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October 13, 2016

Stock Selection: Research and Results October 2016

Financials: The Seesaw Effect, Manufacturing Margins: Sustainable? Chinese Housing – A Debt-Financed Recovery

An Unbalanced Seesaw

- There are 100 large-cap stocks that in the past year have produced relative returns that are at least 60% correlated with the performance of the Treasury bond market. Their capitalizations total $4 trillion and they represent 17% of the equity market. By comparison at the 2007 market peak the share of that group was less than 1%. At the other extreme sit 60 stocks with relative returns that are at least 60% *anti*-correlated with the bond market that have a total capitalization of $2.2 trillion. It's not surprising that after a long decline in interest rates the mix is skewed toward the beneficiaries of that move, with Verizon and PepsiCo near the top of the list of bond surrogates. With any change in sentiment the smaller group of anti-proxies, led by the big financials, could benefit by the enormous throw weight that's accumulated at the other end of the seesaw.
- The relative returns of the cap-weighted financials sector have been (67)% anti-correlated with the performance of the bond market, with Prudential, Charles Schwab, Citigroup and Bank of America among the most rate sensitive of the lot. Under enormous margin pressure many have been forced to cut overhead and the market has rewarded that behavior. The net interest and S,G&A lines are of comparable size, so there's lots of potential earnings leverage from any increase in rates, particularly if it's transmitted across the yield curve. Exhibit 11 on page 5 ranks a selection of financial stocks by their change in S,G&A expense in the past year and includes statistics that describe their rate sensitivity and total yields.

Manufacturing: Margins, Wages and Globalization

- In 2002 the profit margins of the 200 or so companies in the S&P 500 that make something or have it made for them averaged 7%, while in this cycle that number has been around 12%. In fact, manufacturers have been at the heart of the margin story. What happened was that many labor- and capital-intensive functions were outsourced to the emerging markets, changing the character of what remains in the U.S.. During the 15 years of the Bretton Woods II era the labor share of the P&L of U.S. manufacturing plants fell by a quarter and their capital intensity declined by a fifth. The consequences of a recovery in manufacturing wage growth, that's now back to average, are being muted by the effects of a smaller work force.
- Globalization has stalled since the financial crisis but its benefits haven't been given back nor competed away. As a result the winning bet has been on margin sustainability, not regression to the mean. While protectionism is a real threat to the status quo it hasn't progressed to the point where it changes the rules of the game.

Chinese Housing – A Debt-Financed Recovery

- Chinese housing is again booming, with price increase in the +7% to +12% range so far this year. With interest rates low, mortgage debt has grown quickly. The glut of inventory has largely been cleared and new construction is picking up. While nationwide home price-to income ratios have been flat over the last five years, they are exceptionally high in some of the biggest cities. With few investment alternatives housing has been the consumer's default choice, making it prone to boom/bust cycles and government intervention.
- Chinese housing investment equates to almost 1½% of global GDP, while the equivalent statistic for the U.S. in 2005 was 1.8%. Given how this business cycle has progressed, the rate sensitivity is in China. While the build out of consumer lending is part of the rebalancing that economy toward the consumer, it raises the cyclicality and rate sensitivity of that sector. Each 1% change in the growth rate of the Chinese Economy impacts global GDP by around 25 basis points.

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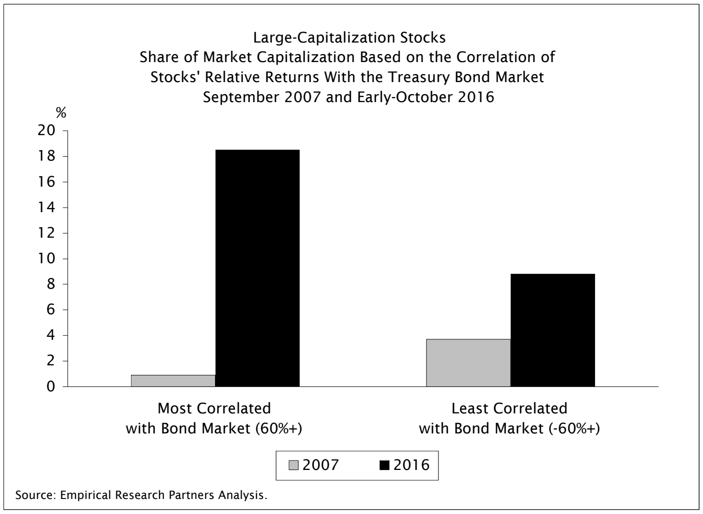
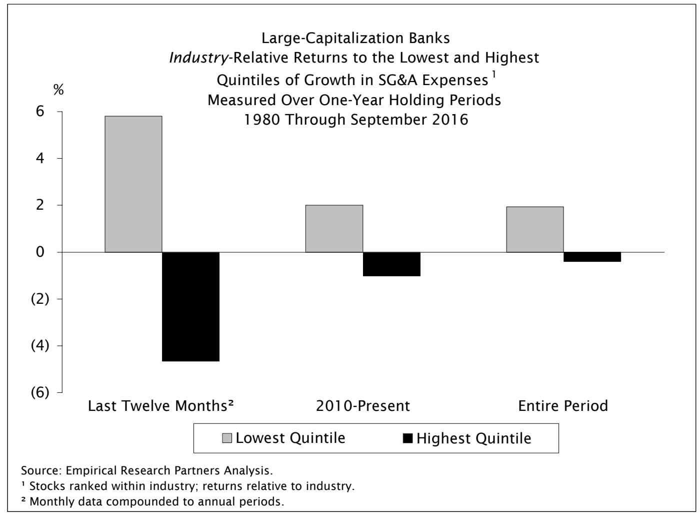
Conclusions in Brief

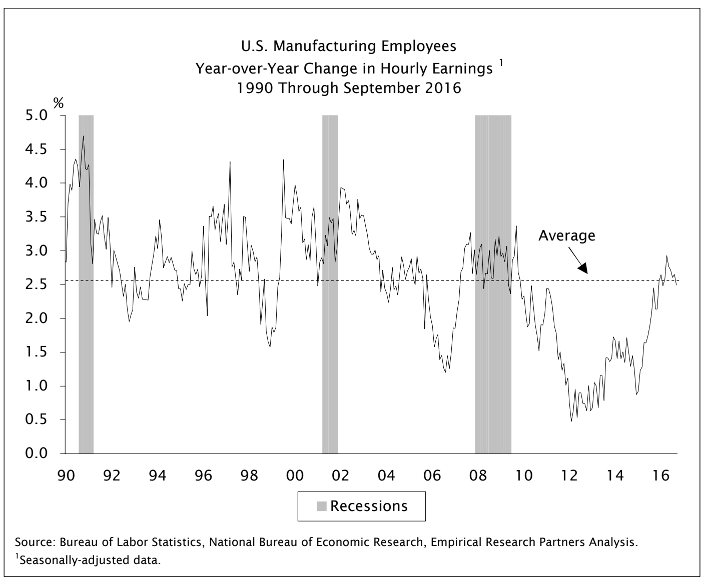
- The bond proxies are twice the size of their anti-bond opposite numbers…



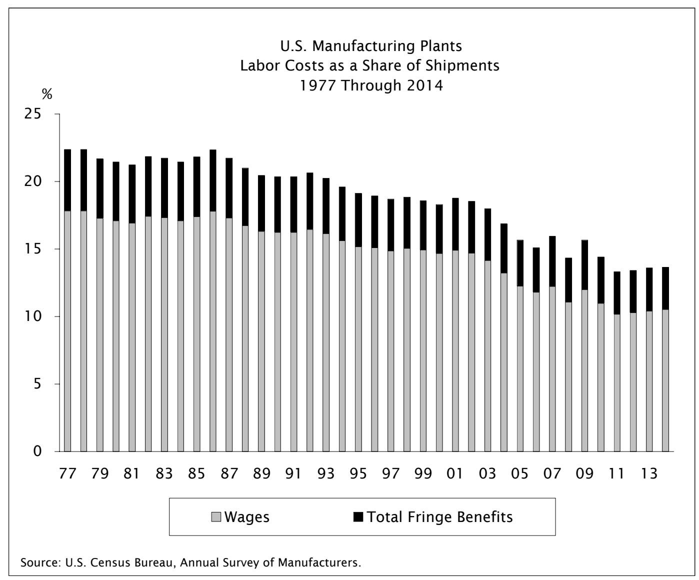
- …And there are cost-cutting stories to exploit:



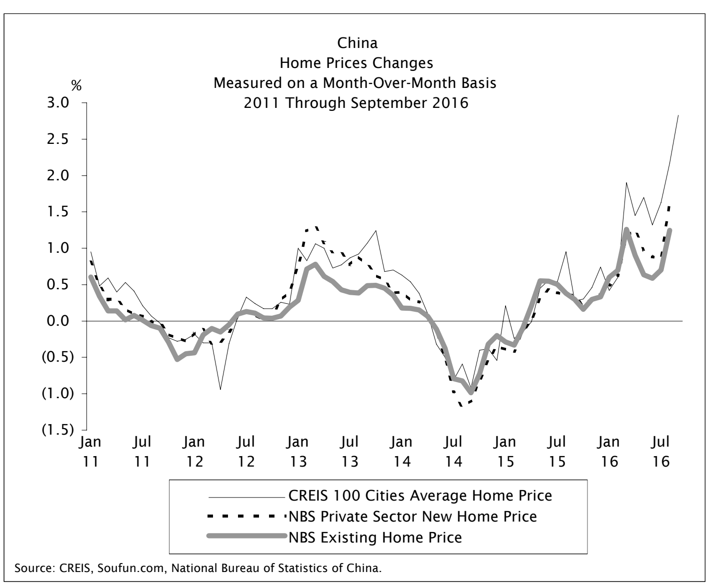
- Manufacturing wage growth has recovered…



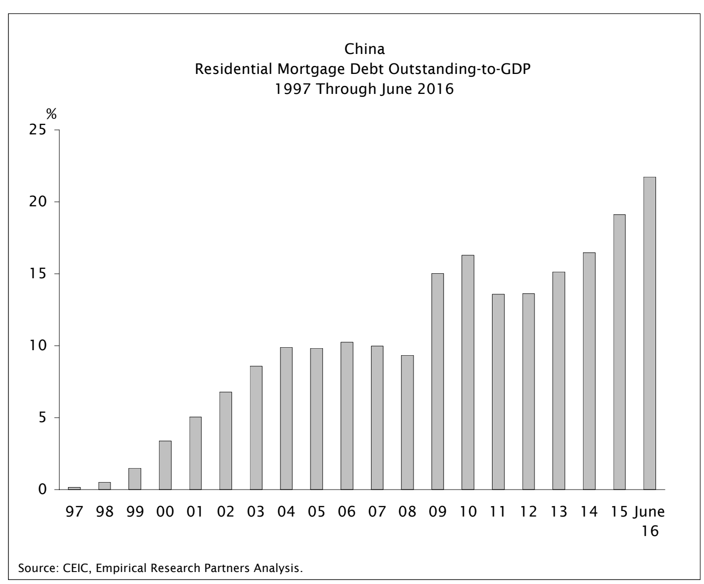
- …But the wage line is down by a quarter:



- Chinese home prices are soaring…



- …With the rising use of mortgage debt a part of the story:

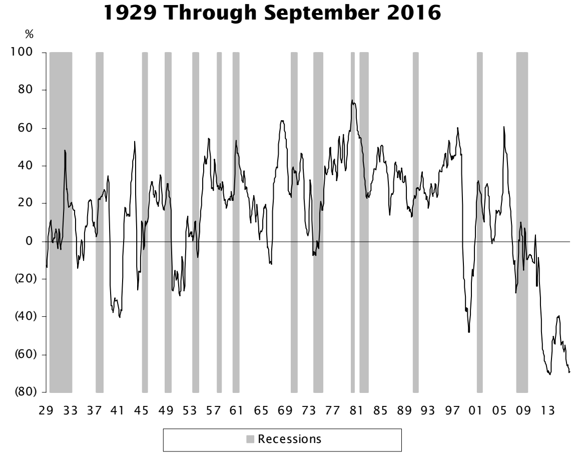


Financials: The Seesaw Effect

An Extreme Starting Point

One of the more striking charts we've ever encountered depicts the correlation between the *relative* returns of the cap-weighted financial sector and the total return of the Treasury bond market (see Exhibit 1). It's not everyday, or in fact any day, that we run into large-scale (70)% anti-correlations in this line of work. Many of the mega-cap financials fit the profile of anti-bond proxies, with Citigroup and Bank of America the most high-profile poster children (see Exhibit 2). The behavior of the stocks is tied to a combination of their funding and asset positions, with Bank of America exceptionally rate sensitive (see Exhibit 3). For that company, a +100 basis point rise across the yield curve would produce twice the benefit to net interest margins of an increase at the short end alone.

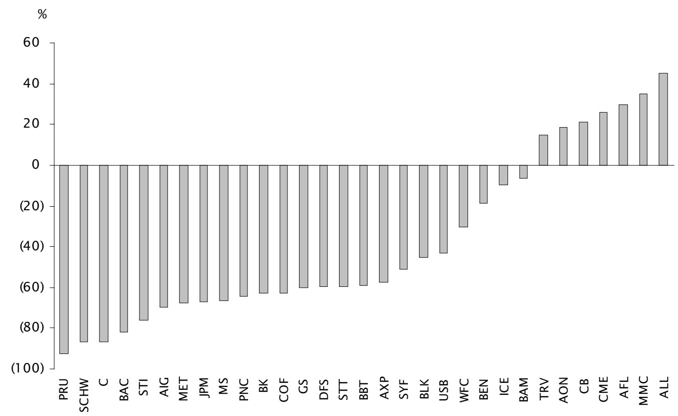
Exhibit 1: Large-Capitalization Financial Stocks
Correlation of Relative Returns with the Total Return of Ten-Year Treasury Bonds[1]
1929 Through September 2016



Source: Bloomberg L.P., National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Constructed using trailing two-year data capitalization-weighted returns; smoothed on trailing three month basis. Prior to 1978, long bond return is used.

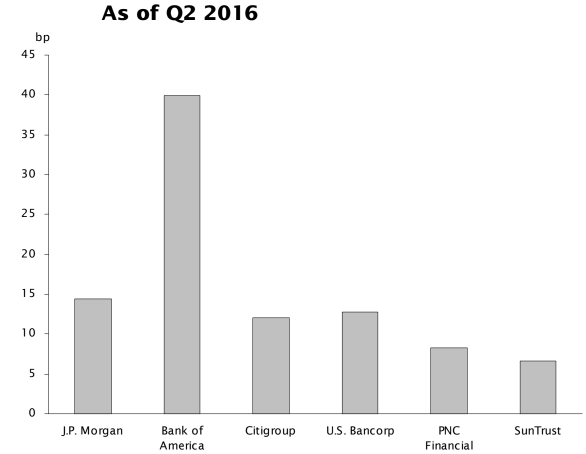
Exhibit 2: Mega-Cap Financial Stocks
Correlation of Relative Returns With the Total Return of Ten-Year Treasury Bonds[1]
As of Early-October 2016



Source: Empirical Research Partners Analysis.

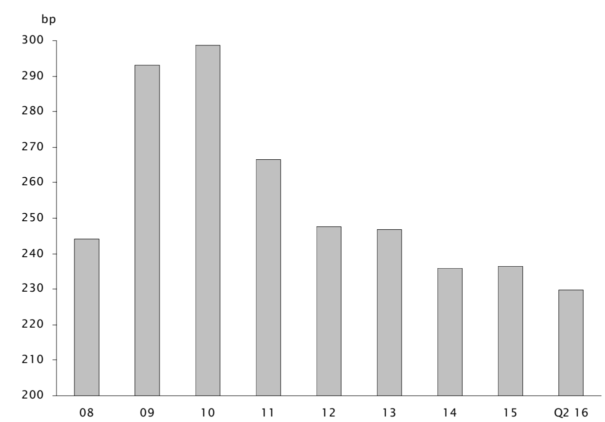
[1]Measured on a trailing twelve-month basis.

Exhibit 3: Select Large-Capitalization Banks
Change in Net Interest Margins for a +100 bp Parallel Shift in Yield Curve
As of Q2 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

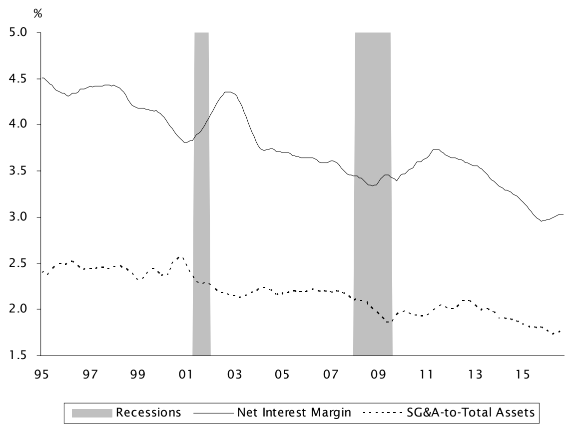
Exhibit 4: Large-Capitalization Banks
Net Interest Margins
2008 Through Q2 2016



Source: Federal Reserve Board, Consolidated Financial Statements for Holding Companies, Empirical Research Partners Analysis.

