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Demography is Destiny

I had the privilege of seeing Michael Milken give the keynote at the *Goldman Sachs Global Education Conference* this week.

Mike is someone I have admired for many years for his enormous intellect, his drive to help make the world a better place and for his love for family and friends.

In my view, you can count on one hand the number of people who have had the impact on society as he has - as a financier, he almost single-handedly created the market for high-yield bonds in the 1970s and 1980s, "democratizing" access to capital for many high-growth entrepreneurial companies. Over 20 years, Mike financed more than 3,200 companies which resulted in millions of new jobs. When you consider the entire U.S. capital markets had 1,016 companies in TOTAL go public in the past decade, that is a remarkable achievement.

Market Snapshot

Indices	Week	YTD
neXt 300	0.4%	-6.5%
S&P 500	-0.2%	0.9%
Dow	-0.6%	3.1%
NASDAQ	1.4%	0.0%
Russell 2000	2.1%	1.8%
MSCI	-0.6%	-4.5%
Valuations	P/E Fwd	P/E/G
neXt 300	17.2x	0.5x
S&P 500	12.8x	1.3x
I-Rates	Now	YTD
10-Year Note	2.88%	-12.7%
3-Month Bill	0.02%	-87.5%
Sentiment	Current	
Bull-Bear	37.5-35.7	
Put-Call	1.05	
Vix	21.1	
Inflation	Now	YTD
Gold	\$1,502	5.7%
Oil	\$91.20	-0.3%
Mutual Funds	Week	
Fund Flows (bil)	-\$4.5	

Source: WSJ, Yahoo Finance, amgdata.com

Demography is Destiny

Mike founded [Knowledge Universe](#), which is possibly the largest private education company in the world (I say “possibly” because Knowledge Universe is very low profile with its activity, so it’s difficult to get your arms around everything in the Knowledge Universe “Constellation.”) What I do know is that there are over 5 million students in over 3,700 facilities around the world and online, with over 40,000 teachers. As a comparison, the University of Phoenix (**Apollo Group, APOL**), the largest public for-profit university, has roughly 400K students and 262 learning facilities. Apollo’s revenues are \$4 billion and its market cap is \$6 billion.

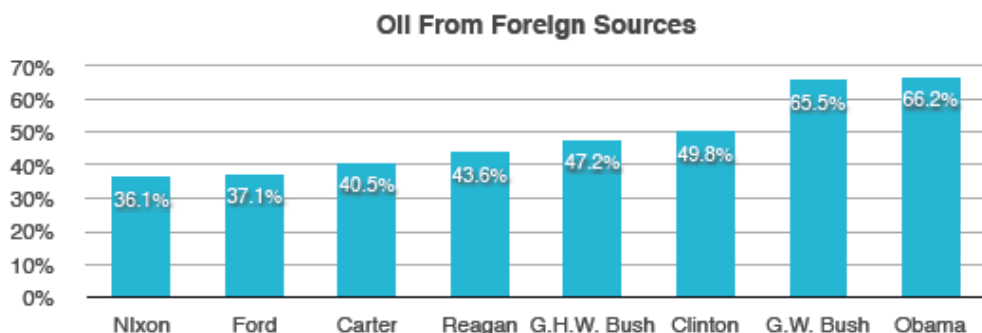
In 2003, Mike started Washington D.C.-based [FasterCures](#), which has had a dramatic impact on speeding up research and development in medicine for serious diseases. Fortune Magazine, in a cover story, called him “[The Man Who Changed Medicine](#).”

I've been fortunate to know and work with Mike over the past 15 years but hadn't seen him recently, so I was anxious to get his take on where things are at and where they are heading.

In his talk, Mike laid out what he called “The Six Challenges Facing America,” titled [Where's Sputnik?](#)

In classic Mike fashion, while being realistic about the seriousness of the issues in front of us, he looked at the challenges as opportunities to have the “American Century” continue through the one we are in. The six areas that Mike cites as critical for positive change are: 1) **Energy**, 2) **Housing**, 3) **Entitlements**, 4) **Education**, 5) **Health** and (6) **Immigration**.

