Prelude

Investing should be made simple, but not simpler.

TC Lee 12-15-2016 Talk at CACS

股市投資方法很多,可說五花八門

- Index Funds and index ETFs
- Dow Dogs
- Sector Rotation via ETFs / index funds
- Stock picking
- Buy and Hold (Warren Buffet is the master)
- Dual momentum investing (Gary Antonacci)
- Hedging (long and Short and use of options)

本講分兩大段:

- 1. 股市簡易投資策略
- 2. 但是別以為股市簡單

Acronyms:

DJIA: Dow Jones Industrial Average

SP500: Index of Standard and Poor 500 companies

NASDAQ index: the Nasdaq index of 3000 plus companies

ETF: Exchange traded Fund, consisting of a basket of stocks with given

characteristics.

Index Fund: A mutual Fund that tracks an index or a sector

SPY: an ETF that tracks the SP500. IVV and VOO are equivalent ETFs.

FUSVX: A Fidelity index fund that tracks the SP500, just like SPY.

QQQ: an ETF that tracks the 100 large, growth oriented companies in NASDAQ,.

It does not include the financial companies, energy companies, materials cos, and REITs, though.

XLF: a S&P sector ETF that tracks the financial sector

XLE: a S&P sector ETF that tracks the energy sector

XLV: a S&P sector ETF that tracks the healthcare sector

XLK: a S&P sector ETF that tracks the information sector

XLP: a S&P sector ETF that tracks the Consumer staples sector

XLY: a S&P sector ETF that tracks the consumer discretionary sector

XLI: a S&P sector ETF that tracks the industrial sector

XLU: a S&P sector ETF that tracks the utility sector

XLB: a S&P sector ETF that tracks the materials sector

DJIA = $(\sum P_i)/d_{DJIA}$ P_i = Price of the stock d_{DJIA} = divisor $i = 1, 2 \dots 30, 30$ companies selected by a panel at Wall Street Journal

SP500 Index = $(\sum N_i * P_i)/d_{SP500}$

Where N_i = Number of floating shares in the market

 P_i = Price of the stock d_{SP500} = divisor

i = 1, 2 505, 500 large companies selected by Standard and Poor Corp

NASDAQ Index = $(\sum N_i * P_i)/d_{nasdq}$

Where N_i = Number of floating shares in the market

 P_i = Price of the stock d_{SP500} = divisor

i = 1, 2 3000, 3000 large companies selected by the National Association of Securities Dealers (NASD) to enable investors to trade securities on a computerized, speedy and transparent system, and commenced operations on February 8, 1971.

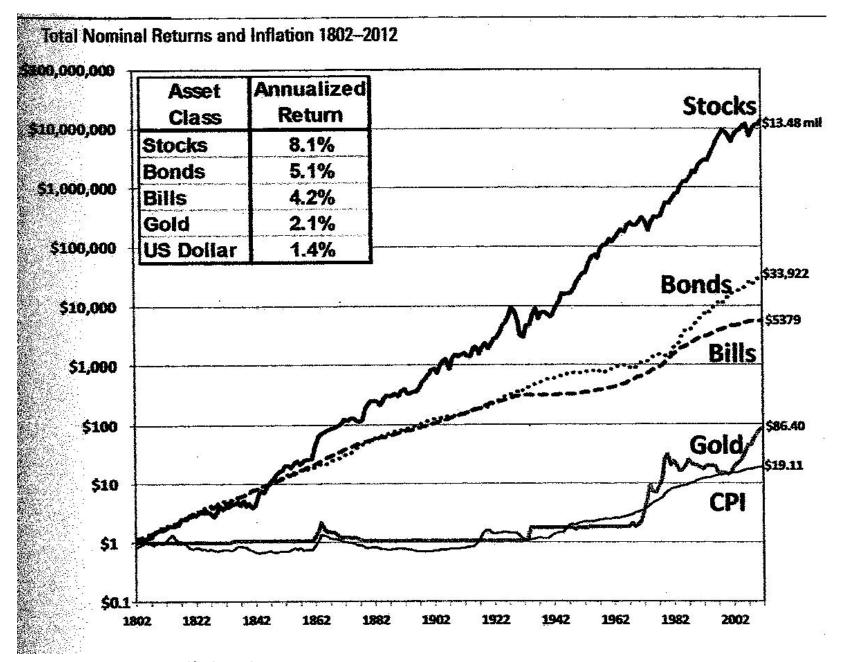
All indices are updated every 15 seconds in the market. Divisor will be adjusted to guarantee continuity as a result of stock split and/or stock replacement.

SIMPLE METHOD

- Diversification using mainly ETFs and index funds covering a large portion of the market; a side benefit is low management fees
- Buy and Hold for the long term
- Ignore the Not So Simple

NOT SO SIMPLE METHODS

- Deciding the proportion of stocks and bonds and cash is not so simple
- Need confidence in the future prosperity of Corporate America
- Volatility is not the same as real correction. How do you distinguish them?
- Sector weighting can be tricky also
- Pay attention to Economic Indicators
- Develop a broad understanding of US and International Economies, mainly, US, China and EU. Try to grasp the implications of Brexit, China's economy transformation, and the Trump Surprise, etc.



p.77, J.Siegel's book

Could actively managed funds help you beat the market?

Consider what's happened over the past 15 years¹,

Active stock fund managers

19% outperformed benchmarks.

81% underperformed benchmarks.

Active bond fund managers

14% outperformed benchmarks.

86% underperformed benchmarks.

When you're trying to track the markets and not beat them, you can worry less about how accurate your predictions may be.

Footnote¹ Sources: Vanguard calculations, using data from Morningstar, Inc. Based on funds' excess returns relative to their prospectus benchmark for the 15-year period ending December 31, 2015.

