

EYE ON THE MARKET OUTLOOK 2013

J.P. Morgan Private Bank



“The Odyssey”

This year’s cover art depicts the conflict between the world’s well-advertised challenges (the Squid), and its offsetting strengths (the Ship). The ship persevered in 2012, rewarding investors who maintained allocations to equities, credit and real estate with double-digit returns. The bar is a bit higher for 2013, as equity and credit valuations are no longer quite as cheap as they were. While politics may result in some volatility this year, we expect positive returns on financial assets by the time it’s over. See inside cover for more details.

There is a long history of European literature referring to seaborne battles with mythical sea creatures. In Homer's *The Odyssey*, Odysseus loses several men to the sea monster Scylla, while Icelandic and Norwegian sagas refer to sea monsters that swallow men and ships. British poet Alfred Lord Tennyson wrote a sonnet about a giant squid ("The Kraken"), and in *20,000 Leagues Under the Sea*, French author Jules Verne describes a giant squid attacking Captain Nemo's vessel and devouring a crew member. On the cover, many of the squid's tentacles are European, a reminder that its debt/growth crisis still represents a large risk to the global economy.

Cover illustration by Anni Betts

MARY CALLAHAN ERDOES

Chief Executive Officer

J.P. Morgan Asset Management

In many respects, 2012 was a year of waiting: waiting for a path forward on the European debt crisis; waiting for the results of a polarizing U.S. election; waiting for the Chinese leadership transition; waiting for a resolution to the U.S. fiscal cliff issues; waiting for the Middle East to find peace; waiting for a clear path to global growth; and therefore, waiting to invest additional assets in the markets.

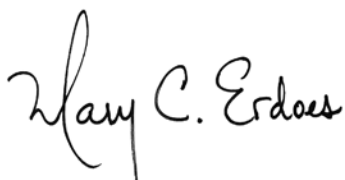
Waiting may be a good approach to many things, but it is rarely a good idea in an investment portfolio. The collective experience we have gathered over the last 175 years of investing at J.P. Morgan grounds us in the ability to see through temporary market disruptions and focus on keeping our clients invested for the long term, understanding that markets have a way of moving long before statistics and headlines say so. That was certainly the case in 2012, when nearly every asset class appreciated in value.

In this Outlook 2013, Michael Cembalest, our Chairman of Market and Investment Strategy, gives us a comprehensive summary of the global factors at play, with a tone of optimism grounded in realism, and a path toward exciting new investment opportunities for future growth.

We appreciate the opportunity to share our thoughts with you.

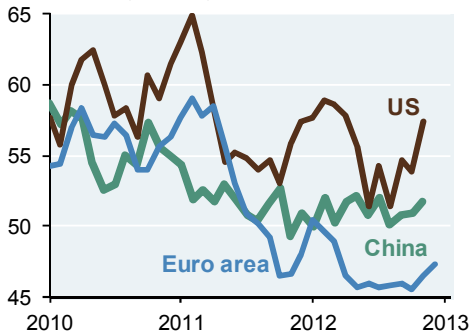
More importantly, we thank you for your continued trust and confidence in J.P. Morgan.

Most sincerely,

A handwritten signature in black ink that reads "Mary C. Erdoes". The signature is written in a cursive, flowing style.

The Odyssey. As we head into 2013, the global economy is trading water (c1 and c2), with better news in the US and China than in Europe, and with leading indicators pointing to more activity in services than in manufacturing. The cover art is meant to convey the conflict between the world’s well-advertised challenges (the Squid), and its offsetting strengths (the Ship). The ship persevered in 2012, as the usual suspects that make up most portfolios (equities, credit and real estate) generated double-digit returns despite low economic growth. The bar for 2013 is a bit higher since equity and credit valuations have risen. However, equity valuations are by no means stretched (c3), and still demonstrate skepticism about the future. While 2013 may be volatile for political reasons (see box), a portfolio of risky assets should generate modestly positive returns by the time the year is over. **In all, 2013 looks to be another year of markets outperforming what economic growth conditions alone would imply.**

(c1) Global all-industry activity
Purchasing Managers Index, sa



(c2) Global air cargo traffic
Freight-tonne kilometers, YoY % change



(c3) 2012 returns and valuation changes

	Jan '12	Dec '12	2012
Equity	P/E mult.	P/E mult.	Return
S&P 500	11.7x	12.7x	16.0%
MSCI Europe	9.6x	11.3x	17.5%
MSCI EM	9.3x	10.6x	18.5%
US REITs	21.8x	21.4x	19.6%
Credit	Spread	Spread	Return
US high yield	724 bps	549 bps	15.4%
EM \$ debt	426 bps	271 bps	18.5%
Bonds	Yield	Yield	Return
10-year UST	1.88%	1.76%	4.4%

Returns through Dec. 31, 2012
P/E multiples based on fw d. consensus earnings

It’s not an overstatement to say that we are living through the largest policy experiments of the last 300 years (c7, c13, c82). In the US, Europe, Japan and the UK, governments account for 75% of all borrowing that is taking place, and central banks account for 60% of all lending, both multiples higher than anything we have seen (or read about) before. As a sign of the times, monetary policy was the primary issue in the recent election in Japan; voters gave a decisive victory to the party that campaigned on forcing its central bank to provide more of it. Central banks appear determined to reflate financial assets, hoping for whatever spillover they can get to economic growth.

On the following pages, we walk through a graphical depiction of the issues on the front cover; an economic review of the US, Europe and the emerging economies; and a summary of investment and market views. At the end, a look beyond 2013 at two litmus tests for America: entitlements and energy independence.

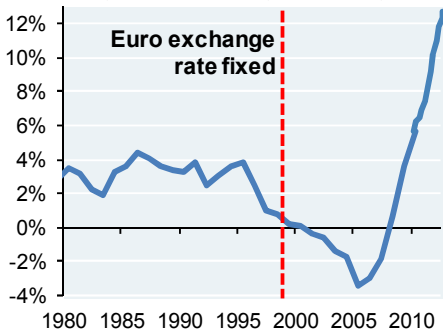
Michael Cembalest
J.P. Morgan Asset Management

Fiscal cliff update. I started writing about the disappearance of the political middle three years ago, when Congressional polarization surpassed levels last seen during Reconstruction, a rancorous period following the Civil War. But even cynics like me did not anticipate how difficult a fiscal cliff deal would be. It actually required the House Speaker to split the Republican caucus and introduce a bill that most of his members rejected. At the 11th hour, tax austerity scheduled for 2013 was cut by 2/3, as Congress unplugged most tax increases and spending cuts and agreed to raise taxes only on the wealthy. Defusing the cliff removes barriers to growth in 2013, but upper bracket tax hikes make no more than a small dent in the deficit, and the Federal debt is headed to levels exceeded only during WWII. As Walt Kelly (Pogo) once said, “we have met the enemy, and he is us.”

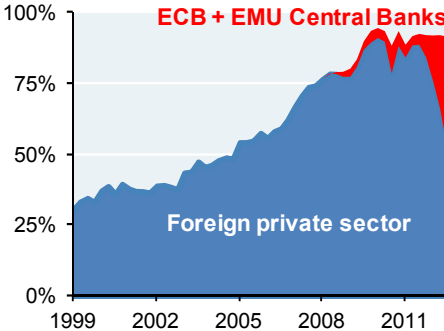
Looking ahead to the spring, debt ceiling and continuing budget resolutions may be even more contentious. What will the sticking points be? There’s not much left to fight about on non-defense discretionary spending, scheduled to hit a 50-year low in 2017. As shown on page 14, outlays on things like energy R&D, education, worker retraining and infrastructure are increasingly crowded out by entitlements. The positions are clear: Democrats either simply do not believe that entitlement math is unsustainable, or search in vain for sufficient tax hikes to pay for them; while Republicans search for the political cover to scale back social programs and still get elected. Of all the advice given by the country’s founders, perhaps none is more forgotten than the admonitions in George Washington’s farewell address: to cherish public credit, preserve it by using it as little as possible, and to “not ungenerously throw upon posterity the burden which we ourselves ought to bear”.

The Squid. For 3,000 years, European authors (Homer, Verne, Tennyson and the Scandinavian sagas) have portrayed battles with giant sea creatures, a reminder of which are the tentacles on the cover with European themes. Among our concerns: the socio-economic and political implications of Europe's employment crisis (c4); the continuing debt overhang of the Spanish economy, even after help from the ECB (c5); the growing economic gap between France and Germany (c6); and the decline in European imports (c64). The OECD's fiscal situation is difficult (c7), and unless growth rebounds more rapidly, more austerity will be imposed on the private sector at some point. The US fiscal cliff, deferred though it may be, cannot be made to disappear. The political winds suggest that taxes will be raised to sustain entitlements, rather than constraining the latter to minimize the former. The US private sector is showing signs of life, but US labor compensation is weak (c8), so too much austerity may negatively affect consumption. In China, without continued expansion of credit and capital spending (c9), growth rates will probably come down to 7%-8%. Japan is a mess (c10), grappling with the end of its current account surplus era which began in 1965, and a gazillion Yen of government debt. Central banks can be expected to keep the cost of money cheap, but the stimulus benefit to manufacturing has been fading (c11). Finally, there's the issue of Iran, where uranium enrichment marches on despite crippling economic sanctions, a topic we addressed in more detail last November 19th. Henry Kissinger wrote recently that this issue should be the President's #1 foreign policy issue, and I can understand why: 2013 is the year in which Iran will have enough enriched uranium to make a nuclear weapon (c12).