The leverage of the system to interest rates is way up because they've been low for a while, forcing the companies to cut costs. Net interest margins have come down by almost a fifth in this decade, and S,G&A expense has been reduced by around (15)% (see Exhibits 4 and 5). It's noteworthy that those two line items comprise similar portions of the P&L. When picking among banks cost cutting has been a modest source of alpha, although lately it's been more helpful than usual (see Exhibit 6). That's not at all surprising given the unusual circumstances.

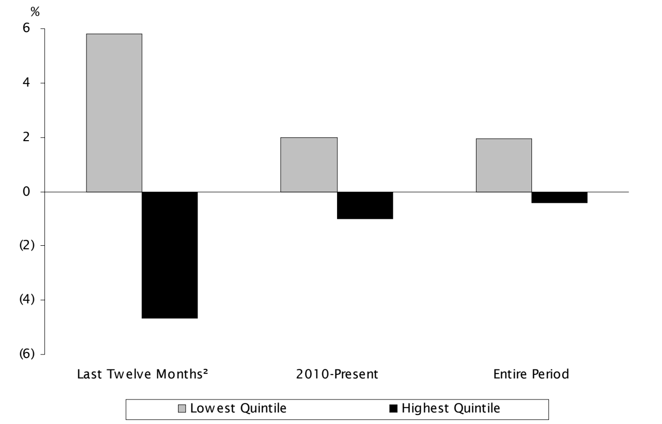
Exhibit 5: Large-Capitalization Banks
Median Net Interest Margins and the SG&A-to-Total Asset Ratio[1]
1995 Through September 2016



Source: National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Net interest margin is scaled by interest-earning assets and SG&A margin is scaled by total assets.

Exhibit 6: Large-Capitalization Banks
***Industry*-Relative Returns to the Lowest and Highest Quintiles of Change in SG&A Expenses[1]**
Measured Over One-Year Holding Periods
1980 Through September 2016

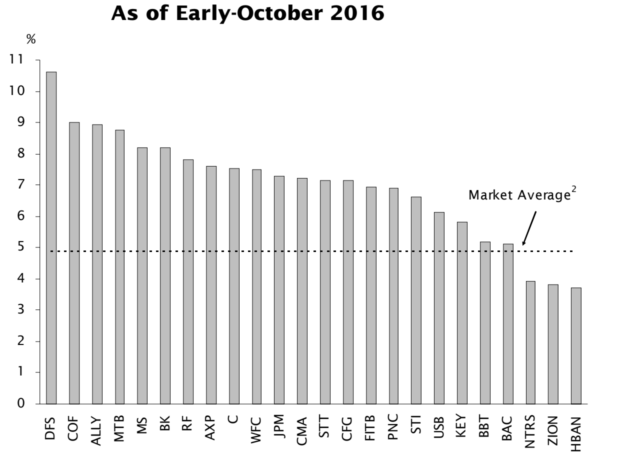


Source: Empirical Research Partners Analysis.

[1]Stocks ranked within industry and returns relative to it.
[2]Monthly data compounded to annual periods.

As banks have built up capital, regulators have allowed them greater financial flexibility. Exhibit 7 presents their pro-forma total yields, computed by combining their allowed dividends and gross buybacks, compared to that for the market. Most offer a substantial advantage that exceeds the yield on the ten-year Treasury bond. If the trend in monetary policy is in fact toward tightening, we're being paid to wait and hope for curve steepening. The relative P/E multiple for the financial sector tells the same story (see Exhibit 8). Moreover, the financials have become less risky as their capital positions have improved. Their betas have trended down and they've been overrepresented in the market's lowest quintile of arbitrage risk, suggesting less dispute (see Exhibit 9).

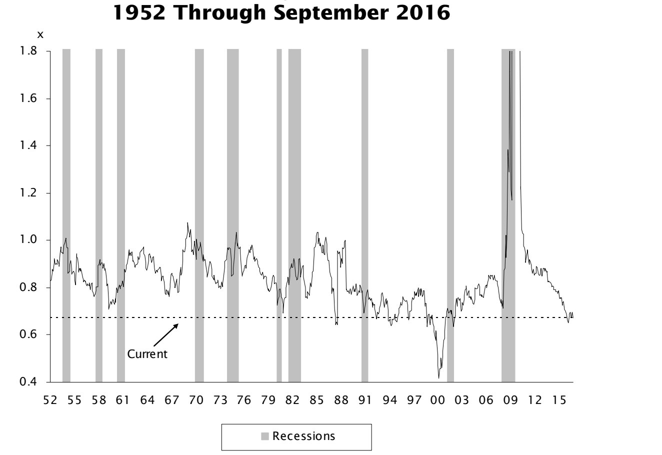
Exhibit 7: Large, Regulated Financial Companies and Comparators
Pro-Forma Total Yields[1]
As of Early-October 2016



Source: Federal Reserve Board, Empirical Research Partners Analysis.

[1]Total yields comprised of dividends + gross buybacks, as authorized in the 2016 stress tests.
[2]Capitalization-weighted composite.

Exhibit 8: Large-Capitalization Financial Stocks
Relative Trailing-P/E Ratios[1]
1952 Through September 2016



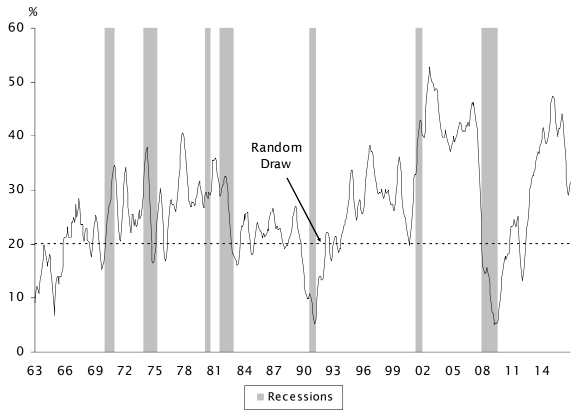
Source: Corporate Reports, National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Capitalization-weighted data.

Conclusion: Anti-Correlation Carries Less Throw Weight Than Correlation

We noticed that as interest rates have fallen the capitalization of the rate-sensitive tails of the equity market have exploded in size. Back in September of 2007, at the peak of the last stock market cycle, less than 1% of the market's capitalization was in stocks with returns that were 60% or more correlated with the performance of the Treasury Bond market (see Exhibit 10). At the moment that number exceeds 17%. At the other end of the spectrum, the change is smaller. Still, the anti-bond market plays are considerably more important than they used to be. One thing that stands out is that the bond market proxies, 102 in number, carry more than twice the weight of their opposite numbers, a cohort made up of 64 issues. Exxon Mobil, Johnson & Johnson, AT&T, Verizon and Comcast comprise a third of the $4 trillion capitalization of the bond proxies. Amazon, J.P. Morgan Chase, Bank of America, Citigroup and MasterCard are their opposite numbers and they represent half the $2 trillion capitalization of their tribe. It seems likely that if sentiment towards bonds turns less bullish the imbalance in size of the two groups could help boost the financials' multiples.

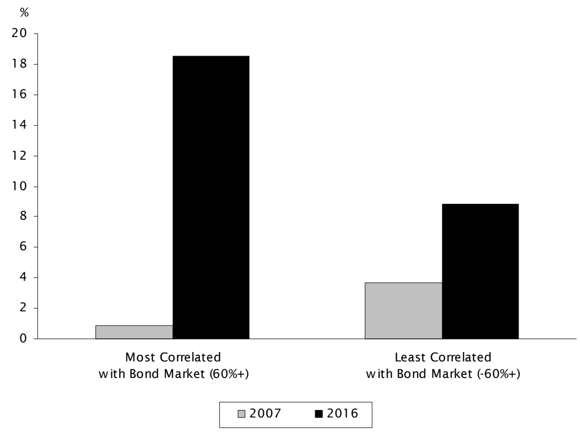
Exhibit 9: Large-Capitalization Financial Stocks
Share in the Lowest Quintile of Arbitrage Risk[1]
1963 Through Early-October 2016



Source: National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Data smoothed on a trailing six-month basis.

Exhibit 10: Large-Capitalization Stocks
Share of Market Capitalization Based on the Correlation of Stocks' Relative Returns with the Treasury Bond Market
September 2007 and Early-October 2016



Source: Empirical Research Partners Analysis.

Exhibit 11 ranks the big banks based on the change in their S,G&A expense over the past year. We've included data on their interest rate sensitivity as well.