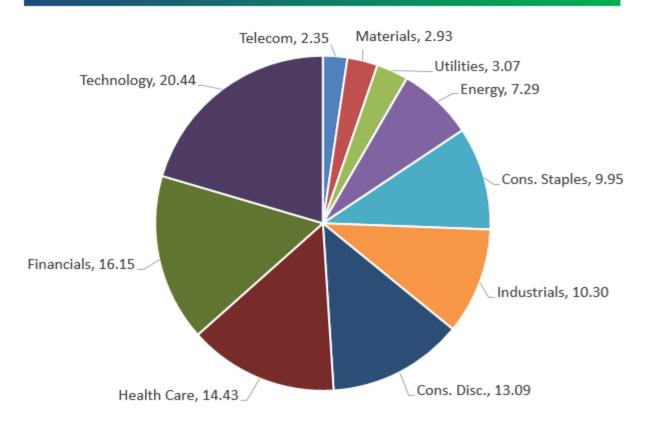
Company	Price Change
AMC Networks	-33.3%
Apple	-8.0
Celgene	7.7
CVS Health	-19.6
Delta Air Lines	-4.0
Discover Finl Services	20.7
Electronic Arts	7.4
Foot Locker	11.8
General Motors	0.5
Mohawk Industries	1.1
Average	-1.6
S&P 500	4.8
Sou	rce: Bloomber

Barron's 2016 picks underperform the market as of 12/02/2016 The market average beats the Barron's by a whopping 6%.

SPY — STOCK HOLDINGS PAGE 1 OF 26

Stock	Weight	Amount
<u>Apple</u>	3.10%	\$6,557,889,442
Microsoft	2.43%	\$5,151,314,506
Exxon Mobil	1.86%	\$3,940,968,793
Johnson & Johnson	1.60%	\$3,389,266,466
AMAZON.COM	1.59%	\$3,362,218,905
Berkshire Hathaway INC. Class B	1.55%	\$3,287,903,458
J.P. Morgan Chase & CO.	1.47%	\$3,118,297,577
General Electric Company	1.45%	\$3,073,408,184
Facebook INC. Class A	1.45%	\$3,073,751,010
AT&T	1.23%	\$2,608,208,333
Wells Fargo & Company	1.22%	\$2,593,038,426
Alphabet INC. Class A	1.19%	\$2,515,238,316
Alphabet INC. Class C	1.16%	\$2,458,762,495
Procter & Gamble Company	1.14%	\$2,416,524,574
Bank of America	1.08%	\$2,294,126,413
Chevron	1.08%	\$2,289,797,244
Verizon Communications	1.06%	\$2,238,911,334
<u>Pfizer</u>	0.98%	\$2,083,964,931
Merck & CO.	0.88%	\$1,865,819,254
Comcast Corporation Class A	0.86%	\$1,816,763,889

S&P 500 Current Sector Weightings (%)



$\rm QQQ-STOCK\ HOLDINGS\ PAGE\ 1\ OF\ 6$

Stock	Weight	Amount
<u>Apple</u>	10.87%	\$4,396,053,416
Microsoft	8.54%	\$3,454,753,583
AMAZON.COM	6.74%	\$2,724,736,046
Facebook	5.10%	\$2,062,712,940
Alphabet	4.76%	\$1,923,585,624
Alphabet	4.18%	\$1,691,446,595
Intel	3.00%	\$1,211,827,302
Comcast	2.96%	\$1,196,841,073
Cisco Systems	2.69%	\$1,086,063,400
Amgen	1.95%	\$788,054,007
Kraft Heinz CO/THE	1.82%	\$736,452,431
Qualcomm	1.81%	\$733,719,563
Gilead Sciences	1.78%	\$718,217,349
Celgene	1.70%	\$688,483,417
Walgreens Boots Alliance	1.64%	\$663,880,020
Starbucks	1.51%	\$612,251,787
Priceline Group INC/THE	1.36%	\$548,625,656
Texas Instruments	1.34%	\$542,252,286
Charter Communications	1.32%	\$534,706,010
Biogen	1.27%	\$515,488,991

Page 1 2 3 4 5 6 next »

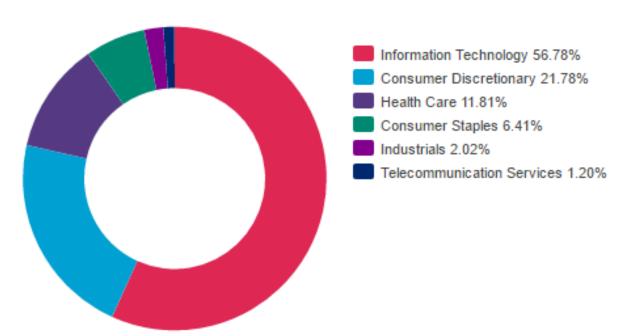
QQQ - PowerShares QQQ

Equity - US Equity

Overview Performance Portfolio Distributions Documents

Sector Allocation

as of 11/25/2016



Fidelity Index Funds Vanguard Index Funds Premium Share Class - \$10K Minimum Investment Admiral Share Class - \$10K Minimum Investment Fund Name Comparison Based Fund Name on Expense Ratio Fidelity® 500 Index Premium (FUSVX) Vanguard 500 Index Admiral (VFIAX) .045% .050% Fidelity® Total Market Index Premium (FSTVX) Vanguard Total Stock Mkt Index Admiral (VTSAX) .045% .050% Fidelity® Extended Market Index Premium (FSEVX) Vanguard Extended Market Index Admiral (VEXAX) .070% .090% Fidelity® Large Cap Growth Index Prm (FSUPX) .070% .080% Vanguard Growth Index Admiral (VIGAX) Fidelity® Large Cap Value Index Prm (FLCHX) Vanguard Value Index Admiral (VVIAX) .070% .080% Fidelity® Mid Cap Index Premium (FSCKX) Vanguard Mid Cap Index Admiral (VIMAX) .070% .080% Fidelity® Small Cap Index Premium (FSSVX) Vanguard Small Cap Index Admiral (VSMAX) .070% .080% Fidelity® International Index Premium (FSIVX) Vanguard Developed Markets Index Admiral (VTMGX) .080% .090% Fidelity® Global ex US Index Premium (FSGDX) .110% .130% Vanguard FTSE All-Wld ex-US Index Admiral (VFWAX) Fidelity® Total Intl Index Premium (FTIPX) Vanguard Total Intl Stock Index Admiral (VTIAX) .110% .120% Fidelity® Emerging Markets Index Premium (FPMAX) Vanguard Emerging Mkts Stock Index Admiral (VEMAX) .140% .150% Fidelity® Real Estate Index Premium (FSRVX) Vanguard REIT Index Admiral (VGSLX) .090% .120%

Expense ratio information as of July 1, 2016 for Fidelity; June 28, 2016 for Vanguard

Fidelity® US Bond Index Premium (FSITX)

Fidelity® Short-Term Treasury Bd Index Prm (FSBAX)

Fidelity® Long-Term Treasury Bd Index Prem (FLBAX)

Fidelity® Intermediate Trs Bd Index Prem (FIBAX)

Index Funds from Fidelity and from Vanguard, 2 premier brokerage houses

.050%

.090%

.090%

.090%

.060%

.100%

.100%

.100%

Vanguard Total Bond Market Index Admiral (VBTLX)

Vanguard Short-Term Govt Bd Index Admiral (VSBSX)

Vanguard Interm-Tm Govt Bd Index Admiral (VSIGX)

Vanguard Long-Term Govt Bd Index Admiral (VLGSX)

Expense ratio information as of July 1, 2016 for Fidelity; June 28, 2016 for Vanguard

Fidelity and Vanguard offer other share classes of these funds with different investment minimums and expense ratios.

