

A New Global Perspective: Yesterday, Today and Tomorrow

Citadel Investment Group
Chicago
March 1, 2011

Michael Milken
Chairman, The Milken Institute

A New Global Perspective: Yesterday, Today and Tomorrow

- Perception vs. Reality
- Capital Markets
- Building Human Capital
- Toward a New American Century

Humanity's Top 10 Problems for Next 50 Years

- Democracy
- Disease
- Education
- Energy
- Environment
- Food
- Population
- Poverty
- Terrorism & War
- Water

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Humanity's Top 10 Problems for Next 50 Years



- Education
- Energy

Nobel Laureates in
Science/Medicine

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Humanity's Top 10 Solutions for Next 50 Years

- Democracy
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"Real estate prices
collapsed, credit
dried up, house
building stopped ...

in 1792."

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- The stock market dropped 50 percent.
- Banks curtailed lending.
- Commentators predicted widespread industrial bankruptcies.
- Unemployment rose quickly.
- Interest rates were volatile.

...in 1974.

1 MILLION DOLLARS

What is the most valuable real estate in the world?

1. New York City
2. Moscow
3. London
4. Dubai
5. Beverly Hills
6. Tokyo

1 MILLION DOLLARS

What is the most valuable real estate in the world?



1 MILLION DOLLARS

Blockbuster vs. Netflix - 2002 Market Value

40 Netflix = 1 Blockbuster

Blockbuster
\$4.5 billion

Netflix
\$0.16 billion

1 MILLION DOLLARS

Blockbuster vs. Netflix - 2011 Market Value

Netflix
\$11.2 billion

431 Blockbusters = 1 Netflix

Blockbuster
\$26 million

Source: WSJ.com - 2-25-11

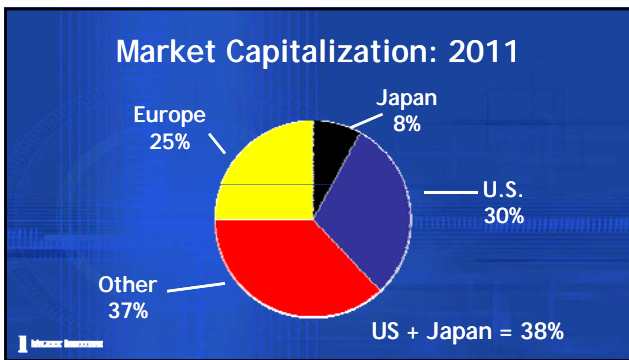
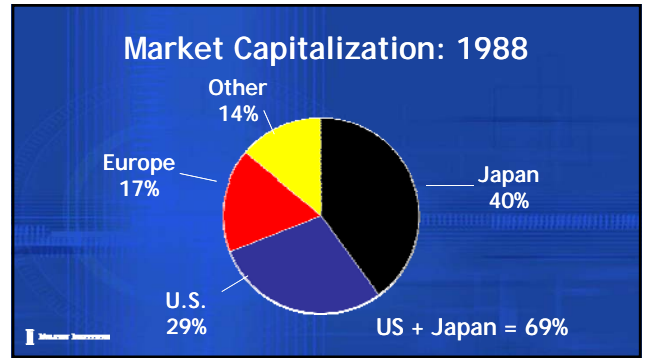
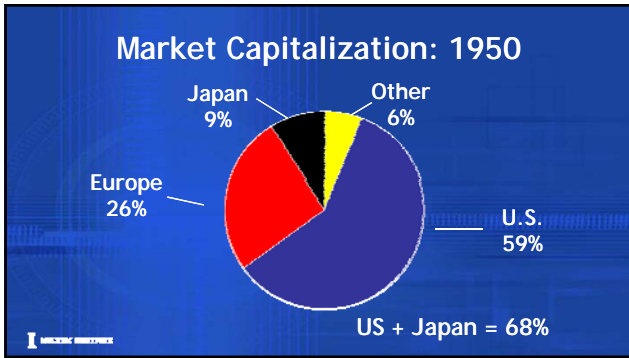
1 MILLION DOLLARS

The World's Top 10 Economies (Percent of World GDP)

Today	2050	1820
U.S. (23.6%)	China (18.5%)	China (28.7%)
China (8.7%)	U.S. (16.5%)	India (16.0%)
Japan (8.6%)	India (12.0%)	France (5.4%)
Germany (5.2%)	Brazil (4.8%)	England (5.2%)
France (4.4%)	Indonesia (3.5%)	Prussia (4.9%)
U.K. (3.6%)	Japan (3.1%)	Japan (3.1%)
Italy (3.4%)	Mexico (3.0%)	Austria (1.9%)
Brazil (3.1%)	Russia (2.7%)	Spain (1.9%)
Canada (2.6%)	U.K. (2.3%)	U.S. (1.8%)
Russia (2.4%)	Germany (2.3%)	Russia (1.7%)

