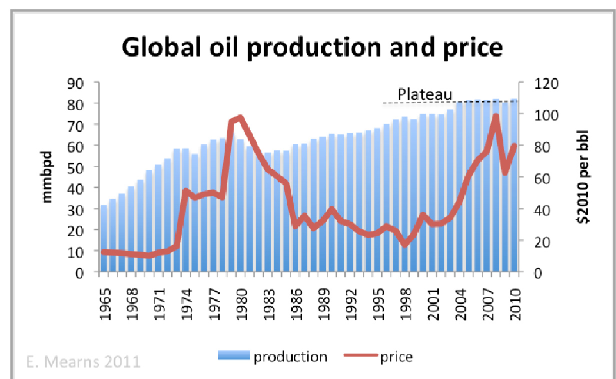
AMG Market Commentary

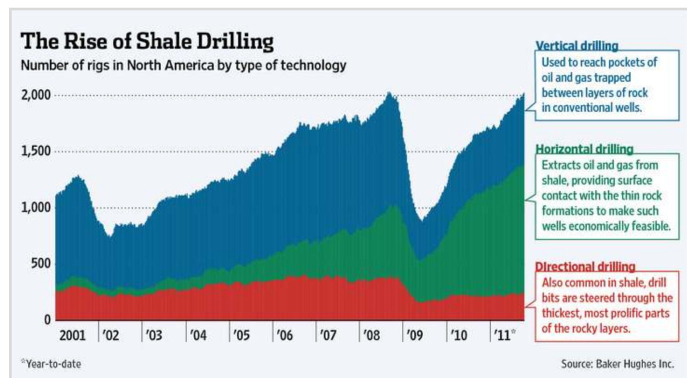
January 2012

World Energy – From Scarcity to Abundance

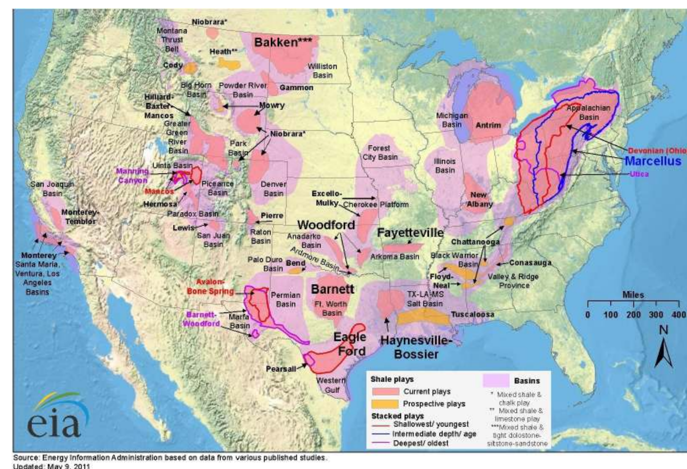
Backed in 2006, investment bank Goldman Sachs declared the beginning of a Super-cycle in oil price that will lift crude oil to as much as US$200 per barrel. Their argument was based on forecast of ever-rising cost of producing oil. The universal view was that crude oil is a scare natural resource, and that oil reserves that can easily be pumped up is nearly exhausted. In order to extract the remaining oil, much more technical effort is needed. Bigger efforts, in turn, require higher costs. Their argument was validated in a way by plateauing global oil production since early-2000s as seen in the nearby chart. For the record, oil prices reached a nominal peak of $147 a barrel in the summer of 2007 before plunging to a trough of $30 during the financial tsunami.



The drop in oil price proved relatively short-lived. Last year, crude prices in both sides of the Atlantic Ocean ventured back above $100 per barrel. Since then, crude oil has been trading within fairly tight ranges in various markets. Although things might appear calm from a price perspective, major developments are taking place beneath the surface that could have huge ramifications for the global energy market. Technological advancement in horizontal drilling and hydraulic fracturing have led to a quantum leap in the efficacy of extracting energy resources deposits trapped in shale rock formations. Since 2009, the number of oil rigs in the U.S. has mushroomed with the majority of them applying horizontal drilling method to unlock shale gas and oil deposits. Some industry experts proclaimed we are at the dawn of the 'Age of Shale'.

