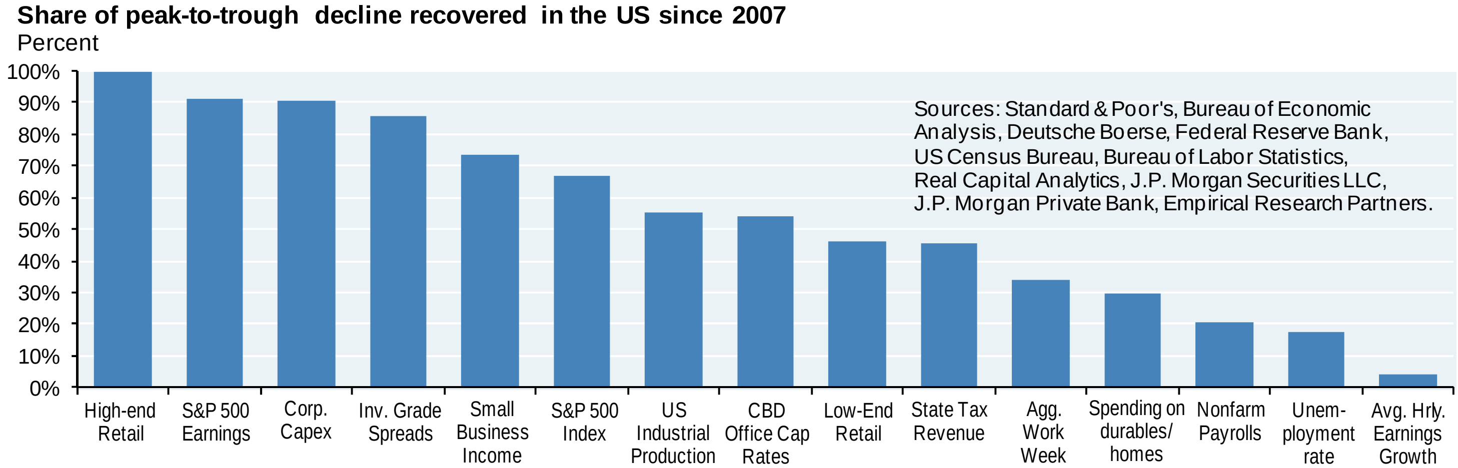
It's that time of year again (Final Exam); the IEA's release of strategic petroleum reserves; the D-word (derivatives)

As we wrote a few weeks ago, this is the kind of market we expected this year: a tug of war between private sector profits and public sector problems. The chart below shows how some things (profits, capital spending, high end retail sales, credit spreads) improved over the last two years in the US, recovering most of what was lost during the recession. Other things haven't (almost anything having to do with employment, compensation or housing). Financial markets usually lead the economy in a recovery, but these gaps are too wide. One thing this chart does not capture: a doubling of net Federal debt/GDP since June 2007.



In January, we laid out a view that entails a single digit return year for stocks and other risky assets, with a lot of volatility. To get an understanding of why, please take the following closed-book exam. The answers appear at the end of the note.

<u>On the United States</u>

We expect a modest rebound from Q2 weakness, given the recent decline in energy prices, and the end of Japanese supply chain disruptions. However, issues related to government debt, weak labor markets and the fact that credit markets already price in all the good news tempers our enthusiasm. For each question, circle the best answer; no Google allowed.

1. What might it take to stabilize the US federal debt, and return to a 3% budget deficit in 2015?

(a) 2001 Bush tax cuts expire for everyone; agreed-upon cuts to physician Medicare reimbursement get implemented; AMT relief ended; personal exemption phase-outs and itemized deduction haircuts applied as previously agreed
(b) Forget about tax hikes and spending cuts, go for growth: achieve 6.5%-7.0% annual nominal growth (without interruption)
(c) Eliminate all non-defense discretionary spending
(d) Any of the mutually exclusive choices shown above

2. Current US Federal debt held by the public is around $10 trillion. In a speech Richard Fisher of the Dallas Fed gave in 2008, he estimated the present value of all unfunded entitlement obligations (e.g., the debt of the future) to be:

(a) another $10 trillion (c) a "gazillion"
(b) another $99 trillion (d) Same as the maximum damages the recording industry is suing Limewire for, $75 trillion

3. Debt ceiling talks have reportedly broken down again over differences regarding the need for higher taxes. Partisanship in the House and Senate, measured by the frequency of legislators only voting for their own party's bills, is now:

(a) High, but not as high as during the Nixon era (recall that Nixon sent his Enemies List to the IRS so they'd be audited)
(b) Medium, and considerably lower than during the Great Depression when the gap between rich and poor widened
(c) High, but lower than the period following the Civil War, an internal conflict with 6x the casualty rate as WWII
(d) Higher than at any time since 1879

