Governing: Getting Lucky and Staying Lucky

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*The following is a guest post by [Bill James](#).*

Gasoline prices give a a clear measure of consequences of making oil the lifeblood of our economy. As our economic lifeblood, oil is giving us:

1. Heart attacks, unstable price spikes in this plateau of Peak Oil
2. Leukemia, undermining our planets ability to support us with Global Warming

Facing the facts and acting to resolve them can defeat peak Oil and Global Warming, both civilization killers. A primary fact is that our current infrastructure is the cause of these killers. We built the infrastructure. We can build better. The purpose of this essay is a call to action to defeat these civilization killers by changing the way we govern infrastructure from specifying *HOW* to build it, to stating *WHAT* is needed and allowing a free market to find the rare individuals with lucky breakthroughs that can build sustainable infrastructure. We must get lucky and discover the energy equivalents of lasers, personal computers, cell phones, the Internet, etc....

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### Examples of *How* versus *What*:

Government control over infrastructure has created brittle and fragile structures completely addicted to finite and depleting oil. Example, urban transport is less than 4% efficient. Yet food distribution is 97% dependent on oil that is mostly imported.

Performance Governing changes *HOW* to *WHAT*. Dictates of *HOW* to build infrastructure becomes performance standards of *WHAT* is needed. The limited suite of government contractors becomes anyone willing and able to exceed performance standards. Exceeding standards will change the lifeblood of our economy from oil to ingenuity. Following are comparisons of results between *HOW*, a planned economy, and *WHAT*, a performance economy.

- *Communications Infrastructure, Changes in How versus What are easily identified:*
  - *How:* AT&T's monopoly:
    - Monopolized in the mobilization for World War I.
    - Analog networks essentially unchanged in a century.
    - Long distance calling was an expensive luxury.
  - *What:* Creating a free market in 1984 allowed sweeping ingenuity:
    - Re-tooling infrastructure from analog to digital.
    - Re-tooling infrastructure from wire to fiber and wireless.
    - Expansion in scope and quality of many services such as the Internet and cell

phones.

- Economic driver and job creator.
- Long distance calling is virtually free

- *Biofuels, How versus What:*

- *How:* The President and Congress directed and subsidize ethanol production:
  - Corn prices jumped from \$2/bushel in 2005 to \$7/bushel in Jun 2008.
  - US Secretary of Agriculture expects 43% increase in food prices in 2008.
  - Growing food riots in the world.
  - Likely, first SUV famine in 2008-2009 as burning food in cars at less than 4% efficiency causes the first biofuel famine.
- *What:* Define sustainable efficiency standard, such as 100 miles per gallon.

- *Efficiency, How versus What:*

- *How:* The President and Congress passed a 50% increase in CAFE standards (gas mileage). For simplicity consider they are 20 miles per gallon. Government directing this efficiency improvement will:
  - Start in 2012 and requires about 25 years to rotate out the current car fleet.
  - Require everyone to borrow money to buy a car.
  - A .02X solution to a 2X problem (50% divided by 25 years versus oil doubling in price in 2007)
- *What:* Set a standard and allow anyone beating that standard to implement. For example, inventors at JPods, SkyTran, SkyWeb, ULTra, MISTER and others easily beat 100 miles per gallon. A summary of their capabilities are:
  - Provide urban transport as a service (no loans required)
  - Achieve efficiencies from 100-400 miles per gallon. See [CSX commercial for 423 miles per gallon.](#)
  - Operate at 1/14th the cost of oil-based transport.
  - Move people and cargo 24 x 7.
  - Zero-emissions, some are solar powered.
  - Convenience of a chauffeured car at the cost to operate an elevator.
  - Based on riders per day, the elevator is the most successful form of public transportation. Yet these inventors of a physical-Internet, of horizontal-elevators are not allowed access to rights of way. *What* is possible is disallowed by the current *How*. There is no conspiracy. Far worse, there are [well-meaning rules and regulations](#) of a bureaucracy.

