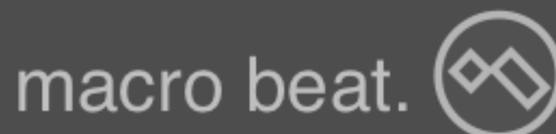
2013 Global Macro & Cross-Asset Analysis

Naufal Sanaullah
naufal.sanaullah@gmail.com
@naufalsanaullah

– January 15, 2013 –



[macrobeat.com]

MARKET THEMES

Bullish

- US housing prices recovering
- US income growth has reaccelerated from zero and may be breaking economy out of liquidity trap
- Chinese policymakers averse to active rebalancing in 2013
- Central banks globally are engaged in a coordinated easing campaign
- US & Chinese inflation remains muted
- EM PMIs are ticking up
- US fiscal cliff resolved at ~1.5–2% NGDP

Bearish

- US demand and credit growth remain weak
- Much of US household credit growth is coming from the "student loan bubble"
- US business investment still weak
- DM PMIs continue their deteriorating trend
- Eurozone recession not letting up
- The US debt ceiling breach looms
- OMT doesn't address structural European wage & trade rebalancing
- Central banks are "running out of bullets" as they venture into new territory
- US marginal LSAPs may be finishing by early 2014 and ZIRP exiting by late 2014

EXECUTIVE SUMMARY

- Three fundamental recycled flows characterize global imbalance stocks:
  - USDs buying Chinese exports recycled back into US Treasuries
  - USDs buying OPEC crude oil recycled back into USD-denominated securities and investments
  - EURs buying German exports recycled back into periphery sovereign debt
- These are due to:
  - China's RMB peg and managed float
  - OPEC's preference to USD in its crude oil price quotes and transactions
  - Europe's Economic & Monetary Union causing wide real rate dispersion across unified nominal rates

EXECUTIVE SUMMARY

- Our macroeconomic paradigm continues to revolve around:
  - Global balance of payments imbalances
  - DM private sector deleveragings
  - Policy sensitivity
  - Tail risks stemming from Europe and China
- Central banks have launched a coordinated easing campaign:
  - ECB targeting short end of periphery curves
  - Fed engaging in open-ended MBS & UST purchases contingent on labor market improvement
  - BoJ expanding asset purchases and accepting higher inflation
  - PBoC cutting rates & RRR
- Fiscal policy, unique in its ability to *create* net financial assets (as opposed to *swap* net financial assets, as monetary policy does) has gone from wildly stimulative in 2008-09 to a range of:
  - Moderately stimulative (the US)
  - Neutral (China)
  - Contractionary (peripheral Europe)

EXECUTIVE SUMMARY

- We are bullish on the US, as housing prices pick up and domestic economic conditions remain supportive of growth, with private sector credit creation, money velocity, & the short end of the inflation expectations curve all set to finally rise
- The rise in housing prices, driven by extremely low marginal supply and a demographic baton handoff to milennials, sizably thaws the transmission mechanism by:
  - Allowing previously-underwater mortgage holders access to record low refi rates
  - Incentivizing lenders to increase mortgage origination capacity due to a clearer future interest rate trajectory and the Fed's willingness to buy MBS directly from dealer inventory

EXECUTIVE SUMMARY

- The efficacy of monetary policy is linked to ***housing price performance***, as opposed to the ***size*** of the Fed's various programs, and we biased toward upside surprises in wage growth, inflation, spending, and credit creation, in H2 once the H1 fiscal drag and risk-free security shortage has played out
- Nevertheless, the continued synchronous slowdown in the global economy represents sizable risk to the US economy, especially if corporate earnings deteriorate and bring down asset values with them
- The biggest risk, however, of contractionary fiscal policy turning the US experience into an imbalanced deleveraging, has been avoided by the fiscal cliff deal, assuming the debt ceiling is allowed to be breached

EXECUTIVE SUMMARY

- Europe remains in a long-term wage rebalancing depression in our view, with unit labor cost convergence between the periphery and core being the underlying dynamic
- The ECB's new OMT will keep short end periphery yields capped
- The conditionality for these bailouts makes for an imbalanced deleveraging, with excessive contractionary austerity relative to stimulus, restructuring, and FX devaluation

EXECUTIVE SUMMARY

- We view Spain and Italy as in about inning 4-5 of a depression, with the weak growth spilling into Germany and France in recent months
- We remain pessimistic about Europe's growth prospects, as procyclical austerity and a fragmented political environment lead to more missed deficit targets, more uncertainty around rescue financing, and more social instability
- However, we are constructive on 2013, as political cohesion remains strong (except potentially in Italy), the "plumbing" of the financial system adequately addressed by Draghi's ECB, and tail risks continue to be priced back out of market valuations

EXECUTIVE SUMMARY

- China is in the early stages of a rebalancing of its growth composition, away from fixed asset investment and toward domestic consumption
- The leadership transition last year will likely mark a major turning point in economic policy, in favor of rebalancing, as Hu Jintao's reformist Tuanpai faction gains influence
- However, there is little initiative to proactively rebalance the economy in 2013, and we view the fiscal stimulus in the pipeline and rebounding US economy as bullish catalysts for China this year, as FAI growth is unlikely to crash imminently

ECONOMIC ANALYSIS

1. United States
2. Europe
3. Australia
4. Japan
5. China
6. Brazil
7. India
8. Mexico

UNITED STATES

- The US remains in a private sector deleveraging, concentrated in:
  - Households
  - Shadow banking
- This is depressing final demand and elevating liquidity preference
- This ultimately reflects a collateral crisis:
  - Housing collateral saw price declines, causing negative equity
  - Shadow banking collateral issues have caused massive credit money contraction
  - Collateral/safe asset shortage
- The corporate sector navigated a quick and effective deleveraging, with low policy rates and labor cost cutting allowing for record margins and net cash flow increasing faster than liabilities