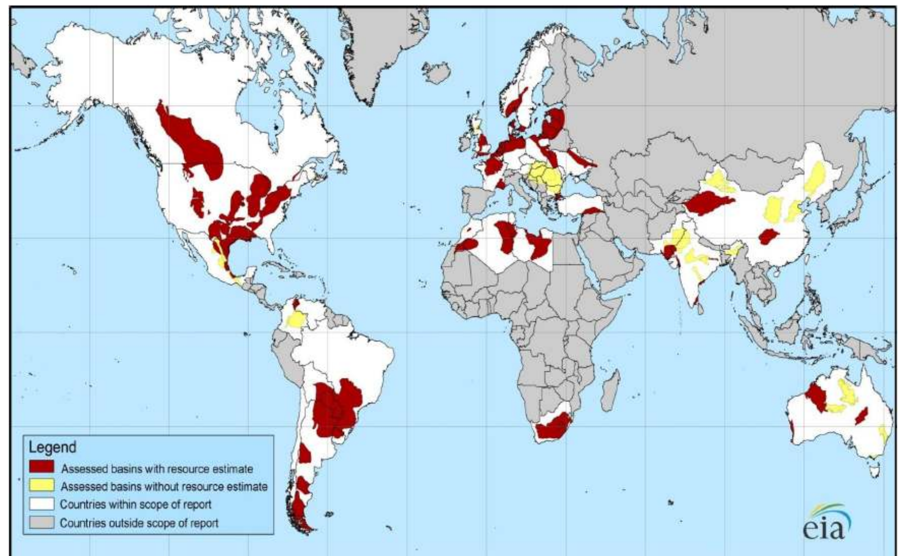


To illustrate this 'quiet' revolution, we would just mention the Bakken Shale in North Dakota which is located at the top of the nearby graph. How many people have heard of the place, let alone been there? Yet, little-known North Dakota is now the fourth largest oil-producing state in the U.S. — trailing only Texas, Alaska, and California — due mainly to production gains in Bakken. The Department of Mineral Resources estimated total North Dakota oil production averaged 445 thousand barrels per day (bbl/d) in August 2011, an increase of nearly 30% from end of 2010. Horizontal wells accounted for nearly 90% of total production. A mid-2011 study by Energy Information



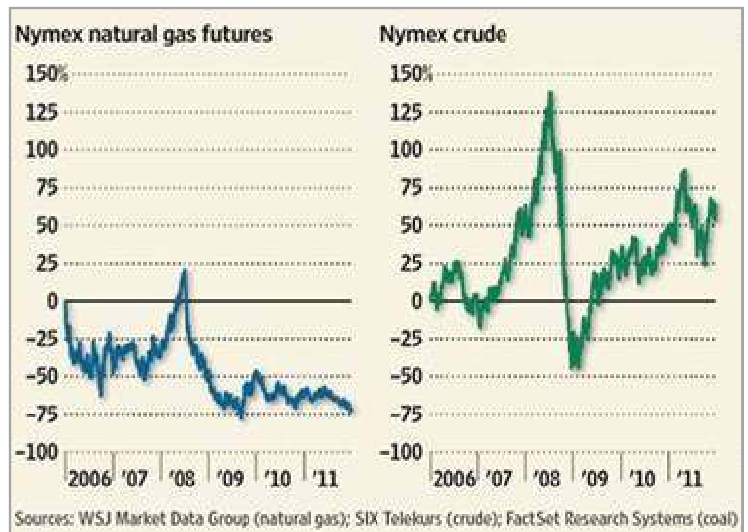
Administration (or EIA for short) found the heartland of U.S. (also referred to as the Lower 48 States) contains tremendous shale resources, enough to put the U.S. in the same league as Saudi Arabia and Russia.

Moreover, shale resources are not confined exclusively in U.S. soil. In an initial assessment report published by EIA last April, it found large potential of shale gas resources in 48 major shale basins in 32 countries. The initial estimate of technically recoverable shale gas resources in the 32 countries examined is 5,760 trillion cubic feet (tcf). Adding the U.S. estimate of technically recoverable shale gas resources of 862 tcf results in a total shale resource base estimate of 6,622 tcf for the United States and the other 32 countries assessed. It should be noted that the EIA report has not assessed Russia and Central Asia, Middle East, South East Asia, and Central Africa.

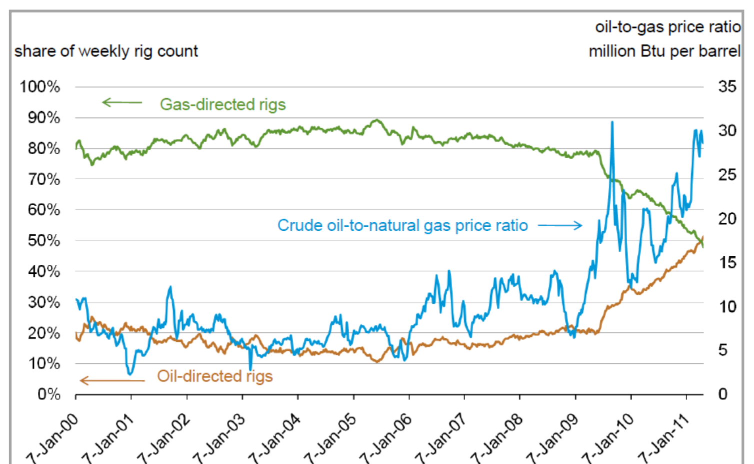


To put this estimate in some perspective, world technically recoverable gas resources are roughly 16,000 tcf as of January 1, 2010, of which 6,609 tcf are proven reserves of natural gas. The old estimate has largely excluded shale gas because back then shale resources were deemed too costly and technically difficult to access. The coming of age of horizontal drilling and hydraulic fracturing has crushed that assumption. Now then, adding the newly identified shale gas resources would increases total world technically recoverable gas resources by over 40 percent to 22,600 tcf!