(c4) Periphery employment crisis
Unemployment, Periphery - Germany, %



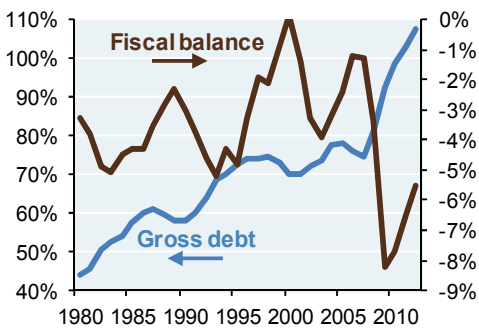
(c5) Spanish net foreign liabilities
Percent of GDP



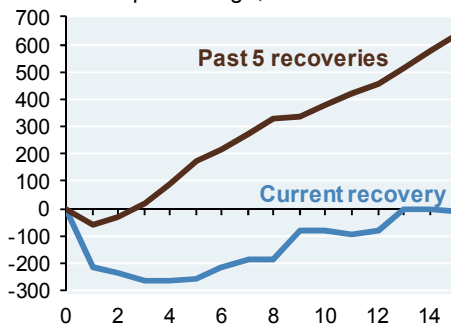
(c6) Growing Franco-German gap
Percent



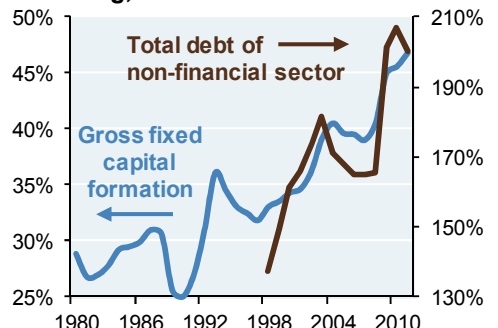
(c7) OECD fiscal situation
Percent of GDP



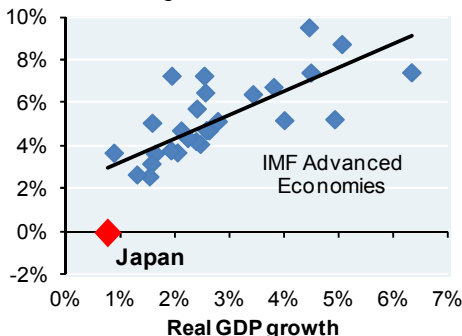
(c8) Weak US labor compensation
Qtrs. since profit trough, billions 2005 USD



(c9) China capital spending/credit overhang, Percent of GDP



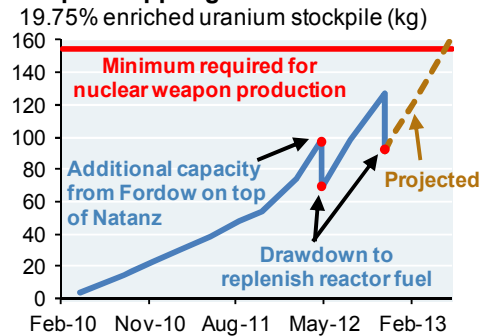
(c10) Japan growth abyss, 1991-2011
Nominal GDP growth



(c11) Fading growth benefits from stimulus, Global Manufacturing PMI, index



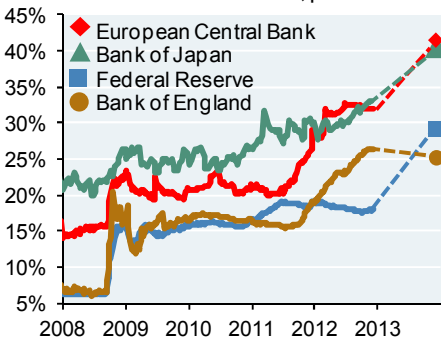
(c12) Iranian enrichment marches on despite crippling sanctions



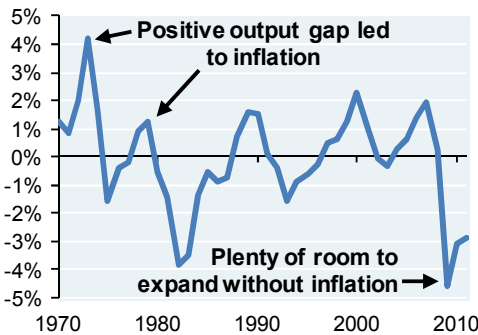
The Ship. Start with the ship's foresail, central bank balance sheet expansion (c13). It has brought down the cost of credit, and in the case of Europe, deferred sovereign and bank insolvency risk to another day. In the 1970's, monetary policy was too easy and caused an inflation problem, since there was little excess capacity. Looking at the "output gap", there's a lot of excess capacity now (c14) and inflation is low (c81), allowing central banks to keep going. As a result, while government debt *levels* are high (c7), the cost of servicing it is not (c15). The fore royal sail is the US housing recovery, which is not in dispute (c16); we are debating the multiplier effect. The mizzen topsail, consumption in the emerging world, is holding up even as EM manufacturing has slowed down, a reflection of rising household incomes (c17). The "death of equities" chatter seems odd, given how well the mainsail of corporate cash flow is doing (c18); dividend growth rates are the highest in six decades. On valuations (the fore topgallant sail), any approach using interest rates indicates that equities are still cheap (c19). Since 1960, the S&P has not generated negative 1-year returns when the spread between S&P earnings yields and Treasury yields is this high. The main royal sail is the natural gas boom (c20), which helps push out the "peak energy problem" to another day, particularly in gas-abundant countries like the US (c90-c93). One of the most important drivers of the ship is the main topgallant sail: walls of household and corporate cash (c21), which reflect caution about the future and lots of buying power. As 2012 came to a close, these cash balances were finally being drawn down and put to work in the form of consumer spending, higher dividends and corporate acquisitions.

(c13) To infinity...and beyond!!

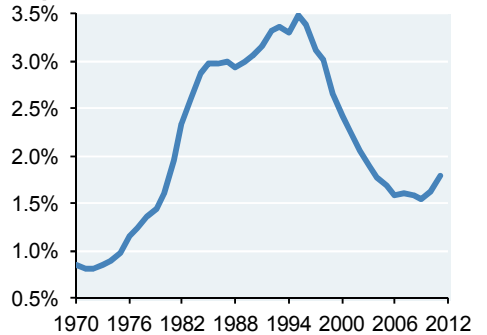
Central bank balance sheets, percent of GDP



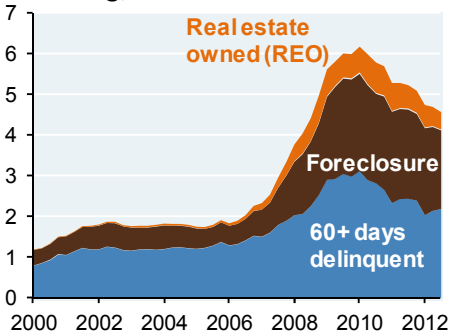
(c14) Output gap of advanced economies, Percent of potential GDP



(c15) OECD government net interest expense, Percent of GDP



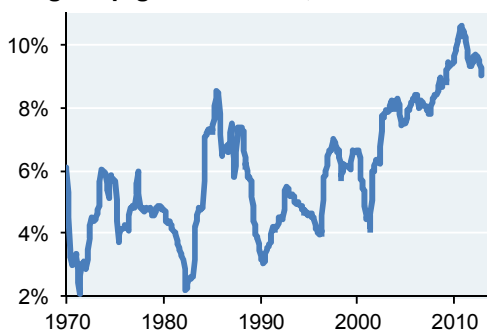
(c16) "Shadow inventory" is steadily declining, Million units



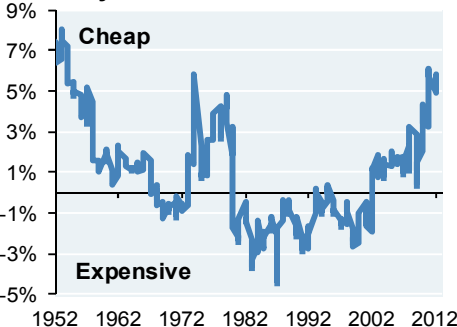
(c17) Emerging markets retail sales volume, Percent change, YoY



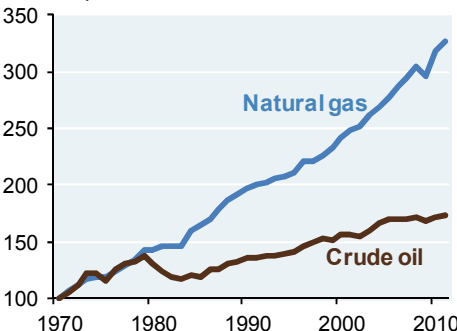
(c18) Free cash flow to assets of US large cap growth stocks, Percent



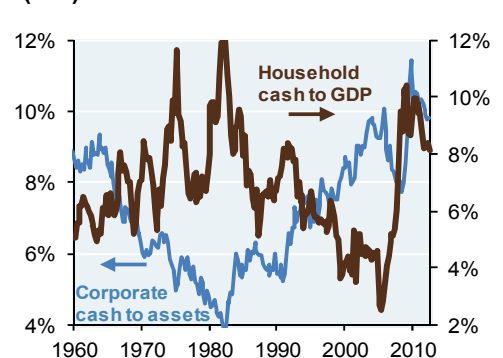
(c19) S&P 500 trailing earnings yield less 10-year interest rates



(c20) Natural gas boom
Global production index, 1970 = 100



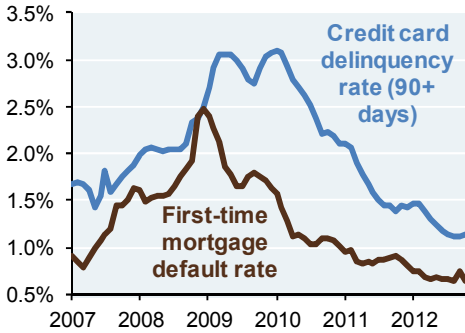
(c21) The Walls of Cash



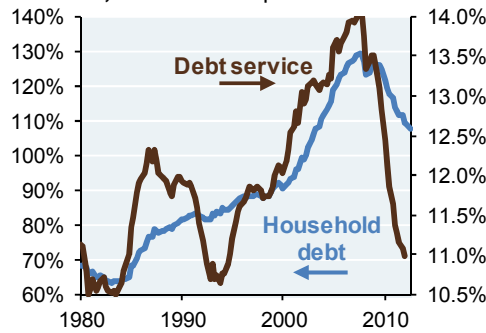
United States: Consumer and housing recovering after a long hangover; eventually, fiscal ax will fall on some of them

The US consumer is showing signs of life: declining delinquencies (c22), improved balance sheets (c23; although this reflects low rates more than debt reduction per se), the rise in the cyclical component of the job market (c24) and modestly rising consumer sentiment (c25). As a result, real consumption growth of 2% seems achievable (c26) once hurricane effects fade. Weakness in wages (c8) has been offset by large government transfers, so too much tax austerity in 2013 would bite.

