Quarterly Report On:

BASE METALS

Date: 6th January 2012

THE DOMINO EFFECT

NIRMAL BANG
a relationship beyond broking

Contents:

Quarter Review

- ✓ Industrial metals were the most affected by the global slowdown, with prices having lost around 25% this year. Even supply-constrained metals such as copper were also amongst the worst performers.

- ✓ Weak manufacturing activities across the globe, slowing industrial output in major emerging nations and the strength in the US dollar were a few reasons for the slump in prices of industrial metals.

- ✓ Weak debt auctions, Slowdown in the region, No clear mechanism to solve the ongoing debt concerns, Possible further downgrade of the debt-laden nations, Rising yields of the peripheral nations etc. in the euro zone have resulted into major liquidation from riskier asset class.

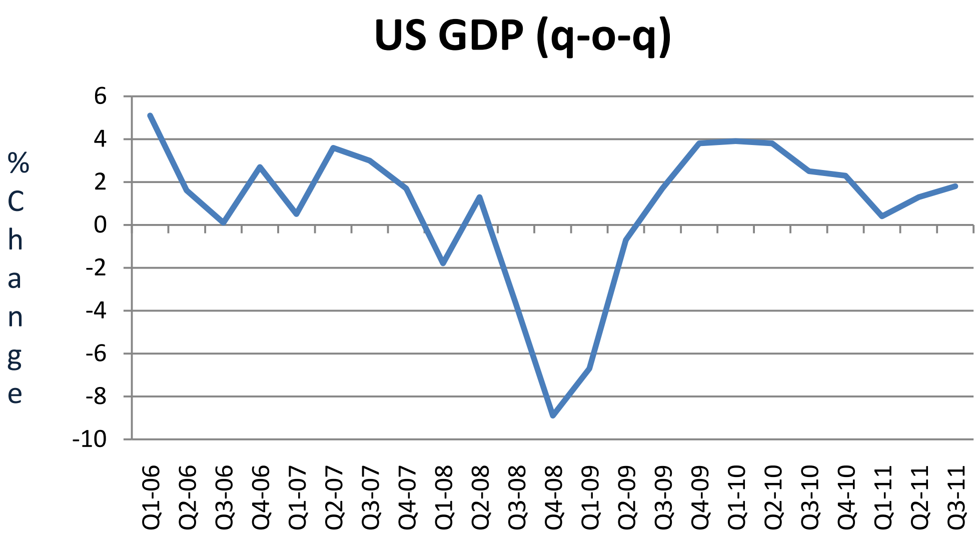
- ✓ Since the beginning of this year we can see that the markets are in a tug of war between the healing US economy hanging in on one side and the turmoil in Europe and the ripple effects it will likely have everywhere on the other side.

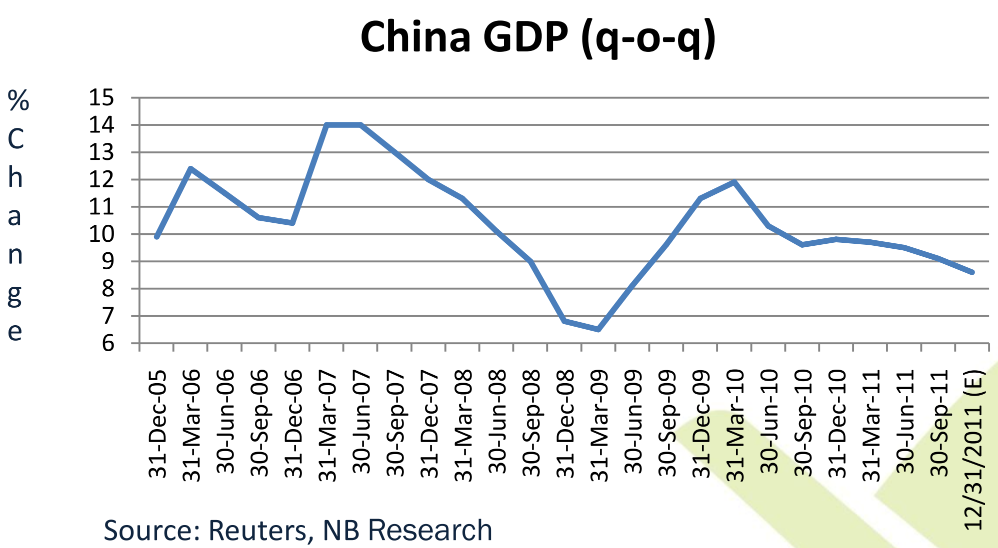
- ✓ The positive side of the story is, that there has been light in the tunnel as far as the US economy in concerned. The recent data points such as ISM Manufacturing PMI, Employment reports, Vehicle Sales, Home sales etc. have been reported positive for the US economy thus seeking recovery in the region.

- ✓ China on the other hand, though slowing, but the effects of the economic slowdown has not resulted into any kind of slowing of imports for specific metals. Imports of industrial metals have been quite strong all over the previous quarter as well as last year.

GLOBAL ECONOMIC SCENARIO

World Economic Scenario - GDP



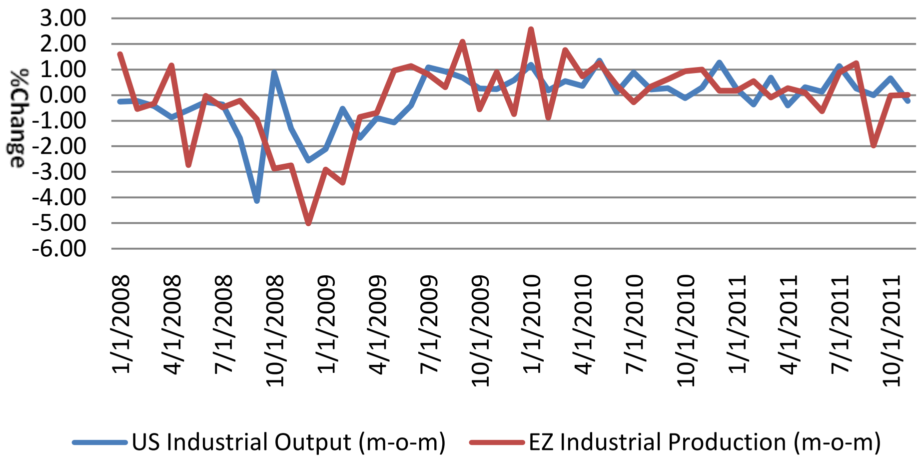


Source: Reuters, NB Research

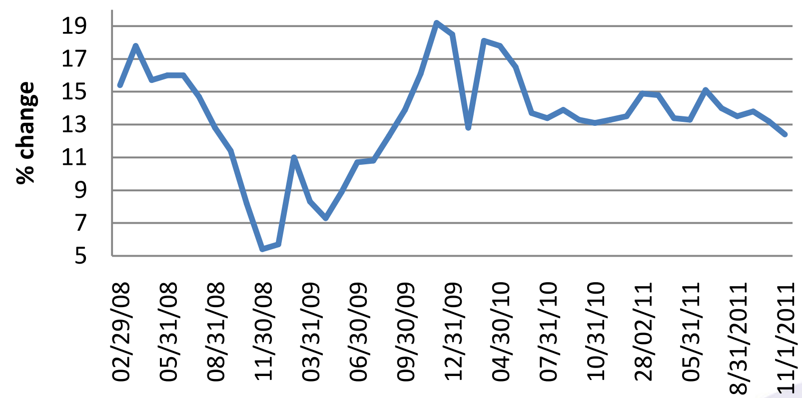
- ✓ Positive Economic data reported from the US.
- ✓ Growth of Emerging Nations is still a concern.
- ✓ Inflationary pressures showing hints of easing in the emerging nations.
- ✓ Inflation (CPI) dropped back to 4.6 percent in China after reported a 6 percent and above CPI in previous months.
- ✓ Growth rate in the US improving after the end of QE2.