Exhibit 11: Large-Capitalization Financial Stocks
Core Model Ranking Report
Sorted by Change in S,G&A Expense and Correlation With Bond Performance
As of Early-October 2016

			Quintile Ranks (1=Best; 5=Worst)							
				Super Factors						
Symbol	Company	Price	S,G&A Change	Valuation	Capital Deployment	Market Reaction	Core Model Rank	Correlation with 10 Yr. Treasury Bond Return	Pro-Forma Total Yield[1]	Market Capitalization ($ Billion)
C	CITIGROUP INC	$48.65	1	1	3	5	1	(86.6) %	7.5 %	$141.3
BAC	BANK OF AMERICA CORP	16.11	1	1	3	5	1	(81.9)	5.1	164.6
AMP	AMERIPRISE FINANCIAL INC	103.19	1	1	1	3	1	(78.0)	na	16.7
STI	SUNTRUST BANKS INC	45.73	1	1	3	2	2	(76.0)	6.6	22.9
BK	BANK OF NEW YORK COMPANY INC	40.83	1	1	2	3	2	(62.9)	8.2	43.6
CFG	CITIZENS FINANCIAL GROUP INC	25.57	2	1	2	3	2	(85.3)	7.1	13.5
RF	REGIONS FINANCIAL CORP	10.31	2	1	1	3	1	(73.7)	7.8	13.0
JPM	JPMORGAN CHASE & CO	67.69	2	1	2	4	2	(66.8)	7.3	244.5
PNC	PNC FINANCIAL SERVICES GROUP INC	91.52	2	1	2	4	2	(64.2)	6.9	45.1
STT	STATE STREET CORP	72.70	2	1	2	2	1	(59.4)	7.2	28.4
FITB	FIFTH THIRD BANCORP	20.74	3	1	2	3	1	(81.6)	6.9	15.9
KEY	KEYCORP	12.76	3	2	3	4	4	(66.4)	5.8	13.8
USB	U S BANCORP	43.65	3	3	3	4	4	(43.1)	6.1	75.0
WFC	WELLS FARGO & CO	44.99	3	1	3	5	3	(30.3)	7.5	227.1
TRV	ST PAUL TRAVELERS COMPANIES INC	113.10	3	2	1	4	2	14.6	na	32.6
BAP	CREDICORP LTD	147.00	3	3	3	1	3	74.3	na	11.7
HBAN	HUNTINGTON BANCSHARES	10.14	4	3	1	5	4	(84.0)	3.7	11.0
NTRS	NORTHERN TRUST CORP	71.90	4	2	3	3	3	(77.3)	3.9	16.3
MFC	MANULIFE FINANCIAL CORP	14.52	4	1	3	3	1	(49.6)	na	28.6
BNS	BANK OF NOVA SCOTIA	52.95	4	2	3	1	2	14.6	na	63.8
PRU	PRUDENTIAL FINANCIAL INC	84.79	5	1	1	3	1	(92.7)	na	37.2
IBKR	INTERACTIVE BROKERS GROUP	37.41	5	5	5	4	5	(67.1)	na	15.3
BBT	BB&T CORP	38.84	5	2	5	3	3	(59.1)	5.2	31.6
MTB	M & T BANK CORP	118.06	5	2	5	4	5	(29.0)	8.8	18.6
FRC	FIRST REPUBLIC BANK	78.19	5	4	4	2	4	(10.7)	na	11.7
ICE	INTERCONTINENTAL EXCHANGE	268.31	5	3	5	4	5	(9.6)	na	32.0

Source: Empirical Research Partners Analysis.

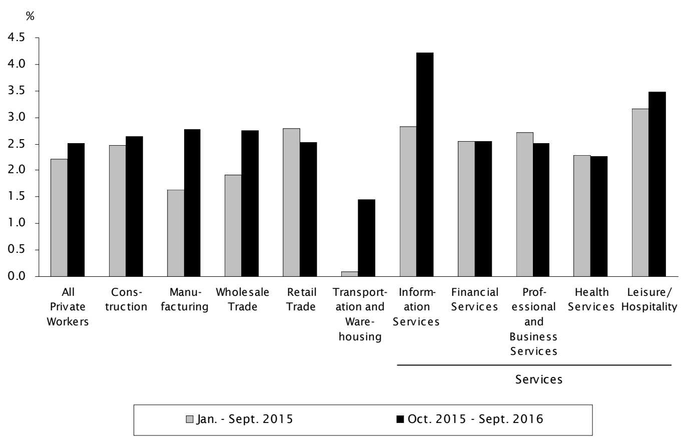
[1]Total yield comprises dividends + gross buybacks, as authorized in the 2016 stress tests

Manufacturing: Margins, Wages and Globalization

Structural Changes to Margins Have Stuck

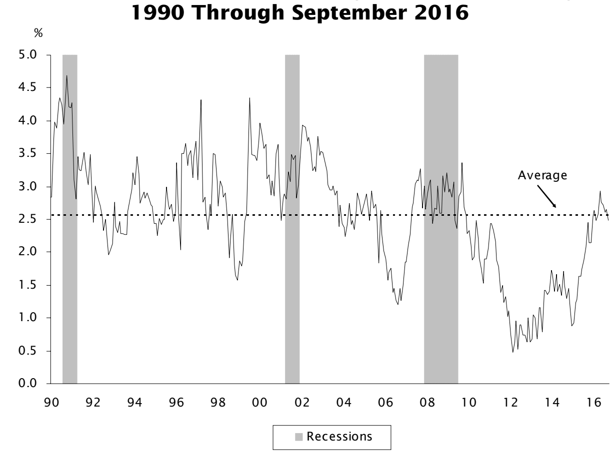
Wages have picked up in the last several years as the progress in manufacturing and wholesaling have caught up with what was going on in the service side of the economy (see Exhibit 12). In manufacturing growth rate of has recovered to its average level of the past 25 years (see Exhibit 13). We pay attention to the wage data because companies whose fates are tied to manufactured goods, either because they make them or have them made, make up the heart of the 15-year-long margin story of the Bretton Woods II era. That's apparent in Exhibit 14, that compares their margins to those of the remainder of the S&P 500. What we're capturing here are the benefits that have come from globalizing the plant floor as well as those from substituting capital for labor. The globalization trend has stalled in recent years but the margin windfall that it engendered has never been given back (see Exhibit 15).

Exhibit 12: Average Hourly Earnings
Year-over-Year Changes in Select Industries
2015 Through September 2016



Source: Bureau of Labor Statistics.

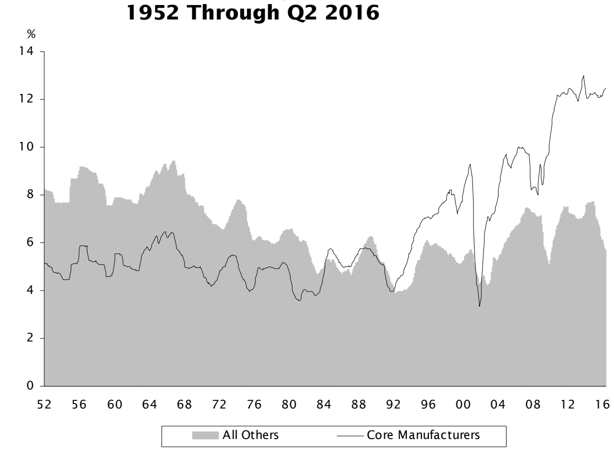
Exhibit 13: U.S. Manufacturing Employees
Year-over-Year Change in Hourly Earnings[1]
1990 Through September 2016



Source: Bureau of Labor Statistics, National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Seasonally-adjusted data.

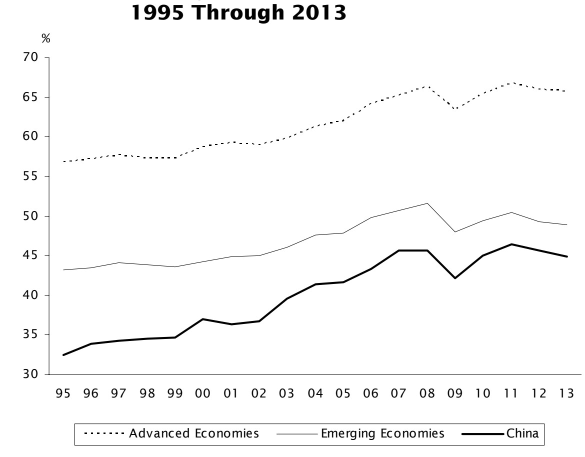
Exhibit 14: The S&P 500: Core Manufacturers and All Others
Net Profit Margins[1]
1952 Through Q2 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1]Based on trailing four-quarter data excluding financials. Smoothed on a trailing three-month basis.