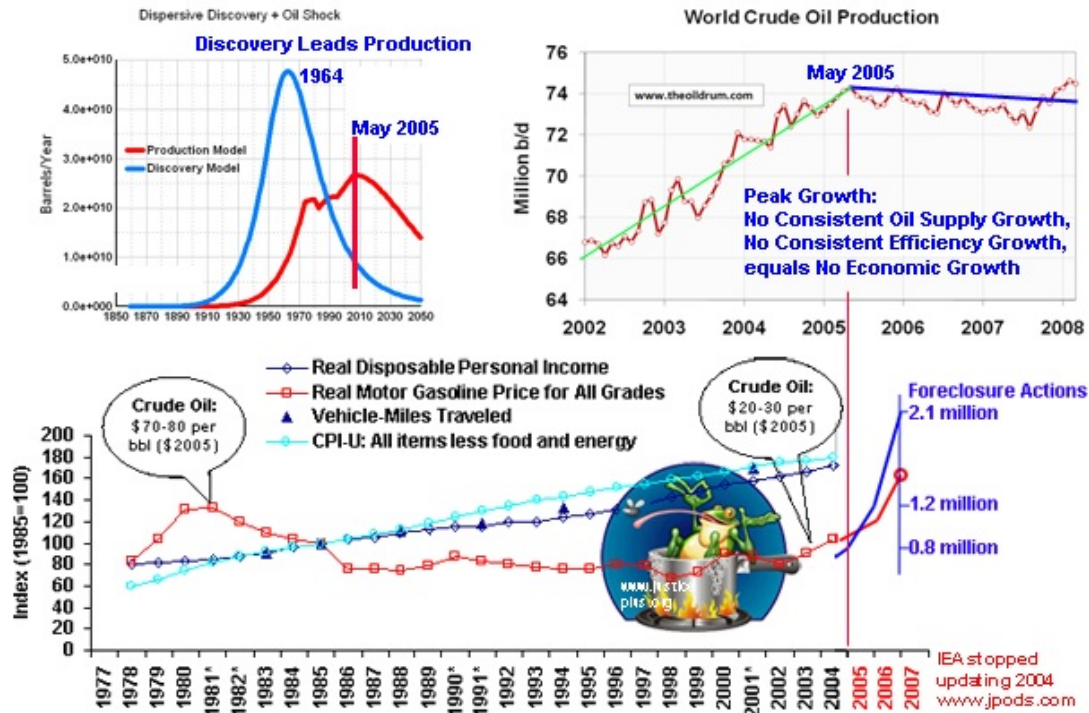


- *Oil, How versus What:*

- *How:* Presidents and Congress directed and subsidize oil production. Subsidies distorted free market innovation.
  - Borrow \$700 billion a year to consume oil.
  - Weakening dollar, increasing inflation, increasing trade deficit.
  - Exposed to Peak Oil. [We were warned of the geology in 1956. It was confirmed in](#)

US Peak Oil in 1970.

- Crisis in *Economic Growth as Energy Growth peaked in May 2005.*
- Government refusal to respond to Peak Oil, [watch comments from EIA Administrator Caruso](#). Policy makers created circumstances where spendable incomes rose enough for people to risk their life's savings to afford a mortgage and then allowed more and more of those mortgages to be crushed between rising interest rates and rising gas prices. The 2007 foreclosure actions, 2.1 million, happened with 4.8% unemployment. Foreclosures in 2009 will jump as \$200+ oil increases unemployment.



- CO2 from automobiles contributes to Global Warming.
  - Global Warming is the destruction of human and biosphere habitat.
  - Yet governments are building more highways.
  - [From BBC](#), summer ice cover in the Arctic has declined sharply.
  - Arctic ice loss in 2007 was horrific. Much worse than models predicted.
  - [Arctic ice flow in the winter of 2007-2008 indicates risk.](#)
  - [Pentagon Study on Abrupt Climate Change.](#)
  - [Cracks in old ice found in 2008 indicates more risks.](#)
  - This author spent 3 years as an Arctic Light Infantryman. I have been back several times and the changes are massive. The consequences are uncertain but again, massive.
- Government assume personal mobility equates to the automobile regardless of the consequences.

This quote, written by Dr Patrick Driscoll, is taken from West Point's **Decision Making in Systems Engineering and Management**.

