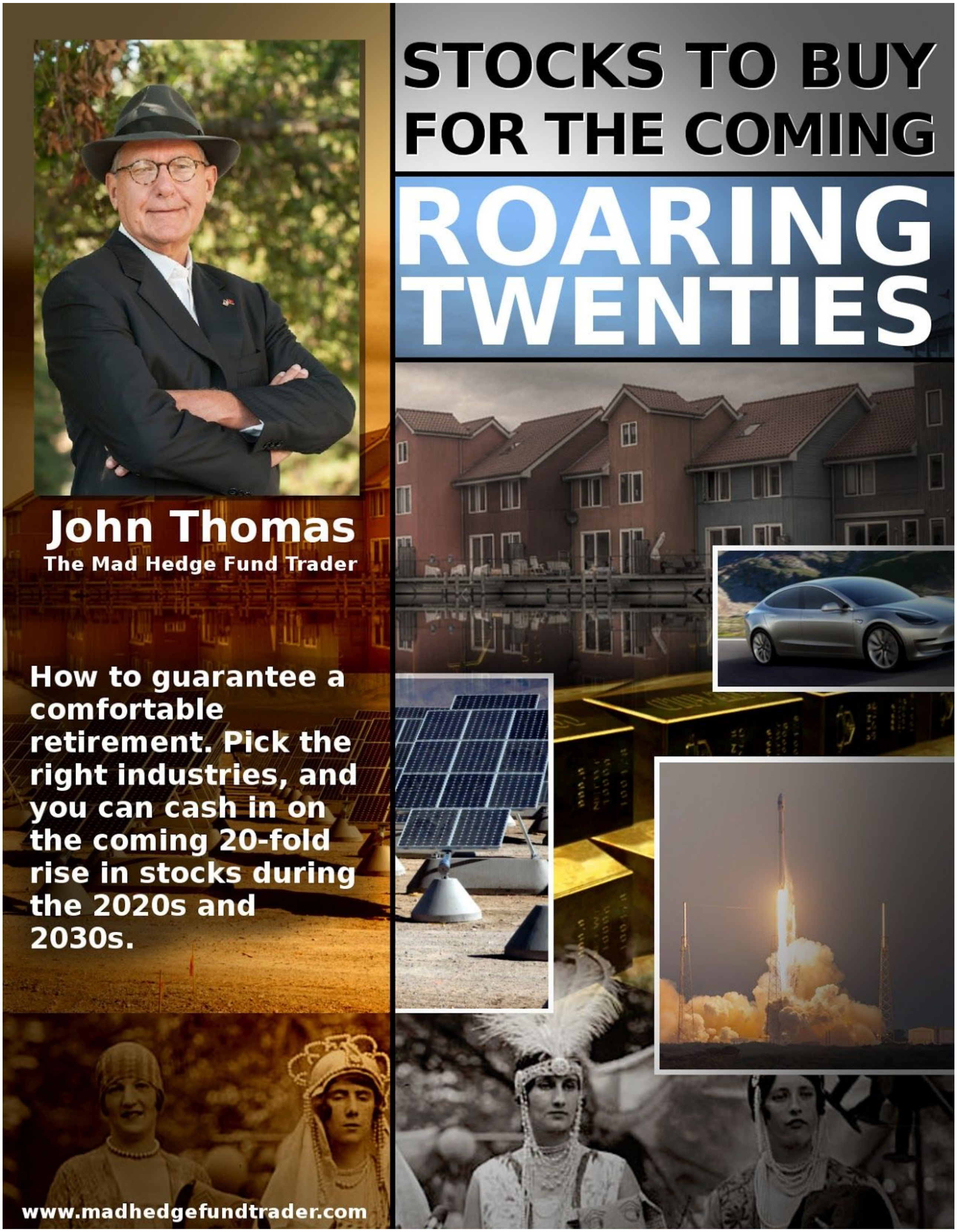
STOCKS TO BUY
FOR THE COMING
ROARING
TWENTIES
John Thomas
The Mad Hedge Fund Trader
How to guarantee a comfortable retirement. Pick the right industries, and you can cash in on the coming 20-fold rise in stocks during the 2020s and 2030s.
www.madhedgefundtrader.com

Introduction to
Stocks to Buy for the Coming Roaring Twenties
by John Thomas

Far and away the greatest impact on the performance of any balanced investment portfolio is single stock selection.

Get a few ten baggers in there and your overall annual profits instantly jump from mediocre to eye-popping.

For that reason, the ***Diary of a Mad Hedge Fund Trader*** devotes a disproportionate share of its resources to uncovering these gems.

It accomplishes this through investing in the deep long term research essential to identifying the handful of industries and companies that will lead the global economy forward for decades to come.

Stocks to Buy for the Coming Roaring Twenties represents the cream of ten years of such research efforts.

So far, our track record in discovering ten baggers has been pretty good.

In 2009, we recommended Baidu, the Chinese Internet search giant, which went on to dominate the business in the Middle Kingdom. It took repeated visits to the company in Chin for me to flesh out their long-term prospects. Its shares rocketed 20-fold from $12 to $240.

In 2010, we piled our followers in Tesla, foreseeing a revolution in automobile technology, manufacturing, and marketing. The battery is almost an afterthought.

That conclusion was reached through a personal relationship with founder, Elon Musk, and multiple visits to the Fremont, California factory.

I have been test-driving Tesla's Model S-1 for the past four years, clocking some 50,000 miles, and one crash. The shares soared 18 times, from $16 to $292.

That year I also introduced readers to Cheniere Energy (LNG), a firm I knew well from my long experience in the energy industry.

Quite simply, Cheniere is in the business of buying natural gas for $2 a BTU and selling it in Asia for $16. It is the only firm with the technology, licenses, permits, and plant to do so. The shares went ballistic, leaping 14 fold from $6 to $85.

I could go on and on.

The bottom line is that this is what I love doing. Having a half-century of experience ferreting out these nuggets also helps a lot.

It also doesn't hurt that I am based on the edge of Silicon Valley, where amazing investment opportunities are being born on a daily basis.

To receive daily updates on these and other long-term investment themes across all asset classes, please visit my website at www.madhedgefundtrader.com and subscribe to my research and trade mentoring service.

Regards,
John Thomas
Publisher and CEO
The Diary of a Mad Hedge Fund Trader


TSLA Tesla Motors Inc. Nasdaq GS
©StockCharts.com
5-Aug-2016
Open 230.00 High 232.00 Low 227.40 Close 230.03 Volume 3.2M Chg -0.58 (-0.25%)
RSI(14) 56.64
TSLA (Daily) 230.03
MA(50) 220.18
MA(200) 216.81
Volume 3,166,664
MACD(12,26,9) 3.250, 3.229, 0.021
16 22 Mar 7 14 21 28 Apr 11 18 25 May 9 16 23 Jun6 13 20 27 Jul 11 18 25 Aug


LNG Cheniere Energy, Inc. AMEX
©StockCharts.com
5-Aug-2016
Open 41.51 High 42.65 Low 41.29 Close 42.13 Volume 1.8M Chg +0.89 (+2.16%)
RSI(14) 63.71
LNG (Daily) 42.13
MA(50) 37.12
MA(200) 37.16
Volume 1,841,768
MACD(12,26,9) 1.126, 1.193, -0.067
16 22 Mar 7 14 21 28 Apr 11 18 25 May 9 16 23 Jun6 13 20 27 Jul 11 18 25 Aug

Biography of John Thomas-The Mad Hedge Fund Trader

John Thomas graduated from the University of California at Los Angeles (UCLA) with a degree in Biochemistry and a minor in Mathematics in 1974.

He moved to Tokyo, Japan to join a Japanese securities house as a research analyst, becoming fluent in Japanese.

In 1976 he was appointed the Tokyo correspondent for *The Economist* magazine and the *Financial Times*.

For the next seven years he published thousands of articles about the economies, companies, and leaders of every country in Asia. He was one of the first American correspondents to cover China during the Cultural Revolution.

He reported on the American attempt to climb Mount Everest and guerilla wars throughout Southeast Asia.

The major figures he interviewed included China's Premier Deng Xiaoping, Ferdinand Marcos of the Philippines, the UK's Margaret Thatcher, the PLO's Yassir Arafat, CIA head William Colby, and of course, President Ronald Reagan.

In 1982 John Thomas moved to New York as the US editor of a major business magazine. As a member of the White House Press Corps he covered the early years of the Reagan administration.

In 1983 he was hired by a major investment bank to build a new division in international equities. Later, he was promoted and transferred to London to head up the sales and trading of Japanese equity derivatives in Europe and the Middle East.

In 1989 John Thomas was appointed a director of the Swiss Bank Corp responsible for its then vast portfolio of Japanese equity derivatives.

A year later he left to set up the first ever dedicated international hedge fund, which became a top performer in the industry.

In 1999 John Thomas sold his hedge fund to concentrate on managing his personal investments. He focused on natural gas exploration and development in Texas and Colorado, as well as other commodities.

This made him one of the early pioneers in the “fracking” technology which is now dramatically reshaping America’s energy landscape. After catching a double in the price of natural gas, John sold this business in 2005.

Seeing the incredible inefficiencies and severe mispricing offered by the popping of multiple bubbles during the Great Crash of 2008, and missing the adrenaline of the marketplace, he returned to active hedge fund management.

With *The Diary of a Mad Hedge Fund Trader*, his goal is to broaden public understanding of the techniques and strategies employed by the most successful hedge funds so that they may more profitably manage their own money.

In his free time, John Thomas climbs mountains, does long distance backpacks, practices karate, performs aerobatics in antique aircraft, collects vintages wines, reads the Japanese classics, and engages in a wide variety of public service and philanthropic activities.

His career has taken him up to 20,000 feet on Mount Everest, to the edge of space at 90,000 feet in the Cockpit of a MIG-25, and to the depths of a sunken Japanese fleet in the Truk Lagoon.

Why they call him "mad" he will never understand.

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Get Ready for the Coming Golden Age

I believe that the global economy is setting up for a new golden age reminiscent of the one the United States enjoyed during the 1950's, and which I still remember fondly.

This is not some pie in the sky prediction. It simply assumes a continuation of existing trends in demographics, technology, politics, and economics. The implications for your investment portfolio will be huge.

What I call "intergenerational arbitrage" will be the principal impetus. The main reason that we are now enduring two "lost decades" of economic growth is that 80 million baby boomers are retiring to be followed by only 65 million "Gen Xer's".

When the majority of the population is in retirement mode, it means that there are fewer buyers of real estate, home appliances, and "RISK ON" assets like equities, and more buyers of assisted living facilities, health care, and "RISK OFF" assets like bonds.

The net result of this is slower economic growth, higher budget deficits, a weak currency, and registered investment advisors who have distilled their practices down to only municipal bond sales.

Fast forward six years when the reverse happens and the baby boomers are out of the economy, worried about whether their diapers get changed on time or if their favorite flavor of Ensure is in stock at the nursing home. That is when you have 65 million Gen Xer's being chased by 85 million of the "millennial" generation trying to buy their assets.

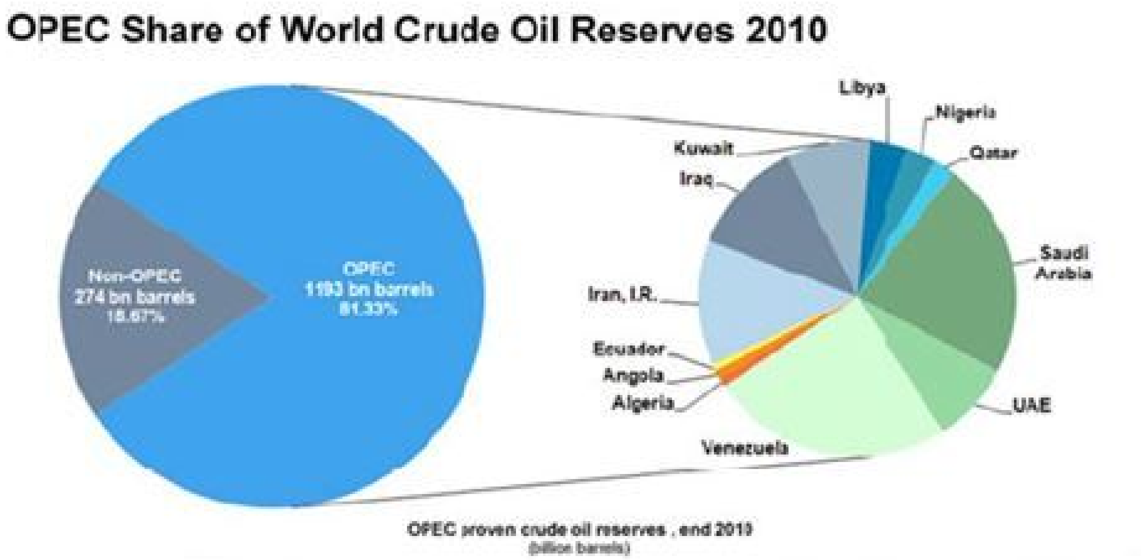
By then we will not have built new homes in appreciable numbers for 20 years and a severe scarcity of housing hits. Residential real estate prices will soar. Labor shortages will force wage hikes. The middle class standard of living will reverse a then 40-year decline. Annual GDP growth will return from the current subdued 2% rate to near the torrid 4% seen during the 1990's.

The stock market rockets in this scenario. Share prices may rise very gradually for the rest of the teens as long as tepid 2% growth persists. A 5% annual gain takes the Dow to 20,000 by 2020. After that, we could see the same fourfold return we saw during the Clinton administration, taking the Dow to 100,000 by 2030. If I'm wrong, it will hit 200,000 instead. Emerging stock markets (EEM) with much higher growth rates do far better.

This is not just a demographic story. The next 20 years should bring a fundamental restructuring of our energy infrastructure as well. The 100-year supply of natural gas (UNG) we have recently discovered through the new "fracking" technology will finally make it to end users, replacing coal (KOL) and oil (USO). Fracking applied to oilfields is also unlocking vast new supplies.

Since 1995, the US Geological Survey estimate of recoverable reserves has ballooned from 150 million barrels to 8 billion. OPEC's share of global reserves is collapsing. This is all happening while automobile efficiencies are rapidly improving and the use of public transportation soars.

Mileage for the average US car has jumped from 23 to 24.7 miles per gallon in the last couple of years, and the administration is targeting 50 mpg by 2025. Total gasoline consumption is now at a five year low.



Alternative energy technologies will also contribute in an important way in states like California, accounting for 30% of total electric power generation by 2020. I now have an all-electric garage, with a Nissan Leaf (NSANY) for local errands and a Tesla Model S-1 (TSLA) for longer trips, allowing me to disappear from the gasoline market completely. Millions will follow. The net result of all of this is lower energy prices for everyone.

It will also flip the US from a net importer to an exporter of energy, with hugely positive implications for America's balance of payments. Eliminating our largest import and adding an important export is very dollar bullish for the long term. That sets up a multiyear short for the world's big energy consuming currencies, especially the Japanese yen (FXY) and the Euro (FXE). A strong greenback further reinforces the bull case for stocks.
Accelerating technology will bring another continuing positive. Of course, it's great to have new toys to play with on the weekends, send out Facebook photos to the family, and edit your own home videos. But at the enterprise level this is enabling speedy improvements in productivity that is filtering down to every business in the US, lower costs everywhere.

This is why corporate earnings have been outperforming the economy as a whole by a large margin. Profit margins are at an all time high. Living near booming Silicon Valley, I can tell you that there are thousands of new technologies and business models that you have never heard of under development. When the winners emerge they will have a big cross-leveraged effect on economy.

New health care breakthroughs will make serious disease a thing of the past, which are also being spearheaded in the San Francisco Bay area. This is because the Golden State thumbed its nose at the federal government ten years ago when the stem cell research ban was implemented. It raised $3 billion through a bond issue to fund its own research, even though it couldn't afford it.

I tell my kids they will never be afflicted by my maladies. When they get cancer in 20 years they will just go down to Wal-Mart and buy a bottle of cancer pills for $5, and it will be gone by Friday. What is this worth to the global economy? Oh, about $2 trillion a year, or 4% of GDP. Who is overwhelmingly in the driver's seat on these innovations? The USA.

There is a political element to the new Golden Age as well. Gridlock in Washington can't last forever. Eventually, one side or another will prevail with a clear majority.

This will allow the government to push through needed long-term structural reforms, the solution of which everyone agrees on now, but nobody wants to be blamed for. That means raising the retirement age from 66 to 70 where it belongs, and means-testing recipients. Billionaires don't need the maximum $30,156 annual supplement. Nor do I.

The ending of our foreign wars and the elimination of extravagant unneeded weapons systems cuts defense spending from $800 billion a year to $400 billion, or back to the 2000, pre-9/11 level. Guess what happens when we cut defense spending? So does everyone else.

I can tell you from personal experience that staying friendly with someone is far cheaper than blowing them up. A ***Pax Americana*** would ensue. That means China will have to defend its own oil supply, instead of relying on us to do it for them. That's why they have recently bought a second used aircraft carrier. The Middle East is now their headache.

The national debt then comes under control, and we don't end up like Greece. The long awaited Treasury bond (TLT) crash never happens. Fed governor Janet Yellen has already told us as much by indicating that the Federal Reserve may never unwind its massive $3.9 trillion in bond holdings, but run them to maturity instead.
Sure, this is all very long-term, over the horizon stuff. You can expect the financial markets to start discounting a few years hence, even though the main drivers won't kick in for another decade. But some individual industries and companies will start to discount this rosy scenario now.

Perhaps this is what the nonstop rally in stocks since 2009 has been trying to tell us.

Dow Average 1900-2015

Another American Golden Age is Coming

Making a Fortune in Real Estate - Part I

Real estate brokers are still reeling from the news that December existing home sales rocketed by a blockbuster 14.7%, to an annualized 5.46 million units.

And now I hear that Apple (AAPL) is planning on building a second new research and development campus that will need 20,000 new high tech workers. The housing crisis here in the San Francisco Bay area just went from bad to worse.

It is all fresh fuel for a continuation in the bull market for US residential real estate, not just for this year, but for another decade.

Friends in the industry tell me the eye popping numbers were due to the implementation of the TILA-RESPA Integrated Disclosure (TRID) in October.

Dubbed the "Know before you owe" requirement, TRID is the inevitable outcome of the 2008 subprime housing crash.

If you weren't born yet in 2008, or were living in a cave on a remote Pacific island back then, go watch the movie ***"The Big Short"*** for a further explanation of those dark days.

As a result, real estate closings now take at least a week longer, and sometimes more, thanks to a new requirement for several three day "cooling off periods."

When the new law kicked in, TRID nearly brought he industry to a halt, and firms were sent scurrying to their attorneys to draw up the new disclosure forms to stay within the law.

TRID undoubtedly was responsible for the slowdown in the market in the run up to December. Although prices seem high now, I am convinced that we are only at the beginning of a long term secular bull market in housing. Anything you purchase now is going to make you look like a genius ten years down the road.

The best is yet to come.

The big driver will be demographics, of course.

From 2022 onward, 65 million Gen Xer's will be joined by 85 million late blooming Millennials in bidding wars for the same houses. That will create a market of 150 million buyers, unprecedented in the history of the American real estate market.

In the meantime, 80 million baby boomers, net sellers and downsizers of homes for the past decade, will slowly die off and disappear from the scene as a negative influence. Only one third are still working.

The first boomer, Kathleen Casey-Kirschling, born seconds after midnight on January 1, 1946, will become 76 years old by then. A former school teacher, she took early retirement at 62.

The real fat on the fire here is that 5 million homes went missing in action this decade, thanks to the financial crisis. They were never built.

This is the result of the bankruptcy of several homebuilders, and the new found ultra conservatism of the survivors, like DR Horton (DHI), Lennar Homes (LEN), and Pulte Group (PHM).

Did I mention that all of this makes this sector a screaming “BUY”, once the market moves into “RISK ON” mode later in the year?

Talk to any real estate agent and they will complain about the shortage of inventory (except in Chicago, the slowest growing market in the country).

Prices are so high already that flippers have been squeezed out of the market for good. Bottom feeders, like hedge funds buying at the bankruptcy auctions, are a distant memory. Some now own more than 20,000 homes.

Income taxes are certain to rise in coming years, and the generous deductions allowed homeowners are looking more attractive by the day.

And let’s face it, ultra low interest rates aren’t going to be here forever. Borrow at 3% today against a long term 3% inflation rate, and you are essentially getting you house for free.

The rising rents that are turning Millennials from renters to buyers may be the first sign of real inflation beyond the increasingly dear healthcare and higher education that we're are already seeing.

And Millennials are having kids that demand a bigger living space! Who knew?

I may become a grandfather yet!


DHI DR Horton Inc. NYSE + BATS
©StockCharts.com
8-Aug-2016 12:05pm
Open 32.37 High 32.52 Low 32.25 Last 32.36 Volume 659.9K Chg +0.06 (+0.19%)
RSI(14) 45.51
DHI (Daily) 32.36
MA(50) 32.05
MA(200) 30.01
Volume 659,934
MACD(12,26,9) 0.025, 0.299, -0.274


PHM PulteGroup, Inc. NYSE + BATS
©StockCharts.com
8-Aug-2016 12:06pm
Open 21.55 High 21.64 Low 21.44 Last 21.48 Volume 2.2M Chg -0.06 (-0.28%)
RSI(14) 60.68
PHM (Daily) 21.48
MA(50) 19.92
MA(200) 18.23
Volume 2,248,833
MACD(12,26,9) 0.444, 0.527, -0.084

Looks Like a “BUY” to Me

Making a Fortune in Real Estate - Part II

A number of analysts, and even some of those in the real estate industry, thought that there would never be a recovery in residential real estate.

Long time readers of this letter already know that, seeing the real estate crash coming a mile off, I dumped all my properties in 2005, some $20 million worth.

However, I believe that “forever” may be on the extreme side. Personally, I believe there will be great opportunities in real estate that run all the way until 2030.

Let’s back up for a second and review where the great bull market of 1950-2007 came from. That’s when a mere 50 million members of the ‘greatest generation’, those born from 1920 to 1945, were chased by 80 million baby boomers born from 1946-1962.

There was a chronic shortage of housing, with the extra 30 million individuals never hesitating to borrow more to pay higher prices.

When my parents got married in 1948, they were only able to land a dingy apartment in a crummy Los Angeles neighborhood because my dad was an ex-Marine. This is where our suburbs came from.