World Economic Scenario - IP

US and Euro Industrial Output



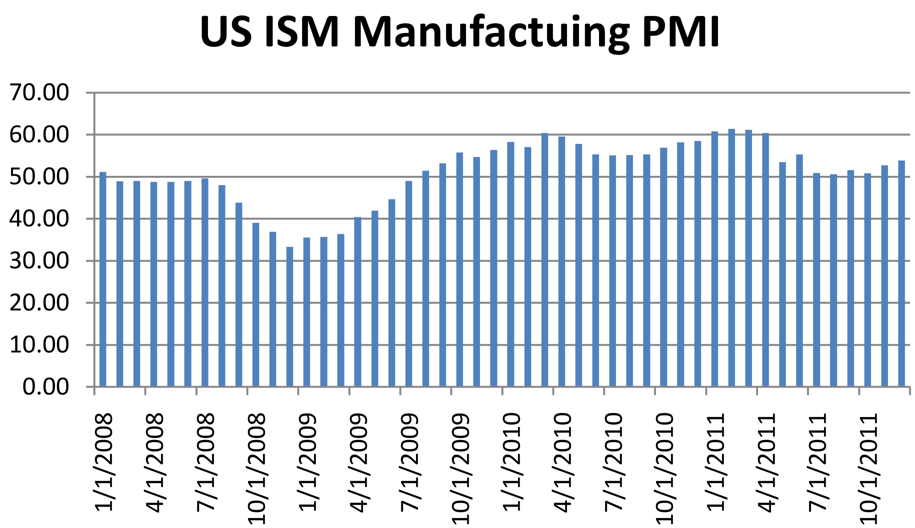
China Industrial Output (m-o-m)

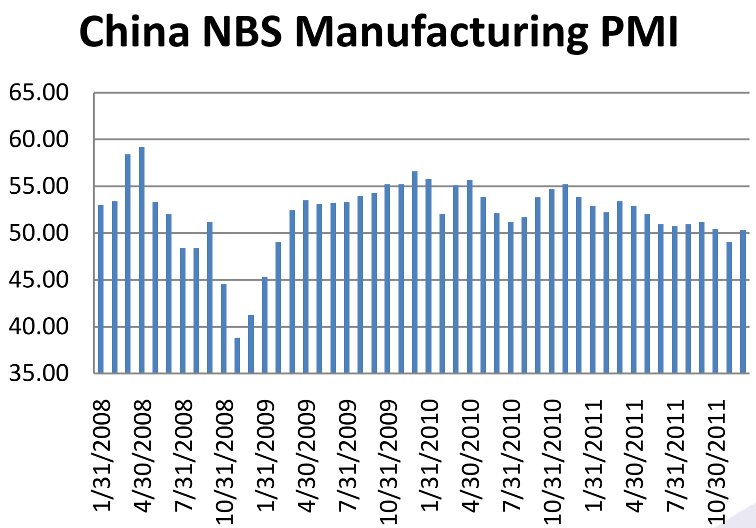


Source: Reuters, NB Research

- ✓ Global Industrial Production growth rate has been slowing all through 2011 led by the emerging nations.
- ✓ Industrial Output in the US is close to 0 percent showing no signs of improvement.
- ✓ Euro zone Industrial production also not encouraging amidst the ongoing debt issues in the region.
- ✓ China IP growth going strong, though gradually slowing all through out 2011, this is not a good indicator as China is the highest consumer of industrial metals.

World Economic Scenario – PMI Numbers





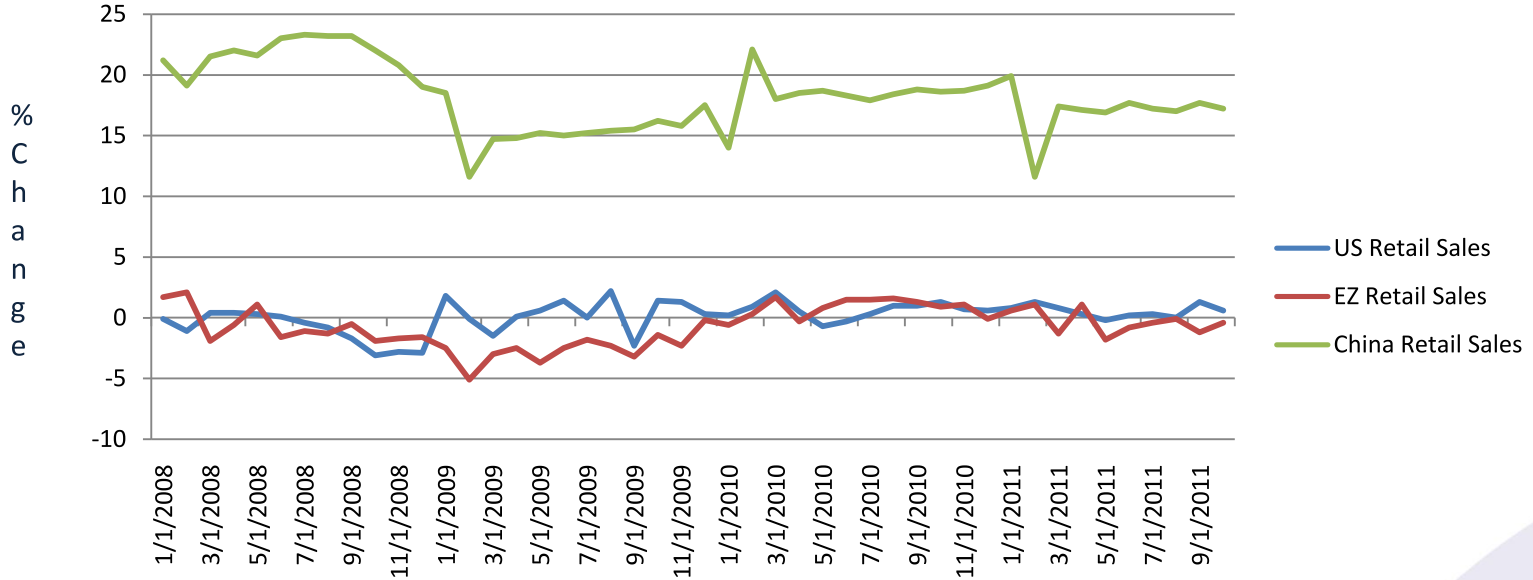
Source: Reuters, NB Research

- ✓ Global PMI Numbers rebounded in December 2011 after a sluggish performance in the preceding months.

- ✓ US ISM-Manufacturing PMI data suggests that manufacturing activity in the region is in an expansion mode from the previous few months, The ISM Manufacturing PMI data reported a six month high of 53.90 in December 2011.

- ✓ Chinese NBS – PMI Manufacturing data however suggests that the manufacturing activities are not convincingly out of the woods though conditions improving. December 2011 data suggested that Chinese manufacturing activities expanded in that period after being in contraction mode in the previous months.

World Economic Scenario – Retail Sales

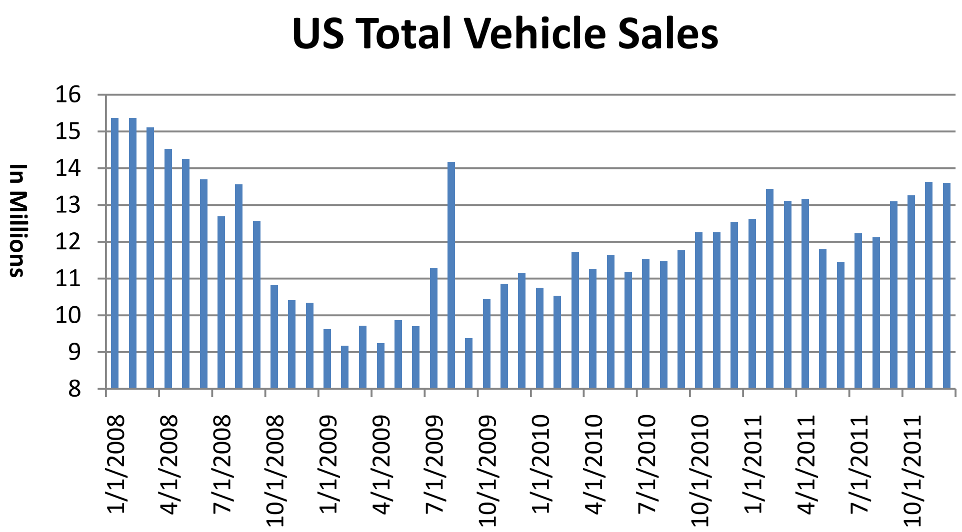


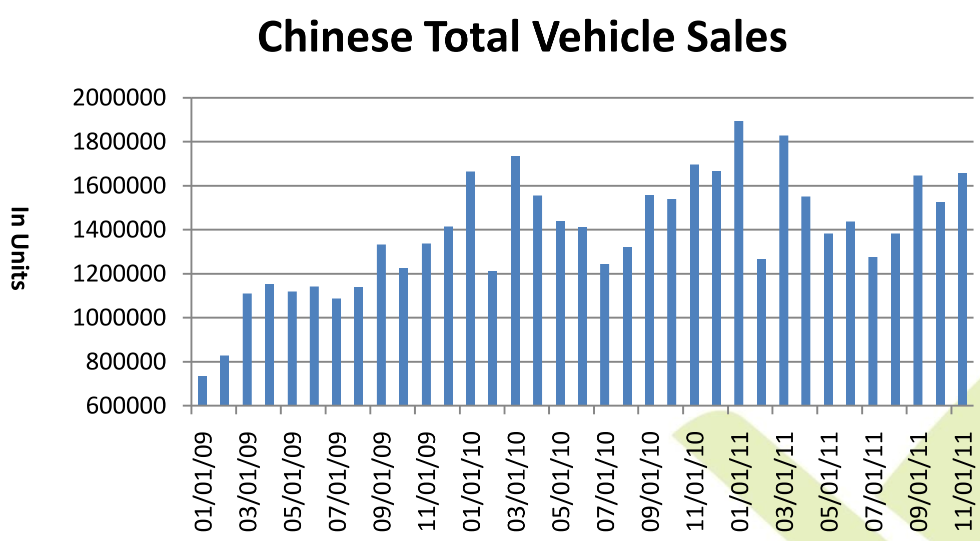
Source: Reuters, NB Research

- ✓ Retail Sales growth sluggish in US and the Euro zone. Close to unchanged since August 2011. US Retail Sales recorded a marginal rise of 0.2 percent and that of Euro zone was recorded at -0.4 percent amidst the ongoing debt problems in that region.