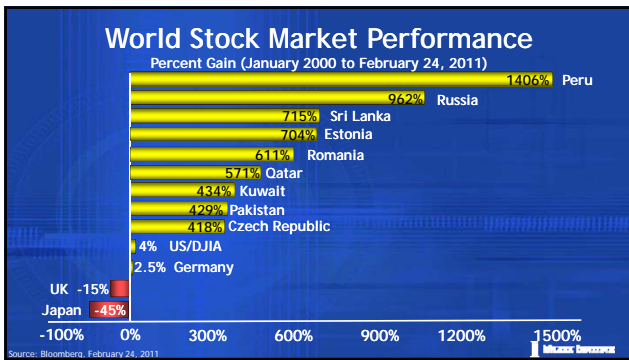
Sources: World Bank/Angus Maddison, "The World Economy: Historical Statistics" (OECD)/
PricewaterhouseCoopers/Milken Institute/Goldman Sachs (9/09)

1 MILLION DOLLARS



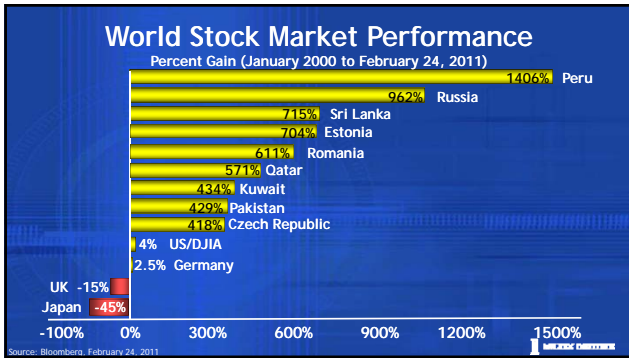
2009 The Third Greatest Year of Wealth Creation

Brazil	143%	Chile	85%
Russia	129%	China	80%
Indonesia	123%	Israel	75%
Peru	118%	S. Korea	69%
Turkey	102%	Mexico	51%
India	97%	U.K.	35%
Argentina	95%	U.S. (S&P 500)	23%
Ukraine	91%	U.S. (Dow)	18%

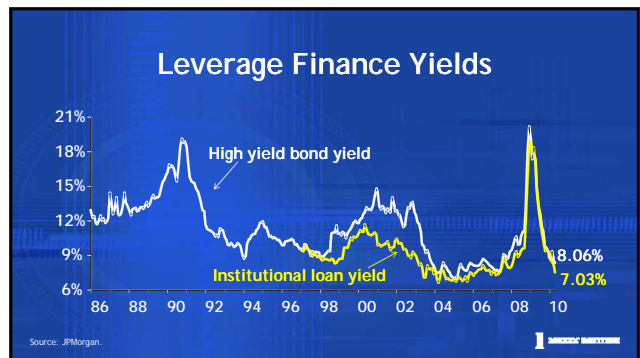


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- ### The Nature of Credit
1. Credit is what counts, not leverage.
 2. Most loans to real estate are not investment-grade.
 3. Interest rates are volatile and unpredictable.
 4. Credit research is more than ratings.
 5. Sovereign debt is historically risky.
 6. Debt values underpin all capital markets.

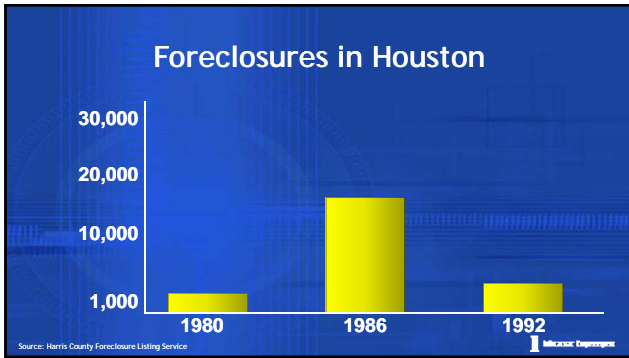


Most Texas Banks were AAA in the 1980s

First RepublicBank Corporation

The prices of residential real estate in Houston (in real terms) declined 40% from 1983-1988.

- OFEHO Housing Index / FRB study

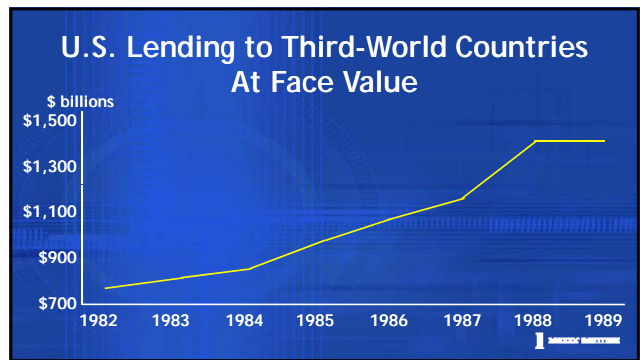


Standard & Poor's Ratings

New Issues: 1/1/2000 to 9/30/2008

Investment-Grade Securities		Non-Investment Grade Securities	
AAA	16,907	BB+	238
AA+	240	BB	313
AA	2,098	BB-	331
AA-	3,414	B+	339
A	2,602	B	330
A-	2,027	B-	1,189
BBB+	903	CCC+	293
BBB	1,371	CCC	214
BBB-	1,359	CCC-	104
		CC	36
		C	11

Source: Bloomberg 11/6/08



Sovereign Debt Has Long Been Suspect

"When national debts have once been accumulated to a certain degree, there is scarce, I believe, a single instance of their having been fairly and completely paid."