Since 2005, the tables have turned. There are now 80 million baby boomers attempting to unload dwellings on 65 million generation Xer’s who earn less than their parents, marking down prices as fast as they can.

As a result, the Federal Reserve thinks that 20% of American homeowners still have either negative equity, or less than 10% equity, which amounts to nearly zero after you take out sales commissions and closing costs.

That comes to 30 million homes. Don’t count on selling your house to your kids, especially if they are still living rent-free in the basement.

The good news is that **the next real bull market in housing started.**

85 million Millennials, those born from 1988 to yesterday, have started competing to buy homes from only 65 million upwardly mobile Gen Xer’s. Add these two generations together, and you have a staggering **150 buyers competing for the same housing at the same time!**

Fannie Mae and Freddie Mac will soon be gone, meaning that the 30-year conventional mortgage will cease to exist. All future home purchases will be financed with adjustable rate mortgages, forcing homebuyers to assume interest rate risk, as they already do in most of the developed world.

For you Millennials just graduating from college now, this is a best-case scenario. People will, no doubt, tell you that you are crazy, that renting is the only safe thing to do, and that home ownership is for suckers.

That's what people told me when I bought my first New York coop in 1982 at one-tenth its current market price.

Just remember to sell by 2035, because that's when the next intergenerational residential real estate collapse is expected to ensue. That will leave the next, yet to be named generation, holding the bag, as your parents are now.


XHB SPDR S&P Homebuilders ETF NYSE + BATS
©StockCharts.com
8-Aug-2016 12:09pm
Open 36.17 High 36.31 Low 36.12 Last 36.15 Volume 743.6K Chg +0.00 (+0.00%)
RSI(14) 61.56
XHB (Daily) 36.15
MA(50) 34.51
MA(200) 33.50
Volume 743,637
MACD(12,26,9) 0.481, 0.521, -0.040


LEN Lennar Corp. NYSE + BATS
©StockCharts.com
8-Aug-2016 12:06pm
Open 46.97 High 47.12 Low 46.78 Last 47.02 Volume 665.3K Chg +0.22 (+0.47%)
RSI(14) 48.04
LEN (Daily) 47.02
MA(50) 46.93
MA(200) 46.25
Volume 665,315
MACD(12,26,9) -0.195, 0.100, -0.295

Time to Buy?

Making a Fortune in Real Estate - Part III

Is gold your best performing asset for the next five years? Is it high growth technology stocks? Energy stocks? Or maybe biotech shares?

How about French collectible postage stamps or vintage racing cars?

Nope, you're not even close. I'll give you a hint: you're probably sitting in it.

Yes, the best performing investment you will own for the next five years will most likely be the home you live in.

Psshaww you may say. Perhaps even balderdash! However, if you look at the crucial data that drives this long ignored sector, my conclusions are unassailable.

If fact, you can pretty much count on your home to appreciate at a 3%-4% annual rate until well into the next decade, and more if you are fortunate enough to live on the red hot west coast. Net out the copious tax breaks that come with home ownership, and your take home will be even higher than that.

This beats the daylights out of stocks (SPY) (2.2% yield), ten-year Treasury bonds (TLT) (1.78%) and approaches junk bonds (HYG) (6.61%) in terms of the potential returns.

For a start, the Federal Reserve's go slow policy on interest rate rises is hugely pro housing. The conventional 30 year fixed home mortgage can now be had for a bargain 3.5%. And many finance their properties with the 5/1 ARM's that I have been recommending which are currently going for only 2.75%.

Worried about what happens in five years when the interest rate is reset? Just refinance during the next recession, which will almost certainly happen before then, and you'll probably get a lower rate than you can get now.

That is, assuming you still have a job.

Any hopes that rates will rise sooner were sorely dashed by the April nonfarm payroll report of 160,000 announced on Friday.

The good news for those homeowners who rely on the floating rates of an adjustable rate mortgage is that this is not a low interest rate decade, but a low interest rate century.

Another positive is weekly jobless claims of 246,000 at 40 years low, and a decade low unemployment rate of 5.0%, meaning that a lot more people have the income with which to purchase homes, far more than only a couple of years ago.

And how about those energy prices? Even after this year's prolific rally, gasoline prices are still 50% lower than they were two years ago. My eyes almost popped out of my head when I saw gas for sale in South Carolina at $1.39 a gallon two weeks ago.

Cheap fuel means that consumers have more money in their pockets with which to qualify for loans, buy houses, and meet their mortgage payments.

Not only will this be a low interest rate century, it will be a low energy cost century as well. If solar energy costs continue their dramatic rate of improvement, around 50% every four years, it will nearly be free by 2030.

Not only will free energy provide a big underpinning under home values. It will also increase the value of suburban homes where commuting is a major factor.

It gets better.

You know that Millennial of yours who's been living in your basement since he graduated from college?
Go downstairs and take a look. Chances are he probably moved out when you weren't looking, turning his prodigious gaming skills into a high paying coding job.

What's more, he's now dating a girl. You know, the one with the nose ring, the streak of purple hair, and tattoos up and down both arms?

That leads to family formation. And you know what? The most important trend affecting the economy that no one knows about is that **THE UNITED STATES IS ABOUT TO ENJOY ANOTHER BABY BOOM!**

That's why new household formations are likely to jump from the current 1.2 to 1.5 million a year in the coming decade.

However, only 1 million homes a year are being build, thanks to the halving of construction capacity in the aftermath of the Great Recession. Subtract from that 250,000 houses a year that get demolished.

Does anyone hear the words "short squeeze"?

That means 85 million Millennials will be chasing the homes of only 65 Gen Xer's. Here in the San Francisco Bay area they are showing up at weekend open houses and paying cash for beautiful $3 million homes with great views, writing the check right on the spot.

Americans aren't the only ones buying homes. Some 8% of all the real estate sold in the US in 2015 was to foreign investors, largely Chinese and Hispanics, according to the National Association of Realtors. That is an all time high. They view US real estate as a great asset protection strategy.

It is not entirely a bed of roses for housing. A new president Hillary is likely to cut the deductibility of interest on mortgages of $1 million down to only $500,000. All other tax increases will be aimed at the 1%.

Are you convinced now? Are you ready to jump into the real estate boom and participate more than just through your residence?

Fortunately, there are a number of ways you can achieve this.

Residential Real Estate Investment Trusts (REIT's) offer the opportunities of both a high yield and capital appreciation.

Better yet is that all of these trade at deep discounts to book values because of fears about future interest rate rises.
They include Avalon Bay Communities, (AVB) (2.92% yield), Post Properties (PPS) (3.15% yield), and Camden Property Trust (CPT) (3.60%).

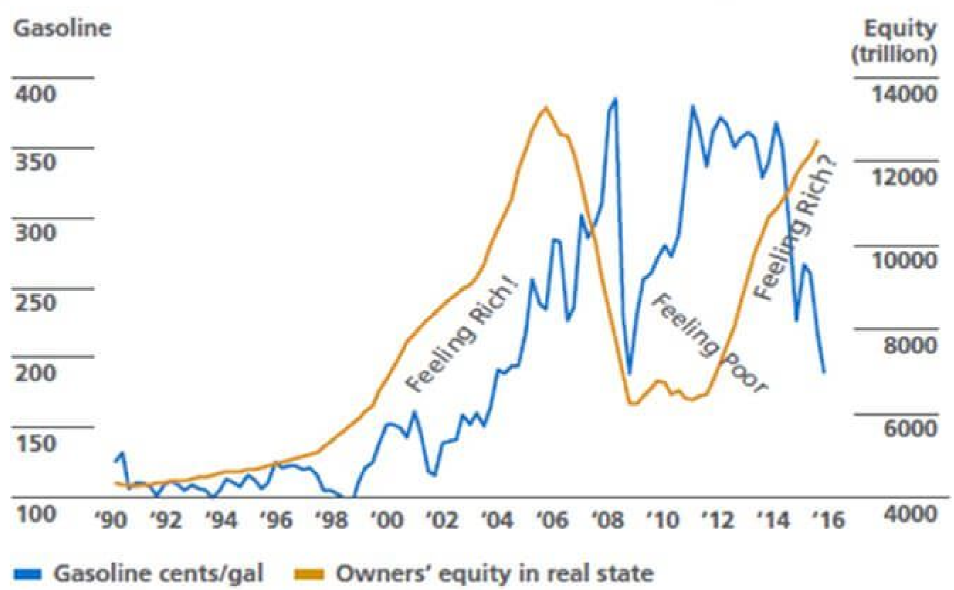
You can also go into traditional new homebuilders, such as KB Homes (KBH), Pulte Homes (PHM), and DH Horton (DHI). Another option is to take a basket approach by picking up the iShares US Home Construction ETF (ITB).

See you at the next open house!


DHI DR Horton Inc. NYSE + BATS
© StockCharts.com
8-Aug-2016 12:12pm
Open 32.37 High 32.52 Low 32.25 Last 32.32 Volume 673.3K Chg +0.02 (+0.06%)
RSI(14) 44.94
DHI (Daily) 32.32
MA(50) 32.05
MA(200) 30.01
Volume 673,278
MACD(12,26,9) 0.022, 0.298, -0.277

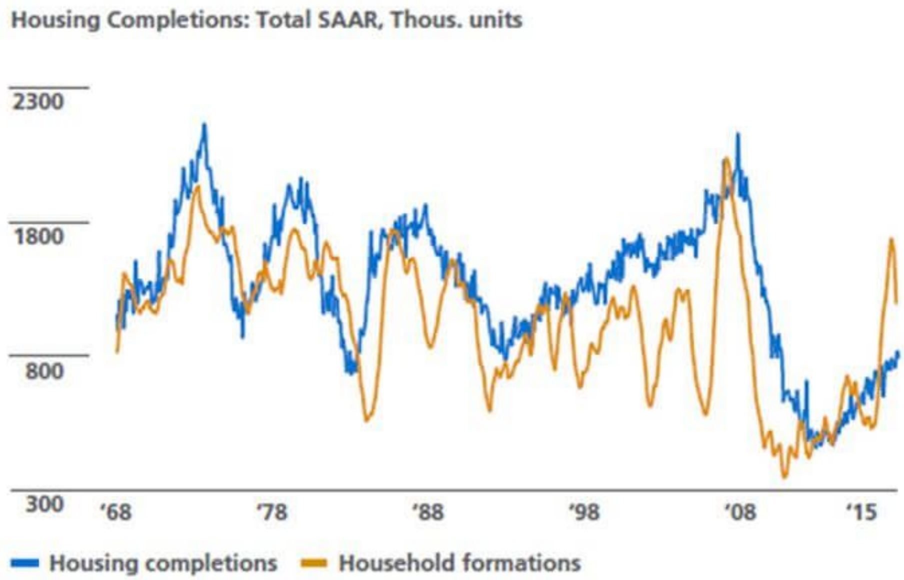

AVB Avalonbay Communities, Inc. NYSE + BATS
© StockCharts.com
8-Aug-2016 12:13pm
Open 183.00 High 185.88 Low 182.21 Last 185.52 Volume 238.9K Chg +2.90 (+1.59%)
RSI(14) 56.92
AVB (Daily) 185.52
MA(50) 178.59
MA(200) 177.06
Volume 238,925
MACD(12,26,9) 1.062, 1.373, -0.310

Figure 1: Households' home equity wealth has nearly recovered to its peak, while they now also save money at the gas pump



Source: Federal Reserve, Energy Information Administration

Figure 4: Construction typically runs above household formation due to the need for demolitions, but now households are forming faster than homes are being built

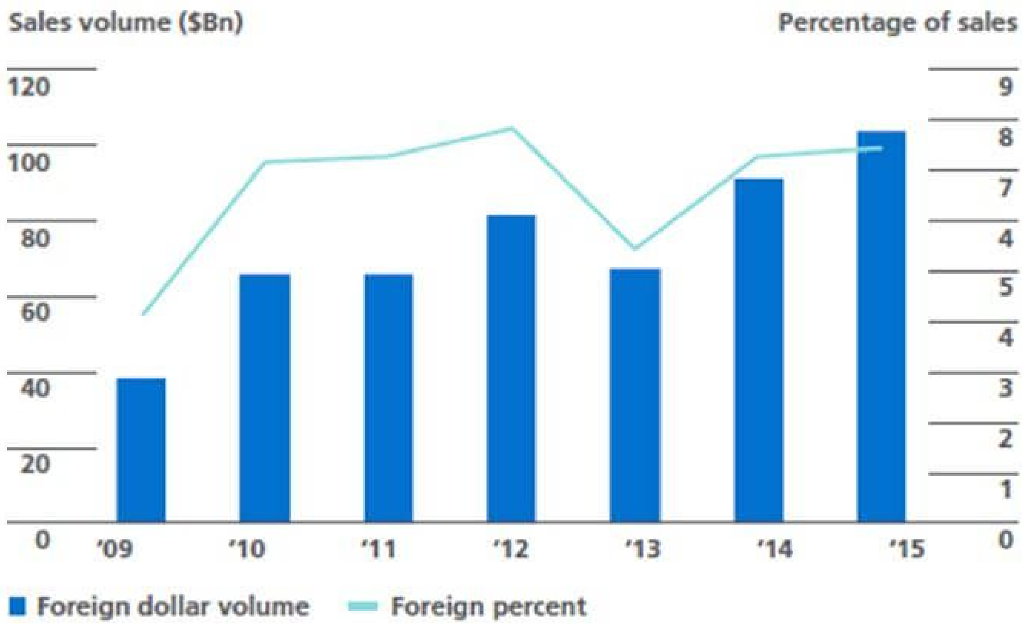


Source: Census Bureau

Figure 3: Home prices have fallen in Miami's top tier, but other tiers and the national index are unaffected

Source: Corelogic, PIMCO as of March 2016

Figure 2: Foreign homebuyers are approximately 8% of U.S. transaction volume



Source: National Association of Realtors, PIMCO

The Second Industrial Revolution

Circulating among Europe's top global strategists this spring, visiting their corner offices, camping out in their vacation villas, or cruising on their yachts, I am increasingly hearing about a new investment theme that will lead markets for the next 20 years: The Second American Industrial Revolution.

It goes something like this.

You remember the first Industrial Revolution, don't you? I remember it like it was yesterday.
It started in 1775 when a Scottish instrument maker named James Watt invented the modern steam engine. Originally employed for pumping water out of a deep Shropshire coalmine, within 32 years it was powering Robert Fulton's first commercially successful steamship, the Clermont, up the Hudson River.

The first Industrial Revolution enabled a massive increase in standards of living, kept inflation near zero for a century, and allowed the planet's population to soar from 1 billion to 7 billion. We are still reaping its immeasurable benefits.

The Second Industrial Revolution is centering on my own neighborhood of San Francisco. It seems like almost every garage in the city is now devoted to a start up.
The cars have been flushed out onto the streets, making urban parking here a total nightmare.
These are turbo charging the rate of technological advancement.

Successes go public rapidly and rake in billions of dollars for the founders overnight.
Thirty-year-old billionaires are becoming commonplace.

However, unlike with past winners, these newly minted titans of industry don't lock their wealth up in mega mansions, private jets, or the Treasury bond market.

They buy a Tesla Model S-1 (TSLA), and then reinvest the rest of their windfall in a dozen other startups, seeking to repeat a winning formula.

Many do it.

Thus, the amount of capital available for new ideas is growing by leaps and bounds. As a result, the economy will benefit from the creation of more new technology in the next ten years than it has seen in the past 200.

Computing power is doubling every year. That means your iPhone will have a billion times more computing power in a decade. 3-D printing is jumping from the hobby world into large-scale manufacturing. In fact, Elon Musk's Space X is already making rocket engine parts on such machines.

Drones came out of nowhere, and are now popping up everywhere.

And don't get me started on virtual reality. Ever wanted to date Cybil Shepherd or Nicole Kidman? How about both, at the same time? The possibilities boggle the mind.

It is not just new things that are being invented. Fantastic new ways to analyze and store data, known as "big data" are being created.

Unheard of new means of social organization are appearing at breakneck speed, leading to a sharing economy. Much of the new economy is not about invention, but organization.

The Uber taxi service has created $65 billion in market capitalization in only five years, and is poised to replace UPS, FedEx, and the US Postal Service with "same hour" intracity deliveries. Now they are offering "Uber Eats" in my neighborhood, which will deliver you anything you want to eat, hot, ***in ten minutes!***

Airbnb is arranging accommodation for 1 million guests a month, including 120,000 in Brazil for last year's World Cup. They even had 189 German guests staying with Brazilians. I bet those were interesting living rooms on the final day! (Germany won).

As for me, I am planning my own all Airbnb trip to Europe next summer. It should be interesting. And you are going to spend a lot of Saturday nights at home alone if you haven't heard of Match.com, eHarmony.com, or Badoo.com.

Biotechnology (IBB), an also-ran for the past half-century, is sprinting to make up for lost time. The field has grown from a dozen scientists in my day 40 years ago, to several hundred thousand today.

The payoff will be the cure of every major disease, like cancer, Parkinson's, heart disease, AIDS, and diabetes, within ten years. Some of the harder cases, such as arthritis, may take a little longer. Soon, we will be able to manipulate our own DNA at will.

The upshot will be the creation of a massive global market for these cures, generating immense profits. American firms will dominate this area, as well.

Energy is the third leg of the innovation powerhouse. Into this basket you can throw in solar, wind, batteries, biodiesel, and even "new" nuclear. The new Tesla home battery will be a game changer. Visionary, Elon Musk, is ramping up to to make tens of millions of these things.

The message to big oil is that Elon sold 400,000 of his new Tesla 3's in just two weeks, and that is for a car that won't be delivered for two more years.

Use of existing carbon based fuel sources, such as oil and natural gas, will become vastly more efficient. Fracking is unleashing unlimited new domestic supplies at costs that are falling at an incredible rate.

Welcome to "Saudi America."

The government has ordered Detroit to boost vehicle mileages to an average 55 miles per gallon by 2025. The big firms have all told me they plan to beat that deadline, not litigate it, a complete reversal of philosophy.

Coal will be burned in impoverished emerging markets only, before it disappears completely. Energy costs will drop to a fraction of today's levels, further boosting corporate profits.

If you thought the Internet was big, free energy will have a far greater impact on the global economy.

Coal will die, not because of some environmental panacea, but because it is too expensive to rip out of the ground and transport around the world when all of the costs are factored in.

Seven years ago, I used to get two pitches for venture capital investments a quarter, if any. Now, I am getting two a day. I can understand only half of them (those that deal with energy and biotech, and some tech, where I have a background).

My friends at **Google Venture Capital** are getting inundated with 20 a day ***each!*** How they keep all of these stories straight is beyond me. I guess that's why they work for Google (GOOGL).

The rate of change for technology, our economy, and for the financial markets will accelerate to more than exponential.

It took 32 years to make the leap from steam engine powered pumps to ships, and was a result of a chance transatlantic trip by Robert Fulton to England, where he stumbled across a huffing and puffing steam engine.

Such a generational change is likely to occur in 32 minutes in today's hyper connected world, and much shorter if you work on antivirus software (or write the viruses themselves!).

The demographic outlook is about to dramatically improve, flipping from a headwind to a tailwind in 2022. That's when the population starts producing more big spending Gen Xer's and fewer oversaving and underproducing baby boomers. This alone should add at least 1-2% a year to GDP growth.

China is disappearing as a drag on the US economy. During the nineties and the naughts, they probably sucked 25 million jobs out of the US.

With an “onshoring” trend now in full swing, the jobs ledger has swung into America’s favor. This is one reason that unemployment is steadily falling. Joblessness is becoming China’s problem, not ours.

The consequences for the financial markets will be nothing less than mind boggling. The short answer is higher for everything. Skyrocketing earnings take equity markets to the moon.

Multiples blast off through the top end of historic ranges. The US returns to a steady 4% a year GDP growth in the 2020's.

What am I bid for the Dow Average (INDU), (SPY), (QQQ) in 2030? Did I hear 300,000, a 17-fold pop from today’s level? Or more?

Don’t think I have been smoking the local agricultural products in arriving at these numbers. That is exactly the gain that I saw during 1982 to 2000, when the stock average also appreciated 17 fold, from 600 to 10,000.

They’re playing the same movie all over again. Except this time, it’s on triple fast forward.

There will also be commodities (DBA) and real estate booms. Even gold (GLD) gets bid up by emerging central banks bent on increasing their holdings to western levels.

I tell my kids to save their money, not to fritter it away day trading now, because anything they buy in 2020 will increase in value tenfold by 2030. They’ll all look like geniuses, like I did during the eighties.

After that, I will be 78, and it will be up to them to figure out what is going to happen next. What are my strategists friends doing about this forecast? They are throwing money into US stocks with both bands, especially in technology (XLK), biotech (IBB), and energy (XLE).

That’s why the market bounced back so hard from the 10% correct in Q1.

This could go on for decades.

Just thought you’d like to know.

It’s Amazing What You Pick Up on These Things!

Why Energy Prices Are About to Collapse

What we are seeing now is nothing less than the complete remaking of the American energy supply.

It is a metamorphosis, just as, if not more, dramatic than the initial electrification of the United States launched by Thomas Edison in 1876.

Think of it as a disruptive technology with a turbocharger.

Eventually, the cost of energy will drop to near zero in today's terms, possibly as soon as 2035. The consequences for your trading and investment portfolio will be tectonic.

This is what people don't get about solar.

Traditional forms of energy production and consumption, such as for oil, coal, natural gas, and hydroelectric, are subject to only linear improvements. Solar ones benefit from exponential growth.

There is, in effect, a solar Moore's Law that sees efficiencies per dollar spent doubling every four years, such as we have already seen with the faster growth of microprocessor efficiencies since the 1960's. Exponential growth of efficiencies will bring exponential growth of profits.

I am old enough to have lived through several solar booms in the past, only to see them crash and burn.

In 1979, President Jimmy Carter installed panels on the White House roof to provide leadership during the Iran oil crisis, only to see them torn down by President Ronald Reagan three years later.

Solar is now growing far faster than any other power source in the US, some 50% a year for the past six years.

Annual installations of photovoltaic panels have soared from a token 0.3 gigawatts in 2000 to an impressive 7.286 gigawatts in 2015, more than enough to fuel 8.5 million American homes.