*In fact, one of the most significant failings of the current U.S. transportation system is that the automobile was never thought of as being part of a system until recently. It was developed and introduced during a period that saw the automobile as a standalone technology largely replacing the horse and carriage. So long as it outperformed the previous equine technology, it was*

*considered a success. This success is not nearly so apparent if the automobile is examined from a systems thinking perspective. In that guise, it has managed to fail miserably across a host of dimensions. Many of these can be observed in any major US city today: oversized cars and trucks negotiating tight roads and streets, bridges and tunnels incapable of handling daily traffic density, insufficient parking, poor air quality induced in areas where regional air circulation geography restricts free flow of wind, a distribution of the working population to suburban locations necessitating automobile transportation, and so on. Had the automobile been developed as a multilateral system interconnected with urban (and rural) transportation networks and environmental systems, U.S. cities would be in a much different situation than they find themselves in today.*

*What is important here is not that the automobile could have been developed differently, but that in choosing to design, develop and deploy the automobile as a stand alone technology, a host of complementary transportation solutions to replace the horse and buggy were not considered.*

- *What:* Tax oil for its true cost to secure and cleanup after use. This would have made alternatives financially attractive since the 1973 Oil Embargo. We would have had 35 years from the 1973 Oil Embargo to have iterated alternatives.

## **Ingenuity**

There is no mystery to breakthrough insight or ingenuity. Ingenuity is a personality trait. Find more ingenious people, give their ideas a chance to work out and you will get lucky breaks. Here are some personalities:

- Edison, discovered 4,000 ways not to make a light bulb.
- Goodyear, after decades of work, twice in debtor's prison, dropped a rubber blob on a sooty stove and instantly recognized what had been missing to vulcanize rubber.
- Einstein, spent a decade unemployed and as a patent clerk refining ideas.
- Wright Brothers, relentless study matched by insightful testing.
- Pasteur, "chance favors the prepared mind".

Their process is relatively simple. Invest and mortgage everything you have for very long periods of time without reward. If you are lucky you will clarify a breakthrough concept. Then find some way to navigate the commercial requirements to churn that clarity of thought into commercial acceptance. The process is simple and ruthless. It is an effort driven by passion, not a government job.

Relative to building infrastructure, government control over *HOW* creates three additional barriers, each nearly perfect at stopping ingenuity that changes *WHAT*. Innovators must convince government people to:

- Take professional risk for which there is no reward or precedent.
- Knowingly accept failures in the process of churning a concept from insight to breakthrough.
- Often wait years to decades for the iterative process of churning ideas into commerce have a successful breakthrough.

## **Government Actions, Changing What**

By abandoning *HOW*, Leadership can define *WHAT* is needed and empower everyone to do what they can. As a starting point, here are some simple actions leaders can take to nurture ingenuity, self-reliance, getting lucky and staying lucky.

### **Self-reliance: Disciplined people, Discipline Thought, Disciplined Action.**

Small steps, relentlessly taken will create durable people and communities, economic lifeboats. There may not be time to save everyone, but there is time for everyone to save themselves. Start simple by asking everyone to plant a garden. This may seem insignificant but it accomplishes vital tasks

- Each person is responsible for self-reliance.
- Builds agricultural skills and a sense that we are part of the land.
- Cuts food-miles and reduces oil dependence.
- Strengthens the social fabric with confidence that we are durability from famine caused by oil shortage.
- Affirms by action that we can and will prevail. We need only exercise our liberty and responsibility.
- Community gardens strengthen communities with shared responsibility and knowledge.

### **Getting Lucky, Finding Rare Events and Odd People**

Ingenuity is a personality trait. Forging ingenuity into insight and breakthrough require great personal investment with improbable chance of success. For governments and businesses to exploit such rare and extreme behavior requires organizations adapt their rules to be susceptible to such individuals.

For every breakthrough, there is vast “silent evidence,” failures that we do not pay attention to. Without failures we cannot find breakthrough. These failures cannot be avoided but they can be contained in scope by requiring attempts to be privately funded. People risking their own money are much more sober about the managing risks than governments.

The process is relatively simple. Invest and mortgage everything you have for very long periods of time without reward. If you are lucky you will clarify a breakthrough concept. Then find some way to navigate the commercial requirements to churn that clarity of thought into commercial acceptance. Vast numbers of truly brilliant ideas are weeded out. The process is simple and ruthless. It is an effort driven by passion, not a government job.

### **Organizational Methods for Encouraging Ingenious Personalities**

Two books outline some key concepts and mechanics of greatness and uncertainty:

- *Good to Great* defines the process of forging excellence from mediocrity, of transforming a good organization into a great one. We have good infrastructure and good government based on unsustainable assumptions of cheap oil. Building a great sustainable culture requires leveraging the Stockdale Paradox and exuding greatness from our commercial entities, our governments and our lives.
- *The Black Swan* is about rare events and getting lucky. This book is about how not to be a “sucker” in the face of uncertainty. We face the uncertainty of civilization killers.