Adam Smith



Sovereign Debt Defaults

Argentina	Ecuador	Paraguay	Romania	Turkey	Uruguay
• 1830	• 1832	• 1827	• 1915	• 1876	• 1876
• 1890	• 1868	• 1874	• 1933	• 1915	• 1891
• 1915	• 1911	• 1892	• 1981	• 1940	• 1915
• 1930s	• 1914	• 1920		• 1978	• 1933
• 1982	• 1931	• 1932			• 1983
• 2001	• 1982	• 1986			• 2003
	• 1999	• 2003			
	• 2008				

Sources: Sturzenegger and Zettelmeyer (2004), Moody's, Milken Institute.

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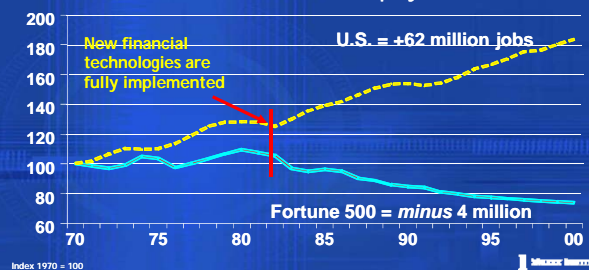
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$$P = \sum Ft_i * (\sum HC_i + \sum SC_i + \sum RA_i)$$

- P = Prosperity
 Ft = Financial Technology
 HC = Human Capital
 SC = Social Capital
 RA = Real Assets

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America Goes to Work U.S. and Fortune 500 Employment



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Partnering Talent with Capital



Ted Turner



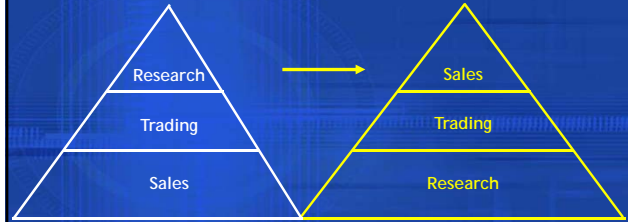
Craig McCaw



Bill McGowan

MILKMAN INVESTMENTS

^{New} The Wall Street Pyramid



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The \$55 Billion Misunderstanding Investing in the Nifty Fifty 12/31/72 - 12/31/81

90% of the "Nifty Fifty" showed a negative return over nine years.
The average inflation-adjusted rate of return was -46%.

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The \$55 Billion Misunderstanding Investing in the Nifty Fifty 12/31/72 - 12/31/81

The average P/E ratio of these 16 companies dropped from 66 to 11.

Avon	ADP	Coke	Disney
Dr. Pepper	Kodak	H-P	J&J
Eli Lilly	Marriott	McDonald's	Merck
Polaroid	Rite-Aid	Wal-Mart	Xerox

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1974

RESULT #1:

Companies with the highest returns on capital, fastest rates of growth in market share and employment, and greatest innovation were denied access to equity and debt capital.

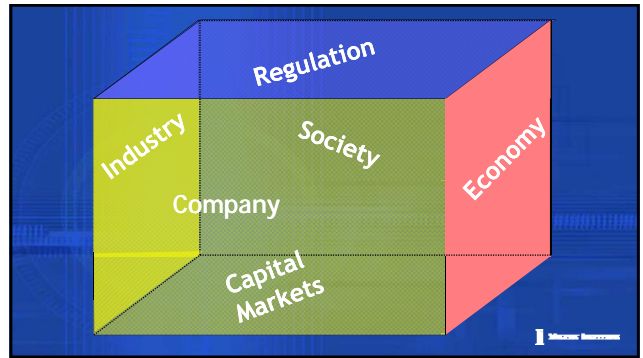
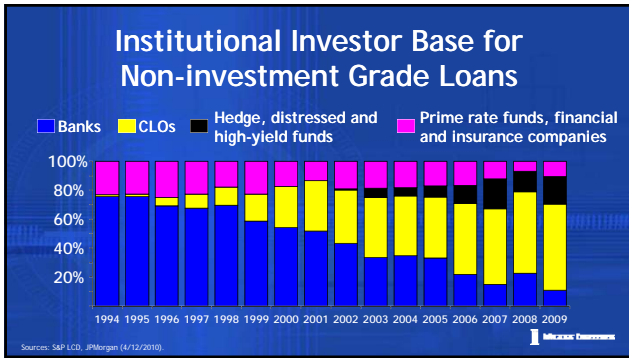
MILKMAN INVESTMENTS

1974

RESULT #2:

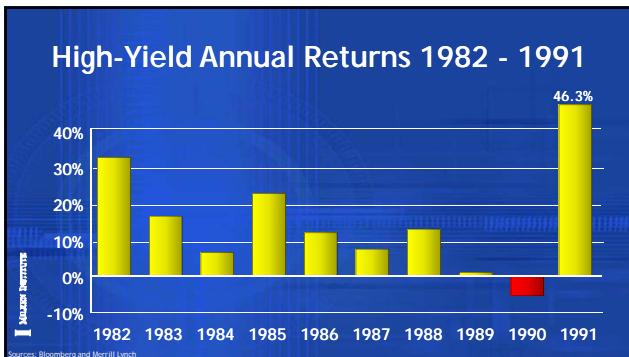
With financial institutions weakened by the recession, public and private markets began displacing banks as the source of most corporate financing.