California alone now has 500,000 homes running on solar, about 4% of the total. Installation trucks from a myriad of different local companies are seen everywhere.

This is all happening because of the simultaneous maturing and cross-pollination of technology, regulation, financing, and venture capital.

A key development was Chinese entry into mass production of solar panels, which led to a near immediate 80% collapse in prices. They now control 70% of the global market.

But this also led to the bankruptcy of a large number of US producers, including the ill-fated Solyndra, which I drive by every time I visit Tesla.

Chinese exports of panels to the US are now subject to anti dumping duties. This was all a windfall for the installation business.

Also helping has been the 90% collapse in the price of polysilicon, a key manufacturing component. Silicone (Si) is, in fact, one of the most common elements on the planet.

Still, the soft costs of sales, design, permitting, and labor, account for two thirds of a new installation today. By the way, solar has also proven a prolific new job creator. I can assure you, the cost of labor is never going to zero.

Some 15 years ago, I tried to install solar on my home and sell peak power to the grid. PG&E told me this was “illegal” because I would crash the grid, something I knew was patently false. This time around, my city permits sailed through effortlessly, and I received a polite email from PG&E instructing me how to read my new “net metering bill”. I wish renewing my driver’s license was so easy (that damn vision test).

For the first time in history, solar power is now cheaper than grid power on a non-subsidized basis. Costs are set to still fall dramatically from here. Fossil fuels are about to become, well, fossils.

The Paris based International Energy Agency, no slouch when it comes to analyzing power data, predicts that solar will account for 27% of the global power supply by 2050, and will become the biggest single source.

But futurologist friends of mine, like Tesla’s (TSLA) Elon Musk, Google’s head of engineering, Ray Kurzweil, and cosmologist Dr. Stephen Hawking, believe there is no reason why it shouldn’t be at 100% by 2030-35. To quote Kurzweil, “we are only six more doublings away.”

Google (GOOG), by the way, is already one of the world’s largest generators and distributors of solar power, while Musk is the preeminent installer through his participation in Solar City (SCTY).

Governments have been pouring fuel on the solar fire. Germany took an early lead, installing a massive 35 gigawatts over the past decade. It has since decided to shutter its entire nuclear industry, and offset its production with alternatives. But many of its subsidy programs were deep sixed by the crash.

President Obama made a 30% investment tax credit a central plank of his 2009 supplementary budget, which led to the current American solar renaissance.

That incentive expires in 2021, after getting a five year extension in a rare bipartisan deal in congress.

President Obama also upped the ante by using the Environmental Protection Agency to force power utilities to cut carbon emissions by 32% from 2005 levels. That involves setting a target of 28% alternative energy power generation by 2030.

The whole idea of using natural gas as a low carbon stepping stone has been abandoned. Hillary Clinton has recently weighed in with her own plans to shift the country from a carbon to a solar energy based economy, if elected president.

She wants nothing less than to eliminate all oil and gas subsidies worth $100’s of billions, and shift the money to alternatives.

That is a radical move. Her goal is to increase the solar share of American power generation to 33% by 2027.

Individual states have weighed in with their own measures. California has mandated that its residents obtain 30% of their power from alternatives by 2020.

More than two dozen other states have followed with similar measures, including several red ones. Solar is starting to transcend the political spectrum; the numbers are so compelling.

This isn’t just a US phenomenon, but a global one. Saudi Arabia has two of the world’s largest solar plants on the drawing board, to produce some 2 megawatts.

After all, why burn $5 oil when you can sell it to foreigners (mostly the Chinese) at an extravagant $50 a barrel. They are also major investors in the San Francisco alternative energy scene.

China is building far and away the biggest solar infrastructure, and wants to build 70 gigawatts over the next two years.

Japan has a 20% solar target, thanks to the Fukushima nuclear disaster. India plans to provide cheap electricity via solar to 100,000 villages for the first time.

Improving solar cell efficiencies promises to take us further and faster into this brave new world. My own SunPower (SPWR) X-335 panels, with their patented Maxeon solar cells, convert 20.3% of the sunlight they receive into electricity, the highest in the industry. Cheap imported Chinese panels offer efficiencies as low as 16% and don't last nearly as long.

University labs have perfected cells with 45% efficiencies using advanced silicon compounds. I happen to know that the military has a 65% efficient cell. All that remains are the economies of mass production to bring them to the public market.

This is crucial for the solarization of the global economy. Every 1% improvement in efficiencies cuts that total cost of a new installed system by 5%.

With the trends already in place, it is safe to assume that solar energy costs will fall by at least 10% a year for the foreseeable future. First Solar (FSLR), which specializes in large scale, thin film, industrial facilities, expects solar costs to plunge from 63 cents per kilowatt in 2014 to only 40 cents by 2017.

Storage is another key part of the equation, as panels alone can only produce electricity during daylight. The cost of home storage batteries, which are charged by day and can run a home at night, have dropped by 70% over the past five years.

They could drop another 70%, once Solar City completes its Nevada Gigafactory in 2017. That will double the planet's lithium ion battery capacity in one shot. A second plant is planned.

For a more detailed explanation of that technology and the investment opportunities therein, please **click here** for ***Solar Energy's Missing Link***.

What are the investment implications of all this? Clearly all of the companies mentioned in this piece are about to see their market size increase 30 fold.

But, what about everyone else?

The elimination of energy as a cost has enormous consequences for all companies. You can start with the energy intensive ones in transportation, steel, and aluminum, and work your way down the list.

The profitability and efficiency of the entire economy will take a great leap forward, much like we saw with the mass industrialization that was first made possible by electricity during the 1920's. Share prices of all kinds will go ballistic.

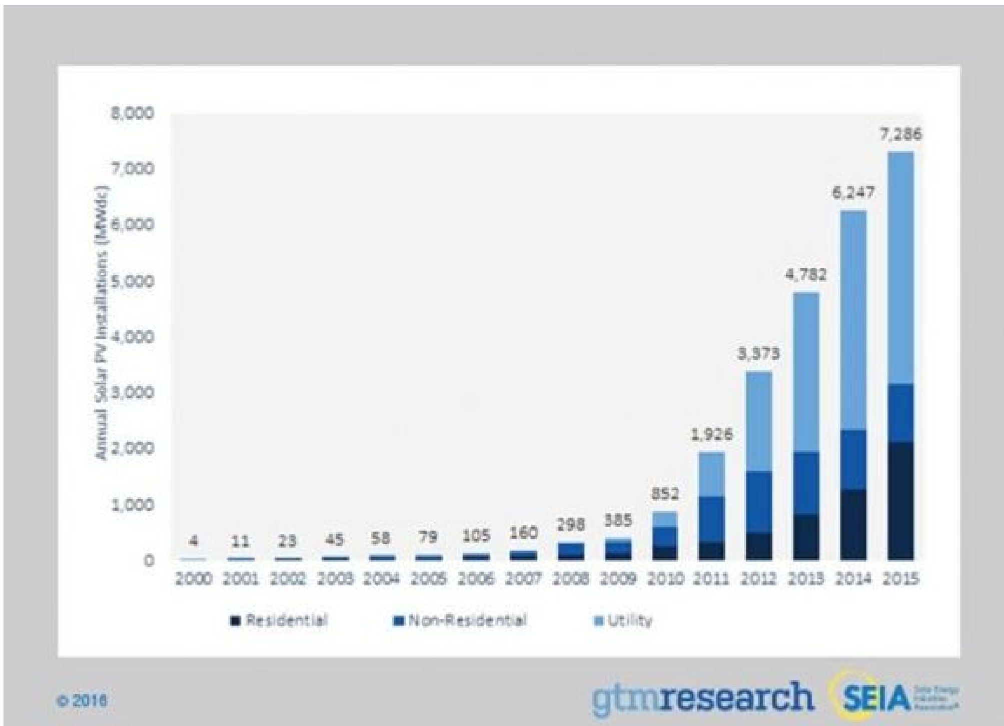
Dow 200,000 anyone?

Since energy costs will eventually fall effectively to zero, that wipes out the present business model of the entire electric power industry. It will be the same as trying to sell something that is free, like air.

That will force them to morph from energy producers to power distributors. Watch this space for a future piece on this issue.

So when readers ask me for the names of shares of companies that have the potential to rise tenfold in ten years, this is one industry I always steer them towards.

To save yourself months of research on how to install your own solar system, please **click here** for ***How to Buy a Solar System***.




SPWR SunPower Corp. Nasdaq GM + BATS
© StockCharts.com
8-Aug-2016 12:22pm
Open 15.32 High 15.61 Low 15.26 Last 15.30 Volume 838.0K Chg +0.18 (+1.19%)
RSI(14) 51.25
SPWR (Daily) 15.30
MA(50) 15.44
MA(200) 21.34
Volume 837,982
MACD(12,26,9) -0.157, -0.174, 0.017


$WTIC Light Crude Oil - Continuous Contract (EOD) CME
© StockCharts.com
5-Aug-2016
Open 41.84 High 42.10 Low 41.06 Close 41.80 Volume 538.4K Chg -0.13 (-0.31%)
RSI(14) 41.02
$WTIC (Daily) 41.80 (5 Aug)
MA(50) 46.56
MA(200) 40.80
Volume 538,428
MACD(12,26,9) -1.626, -1.521, -0.105

Joining the Brave, New World

How the National Debt is About to Disappear

When I was a little kid in the early 1950’s, my grandfather used to endlessly rail against Franklin Delano Roosevelt.

The WWI veteran, who was mustard gassed in the trenches of France and was a lifetime, dyed in the wool Republican, said the former president was a dictator and a traitor to his class, who trampled the constitution with complete disregard.

Republican presidential candidates Hoover, Landon, and Dewey would have done much better jobs.

What was worse, FDR had run up such enormous debts during the Great Depression that, not only would my life would be ruined, so would my children’s lives.

As a six year old, this disturbed me deeply, as it appeared that just out of diapers, my life was already pointless.

Grandpa continued his ranting until a three pack a day ***Lucky Strike*** non-filter habit finally killed him in 1977.

He insisted until the day he died that there was no definitive ***proof*** that cigarettes caused lung cancer, even though during the war they referred to them as "coffin nails".

He was stubborn as a mule to the end. And you wonder whom I got it from?

What my grandfather’s comments ***did*** do was spark in me a permanent interest in the government bond market, not only ours, but everyone else’s around the world.

So what ever happened to the despised, future ending Roosevelt debt?

In short, it went to money heaven.

And here I like to use the old movie analogy. Remember, when someone walked into a diner in those old black and white flicks? Check out the prices on the menu on the wall. It says “Coffee: 5 cents, Hamburgers: 10 cents, Steak: 50 cents.”

That is where the Roosevelt debt went.

By the time the 20 and 30-year Treasury bonds issued in the 1930's came due, WWII, Korea, and Vietnam happened, and the great inflation that followed.

The purchasing power of the dollar cratered, falling roughly 90%. Coffee is now $1.00, a hamburger at MacDonald"s is $5.00, and a cheap steak at Outback cost $12.00.

The government, in effect, only had to pay back 10 cents on the dollar in terms of current purchasing power on whatever it borrowed in the thirties.

Who paid for this free lunch?

Bond owners, who received minimal and often negative real inflation adjusted returns on fixed income investments for three decades.

In the end, it was the risk avoiders who picked up the tab. This is why bonds became known as "certificates of confiscation" during the seventies.

This is not a new thing. About 300 years ago, governments figured out there was easy money to be had by issuing paper money, borrowing massively, stimulating the local economy, and then repaying the debt in devalued future currencies.

This is one of the main reasons why we ***have*** governments, and why they have grown so big. Unsurprisingly, France was the first, followed by England and every other major country.

Ever wonder how the new, impoverished United States paid for the Revolutionary War?

It issued paper money by the bale, which dropped in purchasing power by two thirds by the end of conflict in 1783. The British helped too, by flooding the country with counterfeit paper Continental money.

Bondholders can expect to receive a long series of rude awakenings sometime in the future. The scary thing is that eventually we will enter a new 30-year bear market for bonds that lasts all the way until 2042. However, after last week's frenetic spike up in bond prices, and down in bond yields, that is looking more like a 2017, than a 2016 position.

This is certainly what the demographics are saying, which predict an inflationary blow off in decades to come that could take short term Treasury yields to a nosebleed 12% high once more.

That scenario has the leveraged short Treasury bond ETF (TBT), which has just cratered down to $30, leap to $46, and then soar all the way to $200.

If you wonder how yields could get that high in a decade, consider one important fact.

The largest buyers of American bonds for the past three decades have been Japan and China. Between them, they have soaked up over $2 trillion worth of our debt, some 12% of the total outstanding.

Unfortunately, both countries have already entered very negative demographic pyramids, which will forestall any future large purchases of foreign bonds. They are going to need the money at home to care for burgeoning populations of old age pensioners.

So who becomes the buyer of last resort? No one, unless the Federal Reserve comes back with QE IV, V, and VI.

There is a lesson to be learned today from the demise of the Roosevelt debt.

It tells us that the government should be borrowing as much as it can right now with the longest maturity possible at these ultra low interest rates, and spending it all.

With real, inflation adjusted 10 year Treasury bonds now posting negative yields, they have a free pass to do so.

In effect, the government ***never*** has to pay back the money. But they ***do*** have the ability to reap immediate benefits, such as through stimulating the economy with greatly increased infrastructure spending.

Heaven knows we need it.

My friend, Federal Reserve Chairwoman Janet Yellen, certainly thinks so.

If I were king of the world, I would borrow $5 trillion tomorrow and disburse it only in areas that create domestic US jobs. Not a penny should go to new social programs. Long-term capital investments should be the sole target. Here is my shopping list:

$1 trillion – new Interstate freeway system
$1 trillion – additional infrastructure repairs and maintenance
$1 trillion – conversion of our energy system to solar
$1 trillion – construction of a rural broadband network
$1 trillion – investment in R&D for everything

The projects above would create 5 million new jobs quickly. Who would pay for all of this in terms of lost purchasing power? Today's investors in government bonds, half of whom are foreigners, principally the Chinese and Japanese.

How did my life turn out? Was it ruined, as my grandfather predicted?

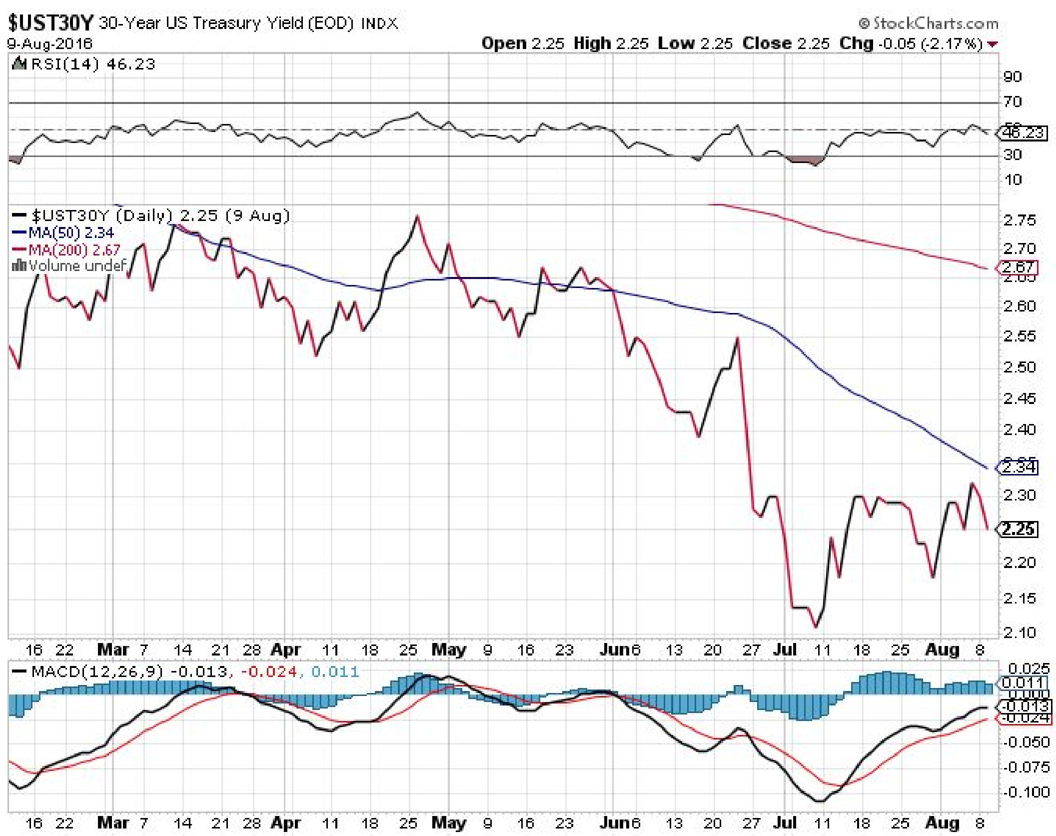
Actually, I did pretty well for myself, as did the rest of my generation, the baby boomers. My kids are doing OK too. One son just got a job at Google, another is teaching at a government university in China, and my daughter is working on a PhD at the University of California.

Not too shabby.

Grandpa was always a better historian than a forecaster. But did have the last laugh. He made a fortune in real estate, betting correctly on the inflation that always follows borrowing binges. You know the five acres that sits under the Bellagio Hotel in Las Vegas? That's the land he bought, in 1945, for $500.

Not too shabby either.


TBT ProShares UltraShort 20+ Year Treasury NYSE + BATS
© StockCharts.com
10-Aug-2016 3:05pm
Open 30.82 High 30.98 Low 30.54 Last 30.65 Volume 1.2M Chg -0.33 (-1.07%)
RSI(14) 42.60
TBT (Daily) 30.65
MA(50) 32.21
MA(200) 37.92
Volume 1,157,152
MACD(12,26,9) -0.273, -0.360, 0.086


$UST30Y 30-Year US Treasury Yield (EOD) INDX
© StockCharts.com
9-Aug-2016
Open 2.25 High 2.25 Low 2.25 Close 2.25 Chg -0.05 (-2.17%)
RSI(14) 46.23
$UST30Y (Daily) 2.25 (9 Aug)
MA(50) 2.34
MA(200) 2.67
Volume undef
MACD(12,26,9) -0.013, -0.024, 0.011

Not Too Shabby for $500

Why Globalization Works

I am writing to you from the Virgin Atlantic First Class lounge at London's Heathrow Airport. I am awaiting my flight back to San Francisco after spending two months based in Dubrovnik, Croatia and Zermatt, Switzerland.

The good news here is that there is no longer a line to get a foot massage. The bad new is that they are no longer free, costing £35 for 30 minutes of destressing leisure.

Call it another perfect example of supply/demand elasticity. Nobody wants them when they are expensive.

I wish I could have walked down the main street of Dubrovnik with Donald Trump, who has been campaigning for president on an anti-globalization platform.

Having been a vociferous supporter of globalization since it's dawn, first during a decade spent as a reporter for ***The Economist*** magazine, and then as an investor, I could have explained how our international trading system works, and especially why it works for us.

There was a polyglot of travelers from all over the world.

Large groups of Chinese were led by flag bearing guides. Italian Millennials mobbed the bars at night. English couples strolled the majestic limestone fortress walls soaking up the sunshine. There was even the occasional American student backpacker repeating my own adventure from the 1960s.

And you know what? This disparate international group shared many things in common. Most of them spent much of the day glued to iPhones or Androids run by US designed apps. Many were staying in accommodations organized by Airbnb (there were over 200 listings for the immediate Dubrovnik area).

They may have made the trip from the airport in an Uber cab. They wore Levis Strauss blue jeans. American pop music pulsed through their ear buds. Probably half of them arrived on a Boeing jet financed by the US Export Import Bank.

In short, they were all sending enormous amounts of money to US companies and shareholders in more ways than they could possible count, without even realizing it.

You never used to see tourists from most countries, like Russia, Spain, Portugal, Italy, or Ireland.

They were too poor.

Rapidly rising standards of living created by globalization changed all of that, creating an enormous new market for American products, especially technology ones.

My Airbnb neighbors in Dubrovnik included a family from Malaysia and a young couple from South Korea.

You can see some of this impact in international balance of trade statistics. In 2015, the US ran a trade deficit with the world of $500.3 billion with consumer electronics, oil, clothes, and cars our largest imports.

Subtract our $262.2 billion surplus in services, which includes financial services, education, patents, and other intellectual property, and that brings our current account deficit down by more than half to only $238.1 billion**.**

But that doesn't tell the whole story.

Trade data completely miss the enormous number of products and services that are now given away **FOR FREE** in exchange for the chance of earning some uncertain revenue at some future date.
Give up your name and email address, and you can obtain almost any kind of online service for nothing. And as far as I know, no government agency has any measurement of this parameter whatsoever.

Needless to say, the United States is far and away the leader in this immeasurable field.
By the way, this might also be the reason why the published productivity data has been so poor, despite the fact that US GDP has grown by 20% since 2009. Everywhere I look productivity is skyrocketing, including my own.

It also might be the reason why Amazon continuously sports a nosebleed valuation. Much of what they provide is **FREE** and therefore immeasurable.

Of course, globalization wrought havoc on your life if you went into it with the wrong job in the wrong industry and an inadequate skill set.

Blue collar workers tied to textiles, shoes, toys, and other low value added manufacturing were toast, as their jobs fled offshore.

If you didn't retrain, or adapt you became an angry, mostly white man.

As my friend, New York Times columnist Tom Friedman, likes to say, "Average doesn't cut it anymore."

However, while the jobs are gone, the bulk of the profits stayed here in the US. American companies offshored the $2 an hour jobs (mass assembly), but kept the $100 an hour ones (design and marketing) at home.

As my friends in the Chinese government never fail to point out, if they build the iPhone for $100 and we sell it for $700, we are the big winners, not them.

They believe we are perpetuating 19th century colonialism by making wage slaves of their workers.

They may be right.

Globalization enables the US dollar to continue as the world's reserve currency, as almost all international trade is conducted in the buck.

That is one of the greatest free lunches of all time. It enables the US government to indirectly control the global economy through its own monetary policy. Some half of all US government debt is owned by foreigners.
When sanctions forced Iran to drop out of the international trading system, what did they get? A Great Depression that cut their GDP by 25%. You can't run a country of 80 million with oil barter deals, gold, and bitcoins alone.

There is also the huge defense benefits that globalization brings us.

Back in the early days, the main reason to steer a country into capitalism was to prevent it from going communist and therefore becoming an enemy.