With **Energy** policy, Mike soberly pointed out that President Carter in 1979 told America “Beginning this moment, this nation will never use more foreign oil than we did in 1977— never!” At that point, the USA consumed 40.5% from foreign sources and today it is over 66%.



Source: U.S. Dept. Of Energy; Michael Milken

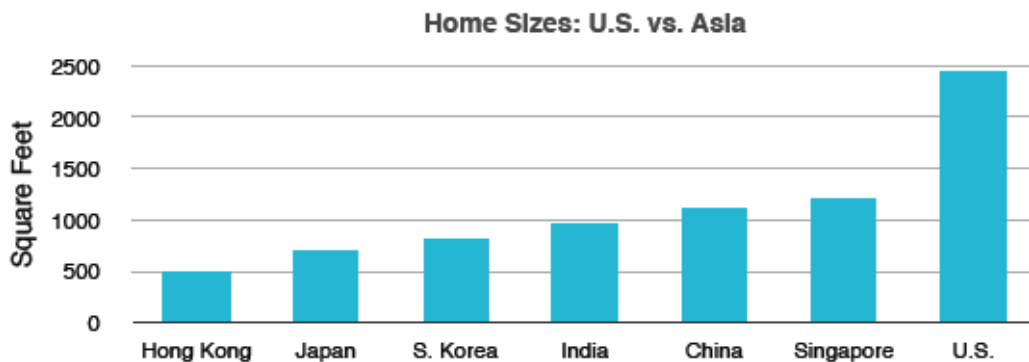
Milken's solutions include upgrading the energy infrastructure so that we are efficient between production and consumption. Smart grids like what Silver Spring provides are part of the answer, as are energy intelligence companies like **iControl** and **Control4**.

Like what Mike did with FasterCures, he urges for scaling up research and development of alternatives and accelerating commercialization.

For **Housing**, Mike pointed out the fallacy of housing prices being so predictable and a good investment. Research done by the Milken Institute showed that housing prices actually fell in 63 of the past 120 years. Also, until 1996, American housing prices only increased 27% above inflation for the previous 106 years. From 1996 to 2006 housing prices increased 92% in just 10 years, which was of course unsustainable.

The real point about housing is that America is very out of whack with the rest of the world, and in particular with Asia in terms of the size of homes that we "need" to have and the percentage of income Americans spend out of overall income.

The average American home is nearly 2,500 square feet, versus the average home in Singapore being about half of that. In Japan, the typical home is about 1/3rd the size of an American home and in Hong Kong, it's 1/5 the size.



Source: CLSA Asia-Pacific Markets, Mr & Mrs Asia; Michael Milken

As a percentage of income, American's spend 32.7% on Housing with another 18% on transportation. This compares to the average Asian spending just 10% on housing and 6% on transportation. Said another way, we spend over 50% of our household budget on our house and car while Asians spend less than 1/3rd on those two items.

Consumer Spending (as % of Household Budget)

United States	%	Asia	%
Housing	32.7	Food	23.0
Transportation	18.0	Education	15.0
Food	12.8	Housing	10.0
Insurance/Pensions	11.2	Clothing	8.0
Health Care	5.7	Other	8.0
Entertainment	5.1	Transportation	6.0
Apparel and Services	4.1	Health Care	5.0
Cash Contributions	3.6	Communication	5.0
Education	2.0		
Personal-Care Products	1.2		

Source: U.S. Bureau of Labor Statistics; CLSA Asia-Pacific Markets, Mr & Mrs Asia; Michael Milken

What's interesting and telling is that the average Asian family spends 15% of their income on education, while Americans spend just 2%! So it shouldn't be such a surprise that the Chinese, Koreans and Singaporeans are cleaning our clock in the education comparisons.