- ✓ Chinese Retail Sales growth constantly in two-digits since early 2010. November 2011 retail sales were recorded at 17.3 percent.

World Economic Scenario – Vehicle Sales

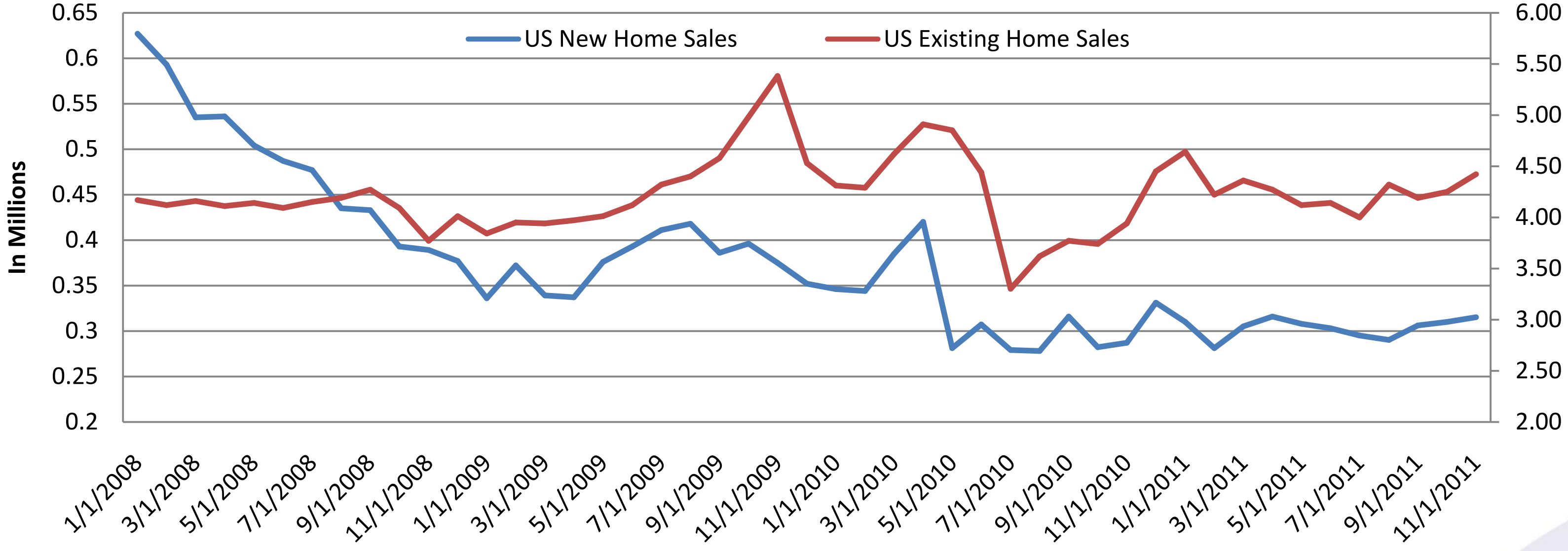




Source: Reuters, Bloomberg NB Research

- ✓ Vehicle Production and Sales in USA and China have been very strong.
- ✓ Total Vehicle sales in US recorded 13.60 million units in December 2011. Vehicle sales in the US have been 10.5 percent higher in 2011 compared to 2010.
- ✓ Vehicle Sales in China has reversed its trend since mid–2011. China have reported strong car sales specially in the previous quarter. Vehicle sales in China in the first 11 months of 2011 have been 2.9 percent higher than in the same period in 2010.
- ✓ Level of vehicle sales can be directly correlated to metals such as Aluminium and Lead. Hence, with strong vehicle sales in China, the above mentioned metals have been relative strong in the previous quarter.

US Housing Market

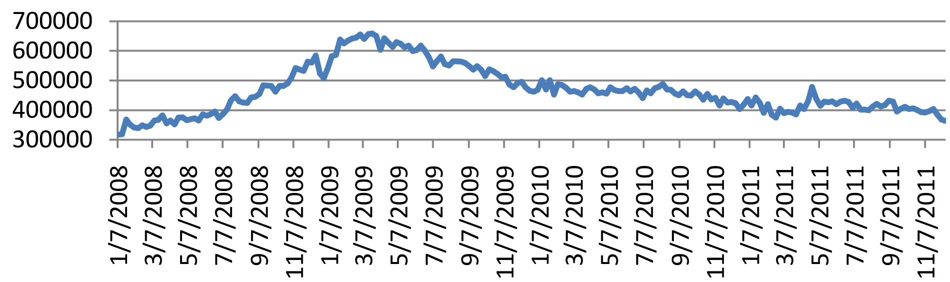


Source: Reuters, NB Research

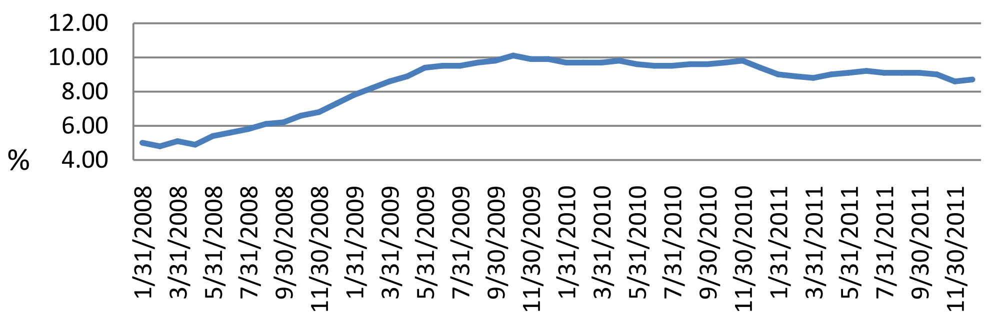
- ✓ Housing Market though weak, but is showing signs of improvement in the previous months.
- ✓ Sales of new U.S. homes rose in November to a seven-month high, adding to evidence of stabilization in the housing market. Purchases of single-family properties increased 1.6 percent to a 315,000 annual pace.
- ✓ Sales of previously occupied homes in the US, climbed 4 percent to a 4.42 million annual pace, the most since January, the National Association of Realtors said.
- ✓ Monetary tightening measures in China trying to control speculative housing market have shown its effects in the economy. Home prices and sales in major cities in China have corrected more than 35 percent during November – December 2011.

US Employment Scenario

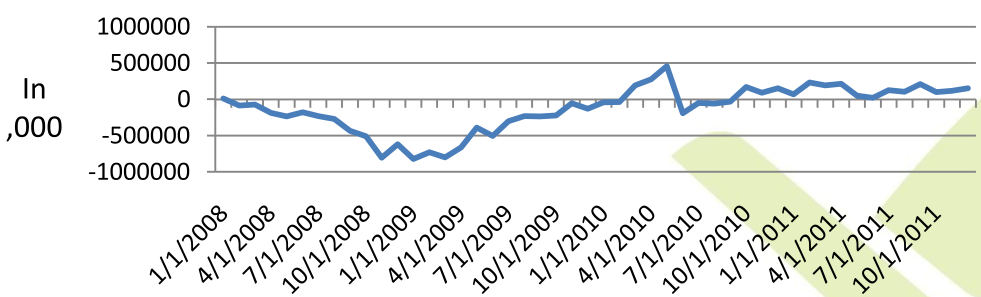
US Weekly Jobless Claims



US Unemployment Rate



US Non-Farm Payrolls



- ✓ Employment situation in the US has been improving since the start of the previous quarter. All the three data points suggest that the employment situation has improved over the previous quarter.

- ✓ The unemployment rate in the US is well below the 9 percent mark since October 2011.