The following funds have a short-term redemption fee for fee eligible shares held less than 90 days: Fidelity Total Market Index Fund .50%, Fidelity Extended Market Index Fund .75% Fidelity Small Cap Index Fund 1.5%, Fidelity International Index Fund 1.00%, Fidelity Global ex US Index Fund 1.00%, Fidelity Total International Fund 1.00%, Fidelity Extended Market Index Fund 1.5% and Fidelity Real Estate Index Fund .75%. The Fidelity Mid Cap Index Fund has a short-term redemption fee of .75% for fee-eligible shares held less than 30 days.

idelity Sector ETFs Vangu		ngu	uard Sector ETFs	
Fund Name	Comparison E on Expense R		Fund Name	
Fidelity® MSCI Consumer Discret ETF (FDIS)	.084% .10	00%	Vanguard Consumer Discretionary ETF (VCR)	
Fidelity® MSCI Consumer Staples ETF (FSTA)	.084% .10	00%	Vanguard Consumer Staples ETF (VDC)	
Fidelity® MSCI Energy ETF (FENY)	.084% .10	00%	Vanguard Energy ETF (VDE)	
Fidelity® MSCI Financials ETF (FNCL)	.084% .10	00%	Vanguard Financials ETF (VFH)	
Fidelity [®] MSCI Health Care ETF (FHLC)	.084% .09	90%	Vanguard Health Care ETF (VHT)	
Fidelity [®] MSCI Industrials ETF (FIDU)	.084% .10	00%	Vanguard Industrials ETF (VIS)	
Fidelity [®] MSCI Information Tech ETF (FTEC)	.084% .10	00%	Vanguard Information Technology ETF (VGT)	
Fidelity [®] MSCI Materials ETF (FMAT)	.084% .10	00%	Vanguard Materials ETF (VAW)	
Fidelity® MSCI Telecommunication Svc ETF (FCOM)	.084% .10	00%	Vanguard Telecommunication Services ETF (VOX)	
Fidelity [®] MSCI Utilities ETF (FUTY)	.084% .10	00%	Vanguard Utilities ETF (VPU)	
Fidelity® MSCI Real Estate ETF (FREL)	.084% .12	20%	Vanguard REIT ETF (VNQ)	

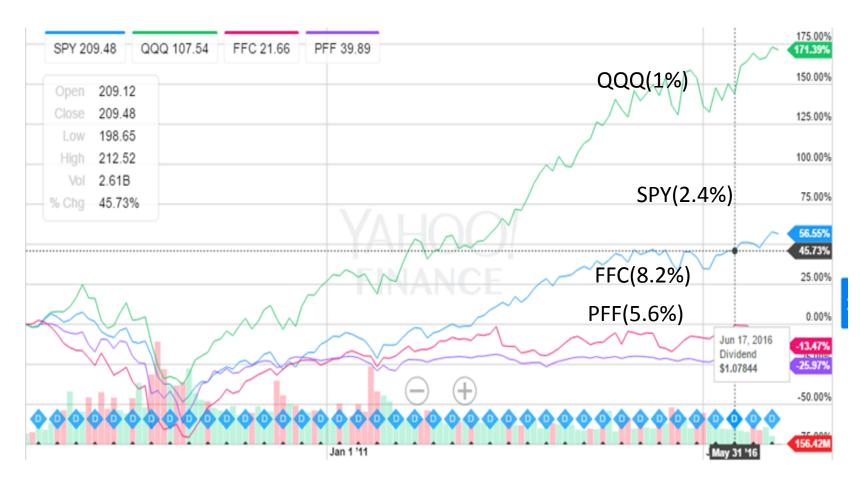
Expense ratio information as of July 1, 2016 for Fidelity; June 28, 2016 for Vanguard

A hypothetical all ETF portfolio to hold for 10 years

Symbol	Weight
SPY	30%
QQQ	40%
PFF	15%
FFC	15%

Symbol	10-year Return-annualized	Current Yield
SPY	6.62 %	2.1 %
QQQ	11.6 %	1.0 %
PFF	5.56 %	5.76 %
FFC	10.54 %	8.44 %

If history repeats, you will have an annual return of 8.3% Remember: past performance is no guarantee of future returns



Comparison of stock prices of SPY, QQQ and two preferred stock ETFs

My investment experience with SOAR Endowment Fund

- Minimize risk, because our mantra is capital preservation. We need the capital to sustain scholarships.
- Use a mixture of index funds, stocks, and bond like funds. Adjust weight depending on my view of the economy in the next year or two. Today we are 30% income ETFs, 50% stocks and 20% cash. As late as August, 2016, we were 50% income ETFs, 40% stocks.
- Panic in 2015 August
- The fund started in May, 2014. We have spent \$115K on scholarships, and our asset is still more than the total amount of donations. The market in the past two years has been pretty tough.
- Looking to 2017, I see Trump policies as the mother of all uncertainties. I
 am holding my cup, while studying the tea leaves.

誰能預料股市之大起大落?