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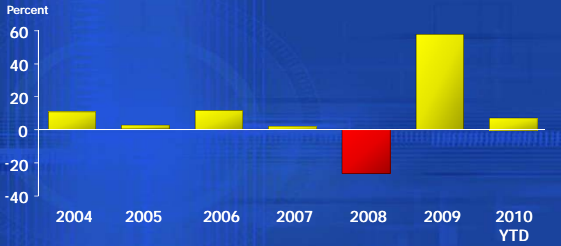


- ### Effects of Regulation ... or Just Proposed Regulation
- **1985** - Media attacks high-yield bonds (nomenclature changes to "junk")
 - **1987** - Congress considers limiting tax deductibility of interest on acquisition-related debt
 - **1989** - FIRREA (S&L); HLT (banks)

- ### Effects of Regulation ... or Just Proposed Regulation
- **1990** - Largest negative rate of return on high-yield bonds (-9-10%)
 - **1991** - Highest rate of return on high-yield bonds in one year since WWII (higher than 1975-76)
 - **1990-1991** - High yield-bonds out-perform all investment classes, including equities and government



High-Yield Annual Returns 2004 - 2010



Sources: Bank of America; Merrill Lynch, July 12, 2010



Neutron Legislation

Late 1980s



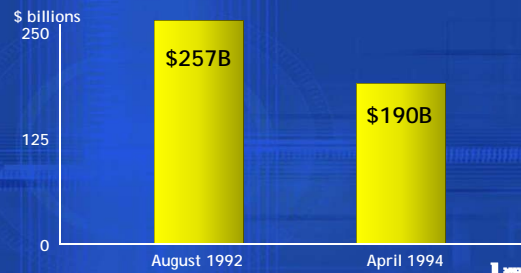
"It was OK to lend money to build a building, but it wasn't OK to lend money to any company that would hire a person to work in the building."



Merck
1986 - 1992



Market Caps of Top 10 Pharma



"I thought we were doing God's work."

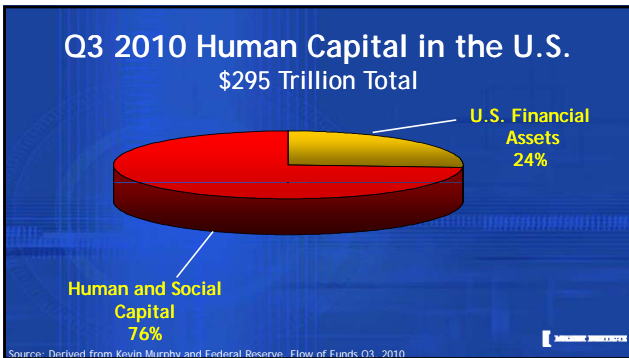
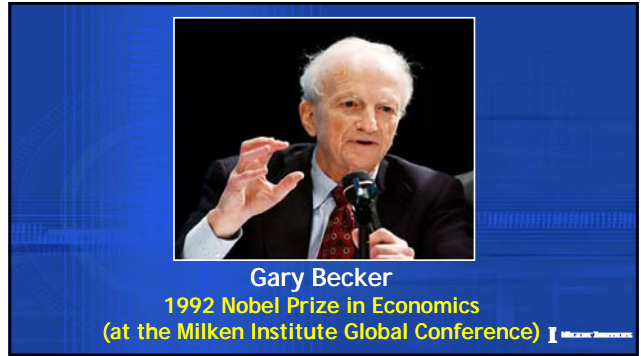
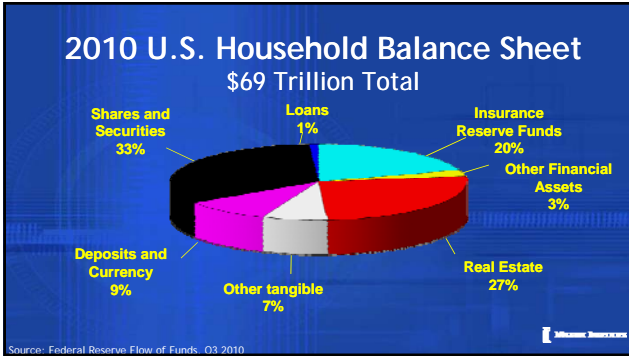
- Gordon Binder
Former CEO, Amgen



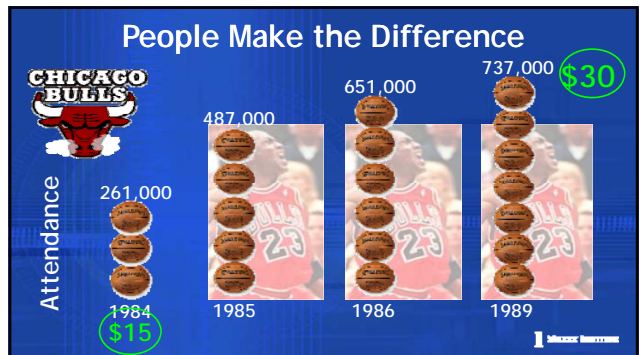
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The 21st Century will see a worldwide competition for human capital.