Exhibit 15: Advanced and Emerging Economies
Average Global Value Chain Participation[1]
1995 Through 2013

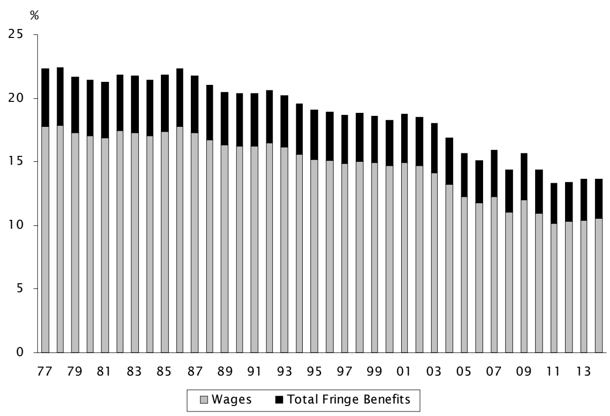


Source: International Monetary Fund, World Economic Outlook, October 2016.

[1]The sum of the domestic content in a country's exports reused in the exports of its trading partners and the foreign value-added in its own exports.

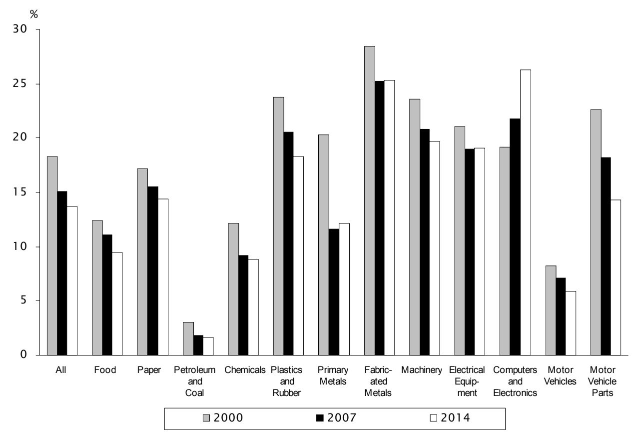
The sensitivity of manufacturers' margins to wage growth has shrunk over time as labor expense has become a smaller part of the cost equation. Exhibit 16 presents the history of wages and benefits relative to shipments for U.S. manufacturing plants; in the 1980s the ratio was 17%, in the 1990s it was 15.5%, in the 2000s the average was just above 12% and in 2014 it was down to 10.5%. The benefit line has moved in lockstep with wages. We see that same pattern across sectors with technology a notable exception (see Exhibit 17). There, production has largely shifted to emerging Asia and what remains in the U.S. has changed in character.

Exhibit 16: U.S. Manufacturing Plants
Labor Costs as a Share of Shipments
1977 Through 2014



Source: U.S. Census Bureau, Annual Survey of Manufacturers.

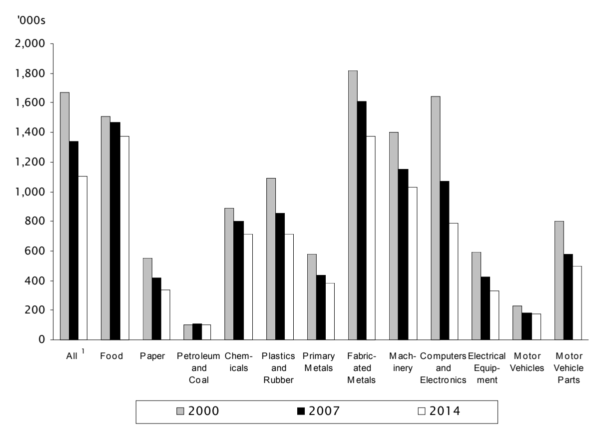
Exhibit 17: U.S. Manufacturing Plants
Labor Costs as a Share of Revenue By Industry
2000, 2007 and 2014



Source: U.S. Census Bureau, Annual Survey of Manufacturers.

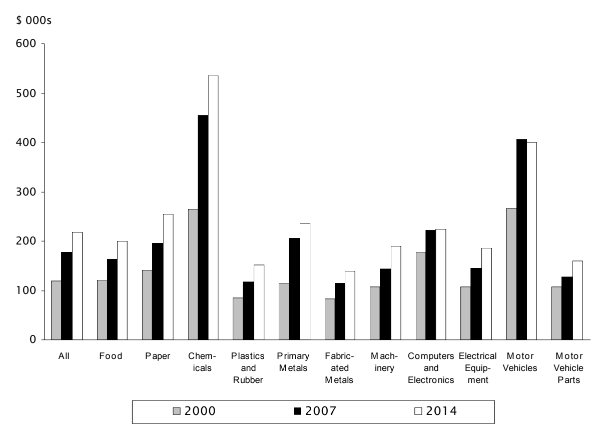
The reason that the wage line is down is that the headcount has fallen, across the board (see Exhibit 18). The value-added per employee has moved in the opposite direction (see Exhibit 19). The capital spending needed to support the system has declined too; up until 2000 expenditures equated to 3.7% of shipments and since then the average has been 3% (see Exhibit 20). In the Bretton Woods II era labor costs declined by a quarter and capital intensity by a fifth. Those changes appear to be secular in character.

Exhibit 18: U.S. Manufacturing Plants
Number of Employees By Industry
2000, 2007 and 2014



Source: U.S. Census Bureau, Annual Survey of Manufacturers.

Exhibit 19: U.S. Manufacturing Plants
Value Added Per Employee By Industry
2000, 2007 and 2014



Source: U.S. Census Bureau, Annual Survey of Manufacturers.

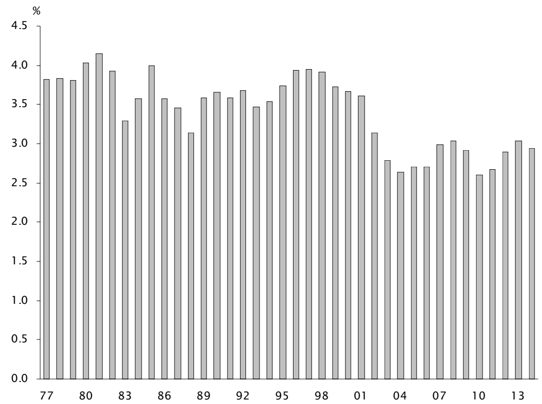
[1] In ten thousand.

With so much production occurring offshore, the trend in import prices is a key part of the story. The trend in the prices of imports from China has been benign in recent years, helped along by a strong Dollar (see Exhibit 21).

Conclusion: Still Betting on Margin Sustainability

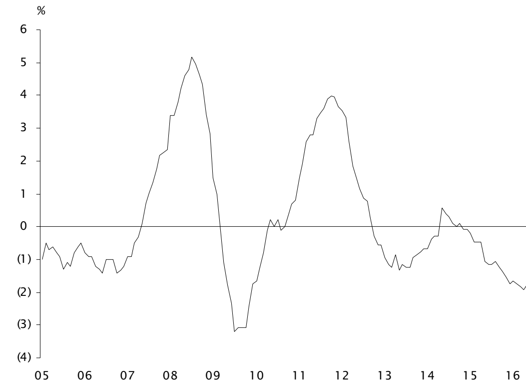
Throughout this era we've believed the right thing to do was to bet on the margins (and cash flow yields), and that the much-anticipated regression to the mean wouldn't happen, at least not in the time frame we care about. So far that position has paid off, in both the U.S. and in the rest of the world, developed and emerging (see Exhibit 22). The relative returns have been substantial in sectors involved in manufacturing, in both the U.S. and elsewhere in the world (see Exhibits 23 and 24). While protectionism has become a real threat we still think the best bet remains on the status quo (see Exhibit 25).

**Exhibit 20: U.S. Manufacturing Plants
Capital Expenditures as a Share of Shipments
1977 Through 2014**



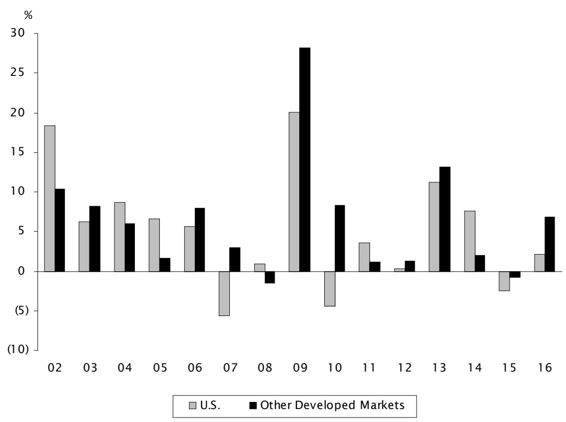
Source: U.S. Census Bureau, Annual Survey of Manufacturers.

**Exhibit 21: Price of U.S. Imports from China
Year-over-Year Changes
2005 Through August 2016**



Source: Bureau of Labor Statistics, Empirical Research Partners Analysis.