The boom in shale gas production in the U.S. has weighted heavily on natural gas prices. Natural gas futures are trading at about one-fifth the price compare to the peak level in late-2005. On the contrary, crude prices have stayed remarkably buoy. While Nymex and Brent crude are down about one-third from the peak in 2007, they are 70-80% higher than levels in early-2006. This is partly due to the stranglehold of OPEC member countries, which together holds about three quarters of the world's proven oil reserves, and partly due to geopolitical risk including Iran's recent threat of closing the Strait of Hormuz which is a narrow passage where tankers carrying 20% of globally traded oil go through.



The widening gap between natural gas and crude prices are prompting more and more shale energy companies increase effort to drilling for oil. As shown in the nearby graph, the number of oil-directed rigs in the U.S. has surpassed that of gas-directed rigs since mid-2011. This means higher oil production can be expected in coming years. Latest estimates from EIA is for total U.S. crude and condensate oil production in 2016 to be 21% higher than level at end of 2010.



The success of U.S. companies tapping into shale resources is stirring global appetite. Last October, Statoil ASA of Norway paid $4.4 billion for Brigham Exploration Co. to boost its unconventional energy resources in the United States. On Jan 3, France's state-owned energy concern Total SA announced a $2.3 billion deal

with Chesapeake Energy Corp. for drilling rights that allow them to tap into the lucrative fields under development by the U.S. company. It may be worth mentioned that this is Total's second joint shale venture with Chesapeake. The same day, China Petroleum & Chemical Corp. (better known as Sinopec) confirmed of a $2.2 billion investment for a one-third stake in a joint venture with Devon Energy Corp. for drilling in five new fields.

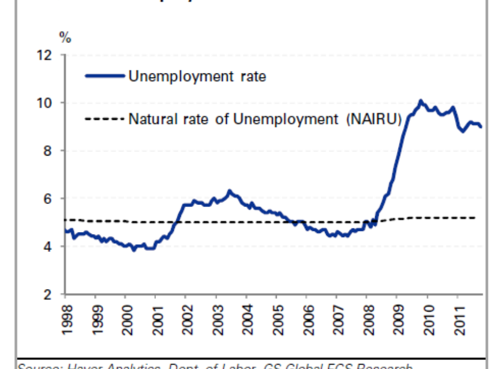
For many of these foreign companies, apart from owning a piece of valuable energy resource, the investments are also designed to attain technical knowledge on how to use fracking technology in shale and other fields around the globe that are believed to hold huge energy reserves. This intention was made clear last year when Sinopec announced a partnership with Royal Dutch Shell Plc and Exxon Mobil Corp. to perform joint surveys of certain shale gas reserves in China.

It wasn't long ago that some of the world's best known energy experts claimed the terminal decline in global oil production. It now appears a new energy boom has just dawned upon us. We will look into some of the implications of this development in next month's commentary.

Market Review & Outlook

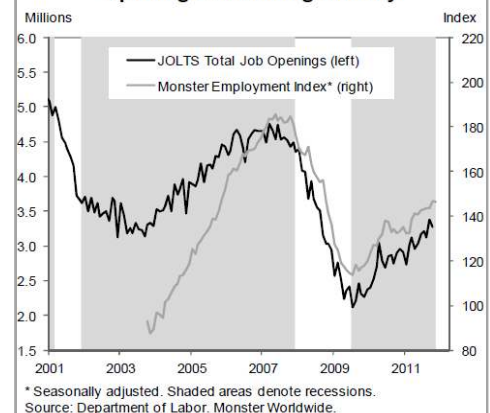
US: Neutral

U.S. added 200,000 jobs in December and the unemployment rate fell to 8.5%, which is the lowest level in nearly three years. Over the past six months, the U.S. has added an average of 142,000 jobs each month. Yet improved job growth in the second half of 2011 still falls short of what's necessary to get the nation to expand sustainably.