UNITED STATES

- We believe the housing recovery allows for two important novel dynamics that we forecast:
  - Households nearing the end of their aggregate debt stock reduction (and indeed total household debt is approaching a break through 0% YoY), after which income growth will drive the deleveraging balance sheet rebalancing
  - Economy-wide credit demand becoming more elastic, thawing monetary policy transmission mechanisms, and increasing monetary policy potency (for more on this prospective breaking out of the liquidity trap, refer to: ***http://www.macrobeat.com/2012/10/is-us-breaking-out-of-its-liquidity-trap.html***)
- We believe that these dynamics, combined with an EM demand recovery, steadily increasing fiscal clarity since the elections, and very low net investment levels, will lead to corporate capital deployment into fixed investment, driving up wage growth and money velocity
- These all represent latent feedback loops that have been suppressed since the crisis and throughout the recovery

UNITED STATES

- However, the fiscal drag, which we estimate at 1.5-2% of NGDP in 2013, is significant and will depress growth in H1
- It is important to remember that as monetary policy potency increases, fiscal multipliers decrease
- But a debt ceiling debacle could exacerbate uncertainties further, especially considering more than half of the GOP House are prepared to allow default if Obama does not agree to draconian spending cuts, according to Politico
- However, as in 2011 when Senate Minority Leader Mitch McConnell voiced concern that a GOP-led debt ceiling-driven default would tarnish the "GOP brand", Republicans would likely suffer the blame for political brinksmanship, as suggested by polling

UNITED STATES

- As such, the US could face a 1995-style government shutdown, with even worse consequences for GOP political capital
- We view near-term risks stemming from the debt ceiling issue as high and underpriced in asset markets, and believe the GOP will only concede to Obama's less austere strategy after a temporary shutdown and ensuing political crisis
- However, we view the long-term risks of these temporary issues as minimal, especially as the political pendulum shifts further away from the fiscal ultra-hawks, and considering the resolution of fiscal issues in the midst of an acute "crisis" would likely be a substantive and relatively stimulative one
- The US's credit/default risk is identical to its political brinkshmanship risk, which will peak on any further "crisis" such as a debt ceiling impasse
- We believe the bullish drivers discussed in the previous slide will be the story of H2, while fiscal brinksmanship and drag characterize Q1, and a slowly rebounding global economy and appetite for corporate fixed investment characterize Q2
- However, downside risks to this fiscal trajectory would push back the reaccelerating growth thesis by around a quarter, especially if the sequester isn't delayed until 2014