4. While the profits boom in the US has been impressive, it is heavily reliant on two things: weak labor markets, and rising non-US demand linked to abnormally low policy rates in the emerging world. During the 1980's and 1990's, post-recessionary profits recovered at 4x the rate of nominal US GDP growth. In the current recovery, that ratio peaked at:

(a) 2x (b) 8x (c) 12x (d) Infinite, since there has been no recovery in nominal GDP

5. During the recession, 75% of all high yield bonds traded below a dollar price of $80. Strong corporate balance sheets and easy Fed policy then contributed to a massive rally in credit. The percentage of HY bonds now trading below $80 is:

(a) 31% (b) 14% (c) 2% (d) 0%, since with interest rates at zero, anything with a coupon must be worth par

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6. Household debt, which was 90% of disposable income in the year 2000, peaked at 130% of disposable income in 2007. After the last 3 years of defaults and de-leveraging, this ratio is now:

(a) 141% (b) 114% (c) 102% (d) 85%

7. Some suggest a tax holiday for companies repatriating offshore profits (taxing them at 5% instead of 35%). When a tax holiday was enacted in 2004 (American Jobs Creation Act), the # of jobs created per $1 million of foregone tax revenue was:

(a) 50 (b) 200 (c) 1,000 (d) negative; repatriating companies cut jobs in a rising job market & raised dividends

On Europe

The EU/IMF is trying to push through one more round of financing for Greece, assuming Greece agrees to more austerity and commits to asset sale targets (see EoTM two weeks ago for more details). This saga has been going on for 18 months, making it the *Berlin Alexanderplatz*[1] of sovereign debt crises. Based on Greek borrowings from the ECB, it looks like Greek capital flight accelerated substantially in May[2]. We appear to be in 1986-87 on the Mexico sovereign default timeline shown last week.

8. From the inception of the Euro, labor cost differentials between Germany and Spain diverged by 29%. Over the same time frame, the widest labor cost differential across any two of the 9 US regions was:

(a) 5% (b) 8% (c) 10% (d) 12%

9. German manufacturers are reporting labor shortages (coincident with the lowest German unemployment rate since reunification), while Spain's unemployment rate is over 20%. According to the EU Commission, what is the cross-border labor mobility of the EU-15 (ex-Luxembourg), compared to the 2.3% interstate labor mobility measured in the US?

(a) 1.5% (b) 0.6% (c) 0.1% (d) 0.0%; German food makes moving there unappetizing regardless of job prospects

10. In 2006, the head of the Greek National Statistics Service announced that a small part of its 25% upward revision to Greek GDP included contributions from which of the following items:

(a) alcohol smuggling (b) prostitution (c) money laundering (d) all of the above

11. In 1989, after 7 years of delaying the inevitable, Mexico finally received debt forgiveness from its creditors (its debt peaked at half of what Greece owes now). What radical firebrand led the charge, demanding creditor participation: "*Mexicans have made such enormous adjustments, accepted such a large reduction in living standards, that any package without an extensive and visible contribution by external creditors is not acceptable domestically!!!!*"

(a) Che Guevara (c) Zapatista leader Subcomandante Marcos
(b) Communist painter Diego Rivera (d) The World Bank's lead economist covering Mexico

12. EU/IMF loan facilities were designed to allow Spain, Portugal, Ireland and Greece ("SPIG") to bilaterally refinance all bonds maturing from 2011-2013, as well as estimated fiscal deficits in those years, so that they do not have to issue debt in the capital markets. If these facilities (EFSF, EFSM, etc) were fully drawn by these four countries, what would Germany's maximum exposure be as a percentage of its GDP, assuming a 50% ultimate write-off on its exposure?

(a) 3%-5% (b) 8%-10% (c) 15%-20% (d) 20%-25%

13. From the inception of the EMU, peripheral Europe lost competitiveness: since 2002, SPIG country exports as a % of total world exports fell by 35%. How much of this has been recovered, after large declines in real wages and structural reforms?

(a) None of it (b) None of it (c) None of it (d) None of it

14. Countries like Spain and Ireland had clean fiscal accounts before the crisis, but then took ownership of banking sector problems. Ireland's government debt/GNP is headed over 120% if the country ultimately agrees to bail out its banks. What was Ireland's sovereign debt/GNP ratio in 2007?

(a) 20% (b) 30% (c) 50% (d) 60%

15. Regulators apply similar risk-weighted asset *ratios* to US and European banks, but they are only applied to risk-weighted *assets*. JP Morgan's risk weighted assets are ~75% of its tangible assets. UBS and Credit Suisse claim risk-weighted assets of:

(a) 0% of tangible assets; there are no risky assets in Europe (b) ~35% (c) ~50% (d) same as JPM, ~75%

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[1] At **15.5 hours**, the longest cinematic feature film ever made. It is often shown to viewers in one sitting, with a 2-hour dinner break.
[2] Greek flight capital is mostly going to foreign banks outside Greece, and into their mattresses. Some high net worth European individuals, when withdrawing Euros from European banks, now insist on banknotes with serial numbers indicating they were not printed in Greece.