"Innovation has nothing to do with how many R&D dollars you have. When Apple came up with the Mac, IBM was spending at least 100 times more on R&D. It's about the people you have [and] how you're led."



-Steve Jobs



Apple vs. Sony 1997 Market Value

21 Apple = 1 Sony

Apple
\$1.65 billion

Sony
\$34.3 billion



Apple vs. Sony 2011 Market Value

8 Sony = 1 Apple

Apple
\$321 billion

Sony
\$37 billion

Date: February 24, 2011



Per Capita GDP

Singapore



Jamaica



1960

\$2,229

2010

\$40,336

\$2,213

\$4,825

Source: IFS, WEO, IMF. In 2008 USD



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Toward a New American Century

- Housing
- Education
- Immigration
- Entitlements
- Energy
- Health / Medical Research



Fallacy:
 "Any loan to real estate is a good loan ... "



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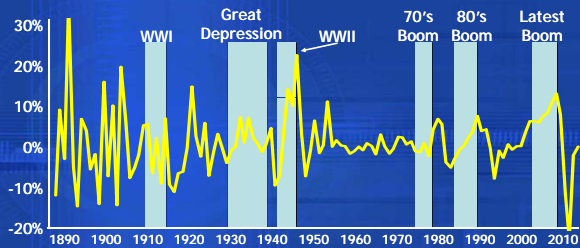
The American Dream Turns into A Nightmare

- Low down payments
- Tax preferences
- Extended payback terms
- Lack of pre-payment penalties
- Non-recourse terms that shield non-housing assets
- The myth that housing prices always rise

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Home prices don't go up forever

Change in home prices in 100-plus years



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When Lenders Make Non-Recourse Loans Heads they lose -- Tails they lose

- If prices rise, the borrower keeps the gain
- If prices fall, the borrower can walk, sticking the lender with a long-term depreciating asset
- If interest rates rise, the value of the loan depreciates as the "real" average life of the asset is extended
- If interest rates fall, the borrower prepays



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... the biggest problem was government-guaranteed mortgage loans.

- These loans were never worth what the government said they were worth.
- They were worth less the day they were issued.
 - Lack of call protection
 - High transaction cost

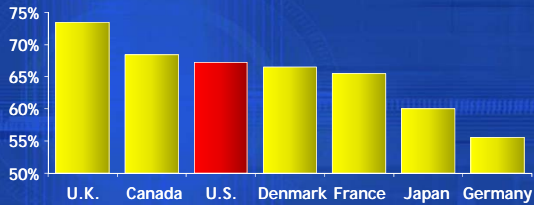
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High Transaction Costs

- An investor can sell 1,000 shares of IBM stock - worth about \$165,000 - in less than a second with a transaction cost **under \$10**.
- But a \$165,000 house in foreclosure takes months to sell with fix-up costs, commissions and legal fees that can **exceed \$20,000**.

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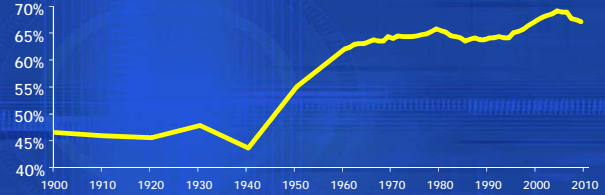
Current Home Ownership Rates



Sources: EuroStat, HUD, Milken Institute.



Historical U.S. Home Ownership Rates



Sources: HUD, Historical Statistics of the United States, Milken Institute.



In the second quarter 2010, the U.S. home ownership rate was 66.9 percent, the lowest since 1999.

July 27, 2010
U.S. Census Bureau



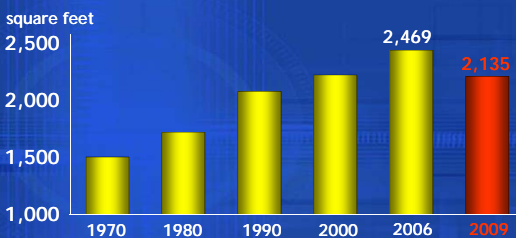
Consumer Spending

U.S.		Asia	
Housing	32.7%	Food	23%
Transportation	18.0%	Education	15%
Food	12.8%	Housing	10%
Insurance/pensions	11.2%	Clothing	8%
Healthcare	5.7%	Other	8%
Entertainment	5.1%	Transportation	6%
Apparel and services	4.1%	Healthcare	5%
Cash contributions	3.6%	Communication	5%
Education	2.0%		
Personal care products	1.2%		

Source: U.S. Bureau of Labor Statistics/CLSA



Average Size of American Houses



Source: National Association of Home Builders / U.S. Census Bureau



Consumer Spending

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Source: U.S. Bureau of Labor Statistics/CLSA



Culture change is coming.
America's priorities will change.

- We'll spend relatively less on housing, cars and consumables.
- A greater portion of household income will be allocated to education, medical research and savings.

McGraw-Hill Education

Toward a New American Century

- Housing
- Education
- Immigration
- Entitlements
- Energy
- Health / Medical Research

McGraw-Hill Education

Between 1870 and 1950, Americans added almost one year of education each decade.

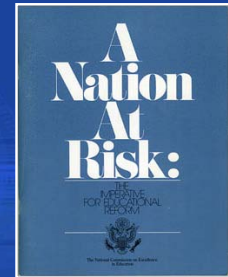
By 1960, the highest average grade level in the U.S. exceeded every other nation by two years.