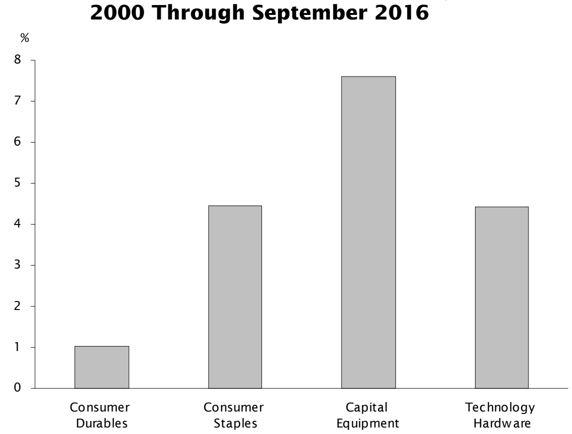
**Exhibit 22: The Developed Markets
Relative Returns to the Best Quintile
of Free Cash Flow Yield[1]
2002 Through Early-October 2016**



Source: Empirical Research Partners Analysis.

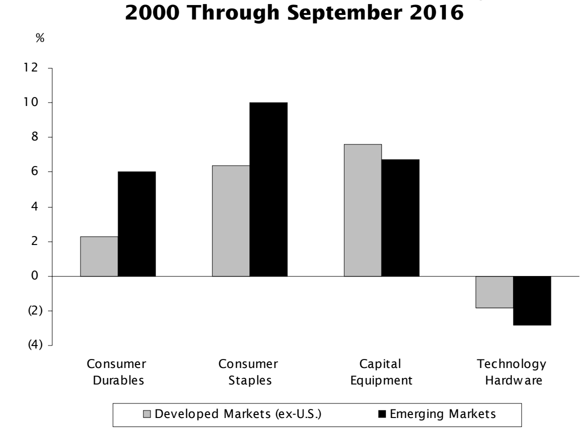
[1]Equally-weighted data.

**Exhibit 23: Large-Capitalization U.S. Stocks
Drawn from Sectors Producing Manufactured Goods
Relative Returns to the Highest Quintile of
Free Cash Flow Yield
Measured Over One-Year Holding Periods
2000 Through September 2016**



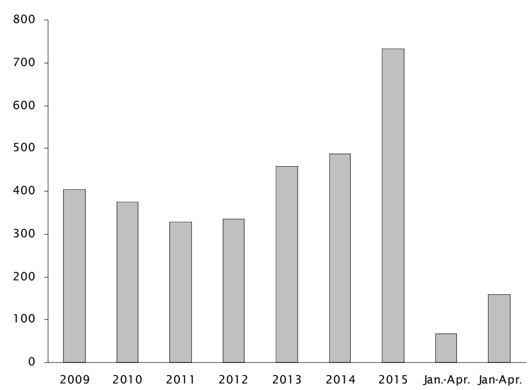
Source: Empirical Research Partners Analysis.

**Exhibit 24: Large-Capitalization International Stocks
Drawn from Sectors Producing Manufactured Goods
Relative Returns to the Highest Quintile of
Free Cash Flow Yield
Measured Over One-Year Holding Periods
2000 Through September 2016**



Source: Empirical Research Partners Analysis.

**Exhibit 25: Worldwide Measures of Discriminatory
Protectionism
2009 Through April 2016**



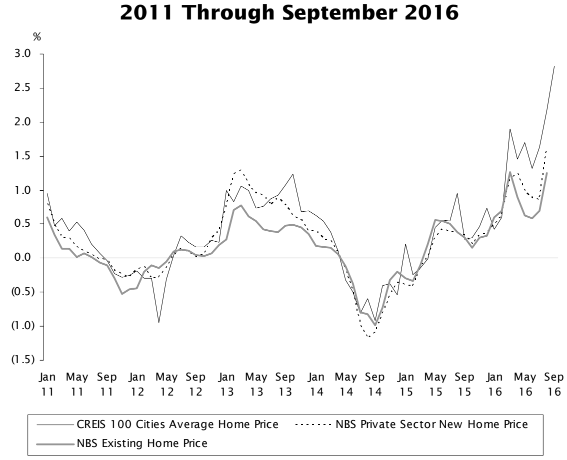
Source: Evenett, S. and Johannes Fritz, 2016. "Global Trade Plateaus," Global Trade Alert.

Chinese Housing: Another Boom, Debt Financed

Lower Rates, Less Inventory

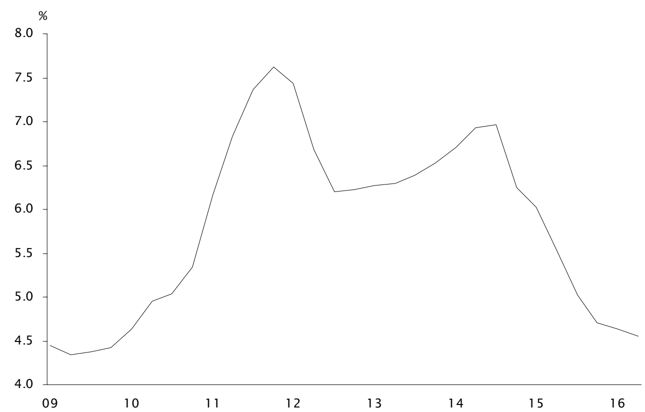
The Chinese housing markets have heated up this year, as the effects of easing of credit, increased mortgage lending and a drawdown in inventories all took hold (see Exhibits 26 through 29). Supply is beginning to respond to the recovery (see Exhibit 30). Developed market investors can't be oblivious to what's going on in Chinese housing because it's material, not only to that economy but the global one as well (see Exhibits 31 and 32). Housing produces multiplier effects and is a key source of demand for metals (see Exhibits 33 and 34). In addition, local governments have long benefited from the demand for housing through their sales of land (see Exhibit 35).

Exhibit 26: China
Home Price Changes
Measured on a Month-Over-Month Basis
2011 Through September 2016



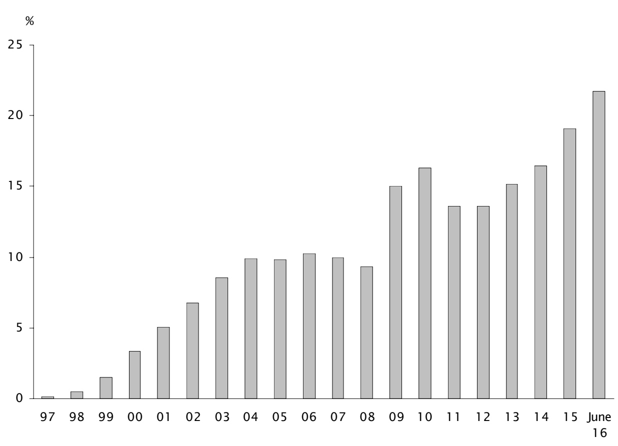
Source: CREIS, Soufun.com, National Bureau of Statistics of China.

Exhibit 27: China
Mortgage Rates
2009 Through Q2 2016



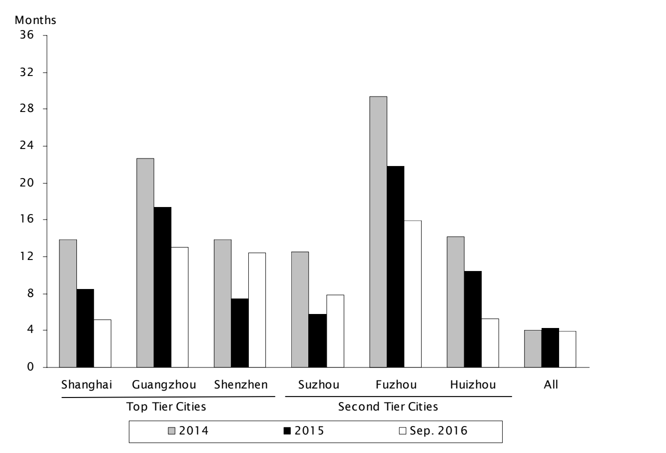
Source: CEIC, Empirical Research Partners Analysis.

Exhibit 28: China
Residential Mortgage Debt Outstanding-to-GDP
1997 Through June 2016



Source: CEIC, Empirical Research Partners Analysis.