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On China

16. The US is relying on zero interest rates, given its high unemployment and large output gap. But China, growing at 10%, is of course running a more normal monetary policy, right? One-year bank deposit rates in China, net of headline inflation, are:

(a) 3% (b) 1.5% (c) 0% (d) -2%

17. China has aggressively raised bank reserve requirements to slow things down, but this policy action mostly affects credit extended by banks. In 2002, 92% of all Chinese credit was created by banks, with the rest by China's shadow banking system. What percentage of all Chinese credit was extended by its banks in 2010?

(a) 92% (b) 87% (c) 75% (d) 56%

18. China announced a "victory over inflation" last week. To accomplish this, China relies on administrative controls over private sector prices[3] and costs, affecting corporate profitability. Where does China rank over the last decade out of 25 emerging countries in terms of equity market returns per unit of GDP growth? [1=best, 25=worst]

(a) 3rd, ahead of Peru (b) 14th, behind Korea (c) 24th, ahead of only Saudi Arabia (d) 25th

On Gold

19. After all the excitement and hyperbole, gold prices have risen to $1,500 per ounce. What is the current value of US government gold reserves as a percentage of the US monetary base? From 1917 to 2011, it ranged from 11% to 125%.

(a) 125% (b) 50% (c) 25% (d) 15%

On Oil

20. Brazil made some large oil finds in its Tupi fields, prompting Lula to claim that "*God is Brazilian*". These fields lay 2-3 kilometers below the water's surface and another 3-4 kilometers below rock, sand and a salt canopy. What analogy did a head geologist at Schlumberger use when describing to me the difficulty and cost of extracting oil from lower Tertiary horizons?

(a) it's like having to make gold from straw
(b) it's like putting a man on the moon
(c) it's like having to watch the *Avatar* movie and pretending to like it
(d) it's like having to make wind energy competitive with natural gas

Wrap-up. Compliance restrictions prevent me from rewarding anyone who scores well (anything over 15 is pretty good), but since this is the era of social media, consider yourself rewarded with virtual gifts of some kind, which have no real value.

On the globally coordinated release of strategic petroleum reserves ("SPR")

The best way to read what happened: **from Q2 to Q3, global oil demand tends to rise by 2 mm barrels per day, and with economic data weakening around the world, the IEA's member countries and the Saudis apparently decided that a repeat of 2008's oil spike was not in anyone's interest**. The IEA announced that its member countries would release up to 60 million barrels from their respective strategic reserves; around half will come from the US, given the loss of light-sweet crude from the market. This is not a large number by itself; offline Libyan production is ~1 mm barrels per day, so this is a 2-month reprieve from the loss of Libyan production. But like Central Bank intervention in FX markets, it's the signal that counts, since there's more behind the initial amount if necessary. Total government and commercial reserves worldwide are 4 billion barrels[4], which is enough (in theory) to offset Libyan production losses for 11 years. But that's not what strategic reserves are meant for (they are meant for broader emergencies like Hurricane Katrina and Iraq's invasion of Kuwait), so I think we should consider this a temporary exercise to cap oil prices given recent economic weakness. Eventually, the IEA countries will probably seek to replenish their reserves, hopefully at lower prices.

In a broader sense, **the IEA's decision may also signal doubt on their part regarding the pricing intentions of OPEC, and the ability of the Saudis to unilaterally drive prices down if they wanted to.** There may be other geopolitical aspects to this decision, such as the Saudis wanting to demonstrate to other OPEC members that it does not want to (a) stifle growth in the OECD, (b) further accelerate R&D spending into alternative fuels, or (c) give further ammunition to Saudi opponents to finance possible insurgencies in Bahrain.

[3] After a 60% increase in coal input prices over the last 3 years, Chinese utilities were granted a 15% increase in prices charged to commercial customers, and an even smaller one for residential customers.