Grow your allies and reduce your enemies and your defense costs shrink dramatically, raising our standard of living.

That is what has happened.

Increased trade also boosted foreign standards of living, therefore creating a growing market for American goods and services.

This was the whole point of the World Trade Organization, NAFTA, and the Trans-Pacific Partnership.

Humans rarely bite the hands that feed them. They are also highly unlikely to set fire to their paychecks or bomb their sources of income.

Make a foreigner a millionaire, and you turn him into a pacifist. I have seen this unfold time and time again over the past half century, be it in China, Russia, Vietnam, Cambodia, and most recently in Iran.

Create an embedded base of businessmen in any country who are getting rich off of you, and international relations invariably improve.

Any system based on greed is guaranteed to succeed.

A side benefit of all of this is that stock markets go up forever.

Since globalization started in earnest in 1951, the Dow Average has risen from $239 to $18,392, a prodigious gain of some 77-fold.

And you wondered why?

Globalization is the mechanism through which America is paid the dividend for all of the good deeds it has done and inventions it has created for the past century.
I am thinking about the construction of the Panama Canal, Lend Lease and the Marshall Plan, as well as the transistor, memory chip, microprocessor, personal computer, Windows, the Internet, online commerce, the iPhone, and social media.

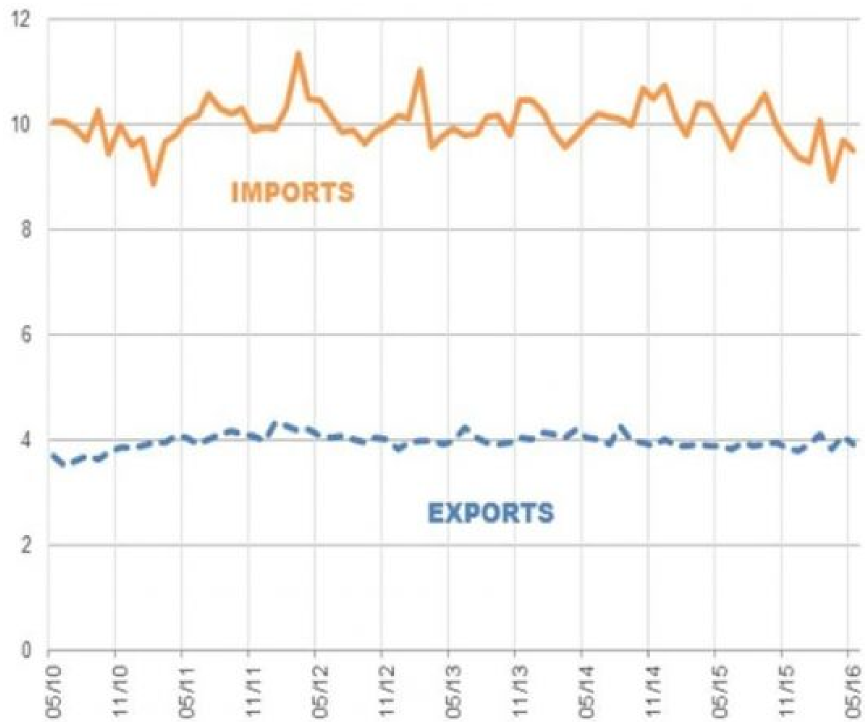
That is why globalization is a win-win-win for everyone.

There are really only two true communist countries left in the world, Cuba and North Korea, which never joined the international trading community. They also happen to have the planet's lowest standards of living.

And Cuba will become totally capitalist within two years. Just give them a million iPhones, get them talking, and see what happens. Castro will become just another neighborhood in South San Francisco.

So why end a trading system from which America and its people have profited so mightily?
That is a very good question, one that someone might ask Donald Trump.

To read more about America's massive services surplus in education, please **click here.**
To read more about my take on Tom Friedman's 50,000-foot view of the trends in the global economy, please **click here.**



Exploring the Wonders of International Trade

Will Space X Be Your Next Ten Bagger?

I am constantly on the lookout for ten baggers, stocks that have the potential to rise tenfold over the long term.

Look at the great long-term track records compiled by the most outstanding money managers, and they always have a handful of these that account for the bulk of their outperformance, or alpha, as it is known in the industry.

I've found another live one for you.

Elon Musk's Space X is so forcefully pushing forward rocket technology that he is setting up one of the great investment opportunities of the century.

In the past decade his start up has accomplished more breakthroughs in advanced rocket technology than have been seen in the last half century, since the golden age of the Apollo space program.

As a result, we are now on the threshold of another great leap forward into space. Musk's ultimate goal is to make mankind an "interplanetary species."

There is only one catch.

Space X is not yet a public company, being owned by a handful of fortunate insiders and venture capital firms. But you should get a shot at the brass ring someday.

The rocket launch and satellite industry is the biggest business you have never heard of, accounting for $200 billion a year in sales globally. This is probably because there are no pure stock market plays.

Only two major companies are public, Boeing (BA) and Lockheed Martin (LMT), and their rocket businesses are overwhelmed by other aerospace lines.

The high value added product here is satellite design and construction, with rocket launches completing the job.

Once dominated by the US, the market for launches has long since been ceded to foreign competitors. The business is now captured by Europe (the Ariane 5), China (the Long March 5), and Russia (the Angara A5).

Until recently, American rocket makers were unable to compete because decades of generous government contracts enabled costs to spiral wildly out of control.

Whenever I move from the private to the governmental sphere, I am always horrified by the gross indifference to costs. This is the world of the $10,000 coffee maker and the $20,000 toilet seat.

Until 2010, there was only a single US company building rockets, the United Launch Alliance (ULA), a joint venture of Boeing and Lockheed Martin. ULA builds the aging Delta IV and Atlas V rockets.

The vehicles are launched from Cape Canaveral, Florida and Vandenberg Air Force Base in California, one of which I had the privilege to witness. They look like huge roman candles that just keep on going, until they disappear into the blackness of space.

Enter Space X.
Extreme entrepreneur Elon Musk has shown a keen interest in space travel throughout his life. The sale of his interest in PayPal, his invention, to Ebay (EBAY) in 2002 for $165 million, gave him the means to do something about it.

He then discovered Tom Mueller, a childhood rocket genius from remote Idaho who built the largest ever amateur liquid fueled vehicle, with 13,000 pounds of thrust. Musk teamed up with Mueller to found Space X in 2002.

A decade of grinding hard work, bold experimentation, and heart rending testing ensued, made vastly more difficult by the 2008 Great Recession.

Space X's **Falcon 9** first flew in June, 2010, and successfully orbited earth. In December, 2010 it launched the **Dragon** space capsule and recovered it at sea. It was the first private company ever to accomplish this feat.

Dragon successfully docked with the International Space Station (ISS) in May, 2012. NASA has since provided $440 million to Space X for further **Dragon** development.

The result was the launch of the **Dragon V2** (no doubt another historical reference) in May, 2014, large enough to carry seven astronauts.

Space X conducted the first successful flight test of the new **Dragon** capsule on May 6 of last year.

Then Musk really upped his game by successfully pulling off the first ever landing of a booster rocket on a platform at sea in April, 2016. This is crucial for his plan to dramatically cutting the cost of space travel.

Commit all these names to memory. You are going to hear a lot about them.

Musk's spectacular success with Space X can be traced to several different innovations.

He has taken the Silicon Valley hyper competitive ethos and financial model and applied it to the aerospace industry, the home of the bloated bureaucracy, the no bid contract, and the agonizingly long time frame.

For example, his initial avionics budget for the early **Falcon 1** rocket was $10,000, and was spent on off-the-shelf consumer electronics. It turns out that their quality had improved so much in recent years they met military standards.

But no one ever bothered to test them. $10,000 wouldn't have covered the food at the design meetings at Boeing or Lockheed-Martin, which would have stretched over years.
Similarly, Musk sent out the specs for a third party valve actuator no more complicated than a garage door opener, and a $120,000, one-year bid came back. He ended up building it in house for $3,000. Musk now tries to build as many parts in house as possible, giving it additional design and competitive advantages.

This tightwad, full speed ahead and damn the torpedoes philosophy overrides every part that goes into Space X rockets.

Amazingly, the company is using 3-D printers to make rocket parts, instead of having each one custom made.

Machines guided by computers carve rocket engines out of a single block of inconel nickel-chromium super alloy, foregoing the need for conventional welding, a frequent cause of engine failures.

Space X is using every launch to simultaneously test dozens of new parts on every flight, a huge cost saver that involves extra risks that NASA would never take. It also uses parts that are interchangeable on all its rocket types, another substantial cost saver.

Space X has effectively combined three nine engine **Falcon 9** rockets to create the 27 engine **Falcon Heavy**, the world's largest operational rocket. It has a load capacity of a staggering 53 metric tons, the same as a fully loaded Boeing 737. It has half the thrust of the gargantuan Saturn V moon rocket that last flew in 1973.

Musk is able to capture synergies among his three companies not available to any competitor. Space X gets the manufacturing efficiencies of a mass production carmaker. Tesla Motors has access to the futuristic space age technology of a rocket maker. Solar City (SCTY) provides cheap solar energy to all of the above.

And herein lies the play.

As a result of all these efforts, Space X today can deliver what ULA does for 76% less money with vastly superior technology and capability. Specifically, its **Falcon Heavy** can deliver a 116,600 pound payload into low earth orbit for only $90 million, compared to the $380 million price tag for a ULA Delta IV 57, 156 pound launch.

In other words, Space X can deliver cargo to space for $772 a pound, compared to the $7,515 a pound UAL charges the US government. That's a hell of a price advantage.

You would wonder when the free enterprise system is going to kick in and why Space X doesn't already own this market.

But selling rockets are not the same as shifting iPhones, laptops, watches, or cars. There is a large overlap with the national defense of every country involved.

Many of the satellite launches are military in nature and top secret. As the cargoes are so valuable, costing tens of millions of dollars each, reliability and long track records are big issues.

Enter the wonderful world of Washington DC politics. UAL constructs its Delta IV rocket in Decatur, Alabama, the home state of Senator Richard Shelby, the powerful head of the Banking, Finance and Urban Affairs Committee.

The first Delta rocket was launched in 1960, and much of its original ancient designs persist in the modern variants. It is a major job creator in the state.

Shelby has criticized President Obama's attempt to privatize and modernize the rocket business as "a faith based initiative." ULA is a major contributor to Shelby's campaigns.

ULA has no rocket engine of its own. So it buys engines from Russia, complete with blue prints, hardly a reliable supplier. Magically, the engines have so far been exempted from the economic and trade sanctions enforced by the US against Russia for its invasion of the Ukraine.

ULA has since signed a contract with Amazon's Jeff Bezos owned Blue Origin, which is also attempting to develop a private rocket business, but is miles behind Space X.

Musk testified in front of Congress in 2014 about the viability of Space X rockets as a financially attractive, cost saving option. His goal is to break the ULA monopoly and get the US government to buy American. You wouldn't think this is such a tough job, but it is.

Musk has since sued the US Air Force to open up the bidding.

Elon became a US citizen in 2002 primarily to qualify for bidding on government rocket contracts, addressing national security concerns.

NASA did hold open bidding to build a space capsule to ferry astronauts to the International Space Station. Boeing won a $4.2 billion contract, while Space X received only $2.6 billion, despite superior technology and a lower price.

It is all part of a 50 year plan that Musk confidently outlined to a venture capital friend of mine two decades ago. So far, everything has played out as predicted.

The Holy Grail for the space industry has long been the building of reusable rockets, thought by many industry veterans to be impossible.
Imagine what the economics of the airline business would be if you threw away the airplane after every flight? It would cost $1 million for one person to fly from San Francisco to Los Angeles.

This is how the launch business has been conducted since the inception of the industry in the 1950's.

Space X is on the verge of accomplishing exactly that. It will do so by using its **Super Draco** engines and thrusters to land rockets on a platform at sea. Then you just reload propellant and relaunch.

The concept has so far been successfully tested to an altitude of 1,000 meters (click link for the YouTube video: **https://www.youtube.com/watch?v=SBUtIOnNc5E** .

Attempts to do this from a live launch had some setbacks (click links for that video where they almost made it: **https://www.youtube.com/watch?v=PT0xCSJbt88** and **https://www.youtube.com/watch?v=ycLKqRDjoZA**), but it was successfully pulled off in December of last year (click here:
https://www.youtube.com/watch?v=3G8GJQumBFs

Consequently launch costs will plummet to pennies on the dollar. If Space X can chop payload costs to under $100, compared to ULA's $7,515, that is a savings which even Richard Shelby can't argue against.

Talk about disruptive innovation with a turbocharger!

The company is building its own spaceport in Brownsville, Texas that will be able to launch multiple rockets ***a day.***

The Hawthorne, CA factory (where I charge my own Tesla S-1 when in LA) now has the capacity to build 20 rockets a year. This will eventually be ramped up to hundreds.

Space X is the only organization that offers a launch price list on its website, much as Amazon sells its books (**http://www.spacex.com/about/capabilities**). The **Falcon 9** will carry 28,930 pounds of cargo into low earth orbit for only $60.2 million. Sounds like a bargain to me.

Space X currently has $5 billion in contracts to fly over 50 missions for a variety of private and governmental entities, making the company cash flow positive. This includes a $1.6 billion NASA contract to supply the (ISS).

This no doubt includes an assortment of tax breaks, which Musk has proven adept at harvesting. Elon has been a quick learner with the ways of Washington.
Customers have included the Thai telecommunications firm, Rupert Murdock's Sky News Japan, an Israeli telecommunications group, and the US Air Force.

So when do we mere mortals get to buy the stock? Musk estimates at 12 flights a year the company will earn a 10% return on capital, making it worth $4-5 billion.

The current exponential growth in broadband will lead to a similar growth in satellite orders, and therefor rocket launches. So the commercial future of the company looks especially bright.

However, Musk is in no rush to go public. A permanent, viable, and sustainable colony on Mars has always been a fundamental goal of Space X. It would be a huge distraction for a publicly managed company. That makes it a tough sell to investors in the public markets.

You can well imagine that the next recession would bring cries from shareholders for cost cutting that would put the Mars program at the top of any list of projects to go on the chopping block. So Musk prefers to wait until the Mars project is well established before entertaining an IPO.

Musk expects to launch a trip to Mars by 2025 and establish a colony that will eventually grow to 80,000. Tickets will be sold for $500,000.

There are other considerations. Many employees and early venture capital investors wish to realize their gains and move on. Public ownership would also give the company extra ammunition for cutting through Washington red tape. These factors point to an IPO that is earlier than later.

On the other hand, Musk may not care. The last net worth estimate I saw for him was $13 billion. If his three companies increase in value by ten times over the next decade, as I expect, that would increase his wealth to $130 billion, making him the richest person in the world.

If an IPO does come, investors should jump in with both boots. While the value of the firm may have already increased tenfold by then, there may be another tenfold gain to come. Get on the Elon Musk train before it leaves the station.

To describe Elon as a larger than life figure would be something of an understatement. Musk is the person on which the fictional playboy/industrialist/technology genius, Tony Stark, in the ***Iron Man*** movies has been based.

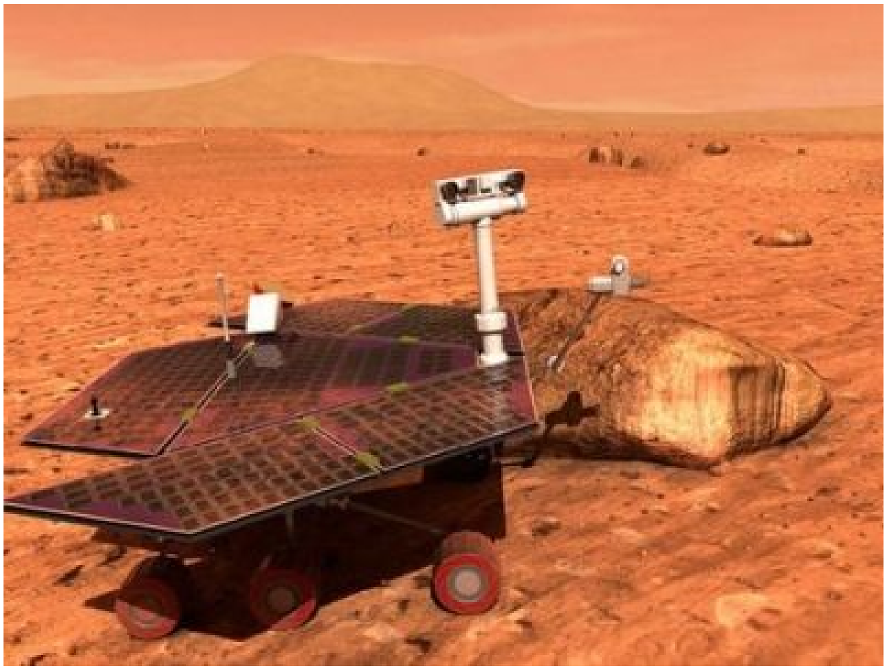
When the Disney movie, ***Tomorrowland,*** was released last year, a Tesla supercharging station featured prominently. Elon takes all this in in good humor, lending a Tesla roadster to the film producers.

Musk has said he wishes to die on Mars, but not on impact. Perhaps it would be the ideal retirement for him, say around 2045, when he will be 75.

To visit the Space X website, please click link: http://www.spacex.com . It offers very cool videos of rocket launches and a discussion with Elon Musk on the need for a Mars mission.

Catching a Dragon by the Tail

This Could Be the Stock Performance



Is Mars the Next Hot Retirement Spot?

Is Airbnb Your Next Ten Bagger?

I was not surprised to hear that the home sharing app, ***Airbnb***, was given a $30 billion valuation in the latest venture capital funding round.

The big question for you and me is: Will the valuation soar tenfold to $300 billion, and how much of a piece of that will you and I be allowed to get?

To answer that question I just spent six weeks traveling around Europe as an Airbnb customer. This enabled me to understand their business model, their strengths and weaknesses, and analyze their long term potential.

As a customer, the value you receive is nothing less than amazing.

I have been a five star hotel client for most of my life, with someone else picking up the tab much of the time, so I have a pretty good idea on the true value of accommodations.

What you get from Airbnb is nothing less than spectacular. You get three or four times the space for one-third the price.

The standards are often five-star and at the top end, depending on how much you spend. I found I could often get an entire three-bedroom house for the price of a single hotel room, with a better location.

Or, I could get an excellent abode in rural settings, where none other was to be had, whatsoever.

That's a big deal for someone like me who spends so much of the year on the road.
You also get a new best friend in every city you visit.

On most occasions the host greeted me on the doorsteps with the keys, and then introduced me to the mysteries of European kitchen appliances, heating, and air conditioning.

Pre stocking the refrigerator with fresh milk, coffee, tea, and jam seems to be a tradition the hosts pick up in their Airbnb orientation course.

One in Waterford, Ireland even left me a bottle of wine, plenty of beer, and a frozen pizza. She read my mind. Thanks, Mary!

They then took me on a one-hour tour of their city, divulging secrets about their favorite restaurants, city sights, and nightspots. Every one proved golden.

After you check out, Airbnb asks you to review the accommodation. These can be incredibly valuable in deciding your next pick.

I had one near miss with what I thought was a great deal in London, until I read, “The entire place reeks of Indian cooking.”

Similarly, the hosts rate you as a guest. One hostess shared a story about picking up her clients from town after they got drunk and lost in the middle of the night. Then they threw up in the back of the car on the way home.

Guests forgetting to return keys are another common complaint.

Needless to say, I received top ratings from my hosts, as fixing their WIFI to boost performance became a regular habit of mine.

After my initial experience in London, I thought the experience might be a one off, limited to only the largest cities. So I started researching accommodations for my upcoming trips.

I couldn’t have been more wrong.

Just the Kona Coast on the big island of Hawaii had an incredible 50 offerings, including several bargain beachfront properties.

The center of Tokyo had over 300 listings. The historic district in Florence, Italy had an incredible 351 properties.
Fancy a retreat on the island of Bali in Indonesia and tune up your surfing? There are over 197 places to stay!

While we weren’t looking, Airbnb has truly gone global.

Airbnb’s business model is almost too simple to be true, involving no more than a couple of popular applications. Call it an artful melding of Google Earth, email, text, and PayPal.

The company has 2 million hosts worldwide, and 100 million customers. That supply/demand imbalance shifts the burden of cost to the renters, who usually have to fork out a 12% fee, plus the cost of the cleaning service.

Hosts only pay 3% to process the credit card fees for the payment.

The tidal wave of revenues this has created has enabled Airbnb to become San Francisco’s second largest privately owned “unicorn”, right after the $65 billion behemoth ride sharing app, Uber.

To say that Airbnb has created controversy would be a huge understatement.

For a start, it has emerged as a major challenge to the hotel industry, which is still stuck with a 20th century business model. There's no way hotels can compete on price.

One Airbnb "super host" in Manhattan is managing 200 apartments, essentially, creating from scratch, a medium sized virtual "hotel".

Taxes are another matter.

Some municipalities require hosts to pay levies of up to 20%, while others demand quarterly tax filings and withholding taxes. That is, if tax collectors can find them.

Airbnb may be the largest new source of tax evasion today.

In cities where housing is in short supply Airbnb is seen as crowding out local residents. After all, an owner can make far more money subletting their residence nightly than with a long-term lease.

Several owners told me that Airbnb covered their entire housing cost for the year, while paying off the mortgage at the same time.

Owners in the toniest neighborhoods, like mid town Manhattan off of Central Park or the old city center in Dubrovnik, rent their homes out as much as 180 days a year.

Airbnb is nothing less than life changing.

That has forced local governments to clamp down.

San Francisco has severe, iron clad planning and zoning restrictions that only allow 2,000 new residences a year to come on the market.

It is cracking down on Airbnb, as well has other home sharing apps like ***FlipKey***, ***VRBO***, and ***HomeAway***, by forcing hosts to register with the city or face brutal $1,000 a day fines.
So far, only 1,675 out of 9,000 hosts have done so.

Ratting out your neighbor as an off the grid Airbnb member has become a new cottage industry in the City by the Bay.

Airbnb is fighting back with multiple lawsuits, citing the federal Communications Decency Act, the Stored Communications Act, and the First Amendment covering the freedom of speech.

It is a safe bet that a $30 billion company can spend more on legal fees than a city the size of San Francisco.