Exhibit 29: Select Chinese Cities
Inventories Measured in Months of Sales Volume
2014 Through Late-September 2016



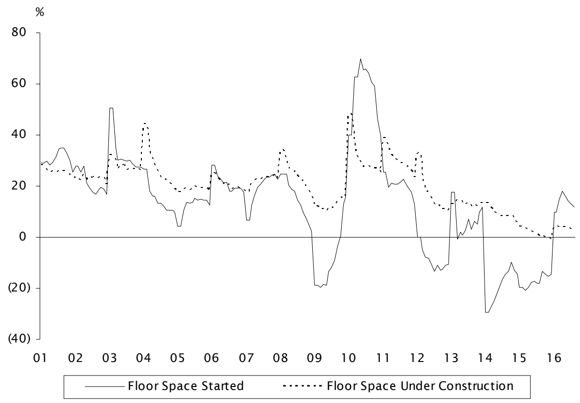
Source: CEIC, Empirical Research Partners Analysis.

Over time what's driven home appreciation is a combination of consumer income gains and urbanization (see Exhibits 36 and 37). The Chinese authorities have continued to encourage migration into the cities even as the manufacturing economy, the original catalyst behind the trend, has stalled.

Prices 'Seem' High

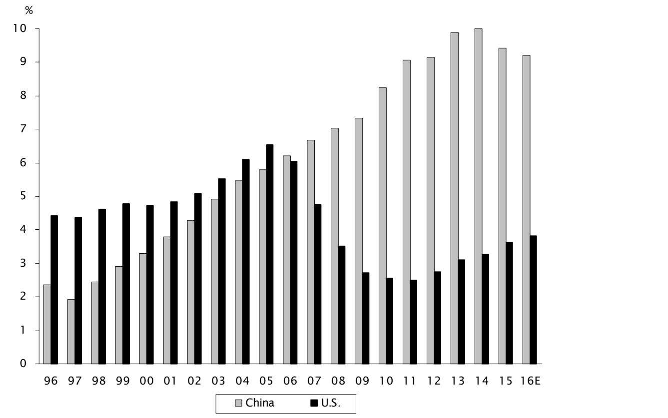
There's little question that Chinese home prices are high, at least in the biggest cities. When measured relative to income they've been stable nationwide, but not in first-tier cities like Shanghai, Beijing and Shenzhen, where they've boomed (see Exhibits 38 and 39). In those places price-to-income ratios exceed that in Tokyo back in 1990. Rental yields are low too, but paint a somewhat less extreme picture of what's gone on (see Exhibit 40).

Exhibit 30: China
Home Floor Space Started and Under Construction
Year-over-Year Changes
2001 Through August 2016



Source: CEIC, Empirical Research Partners Analysis.

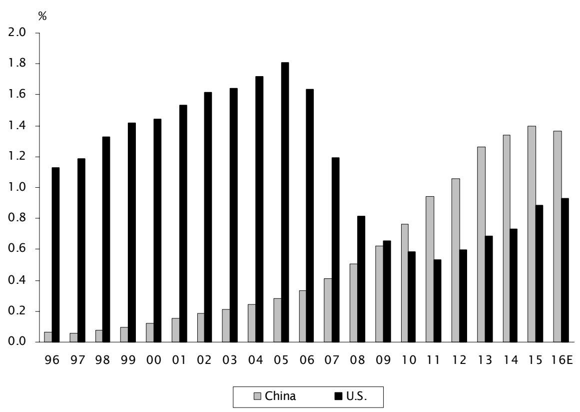
Exhibit 31: China and the U.S.
Residential Investment Spending as a Share of GDP[1]
1996 Through 2016E



Source: CEIC, U.S. Department of Commerce, International Monetary Fund, Empirical Research Partners Analysis.

[1]Chinese data excludes land transactions.

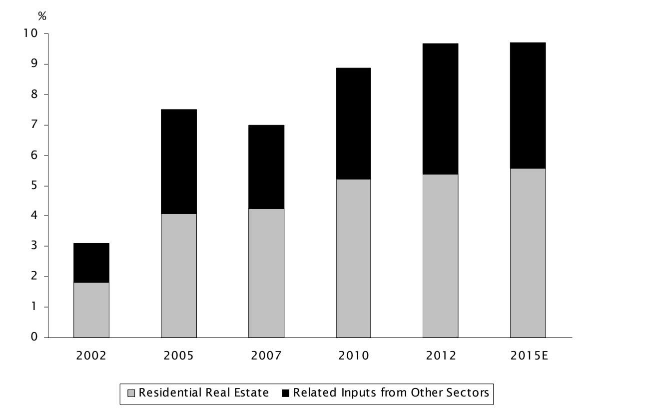
Exhibit 32: China and the U.S.
Residential Real Estate Investments as a Share of *Global* GDP[1]
1996 Through 2016E



Source: CEIC, U.S. Department of Commerce, International Monetary Fund, Empirical Research Partners Analysis.

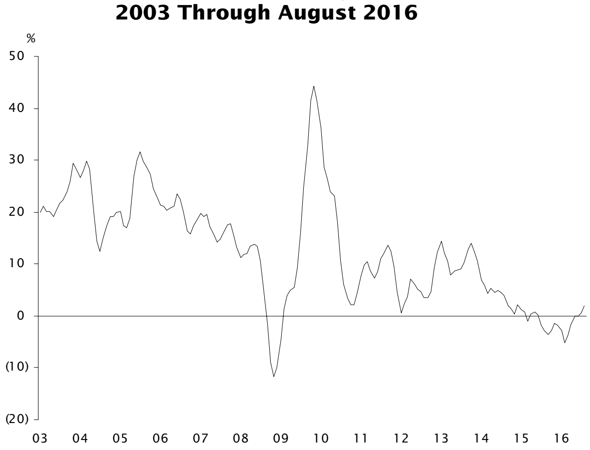
[1]Chinese data excludes land transactions.

Exhibit 33: China
Residential Real Estate
Value Added and Related Inputs from Other Sectors as a Share of GDP
2002 Through 2015E



Source: CEIC, Empirical Research Partners Analysis and Estimates.

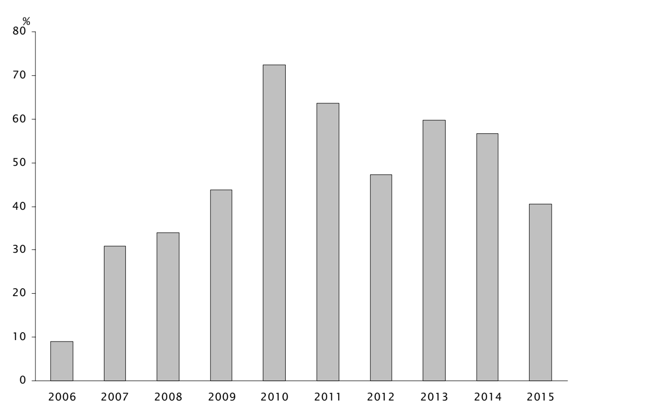
Exhibit 34: China
Apparent Demand for Steel and Steel Products
Year-over-Year Changes[1]
2003 Through August 2016



Source: CEIC, Empirical Research Partners Analysis.

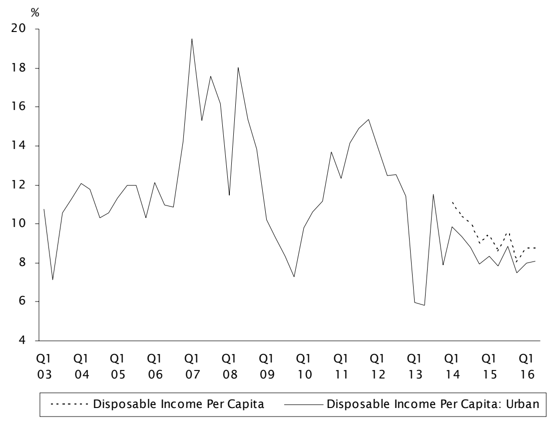
[1]Data smoothed on a trailing three-month basis.

Exhibit 35: China
Land Sales as a Share of Local Government Revenues
2006 Through 2015



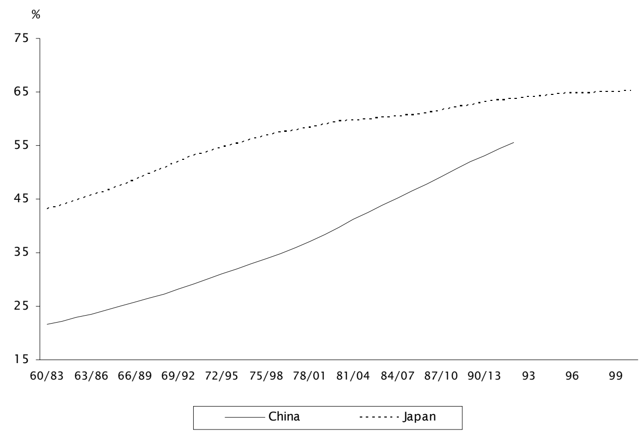
Source: CEIC, Empirical Research Partners Analysis.