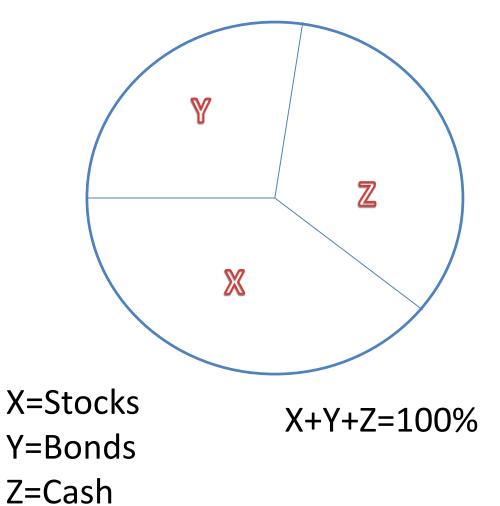
股票市場的價格: 是投資界集體的信心指數。

雖然可以衡量之數據很多,但常發出不同的信號,甚至互相茅盾,故見仁見智,有不同的看法,故而股市有漲有落,有時高深莫測。

網路上和媒體常報導大投資人和經濟學家的看法。一般說來,投資人的看法比較準確細膩,因有切身利益投入。但經濟學家於宏覌比較專業,因為除了經濟層面,更需了解政治層面,包括國際間的geopolitics。可惜他們由於不同的背景和個性,意見也常有很大的 diversity。

能預料股市大起大落的人是 鳳毛麟角,但是人們永不停的猜測股市的未來,人性就是如此。





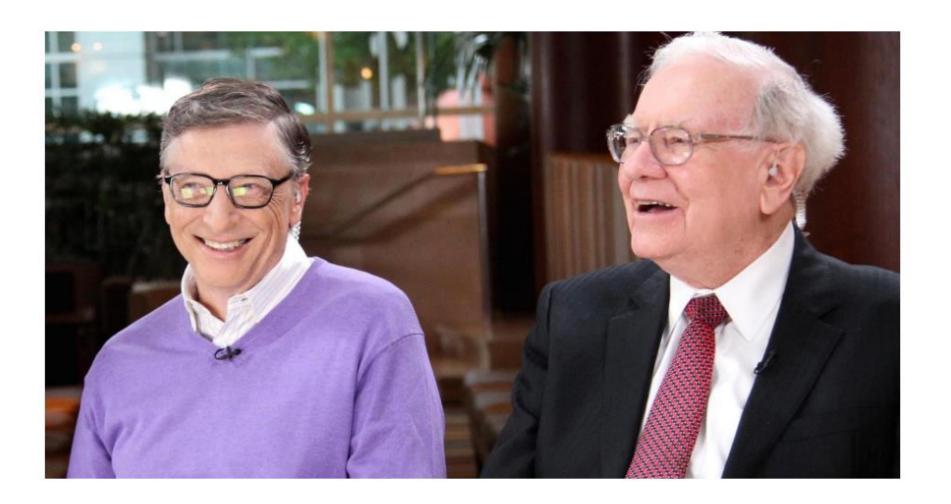
Allocation of X, Y and Z is not easy

Important things to pay attention:

- Fed Policy
- Economy Leading Indicators
- PMI is very important
- Inflation or deflation
- The dollar Strength: good and bad
- EPS forecast

13	Alan Greenspan (1926–)	August 11, 1987	January 31, 2006 ^[14]	Ronald Reagan (1981–1989)
14	Ben Bernanke (1953–)	February 1, 2006	January 31, 2014	George W. Bush (2001–2009)
15	Janet Yellen (1946–)	February 1, 2014 ^[15]	Incumbent	Barack Obama (2009–)

The Fed Chairs are almost as powerful as the presidents,



Warren Buffet Invest Rules—Not So Simple

- 1. **Use the 50-year rule.** Before investing in a company, ask yourself if the business will still be thriving in 50 years.
- 2. Look for stable companies.
- 3. Take advantage when the market misprices good companies.
- 4. "It's better to buy a wonderful company at a fair price than a fair company at a wonderful price."
- 5. Buy stocks you would want to hold if the market were to close for 10 years.
- 6. **Invest in companies with a long history.** Take a look at Berkshire's five largest stock holdings: **Wells Fargo**, **Kraft Heinz**, **Coca-Cola**, **IBM**, and **American Express**.
- 7. **Identify a** *durable* **competitive advantage before buying a stock.** Also known as a "wide moat," Buffett likes to invest in companies that have an advantage over their peers that will stand the test of time.
- 8. Maintain a focused portfolio.
- 9. **Look for shareholder-friendly management.** These include a clear and justified dividend policy, executives who own a lot of stock themselves, reasonable executive compensation, and open and frequent communication with shareholders.

	Berkshire Hathaway	S&P 500	Annual Outperformance
1960s	28.3%	5.0%	23.3%
1970s	22.2%	5.9%	16.3%
1980s	39.1%	17.3%	21.7%
1990s	20.5%	18.0%	2.5%
2000s	5.9%	-1.0%	6.8%
2010s	17.9%	15.3%	2.6%
1965-2014	21.7%	9.8%	11.8%

Leading Economic Indicators: (used by the Conference Board)

- PMI: purchase manger's index
- Average hours worked per week
- Weekly jobless claims
- New orders for consumer goods
- New orders for capital goods
- Vendors diffusion index
- Building permits
- M2 money supply
- SP500 index
- Consumer confidence-Michigan index

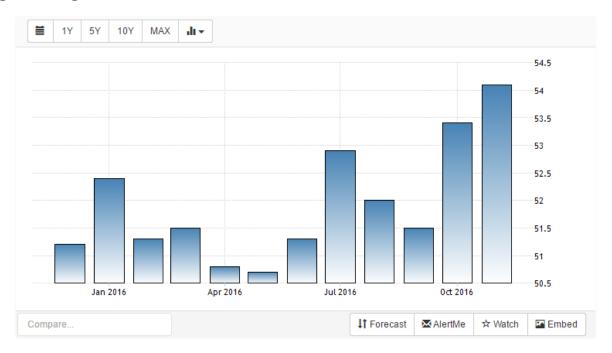
Can get numbers from The Conference Board web site, and from Bloomberg web site

Change in Leading Economic Indicators Published by Conference Board

Country/Region	Change	Date
Australia	▲ 0.5%	21 Nov. 2016
Brazil	▲ 0.1%	17 Nov. 2016
China	▲ 0.8%	21 Nov. 2016
Euro Area	▲ 0.3%	22 Nov. 2016
France	▲ 0.7%	17 Nov. 2016
Germany	▼ 0.2%	21 Nov. 2016
India	▼ 0.3%	15 Nov. 2016
Japan	▲ 0.3%	09 Nov. 2016
Korea	- 0.0%	10 Nov. 2016
Mexico	▼ 0.8%	16 Nov. 2016
Spain	▲ 0.3%	10 Nov. 2016
U.K.	▲ 0.1%	16 Nov. 2016
U.S.	▲ 0.1%	18 Nov. 2016