The company has also become the largest contributor in San Francisco's local elections. In 2015, it fought a successful campaign against Proposition "F", meant to place severe restrictions on their services.

An Airbnb stay over is not without its problems.

The burden of truth in advertising is on the host, not the company, and inaccurate listings are withdrawn only after complaints.

A twenty something year old guy's idea of cleanliness may be a little lower than your own. Long time users learn the unspoken "code".

"Cozy" can mean tiny, "as is" can be a dump, and "lively" can bring the drunken screaming of four letter words all night long, especially if you are staying upstairs from a pub.

And that spectacular seaside view might come with relentlessly whining Vespas on the highway out front. Always brings earplugs and a sleep mask as a precaution.

Researching complaints, it seems that the worst of the abuses occur in shared accommodations. Learning new foreign cultures can be fascinating, but your new roommate may want to get to know you better than you want.

In one notorious incident a Madrid guest was raped. The best way to guard against such experiences is to rent the entire residence for your use only, as I do.
Another problem arises when properties are rented out for illegal purposes, such as prostitution or drug dealing.

More than once, an unsuspecting resident woke up one morning to discover they were living next door to a new bordello.

Wild parties that trash the dwelling, annoy the neighbors, and bring in the police are another worry.

Of course, the million-dollar question is "When will the company go public?"

The current "unicorn" philosophy is to milk the company for all it's worth, and take it public when it is about to go ex-growth.

That's what happened to Twitter (TWTR), which grew exponentially, and then saw shares dive a gut churning 72% after its initial public offering.

On seeing the massive crowds of new tourists packing Europe this summer, my conclusion is that the travel industry is entering a hyper growth phase. Blame the emerging middle class Chinese, who seem to be everywhere.

That means that at whatever price Airbnb goes public, there may not be a ten bagger left for you. But a two or three bagger may be possible.

The real shock came when I left Airbnb and stayed in a regular hotel. Include the fees and the cleaning charges, and the service is no longer competitive for a single night stay.

In any case, most hosts have two or three night minimums to minimize hassle.

When I checked in at a Basel, Switzerland, Five Star hotel, all I got was a set of keys and a blank stare. No great restaurant tips, no local secrets, no new best friend.

I spent that night surfing www.airbnb.com , planning my next adventure.

Is Airbnb the Next Ten Bagger or the Next Twitter?

Getting to Know My Dubrovnik Hostess

Why Water is One of 2016's Best Sectors

I bet you didn't know that water infrastructure plays have been one of the top performing stock sectors in 2016.

In fact, shares of this little known industry are up more than 25% since the February market bottom.

If you think that energy is scarce, it will pale in comparison to the next water crisis. So investment in fresh water infrastructure is going to be a great recurring long-term investment theme.

One theory about the endless wars in the Middle East since 1918 is that they have really been over water rights.

Although Earth is often referred to as the water planet, only 2.5% is fresh, and three quarters of that is locked up in ice at the North and South poles. Global warming is freeing up some of this, but not fast enough.

In places like China, with a quarter of the world's population, up to 90% of the fresh water is already polluted, some irretrievably so, with heavy metals.

About 18% of the world population lacks access to potable water, and demand is expected to rise by 40% in the next 20 years.

Aquifers in the US, which took nature millennia to create, are approaching exhaustion.

It has become so extreme in California, that subsidence has destroyed hundreds of buildings. The Golden States Central Valley is now about 10 feet lower than it was during the 19th century. While membrane osmosis technologies exist to convert seawater into fresh, they use ten times more energy than current treatment processes, a real problem if you don't have any, and will easily double the end cost of water to consumers.

While it may take 16 pounds of grain to produce a pound of beef, ***it takes a staggering 2,416 gallons of water*** to do the same. Beef exports are really a way of shipping water abroad in concentrated form.

The UN says that $11 billion a year is needed for water infrastructure investment, and $15 billion of the 2008 US stimulus package was similarly spent.

It says a lot, that when I went to the University of California at Berkeley School of Engineering to research this piece, most of the experts in the field had already been retained by major hedge funds and were not allowed to talk!

At the top of the shopping list to participate here should be the Claymore S&P Global Water Index ETF (CGW). You can get it for a bargain now, as it has just fallen by more than 10% since the stock market meltdown began.

You can also visit the PowerShares Water Resource Portfolio (PHO), the First Trust ISE Water Index Fund (FIW), or the individual stocks Veolia Environment (VE), Tetra-Tech (TTEK), and Pentair (PNR).

Who has the world's greatest ***per capita*** water resources? Siberia, which could become a major exporter of H2O to China in the decades to come.

There is a potential happy ending to this story. If solar energy cost improvements continue their Moore's law like descent, energy will effectively become free by the 2030's.

If you think this is pie-in-the-sky stuff, know this. On peak days alternatives are now accounting for 56% of California power grid, largely through solar.

That will dramatically drop the cost of desalination. Indeed, major efforts along these lines are already underway by utilities in the Middle East.

San Diego's Poseidon project only recently came on line, and is producing 50 million gallons of fresh water a day. The goal is for the Carlsbad facility to obtain 8% of the county's water from the ocean by 2020.

And the last time I checked, we had plenty of seawater.


CGW Guggenheim S&P Global Water Index ETF NYSE
© StockCharts.com
10-Aug-2016 3:18pm
Open 30.30 High 30.36 Low 30.23 Last 30.28 Volume 18.8K Chg +0.15 (+0.50%)
RSI(14) 57.75
CGW (Daily) 30.28
MA(50) 29.84
MA(200) 28.10
Volume 18,793
MACD(12,26,9) 0.092, 0.111, -0.019


PHO PowerShares Water Resources Portfolio NYSE + BATS
© StockCharts.com
10-Aug-2016 3:18pm
Open 24.42 High 24.45 Low 24.31 Last 24.41 Volume 19.9K Chg +0.03 (+0.12%)
RSI(14) 60.03
PHO (Daily) 24.41
MA(50) 23.79
MA(200) 22.11
Volume 19,921
MACD(12,26,9) 0.170, 0.195, -0.025

The US is Still the Saudi Arabia of Fresh Water

Ten Stocks to Buy on the Dip

If we get another 5% correction in stocks in the coming weeks, it is best to have your **"BUY"** list on the table and ready to go. That way you don't have to waste time looking up ticker symbols. I'll give you mine.

Let me get this right. Stocks screamed upward last week because:

1) The Federal Reserve isn't going to raise interest rates anymore.
2) The price of oil is holding steady in the high $40s, less than half the levels two- year ago.
3) Commodities are still holding close to multi-year lows.
4) The US dollar finally took a rest.
5) Corporations are continuing to buy back their own stock like there is no tomorrow.
6) Investors are yanking money from abroad and pouring it into the US, because it is the only place they can obtain a positive return, especially in stocks.
7) The FBI gave presidential aspirant Hillary Clinton a boost when it closed its email investigation.

May I point out the blatantly obvious right here?

These are all reasons for the 90% of US companies that consume energy to increase earnings and boost their share prices.

Only the 10% that derive revenues from ripping oil and commodities out of the ground should get hurt here.

Of course, the market doesn't know that. It was anything but rational last week. There was only one direction, and that was **UP**.

The Dow and the S&P 500 are now, once again, posting positive numbers for 2016.
What is even more stunning is that these increases in prices are occurring in the face of US macro economic numbers that are mediocre, at best.

Only housing, which accounts for about one third of the US economy, has been on fire. Prices are still rising everywhere.

Even more incredible is that the stock market reached new highs in the face of a geopolitical backdrop that was nothing less than horrendous, with a major terrorist attack in Nice, France, followed by a ***coup d'etat*** in NATO ally Turkey.

If nothing else, corporate buybacks, sticking close to record levels, should reaccelerate here, which could reach $1 trillion in 2016. Some 4.7% of the outstanding share float of corporations is disappearing ***every year!***

I am, therefore, going to give you a list of **MY TEN FAVORITE STOCKS** to buy during the next dip, highlighting the sectors that will lead us into a pre/post election year end rally.

The themes here are homebuilders, consumer discretionary, solar, biotech, big technology, and international. And I'll give you some mouth watering yield plays among the REIT's and master limited partnerships.

Even the entire interest sensitive sector is on the table as a value play.

Watch out, because when I sense that the market has opened a window, the ***Trade Alerts*** are going to be coming hot and heavy.

You have been forewarned!
Read 'em and weep with joy!

10 Stocks to Buy at the Bottom

Lennar Homes (LEN) $48.65
Home Depot (HD) $134.78
Facebook (FB) $116..86
IShares NASDAQ Biotech Index (IBB) $272.53
Apple (AAPL) $98.78
First Solar (FSLR) $47.73
Gilead Sciences (GILD) $86.67
Alerian MLP ETF (AMLP) $12.88 with a 6.84% yield
Simon Properties Group REIT (SPG) $222.94 with a 2.87% yield
Wisdom Tree Japan Hedged Equity (DXJ) $41.37


IBB iShares Nasdaq Biotechnology ETF Nasdaq GM + BATS
© StockCharts.com
10-Aug-2016 3:22pm
Open 293.87 High 294.41 Low 288.01 Last 289.27 Volume 1.0M Chg -5.29 (-1.80%)
RSI(14) 58.03
IBB (Daily) 289.27
MA(50) 273.44
MA(200) 284.91
Volume 1,011,531
MACD(12,26,9) 6.950, 6.941, 0.009


FSLR First Solar Inc. Nasdaq GM + BATS
© StockCharts.com
10-Aug-2016 3:22pm
Open 40.31 High 40.50 Low 36.83 Last 38.52 Volume 12.3M Chg -3.14 (-7.54%)
RSI(14) 25.85
FSLR (Daily) 38.52
MA(50) 47.50
MA(200) 57.73
Volume 12,345,480
MACD(12,26,9) -1.584, -0.754, -0.830


DXJ WisdomTree Japan Hedged Equity Fund NYSE + BATS
© StockCharts.com
10-Aug-2016 3:23pm
Open 41.73 High 41.79 Low 41.58 Last 41.62 Volume 2.5M Chg -0.12 (-0.30%)
RSI(14) 56.58
DXJ (Daily) 41.62
MA(50) 40.49
MA(200) 44.32
Volume 2,519,276
MACD(12,26,9) 0.245, 0.161, 0.084


FB Facebook, Inc. Nasdaq GS + BATS
© StockCharts.com
10-Aug-2016 3:23pm
Open 125.07 High 125.48 Low 124.54 Last 124.78 Volume 8.7M Chg -0.28 (-0.22%)
RSI(14) 63.87
FB (Daily) 124.78
MA(50) 118.28
MA(200) 110.72
Volume 8,682,323
MACD(12,26,9) 2.085, 2.016, 0.069

The Ultra Bull Argument for Gold

Now that the barbarous relic is finally back in fashion, how high could it really go?

The question begs your rapt attention, as the possibility of Britain leaving the EC has suddenly unleashed a plethora of new positive fundamentals for the yellow metal.

It turns out that gold is ***THE*** deflationary asset to own. Who knew?

I was an unmitigated bear on the price of gold after it peaked in 2011. In recent years, the world has been obsessed with yields, chasing them down to historic levels across all asset classes.

But now that much of the world already has, or is about to have negative interest rates, a bizarre new kind of mathematics applies to gold ownership.

Gold's problem used to be that it yielded absolutely nothing, cost you money to store, and carried hefty transactions costs. That asset class didn't fit anywhere in a yield obsessed universe.

Now we have a horse of a different color.

Europeans wishing to put money in a bank have to pay for the privilege to do so. Place €1 million on deposit in an overnight account, and you will have only 996,000 Euros in a year. You just lost 40 basis points on your -0.40% negative interest rate.

With gold, you still earn zero, an extravagant return in this upside down world. All of a sudden, zero is a win.

For the first time in human history, that gives you a 40 basis point yield advantage over Euros. Similar numbers now apply to Japanese yen deposits as well.

As a result, the numbers are so compelling that it has sparked a new gold fever among hedge funds and European and Japanese individuals alike.

Websites purveying investment grade coins and bars crashed multiple times last week, due to overwhelming demand (I occasionally have the same problem). Some retailers have run out of stock.

And last week, the fever went pandemic, as silver rocketed 14.28%, and others like Platinum (PPLT) and Palladium (PALL) were also frenetically bid.

So I'll take this opportunity to review a short history of the gold market (GLD) for the young and the uninformed.

Since it peaked in the summer of 2011, the barbarous relic was beaten like the proverbial red headed stepchild, dragging silver (SLV) down with it. It faced a perfect storm.

Gold was traditionally sought after as an inflation hedge. But with economic growth weak, wages stagnant, and much work still being outsourced abroad, ***deflation*** became rampant. The biggest buyers of gold in the world, the Indians, have seen their purchasing power drop by half, thanks to the collapse of the rupee against the US dollar. The government increased taxes on gold in order to staunch precious capital outflows.

You could also blame China for declining interest in the yellow metal since it is now in its fifth year of falling economic growth.

Chart gold against the Shanghai index, and the similarity is striking, until negative interest rates became widespread in 2016.

The brief bid gold caught in 2015 over war fears in Syria, the Ukraine, and then Iraq was worth an impressive $160 rise.

That is when the diplomats got involved and hostilities were at least delayed, causing gold to roll over like the Bismarck.

In the meantime, gold supply/demand balance was changing dramatically.

While no one was looking, the average price of gold production soared from $5 in 1920 to $1,300 today. Over the last 100 years, the price of producing gold has risen four times faster than the underlying metal.

It's almost as if the gold mining industry is the only one in the world which sees real inflation, since costs soared at a 15% annual rate for the past five years.

This is a function of what I call "peak gold." They're not making it anymore. Miners are increasingly being driven to higher risk, more expensive parts of the world to find the stuff.

You know those tires on heavy dump trucks? They now cost $200,000 each, and buyers face a three-year waiting list to buy one.

Barrick Gold (ABX) didn't try to mine gold at 15,000 feet in the Andes, where freezing water is a major problem, because they like the fresh air.

What this means is that when the spot price of gold fell below the cost of production, miners simply shut down their most marginal facilities, drying up supply. That has recently been happening on a large scale.

Barrick Gold, a client of the ***Mad Hedge Fund Trader***, can still operate, as older mines carry costs go all the way down to $600 an ounce.

No one is going to want to supply the sparkly stuff at a loss. That should prevent gold from falling dramatically.

I am constantly barraged with emails from gold bugs who passionately argue that their beloved metal is trading at a tiny fraction of its true value, and that the barbarous relic is really worth $5,000, $10,000, or even $50,000 an ounce (GLD).

They claim the move in the yellow metal we are seeing now is only the beginning of a 30-fold rise in prices, similar to what we saw from 1972 to 1979, when it leapt from $32 to $950.

So when the chart below popped up in my in-box showing the gold backing of the US monetary base, I felt obligated to pass it on to you to illustrate one of the intellectual arguments these people are using.

To match the gain seen since the 1936 monetary value peak of $35 an ounce, when the money supply was collapsing during the Great Depression, and the double top in 1979 when gold futures first tickled $950, this precious metal has to increase in value by 800% from the recent $1,050 low. That would take our barbarous relic friend up to **$8,400 an ounce**.

To match the move from the $35/ounce, 1972 low to the $950/ounce, 1979 top in absolute dollar terms, we need to see another 27.14 times move to $28,497/ounce.

Have I gotten you interested yet?

I am long term bullish on gold, other precious metals, and virtually all commodities for that matter. But I am not that bullish. These figures make my own $2,300/ounce long-term prediction positively wimp-like by comparison.

The seven year spike up in prices we saw in the seventies, which found me in a very long line in Johannesburg, South Africa to unload my own krugerrands in 1979, was triggered by a number of one off events that will never be repeated.

Some 40 years of unrequited demand was unleashed when Richard Nixon took the US off the gold standard and decriminalized private ownership in 1972. Inflation then peaked around 20%. Newly enriched sellers of oil had a strong historical affinity with gold.

South Africa, the world’s largest gold producer, was then a boycotted international pariah and teetering on the edge of disaster. We are nowhere near the same geopolitical neighborhood today, and hence, my more subdued forecast.

But then again, I could be wrong.

In the end, gold may have to wait for a return of inflation to resume its push to new highs. The previous bear market in gold lasted 18 years, from 1980, to 1998, so don’t hold your breath. What should we look for? The surprise that your friends get an out of the blue pay increase, the largest component of the inflation calculation.

This is happening now in technology, but nowhere else. When I visit open houses in my neighborhood in San Francisco, half the visitors are thirty somethings wearing hoodies offering to pay cash.

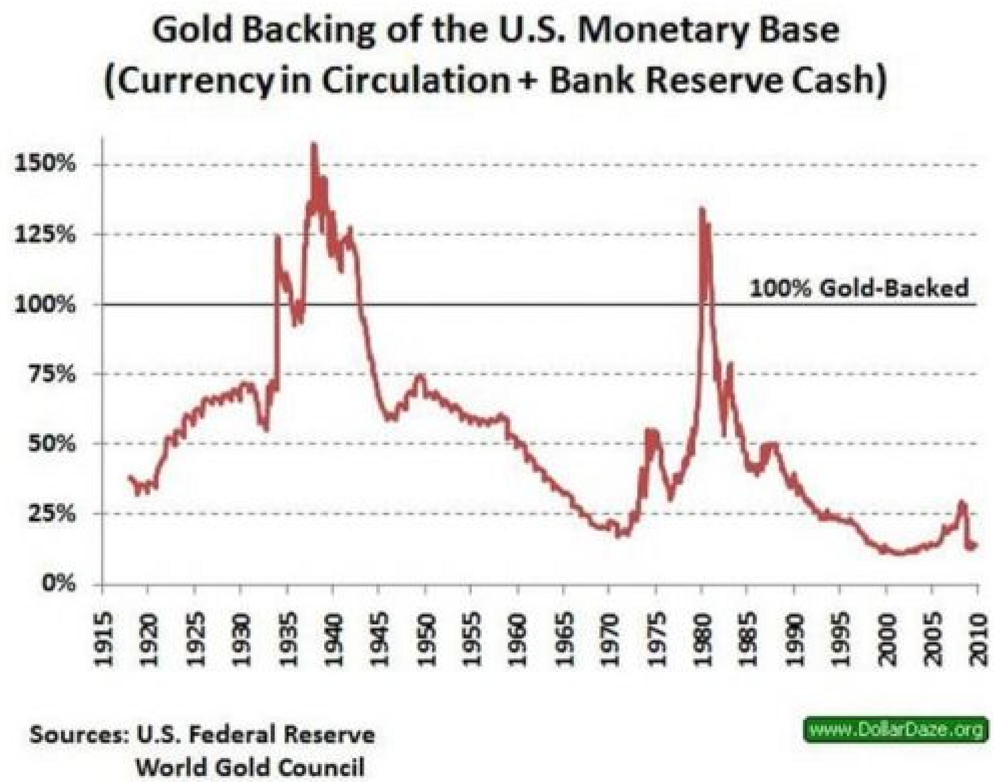
It could be a long wait for ***real*** inflation, possibly into the mid 2020’s, when shocking wage hikes spread elsewhere.

You may have noticed that I have been playing gold from the long side virtually every month since it bottomed in January. I’ll be back in there again, given a good low risk, high return entry point.

You’ll be the first to know when that happens as I'll send out a ***Trade Alert*** at that market sweet spot.

As for the many investment advisor readers who have stayed long gold all along to hedge their clients other risk assets, good for you.

You're finally learning!


Gold Backing of the U.S. Monetary Base
(Currency in Circulation + Bank Reserve Cash)
150%
125%
100%
75%
50%
25%
0%
100% Gold-Backed
1915
1920
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
Sources: U.S. Federal Reserve
World Gold Council
www.DollarDaze.org


$GOLD Gold - Continuous Contract (EOD) CME
© StockCharts.com
9-Aug-2016
Open 1341.20 High 1348.50 Low 1336.00 Close 1346.70 Volume 117.5K Chg +5.40 (+0.40%)
RSI(14) 54.04
$GOLD (Daily) 1346.70 (9 Aug)
MA(50) 1313.12
MA(200) 1207.18
Volume 117,539
MACD(12,26,9) 9.811, 11.225, -1.414
22 Mar 7 14 21 28 Apr 11 18 25 May 9 16 23 Jun 6 13 20 27 Jul 11 18 25 Aug 8


$SILVER Silver - Continuous Contract (EOD) CME
© StockCharts.com
9-Aug-2016
Open 19.75 High 19.90 Low 19.60 Close 19.85 Volume 41.8K Chg +0.05 (+0.23%)
RSI(14) 52.47
$SILVER (Daily) 19.85 (9 Aug)
MA(50) 18.77
MA(200) 16.11
Volume 41,840
MACD(12,26,9) 0.307, 0.437, -0.130


PALL ETFS Physical Palladium Shares NYSE
© StockCharts.com
10-Aug-2016 3:36pm
Open 70.10 High 70.72 Low 69.39 Last 69.39 Volume 53.0K Chg +2.74 (+4.11%)
RSI(14) 75.74
PALL (Daily) 69.39
MA(50) 59.41
MA(200) 54.96
Volume 53,021
MACD(12,26,9) 2.425, 2.700, -0.275


PPLT ETFS Physical Platinum Shares NYSE + BATS
©StockCharts.com
10-Aug-2016 3:37pm Open 113.29 High 114.40 Low 113.10 Last 113.25 Volume 42.8K Chg +2.20 (+1.98%)
RSI(14) 71.81
PPLT (Daily) 113.25
MA(50) 101.74
MA(200) 93.04
Volume 42,827
MACD(12,26,9) 2.845, 2.782, 0.064


GDX VanEck Vectors Gold Miners ETF NYSE + BATS
©StockCharts.com
10-Aug-2016 3:38pm Open 31.54 High 31.69 Low 30.97 Last 31.28 Volume 35.1M Chg +0.52 (+1.69%)
RSI(14) 61.19
GDX (Daily) 31.28
MA(50) 28.07
MA(200) 20.40
Volume 35,145,512
MACD(12,26,9) 0.803, 0.819, -0.016


ABX Barrick Gold Corp. NYSE + BATS
©StockCharts.com
10-Aug-2016 3:38pm
Open 22.07 High 22.12 Low 21.54 Last 21.79 Volume 14.1M Chg +0.30 (+1.40%)
RSI(14) 54.29
ABX (Daily) 21.79
MA(50) 20.71
MA(200) 14.00
Volume 14,074,835
MACD(12,26,9) 0.306, 0.348, -0.042

Diamonds Are Still an Investor's Best Friend

If you forgot to buy your loved one a birthday present and spent a week sleeping on the sofa, eating canned food, and cleaning out the cat box, you now have a chance to redeem yourself. A revolutionary new website exists called Mazal Diamond, which promises to turn the online jewelry business upside down. I went to the privately held company's website at **http://www.mazaldiamond.com** and found an entertaining assortment of free tools.