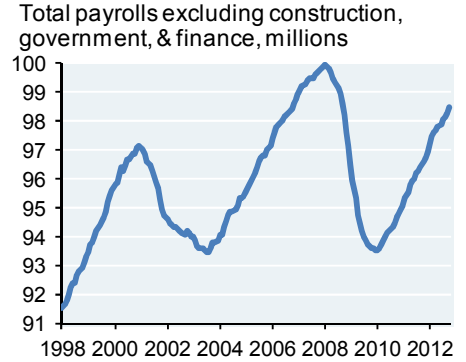
(c22) Delinquencies back to pre-crisis levels, Percent



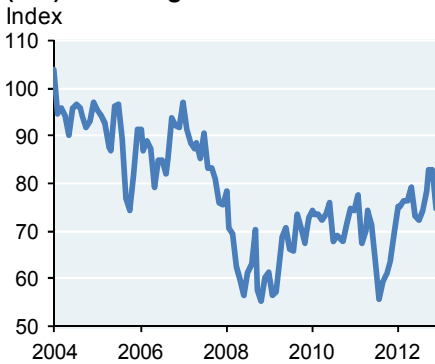
(c23) Household debt and debt service, Percent of disposable income



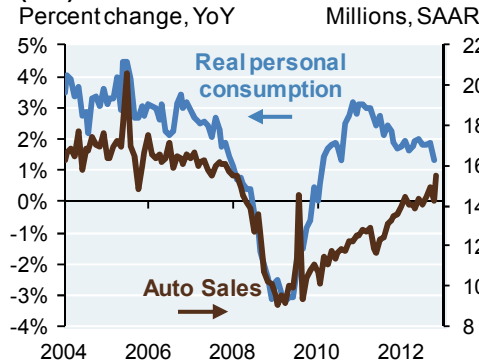
(c24) Improving "cyclical" payrolls



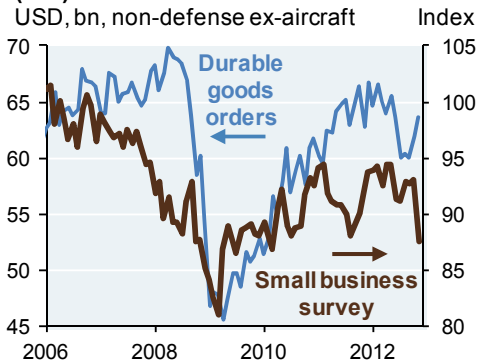
(c25) U. Michigan consumer sentiment



(c26) US consumer trends

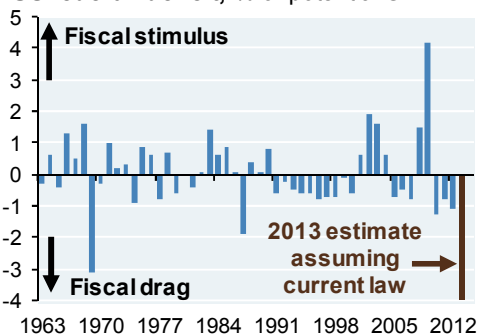


(c27) Business caution

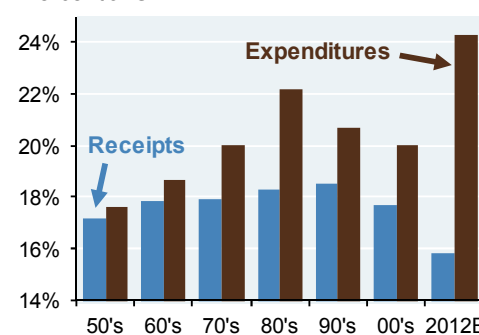


The fly in the ointment is the slowdown in US business capital spending and sentiment (c27). This is a consequence of weakness in Asia and Europe, but also of fiscal cliff concerns. Everyone knows by now that legislated austerity in the US is large (c28), and will have to be reduced to avoid a recession. However, regardless of how the cliff is dealt with, the US will still face challenging budget dynamics (c29 and c30) in the years ahead. Being the world's reserve currency gives the US some breathing room (c96), but the debates in DC reflect a recognition that something may have to be done soon. Around \$4 trillion in deficit reduction (higher taxes, lower spending) over 10 years is needed to get the debt down to 70% of GDP. In the 1950's, the US avoided that approach and mostly relied on a pro-growth agenda (see page 13), but political winds make this unlikely.

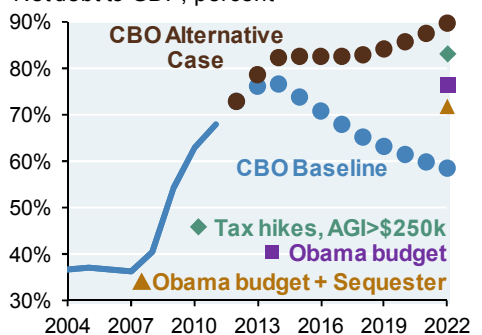
(c28) Change in cyclically-adjusted US federal deficit, % of potential GDP



(c29) US tax policy and expenditures



(c30) US long-term debt scenarios

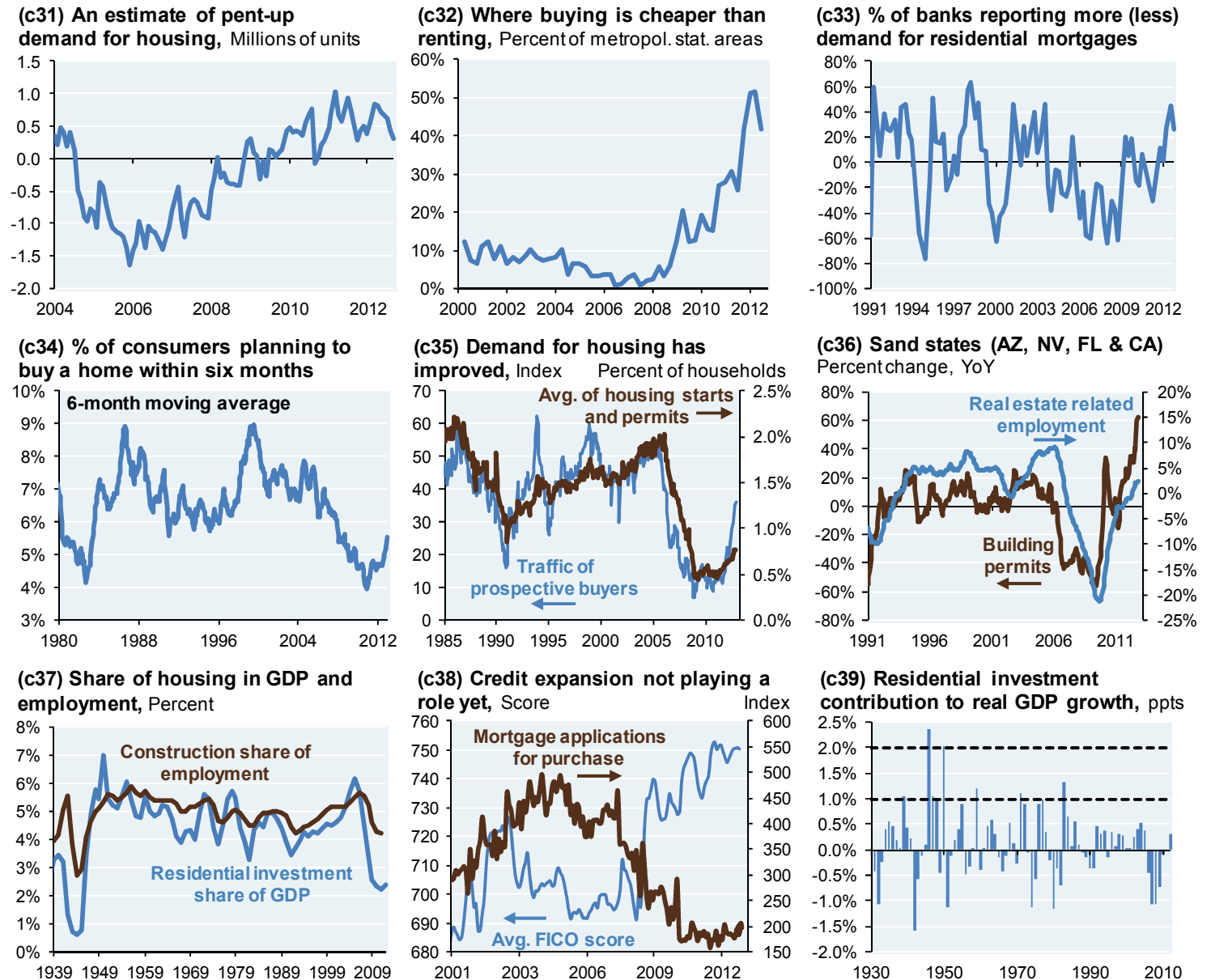


Putting it all together, our best guess is a reduction of the fiscal cliff to 1.5% of GDP in 2013, payroll growth of 200k per month, a rebound in business investment, and GDP growth of ~2.5% by the fall (this is not a Herculean achievement; most countries should grow by 2.5% with a 7% budget deficit and 0% interest rates to pull forward future consumption). Note that the growth estimate reflects a multiplier effect of payroll tax and upper bracket income tax rate increases of less than 1.0.

Close-up: What will the growth contribution be from the US housing recovery?

Pent-up demand (c31), easier financing conditions, and the extent to which buying is cheaper than renting (c32) have prompted consumers to start looking for mortgage credit (c33), and to buy homes again (c34). The results: The homebuilder survey is soaring, as are housing permits and starts (c35). As further confirmation, the residential component of the Architecture Billings Index hit a 5-year high in November. The very strong rebound in the “sand” states is particularly telling (c36). However, housing’s share of GDP and employment is lower after the collapse (c37), so its contribution is growing from a low base. We also don’t expect a recurrence of massive home equity borrowing that reached \$1 trillion per year in early 2006. So far, the housing recovery has not been reliant on credit, shown by the lack of a pick-up in mortgage applications (c38). **As a result, housing should contribute roughly 0.75% to growth in 2013.** That’s pretty good, but less than in the late 1940’s, less than the housing recovery of 1982 (c39), and less than some forecasts we have seen (e.g., Roger Altman’s 1%-2%). There should be positive multiplier effects in the rest of the economy, which gets us to around 2.5% GDP growth in 2013 after accounting for the drag from the fiscal austerity that is not legislated away.

One last point: The rise in average FICO scores for mortgage originations (c38) is mostly a reflection of tighter criteria applied to *refinancing*. As per data made available by the Home Mortgage Disclosure Act, in terms of *purchase loans*, almost half the volume from 2009 to 2011 was underwritten by the Federal Housing Administration, Veterans Affairs and the Department of Agriculture with average down-payments of just 3%. A problem for another day?



Europe: Capital markets rescue in full swing, but fewer signs of improvement on the ground

Take a road trip across Europe on behalf of Chancellor Merkel to assess economic conditions. Start in Berlin¹:

- German growth is fading to +1% (c40). This is not catastrophic and the latest data releases are not declining any more, but Germany is the backstop for Europe and its debt is already over 80% of GDP. Take A2 and head southwest to Paris.
- France has stalled (c41) and its employment/export gap with Germany is widening (c6), making it harder to pay for its worker utopia (c42). Businesses are more pessimistic about Hollande than consumers so far. Head south on A10 to Madrid.
- Since 1850, Spanish growth over 5 years has only been weaker during its civil war (c43). Its current account improvement is a false signal, since unemployment is 25% and Spain is in recession (c44); look at the cyclically-adjusted one instead. Bank non-performing loans are still rising and home prices are still falling. Head east on A8 to Rome.
- Italy didn't have a housing crisis and its banks are in decent shape, but government debt is close to post-1861 unification peaks (c45) and requires constant primary budget surpluses. If it weren't for Japan, Italy would be the poster child for an aging, over-indebted low-growth economy. Take the Brindisi ferry to Igoumenitsa, then take E90 southeast to Athens.
- Greece's GDP decline is among the worst of the post-war era, exceeded only by the collapse of Soviet communism, and foreign/civil wars (c46). Greece's debt ratio is 170% *after* private sector debt relief (the 120% target is for 2022); similar exercises in Argentina and Mexico yielded 40%-60%. Head north to Berlin on E75 and report back to Merkel.