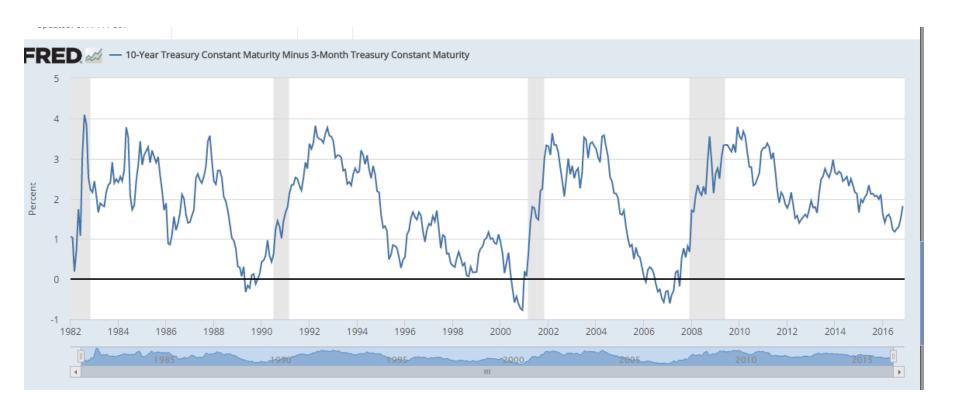
Purchasing Managers' Index - PMI

The Purchasing Managers' Index (PMI) is an indicator of the economic health of the manufacturing sector. The <u>PMI</u> is based on five major indicators: new orders, inventory levels, production, supplier <u>deliveries</u> and the employment environment. The purpose of the PMI is to provide information about current business conditions to company decision makers, <u>analysts</u> and purchasing managers.



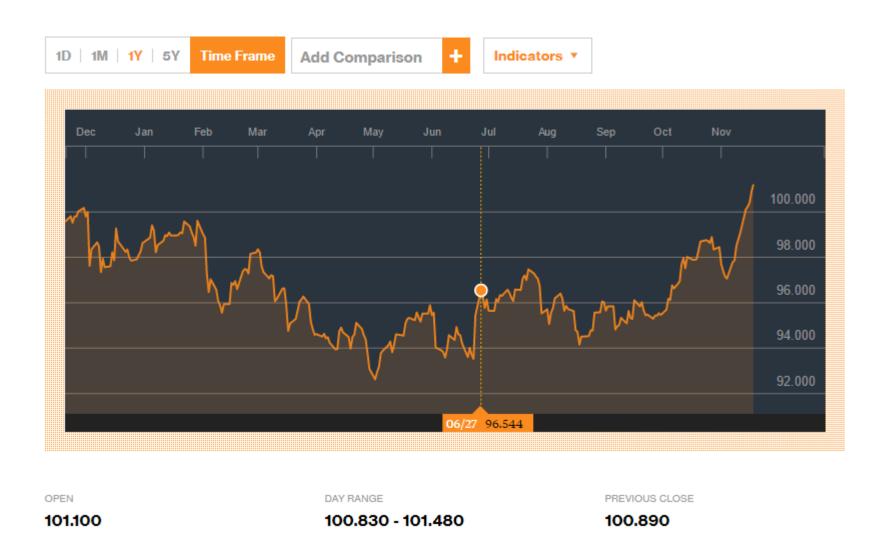






Interest rate spread is a good leading indicator of recessions





Another Trump effect: the dollar is rising quickly

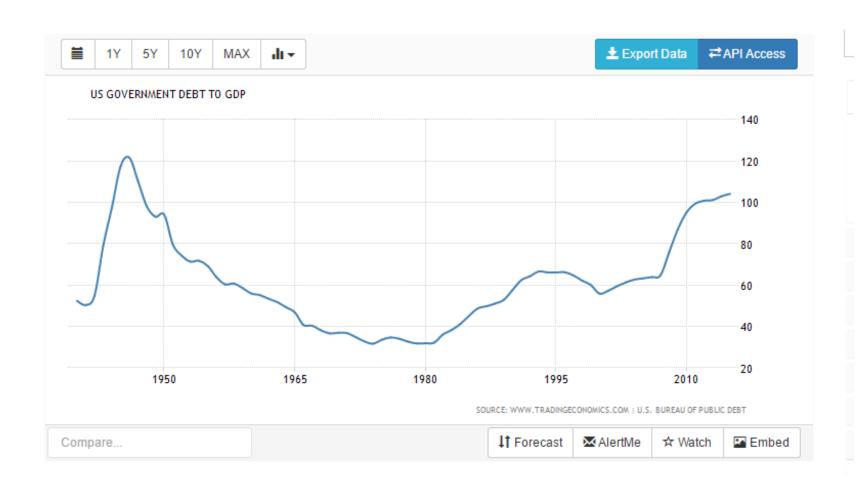
m = 147 128,47 < Fundamentalis 11/17 118,19 \$32,6 147,63 130,90 11/17 118,22 132,61 148,11 = 131,23 motive the gray 12/1 118,19 132,69 148,21 131,57

Kiplinger forecasts 2.1% GDP growth and 11% EPS growth in 2017

Trump presidency Outlook

- He will adopt a stimulative fiscal policy, mainly Infrastructure spending and tax reduction for corporations and individuals.
- The economy will initially grow faster, but
- The government debt will increase, and inflation is likely to accelerate. Therefore the Fed has to increase interest rate, causing the dollar to go higher. Higher dollar and higher interest rate may cause a US recession at some time in the future, maybe a year or two.
- The government debt, which is already at 110% of GDP, will continue to rise. High debt will weaken the US economy and the US World leadership position.
- Trade talks. Will renegotiate trade deals. He will abolish TPP, and may embark upon one-on-one
 negotiations with countries like China, Mexico, Japan, EU, etc. His commerce secretary Wilbur Ross is a
 shrewd business man versed in negotiations. He is a master at buying beat down properties, and make
 big bucks. But Trump cannot ignore WTO rules. He will use the US economy size and military power to
 full advantage in the negotiations.
- He'll also try to bring manufacture jobs back to US. It does not seem to make economic sense when the
 labor cost of Mexico for one day is about the same as labor cost for one hour in US. My view is that,
 just as water finds the lower places, manufacturing will find the cheaper labor. You cannot fight gravity.
- Immigration policy is a big problem. The US farming and construction business relies on the Mexico immigrants and the high tech business depends on H-1 Visa immigrants from many places in the world like Europe, India and China. The US is already near full employment; is it wise to stop immigrants from entering?
- Trump just finished appointing major cabinet posts, and may get cooperation from the Congress. Their policies may take about 6 months to a year to play out. This is an important time to develop the big picture view about the emerging Trump era.
- Trump seems like a bully businessman: 連號帶騙