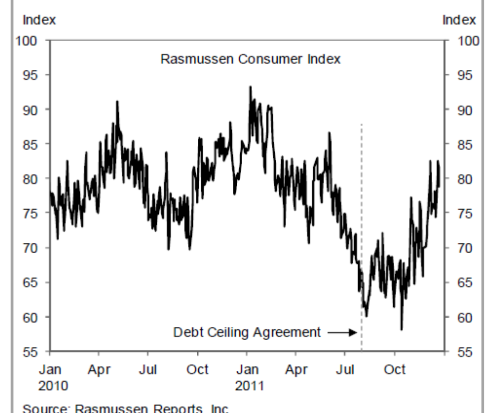


According to some economists, the U.S. needs to add at least 250,000 jobs a month for several years to reduce the jobless rate to pre-recession levels and boost annual growth above 3% — a level usually associated with healthy recovery.

While the pace of job gains appeared to pick up toward end of the year, the increase in jobs was somewhat concentrated in sectors that do a lot of seasonal hiring. The transportation and warehouse sector, for instance, hired 50,000 workers in December but 42,000 of those positions were for couriers and messengers. In addition, the retail industry added 28,000 positions, though these jobs may relate to the peak shopping season between Thanksgiving and New Year. On top of this, leisure and hospitality businesses such as bars and restaurants created 21,000 jobs. We need to be mindful that job increases in these sectors are often reversed in January, and hence we need to keep a watchful eye for the January numbers and also December's job numbers could be downward revised subsequently.



Yet other sectors that are less prone to seasonal swings also increased hiring, these included mining, manufacturing and health care. Manufacturers added 23,000 jobs to mark the first big gain in four months. The mining industry created 7,000 jobs and health care boosted employment by 23,000. Apart from more jobs, it is nice to see that both wages and hours worked rose, albeit slightly, last month. Hourly earnings tacked on 0.2% to $23.24, and weekly hours worked rose 0.1 hour to 34.4.



Moreover, there are signs that hiring activity may be improving. For example, new job posting keeps on gaining since the second half of 2009, according to the Job Openings and Labor Turnover Survey. Even more noteworthy is that such gains have been broad-based across various sectors, with only government sector and construction openings showing decline to little improvement.

Meanwhile, consumer confidence, after hitting two-year low during the summer months, has rebounded strongly on the back of successful debt ceiling agreement and signs of improving job market.

Europe: Negative

The two-year old Euro crisis continues with no end in sight. Sensing the European banking industry moving close to a liquidity crunch not dissimilar to that just before the Lehman collapse, ECB adopted major actions in early-December of last year to inject much needed liquidity. The table above summaries the key measures.

Exhibit 4: Boosting liquidity – key changes adopted by the ECB (on December 8, 2011)
Overview

ECB actions	Previous	New	Main Effects
LTRO	1yr	3 yrs	Addresses mismatching and allows for pre-funding
Collateral pool (ABS)	AAA	A	Expands collateral pool for banks with weaker credit ratings
Collateral pool (loans)	No	Yes	Potentially significant increase collateral pool for banks
Reserve ratio	2%	1%	Liquidity release of ~€100 bn

Source: Complied by Goldman Sachs Research.

The acronym LTRO, which stands for Long Term Refinancing Operations, wasn't brand new. In fact, it was first introduced in 2010. Only this time, it has a maturity of three years instead of just one. This allows banks to use this facility to fulfill funding needs for bonds that mature in 2012 and 2013, the amount of which is formidable as can be seen in the right-hand chart.

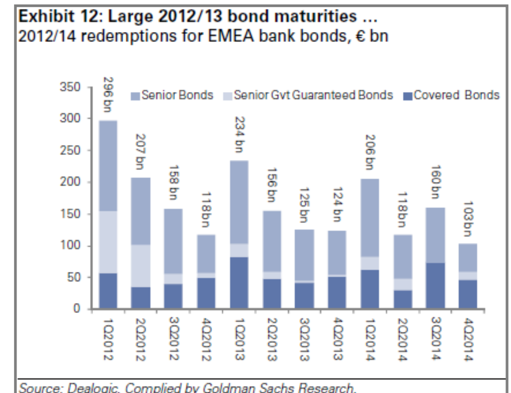


Exhibit 12: Large 2012/13 bond maturities …
2012/14 redemptions for EMEA bank bonds, € bn
Source: Dealogic, Complied by Goldman Sachs Research.

Previously, accessing LTRO was seen as an emergency funding vehicle and thus was avoided by large banks. But stigma of using LTRO funding has faded due to broad use of ECB's US dollar facility and the large amount of bond maturities in 1Q. Next 3-year LTRO auctions will take place on Feb 28, hence investors may wish to monitor for another boost of capital injection shortly after this date.