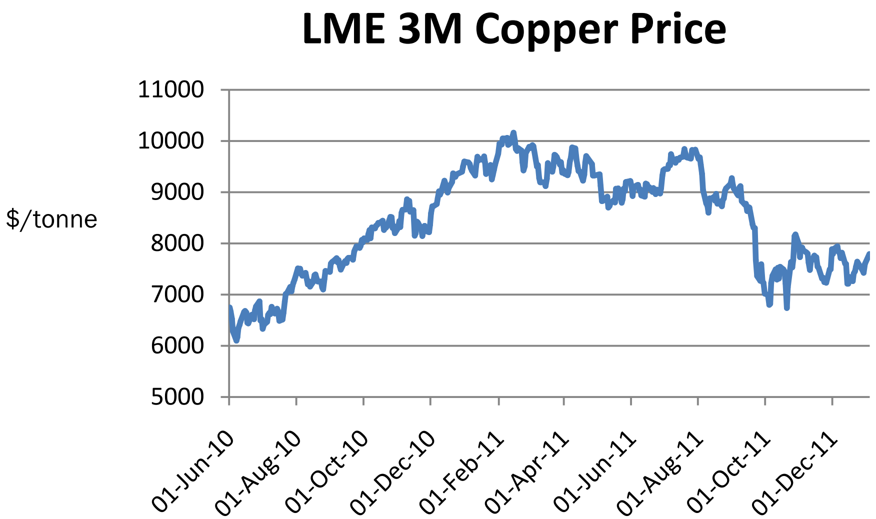
- ✓ New US claims for unemployment benefits have decreased gradually over the period. The initial claims total for the week to December 31 of 372k was close to a market consensus of 375k, down 15k from the preceding week's 387k. The 4 week average of 373.25k (down from 376.5k) is the lowest since June 7 2008.

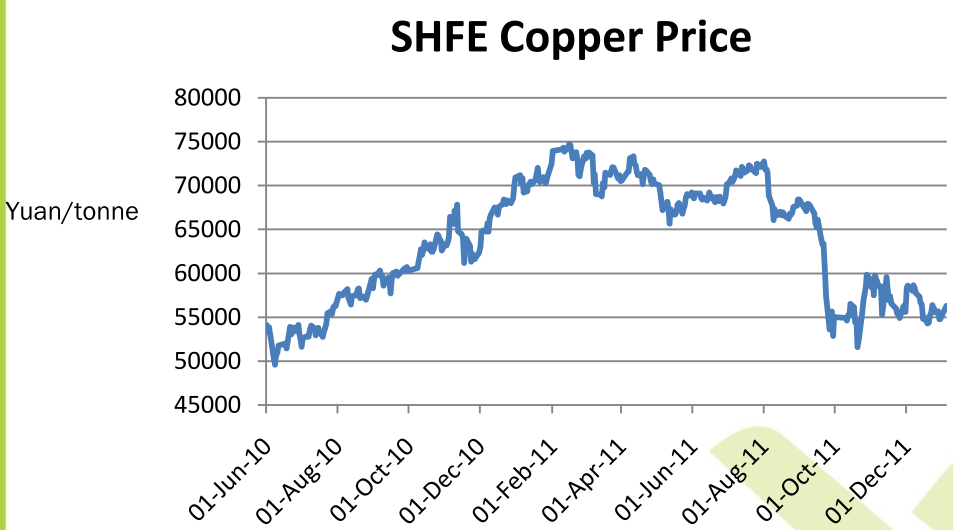
- ✓ The ADP employment report showed an increase of 325,000 private sector payroll jobs in December. Also note that government payrolls have been shrinking by about 24,000 on average per month this year, so this suggests around 325,000 private nonfarm payroll jobs added, minus 24,000 government workers - or around 301,000 total jobs added in December.

Source: Reuters, NB Research

BASE METALS QUATERLY PERFORMANCE

Copper



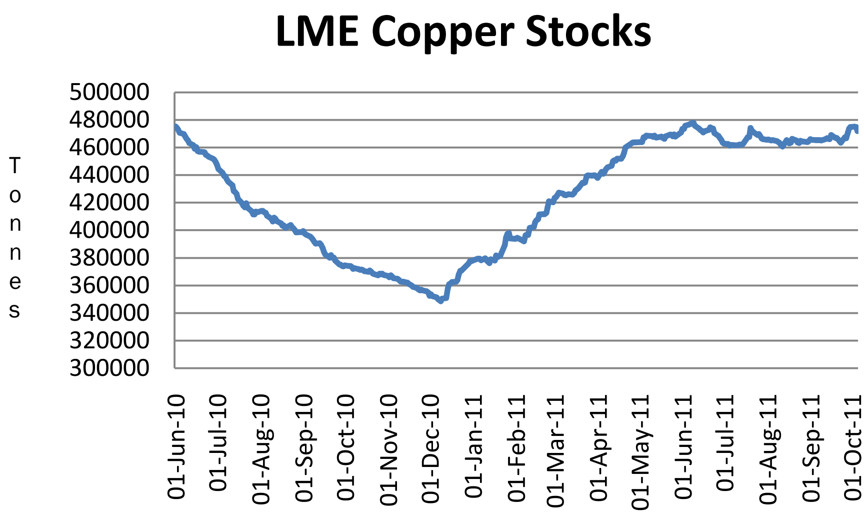


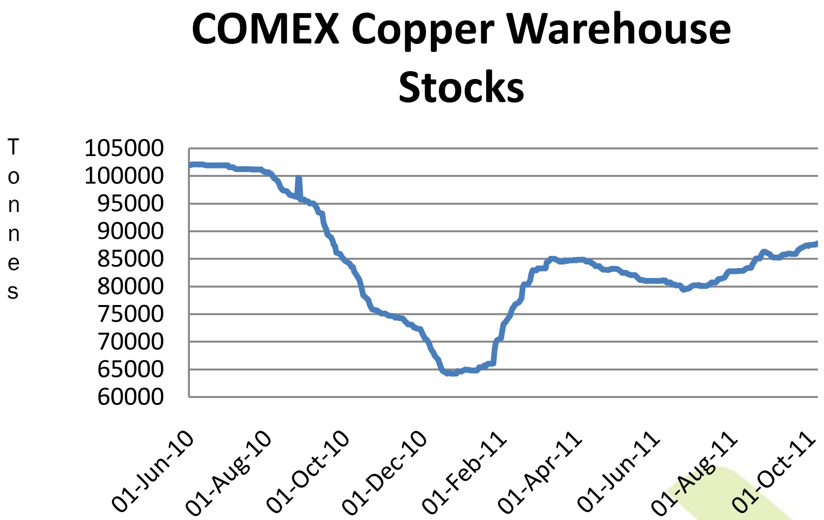
Source: Reuters, NB Research

Review:

- ✓ Copper prices rose by more than 8 percent ending December 2011 on LME touching high of $8175 per tonne in the previous quarter.
- ✓ In absolute terms Copper provided more than 20 percent of negative return to investors on yearly basis. However, we have seen some positivity in the last quarter.
- ✓ On Shanghai Futures Exchange copper prices has not appreciated due to the dollar dominance and remained unchanged in the previous quarter.
- ✓ Adjusted to the 17 percent VAT in China. The arbitrage window between LME and SHFE prices is once again seen in positive territory. Also resulted in high imports of metal in China.

Copper Warehouse Stocks

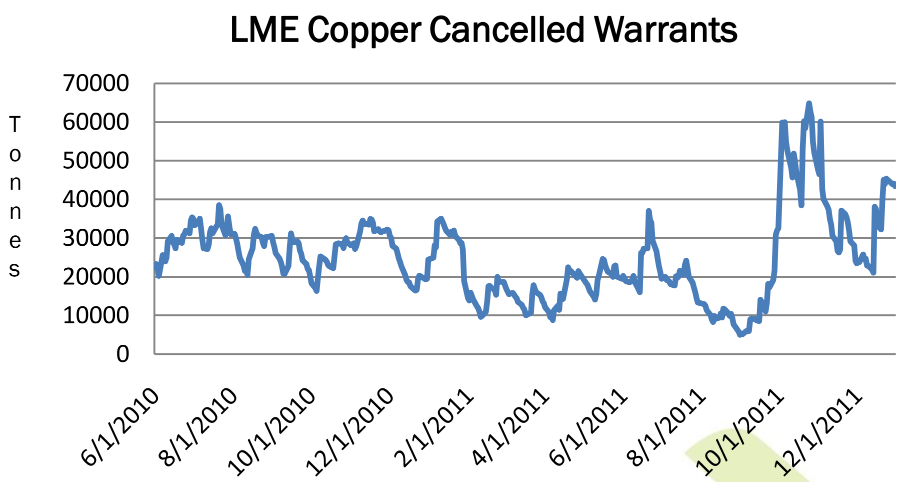




Source: Reuters, NB Research

- ✓ Copper Stocks held at major LME and Shangai exchange warehouses are almost seen in a tight range since the start of the previous quarter.
- ✓ Copper Stocks at LME warehouses have gone up by a negligible 2 percent since end of July 2011.
- ✓ Copper stocks at COMEX warehouses are up by 10 percent since the end of July 2011.
- ✓ Lack of major drawdown in this quarter in major exchange warehouses display a weak physical demand for the metal globally.