Total USA Debt vs GDP



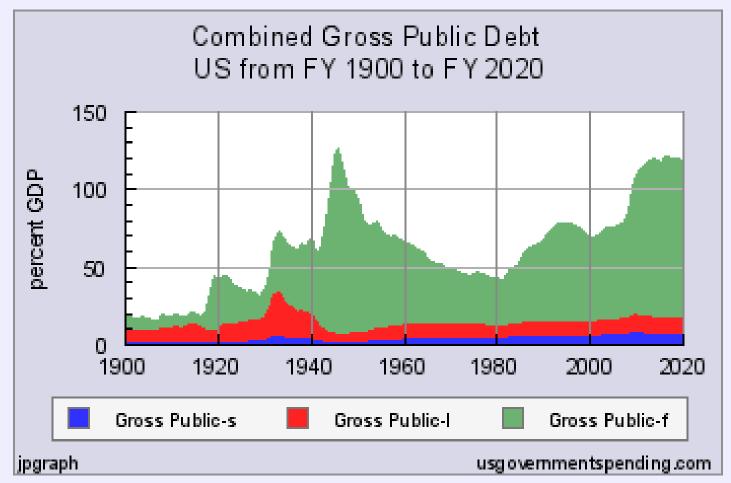
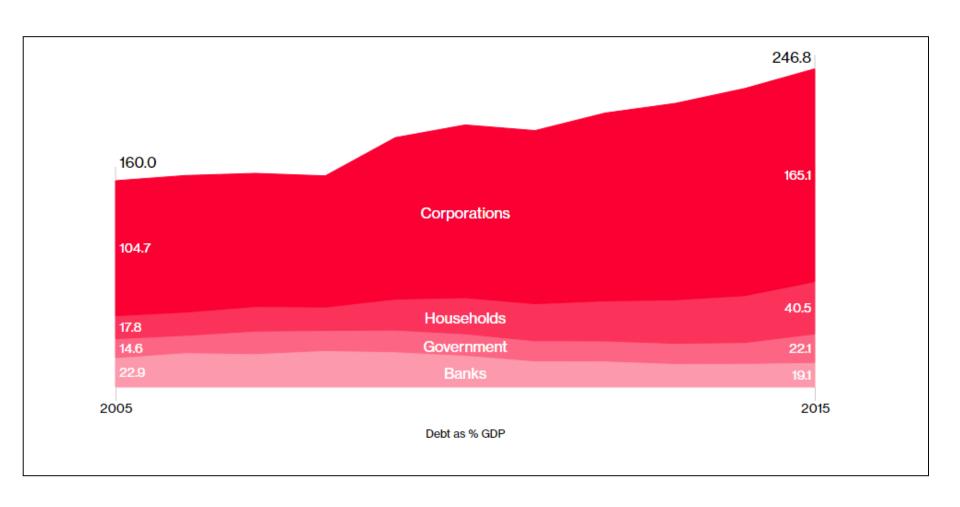


Chart 4.03: Total Government Debt 1900-2020

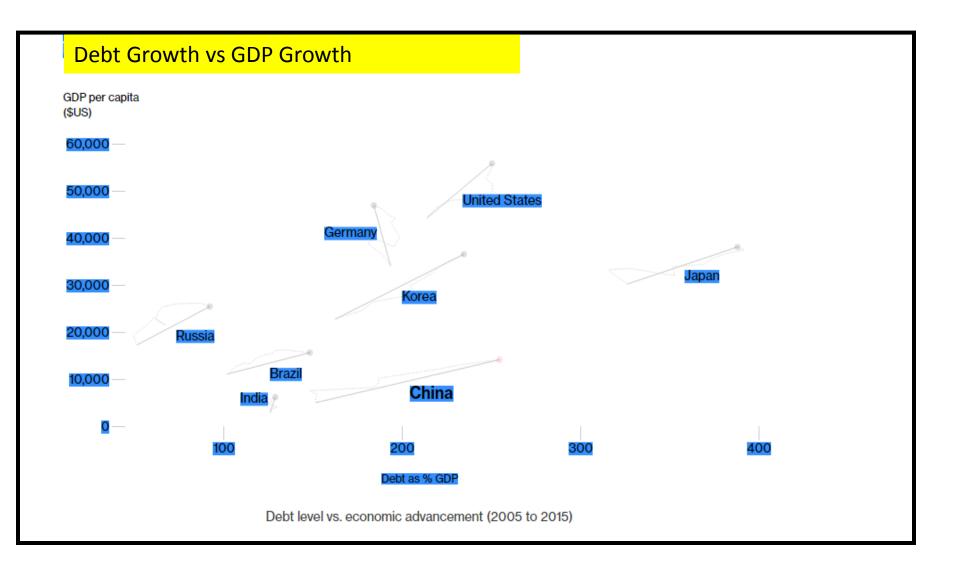


How about China?