The second measure adopted by ECB was expanding the collateral pool. Corporate loans which form over €7 trillion or more than 30% of total banks' balance sheets will be admissible through national central banks. Additionally, the rating on Asset Backed Securities (ABS) admissible as ECB collateral has been reduced to "A" from "AAA" previously. It is crucial as many smaller sized banks were experiencing shortage of ECB collateral (before this measure) as most of their loans are lowly-rated corporate/SME loans. Expanding collateral allows a handful of banks to participate at the ECB's LTRO auction for the first time.

The last tactic by ECB is to halving the reserve ratio required for banks to leave at ECB. The reserve base is defined as the sum of deposits, securities issued and repos. According to Goldman Sachs, Euro banks hold €206 billion of reserves at the ECB in December. By reducing the reserve ratio to1%, this releases liquidity instantly back to bank's coffer.

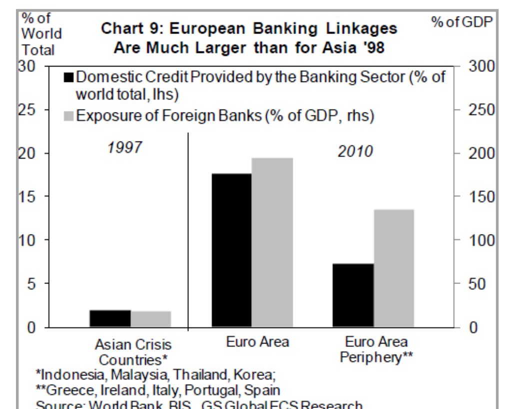


Chart 9: European Banking Linkages Are Much Larger than for Asia '98
*Indonesia, Malaysia, Thailand, Korea;
**Greece, Ireland, Italy, Portugal, Spain
Source: World Bank, BIS, GS Global ECS Research

In case investors, particularly those in our region, still wonder why all the fuss about saving Euro banks, instead of letting them fail like some of the Asian banks during the 1997 crisis, let's look at the right chart. Back then, banks mired in the Asian crisis mainly provided credits to domestic borrowers therefore had a small percentage of global funding. However, European banks are a main source of credits for domestic as well as foreign borrowers to fund their business activities.

Japan: Neutral

According to Lipper, one of the leading mutual fund data providers, U.S.-based Japan funds (including mutual funds and ETFs) recorded a sharp increase in capital inflow last year, which is the first time since 2007. This is quite a surprise given general capital outflow from most Asian markets as foreign investors trimmed holdings concerning economic growth will be negatively impacted by the European sovereign debt crisis.

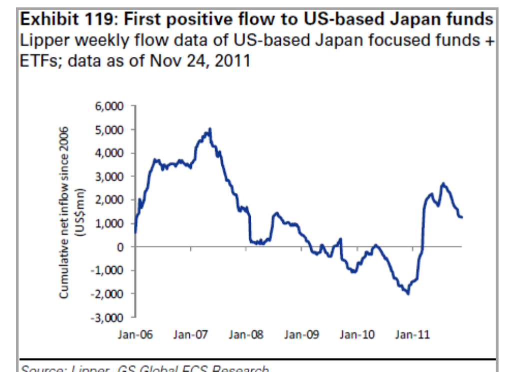


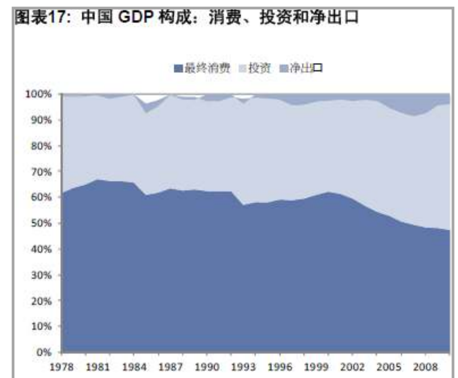
Exhibit 119: First positive flow to US-based Japan funds
Lipper weekly flow data of US-based Japan focused funds + ETFs; data as of Nov 24, 2011
Source: Lipper, GS Global ECS Research.

The chart to the right shows inflow jumped shortly after the March earthquake and resulting tsunami, which may suggest investors believe a boost to Japan's economic growth due to rebuilding effort. Sadly, recent spate of largely disappointing data signal the pace of growth remains anaemic. This may explain some capital flowing out of Japan funds in the final quarter of last year.

China: Mixed

For some time, Chinese Premier Wen Jiabao has emphasized the need for expanding domestic consumption, particularly in the face of the European sovereign debt crisis and uncertain economy growth in the U.S. And yet, looking at China's GDP components over the past 10 years, we see that the share of consumption has given way to the consistent expansion of fixed investment. From 62.3% in 2000, the consumption component fell to 47.4% in 2010. At the same time, investment component rose from 35.28% in 2000 to 48.61% in 2010, which is a record high since 1978.