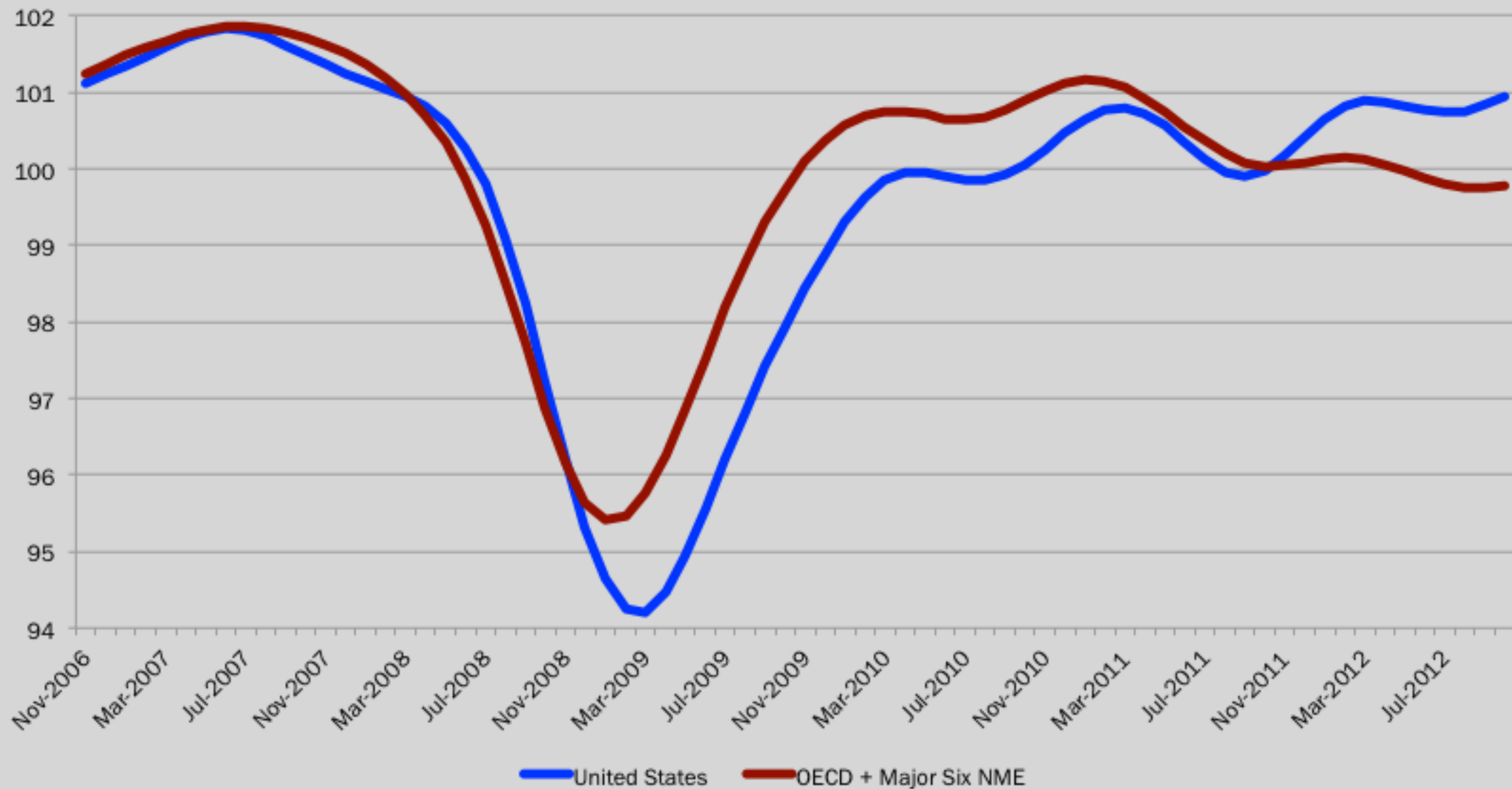
UNITED STATES

- By definition, household deleveraging involves very little (or even negative) household credit creation, which makes household demand growth converge to income growth
- Since last year, nominal consumption growth has been tracking down to nominal income growth
- December's real retail sales came in at around 2.3% YoY, and maybe reversing the deceleration since early 2011, providing the most timely look into demand
- High unemployment, low wage growth rates, and depressed asset values have kept consumption low, but these impediments have been receding as of late

UNITED STATES

- The composite OECD leading indicators for the US and world are presented on the following slide
- After underperforming the global economy from December 2008 to October 2011, the US has diverged upward, reflecting
  - Stimulative economic policies
  - Relatively less sensitivity to the European crisis
  - Well-progressed household capital structure rebalancing, and
  - A weaker USD stemming from the removal of imminent Greek exit risk.
- The most recent print, measuring October's leading indicators, are at new post-crisis highs for the US economy.

UNITED STATES



OECD composite leading indicators, US & OECD + major six NMEs, YoY – blue: United States, red: OECD member economies + major six non-member economies (China, Russia, Brazil, India, Indonesia, & South Africa); source: OECD.

UNITED STATES

- The chart on the following slide shows the US real GDP, real DPI, real PCE, NFP, IP, and real retail sales growth rates
- After decelerating to around zero late last year, real income growth has strongly accelerated, keeping demand growth supported, while employment growth stabilizes at low but comfortably positive levels
- After decelerating since early 2011, consumption appears to be reaccelerating, following income growth higher
- However, industrial production continues to decelerate, reflecting the weak trade environment globally, although finally ticking back up in December
- Employment should start following income & consumption growth higher, as it is a lagging indicator

UNITED STATES

US output, consumption, income, employment, retail sales, & production growth

6.0
4.0
2.0
0.0
-2.0
-4.0
-6.0
-8.0

10.0
5.0
0.0
-5.0
-10.0
-15.0
-20.0

Jan 2009 May 2009 Sep 2009 Jan 2010 May 2010 Sep 2010 Jan 2011 May 2011 Sep 2011 Jan 2012 May 2012 Sep 2012 Jan 2013

Real GDP Real PCE Real disposable income Nonfarm payrolls Real retail sales (rhs) Industrial production (rhs)

US demand, income, production, & employment growth, YoY – black: real GDP growth, red: real PCE growth, green: real disposable income growth, blue: nonfarm payrolls growth, purple: real retail sales growth (right axis), orange: industrial production growth (right axis); source: FRED.

macro beat.

UNITED STATES

- The US deleveraging is evident in the chart to the right, which highlights household mortgage debt/ disposable income
- This, combined with shadow banking deleveraging, represents an enormous amount of liquidity demand and is the source of the persistent deflation risk since 2008
- Total financial and household liabilities have contracted by a combined $4 trillion since 2008

US mortgage debt outstanding/disposable income ratio; source: FRED.

UNITED STATES

- Household net credit creation remains very weak, as mortgages outstanding contracts and consumer credit growth remains at its pre-crisis level, far from mitigating the impact from mortgage deleveraging
- Quarterly gains in mortgage debt + consumer credit fell from 2.5% of GDP in the mid-2000s to around -0.4% presently
- This is a huge loss of prospective national income, with annual net credit creation representing 10% of GDP in 2005-08
- The mortgage debt in particular is behind this deleveraging, as mortgage debt growth spiked during the boom and went negative after the bust, while consumer credit growth remained stable

UNITED STATES

- Because of accelerating mortgage prepayments due to MBS QE, uncertainties regarding the fiscal cliff, and the actual consequent fiscal drag, Q3 2012-Q2 2013 should be a soft spot in household net credit creation
- However, we believe that a break through the zero line in total household net new credit creation as a percentage of disposable income is within sight in H2 2013, driven by a deceleration of mortgage debt reduction as housing prices continue to recover and younger age cohorts ramp us household formation
- This would be a very constructive development, as the shift into positive household credit creation should boost spending and incomes and drive the deleveraging by targeting the denominator
- The chart on the following slide shows US household net credit creation (green), defined as monthly change in debt as a proportion of disposable income, decomposed into mortgages (blue) and consumer credit (red)

UNITED STATES

US household net credit creation

4
3
2
1
0
-1
-2

1981 1984 1987 1990 1993 1996 1999 2002 2005 2008 2011

Consumer credit
Mortgage debt
Total

US household net credit creation, quarterly, % of disposable income – red: consumer credit, blue: mortgage debt, black: total; source: FRED.

macro beat.