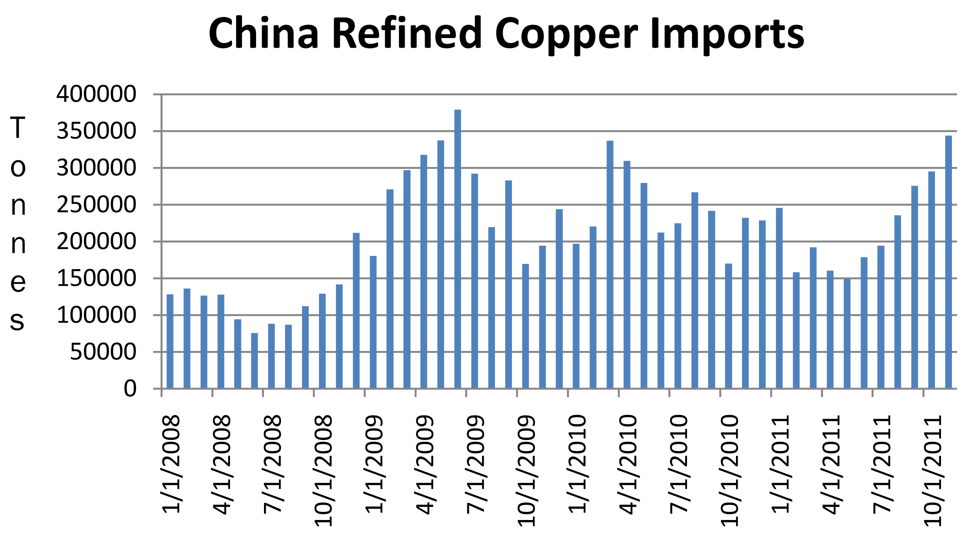
Copper Warehouse Stocks



Source: Reuters, NB Research

- ✓ Copper stocks held at shanghai warehouses have also showed a similar trend.
- ✓ Copper Stocks at SHFE monitored warehouses fell by almost 46 percent since the end of September 2011 and a fall of 79 percent on yearly basis.
- ✓ Cancelled warrants in copper have also depreciated by approximately 27 percent quite significantly. However, on y-o-y basis is has appreciated about 77 percent.
- ✓ The amount of copper cancelled warrants on LME stand at 43425. This is above 12 percent of the total warrants of the exchange.

China Copper Imports & Output



Source: Reuters, NB Research

- ✓ China Copper Imports in the month of November 2011 stood at 343926 tonnes an increase of over 16 percent on a m-o-m basis and about 48 percent increase on a y-o-y basis. The imports of the red metal by China have been continuously rising since April 2011.
- ✓ Profitable arbitrage window between copper traded on LME and Shanghai have encouraged many traders to make the most out of the trade.
- ✓ China's refined copper output has been in a declining mode since mid – 2011. On a m-o-m basis Chinese refined copper output has declined by 4.4 percent in November 2011.
- ✓ China's daily apparent consumption for refined copper surged 29.9 percent in November 2011 from a year earlier, according to Reuters calculations based on official Chinese data.

Major Market Developments

- ✓ China produced 4,581,000 tonnes of refined copper in the first 10 months of the year, up 16.2 percent from the same period last year, according to the National Bureau of Statistics. Output of mined copper rose by 14.4 percent over the same period to reach 1,079,000 tonnes.

- ✓ Chilean mining production is seen jumping between 2010-2018 as the world's top copper exporter boosts its output Sonami group said. Copper output is seen increasing from 5.4 million tonnes in 2010 to 8.0 million tonnes in 2018.

- ✓ Workers returned to their jobs at Freeport-McMoRan's Peruvian copper mine Cerro Verde on November 30 after a two-month strike, a union leader said. Both sides failed to reach an accord on a new labour pact, but the union said its members would return to work after receiving guarantees that the regional government of Arequipa will unilaterally draw up the wage pact to end the dispute.

- ✓ Chile produced 457,981 tonnes of copper in November, down 2 percent from the same month last year, as lower ore grades hit cathode output in the world's top producer of the red metal , the government said.

- ✓ Japan's exports of copper cathode to China doubled in November from a year earlier, pushing its up total exports of refined copper during the month by 34 percent, data from the Ministry of Finance showed.

- ✓ China's copper smelters and global miner BHP Billiton have settled 2012 term copper concentrate treatment and refining charges at $60 a tonne and 6 U.S. cents a pound, trade and smelter sources said.

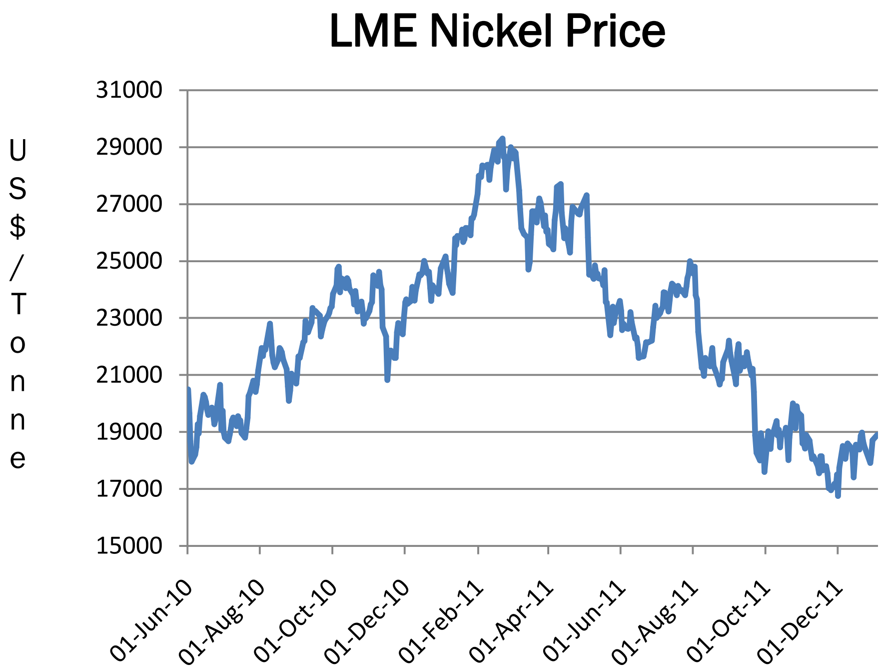
Demand – Supply Scenario

(In ooo tonnes)	Refined Production	Refined Consumption	Surplus / Deficit
2009	18,276	18,101	175
2010	19035	19386	-351
2011(E)	19500	19701	-201
2012(F)	20144	20400	-256

Source: ICSG, NB Research

- ✓ The demand – supply is skewed positively for the red metal.
- ✓ According to International Copper Study Group (ICSG), in its latest bulletin predicts the metal to be in a deficit of 0.2 million tonnes for 2011 and 0.25 million tonnes for 2012.
- ✓ Global refined copper usage is forecast to increase by only 1.5% in 2011 to 19.7 million tonnes (Mt) mainly due to the impact of lower Chinese apparent usage in the 1st half of 2011. World copper usage is expected to increase further in 2012 by around 3.6% to 20.4 Mt.
- ✓ Global refined copper metal production in 2011 is predicted to increase by 2.3% to 19.5 Mt and expand 3.4% in 2012 to 20.1 Mt.
- ✓ Thus expecting the metal to be in a deficit of 201 0.20 million and 0.25 million tonnes for 2011 and 2012 respectively.

Nickel



Source: Reuters, NB Research

Review:

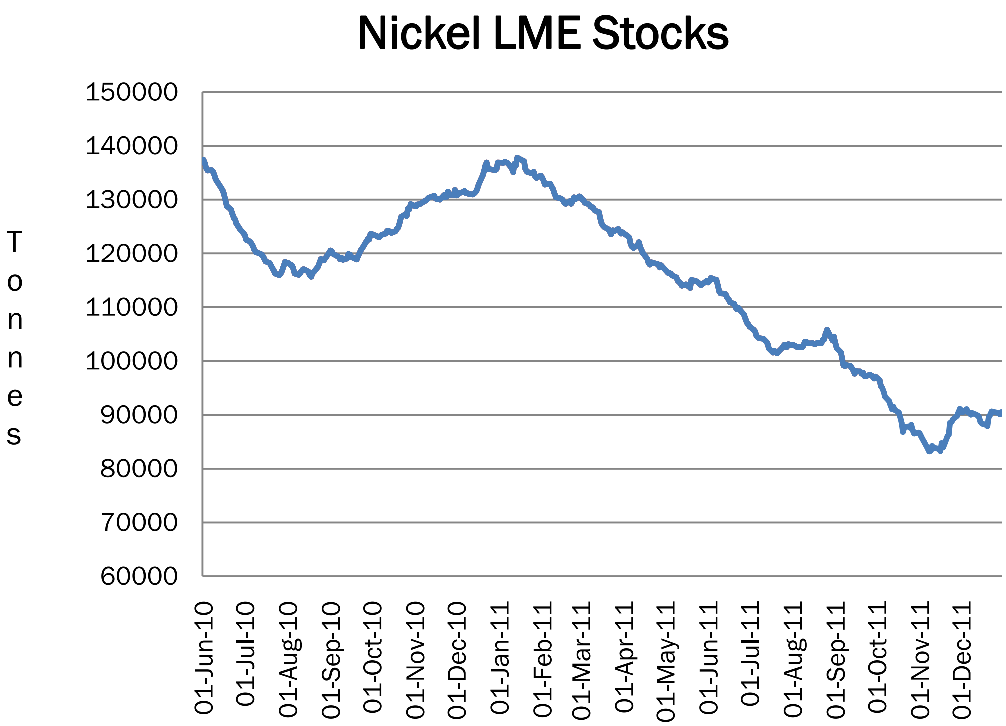
- ✓ LME 3M Nickel price traded below $18000 per tonne in the last quarter after reaching almost $29000 per tonne at the start of the year.