- **Performance Governing.** Establish standards for infrastructure. Define what is needed and allow anyone willing to risk their capital to beat that standard a franchise to profit from performance forged from their ingenuity.
  - Government grants should be very limited, or better, not used at all. There are several problems with grants and government funding for research:
    - Breakthrough concepts are abnormal and are not likely to be funded. Example, Einstein could not get a teaching job until 5 years after publishing the Special Theory of Relativity, Quantum Mechanics via the photoelectric effect, and the other breakthrough clarities of 1905. Establishments like iterations of *how* not change in *what* (See CAFE above).
    - Refining a breakthrough concept to clarity costs about as much as chasing a government grant. The passion for creating should focus on creating not chasing permission to create.
    - Innovators of breakthroughs are not personally wired to wait for government handouts. Example: Steve Jobs and Bill Gates are both college dropouts. Their breakthrough ideas on personal computers did not wait for the government or academia,
    - Dependence on government money conditions capital markets to wait for such money. Venture capitalists are almost as risk averse as bureaucrats and policy makers. It also conditions innovators, always desperate for cash, to chase permission not insight.
  - Government backed loans can be effective if:
    - Private risk builds infrastructure. This keeps focus on what is practical.
    - Infrastructure achieves public policy objectives.
    - Infrastructure provides profitable service and can repay loans. Then low cost government back loans can refinance the infrastructure. These loans can be paid back from profitable operation of the infrastructure. The loans free the private capital to build more infrastructure.
    - Care and transparency are required to get the benefits but not the corruption of a Transcontinental Railroad model.

## Staying Lucky, Honestly Accruing All Costs

There are no lasting victories. Winning today yields the opportunity to compete again tomorrow. Embracing responsibility will enable us to compete again tomorrow:

- Accept that excellence is the process of relentlessly improving,
- Open our institutions to the odd personalities that find breakthrough.
- Assure all costs are accounted for and resources accrued to compensate.

Performance governing requires honestly accounting for all costs. That is not easy. We have a tendency to shove long-term costs off on the future. The failure to prepare is illustrated by:

- The collapse of the I-35W Bridge. The [American Society of Civil Engineers grades US infrastructure as a D.](#)
- The collapsing, 100-year oil sewers in Atlanta.
- The average age of electrical transformers is at the end of their design life. Long-term



maintenance was sacrificed for short-term rate reductions.

- The average age of farmers is 54. Soon we face a loss of farming art. Long-term skill building was sacrificed for short-term gains.
- Borrow \$700 billion a year to consume oil.



Preparation and self-reliance are simple and tough standards. We need only return resources used in a condition we are proud to hand to our grandchildren; everything we waste stays with us. If resources can not be restored in pristine condition or if we are unsure if our actions cause harm, we must assume they cause harm and collect estimated costs to compensate as honestly as possible. If industries do not reserve these costs, then to protect the general welfare and common defense, it is the duty of government to assess, collect and exercise such funds to provide a sustainable habitat. Earth is a spaceship; the glass of water you use, your grandchild will drink.

As a conservative, I am amazed that conservative political leaders seem the least interested in the conservative principle that all costs should be accounted for, subsidies eliminated. Had we accounted for pollution costs, security costs and maintenance costs, today we would not be facing an energy crisis. Had governments declared what is needed and allowed free markets to carve profits from waste, today we would not be facing an infrastructure crisis. The civilization killers of Peak Oil and Global Warming would have been preempted. Had we accounted for all costs, gasoline prices would be only as significant as a cell phone bill; instead gas prices force home foreclosures as people choose between paying for their commute and their house.

As tough and dangerous as Peak Oil is, we are lucky it is impacting our economy faster than Global Warming is killing our planet. Gas prices force us to change the lifeblood of our economy from oil to ingenuity. As noted by Benjamin Franklin: *“To be thrown upon one's own resources, is to be cast into the very lap of fortune; for our faculties then undergo a development and display an energy of which they were previously unsusceptible.”*

Performance Governing will result in a performance economy, an economy driven by profits and jobs created by preempting current waste. There will be many breakthrough ideas that will look like luck. Mobility and electricity costs will be reduced, our footprint on our environment minimized and our addiction to oil and borrowing money to pay for oil will end. It will only take 15-20 years of hard work. The process is waiting for government to allow a free market.



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