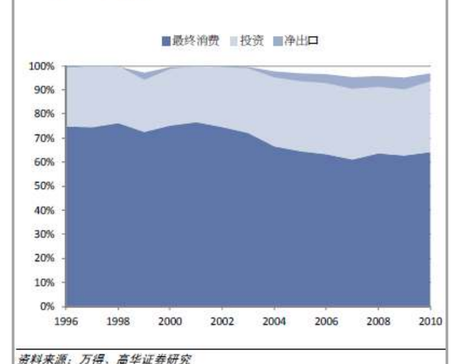
图表17：中国 GDP 构成：消费、投资和净出口



资料来源：万得、高华证券研究

Chinese leaders have long argued that China remains a developing economy and it is appropriate for higher percentage of fixed investment which is necessary to spearhead infrastructure and various construction projects as these help lay the foundation for future economic expansion.

图表18：印度 GDP 构成：消费、投资和净出口



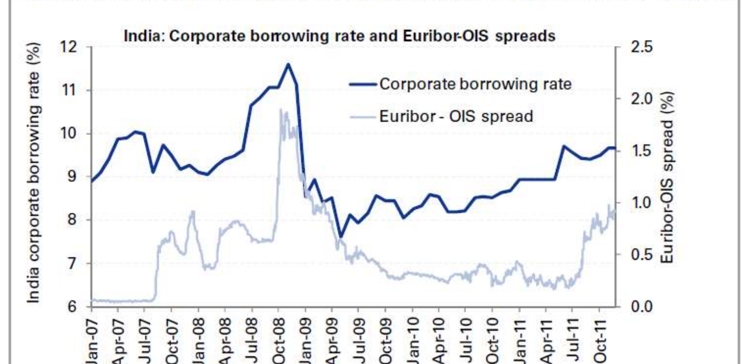
资料来源：万得、高华证券研究

Sure argument sounds reasonable when comparing to highly developed economies such as U.S. and Japan, whereby domestic consumption makes up roughly 70% of respective GDPs. However, this is not empirically accurate when we look at the GDP components of another giant developing economy, namely India. As can be seen in the right hand chart, the weightings of India's GDP in consumption/investment/net export were 68.7%/34.8%/3.5% in 2010. This implies that even for China's developing economy, consumption should occupy a more prominent role in supporting its GDP growth.

Emerging Markets: Negative

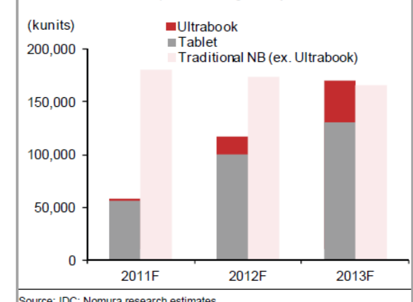
While interest rates in most developed economies are stuck at record low, with some of them practically zero (notably the U.S. and Japan), interest rates in emerging markets are considerably higher. One explanation is due to higher inflationary pressure in the latter group. Because the difference between domestic and overseas borrowing costs can be substantial, companies in developing economies have been actively sought for overseas funding/credit. India is one such country. Current prime lending rates are roughly 15% in India, the highest since the late 1990s. This has driven more and more companies reliant on foreign capital, contributing to widening of India's current account deficit. The twin deficit in fiscal budgeting and current account would pose high risk to India.

Exhibit 53: Onshore rates in India were high pre-crisis; offshore funding was attractive
India onshore corporate borrowing cost (for AAA rated borrowers) and 3-mo Euribor-OIS spread



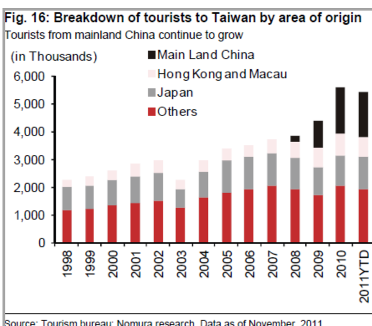
Recently, there has been a lot of discussion about how Taiwan's high-tech sector will fare in the post-PC era. For Taiwan's technology companies, they are learning how to adapt to the new norms. Not only the product types and cycles have changed drastically, operation direction also has changed throughout. Many tech companies have chosen to cooperate with long-time competitors or have chosen to go into competition against past partners to survive.