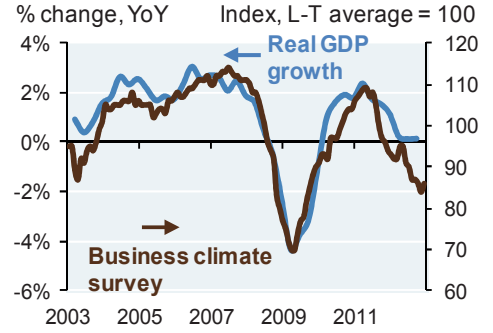
Road trip



(c40) Decline in German business surveys and manufacturing orders

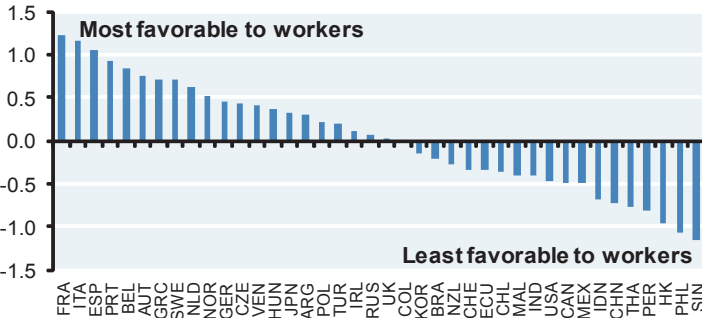


(c41) French growth stalls, business confidence even worse



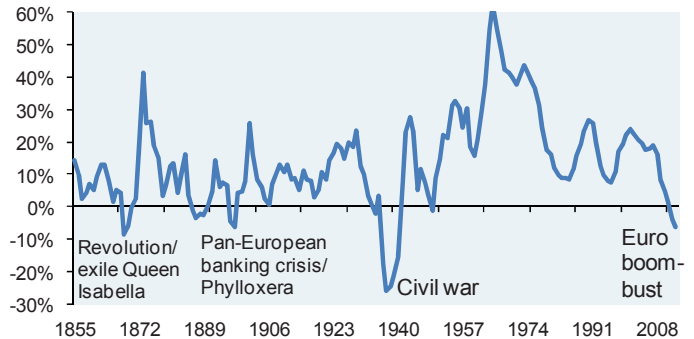
(c42) France: A worker's utopia

Average dispersion above or below the mean, across 9 factors

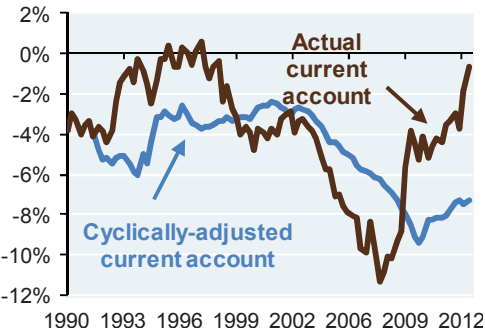


(c43) Spain's economic decline

Percent change in 5-year real Spanish GDP, since 1850



(c44) Spain isn't more competitive, just in recession, Percent of GDP



(c45) Italy's debt/GDP: highest since unification other than wartime, Gross general government debt/GDP



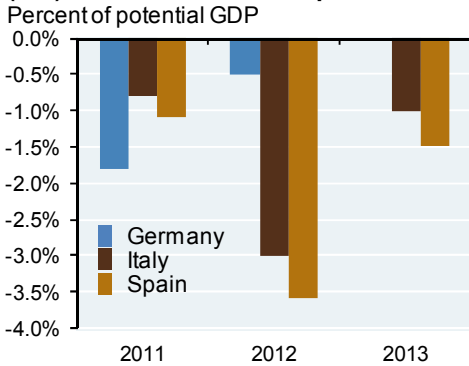
(c46) Largest post-war GDP declines

	5 yrs ending	Real GDP decline	Proximate cause
Ukraine	Mar-97	-50.8%	USSR collapse
Bulgaria	Jun-94	-37.1%	Chaotic transition to capitalism
Venezuel	Mar-03	-31.5%	Failed PDVSA strike to oust Chavez
Romania	Dec-92	-30.6%	Chaotic transition to capitalism
Peru	Sep-92	-27.8%	Shining Path civil war, hyper-inflation, nationalization
Russia	Mar-97	-26.4%	USSR collapse
Kazakhst	Mar-97	-25.4%	USSR collapse
Iran	Sep-88	-20.8%	Isolation after '79 revolution, 1980-1988 Iran-Iraq war
Greece	Dec-13	-20.8%	Eur. Mon. Union boom-bust
Latvia	Mar-97	-19.2%	USSR collapse

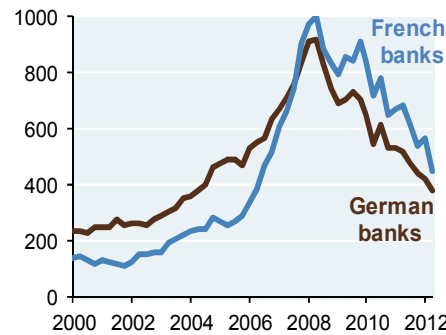
¹ Messerschmitt Kabinenroller (Ger), Citroën DS (Fr), SEAT 600 (Sp), Alfa Romeo Giulia Spider (It), and Namco Pony (Greek).

Explain to Merkel that Europe may grow at 0% in 2013 after a mild recession in 2012, that periphery unemployment is 18% and rising (c4), and that tensions are resulting in higher polling results for some extremists (c55). At least fiscal austerity peaked in 2012 (c47), allowing easier conditions in 2013. The jovial Chancellor is not happy! These risks are understood in Berlin, which explains the capitulations Germany made (ECB expansion, bilateral loans, relaxed fiscal targets, etc.). **The expanded safety net has paid dividends: not economic ones, but in markets.** To see how, start with Europe's balance of payments crisis, shown by the collapse in French and German bank claims on the periphery (c48). In response, Germany has allowed the ECB to finance governments, banks and bank recapitalizations (c13). There are few specifics, but the mere suggestion of a couple of trillion Euros of unconditional support (c49) has calmed markets. Since Draghi's July "bumblebee" speech, Eurozone equities are up 12%, credit spreads plummeted (c50), bank deposits and private foreign ownership of Spanish and Italian bonds stabilized (c51, c52), peripheral banks can issue debt again (c53), and Spain made a small reduction in assets financed at the ECB (c54). **Compared to Draghi, only the Three Witches from *Macbeth* ever cast a wider and more powerful spell.**

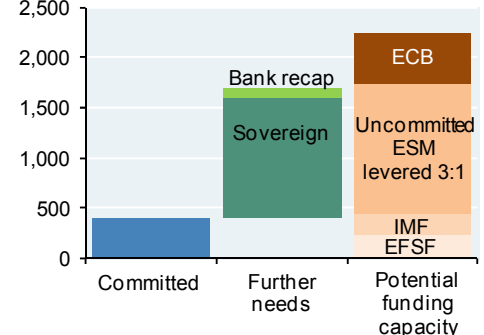
(c47) Fiscal thrust in Europe



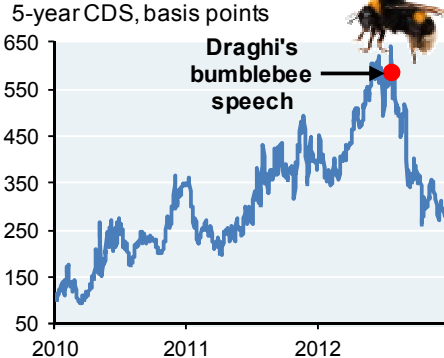
(c48) Bank claims on Portugal, Greece, Ireland, Spain, Italy, Billions, USD



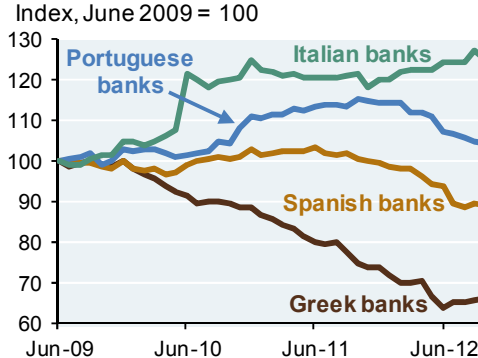
(c49) Euro public support: potential uses and capacity, Billions, EUR



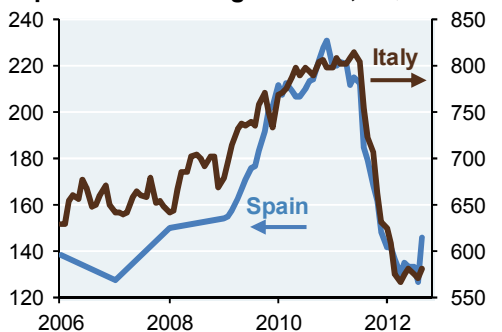
(c50) Spanish credit spreads



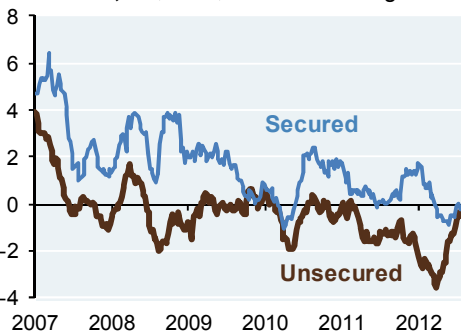
(c51) Peripheral European deposits



(c52) Private foreign holdings of Spanish & Italian gov't debt, bn, EUR



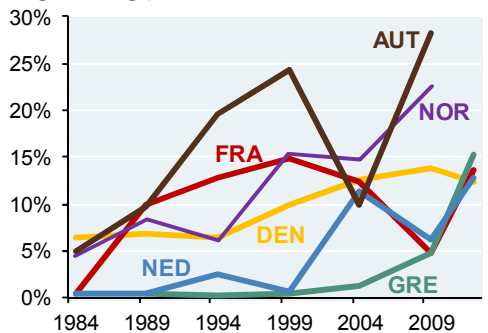
(c53) Periphery bank net debt issuance, bn, EUR, 3-month average



(c54) Spain: ECB net lending to banks



(c55) Election results of extremist right-wing parties, Percent



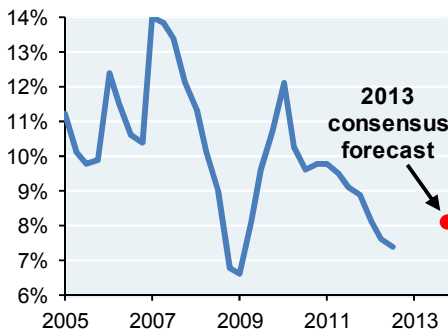
Now what? Europe has created a safety net for domestic and foreign depositors, bondholders and lenders, which reduces the impact of Europe on global markets. However, the decline in Spanish employment is 4x higher for people under 25 (compared to the population at large), and worse in Italy, Portugal and Greece. If the social fabric can withstand it, Europe may get through this, but it could take *additional* relative wage declines/productivity improvements of 30% in France and Spain to eliminate competitiveness gaps with Germany. By primarily relying on unemployment and wages to restore competitiveness, Europe is taking the road less traveled and remains an economic and social experiment of the highest order.