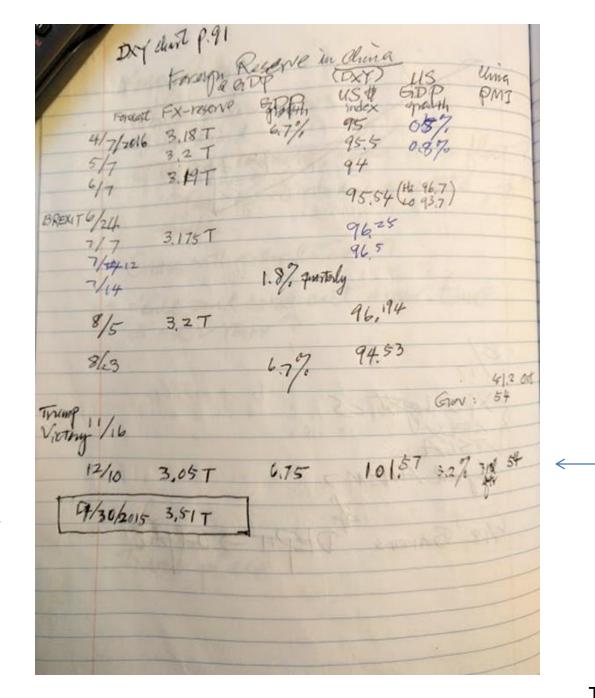
- The most difficult hurdle to economy transformation (from export driven to internal consumption) lies in Big State owned Corp debt level, more than 200% of China's GDP and still increasing today.
- Keeping Employment level healthy while optimizing the efficiency of the big corps is a
 huge challenge. Social stability is top priority compared to paying down debt. If we
 look at the chart of GDP growth vs Debt growth among nations, China is one of the
 worst.
- Loans of shady banks. Many of these loans may default, resulting in a large debt crisis.
 It could cause a housing bubble.
- Big Hope: The OBOR Initiative. But the progress is slow due to geo-economic and geopolitical reasons.
- One major advantage: Leadership vision and energy of the young generation.
- Another advantage: the large pool of bank deposits, mostly peoples' savings, support the debt level, which mitigates the chance of a monetary crisis.
- The size of the Chinese economy, and the large foreign reserve play to China's advantage. The government debt level is modest, at about 60% of GDP.
- The optimistic scenario is that China's GDP growth will gradually slow down without a hard landing while the transformation takes root.
- Will Trump's trade and foreign policy throw a curve ball to the optimistic scenario?



Breakdown of China's Debt



The graph shows the efficacy of driving growth with debt among nations. The slope is a good efficacy indicator



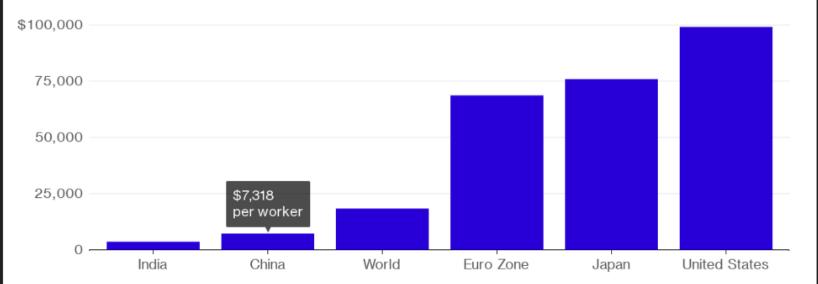
One year ago →

today

China's Labor is Less Productive

Rates are less than a tenth of European, Japanese and U.S. levels

Annual labor productivity in 2015

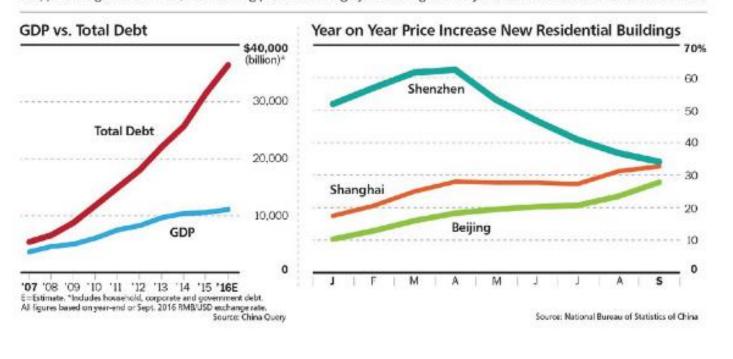


Sources: International Labour Organization, National Bureau of Statistics of China Data are in constant price of 2005

Bloomberg 💵

Trouble Ahead for China?

Massive debt creation and real-estate speculation could threaten the growth of China's economy. Total nonfinancial borrowing is approaching 330% of GDP, and housing prices are rising by double digits in major cities. Neither trend looks sustainable.



Source: Barrons, 11-07-16

of debt to GDP in just the last 5 years:

(%)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Government	39	40	41	40	43	41	49	49	50	52	53	58
Household	18	18	17	16	19	18	24	28	28	30	34	36
Enterprises - non-financials	109	103	95	100	97	98	99	101	124	113	128	123
Financials	9	9	11	12	13	13	15	13	16	18	18	18
Total	175	170	164	170	172	170	187	192	204	215	221	236
Cumulative change from 20	03-2014 (ppt)	Total	debt w	as in	decline	until	very re	cently			
Government		1	2	1	4	<u> </u>	10	10	11	13	14	19
Household		0	-1	-2	1	0	6	10	10	12	16	18
Enterprises - non-financials		-6	-14	1.0	-12	-11	-10	-8	15	4	19	14
Financials		0	2	3	4	4	6	4	7	9	9	9

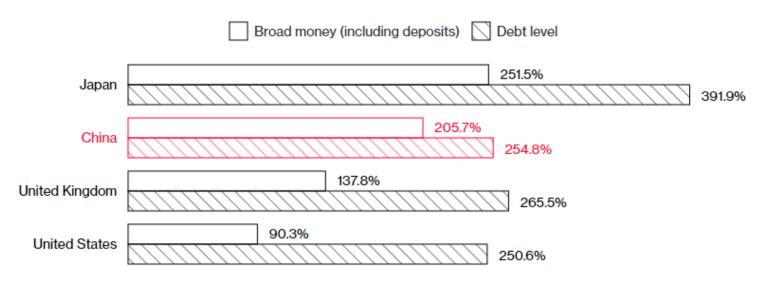
But then it exploded higher

Nomura

In 2005, China's debt was 164% of GDP. Now it's 236% of GDP. It's not the scale that's worrying. Many countries have debt that is twice GDP. It's the speed at which it is changing, compared to the slower pace of economic growth.