UNITED STATES

- After the initial decline off of the 2009 financial crisis low, household real estate leverage (mortgage debt/owners' equity – chart on following slide) has been stubbornly stagnant since 2010
- However, since housing prices started rallying late last year, household real estate leverage has come down almost twenty percentage points, hastening the deleveraging rebalancing
- 1.3 million properties regained positive equity in H1 2012 as housing prices rose, and another two million would if prices appreciated another 5%, according to CoreLogic estimates
- This is a vital tailwind in an economy with almost 11 million underwater mortgages, around 20% of the total
- Owners' equity is growing at a YoY rate not seen since 2005

UNITED STATES

Owners' equity growth
Mortgage leverage

US household mortgage leverage and owners' equity growth, blue: household mortgage debt/household owners' equity in real estate (right axis), red: household owners' equity growth (YoY); source: FRED.

macro beat.

UNITED STATES

- Despite monetary policy leakages, the pent-up demand from millennials could provide a significant tailwind to housing, as Conor Sen's chart on the following slide of number of households by age group below shows
- About half a million mortgages have exited shadow inventory (90 days delinquent or in foreclosure), and although the excess underlying supply should provide a significant headwind, the pent-up demand could overwhelm this, especially as time progresses
- This will correspond with a stabilizing labor force participation rate, decelerating student loan debt growth, and accelerating wage growth

UNITED STATES

Number of US Households By Age

(000's)

13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000

1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

- 30 to 34
- 35 to 39
- 40 to 44
- 45 to 49

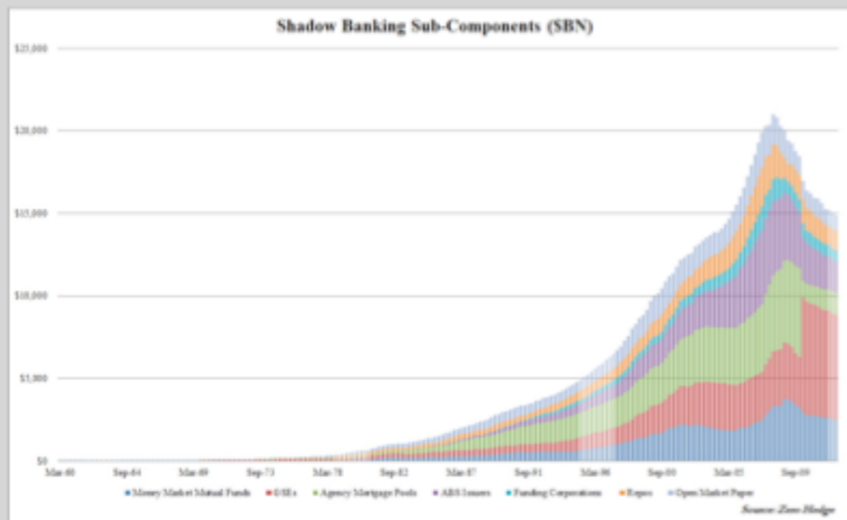
Number of US households by age, blue: 30-34 years, red: 35-39 years, yellow: 40-44 years, green: 45 to 49; source: @conorsen.

macro beat.

UNITED STATES

- Shadow banking liabilities have contracted significantly since the financial crisis
- While traditional banking liabilities have tracked GDP, shadow banking liabilities diverged upwards since the mid 1990s and have been reverting since the financial crisis (left chart on the following slide
- This represents a significant contraction in money supply and credit destruction, being the other deflationary factor underlying the economy (besides household deleveraging)
- Exposed/repriced counterparty risk limits collateral pledging and drives shadow banking deleveraging (right chart on the following slide)

UNITED STATES



Aggregate shadow banking liabilities, blue: money market mutual funds, red: GSEs, green: agency mortgage pools, purple: ABS issuers, teal: funding corporations, orange: repos, blue-grey: open market paper; source: Federal Reserve Flow of Funds, Zero Hedge.

Year	Sources		'Chain' (re-use)	Overall collateral <'source' times 'chain'> (in trillions USD)
	Hedge Funds (in trillions USD)	Others (in trillions USD)		
2007	1.7	1.7	3	10
2010	1.3	1.1	2.4	5.8
2011	1.3	1.05	2.5	6.2

Collateral source, rehypothecation, and "multiplier" ratio; source: Manmohan Singh/IMF.

macro beat.

UNITED STATES

- Consumption, although positive and resilient, has been generally anemic, but accelerated from +1.5% YoY in Q2 to a freshly revised +1.6% in Q3
- After contributing more than 1% to real GDP in every quarter except one since Q1 2010 (usually closer to 2%), consumption's contribution to real GDP dropped to just 106bps in Q2, reflecting a contraction in durable goods demand, before reaccelerating to 112bps in Q3 as durable goods demand returned

UNITED STATES

Percentage contribution to real GDP growth

Real GDP
Durable goods
Nondurable goods
Services
Total PCE contribution

Consumption contribution to US real GDP growth, black: real personal consumption expenditures (contribution to % YoY), green: services, red: durable goods, green: blue: goods, grey: total real GDP growth; source: Bureau of Economic Analysis.