Since 1960, we have made no progress and several other nations have surpassed us.

McGraw-Hill Education

"If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might have viewed it as an act of war."

- 1983



McGraw-Hill Education

How 15-Year-Olds Score in School

Science

• Hong Kong	542
• Canada	534
• Japan	531
• Estonia	531
• South Korea	522
• United Kingdom	515
• Germany	513
• OECD average	500
• Poland	498
• United States	489
• Russian Federation	479

Math

• Hong Kong	547
• South Korea	547
• Canada	527
• Japan	523
• Estonia	515
• Germany	504
• OECD average	498
• Poland	495
• United Kingdom	495
• Russian Federation	476
• United States	474

Source: OECD Programme for International Student Assessment 2006

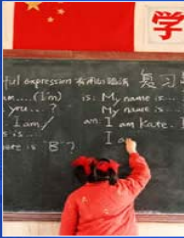
McGraw-Hill Education

The Jobs Problem (It Isn't Jobs - It's Trained Workers)



Source: Edward Gordon, "Winning the Global Talent Showdown"

McGraw-Hill Education



Five times more people are learning English in China than there are people in England."

- HSBC Bank



India...

- Extracurricular activities consisted of academic coaching in 95% of the households.
- 43% of parents want their children to get a Master's degree; 29% want them to get a PhD.



South Korea

- Spend more on education (22%) than housing (13%)
- 70% of Korean parents expect their children to work overseas, of which more than half expect their children to work in the US.



Knowledge Universe Early Childhood Education



Knowledge Universe Primary and Secondary Education



We must not be afraid of competition.

We must be ready to compete.



Eddie "The Eagle" Edwards

- 1988 Calgary Olympics
- Britain's first (and last!) ski jumper
- Last place finish with a jump of 253 feet



Matti Nykanen of Finland wins the gold with a jump of 412 feet.

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Eddie "The Eagle" Edwards

- 1988 Calgary Olympics
- Britain's first (and last!) ski jumper
- Last place finish with a jump of 253 feet



Eddie "The Eagle" Rule:

Olympic qualifiers must compete in international events and place in the Top 30 percent or Top 50 competitors.

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Toward a New American Century

- Housing
- Education
- Immigration
- Entitlements
- Energy
- Health / Medical Research

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Highly skilled, entrepreneurial and educated immigrants are crucial to the United States' prosperity.

1 MILLER DUMMITT

Doctorates Awarded in the U.S.

- **1/3** of all doctoral students in the U.S. are foreign born, up from one in ten 30 years ago.
- **84%** of their doctorates are in engineering and the sciences.

Source: National Science Foundation/Div of Science Resource Statistics

1 MILLER DUMMITT

A 3-Point Plan to Invest in America

- Encourage skilled non-citizen workers and their families to live legally in the U.S.
- Retain the students we train.
- Induce entrepreneurs to invest in the American dream.

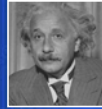
1 MILLER DUMMITT

It's time to level the playing field.

- Canada, the United Kingdom and Australia encourage immigrant investors
- Singapore entices leading researchers and technologists to its \$2 billion Biopolis biomedical center.



Building Human Capital Through Immigration



Albert Einstein
(Germany)



Jerry Yang
(Taiwan)



Madeleine Albright
(Czechoslovakia)



Sergey Brin
(Russia)



Alex. Graham Bell
(Scotland)



Gustavo Dudamel
(Venezuela)

Toward a New American Century

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Entitlements - The Math Doesn't Add Up

- Unrealistic assumptions about rates of return on assets
- Falling ratios of current workers to retirees
- Workers who pay in to the system for too few years
- Pensioners who live longer than the original system planners assumed.



When Social Security was introduced in 1935, the average life span in the U.S. was 61.7 years.

In 2009, life expectancy in the U.S. reached 78.1 years.

Sources: National Center for Health Statistics, *National Vital Statistics Reports*, vol. 54, no. 19, June 28, 2006.
U.S. Census Bureau, *International Database*



Restoring Economic Growth

In many countries, people have come to believe that they could - were *entitled* to - retire in their fifties.

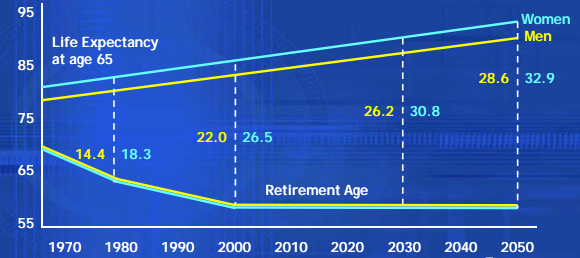
Reform can seem politically impossible.

The U.S. has an opportunity to fix its entitlements dilemma before it reaches an economic tipping point.



Longer Life Expectancy; Longer Retirements

France



Source: OECD Aging and Employment Policies, France 2005



Redefining Retirement in the U.S.