Exhibit 36: China
Disposable Income Per Capita
Year-over-Year Changes
2003 Through Q2 2016



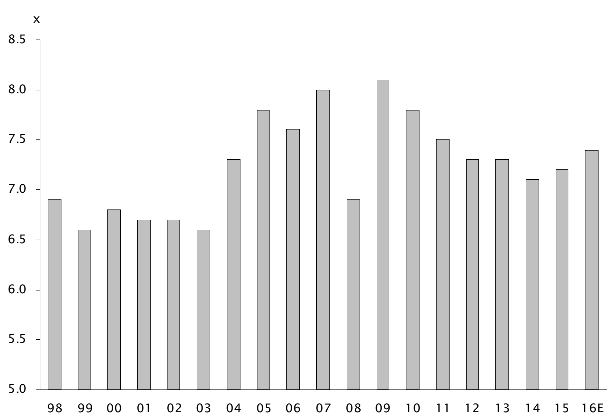
Source: CEIC, Empirical Research Partners Analysis.

Exhibit 37: China and Japan
Urban Population as a Share of the Total
1960 Through 2015



Source: World Bank.

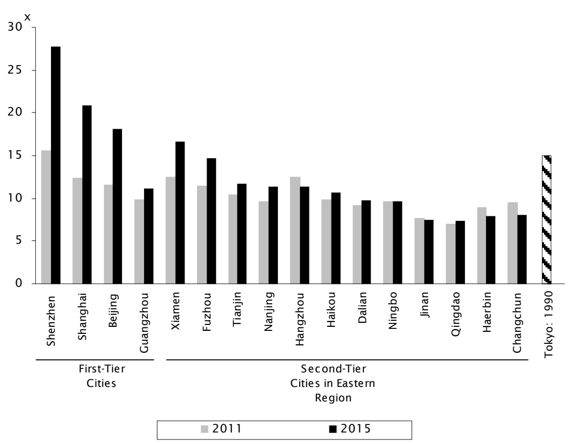
Exhibit 38: Chinese Urban Areas
The Home Price-to-Income Ratio
1998 Through 2016E



Source: E-House China R&D Institute, Empirical Research Partners Analysis.

[1]Based on average price of commodity housing and the average household disposal personal income.

Exhibit 39: China's Large Cities
Home Price-to-Income Ratios
2011 and 2015



Source: E-House China R&D Institute, Empirical Research Partners Analysis.

It's hard to know where the breaking point in Chinese housing lies due to the unusual structure of that economy. The government has managed the housing market not only through controlling interest rates but by deploying a range of regulations as well. The situation doesn't look directly comparable to Japan 30 years ago or Spain two decades later. Chinese citizens have few investment alternatives and real estate has been the asset class of choice (see Exhibit 41). Still, the cost of carry is real and the higher it goes the more tenuous the situation. Also, investment in foreign assets has been on the rise, leading to currency outflows (see Exhibit 42).

Conclusion: Another Debt-Driven Story

China has had some success in rebalancing its economy and the consumer sector has gained share as manufacturing faltered (see Exhibit 43).[1] Debt creation is part of that story and mortgage lending has quickly become ingrained in the landscape (see Exhibit 44). Each one point swing in Chinese GDP growth impacts the global economy by 25 basis points so it's a common risk factor. The ultimate vulnerability of home prices looks to be tied to the firepower held by Chinese policymakers that's not near exhaustion. The metals stocks are one of the beneficiaries of China's expansionary policies (see Exhibit 45).

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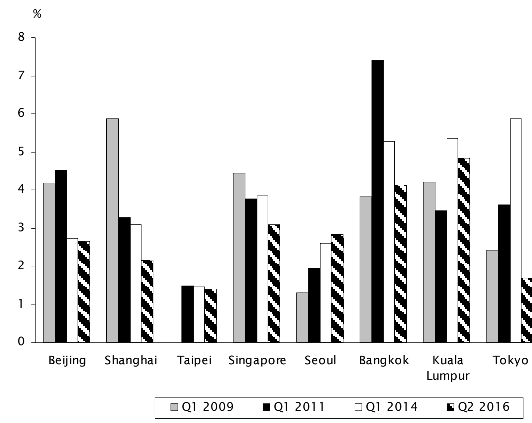
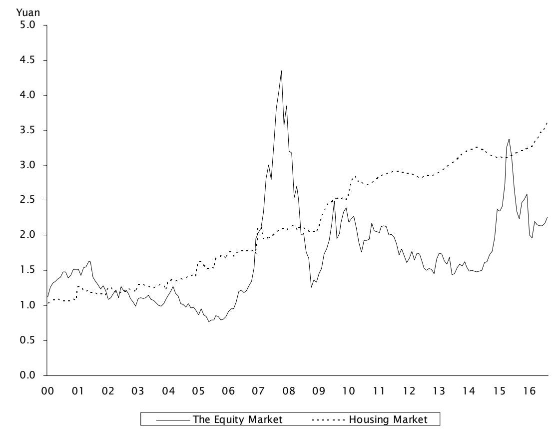
[1]*Portfolio Strategy* September 2016. "China: Muddling Through."

Exhibit 40: Select Large Cities Worldwide Rental Yields 2009 Through Q2 2016



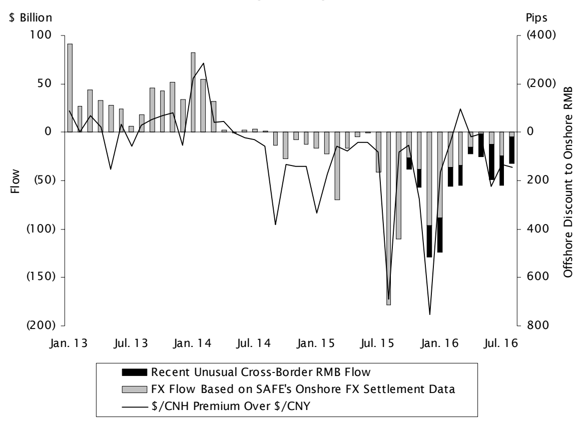
Source: Numbeo.com.

Exhibit 41: China Growth of a Yuan Invested in Equity and Housing Markets 2000 Through August 2016



Source: CEIC, CREIS, Empirical Research Partners Analysis and Estimates.

Exhibit 42: China Net Flow of Foreign Exchange Adjusted Unusual Cross-Border RMB Flow and Offshore Discount to Onshore RMB 2013 Through August 2016



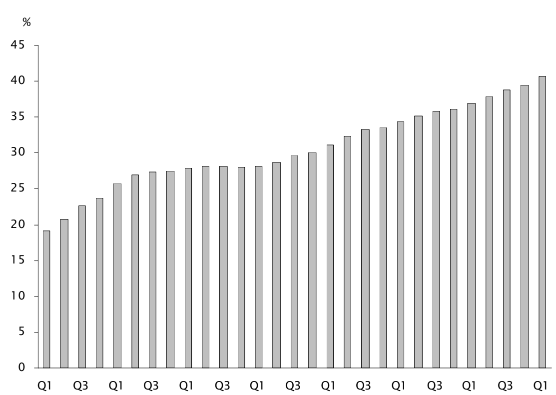
Source: SAFE, CEIC, Empirical Research Partners Analysis.

Exhibit 43: China Consumption and Keqiang Indices[1] 2005 Through August 2016

Source: CEIC, Empirical Research Partners Analysis.

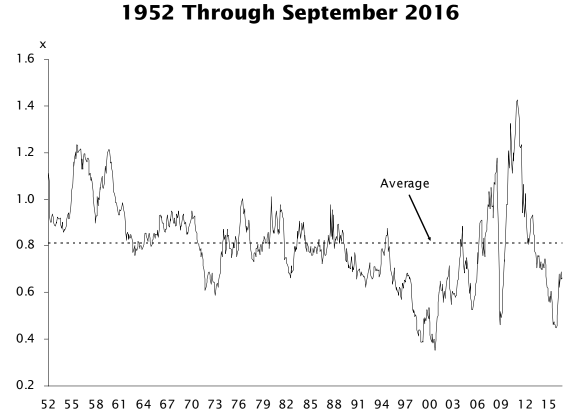
[1]The Consumption Index is an average of changes in retail sales, urban household income per capita, rail and air passenger traffic and tertiary industry electricity consumption. The Keqiang index is the average of changes in electricity production, rail freight and lending volumes.

Exhibit 44: China Household Loans as a Share of GDP 2009 Through Q1 2016



Source: Bank of International Settlements, CEIC, Empirical Research Partners Analysis.

Exhibit 45: Metal and Mining Stocks Relative Price-to-Sales Ratios[1] 1952 Through September 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1]Capitalization-weighted data.