- ✓ Nickel has given a negative return of 24% approximately to the investors annually. However we have not seen much fall in the prices last quarter.

- ✓ On MCX nickel prices traded below Rs.900 per Kg as European debt worries dragged the metal lower.

- ✓ However, on an absolute quarterly basis Nickel prices have traded firm in that period.

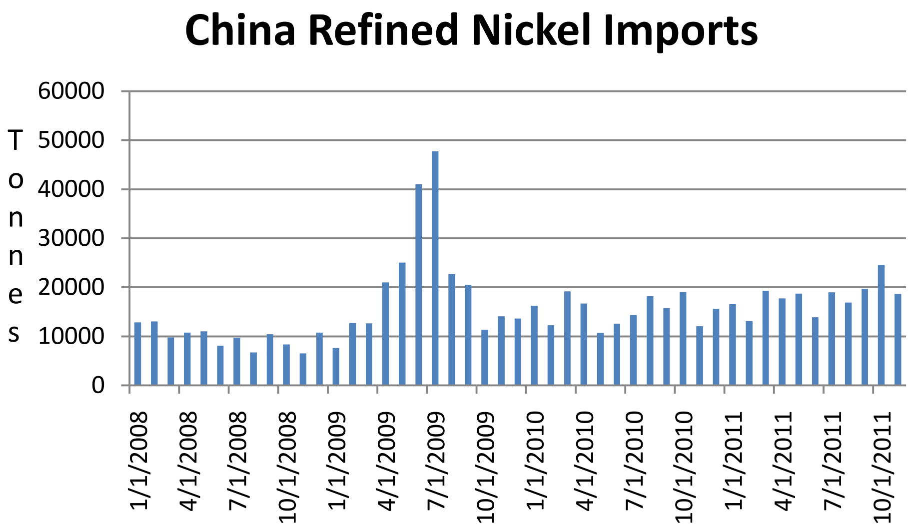
Nickel Warehouse Stocks

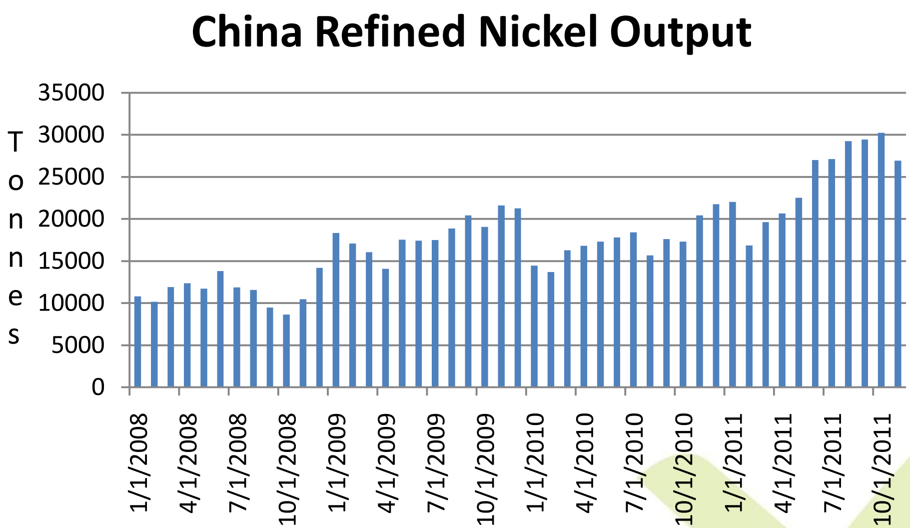


Source: Reuters, NB Research

- ✓ The general downtrend in LME nickel stocks in evidence since around the start of the year came to a halt in late July, reflecting slower seasonal demand.
- ✓ A slight upwards bias continued in August and inventories reached 105,780 tonnes on Aug. 26, after that it again started depleting and on 30th Dec'11 inventories stood at 90516 tonnes.
- ✓ LME nickel stocks have declined by more than 6 percent since the start of the previous quarter and have declined by 33 percent since the start of the year.
- ✓ At the end of last month, LME nickel stocks amounted to around 22 days of demand.

China Nickel Imports & Output





Source: Reuters, NB Research

- ✓ China's November 2011 Nickel and its alloys imports stood at 18629 tonnes a 54 percent rise over November 2010 import figures.
- ✓ Imports have been consistent all over 2011 a marginal rise or decline is all we see in imports of the metal by China over the previous year.
- ✓ Chinese refined nickel output is showing an upward trend however, just a hiccup in the end. China's November 2011 refined nickel output dropped by 10 percent over the previous month. However, the year to date imports in 2011 have shown an increase of over 50 percent over 2010.
- ✓ Lower Refined nickel prices have resulted into a production drop of the low grade Nickel pig iron production. Thus, leading to rise is the refined metal production to meet the demand of stainless steel manufacturers.

Major Market Developments

- ✓ Crude stainless steel production in October 2011 by the 7 major Japanese stainless steel mills was 308,978 tonnes, up by 6.3% MoM from 290,487 tonnes recorded in September 2011. The increase compensated the lower output in September, down by 8.8% from the preceding month, as a kind of counteraction to it.

- ✓ China's stainless steel production rose 11% to reach 12.5m tonnes in 2011 while exports hit another record high last year, according to preliminary data.

- ✓ Anglo American AAL.L expects its Barro Alto project in Goias, Brazil, to produce 41,000 tonnes of nickel in 2013, the head of the company's nickel operations. He said the project, which will receive $1.9 billion in investments, should reach full capacity in the second half of 2012.

- ✓ Spot nickel is currently seeing support from some buying from Chinese stainless steel mills, the country's top nickel users, as nickel pig iron (NPI) producers struggle to compete in the wake of the refined metal's recent falls. Producers of “nickel pig iron”, a low-grade ferro-nickel, need a price of about $19,000 a tonne, while the metal recently fell as low as $16,550.

- ✓ Nickel premiums in Europe could see a recovery early next year say some traders and producers who expect recently eased bank reserve requirements in China to help spur demand for raw materials.

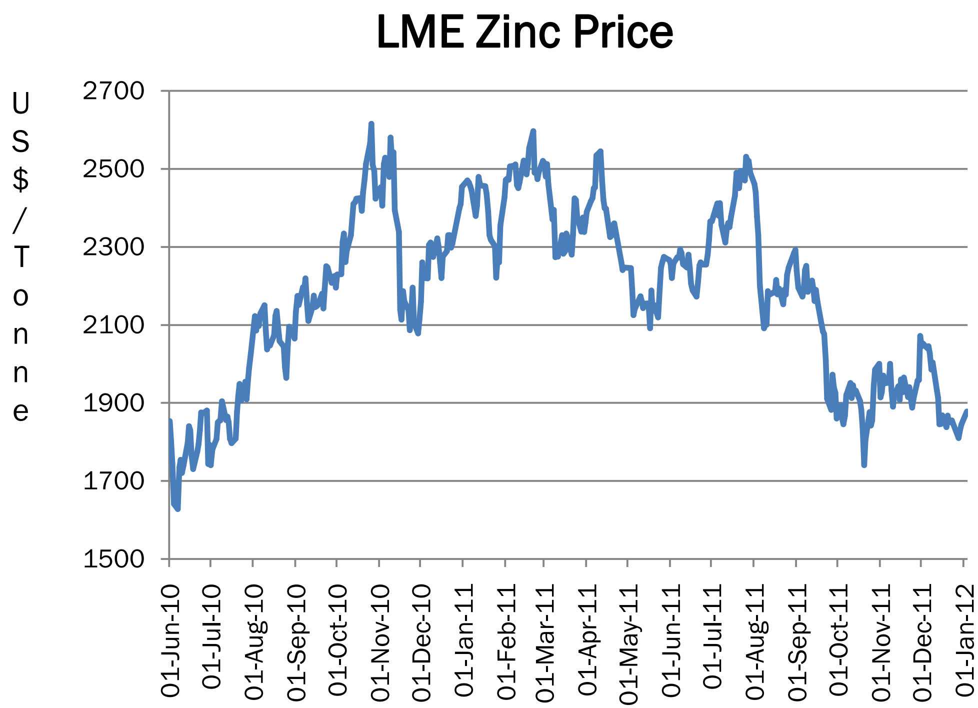
Demand – Supply Scenario

Year	Production (In Million Tonnes)	Consumption (In Million Tonnes)	Surplus / Deficit (In Million Tonnes)
2009	1.32	1.24	0.08
2010	1.44	1.48	-0.04
2011 (E)	1.60	1.57	0.03
2012 (F)	1.74	1.67	0.07