Emerging Markets: Chinese growth a positive in 2013, with the rest of Asia rebounding as well

Consensus Chinese growth forecasts are around 8% (c56). Based on our read of high-frequency indicators (c57), this seems achievable, particularly given China's ability to spend without worrying about excessive debt or deficits (c58). The same goes for the rest of EM Asia, compared to developed economies. We can debate the *quality* of Chinese growth; capital spending, for example, appears driven increasingly by government stimulus rather than the private sector (c59). And as shown earlier, Chinese growth has also become increasingly dependent on credit (c9). However, given the indicators below, **China's economic momentum should be a positive in 2013 rather than a negative, as production, demand and housing (floor space, prices, real estate investment) are all showing signs of improvement.** If there is a concern, it's the *rest* of emerging Asia, where manufacturing has been stagnant for the last 2 years as China's keeps rising (c60). Korean, Singaporean and Taiwanese exports have picked up recently, but not by much (c61).

(c56) Chinese real GDP growth

Percent change, YoY

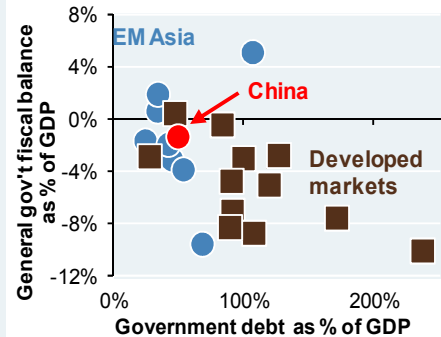


(c57) High-frequency complements to Chinese GDP data

Data	Latest read
Cement production	Steady trend growth
Container throughput	Steady trend growth
Electricity consumption	Strong rebound
Exports	Weak after steady growth
Floor space started	Rebound after fall in Oct/Sept
Highway freight	Strong rebound
HK Luxury sales	Flat vs. large gains in '09-'11
HSBC Manuf. survey	Moderately improving
Macau gaming revenue	Flat vs. large gains in '09-'11
Passenger car sales	Moderately improving
Rail freight	Strong rebound after summer collapse
Steel production	Strong rebound
Waterway freight	Strong rebound

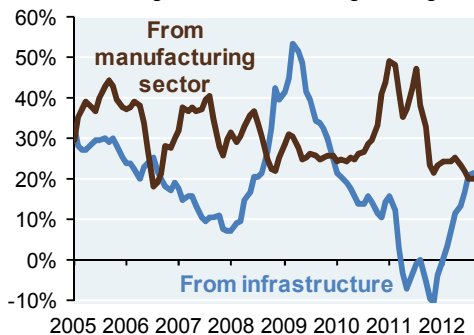
(c58) EM Asia has more room to spend

Estimate for calendar year 2012



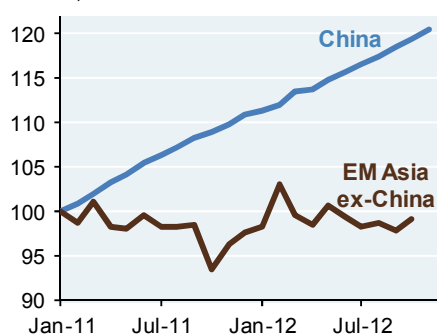
(c59) Chinese fixed asset investment

Percent change, YoY, 3m moving average



(c60) EM Asia manufacturing output

Index; Jan 2011 = 100



(c61) Korea, Taiwan and Singapore: exports stabilizing

Percent change, YoY



(c62) EM interest rate swap curve

Percent, 1-year rate, avg. of EM countries



(c63) BRIC hits the wall in Brazil

Percent change, YoY



(c64) Euro area imports from LatAm and Asia

Percent change, YoY

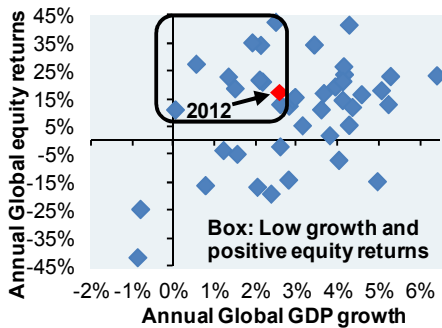


We expect better data in emerging Asia in 2013, in part a consequence of declining interest rate expectations (c62). The same holds for Brazil, where the Central Bank continues to reduce policy rates. Both Brazilian exports and industrial production are finally stabilizing (c63). We do not, however, see much improvement in European demand for Asian or Latin American exports, which have fallen recently (c64). As in 2011 and 2012, a risk for the region would be a rise in inflation that forces Central Banks to start raising policy rates again. This is something we will have to watch, since Asia ex-Japan's output gap has turned positive, unlike the large negative one in the advanced economies (c14).

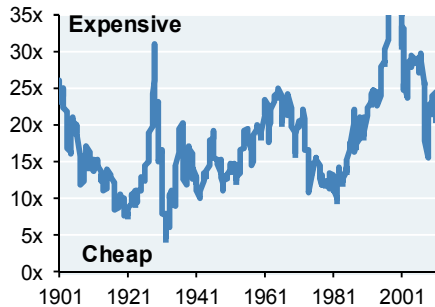
Investments

US equities. Slow economic growth doesn't *always* mean low equity returns; there are times when equities do well anyway (c65). This typically happens after a recession ends, when valuations are low and pessimism is high. That was the case in 2012, when US equities began the year at a forward multiple of less than 12x due to concerns about Europe. Multiples have since risen to 12.7x, and still look reasonable. Not everyone agrees; I don't think I have ever had more debates about US equity valuations than during the last year. One side of the debate: the Graham-Dodd/Shiller approach, which looks at trailing reported earnings over the last ten years. This approach makes equities look expensive to history (c66), but we have reservations about this model (see box). The other end of the spectrum: the S&P earnings yield less 10-year interest rates, under the notion that the purpose of investing in stocks is to earn more than on bonds. Under this logic, equities look *very* cheap (c67), an epiphany the Fed is hoping investors will come to and drive up financial asset prices. I am not a huge fan of this logic, and over the long run, neither are markets: The volatility of stocks since the Greenspan-Bernanke era of low real interest rates began is even higher than before the creation of the Fed in 1913, when the US was beset by frequent recessions and depressions. **Looking at history and at the future, US equities seem fairly valued at current multiples of 12-13 times 2013 earnings estimates.**

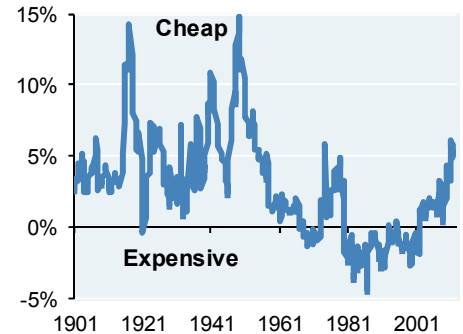
(c65) Global equity returns vs. GDP growth, 1970-2012



(c66) Graham-Dodd/Shiller valuation approach, S&P 500 price to 10-year trailing average reported earnings



(c67) S&P 500 trailing earnings yield less 10-year interest rates

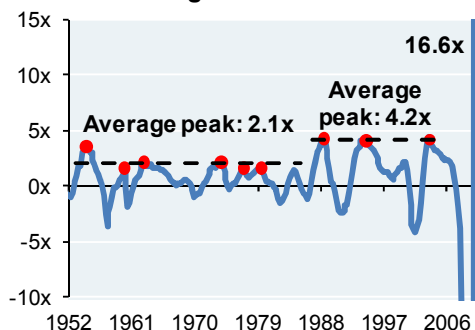


Profit margins are in good shape (c68), defying expectations of a decline. While manufacturing is only 15% of US GDP, its contribution to S&P profits is closer to 60%. US manufacturers have benefited from globalization and productivity gains in labor and technology (an example: Manufacturing output is roughly the same as in 2000 and there are 30% fewer manufacturing workers). Recently, as the rest of the world has slowed down, US earnings growth has re-converged to nominal GDP growth (c69). Consensus 2013 earnings estimates show 10% growth (c70), a number which stabilized after declining in the fall. Dividend payout ratios are near all-time lows and have room to rise. Currently, dividend *growth* rates are the highest in six decades. **S&P 500 returns of 8%-10% seem achievable in 2013, particularly with a "grand bargain" in DC that drives P/E multiples higher.** Deferring the cliff and doing nothing about the long run will probably not have the same impact.

(c68) S&P 500 ex-financials net profit margin, Percent



(c69) Ratio of earnings growth to nominal GDP growth



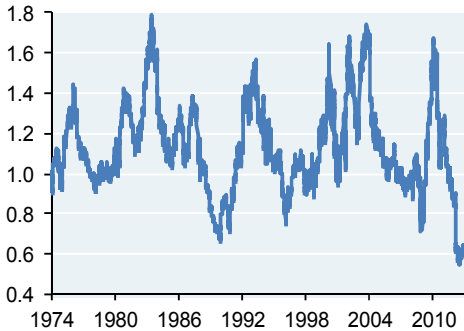
(c70) S&P 500 earnings growth estimates, Percent change, YoY



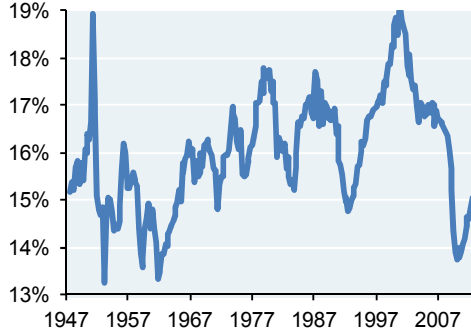
Reservations on Graham-Dodd. By using ten years of trailing reported earnings, Graham-Dodd effectively assumes that the mayhem of the prior decade is indicative of the future. While earnings are volatile, the magnitude of the 2008 collapse hadn't been seen in over 100 years. Given the compositional shift in the S&P 500 since 2000 (240 of the 500 companies in the S&P have changed), I'm not sure the last ten years are a good proxy for future earnings. The use of reported earnings instead of operating earnings also has an impact, given the abnormally large decline in reported earnings during the financial crisis. If the model (a) incorporated the earnings history of the companies now in the index and not its prior constituents; (b) assumed that reported earnings rise back to their average level relative to operating earnings of 88%; and (c) assumed that earnings declines during recessions are 20%-30% and not 70%; it would show valuations much closer to average. In short, anchoring expectations in the immediate past is a problem with the Graham-Dodd/Shiller approach.