You can design your own jewelry, and even order a custom cut, which Mazal will supply out of their massive 100,000 stone inventory. You can also figure out if the jeweler down the street is trying to rip you off.

Just for fun, I appraised the diamond I bought for my late wife, which I bought from a Hasidic Jew in an alley off of Manhattan's West 47th street. He kept his inventory hidden in an envelope in his sock.

How times have changed! The two carat, VVS1, round cut, yellow diamond that I paid $3,000 for in 1977, would fetch $39,800 today. Great trade!

Mazal Diamond's game changing advantage is that they cut, design, and manufacture their own jewelry, enabling them to undercut prices offered by established industry leaders.

In fact, the $30 billion a year diamond industry is undergoing radical change by moving online, much the same way as the book, music and travel industry have gone.

Your local neighborhood jewelry store is about to get wiped out or become a quaint relic. Blue Nile (NILE) pioneered the way and instantly became the 800-pound gorilla. The company cut costs by keeping inventories low, relying instead on a secretive web of anonymous suppliers.

Now, second generation entrants are snapping at its heels and eating its lunch with polished websites, better service, and lower prices, seducing potential customers with free diamond blogs. Mazal Diamond even offers a year of free insurance.

They are getting a boost from the 50% price gain a woman's best friend has seen since the March, 2009 stock market bottom, taking them back to pre crash levels.

The US accounts for about half the world market, so the new frugality will be a challenge. That will be offset by flight to safety purchases by inflation wary Americans and new demand from the emerging market middle class.

Investment grade diamonds have been steady earners, gaining an average 5% a year over the last three decades. To avoid another week on the sofa, you might even think about buying next year’s Valentine’s surprise early.

The Ten Baggers in Cyber Security

The threat to America's national security does not come from ISIS, Iran, Russia, or China. It is an online hack attack.

That is the view of General Keith B. Alexander, who recently retired as the head of US Cyber Command after a lifetime in the intelligence business, the country's principal online warrior.
I discovered a long time ago that a retired general can be one of the most valuable sources of information about long term capital market trends. After a career spent exercising discretion and keeping opinions to themselves, the dam breaks.

Sometimes, I am amazed at what I can pick up. Of course, it helps that my own top-secret clearance is still valid.

So when the chance arose to secretly meet Alexander at an undisclosed location, I jumped at it. The general argues that the US is the preeminent online target because we have so much to lose. A concentrated attack could simultaneously cripple all communications, power supply, and financial markets. Life, as we know it, would completely grind to a halt.

The greatest cyber attacks are yet to come.

The US has no shortage of enemies on this front. Vladimir Putin is attempting to reassemble the old Soviet Union. Iran is engaged in numerous adventures throughout the Middle East. China is expanding its empire at every opportunity.

Alexander knows what he is talking about.

He is a recently retired four-star general who served as Director of the National Security Agency (DIRNSA), Chief of the Central Security Service (CHCSS) and Commander of the United States Cyber Command.

He graduated from West Point, Class of 1974, along with three other future four-star generals, including former CIA chief, David Petraeus, and former Chairman of the Joint Chiefs of Staff, Martin Dempsey, whom I both know and have written about.

While head of Army Intelligence, he was in charge of 10,700 spies and eavesdroppers worldwide. He has three master's degrees in business, physics, and systems technology.
A lightweight, he is not.

Alexander expressed his concern that ISIS was using Facebook (FB) to build a global terrorist network. Google (GOOG) has lost $10 billion in revenues to cyber attacks.

The government's controversial collection of meta-data, now at risk from the republican controlled congress, was instrumental in preventing a plot to blow up the New York subway system in 2009.

Coordination between federal agencies is still a major problem. When the NSA discovered that CIA computers may have been compromised, they asked to take a look. They were refused. Finally, pressure from the president opened the doors. The NSA discovered 1,500 Russian malware programs on agency mainframes and they scrubbed them in only 22 hours.

Big data programs on US computers in Iraq were instrumental in identifying, locating, and destroying much of the leadership of Al Qaida.

Ironically, the US military has broken up more hack attacks against European targets than US ones, thanks to their weaker defenses.

And here is the part that always blows my mind. Military men are often clueless about the market implications of their own far reaching conclusions.

That is where I step in.

It looks like the cyber security sector, one of the best market performers during the first half of 2015, is about to take off like a rocket once again. There could be another 20-30% in it this year. We are only one hack attack away from another blockbuster rally.

The near destruction of Sony (SNE) by North Korean hackers in 2014 has certainly put the fear of God into corporate America. Apparently, they have no sense of humor whatsoever north of the 38th parallel.

As a result, there is a generational upgrade in cyber security underway, with many potential targets boosting spending by multiples.

Alexander suggested that the world will probably never again see large-scale armies fielded by major industrial nations. Wars of the future will be fought online, as they have been silently and invisibly over the past 15 years.

All of those trillions of dollars spent on big ticket, heavy metal weapons systems are pure pork designed by politicians to buy voters in marginal swing states.

The money would be far better spent where it is most needed, on the cyber warfare front. Alexander is not alone in these views among America's senior military leadership.

The problem is that when wars become cheaper, you fight more of them, as is the case with online combat.

You probably don’t know this, but during the Bush administration, the Chinese military downloaded the entire contents of the Pentagon’s mainframe computers at least seven times. This was a neat trick because these computers were in stand alone, siloed, electromagnetically shielded facilities not connected to the Internet in any way.

In the process, they obtained the designs of all of our most advanced weapons systems, including our best nukes. What have they done with this top-secret information?

Absolutely nothing.

Like many in senior levels of the US military, the Chinese have concluded that these weapons are a useless waste of valuable resources. Far better value-for-money are more hackers, coders, and servers, which the Chinese have pursued with a vengeance.

You have seen this in the substantial tightening up of the Chinese Internet through the deployment of the Great Firewall, which blocks local access to most foreign websites.

Try sending an email to someone in the middle Kingdom with a Gmail address. It is almost impossible. This is why Google (GOOG) closed their offices there years ago.

As a member of the Joint Chiefs of Staff recently told me, “The greatest threat to national defense is wasting money on national defense.”

Our nation’s military is clamoring for more money to take the cyber war to the enemy. Instead, they are effectively being given more horses, cavalry sabers, and cannon to fight it. No wonder they are eternally frustrated.

The implication is that I need to go out and buy Palo Alto Networks (PANW) once again, a company that I have been recommending since I started covering the industry a year ago. Since then, the shares have skyrocketed some 162%.

Palo Alto Networks, Inc. is an American network security company based in Santa Clara, California just across the water from my Bay Area office.

The company’s core products are advanced firewalls designed to provide network security, visibility and granular control of network activity based on application, user, and content identification.

Palo Alto Networks competes in the unified threat management and network security industry against Cisco (CSCO), FireEye (FEYE), Fortinet (FTNT), Check Point (CHKP), Juniper Networks (JNPR), and Cyberoam, among others.

The really interesting thing about this industry is that there are no losers. That's because companies are taking a layered approach to cyber security, parceling out contracts to many of the leading firms at once—looking to hedge their bets.

To say that top management has no idea what these products really do would be a huge understatement. Therefore, they buy all of them.

This makes a basket approach to the industry more feasible than usual. You can do this through buying the $435 million capitalized PureFunds ISE Cyber Security ETF (HACK), which boasts Cyberark Software (CYBR), Infoblox (BLOX), and FireEye (FEYE) as its three largest positions. (HACK) has been a hedge fund favorite since the Sony attack.

For more information about (HACK), please click here: **http://www.pureetfs.com/etfs/hack.html**.

If you are looking for value plays in this area, you can forget about it. Neither (PANW) nor (FEYE) generate any net earnings. Much as with Tesla (TSLA), you are not betting on what the earnings are today, but what they might be worth in a decade, when the market is infinitely larger.

Think of them as faith based investments.

Could the shares today's crop of cyber security companies rise tenfold from here? Absolutely! Actually, ten might be a low number. If nothing else, the entire industry has become prime takeover bait, offering potential instant profits.

Oh, and by the way, Alexander thinks that drone surveillance of US citizens is coming in the near future. Look out above!


PANW Palo Alto Networks Inc. NYSE
©StockCharts.com
10-Aug-2016
Open 127.97 High 128.33 Low 124.74 Close 125.08 Volume 1.9M Chg -5.76 (-4.40%)
RSI(14) 43.58
PANW (Daily) 125.08
MA(50) 128.43
MA(200) 148.31
Volume 1,858,013
MACD(12,26,9) 0.339, 0.531, -0.192


FEYE FireEye Inc. Nasdaq GS
©StockCharts.com
10-Aug-2016
Open 14.22 High 14.30 Low 13.80 Close 13.90 Volume 7.2M Chg -0.44 (-3.03%)
RSI(14) 32.62
FEYE (Daily) 13.90
MA(50) 16.30
MA(200) 17.83
Volume 7,195,481
MACD(12,26,9) -0.394, -0.025, -0.369


HACK PureFunds ISE Cyber Security ETF AMEX
© StockCharts.com
10-Aug-2016
Open 25.85 High 25.87 Low 25.68 Close 25.78 Volume 205.1K Chg -0.07 (-0.27%)
RSI(14) 58.30
90
70
58.30
50
30
10
HACK (Daily) 25.78
MA(50) 24.77
MA(200) 24.17
Volume 205,148
26.0
25.78
25.5
25.0
24.77
24.5
24.17
24.0
23.5
23.0
22.5
22.0
21.5
205148
20.5
500K
400K
300K
200K
100K
22 Mar 7 14 21 28 Apr 11 18 25 May 9 16 23 Jun 6 13 20 27 Jul 11 18 25 Aug 8
MACD(12,26,9) 0.323, 0.376, -0.053
0.50
0.323
-0.053
-0.25
-0.50
-0.75
-1.00
22 Mar 7 14 21 28 Apr 11 18 25 May 9 16 23 Jun 6 13 20 27 Jul 11 18 25 Aug 8

Welcome to the Deflationary Century

Ignore the lessons of history, and the cost to your portfolio will be great. Especially if you are a bond trader!

In Britain they celebrated something unusual last year. The government reported the first year on year decline in consumer prices in 54 years (see chart below).

In fact, prices for the things they buy day to day were 0.1% lower than they were 12 months before.

Meet deflation, up front and ugly.

If you looked at a chart for data from the United States, they would not be much different, where consumer prices are showing a feeble 0.4% YOY price gain. This is miles away from the Federal Reserve's own 2% annual inflation target.

We are not just having a deflationary year or decade. We may be having a deflationary century. If so, it will not be the first one.

The 19th century saw continuously falling prices as well. Read the financial history of the United States, and it is beset with continuous stock market crashes, economic crisis, and liquidity shortages.

The union movement sprung largely from the need to put a break on falling wages created by perennial labor oversupply and sub living wages.

Enjoy riding the New York subway? Workers paid 10 cents an hour built it 120 years ago. It couldn't be constructed today, as other more modern cities have discovered. The cost would be wildly prohibitive.

The causes of 19th century price collapse were easy to discern. A technology boom sparked an industrial revolution that reduced the labor content of end products by ten to hundredfold. Instead of employing a 100 women for a day to make 100 spools of thread, a single man operating a machine could do the job in an hour.

The dramatic productivity gains swept through then developing economies like a hurricane. The jump from steam to electric power during the last quarter of the century took manufacturing gains a quantum leap forward.

If any of this sounds familiar, it is because we are now seeing a repeat of the exact same impact of accelerating technology. Machines and software are replacing human workers faster than their ability to retrain for new professions.

This is why there has been no net gain in middle class wages for the past 30 years. It is the cause of the structural high U-6 “discouraged workers” employment rate, as well as the millions of millennials still living in parents’ basements.

Instead of steam and electric power, it is now the internet, cheap computing power, global broadband, and software that is swelling the ranks of the jobless.

What’s more, technology gains are now going hyperbolic to a degree never seen before in civilization.

To the above add the huge advances now being made in healthcare, biotechnology, genetic engineering, DNA based computing, and big data solutions to problems.

If all the diseases in the world were wiped out, a probability within 30 years, how many jobs would that destroy?

Probably tens of millions.

So the deflation that we have been suffering in recent years isn’t likely to end any time soon. In fact, it is just getting started.

Why am I interested in this issue? Of course, I always enjoy analyzing and predicting the far future, using the unfolding of the last half century as my guide. Then I have to live long enough to see if I’m right.

I did nail the rise of eight track tapes over six track ones, the victory of VHS over Betamax, the ascendance of Microsoft operating systems over OS2, and then the conquest of Apple over Microsoft. So I have a pretty good track record on this front.

For bond traders especially, there are far reaching consequences of a deflationary century. It means that there will be no bond market crash, as many are predicting, just a slow grind up in long term interest rates instead.

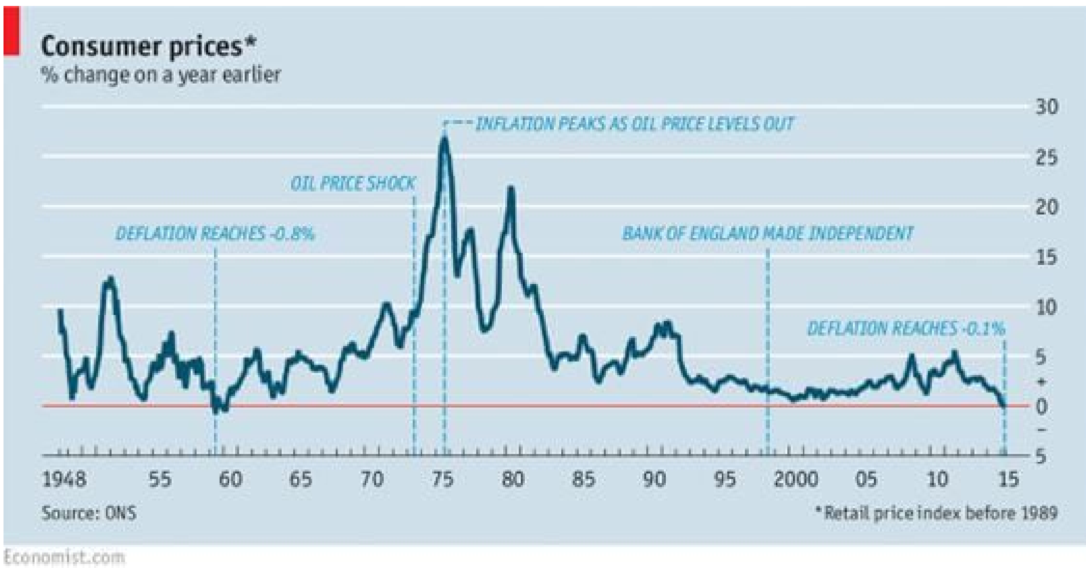
Amazingly the top in rates in the coming cycle may only reach the bottom of past cycles, around 3% for ten-year Treasury bonds (TLT), (TBT).

The soonest that we could possibly see real wage rises will be when a generational demographic labor shortage kicks in during the 2020’s. That could be a decade off.

I say this not as a casual observer, but as a trader who is constantly active in an entire range of debt instruments.

So the bottom line here is that there is additional room for bond prices to fall and yields to rise. But not by that much, given historical comparisons. Think of singles, not home runs.

It really will be just a trade. Thought you'd like to know.



Try This at Your Peril

How Tesla Takes Over the World - Part I

I stopped by Tesla's (TSLA) Fremont, California factory last week to test drive my new high performance Model X SUV and noticed something interesting.

There was major new construction under way in the customer delivery area.

That was to be expected, since the company has already announced that they plan to boost production of their sleek, ultra high tech Model-S sedan from 51,000 units this year to 93,000. It seems doable, since there is still a four-month waiting list to obtain a new vehicle.

However, something didn't fit. They weren't doubling the car delivery area. They were increasing it by ***TEN TIMES!*** Clearly, something much larger was afoot.

After chatting up the staff inside, I learned what was really going on. On Thursday, March 31, CEO and founder Elon Musk will unveil the next generation all electric Tesla 3 at the Hawthorne, California facility. The move promises to upend the global automobile industry.

The $35,000 four-passenger car will get a 200 mile range and require almost no maintenance for its entire life. The batteries will offer an eight-year minimum guarantee.

The vehicles can be recharged by plugging in at home, with 90% discounts for charges between 12:00 and 7:00 AM (in California). At that rate, your fuel cost works out to the equivalent of 4 cents per gallon. They can also be juiced up for free in 30 minutes at Tesla's 200-station national supercharger network (see map below).

The cars will be fully equipped with self driving technology, although the system has yet to be fully activated pending regulatory and insurance issues. The first vehicles will be delivered in 2017.

However, Elon has been late with every car he has delivered so far, so 2018 is more realistic. Customers don't care. They would rather have delayed perfection than an early, buggy beta model.

Tesla will start accepting $1,000 deposits for the Model 3 online from April 1. The company expects to sell 10,000 on the first day.

The Tesla 3 has always been the final goal of Musk's grand vision to build a carbon free global economy. The Tesla Roadster and the Model S-1 were really just test beds to develop a mass-market technology. Now it has finally arrived.

Tesla plans to be producing 500,000 Model 3's within five years. Beyond that, the sky is the limit. The $6 billion gigafactory, its construction well ahead of schedule (I've flown over it), promises to deliver the lithium ion battery packs to make these lofty goals possible. A second plant is planned, possibly in Texas.

And here is the stock play in Tesla. The company is not expected to earn real, non subsidized, accounting gimmick free earnings for several years. But what is ownership of the global car market in a decade worth today?

Tesla sales this year will only account for 0.55% of total US auto production. But they are easily a decade ahead of any potential competitor in the all electric field, be they American, German, Korean, or Japanese. And they are increasing that lead at an astounding pace.

With the highest quality product, the best electric car brand recognition, the greatest range, and the lowest price point, Tesla should own the global car market by 2025. For decades, their only possible limitation will be the number of cars they can produce, except possibly during recessions.

Ad this to the plunging price of solar power, and the cost advantages increase even further. I am already powering my own Tesla S-1 off of my solar panels, and will be adding a second Model X shortly.

It all makes established automakers toast in the 2020's like General Motors (GM), Daimler Benz (DDAIY), Toyota (TM), and Nissan Motors (NSANY).

You can forget about chasing the stock up here. The Model 3 launch has already been fully discounted by the meteoric 71.4% gain in the stock since February 11.

However, Tesla remains a major holding in long term value funds like Ron Baron's Baron Capital, and Fidelity. They see further tenfold gains in the share price from here.

The electric power source is, in fact, the least important aspect of the Tesla cars. Here are 16 reasons that are more important:

1) The vehicles have 75% fewer parts than any other, massively reducing production costs. The drive train has 11 parts, compared to over 1,500 for conventional gasoline powered transportation. Tour the factory and it is eerily silent. There are almost no people, just a handful who service the German robots that put these things together.
2) No maintenance is required, as any engineer will tell you about electric motors. You just rotate the tires every 6,000 miles.

3) This means that no dealer network is required. There is nothing to fix, no parts to sell.

4) If you do need to repair something, usually it can be done over the phone. Rebooting the computer addresses most issues. If not, they will send a van to do a repair at your house for free.

5) The car runs at room temperature, not the 500 degrees in standard internal combustion cars. This means that the parts last forever.

6) The car is connected to the Internet 24/7. Once a month it upgrades its own software when you are sleeping. You jump in the car the next morning and a message appears on your screen saying, “We just upgraded the following 20 Apps.” This is the first car I ever owned that improved itself with age, as I do myself.

7) This is how most of the recalls have been done as well, over the Internet while you are sleeping.

8) If you need to recharge at a public station, it is free. Tesla has its own national network of superchargers that will top you up in minutes, and allow you to drive across the country (see map below). But hotels and businesses have figured out that electric car drivers are the kind of big spending customers they want to attract. So public stations have been multiplying like rabbits. When I first started driving my Nissan Leaf in 2010 there were only 25 charging stations in the Bay Area. There are now over 1,000. They even have them at Costco, Wal-Mart, and McDonalds.

9) No engine means a lot more space for other things, like storage. You get two trunks in the Model-S, a generous one behind, and a “frunk” in front.

10) Drive an electric car in California, and you are treated like visiting royalty. You can drive in the HOV commuter lanes as a single driver. This won’t last forever, but it’s a nice perk now.

11) There is a large and growing market for all American made products. Tesla has a far higher percentage of US parts (100%) than any of the big three.

12) Since almost every part is made on site at the Fremont factory, supply line disruptions are eliminated. Most American cars are over dependent on Asian supply lines for parts and frequently fall victim to disruptions, like floods and tidal waves.

13) There are almost no controls, providing for more cost savings. Except for the drive train, windows, and turn signals, all vehicle controls are on the touch screen, like a giant iPhone 6 plus.

14) A number of readers have argued that the Tesla really runs on coal, as this is still the source of 36% of the US power supply. However, if you program the car between midnight and 7:00 AM (one of my ideas that Tesla adopted in a recent upgrade), you are using electricity

generated by the utilities to maintain grid integrity at night that otherwise goes unused and wasted. How much power is wasted like this in the US every night? Enough to recharge 150 million cars per night!

15) With a waiting list for all new Tesla products, it does not need to advertise. The Detroit Big Three spent $50 billion on advertising last year. Ouch!

16) Oh yes, the car is good for the environment, a big political issue for at least half the country. When these cars become cheaper than conventional gasoline cars with oil at $26 a barrel, the entire country will switch over.

See you in Fremont.

Supercharger map overlaid on US interstate system

How Tesla Takes Over the World - Part II

I knew I was on the right track when the salesman told me that the customer who just preceded me for a Tesla Model X 90D SUV was the Golden Bay Warriors star basketball player, Steph Currie.

Well, if it's good enough for Steph, then it's good enough for me.

Last week, I received a call from Elon Musk's office to test the company's self-driving technology embedded in their new vehicles for readers of the ***Diary of a Mad Hedge Fund Trader.***

I did, and prepare to have your mind blown!