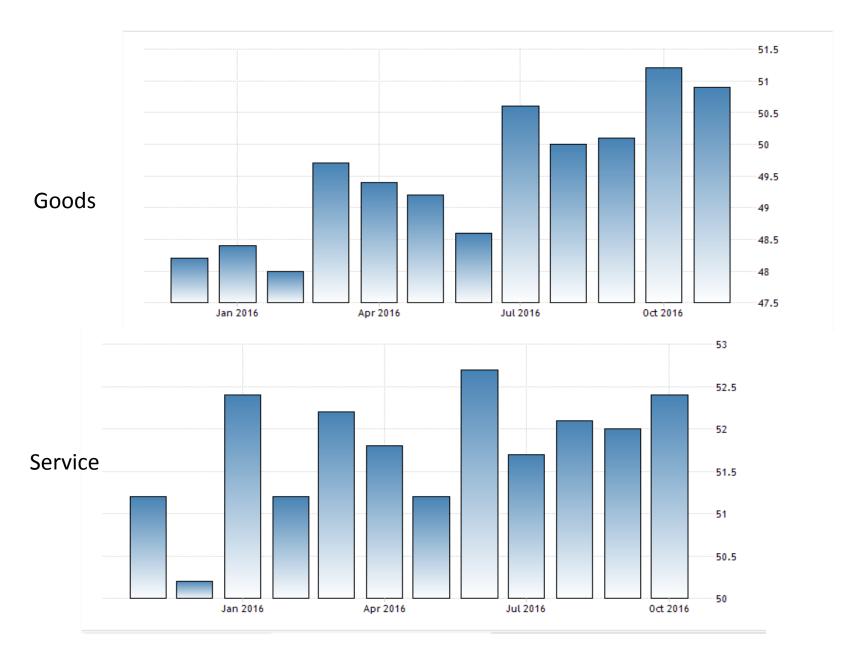
So who's on the hook?

As with Japan, China's debt is largely locally funded and is backed by a huge hoard of domestic deposits. That makes any Asian financial crisis-style blow-up unlikely.



Figures for 2015, except Japan (2014)

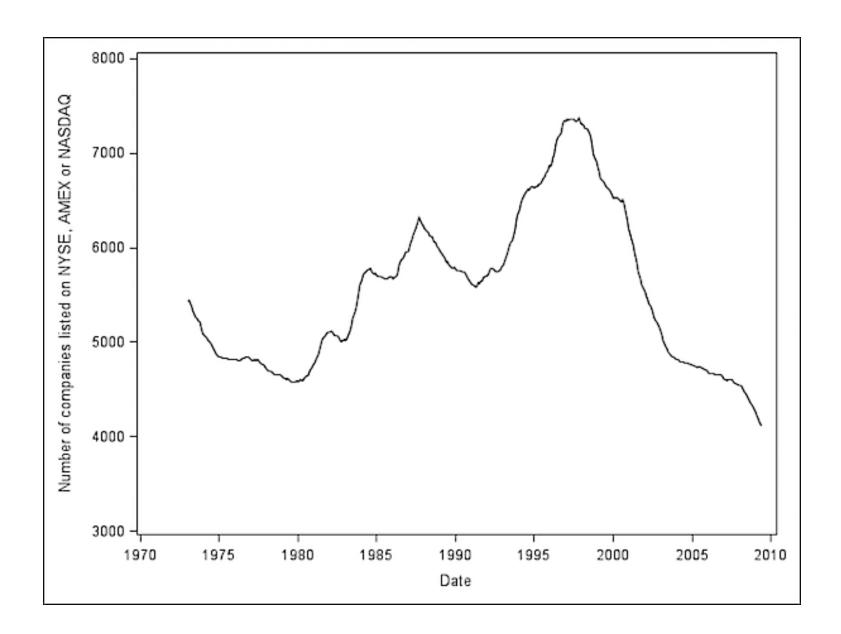
How is the debt load sustained

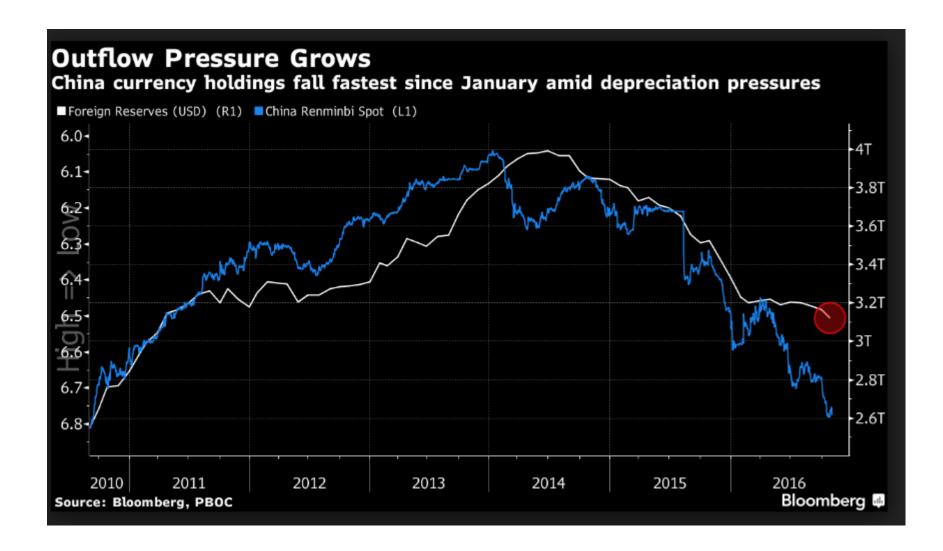


China's PMI data in 2016

My Daily Routine as an investor

- Watch the stock market and read web news for an hour or more in the morning. Trade as needed. My personal trades involve the use of options.
- Watch PBS's Nightly Business News in the evening at 6:30 PM. Susan Herera, and Tyler Mathison. Very good summary of the day events.
- Read Barrons on Saturday morning for about 2 hours.
- I am not into charts, though I have read several books about charting.
- Useful Books: Stocks for the long Run, 5th edition, by Jeremy Siegel Technical analysis of the financial Market, by John Murphy
- Magazines: Barron's; Investor Daily; Wall St. Journal; Kiplinger letters





Foreign Reserve follows RMB: effort to curb the outflow

Options

Calls: Right to buy a stock or an ETF at a set price at a set time in the future

Puts: Right to sell a stock or an ETF at a set price at a set time in the future

Both Calls and Puts can be bought or sold. You pay a premium when you buy, and you get paid a premium when you sell.

Example: Amazon, today (12/14) price is \$ 768 per share

Call Jan 20-2017, strike 780, premium=\$19 per share

Put Jan 20-2017, strike 740, premium=\$12 per share

They can increase the value of the portfolio if properly applied.