UNITED STATES

- Investment (or rather its volatility) drove the recession itself, as residential structures investment contracted and fed into inventories, equipment, and eventually structures, and decelerated from +4.5% in Q2 to +0.9% YoY in Q3, while its contribution to real GDP growth from 9bps to 85bps
- Business investment has been driving the recent deceleration, with equipment & software's contribution to fixed private investment growth dropping from +10.69% in Q3 2011 to -1.50% YoY in Q3 2012 and structures dropping from +6.80% in Q2 2011 to 0.00% YoY in Q3 2012. This reflects the external slowdown, as well as meager and slowing domestic demand growth
- Considering the fiscal cliff risk to corporate investment (which is transient, in our view), and the nascent EM recovery due to stimulative Chinese policy, we are encouraged by this past quarter's inventory restocking and believe it bodes well for corporate investment in 2013, particularly in Q2 onward

UNITED STATES

Percentage contribution to real GDP growth

6
4
2
0
-2
-4
-6
-8
-10

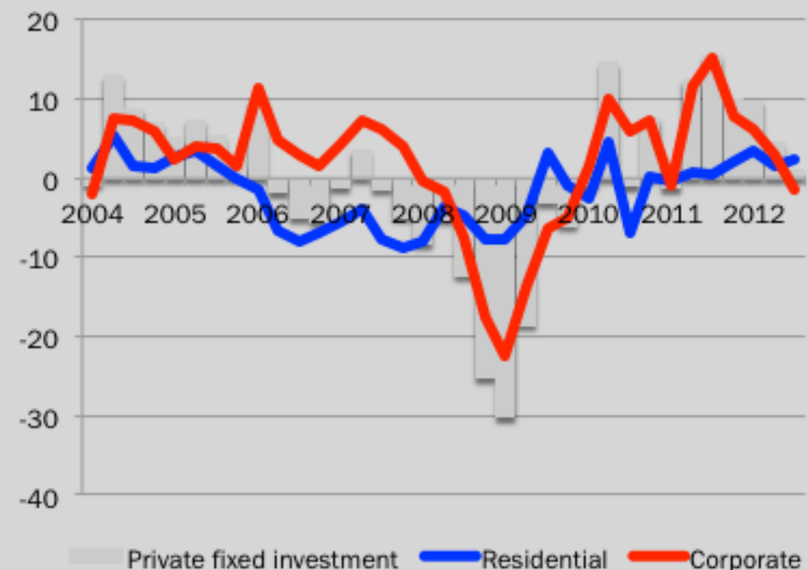
2004 2005 2006 2007 2008 2009 2010 2011 2012

Real GDP | Nonresidential structures | Equipment & software | Residential | Inventories | Investment

Investment contribution to US real GDP growth, (contribution to % YoY), red: real gross private investment, blue: structures, yellow: equipment & software, green: residential, grey: change in private inventories; source: Bureau of Economic Analysis.

UNITED STATES

- The key bifurcation in US private investment is between accelerating residential fixed investment and decelerating nonresidential fixed investment
- The housing market recovery should continue driving residential investment growth higher
- (Eventual) policy clarity, an EM demand rebound, and more timely PMIs, durable goods, & production data signal that corporate investment could be ready to rebound



US private fixed investment growth, YoY – grey: total, blue: residential, red: nonresidential; source: FRED.

UNITED STATES

- Government expenditures & gross investment printed a positive contribution to real GDP growth for the first time since Q2 2010, reversing its contribution from -0.14 points to +0.75 points in Q3 2012 (chart on following slide)
- Federal defense spending has been a volatile component that has driven much of the contraction in government spending, but its growth contribution has risen from -60bps in Q4 2011 to +64bps in Q3 2012
- The looming fiscal cliff and sequestration weigh on this sector of the economy especially

UNITED STATES

Percentage contribution to real GDP growth

2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2

2004 2005 2006 2007 2008 2009 2010 2011 2012

Federal defense   Federal nondefense   State & local   Government consumption expenditures and gross investment

Government expenditure & gross investment contribution to US real GDP growth, (contribution to % YoY), black: real government consumption expenditures & gross investment, red: federal defense, green: federal nondefense, blue: state & local; source: Bureau of Economic Analysis.

macro beat.

UNITED STATES

- Nondefense spending's contribution to real GDP growth declined from +25bps in Q4 2011 to +8bps in Q3 2012. State & local spending has contributed negatively to real GDP since Q4 2009, but its contribution has increased from -60bps in Q1 2011 to +4bps in Q3 2012
- A pickup in the residential real estate market would be a boon for property tax revenues in the state & local sector, and could allow states & local municipalities to offset a federal fiscal cliff with increased budgets
- California's recently balanced budget is a prime example of this dynamic

UNITED STATES

- Net exports increased their contribution to real GDP growth from +6bps to +38bps in Q3 2012 (chart on the following slide)
- Imports remain a net negative contributor to real GDP growth, extending a streak began in Q3 2009
- Meanwhile, exports reversed a bit of their recent decline in Q2, contributing +0.72 to real GDP growth
- The external slowdown has brought global PMIs into contractionary territory, but the latest batch of PMI results does show a bounce in Q4 manufacturing globally

UNITED STATES

Percentage contribution to real GDP growth

Real GDP Exports Imports Net exports

Net exports contribution to real GDP growth, % contribution to % YoY, black: net exports, blue: exports, red; imports; source, grey: real GDP growth: Bureau of Economic Analysis.