I was driving at 80 MPH on CA-24, a windy eight-lane freeway that snakes its way through the San Francisco East Bay mountains. Suddenly the salesman reached over and flicked a lever on the left side of the driving column.

The car took over!

There it was, winding and turning along every curve, perfectly centered in the lane. As much as I hated to admit it, the car drove better than I ever could.

All that was required was for me to touch the steering wheel every five minutes to prove that I was not sleeping.

The cars do especially well in rush hour driving, as it is adept at stop and go traffic. You can just sit there and work on your laptop, read a book, or watch a movie on the built in 4G WIFI HD TV.

When we returned to the garage the car really showed off. When we passed a parking space, another button was pushed, and we perfectly backed 90 degrees into a parking space, measuring and calculating all the way.

The range is 255 miles, which I can recharge at home at night from a standard 220-volt socket in seven hours. The chassis can rise as high as eight inches off the ground so it can function as a true SUV.

The "ludicrous mode," a $10,000 option, take you from 0 to 60 mph in three seconds. However, even a standard Tesla can accelerate so fast that it will make the average passenger carsick. Here's the buzz kill.

Tesla absolutely charges through the nose for extras.

The 22-inch wheels are $5,500, the third row of seats to get you to seven passengers is $4,000, the premium sound is $2,500, leather seats are $2,500, and the self-driving software is $2,500. A $750 tow hitch will accommodate a ski rack on the back. There is a $1,000 delivery charge, even if you pick it up at the Fremont factory.

It's easy to see how you can jump from an $88,000 base price to a total cost of $130,000, including taxes.

The middle row of seats **DOESN'T** fold down flat, limiting your cargo space to 6 feet long and 3 1/2 feet wide. So if you are a frequent hauler of surfboards and skis, as I am, you will have to order the six-seat configuration and squeeze them between the two middle row seats.

My company will be purchasing the car under Section 179 of the International Revenue Code. The car qualifies because it weighs over 6,000 pounds and is therefore a truck under tax law. This allows me to deduct the entire $130,000 cost of the vehicle up front, plus the maintenance and insurance costs for the entire life of the car. However, I will have to maintain a mileage log as a hedge against any future IRS audits.

Ironically, Section 179 was enacted as a subsidy for consumer purchases of the eight mile per gallon Hummer, which was originally built by AM General and owned by General Motors (GM). After several attempts to sell the division failed, production was permanently shut down. However, the tax subsidies live on for any like designed vehicle.

What was really amazing was to learn how far the technology has moved forward fr0m my four year old Tesla Model S-1.

The range is now 302 miles. Only four-wheel drive versions are now made. And it too has the self-driving software.

It looks like I'll have to buy two Tesla's this year.

As for "drop dead' curb appeal, nothing beats the Model X. Concerning the stock, not so much.

Thanks for Your Subscription!

How Tesla Takes Over the World - Part III

Where Driverless Cars Will Take Us

The news that gravitational waves were discovered, as well as wrinkles in the space-time continuum, was big news in my family. Of course, we knew it was coming. It was just a matter of when.

I have 11 and 12 year old girls (I can't help it if the plumbing still works!). Whenever we drive somewhere, we carry out what Einstein called "thought experiments."

They will come up with scientific questions, and I then direct them into finding their own answers through a series of prodding and hopeful questions. It is much like how the children of royalty were tutored during the Middle Ages.

So they asked, "When will we get driverless cars, which they had heard about on TV?"
I answered in about five years, but that I had friends who run Tesla (TSLA) who already have them now. And you know the interesting thing they discovered? After a year of beta testing, the cars are starting to develop their own personalities.

Each car has highly advanced learning software. When the mapping software requires one to take a difficult sharp left turn, the vehicle may miss it the first time. It will then make the next legal U-turn, and then nail that turn every time in the future.

The cars are all programmed to drive like little old ladies. It will never speed, break the law, and always lets other cars cut in. Over time, some are becoming cautious, while others are getting more aggressive depending on each individual's driving experience.

In other words, experience is turning them into "people."

I asked, "What the world would be like if everyone had driverless cars?" which will occur in about 30 years, or during their middle age.

They pondered for a moment. Then my older daughter shouted out, "There won't be car accidents any more!" "Right!" I answered.

"But what will that mean?"

They puzzled over this.

A few seconds passed. Then it came. "The people who fix cars won't have anything to do!"

“You got it,” I replied. In fact, about 1 million people in the car repair industry will lose their jobs. A small group of vintage car specialists will survive, much like horse and buggy hobbyists do today.

I pointed out that this is already happening because electric cars don’t require any maintenance. You just rotate the tires every 6,000 miles (because electric batteries are so heavy).

I moved on. “Who else will lose their jobs when cars become self driving?” They hit a brick wall. Then I asked “What else breaks when cars have accidents?”

A few seconds later it came. “People!”

“For sure”, I shot back. Actually, about 35,000 people a year die in car accidents every year in the United States, and another 500,000 are injured.

This means the demand for doctors, hospitals, and ambulances will go down. Say goodbye to another 1 million jobs.

“So, what else will self driving cars do?” I was relentless.

My older girl was first. “If cars are driven by computers, it means they can drive closer together.” I said “That was true, but what was the consequence of that?”

The mountain scenery whizzed by. Then they got it.

“There won’t be traffic jams anymore.”

“Yes!” I blurted out. If a car can drive 70 miles per hour, but only needs to remain one car length behind the one in front of it, that effectively increases the capacity of freeways seven times.
We will never need to build another freeway again. ***Another*** 1 million jobs goes down the drain.
“What else will self driving cars do?” I carried on.

They hit a dead end. So I gave a hint. “What do you see in cities?” After going through buildings, parks, roads, lots of cars, and bridges, I finally got the answer I wanted: “Parking lots.”

I then posed the conundrum,” What’s the connection between self driving cars and parking lots?”

Now they were getting into the spirit of the thing. “They won’t need them.” I replied “Absolutely.” Self-driving cars won’t need to park. They’ll just be able to drop you off and drive around the block until you are ready to go home. This will be economical because after three decades of battery and solar improvements, energy will effectively be free, like air is today.

Oh, and at least 100,000 parking attendants might as well start joining the unemployment lines now.

It gets better.

Entrepreneurs now are developing apps for cars so they never need to park. In an iteration of the sharing economy, and in a club or membership type format, your car will just drive person to person, selling rides, until you are ready to go home.

Think of it as ***Uber***, without the drivers, that pays ***you***.

Today, parking lots occupy about 15% of the land area of large cities. Self-driving cars will free up a lot of that space for other uses, like housing and parks.

Then I asked the really big question. What do all of these changes have in common?

My 11 year old picked up on this immediately. “A lot of people are going to lose their jobs!”

“For sure,” I bubbled. Notice that ***every*** new technology improvement creates a lot of job losses. I went on.

“The trick for you girls is to always stay ahead of the technology curve so your job doesn’t get lost too.” This is why I have been sending them to Java development school since they were 8 and 9.

They look daunted.

And this is what and 11 and 12 year olds were able to figure out.

Imagine what Google (GOOGL), Apple (AAPL), and Tesla (TSLA) are doing with this idea. It has become a hot button “next big thing.” Silicon Valley is now rife with rumors of breakthrough developments and the poaching of staff.

The US military and DARPA are involved in self driving vehicles in a big way as well, holding regular contests with big prize money and the prospect of mammoth government contracts. More and more generals and admirals are telling me that the wars of the future will be fought with software.

The bottom line is that things are happening much faster than we imagined possible only a few years ago.

Then my oldest daughter piped up.

“Dad, can I get my drivers license before all the cars are self driving?” I said “sure”. What kind of car do you want?

“A red one.”

On our next trip we will cover gravitational waves, Einstein’s Theory of Relativity, and the significance of the clock tower in Berne, Switzerland.

By the way, these girls will be graduating from college in 2026 and 2027 and will be looking for jobs. Just let me know.

The Battery In Your Future

Yesterday, I provided to you the evidence that oil may never again reach a triple digit price **click here** for ***"Oil: It's Different This Time"***.

Today I am going to tell you what will replace it.

Sony Corp. (SNE) invented the lithium ion battery in 1991 to power its high end consumer electronics products. It is now looking like that was a discovery on par with Bell Labs' invention of the transistor in 1947 and Intel's creation of the microprocessor in 1971, although no one knew it at the time.

Until then, battery technology was essentially unchanged since the first one was invented by Alessandro Volta in 1800 and Gaston Plante upgraded it to the lead acid version in 1859. That is the same battery that today starts your conventional gasoline powered car every morning.

The Sony breakthrough proved the springboard for a revolution in battery power. It has fed into cheaper and ever more powerful iPhones, electric cars, and even large scale utilities.

In 1995, the equivalent of today's iPhone 6 battery cost $20. Today it can be had for $1.40 if you buy in bulk, which Apple does by the shipload. That's a cost reduction of a mind blowing 93%. Electric car batteries have seen prices plunge from $1,000/kilowatt in 2009 to only $200 today. Tesla (TSLA) expects that price to drop to $150 when its $6 billion new "gigafactory" comes online in Sparks, Nevada next year. The facility will produce cookie cutter off the shelf batteries made under contract by Japan's Panasonic (Matsushita).

That will pave the way for the Tesla 3 in 2018, a low end $35,000 vehicle with a 200-mile range that will take over the global car market.

If you took existing battery technologies and applied them as widely as possible, it would have the effect of reducing American oil consumption from 22 to 18 million barrels a day. That's what the oil market seems to be telling us, with prices at a 13-year low at $26 a barrel.

Improve battery capabilities just a little bit more and that oil consumption drops by half very quickly.

Both national and state governments are doing everything they can to make that happen.
The US is taking the lead here and now has a commanding technology lead over the rest of the world (I can't believe the Germans fell so far behind on this one).

In 2009, President Obama chipped in $2.4 billion for battery and electric car development as part of his $787 billion stimulus package. He got a lot of bang for the buck.

So far, I have been the beneficiary of not one, but two $7,500 federal tax credits for my purchase of my Nissan Leaf and Tesla S-1. The Feds also chipped in another $13,000 for my new solar roof panels.

A reader told me yesterday that Sweden will ban the sales of gasoline and diesel powered vehicles from 2030. Japan wants electric and hybrids to account for half of its new car sales by 2020.

California has been the most ambitious, investing to obtain 50% of its power from alternative sources by 2030. Some 450,000 homes here already have solar panels, and these are not even counted in the equation.

Solar and wind are already taking over in much of Europe on a nonsubsidized, cost competitive basis.

At the current rate of improvement, electric cars will be cheaper than gasoline powered ones in only a few years. By 2030, a ten-pound battery in your glove compartment (glove box to you in London) will be able to take your car 300 miles. The cost of energy will essentially be free.
And guess what?

In a year, I will be able to use my solar panels to charge my 85-kilowatt Tesla battery during the day and then use it to power my home at night. That is enough juice to keep the lights on for three nights. Then, I will be totally off the grid, with utility bills of zero.

Tesla has denied it has such a program, but there is nothing to stop a third party from coming in and providing the service. All it would require is an app and 30 minutes worth of wiring.

To say this will change the geopolitical landscape would be a huge understatement. The one liner here is that oil consumers will benefit enormously, while the producers will get destroyed. I'm talking Armageddon, mass starvation levels of destruction.

In the Middle East, some 1 billion people with the world's highest birth rates will lose their entire source of income.

Russia, which sees half its revenues come from oil, will cease to be a factor on the international stage, and may even undergo a third revolution. Take oil away, and all they have left is hacking.
Norwegians will have to start paying for their social services instead of getting them for free.
Venezuela, which couldn't make it at $100 a barrel, will implode, destabilizing Latin America.
It going to be an interesting decade for we geopolitical commentators.

Further improvements in battery power per dollar will change the US economy beyond all recognition. This will be a big win for the 90% of the economy that consumes energy and an existential crisis for the 10% that produce it.

Public utilities will have to change their business models from power producers to distributors. No less an authority than former Energy Secretary Dr. Steven Chu (another Berkeley grad) has warned the industry that they must change or get “Fedexed”, much the same way that overnight delivery replaced the US Post Office.

US oil majors will suffer some very tough times, but won’t disappear. My bet has always been that they will buy the entire alternatives industry the second it becomes profitable.

After all, they are not in the oil business, but in the profit making business, and they certainly have the cash and the management and engineering expertise to pull this off. Exxon (XOM) will turn green out of necessity.

As is always the case, there are very few publicly listed stock plays in a brand new emerging technology like the battery sector. Many of the early stage entrants have already filed for bankruptcy and had their assets taken over for pennies.

It’s a business you want to be in because Citibank expects that giant grid scale batteries alone will be a $400 billion a year market by 2030.

When I visit friends at the oil majors in Houston, I chide them to be kind to that Birkenstock wearing long haired visitor.

He may be their future boss.

The American Onshoring Trend is Accelerating

Have you tried to hire a sewing machine operator lately?

I haven't, but I have friends running major apparel companies who have (guess where I get all those tight fitting jeans?).

Guess what? There aren't any to be had.

Since, 1990, some 77% of the American textiles workforce has been lost, when China joined the world economy in force, and the offshoring trend took flight.
Now that manufacturing is at last coming home, the race is on to find the workers to man it. Welcome to onshoring 2.0.

The development has been prompted by several seemingly unrelated events. There is an ongoing backlash to several disasters at garment makers in Bangladesh, the current low cost producer, which have killed thousands.

Today's young consumers want to look cool, but have a clean conscience as well. That doesn't happen when your threads are sewn together by child slave laborers working for $1 a day.

Several firms are now tapping into the high-end market where the well off are willingly paying top dollar for a well-made "Made in America" label.

Look no further than ***7 For All Mankind***, which is offering just such a product at a discount to all recent buyers of the Tesla Model S-1 (TSLA), that other great all American manufacturer (**click here** for their website).

As a result, wages for cut and sew jobs are now among the fastest growing in the country, up 13.2% in real terms since 2007, versus a paltry 1.4% for industry as a whole.

Apparel industry recruiters are plastering high schools and church communities with flyers in their desperate quest for new workers. They advertise in languages with high proportions of blue-collar workers, like Spanish, Somali, and Hmong.

New immigrants are particularly being targeted. And yes, they are resorting to the technology that originally hollowed out their industry, creating websites to suck in new applicants.

Chinese workers now earn $3 an hour versus $9 plus benefits at the lowest paying US factories. But the extra cost is more than made up for by savings in transportation and logistics, and the rapid time to market.

That is a crucial advantage in today's fast paced, high turnover fashion world. Some companies are even returning to the hiring practices of the past, offering free training programs and paid internships.

By now, we have all become experts in offshoring, the practice whereby American companies relocate manufacturing jobs overseas to take advantage of low wages, missing unions, the lack of regulation, and the paucity of environmental controls.

The strategy has been by far the largest source of new profits enjoyed by big companies for the past two decades. It has also been blamed for losses of US jobs, with some estimates reaching as high as 25 million.
When offshoring first started 50 years ago, it was a total no brainer. Wages were sometimes 95% cheaper than those at home. The cost savings were so great that you could amortize your total capital costs in as little as two years.

So American electronics makers began flying overseas to Singapore, Thailand, Hong Kong, Taiwan, South Korea, and the Philippines. After the US normalized relations with China in 1978, the action moved there and found that labor was even cheaper.

Then, a funny thing happened. After 30 years of falling real American wages and soaring Chinese wages, offshoring isn't such a great deal anymore. The average Chinese laborer earned $100 a year in 1977.

Today, it is $6,000 and $24,000 for trained technicians, with total compensation rising 20% a year. At this rate, US and Chinese wages will reach parity in about 10 years.

But wages won't have to reach parity for onshoring to accelerate in a meaningful way. Investing in China is still not without risks. Managing a global supply chain is no piece of cake on a good day. Asian countries still lack much of the infrastructure that we take for granted here.

Natural disasters like earthquakes, fires and tidal waves can have a hugely disruptive impact on a manufacturing system that is in effect a finely tuned, incredibly complex watch.

There are also far larger political risks keeping a chunk of our manufacturing base in the Middle Kingdom than most Americans realize. With the US fleet and the Chinese military playing an endless game of chicken off the coast, we are one mid air collision away from a major diplomatic incident.

Protectionism constantly threatens to boil over in the US, whether it is over the dumping of chicken feet, tires, or the latest, solar cells.

This is what the visit to the Foxcon factory by Apple's CEO, Tim Cook, was all about. Be nice to the workers there, let them work only 8 hours a day instead of 16, let them unionize, and guess what?

Work will come back to the US all the faster. The Chinese press was ripe with speculation that Apple induced reforms might spread to the rest of the country like wildfire.

Former General Motors (GM) CEO, Dan Akerson, told me his company was reconsidering its global production strategy in the wake of the Thai floods.

Which car company was most impacted by the Japanese tsunami? General Motors, which obtained a large portion of its transmissions there.
The impact of a real onshoring move on the US economy would be huge. Some economists estimate that as many as 10%-30% of the jobs lost to offshoring could return. At the high end, this could amount to 8 million jobs. That would cut our unemployment rate down by half, at least.

It would add $20-60 billion in GDP per year, or up to 0.4% in economic growth per year. It would also lead to a much stronger dollar, rising stocks, and lower bond prices. Is this what the stock market is trying to tell us by failing to have any meaningful correction for the past 2 ½ years?

Who would be the biggest beneficiaries of an onshoring trend? Si! Ole! Mexico (UMX) (EWW), which took the biggest hit when China started soaking up all the low waged jobs in the world. After that, the industrial Midwest has to figure pretty large, especially gutted Michigan. With real estate prices there under their 1992 lows, if there is a market at all, you know that doing business there costs a fraction of what it did 20 years ago.

So How Does This Thing Work?

Do You Want to Live Forever?

When I was a DNA scientist at UCLA 45 years ago, the team used to slack off whenever our professor was attending an out of town conference.

We used to take pure 200 proof ethanol the university kept on hand "for research purposes," used it to bring our beer up to 100 proof, and then speculate about the future of our obscure, neglected field.

With the technology at hand, we predicted it would take 3,000 years to fully decode the 3 billion base pairs of a length of human DNA. It then might take another 1,000 years to manipulate our genes to accomplish something useful, like curing cancer.

Maybe it was our "enhanced" beer talking, but we were off on our bold forecast by only 2,970 years.

Dr. Craig Venter published a map of his own DNA in 2001 using sophisticated algorithms to vastly accelerate our own snail like progress.

The second step, that of functional genetic engineering, took only another decade instead of a millennium.

Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR).

Memorize this term, write it in your diary, and put it on a post it note on your computer.
It may save your life some day, if not add decades to it.

And it could also make you a multimillionaire, if you play your cards right. More on that below.
And I count myself on becoming one of its fortunate users, once the technology goes retail, which should be soon.

If you are another DNA scientist, all I need to tell you is that **CRISPR** are used to manipulate segments of prokaryotic DNA containing short repetitions of base sequences.

Each repetition is followed by short segments of spacer DNA from previous exposures to a bacteriophage virus or plasmids. The protein fragments that identify and snip these crucial gene segments are called **CRISPRs**.

If you are more interested in trading than genetics, which most of my subscribers are , suffice it to say that **CRISPR** technology is being developed that will enable you to edit your own DNA on a customized basis and then pass the changes on to your progeny.

This will eventually allow you to become immune to all diseases, increase your intelligence, and possibly live forever. Just cut out a bad gene and put in a new one and you, and all your future descendants are fixed for good.

You only have to make it five or ten more years at the most with your current vintage DNA, and you can easily live another century.

Oh, and by the way, the company that successfully brings **CRISPR** products to market in an economical, cost effective way should see it's stock price rise tenfold, if not a hundredfold. Interested?

Reading up on the research for this piece, one thought kept recurring in my mind: “I can’t believe they are already doing this **NOW!”**

CRISPR technology was first noted by a Japanese researcher in 1987. It turns out that the Japanese have a huge head start in developing DNA technologies thanks to a 300-year track record in brewing potent rice wines, like ***sake.***

By 2007, **CRISPR** went mainstream, attracting funding from a broad range of industries. There was initial heavy interest from the food producers, which sought to make plants and their seeds immune to common crop destroying diseases.

Their work is partly responsible for the record crop yields that are presently crushing agricultural prices across the board.

As of today, there have been over 1,000 peer reviewed papers published about **CRISPR**, each one taking us an infinitesimal step forward.

Currently, there are clinical trials underway employing **CRISPR** technology to fight multiple forms of cancer, herpes viruses, and advance immunosuppression in human organ transplants. A legal battle has already broken out over who owns the rights to CRISPR technology, with Thermo Fisher Scientific (TMO) holdings several key patents. The shares have gained an impressive 35% since the February lows.

OvaScience Inc. (OVAS) has started applying CRISPR to human embryos. It didn’t take long to ignite a firestorm of controversy over the prospect of permanently altering the human germline. Will the wealthy buy their way into genetic superiority and immortality? Or will we accidently create an organism that could wipe out the human race? Cries of “Social Darwinism” abound.

Or worse, what if the Chinese make their own population immune to a bioweapon which they then unleash on the rest of the world?

What if a gene treatment that cures cancer also makes individuals, aggressive, paranoid, or violent?

Talk about letting a genie out of a bottle while also opening Pandora's Box!

Some leading scientific journals, like ***Nature*** and ***Science,*** have refused to publish some **CRISPR** papers over ethical concerns. Unsurprisingly, Chinese scientists have the lead in the most controversial applications.

It's all way above my pay grade.

During my lifetime I have seen science drop some real clangers.

While in Europe this summer, I saw a Thalidomide baby grown up, now in his fifties. The anti morning sickness drug developed by a German company produced children with flippers instead of arms.

Even today, Thalidomide is held out as an example of the need for enhanced drug regulation in the US.

In the early 1950's, one doctor developed the bright idea of giving newborn babies pure oxygen. Everyone eventually went completely blind for life.

And then the CIA developed LSD as a potential weapon, testing it on it's own unwitting employees, who developed an unfortunate tendency to jump out of windows from high floors. We all know how that one worked out.

We already know what genes people will choose when given the opportunity to do so, instead of using the ones they inherited the old fashioned way.

The unregulated human artificial insemination industry makes available genotypes of every race and nationality in abundance. More than 90% choose tall, blonde, intelligent donors, inadvertently creating a financial windfall from the UC Berkeley Men's Water Polo Team.
It is an outcome Adolph Hitler would have been proud of, as more than 1 million of these children have been born in the US alone.