Within US equity markets, **cyclical stocks** trade at a large discount to defensives (c71) after the demand for dividend-payers in the last 4 years. Consumers and businesses have pent-up demand for durable goods (c72) that makes some cyclical stocks interesting. On **financials**, banks have been recapitalized (c73), reducing the risk of a relapse in 2013. Net interest margins are still under pressure, and since March 2010, released loan loss provisions account for ~100% of the improvement in bank earnings (provisions are now close to pre-crisis levels). However, large cap money center bank valuations of 1.1 times tangible book value are only 30% of pre-crisis levels, and the housing recovery shown on page 5 has not fully impacted results yet. Greater capital needs reduce returns on bank equity, but valuations appear to have accounted for this; large cap banks are trading at ~7.5x long-run normalized earnings. The deepest value sector: **Healthcare**, which trades at the lowest multiple relative to consumer staples since 1980, and which has more cash flow and higher cash reserves.

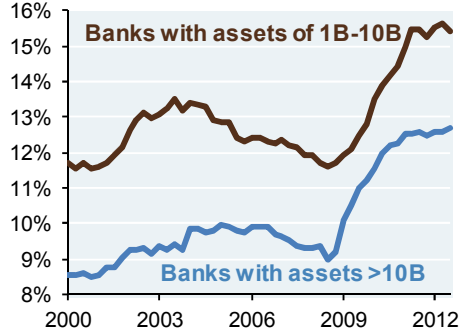
(c71) Cyclical trading cheaply vs. Defensives, Cyclical/Defensives trailing P/E



(c72) Durable goods spending by consumers and businesses, % of GDP

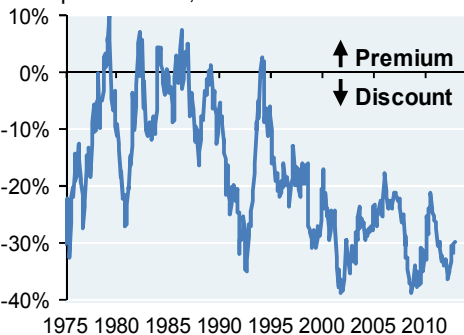


(c73) US bank Tier 1 capital ratio

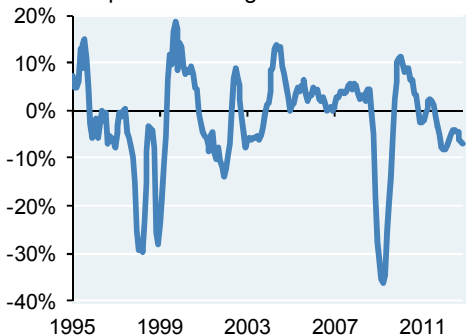


The Sick Men of Europe. Last summer, European equities traded at their largest discount to the US in 40 years, driven mostly by declines in Southern Europe. Europe-bears must concede that a lot of news is in the price. At a 30% discount (c74), things need to get increasingly bad to cause relative valuations to decline further (EU utilities and telecoms in particular trade at much lower multiples). With the larger safety net discussed on page 7, Europe moved out of intensive care into long term care. Since the July ECB speech, European equities have outperformed the US, recapturing just one-third of Europe's underperformance since January 2010. I don't think the valuation gap shown will close rapidly, in part since ROEs in Europe are 60%-70% of US levels. Bottom line: **For the first time in 3 years, there is no longer as strong an argument to hold radically underweight EU equity positions.** However, with no viable growth future for countries like Spain in the Eurozone, the big questions remain unanswered. In a reflationary world, EU equities may drift up with the rest until the next inflection point in the crisis.

(c74) European equity discount to US



(c75) EM earnings revisions



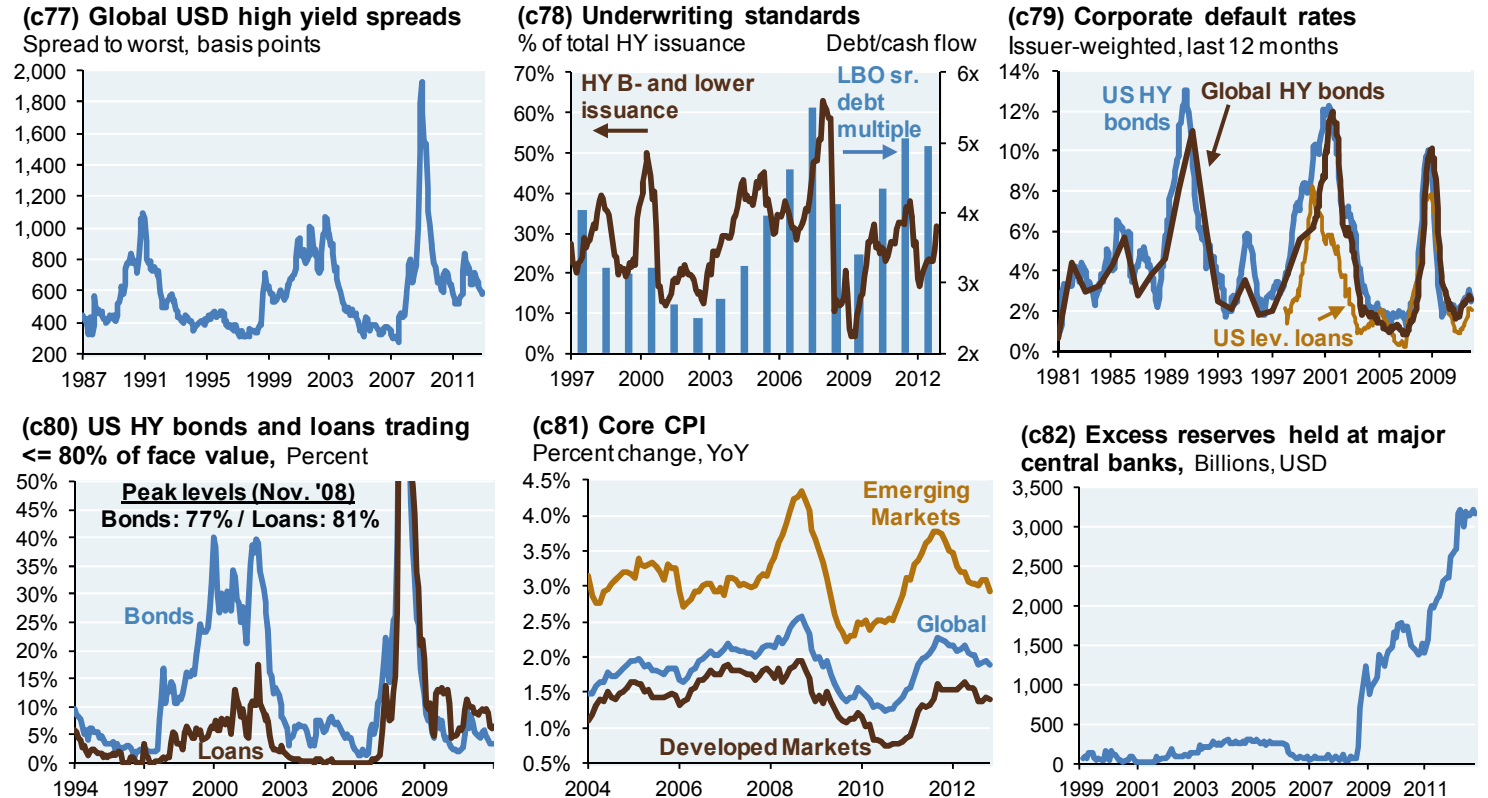
(c76) Chinese equity valuations



Emerging market equities kept pace with the US and Europe in 2012 (c3), with much better performance in Asia ex-Japan than Latin America. Earnings revisions are now declining (c75), reflecting slowing profits growth in China, Taiwan, Brazil, Chile and Indonesia. Part of the reason is the global manufacturing slowdown (c11), which affects commodity and goods exporters. In China, there has been a structural decline in valuations (c76). Multiples have come down everywhere since 2007, so part of this is global. Reliance on credit and government spending (c9) and lower growth also argue for lower multiples. Finally, in 2011, China raised rates to deal with inflation, and its equities often rise and fall with monetary policy. **All things considered, the veneer has been stripped from Chinese stocks, leaving investors skeptical about growth and data quality.** H-shares (Chinese companies listing in Hong Kong) look interesting at forward P/E multiples less than 10x, although Asia is admittedly a strange place to make "value" investments. **The rest of Asia ex-Japan trades at slightly higher multiples of 12x-15x but doesn't have as many structural issues, and may be a better place to be in 2013.** Within China, private equity is interesting given the ability to focus on consumption and the service sector (see page 12).

Credit: The best evidence of the Fed’s portfolio rebalancing channel at work

Spreads have rallied but are not (yet) back to the levels of the late 1980’s, 1990’s or 2007 (c77). Underwriting standards have loosened, shown below by the increase in US high yield issues rated at or below B-, and the rise in senior debt-to-cash flow multiples for leveraged buyouts (c78). However, recessions are typically the biggest problem for credit, and we do not expect one in 2013. Corporate defaults (c79) are low and expected to rise by only ~0.5% next year, and low interest rates have helped debt service coverage. Supply conditions are favorable: The net supply of credit in 2013 is projected to be the lowest in a decade, other than 2008. **The era of capital gains from credit is probably over for this cycle, but we expect credit to contribute income to portfolios in 2013.** Distressed debt managers may find it harder, given the decline of cheaply priced loans and bonds (c80); in 2012, they generally did well and ranked near the top of hedge fund return tables.



Commodities: The interesting question is what happens to precious metals (we don’t expect that much from industrial metals or energy given low global growth). Even though inflation is currently low (c81), precious metals had another good year in 2012, and have generated 15%-16% annualized returns since Q4 2007. Precious metals prices are responding to the explosion in base money that is currently inert (c82); **over \$3 trillion is held globally by private sector banks at central banks.** If deployed, this could fuel inflation when the output gap (c14) eventually closes. Precious metals markets are betting that when it does close, central bankers will let growth run and allow inflation to rise above presumed targets. I agree, and expect another positive year for precious metals in 2013. Also, don’t underestimate the pressure that a White House can put on a Fed that wants to raise rates (see EoTM 5/7/2009 on the admittedly extreme case of the Nixon administration’s response to the Fed in the 1970’s).