Fig. 18: PC/NB shipment breakdown by form factor
We forecast ultrabook shipment to rise gradually



Source: IDC, Nomura research estimates

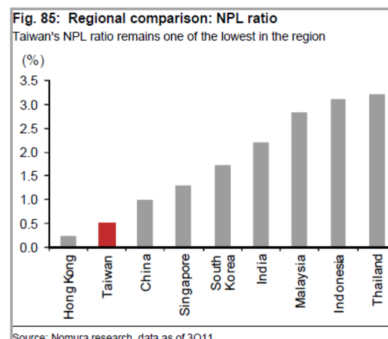
Fig. 16: Breakdown of tourists to Taiwan by area of origin
Tourists from mainland China continue to grow



Source: Tourism bureau; Nomura research. Data as of November, 2011

Other than IT sector, consumption sector in Taiwan is also preparing for change of a different kind. In 2010, Taiwan received 1.7 million visitors from mainland China, which is only a fraction of the more than 30 million Chinese tourists visited Hong Kong. Some Taiwan officials, especially consumer groups, want to attract more investors from Mainland. As shown in the left chart, for the first 11 months in 2011, the number of Mainland visitors is comparable to the whole year count in 2010. This almost guaranteed year-on-year growth for last year. In view of the economic benefit Hong Kong experienced from Chinese visitors, Taiwan hope that more cooperation and agreements on lifting traveling bans across the strait will favor its consumption sector.

A final comment on Taiwan regards it financial sector, whose banks boast among the strongest balance sheet in Asia. Their nonperforming debt ratio stood at 51bps and coverage ratios at almost 200% in October. Balance sheet quality is expected to remain strong as Taiwan consumers have deleveraged since 2005 and Taiwan banks have little exposure to Chinese SMEs.



Commodities: Negative

The price of gold ended last year with a moderate gain of about 8.5%, but more significant than the magnitude suggested is the uninterrupted yearly gain for the eleventh time. Since the trough of US$250 an ounce in 2001, the yellow metal pierced through the $1900-mark twice during the summer months. Since then however, gold price has retreated and fallen by as much as 20%, a popular yet arbitrary definition of a bear market correction. The pullback may be explained by the strengthening of the U.S. dollar which occurred at the same time.

There is heated debate about where the price of gold goes from here. Some argues that continued uncertainty in Europe will drive investors back to gold. Others think the ability of the U.S. to separate itself from or being drag into Europe's troubles as the key. Ultimately, investors are looking for the safer and more liquid haven(s) during a storm.

A lot of attention and discussion has been on China's cooling property market and its impact to base metal prices especially that for copper and iron ore. It should be noted that coal prices are also closely affected by China's economic well-being, as the nation is the biggest user of coal bar none. There are growing signs of deteriorating support for coal as revealed by data of coal consumption. The graphs below show construction of new buildings and industrial activity in China. In China, coal is the biggest source of fuel in generating electricity to support industry and coking coal is a crucial material in the production of steel which is used in all buildings. Both charts clearly show declining pace of growth. These data should be considered leading indicators in forecasting coal price. It is worth mentioning that recent import coal price drops below domestic coal price, which signals demand outside of China is weaker than China, hence adding to downward pressure.

Hedge Funds: Mixed

The Dow Jones Credit Suisse Hedge Fund Index dropped 0.79% in November and has been down 2.31% year-to-Nov. Meanwhile, it is observed that there is outflow of approximately $4 billion in November.

Of the various hedge fund strategies, Emerging Markets suffered the biggest loss. Continued turmoil in Europe prompt widespread 'risk off' trades. As a result, high beta asset classes such as emerging market securities took it on the chin. Directional strategies, such as Long/Short Equity, experienced intra-month volatility due to

	Nov	YTD	Avg. Annualized Performance*	Annualized Vol.*
Dow Jones Credit Suisse Hedge Fund Index	**-0.79%**	**-2.31%**	**8.77%**	**7.64%**
Convertible Arbitrage	-0.60%	0.50%	7.48%	7.00%
Dedicated Short Bias	-0.17%	2.17%	-3.50%	17.02%
Emerging Markets	-2.69%	-6.03%	7.41%	15.04%
Equity Market Neutral	0.09%	5.00%	5.11%	10.44%
Event Driven	-1.05%	-8.35%	9.29%	6.38%
Fixed Income Arbitrage	0.50%	4.29%	5.23%	5.80%
Global Macro	-0.03%	5.98%	12.16%	9.83%
Long/Short Equity	-1.48%	-6.48%	9.29%	9.99%
Managed Futures	0.18%	-4.94%	5.98%	11.80%
Multi Strategy	-0.89%	1.69%	7.88%	5.43%

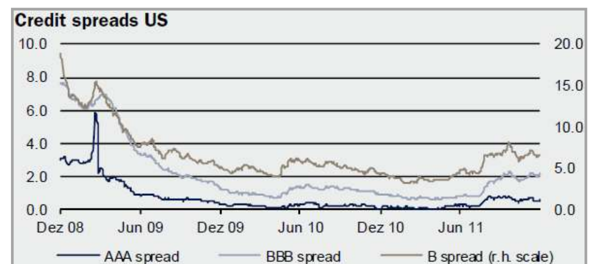
*Average annualized Index data begins January 1994. Source: Credit Suisse Hedge Index, LLC.