Some prolific water polo players have sired more than 100 children, which are now using websites like **23andMe** and **Ancestry.com** to find each other and socialize.
It was not in the game plan.

As is always the case with new, cutting edge, groundbreaking technologies, it is hard to find a rifle shot investment that gives you a pure play.

Many such efforts are subsumed inside huge companies where a specific technology never moves the needle. Starts ups often go bust because they can't keep up with rapidly evolving technology.

That's what happened to the 3D printing industry, and I can't remember how many hard drive companies and PC makers have gone under.

Editas, Caribou Biosciences, Intellia, CRISPR Therapeutics, and Precision Biosciences are all privately owned by the founders and the venture capital firms who funded them. Still, you might get a bite of the apple when these firms go public in a few years.

Cellectis (CLLS) is a $1.1 billion French company that is involved in both gene editing and cancer immunotherapy. The company has improved the quality of crops for the food and agriculture industries.

Sangamo Biosciences (SGMO) is a $1 billion California based company that has entered Phase 1 clinical trials for a gene editing technique that is showing encouraging results as a possible functional cure for HIV.

Many will find the prospect of living another century enticing. I might be interested if I could get back the body I had when I was 25.

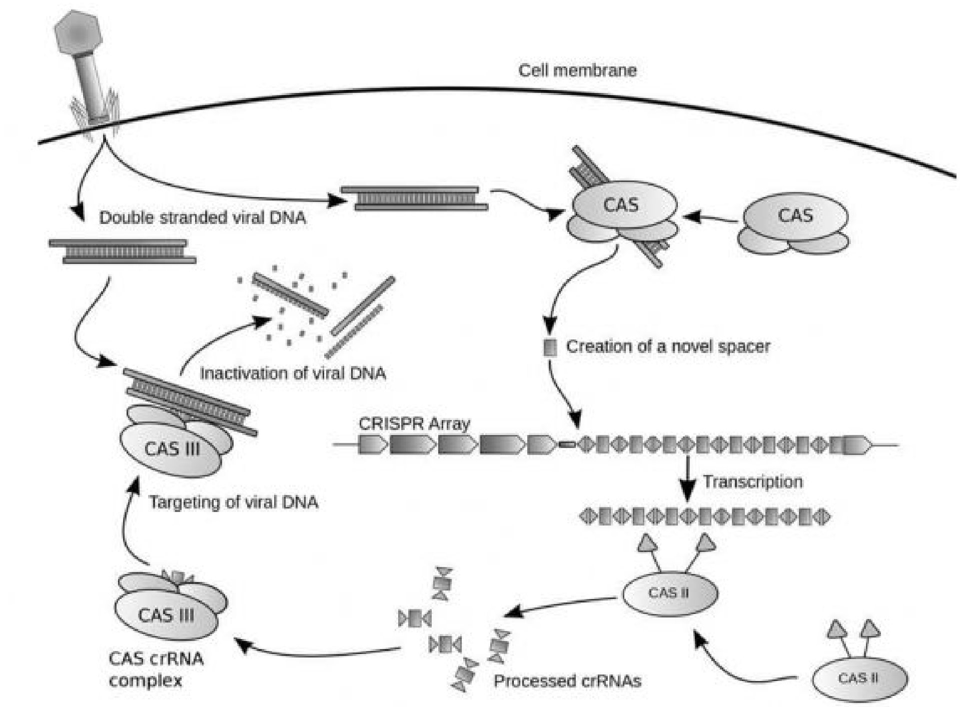
The possibility of finding a stock that could rise 10 or 100 times is **MUCH** more interesting.


TMO Thermo Fisher Scientific Inc. NYSE + BATS
©StockCharts.com
11-Aug-2016 9:39am
Open 156.35 High 156.45 Low 156.09 Last 156.39 Volume 1,481 Chg +0.38 (+0.24%)
RSI(14) 53.35
TMO (Daily) 156.39
MA(50) 152.89
MA(200) 141.82
Volume 1,481
MACD(12,26,9) 1.074, 1.564, -0.490

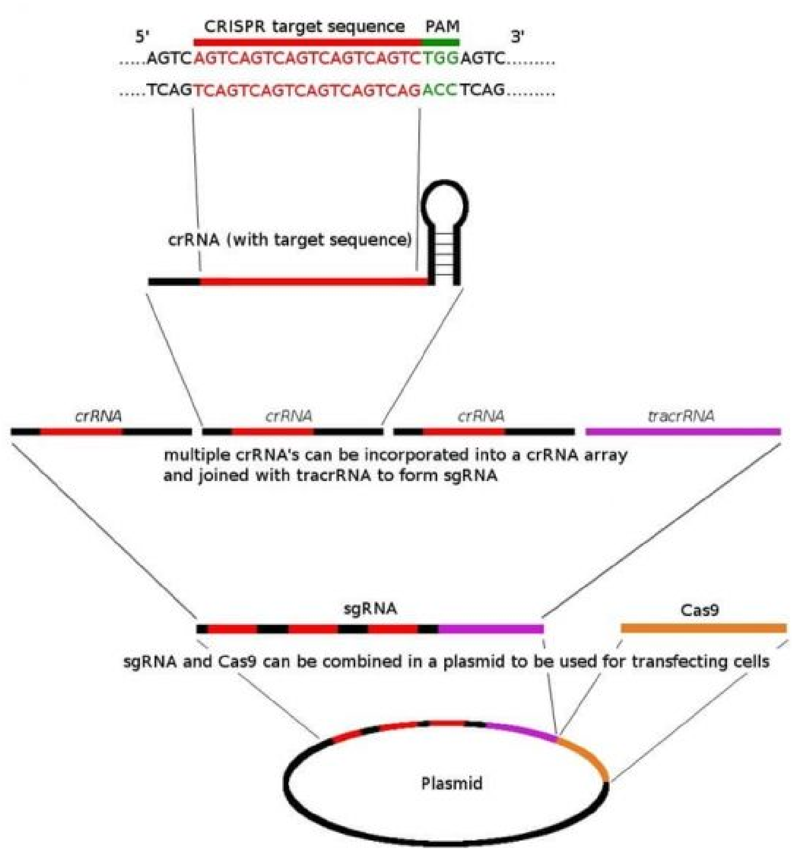

CLLS Cellectis SA Nasdaq GM
©StockCharts.com
10-Aug-2016
Open 27.79 High 28.32 Low 27.39 Last 27.58 Volume 99.0K Chg -0.33 (-1.18%)
RSI(14) 55.94
CLLS (Daily) 27.58 (10 Aug)
MA(50) 27.55
MA(200) 27.90
Volume 99,017
MACD(12,26,9) 0.260, -0.036, 0.296


SGMO Sangamo BioSciences, Inc. Nasdaq GM + BATS
© StockCharts.com
11-Aug-2016 9:45am
Open 5.00 High 5.00 Low 4.53 Last 4.55 Volume 18.1K Chg -0.02 (-0.44%)
RSI(14) 33.76
SGMO (Daily) 4.55
MA(50) 5.93
MA(200) 6.62
Volume 18,106
MACD(12,26,9) -0.313, -0.142, -0.172
22 Mar 7 14 21 28 Apr 11 18 25 May 9 16 23 Jun 6 13 20 27 Jul 11 18 25 Aug 8


OVAS OvaScience Inc. Nasdaq GM + BATS
© StockCharts.com
11-Aug-2016 9:46am
Open 6.16 High 6.16 Low 6.07 Last 6.15 Volume 1,225 Chg +0.07 (+1.15%)
RSI(14) 58.61
OVAS (Daily) 6.15
MA(50) 5.62
MA(200) 8.00
Volume 1,225
MACD(12,26,9) 0.136, -0.001, 0.137
22 Mar 7 14 21 28 Apr 11 18 25 May 9 16 23 Jun 6 13 20 27 Jul 11 18 25 Aug 8



CRISPR Cas-9 and Genome Editing

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STOCK EXCHANGE

Peeking into the Future with Ray Kurzweil

This is the most important research piece you will ever read, bar none. But you have to finish it to understand why. So, I will get on with the show.

I have been hammering away at my followers at investment conferences, webinars, and strategy luncheons this year about one recurring theme. Things are good, and about to get better, a whole lot better.

The driver will be the exploding rate of technological innovation in electronics, biotechnology, and energy. The 2020's are shaping up to be another roaring twenties, and asset prices are going to go through the roof.

To flesh out some hard numbers about growth rates that are realistically possible and which industries will be the leaders, I hooked up with my old friend, Ray Kurzweil, one of the most brilliant minds in computer science.

Ray is currently a director of Engineering at Google (GOOG), heading up a team that is developing stronger artificial intelligence. He is an MIT grad, with a double major in computer science and creative writing. He was the principal inventor of the CCD flatbed scanner, first text-to-speech synthesizer, and the commercially marketed large-vocabulary speech recognition.

When he was still a teenager, Ray was personally awarded a science prize by President Lyndon Johnson. He has received 20 honorary doctorates and has authored 7 books. It was upon Ray's shoulders that many of today's technological miracles were built.

His most recent book, ***The Singularity Is Near: When Humans Transcend Biology***, was a ***New York Times*** best seller. In it he makes hundreds of predictions about the next 100 years that will make you fall out of your chair.

I met Ray at one of my favorite San Francisco restaurants, Morton's on Sutter Street. I ordered a dozen oysters; a filet mignon wrapped in bacon, and drowned it all down with a fine bottle of Duckhorn merlot. Ray had a wedge salad with no dressing, a giant handful of nutritional supplements, and a bottle of water. That's Ray, one cheap date.

The Future of Man

A singularity is defined as a single event that has monumental consequences. Astrophysicists refer to the big bang and black holes in this way. Ray's singularity has humans and machines merging to become single entities, partially by 2040 and completely by 2100.

All of our thought processes will include built in links to the cloud, making humans super smart. Skin that absorbs energy from the sun will eliminate the need to eat. Nanobots will replace blood cells, which are far more efficient at moving oxygen. A revolution in biotechnology will enable us to eliminate all medical causes of death.

Most organs can now be partially or completely replaced. Eventually they all will become renewable by taking one of your existing cells and cloning it into a completely new organ. We will become much more like machines, and machines will become more like us.

The first industrial revolution extended the reach of our bodies, and the second is extending the reach of our minds.

And, oh yes, prostitution will be legalized and move completely online. Sound like a turn off? How about virtually doing it with you favorite movie star? Your favorite investment advisor? Yikes!

Ironically, one of the great accelerants towards this singularity has been the war in Iraq. More than 50,000 young men and women came home missing arms and legs (in Vietnam these were all fatalities, thanks to the absence of modern carbon fiber body armor).

Generous government research budgets have delivered huge advances in titanium artificial limbs and the ability to control them only with thoughts. Quadriplegics can now hit computer keystrokes merely by thinking about them.

Kurzweil argues that exponentially growing information technology is encompassing more and more things that we care about, like health care and medicine. Reprogramming of biology will be the next big thing, and is a crucial part of his “singularity.”

Our bodies are governed by obsolete genetic programs that evolved in a bygone era. For example, over millions of years our bodies developed genes to store fat cells to protect against a poor hunting season in the following year. That gave us a great evolutionary advantage 10,000 years ago. But it is not so great now, with obesity becoming the country’s number one health problem.

We would love to turn off these genes through reprogramming, confident that the hunting at the supermarket next year will be good. We can do this in mice now, which in experiments can eat like crazy, but never gain weight.

The happy rodents enjoy the full benefits of caloric restriction, with no hint of diabetes or heart disease. A product like this would be revolutionary, not just for us, health care providers, and the government, but, ironically, for fast food restaurants as well.

Within the last five years, we have learned how to reprogram stem cells to rebuild the hearts of heart attack victims. The stem cells are harvested from skin cells, not human embryos, ducking the political and religious issue of the past.

And if we can turn off genes, why not the ones in cancer cells that enable them to pursue unlimited reproduction, until they kill its host? That development would cure all cancers, and is probably only a decade off.

The Future of Computing

If this all sounds like science fiction, you'd be right. But Ray points out that humans have chronically underestimated the rate of technological innovation.

This is because humans evolved to become linear thinking animals. If a million years ago we saw a gazelle running from left to right, our brains calculated that one second later it would progress ten feet further to the right. That's where we threw the spear. This gave us a huge advantage over other animals, and is why we became the dominant species.

However, much of science, technology, and innovation grows at an exponential rate, and is where we make our most egregious forecasting errors. Count to seven, and you get to seven. However, double something seven times and you get to a billion.

The history of the progress of communications is a good example of an exponential effect. Spoken language took hundreds of thousands of year to develop. Written language emerged thousands of years, books in a 100 years, the telegraph in a century, and telephones 50 years later.

Some ten years after Steve Jobs brought out his Apple II personal computer, the growth of the Internet went hyperbolic. Within three years of the iPhone launch, social media exploded out of nowhere.

At he beginning of the 20th century, $1,000 bought 10 X -5th power worth of calculations per second in our primitive adding machines. A hundred years later a grand got you 10 X 8th power calculations, a 10 trillion-fold improvement. The present century will see gains many times this.

The iPhone itself is several thousand times smaller, a million times cheaper, and billions times more powerful than computers of 40 years ago. That increases price per performance by the trillions. More dramatic improvements will accelerate from here.

Moore's law is another example of how fast this process works. Intel (INTC) founder Gordon Moore published a paper in 1965 predicting a doubling of the number of transistors on a printed circuit board every two years. Since electrons had shorter distances to travel, speeds would double as well.

Moore thought that theoretical limits imposed by the laws of physics would bring this doubling trend to end by 2018, when the gates become too small for the electrons to pass through. For decades I have read research reports predicting that this immutable deadline would bring an end to innovation and technological growth, and bring and economic Armageddon.

Ray argues that nothing could be further from the truth. A paradigm shift will simply allow us to leapfrog conventional silicon based semiconductor technologies and move on to bigger and better things. We did this when we jumped from vacuum tubes to transistors in 1949, and again in 1959, when Texas Instruments (TXN) invented the first integrated circuit.

Paradigm shifts occurred every ten years in the past century, every five years in the last decade, and will occur every couple of years in the 2020's. So fasten your seatbelts!

Nanotechnology has already allowed manufacturers to extend the 2018 Moore's Law limit to 2022. On the drawing board are much more advanced computing technologies, including calcium based systems, using the alternating direction of spinning electrons, and nanotubes.

Perhaps the most promising is DNA based computing, a high research priority at IBM and several other major firms. I earned my own 15 minutes of fame in the scientific world 40 years ago as a member of the first team ever to sequence a piece of DNA, which is why Ray knows who I am.

Deoxyribo Nucleic Acid makes up the genes that contain the programming that makes us who we are. It is a fantastically efficient means of storing and transmitting information. And it is found in every single cell in our bodies, all 10 trillion of them.

The great thing about DNA is that it replicates itself. Just throw it some sugar. That eliminates the cost of building the giant $2 billion silicon based chip fabrication plants of today.

The entire human genome is a sequential binary code containing only 800 MB information, which after you eliminate redundancies, has a mere 30-100 MB of useful information, about the size of an off the shelf software program, like Word for Windows. Unwind a single DNA molecule, and it is only six feet long.

What this means is that, just when many believe that our computer power is peaking, it is in fact just launching on an era of exponential growth. Super computers surpassed human brain computational ability in 2012, about 10 to the 16th power (ten quadrillion) calculations per second.

That power will be available on a low-end laptop by 2020. By 2050, this prospective single laptop will have the same computing power of the entire human race, about 9 billion individuals. It will also be small enough to implant in our brains.

The Future of the Economy

Ray is not really that interested in financial markets, or for that matter, making money. Where technology will be in a half century and how to get us there are what get his juices flowing. However, I did manage to tease a few mind-boggling thoughts from him.

At the current rate of change, the 21st century will see 200 times the technological progress that we saw in the 20th century. Shouldn't corporate profits, and therefore share prices, rise by as much?

Technology is rapidly increasing its share of the economy, and increasing its influence on other sectors. That's why tech has been everyone's favorite sector for the past 30 years, and will remain so for the foreseeable future. For two centuries, technology has been eliminating jobs at the bottom of the economy, and creating new ones at the top.

Stock analysts and investors make a fatal flaw estimating future earnings based on the linear trends of the past, instead of the exceptional growth that will occur in the future.

In the last century, the Dow appreciated from 100 to 10,000, an increase of 100 times. If we grow at that rate in this century, the Dow should increase by 10,000% to 1 million by 2100. But so far, we are up only 6%, even though we are already 14 years into the new century.

The index is seriously lagging, but will play catch up in a major way during the 2020's, when economic growth jumps from 2% to 4% or more, thanks to the effects of massively accelerating technological change.

Some 100 years ago, one third of jobs were in farming, one third were in manufacturing, and one third in services. If you predicted then that in a century farming and manufacturing would each be 3% of total employment and that something else unknown would come along for the rest of us, people would have been horrified. But that's exactly what happened.

Solar energy use is also on an exponential path. It is now 1% of the world's supply, but is only seven doublings away from becoming 100%. Then we will consume only one 10,000th of the sunlight hitting the earth. Geothermal energy offers the same opportunities.

We are only running out of energy if you limit yourself to 19th century methods. Energy costs will plummet. Eventually, energy will be essentially free when compared to today's costs, further boosting corporate profits.

Hyper growth in technology means that we will be battling with deflation for the rest of the century, as the cost of production and price of everything falls off a cliff. That makes our 10-year Treasury bonds a steal at a generous 2.60% yield, a full 460 basis points over the real long term inflation rate of negative 2% a year.

US Treasuries could eventually trade down to the 0.40% yields seen in Japan only a couple of years ago. This means that the bull market in bonds is still in its early stages, and could continue for decades.

The upshot for all of this, these technologies will rapidly eliminate poverty, not just in the US, but around the world. Each industry will need to continuously reinvent its business model, or disappear.

The takeaway for investors, that stocks, as well as other asset prices, are now wildly undervalued given their spectacular future earnings potential. It also makes the Dow target of 1 million by 2100 absurdly low, and off by a factor of 10 or even 100. Will we be donning our “Dow 100 Million” then?

Other Random Thoughts

As we ordered dessert, Ray launched into another stream of random thoughts. I asked for Morton’s exquisite double chocolate mousse. Ray had another handful of supplements. Yep, Mr. Cheap Date.

The number of college students has grown from 50,000 to 12 million since 1870’s. A kid in Africa with a cell phone has more access to accurate information than the president of the United States did 15 years ago.

The great superpower, the Soviet Union, was wiped out by a few fax machines distributing information in 1991.

Company offices will become entirely virtual by 2025.

Cows are very inefficient at producing meat. In the near future, cloned muscle tissue will be produced in factories, disease free, and at a fraction of the present cost, without the participation of the animal. PETA will be thrilled.

Use of nano materials to build ultra light but ultra strong cars cuts fuel consumption dramatically. Battery efficiencies will improve by 10 to 100 times. Imagine powering Tesla Model S1 with a 10-pound battery! Advances in nanotube construction mean the weight of the vehicle will drop from the present 3 tons to just 100 pounds, but will be far safer.

Ray is also on a scientific advisory panel for the US Army. Uncertain about my own security clearance, he was reluctant to go into detail. Suffice it to say that the weight of an M1 Abrams main battle tank will shrink from 70 tons to 1 ton, but will be 100 times stronger.

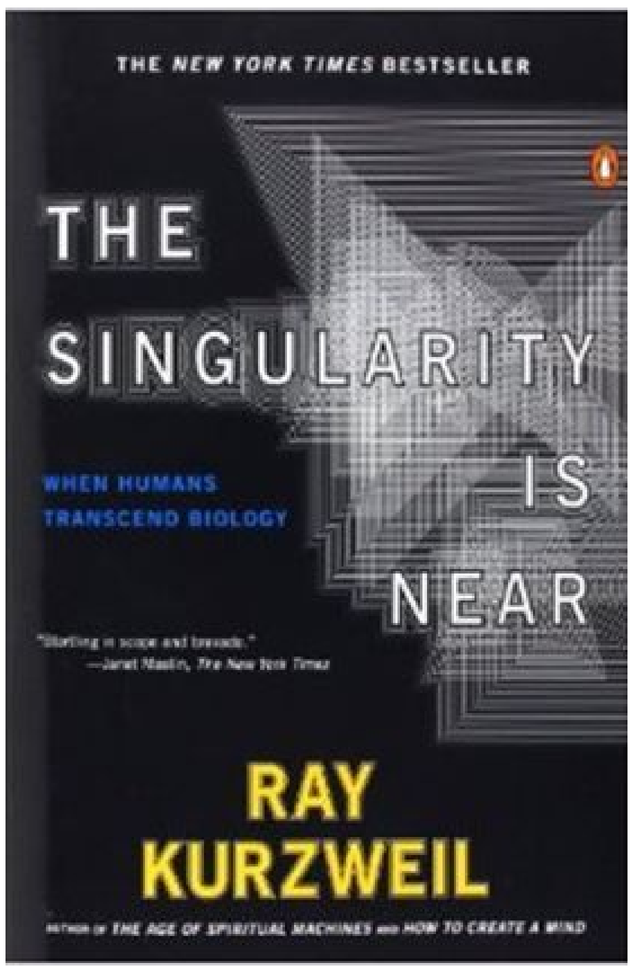
A zero tolerance policy towards biotechnology by the environmental movement exposes their intellectual and moral bankruptcy. Opposing a technology with so many positive benefits for humankind and the environment will inevitably alienate them from the media and the public, who will see the insanity of their position.

Artificial intelligence is already far more prevalent than you understand. The advent of strong artificial intelligence will be the most significant development of this century. You can't buy a book from Amazon, withdraw money from your bank, or book a flight, without relying on AI. Ray finished up by saying that by 2100, humans will have the choice of living in a biological, or in a totally virtual, online form. In the end we will all just be files.

Personally, I prefer the former, as the best things in life are biological, and free!

I walked over to the valet parking, stunned and disoriented by the mother load of insight I had just obtained, and it wasn't just the merlot talking, either! Imagine what they talk about at Google all day.

To buy ***The Singularity Is Near*** at discount Amazon pricing, please **click here**. It is worth purchasing the book just to read Ray's single chapter on the future of the economy.



Did You Say "BUY" or "SELL"

The Future is Closer than You Think