Japan: One emerging view on Japan: Investors should add Japanese equities, short the Yen and short JGBs. Why? Japan is allegedly in such dire straits that the only option left is unlimited Yen-printing and an inflation target of 2%. **Things are certainly gloomy:** Japan is the poster child for low growth (c10); its current account surplus is close to zero; its trade account is in sustained deficit for the first time since 1965; and its corporate profits are at 2004 levels while US corporate profits are 60% higher (c83). Corporations blame a Yen which has risen by 20% in real terms since the crisis, and Japan’s energy policy is shifting to offshore wind from nuclear, which is like trading a motorcycle for a unicycle (EoTM 10/22/2012). However, as a cautionary note, a lot of money has been lost over the last 20 years betting on a reflationary Japocalypse that never happened. Even if the government forces the central bank to inflate, Japan will compete with other central banks doing

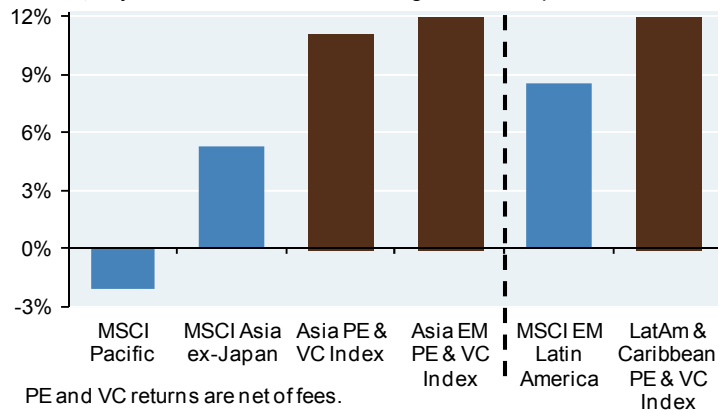


the same (c13). Money-printing may create short-term gains on Japanese stocks and pressure the Yen, but I'd be surprised if Japan stuck with it long enough for such gains to be sustained. Japanese bank JGB holdings are 9x their capital, which creates problems if deflation is accompanied by higher interest rates. On fundamentals, the ROE on Japanese stocks is less than 1/3 of the US and Europe. As a result, **positioning for deflation may be a good short-term trade, but be prepared to leave the party early.** Since 1993, Japanese equities have generated a -1.5% annualized return, with large booms/busts in between.

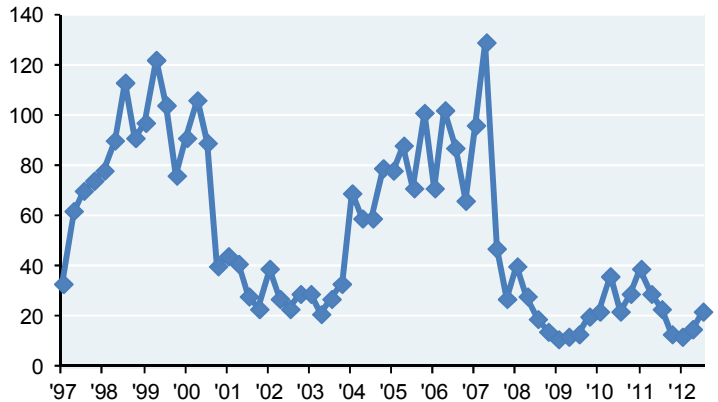
Alternatives: The best ones are often investments that cannot be replicated in public markets

Millions of middle-class households continue to form in China², where urban household consumption is growing by 10-12% per year. This has created a large service sector which now represents 50%+ of Chinese GDP; the same is true in Brazil. **However, China's non-financial service sector represents a much smaller share of its equity markets, which are dominated by banks, energy, industrials and basic materials.** In China, these sectors are 81% of the Shanghai Composite. The situation in Brazil is similar; non-financial service sector companies, telecoms and transports only make up 15% of the Bovespa, but a much larger share of GDP. As a result, private equity can be a better way to invest in emerging economy consumption (retailing, healthcare, food certification and distribution, etc). There is some evidence that private equity has delivered: Both Asian and Latin American private equity indices from Cambridge Associates outperformed public equity over the last 5 years (c84).

(c84) Public and private equity investing in Asia and LatAm, 5-year annualized return through Q1 2012, percent

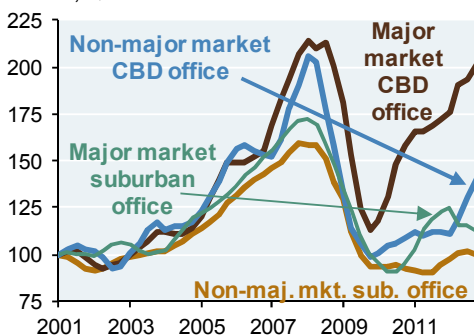


(c85) Debt issuance by mid-market firms (EBITDA <=\$50mm), Number of deals, quarterly

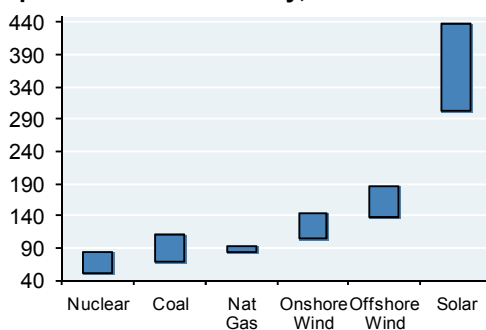


While credit markets have healed, many smaller companies have less access to debt capital markets (c85). Terms and conditions in **private credit** generally offer higher coupons and more covenants (change in control provisions, prepayment restrictions, etc.); the trade-off is less liquidity. On US commercial real estate, low interest rates have generated interest in well-leased, prime locations, but non-prime locations (suburban property or cities outside the six major markets) still trade at larger discounts (c86). The supply story is favorable: **US fixed investment in office, retail and multifamily is at multi-decade lows, and the CMBS financing market has begun to recover.** On oil & gas, investments in exploration, production and distribution of traditional energy are more compelling than renewable energy. One reason why: substantially higher levelized costs for renewable energy, which means that politically volatile (and costly) subsidies remain a large part of the equation. The levelized costs shown below are for Germany (c87), but are not much different in other parts of the world.

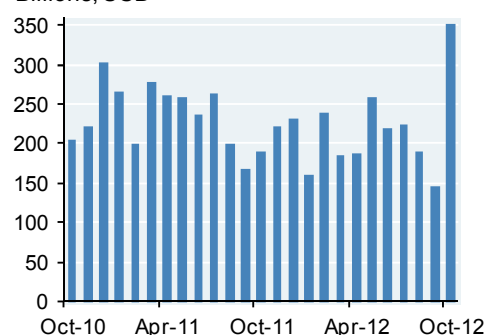
(c86) Prime vs. non-prime real estate Index, Q4 2000 = 100



(c87) Levelized cost of electricity production in Germany, USD/MWh



(c88) Global M&A volume by month Billions, USD



² According to the International Labor Organization, wage increases over the last decade have completely closed China's wage gap vs. Mexico. The Brookings Institute expects Chinese middle class consumption to surpass the US by 2020.

On **hedge funds**, we see managers positioning around (a) event-driven and activist strategies that seek to generate returns from an increase in buybacks, dividends, capital expenditures and M&A (c88); (b) long/short strategies based on fundamental research now that intra-stock correlations have *finally* fallen back to pre-crisis levels; (c) less liquid credit instruments in select emerging markets and Europe; and (d) markets where a scarcity of capital has created opportunities, such as reinsurance.

Looking beyond 2013: Further progress on entitlements and energy independence would be bullish signals for America

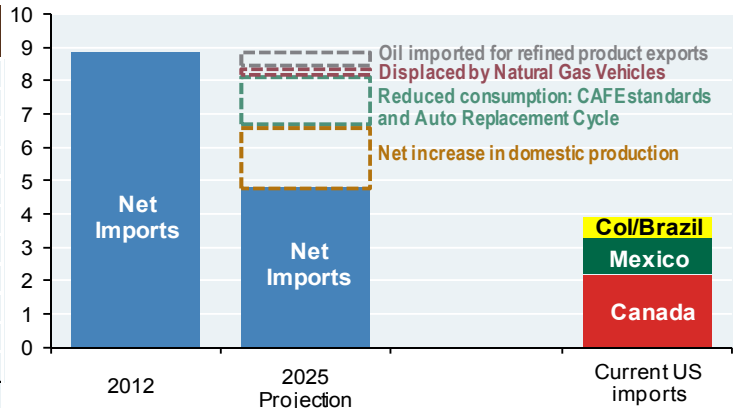
The US debt was 80% of GDP only once before, in the 1950's (c89). The solution was not austerity (outlays were stable), large tax increases (receipts were stable), inflation (which was 2%) or negative real interest rates (they were positive). The solution was growth (over 4% in real terms, compounded for the entire decade). Times and circumstances are different, but the question of whether the US will adopt a more aggressive pro-growth agenda is a fair one to ask (e.g., the NFIB survey indicates that "government red tape" has now caught up to "poor sales" as the largest problem for small business). Of the many factors affecting the long-term growth outlook, there are two that deserve special attention: **energy independence**, and **entitlements**.

(c89) 1950's Federal debt reduction relied on growth, not austerity, inflation, taxation or artificially low interest rates

	Net debt/ GDP	Net debt (bn)	Nominal GDP bn	Real GDP bn	Outlays % of GDP	Receipts % of GDP	Real 10 year UST rate
1950	80%	\$219	\$273	\$273	16%	14%	1.3%
1951	67%	\$214	\$320	\$302	14%	16%	-5.3%
1952	62%	\$215	\$349	\$322	19%	19%	0.5%
1953	59%	\$218	\$373	\$341	21%	19%	2.0%
1954	60%	\$224	\$377	\$343	19%	19%	2.1%
1955	57%	\$227	\$396	\$354	17%	17%	3.1%
1956	52%	\$222	\$427	\$368	17%	18%	1.7%
1957	49%	\$219	\$451	\$377	17%	18%	0.3%
1958	49%	\$226	\$460	\$377	18%	17%	0.6%
1959	48%	\$235	\$490	\$398	19%	16%	3.3%
1960	46%	\$237	\$519	\$415	18%	18%	2.7%
Comp. ann'l gr:	0.8%	6.6%	4.3%				

(c90) What US energy independence might look like

US net crude oil imports, million barrels per day



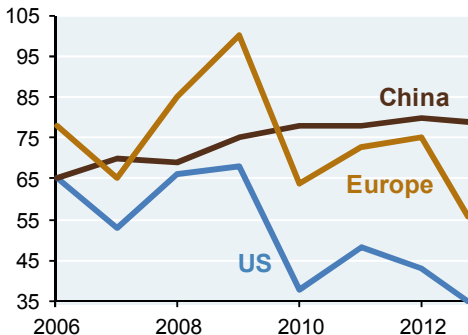
As reviewed last October, US energy independence within the next 10-15 years is a possibility, assuming that you define it as:

- the US only having to rely on the Western Hemisphere ex-Venezuela for its crude oil import needs, and
- the US maintaining its electricity cost advantage (US electricity costs are currently 50% of the global rate)

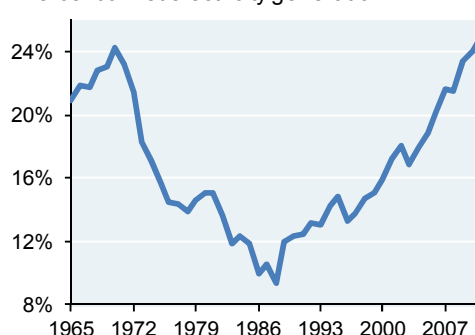
On the first point, recent gains in domestic crude oil production would need to be sustained, with the largest gains coming from "tight oil" extracted from Bakken and Eagle Ford formations and the Permian Basin. Increased production is the largest component of the energy independence equation as we see it (c90). **On electricity, there is perhaps no issue being addressed so divergently as future supply. In Germany and Japan, nuclear is being phased out in favor of offshore wind and other renewable sources, whereas in the US, there is a move towards cheaper natural gas-powered electricity.** As shown in c87 on the prior page, energy transitions in Germany and Japan are extremely costly. One example from our October paper: The cost of building connections between European offshore wind farms and the electricity grid (*excluding* the cost of the wind turbine itself) can be greater than the cost of building a new combined cycle natural gas plant.