Nationwide Protests in France



Toward a New American Century

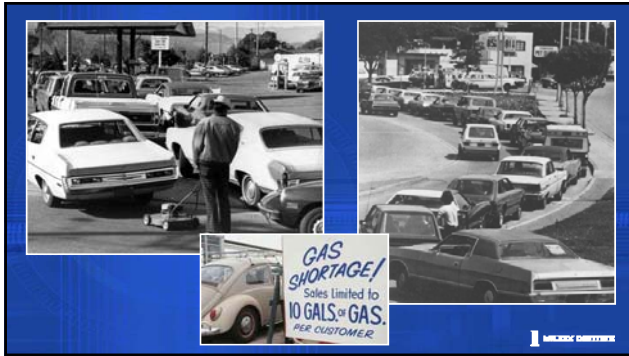
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What we pay vs. the true cost

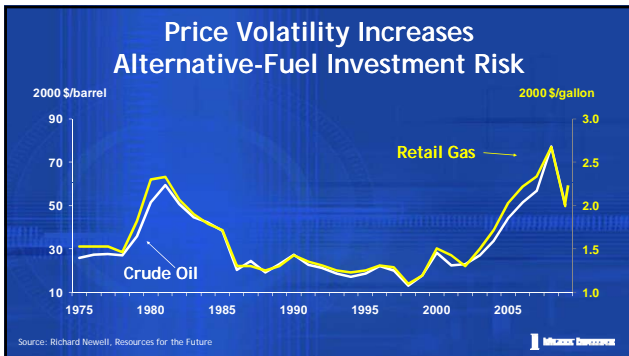
The Cost to Fill Up	
Regular	3.15 ^g 13.99^c
Plus	3.25 ^g 14.83^c
Premium	3.35 ^g 14.78^c





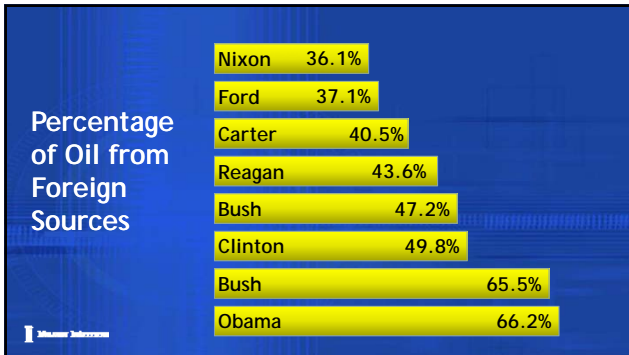
Energy Challenges

- Uncertainty faced by investors and producers because of price volatility.
- The rise in atmospheric greenhouse gases.
- Loss of energy technology leadership.
- The potential for political instability in oil-exporting nations.



President Jimmy Carter on the energy crisis and proposed energy legislation

“This difficult effort will be the ‘moral equivalent of war’ -- except that we will be uniting our efforts to build and not destroy.”



Toward a New American Century

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Half of all economic growth in the last two centuries can be traced to medical research advances.

McKinsey Quarterly

Company Value Comparison

U.S. \$ billions

	Enterprise Value	Est. P/E Ratio
Average: Consumer (P&G, Estée Lauder, Coca Cola, Pepsi, Kraft)	\$131.6	19.2
Average: Pharma (Pfizer, J&J, Roche, Novartis, Merck, GSK, SanofiAventis, Abbott Labs, AstraZeneca, Amgen, BMS and Eli Lilly)	\$105.3	11.2

Source: Bloomberg 1/26/2011

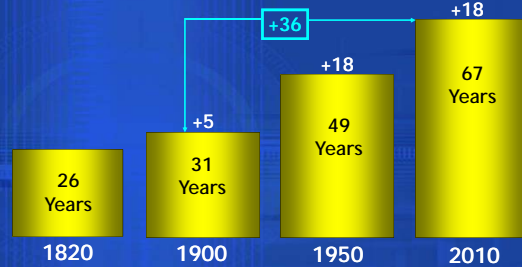
McKinsey Quarterly

Some Great Achievements in History

- Invention of the wheel
- Development of agriculture
- The printing press
- Copernican revolution
- Industrial and technology revolutions
- Extension of life expectancy

McKinsey Quarterly

Worldwide Life Expectancy Growth



Source: United Nations Development Program

McKinsey Quarterly

Half of all economic growth in the last two centuries can be traced to medical research advances.

McKinsey Quarterly

Company Value Comparison

Est. P/E Ratio

	Est. P/E Ratio
Average: Consumer (P&G, Estée Lauder, Coca Cola, Pepsi, Kraft)	20.8
Average: Pharma (Pfizer, J&J, Roche, Novartis, Merck, GSK, SanofiAventis, Medtronic, Abbott Labs, AstraZeneca, Teva, Amgen, BMS and Eli Lilly, UnitedHealth)	12.8

Source: Bloomberg 3/4/2011

McKinsey Quarterly

Top Causes of Death

1907

1. Pneumonia/flu
2. Tuberculosis
3. Heart disease
4. Diarrhea
5. Stroke

2010

1. Heart disease
2. Cancer
3. Stroke
4. Respiratory disease
5. Accidents

Since 1900, childhood death rates from pneumonia and influenza have fallen 93 percent.