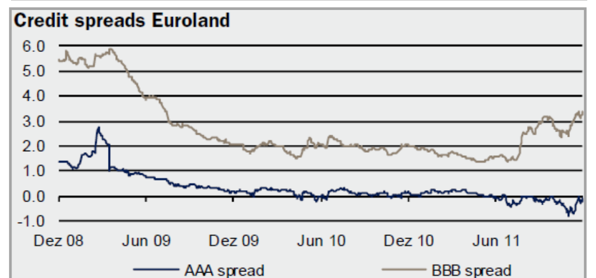
macroeconomic factors. On an individual sector basis, net exposure to Technology increased while exposures to Financials and Energy are declined.

Tactical trading strategies perform flat during November. While Global Macro strategies across diversified, concentrated and quantitative subsector generated slightly negative performance, Managed Futures strategies posted marginally positive performance.

Bonds: Mixed

Investment grade bonds of Europe companies were preferred over speculative grade bond last year as credit spreads widened strongly on the back of aggravating Euro zone crisis. The trend of widening spread gap looks set to continue given an ultimate solution is nowhere in sight. On the other hand, credit spread of different grades of corporate bonds in the U.S. has stayed relatively stable since mid-2011. This can be seen in the accompanying charts nearby. The diverging behaviour reveals U.S. firms have stronger balance sheets and better prospects than European companies. It is thus important to consider the geographical location of companies in addition to simply relying on investment rating issued by rating agencies.

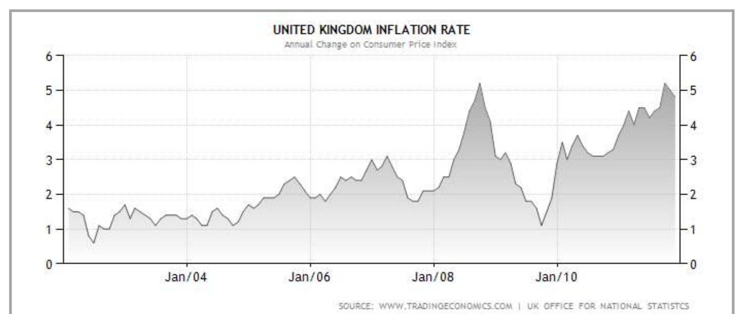




Among sovereign bonds, U.S. Treasuries and German Bunds were among best performers in 2011. On average, meaning bonds across different maturities, Treasuries and Bunds are nearly tied gaining about 10% for the year. What may surprise investors is for U.K. Gilts to record even stronger gains of roughly 17%. We should make a note that all return figures are based on local currencies.

For 2012, it is possible that U.K. bonds to continue attracting investors. British Prime Minister David Cameron's objection to joining the fiscal pact proposed by German Chancellor Angela Merkel and French President Nicolas Sarkozy has expedited gains of the pound sterling against the euro. We believe this trend will continue for some time or until a meaningful and workable solution can be found to resolve the Euro crisis while saving the union.

Another factor that may aid U.K. bonds is early sign of receding inflationary pressure. Lower inflation is generally positive for bond prices, particular for longer-dated securities. Mervyn King, governor of the Bank of England, predicted inflation rate would fall below 2% before this year end. Market believes this will allow room for the United Kingdom to expand its quantitative easing measures this year.



* Unless otherwise stated, all figures and informa tion are collected from WSJ, Bloomberg or Haver Analytics.

Important Note & Disclaimer:
This document has been prepared mainly as information for internal professional advisers and nothing contained in this document should be construed as an invitation or an offer to invest or a recommendation to buy or sell any particular security or to adopt any investment strategy. Although the information provided in this document is obtained or compiled from what we believe to be reliable sources, AMG Financial Group Limited and its affiliates and the author can not and does not warrant, guarantee or represent, expressly or impliedly, the accuracy, validity or completeness of any information or data made available to the recipients of this document for any particular purpose and no liability in respect of any errors or omissions is accepted by AMG Financial Group Limited or its affiliates or any director or employee of AMG Financial Group Limited or his/her affiliates or the author. The author's views are subject to change without notice to the recipients of this document. Past performance is not necessarily a guide to future performance, the value of any investment and the income from it can rise as well as can fall as a result of currency and market fluctuations. The recipients of this document should seek for professional advice if they are in any doubt about any of the information contained herein.

For any comments, please send email to us at enquiries@amgwealth.com.

AMG Financial Group
5/F, Guangdong Investment Tower, 148 Connaught Road Central, Central, HONG KONG
Telephone: (852) 3970 9531 Facsimile: (852) 3426 2650