UNITED STATES

- Wynne Godley's sectoral balances model (chart on following slide) highlights how the direct impact of deficit reduction (which will be around 1.5-2% of NGDP) does not represent the entirety of the impact on output
- It is important to remember that the level of the deficit (especially as share of real GDP) is the stimulus, not the level of spending
- As can be seen, corporate sector net financial surpluses are the biggest drag and latent credit multiplier/velocity on the US economy at present, more so than households, especially when considering the state of corporate balance sheets at present

UNITED STATES

15
10
5
0
-5
-10
-15

% of GDP

1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

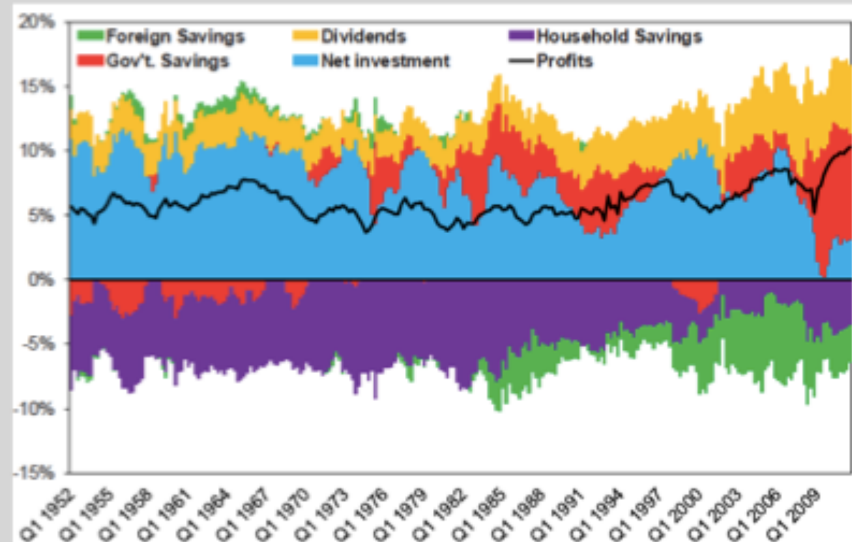
Household Corporate Government Foreign

Sectoral financial balances as share of GDP, % of nominal GDP, blue: household sector, green: government sector, red: business sector, purple: foreign sector (capital account); source: Bureau of Economic Analysis

macro beat.

UNITED STATES

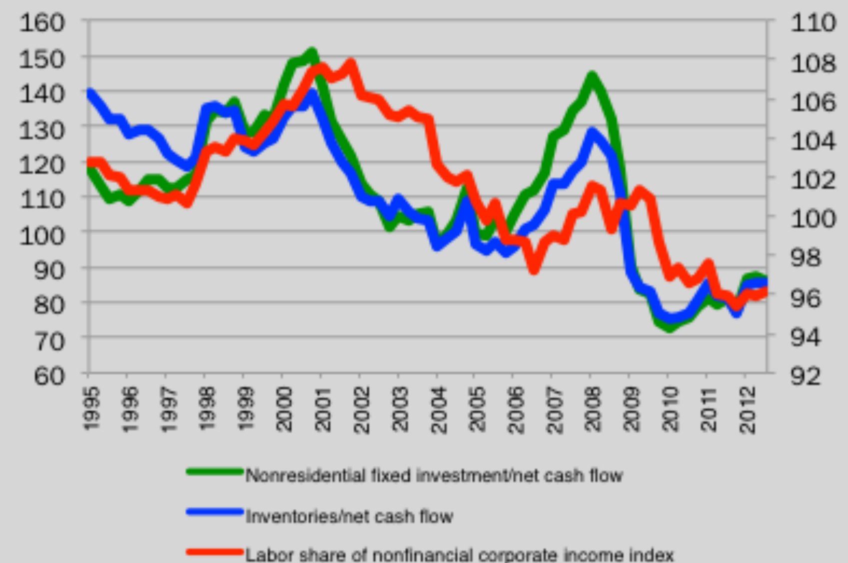
- The deficit's impact on corporate margins and profits is especially marked, as the below chart from GMO's James Montier shows (chart to the right)
- A larger federal deficit represents large net cash flows accretive to corporate profits, which don't have to exit the corporate sector as wages in a significant proportion, unlike household sector deficits
- The big fall in net investment was more than offset by the increased federal deficit, which was the primary driver of the rise in margins
- The big question going forward will be whether the reduction in the government deficit will be larger than the increase in net investment, as housing recovers



Sectoral contribution to corporate profits, % of nominal GDP, blue: net investment, green: foreign savings, red: government savings, purple: household savings, yellow: dividends, black: profits; source: GMO, Bureau of Economic Analysis

UNITED STATES

- One of the primary drivers behind record corporate profits and margins is the persistent divergence between capital and labor shares of income
- Corporate appetite for capital deployment into financial assets versus tangible assets significantly drives these divergences
- Unsurprisingly, corporate fixed investment and inventories ratios to net cash flow are highly correlated to the labor share of national income (chart to the right)
- If nonresidential fixed investment is set to ramp up, as excess capacity has unwound, levered equity risk premia compress, the housing market recovers, and policy clarity nears, the labor share of income (and wages) should finally begin recovering
- Wage growth has indeed been ticking up along with the incremental post-election upticks in corporate fixed investment growth



Corporate fixed investment and inventories to net cash flow ratios & labor share of nonfinancial corporate income, green: nonresidential fixed investment/net cash flow, blue: inventories/net cash flow, red: labor share of nonfinancial corporate index (rhs) source: Bureau of Economic Analysis