[4] The definition of what constitutes strategic petroleum reserves is complicated. There are 1.5 bn barrels of government-controlled stocks globally. Total strategic and commercial reserves are 4 bn barrels. Part of the 2.5 bn barrels of commercial stocks are effectively government-directed, so the real government-influenced number is higher than 1.5 bn barrels

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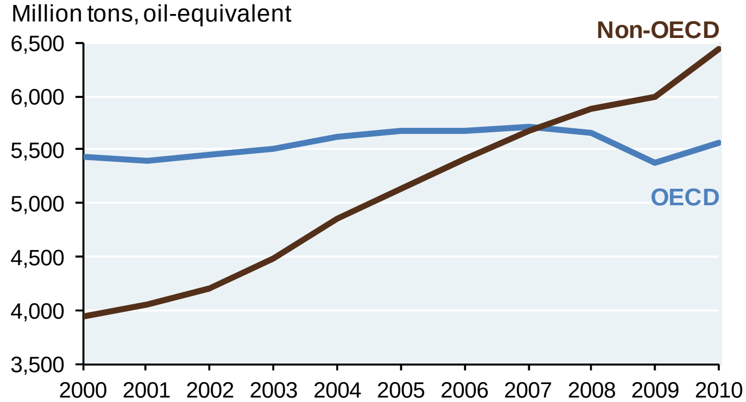
In the wake of these developments, we have seen firms cut their Q3 2011 oil price targets to $100 from $120-$130 (on Brent). Brent is currently at $105. Why not cut estimates lower? Some major OPEC producers have difficulty financing themselves in global markets, and need high oil prices to balance their budgets. We estimate that it takes around $85 to $95 on Brent to balance many OPEC country budgets, reducing their tolerance for much lower prices.

The SPR release represents a significant injection of stimulus at a time when Qe2 and US payroll tax cut benefits are fading, and supports the notion of a rebound in US consumer spending in the second half of the year. However, we see the benefit of oil intervention fading as we head into 2012, as supply-demand imbalances reassert themselves, and oil markets tighten again. Existing fields are experiencing a faster rate of depletion than previous forecasts[5], and oil demand growth in the emerging world, as shown in the chart, continues to climb.

Michael Cembalest
Chief Investment Officer

Primary energy consumption
Million tons, oil-equivalent



Source: BP.

<u>Appendix: Derivatives and Disinformation</u>

Articles in the New York Times and other venues are hyperventilating about the risk of credit default swap (CDS) contracts written on Greece. There are a lot of things to worry about right now on Europe, and we have been chronicling them in gruesome detail since February 2010; the derivatives issue is not one of them.

- I can understand that three years ago, analysts and journalists might not have had enough information to distinguish between (or understand) gross versus net CDS exposure. However, since that time, the Depository Trust and Clearing Corporation makes this information available on its web site. There is $78-79 billion of *gross* exposure written on Greece, and the *net* exposure is $5-6 billion. Net exposure is what you get once each counterparty, such as JP Morgan Securities, nets all of the buys and sells it has executed. Net exposure is the maximum loss to the system between counterparties after a default of a given entity on which protection was bought and sold (absent a default by CDS counterparties themselves).
- **$5-6 billion in CDS exposure pales in comparison to $480 billion in Greek debt outstanding. If there is a fox in the henhouse, as we have discussed endlessly, it was the EU policy of not constraining debt issuance of member countries, and informing EU banks that this debt was risk-free, and not subject to a risk weighted capital charge.**
- As Greek debt spreads have risen, CDS counterparties involved with this net exposure of $5-$6 billion have been posting collateral to satisfy rising exposures to their counterparties. Unlike loans, bonds and other financial contracts, CDS contracts require exposures to be frequently settled.
- **The irony is that there is much more information on Greek CDS contracts than anything else about the entire Greek situation**, including the issue of who owns Greek bonds, the ECB's actual Greek bond holdings, the collateral backing the ECB's repo facilities, the rate of Greek deposit outflows (reported on a 3 month lag), etc.
- The ratio of 15:1 between gross and net CDS exposure written on Greece is almost identical to the $72/$5 billion in gross and net CDS exposure written on Lehman. CDS written on Lehman was not a major factor in the financial crisis; losses sustained by money market funds on Lehman commercial paper was the bigger issue.
- I wrote an Eye on the Market in October 2008 entitled, "***The Trouble With Trillions***", which focused on misconceptions about derivatives risk. It's worth reviewing for anyone interested in the subject matter. The bottom line is that most derivative losses were linked to the entry of undercapitalized insurance companies into these markets, writing contracts that were not subject to high-frequency collateral-posting, and linked to home prices rather than the solvency of corporate or sovereign issuers.

[5] A recent analysis of global depletion rates of existing oil fields estimates this number at 5.5%-6.5% per annum, a bit higher than estimates from ExxonMobil and Cambridge Energy Research Associates. The implication: the world needs 4-7 million barrels a day of new discoveries each year to keep oil supplies constant. "*Depletion rate analysis – a guide to future oil production*", Mikael Höök, Uppsala University, Sweden, September 2010.

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Answers: 1-(d); 2-(b); 3-(d); 4-(c); 5-(c); 6-(b); 7-(d); 8-(b); 9-(c); 10-(d); 11-(d); 12-(a), 13-(a), (b), (c), or (d); 14-(b); 15-(b); 16-(d); 17-(d); 18-(c); 19-(d); 20-(b)