Which brings us to the **Education** Challenge. This could obviously consume an entire white paper but a couple of points Mike made jumped out, including the fact that in the mid-20th Century, 90% of the new teachers came from the upper third of their class — today it's only 23%. In Singapore, Finland and Korea, to get a job as a teacher, you need to finish in the top 1/3rd of your class.

Another compelling compare-contrast case study that Mike Milken is so good at illustrating showed how Jamaica and Singapore have fared over the past 50 years as sub-tropical islands that were former colonies of Great Britain. In 1960, Jamaica and Singapore had roughly the same GDP per capita of \$2,200. In 2010, Jamaica had improved to \$4,825 but Singapore had skyrocketed to over \$40K.

Do Human Capital Strategies Work? (GDP/Capita)

Year	Jamalca	Singapore
1960	\$2,213	\$2,229
2010	\$4,825	\$40,336

Source: Michael Milken

The difference was that Singapore had a leader with Lee Kuan Yew who emphasized the development of human capital and education, while Jamaica focused on low-skill industries like tourism and agriculture.

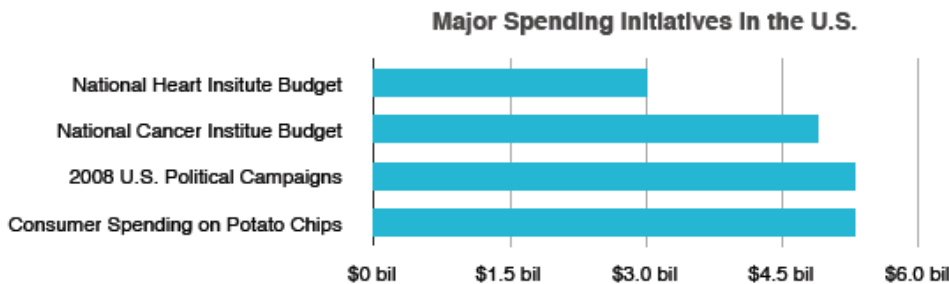
On **Entitlements**, Mike's strong message was that leaders need to face up to the math of Social Security and Medicare, and create a policy that reflects reality. Most people understand the issues of the changing demographics with people living twice as long as they did 100 years earlier but few understand the impact of compound interest on bad assumptions.

The example used, \$1 billion invested at 8% for 36 years, is \$16 billion. But if the return is 4%, the number isn't half of \$16 billion because of compounding—it's just \$4 billion.

It's not a question of reining in cost and getting realistic assumptions OR driving economic growth - we need BOTH. Empirically, the bigger the bite a government takes out of the economy, the slower the average growth rate. In Greece, people believed they were entitled to retire in their 50s.

In **Health**, the fact that 70% of health care cost is related to lifestyle is jaw-dropping. Genes matter but being obese and not working out matters even more.

Being able to redirect resources from the consequences of easily solvable issues such as obesity and fitness are the right first step, and then making decisions on how to get more resources directed into medical research and development is the crucial next step. It's amazing and embarrassing that the National Heart Institute budget is \$3 billion, but we spend \$5.3 billion on political campaigns and \$5.3 billion on potato chips.



Source: Center for Responsive Politics; Michael Milken

Mike's last point was on **Immigration**, stressing how important this is to invigorating society and driving innovation. Historically, the USA has welcomed talent from around the world and it has greatly enriched our country.

Start-ups are the driver of MOST new jobs created in America (while the Fortune 500 has eliminated millions of jobs over the past decade). Immigrants are 30% more likely to start a new business, and 53% of Silicon Valley's science and engineering workforce are foreign born.

Keeping the best and the brightest students we train from other countries is an economic imperative, and creating an environment that creates incentives for these talented individuals to be creative in America is wildly important.

One of the fundamentals that is a common denominator for much of Michael Milken's analysis is the understanding of DEMOGRAPHICS. Mike is as good a student of demographics as anybody I know, and I find that many outstanding growth investors look at demographics as an important clue to where the world is headed.