Source: AARP Bulletin / June 2007

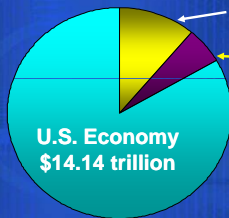


Three Solutions to Healthcare Challenges

- Prevention
- Cost reduction
- Research leading to cures



Lifestyle Makes a Difference



70% of health-care spending - about \$2.5 trillion - is spent on lifestyle-related diseases.

30% is spent on hereditary diseases.

Sources: CIA Handbook / Centers for Medicare and Medicaid Services (2009)

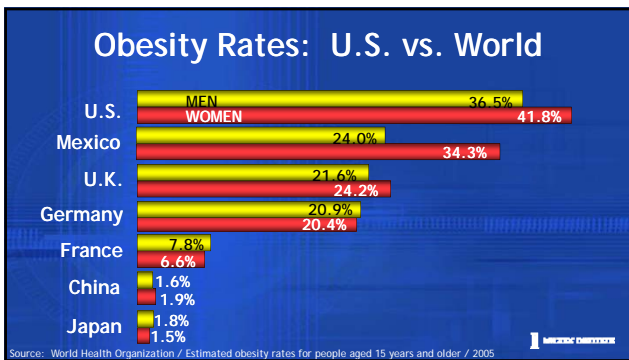
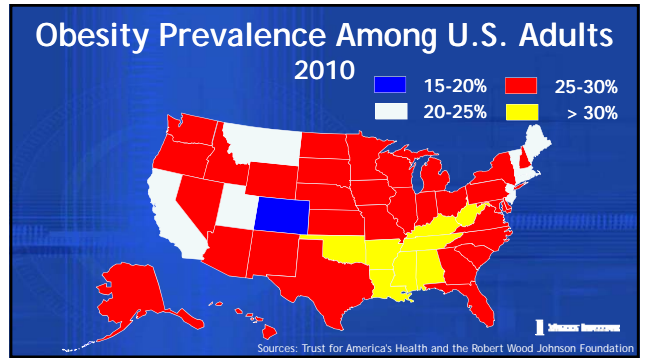
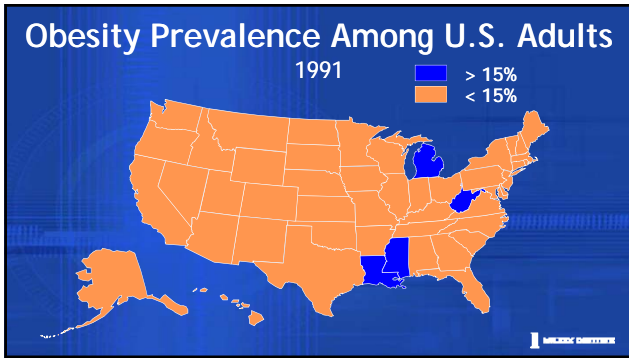


Only in America

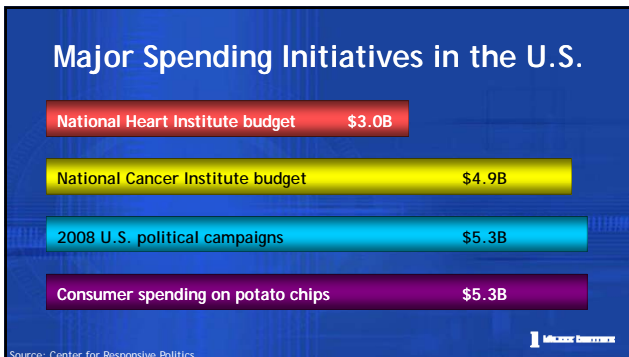


Only in America





- ### Three Solutions to Healthcare Challenges
- Prevention
 - Cost reduction
 - Research leading to cures
- MILKEN INSTITUTE



MILKEN INSTITUTE
Chronic Disease Study

Failure to address chronic diseases adequately costs the U.S. economy more than \$1 trillion annually.

MILKEN INSTITUTE

Finally, do we have the will to ...

- Transcend partisan politics?
- Support teachers, but demand accountability?
- Unshackle small- and mid-size businesses?
- Designate medical research funds to young investigators?
- Live ... both governments and households ... within our means?

MILKEN INSTITUTE

“Never doubt that a small group of thoughtful, committed citizens can change the world: indeed, it’s the only thing that does.”

-Margaret Mead



MILKEN INSTITUTE

Addressing the Issues (Non-Profit Organizations)

Milken Family Foundation (1982)

- Education reform/teacher recognition/medical research

The Milken Institute (1991)

- Economics/public-policy research and conferences

Prostate Cancer Foundation (1993)

- World’s leading philanthropic source of support for research

FasterCures (2003)

- Removing barriers to progress on all life-threatening diseases

Melanoma Research Alliance (2007)

- Advancing research on the most-deadly skin cancer



More than 2,500 educators nationwide



The System for Teacher and Student Advancement

A NEW DIRECTION FOR SUCCESS

- Multiple career paths
- Ongoing applied professional growth
- Instructionally focused accountability
- Performance-based compensation

“Far and away the best prize that life offers is the chance to work hard at work worth doing.”

-Theodore Roosevelt



MILKEN INSTITUTE

A New Global Perspective: Yesterday, Today and Tomorrow

Citadel Investment Group
Chicago
March 1, 2011

Michael Milken
Chairman, The Milken Institute