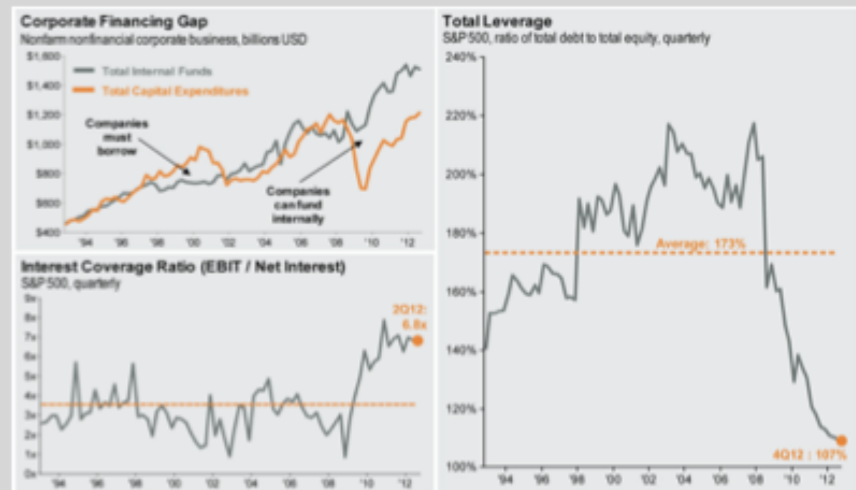
macro beat.

UNITED STATES

- Jacobson & Occhino (2012) show that labor share of income tends to lag the business cycle, since at the onset of a recession, “businesses lower labor compensation less than output”, but as the recession progresses, “the labor income share tends to decrease during the rest of the recession and the early part of the recovery, as output picks up at a faster pace than labor compensation”, and finally “only later in the recovery, as the labor market tightens, does labor compensation catch up with output and productivity, and the labor income share recovers”
- In the current US experience, with persistently and historically high unemployment rates (which themselves lag the business cycle), labor bargaining power among the first batch of post-recession hires is very low and thus returns accrue to capital

UNITED STATES

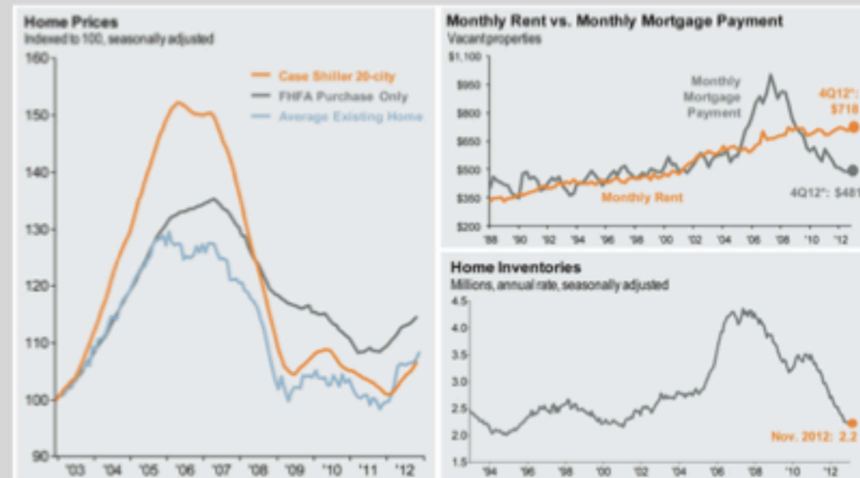
- Unlike household balance sheets, which only recently began to make the transition from impaired to normalized, corporate balance sheets are in pristine condition
- However, the last twelve months saw a flat-lining of leverage and interest coverage ratios, after persistent trends (down and up, respectively) since the financial crisis
- As housing rebounds and brings real estate prices and consumer spending up with it, we expect these ratios to begin normalizing, especially through fixed investment into nonresidential structures, which itself also leads to increased equipment & software spending
- Given current capacity utilization rates, the soundness of corporate balance sheets, the uptick in domestic property prices, and the greatly increased fiscal policy clarity since before the presidential elections, we see many tailwinds for corporate fixed investment to finally pick up, igniting various feedback loops and further reinforcing the rebounding potency of monetary policy, which remains very loose.



Corporate financing gap, interest coverage ratio, and total S&P 500 leverage;
source: JP Morgan.

UNITED STATES

- Meanwhile, residential fixed investment looks poised for a sustained rebound, as housing prices tick up and mortgage payments are 33% lower than comparable rent payments
- The discount to mortgage payments and declining inventories are dynamics that understandably persist and continue in the face of declining housing prices, as household balance sheets continue to deteriorate
- However, we view the upturn in housing prices as a significant psychological dynamic that can drive people to be incentivized to take advantage of extremely cheap mortgage costs relative to rent, and deploy cash into borrowing for homes rather than fixed streams of rental payments
- This is another highlight of our general capital-to-labor handoff theme that we view as the most constructive and latent dynamic that will characterize the 2013-15 US economy