Source: INSG, NB Research

- ✓ Global primary nickel usage (consumption) was 1.48 Mt in 2010 and is estimated at 1.57 Mt in 2011. For 2012 a further increase to around 1.67 Mt is expected.
- ✓ Refined production increased from 1.44 million tonnes to 1.60 million tonnes which is expected to outpace demand.
- ✓ Restarting of nickel production operations at VALE is expected to lead to some fresh supplies in the next year.
- ✓ For the year 2012, INSG expects nickel to be in a small surplus of 70,000 tonnes.

Zinc



Source: INSG, NB Research

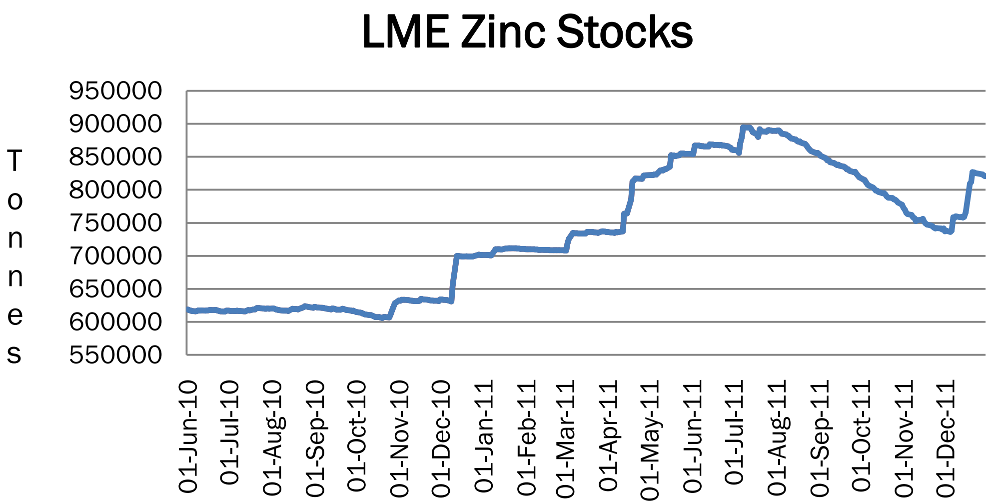
Review:

✓ Like other metals zinc has also provided investors a negative return of 24 percent annually.

✓ On an absolute basis, zinc prices have dropped by half percent since the start of the previous quarter.

✓ Zinc being the metal in a massive surplus, and high supplies prices have failed to sustain upper levels.

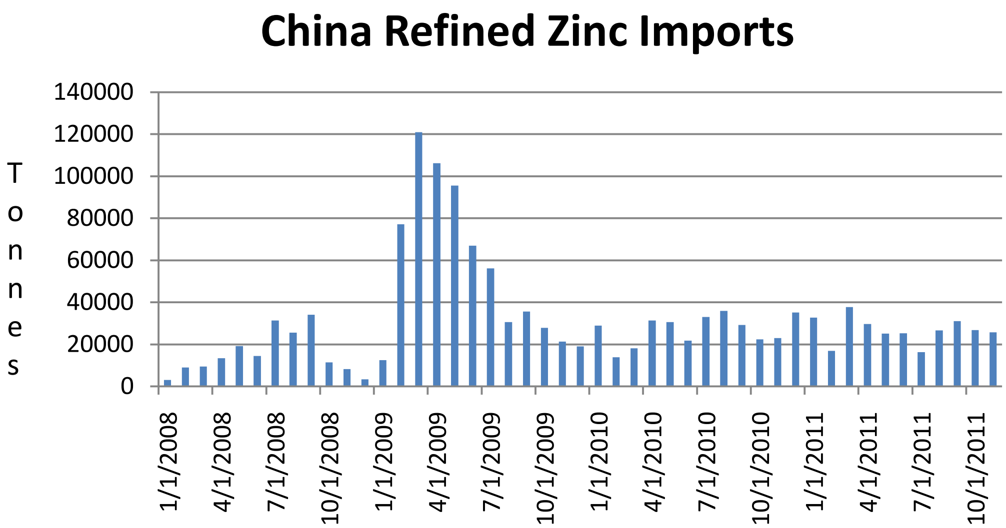
Zinc Warehouse Stocks

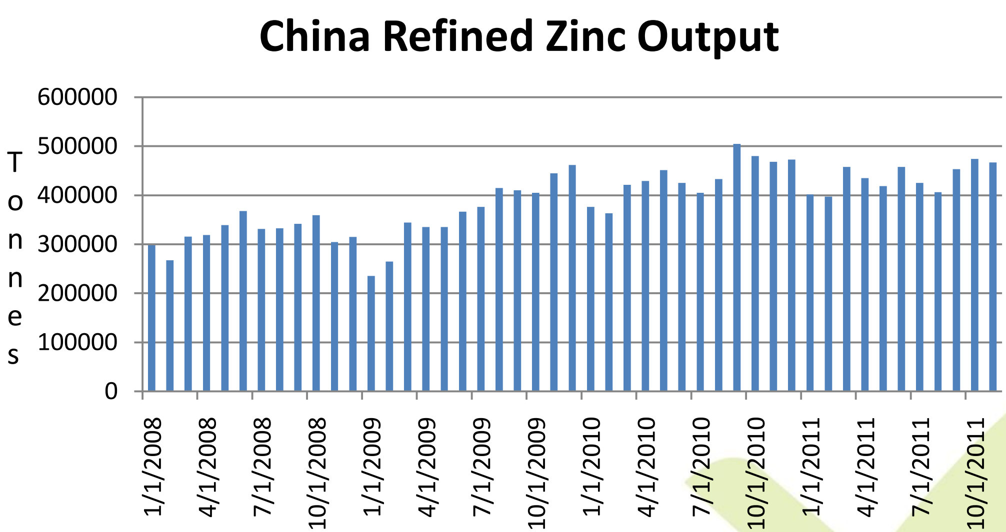


- ✓ LME Zinc stocks had shown a continuous built in the recent past. However, they are showing a declining trend in the previous quarter.
- ✓ Zinc stocks monitored at LME warehouses have increased by more than 16 percent since the start of the year.
- ✓ We have seen a sharp rally of stocks at LME warehouse at the end of previous quarter.
- ✓ At the end of November LME stocks equated to around 21-1/2 days of demand.

Source: Reuters, NB Research

China Zinc Imports & Output





Source: Reuters, NB Research

- ✓ August 2011 China Refined Zinc Imports stood at 25,649 tonnes which were about 11.50 percent higher on a y-o-y basis. As seen in Nickel, Chinese refine zinc imports were also consistent with modest growth or decline in numbers over the previous calendar year.
- ✓ As seen in Imports, Chinese output of the metal also has been marginally deviated from its mean in the previous year. November 2011 refined zinc output 1.4 percent lower on a m-o-m basis and 0.21 percent lower on a y-o-y basis.
- ✓ Data for 2011 suggest that there was broad-based support for underlying zinc demand in China, albeit at a far slower rate than in 2010. The key factor behind China's zinc demand is the level of galvanised steel output, which was up by 11% year on year in the first half of 2011 (and reached a record high in the second quarter of 31.1m tonnes).
- ✓ Furthermore, with higher capacity utilisation rates at steel mills, indications are that another new record was achieved in the third quarter, of around 31.2m tonnes. The government's affordable housing construction targets are a major driving force.

Major Market Developments

- ✓ Japan's exports of refined zinc surged to 11,712 tonnes in November, up 64 percent from a year earlier, driven by a three-fold jump in exports to China, customs-cleared data showed. Exports to China increased to 3,578 tonnes, up from 1,191 tonnes a year before, replacing Taiwan as the top importer of Japan's refined zinc and accounting for about 30 percent of total exports.

- ✓ China produced 3,860,000 tonnes of refined zinc in the first nine months of the year, up 3.5 percent from the same period last year, according to the National Bureau of Statistics. Output of mined zinc rose by 14.2 percent over the same period to reach 3,042,000 tonnes.