The US electricity advantage is substantial (c91) and growing as natural gas rises as a share of generation (c92), and as natural gas prices remain low (c93). To maintain this edge, real-world solutions will be needed on fracking. The topic is complex, but according to my friend **Vaclav Smil**, "Hydraulic fracking is not that different from secondary enhanced recovery techniques which use huge volumes of water mixed with chemicals, pressurized natural gas and/or carbon dioxide to recover oil from wells that have ceased

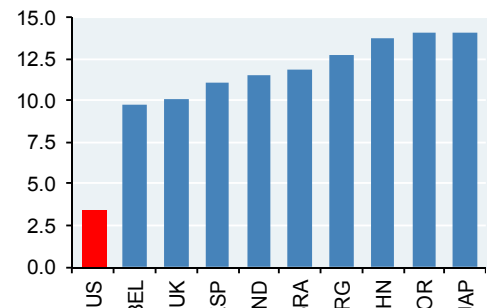
(c91) Wholesale electricity prices
USD/MWh



(c92) US electricity from natural gas
Percent of net electricity generation



(c93) Global natural gas prices
USD/MMBtu



flowing naturally. As long as the wells are properly cemented when they go through water tables and deeper aquifers, there should be no contamination of ground water, assuming strict protocols for proper tank and pond storage of processing water and its requisite on-site cleansing. Fracking is orders of magnitude less complex than nuclear power and deepwater oil extraction (e.g., Macondo at 1.2 km below the sea surface), and in the case of fracking accidents, they should be rare, brief and more easily contained.”

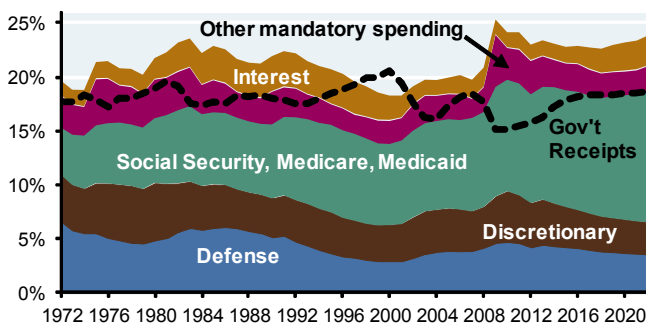
The other issue is entitlements, the third rail of American politics. Before getting into the charts, recall for a moment a 2012 Republican Presidential debate in which some candidates suggested dismantling or seriously curtailing the Environmental Protection Agency. **This extreme³ idea is indicative of how little non-defense discretionary spending is left to fight about.** After the Budget Control Act, non-defense discretionary spending relative to GDP will be at the lowest level in decades (c95). If that’s the case, why isn’t overall spending coming down? Because of the boiling frog problem of US entitlement spending (c94), which is crowding out the energy, education, worker retraining and infrastructure spending that helps shape the future.

When Medicare was introduced in the 1960’s, it was described as “brazen socialism” in the Senate. When Truman proposed a national healthcare program in the 1940’s, the plan was called a Communist plot by a House subcommittee. And when President Roosevelt introduced Social Security in the 1930’s, he was branded as a Communist sympathizer by Republican Senators from Ohio, Pennsylvania and Minnesota, publisher William Randolph Hearst and Alf Landon (Roosevelt’s opponent in the 1936 election). **So in 1969, when one-quarter of Americans over the age of 65 lived in poverty, politicians showed courage in creating a larger social safety net.** However, the formulas, approaches and incentives used have become unmanageable geometric equations. In 1967, the US House Ways and Means Committee estimated that Medicare expenses would grow by a factor of 7 by 1990, and they grew by a factor of 61 instead⁴. **As a result, it will take even greater political courage to alter what is now seen as permanent, since entitlements are no longer sustainably linked to national income.** The 10-year horizon shown below does not even show the truly explosive entitlement dynamics which begin around 2025.

If handled the right way, energy independence and entitlement policy could prolong the status of the US\$ as the world’s reserve currency. When fiscal, military and political issues are mismanaged, reserve currency eras often come to an end (c96).

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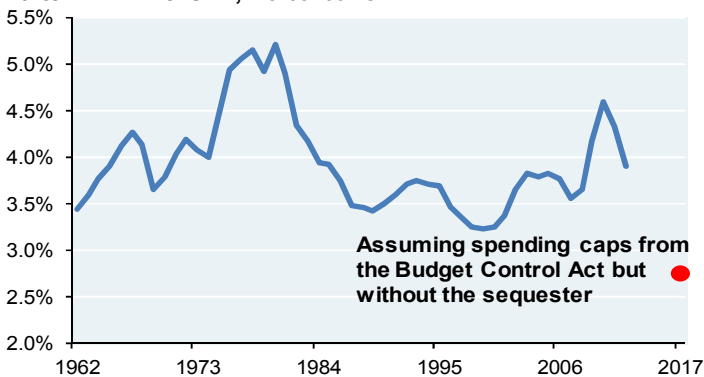
(c94) The Boiling Frog
Percent of GDP, historical and CBO alternative case 2013-2022



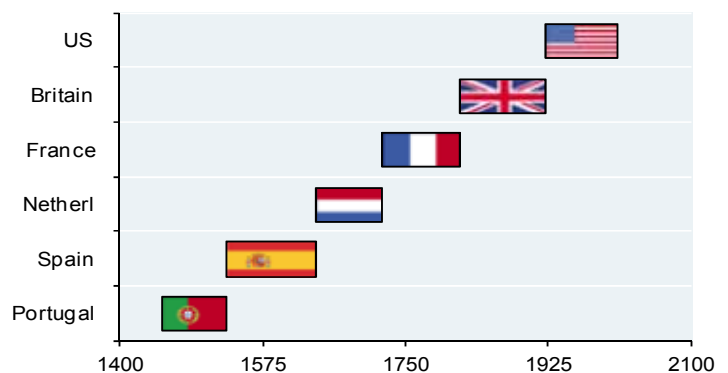
The crowding out of discretionary spending

Category	Estimated 2017 level vs. historical peak
Energy	33%
Education	69%
Teacher and worker retraining	86%
Transportation infrastructure:	
Ground transportation	4%
Air transportation	9%

(c95) Non-defense discretionary spending: already low after BCA kicks in, Percent of GDP



(c96) Dominant reserve currency/superpower since 1400 AD



³ The US ranks around median according to the OECD’s air pollution measure (sulphates, nitrates, carbon matter, sodium, ammonium ions) and 49th out of 132 on the Columbia/Yale Environmental Performance Index. Let’s not eliminate the EPA just yet.

⁴ Source: Senate Joint Economic Committee Report. July 2009. and the behemoth “USA Inc.” from Kleiner Perkins.

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A conversation with Vaclav Smil on hydraulic fracking (<http://www.vaclavsmil.com/>)

AGI: Adjusted Gross Income; **AZ, NV, FL & CA:** Arizona, Nevada, Florida, and California; **BCA:** Budget Control Act; **BEA:** Bureau of Economic Analysis; **BLS:** Bureau of Labor Statistics; **BoE:** Bank of England; **BoJ:** Bank of Japan; **BRIC:** Brazil, Russia, India, China; **CAFE:** Corporate Average Fuel Economy; **CBD:** Central Business District; **CBO:** Congressional Budget Office; **CDS:** Credit Default Swaps; **CMBS:** Commercial Mortgage-Backed Securities; **CPI:** Consumer Price Index; **DC:** District of Columbia; **EBITDA:** Earnings Before Interest, Taxes, Depreciation, and Amortization; **ECB:** European Central Bank; **EFSF:** European Financial Stability Facility; **EM:** Emerging Markets; **EPA:** Environmental Protection Agency; **ESM:** European Stability Mechanism; **EU:** European Union; **EUR:** Euro; **FICO:** a credit scoring model named after the Fair Isaac Corporation; **FRB:** Federal Reserve Board; **GDP:** Gross Domestic Product; **HK:** Hong Kong; **HY:** High Yield; **IAEA:** International Atomic Energy Agency; **IBES:** Institutional Brokers' Estimate System; **IEA:** International Energy Agency; **ILO:** International Labour Organization; **IMF:** International Monetary Fund; **ISI:** International Strategy and Investment Group; **ISM:** Institute for Supply Management; **JPMAM:** J.P. Morgan Asset Management; **KG:** Kilogram; **L-T:** long term; **LSTA:** Loan Syndications and Trading Association; **MBA:** Mortgage Bankers Association; **M&A:** Mergers and Acquisitions; **MMBtu:** millions of British thermal units; **MPG:** Miles per Gallon; **MSCI:** Morgan Stanley Capital International; **MWh:** Megawatt hour; **NAHB:** National Association of Home Builders; **NFIB:** National Federation of Independent Business; **OECD:** Organization for Economic Co-operation and Development; **OMB:** Office of Management and Budget; **P/B:** Price to Book; **P/E:** Price to Earnings; **PE:** Private Equity; **PMI:** Purchasing Managers Index; **PDVSA:** Petróleos de Venezuela, S.A.; **REIT:** Real Estate Investment Trust; **RMB:** Renminbi; **ROE:** Return on Equity; **S&P:** Standard & Poor's; **SAAR:** Seasonally Adjusted Annual Rate; **USD:** United States Dollar; **USSR:** Union of Soviet Socialist Republics; **UST:** United States Treasury; **VC:** Venture Capital; **WEF:** World Economic Forum; **YoY:** Year-over-year

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