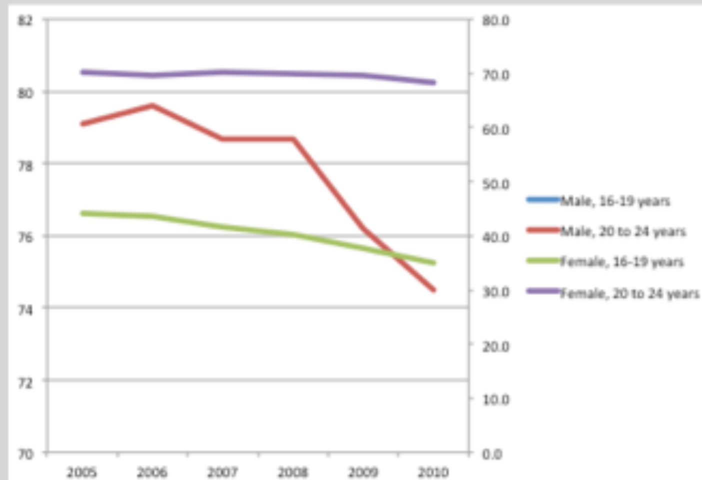


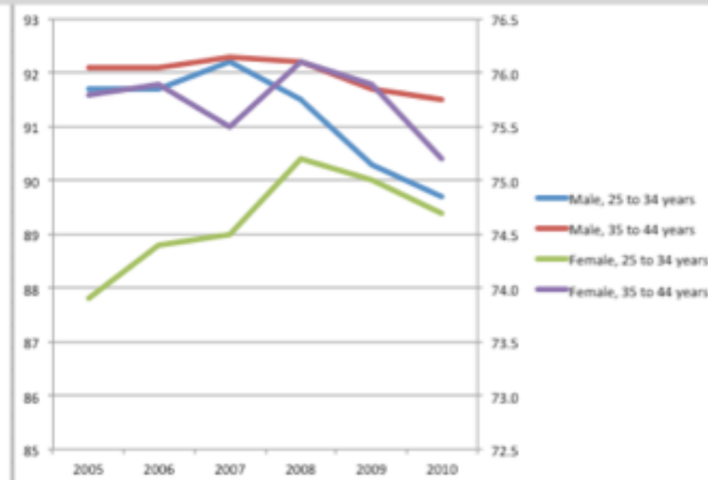
Home prices, monthly rent vs monthly mortgage payment, & home inventories; source: JP Morgan.

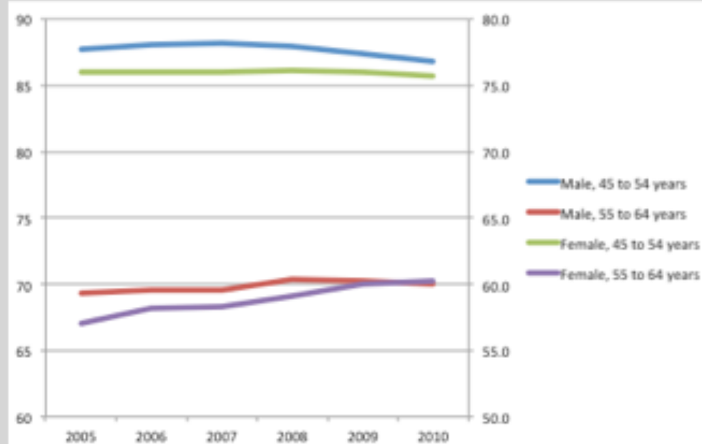
UNITED STATES

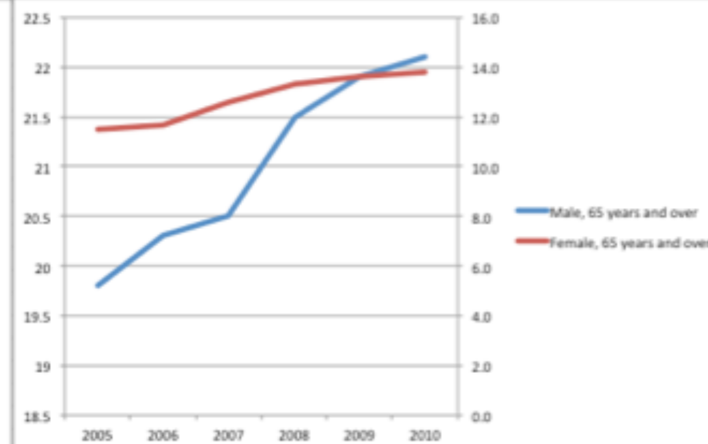
- The prospective capital-to-labor handoff is fundamentally intertwined with a demographic labor handoff, which would drive wage growth and household formation concurrently higher
- The importance of the youth/student demographic stems from the fact that, contrary to common generalizations of the aging baby boomer dynamic, the older age cohorts have not been driving the labor force participation decline since the recession
- Rather, it has been the younger age groups that have seen droves leave the labor force (charts a-b on the following slide)
- In fact, the participation rates for each of 44-54, 55-64, and 65+ age cohorts bucked the overall economic trend and actually increased (charts c-d on the following slide), in ascending order no less.

UNITED STATES









Labor force participation rate by age cohort, % of age group population, clockwise from top: (a) 16-19 year olds: male: blue, female: green (rhs), 20-24 year olds: male: red, female: purple (rhs), (b) 25-34 year olds: male: blue, female: green (rhs). 25-34 year olds: male: red, female: purple (rhs), (c) 45-54 year olds: male: blue, female: green (rhs), 55-65 year olds: male: red, female: purple (rhs), (d) 65+ year olds: male: blue, female: red (rhs); source: US Census Bureau, *Statistical Abstract of the United States*, 2012.

macro beat.

UNITED STATES

- These same young age cohorts also are seeing increasing share of living with their parents, representing pent-up household formation and consequent residential real estate demand
- However, how soon this demand can be released depends upon a number of factors
- The declining labor force participation rate among the youth is associated with a spike in student loans and enrollment, but both the job & income prospects coming out of school and the alternative (labor supply glut) bode poorly for conditions to improve
- The aging baby boomer's balance sheets and retirement savings are driving the increased participation rate by trying to keep up with healthcare price inflation, and effectively crowd out younger workers

DISCLAIMERS

Nothing contained anywhere in this presentation constitutes or should be construed as investing or financial advice, suggestion, or recommendation. Please consult a financial professional and do due diligence before engaging in any purchase or sale of securities.