- ✓ Belgium's Nyrstar, the world's biggest zinc producer, has lowered its guidance for the zinc it will mine given setbacks at its Tennessee mines and a production downgrade by partner Talvivaara. Nyrstar cut its 2011 zinc concentrate production target to a range of 205,000-215,000 tonnes from its previous target of 215,000 tonnes.

- ✓ Global commercial stocks of zinc at the end of September were 1,853,400 tonnes or 5.2 weeks of demand, up from 1,900,800 tonnes or 5.7 weeks the previous month and from 1,562,000 tonnes or 5.0 weeks at the end of last year, according to the ILZSG.

- ✓ In 2010, China mined 3.7 million tonnes of zinc, accounting for 30 percent of world mine output, according to figures from the International Lead and Zinc Study Group (ILZSG).

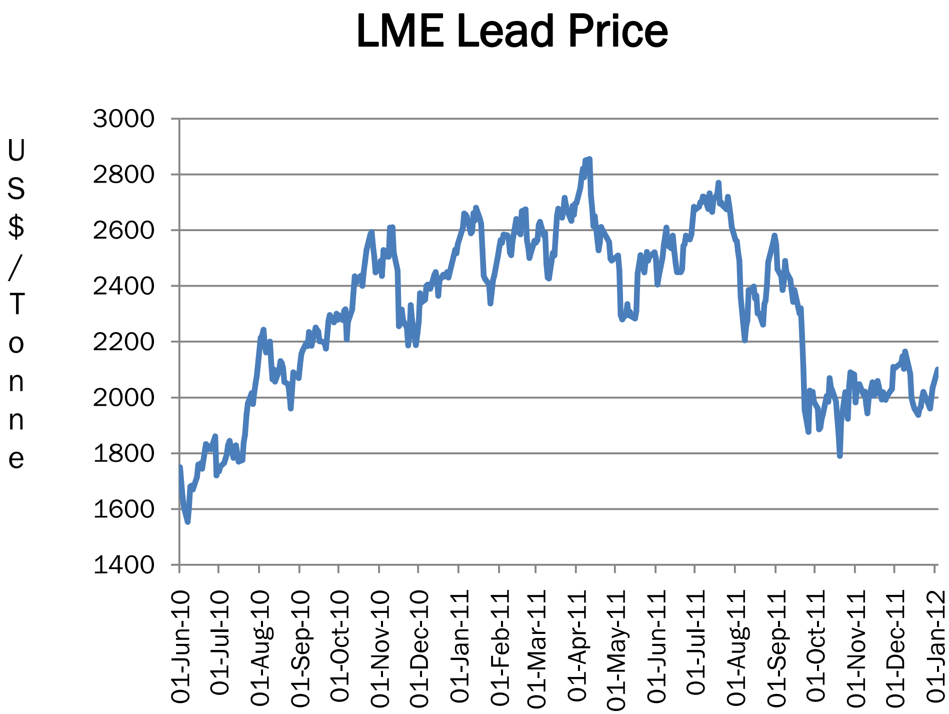
Demand – Supply Scenario

Year	Production (In 000 tonnes)	Consumption (In 000 tonnes)	Surplus / Deficit (In 000 tonnes)
2009	11,281	10,845	436
2010	12,868	12,579	289
2011 (E)	13,160	12,850	310
2012(F)	13,485	13,350	135

Source: ILZSG, NB Research

- ✓ Global refined zinc usage is forecast to rise by 2.2% in 2011 to 12.85 million tonnes. Chinese apparent demand is expected to grow at 2.1%. European demand in 2011 is predicted to increase by 2.5%. In 2012, a further rise in global demand of 3.9% to 13.35 million tonnes is expected with 5.7% growth in China, 1.0% in Europe and 1.3% in the United States.
- ✓ Global refined zinc production is forecast to rise 2.7% to 13.16 million tonnes in 2011, driven by production increases in China, India and the Republic of Korea. In 2012, refined zinc output is predicted to rise by 2.4% to 13.48 million tonnes.
- ✓ The latest forecasts supplied by the Group's member countries indicate that global supply of refined zinc metal will exceed demand by 317,000 tonnes in 2011. It is anticipated that supply will exceed demand by 135,000 tonnes in 2012.

Lead

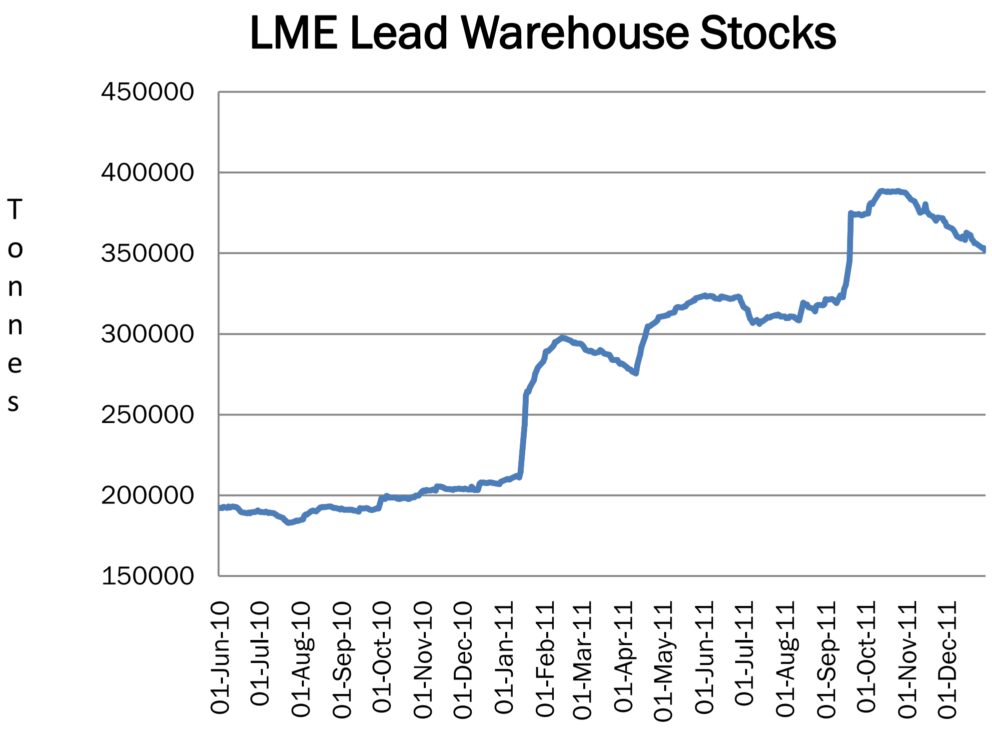


Source: Reuters, NB Research

Review:

- ✓ LME 3M fell to trade below $2100 per tonne on LME which is reported more than 20 percent fall annually.
- ✓ Lead prices though seen under pressure since the start of 2011, the previous quarter have been positive for the metal. Lead prices rose about 2.5 percent in the previous quarter ending December 2011.
- ✓ Crackdown on Chinese lead-acid battery makers by Chinese authorities can be attributed to this fall in Lead prices since mid- 2011 and consequently restart of those manufacturers have led to the recent rise in prices of the metal in the previous quarter.

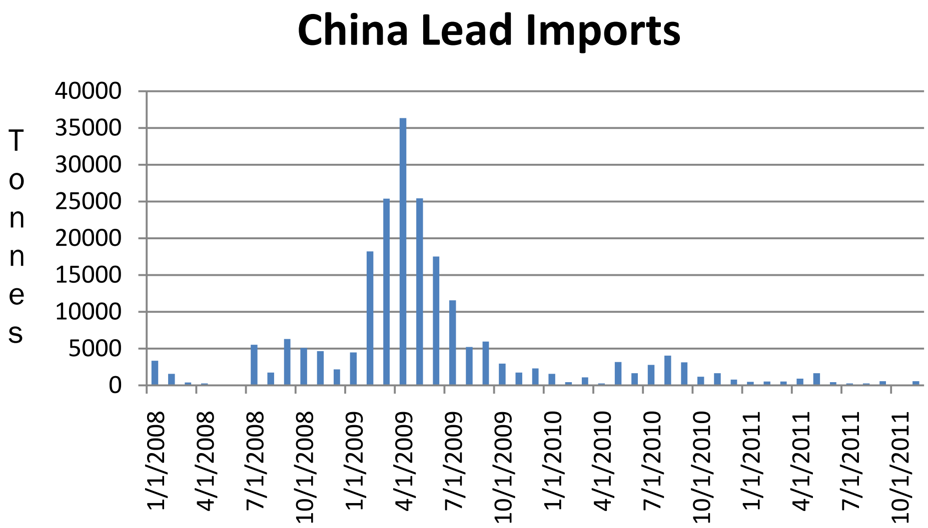
Lead Warehouse Stocks

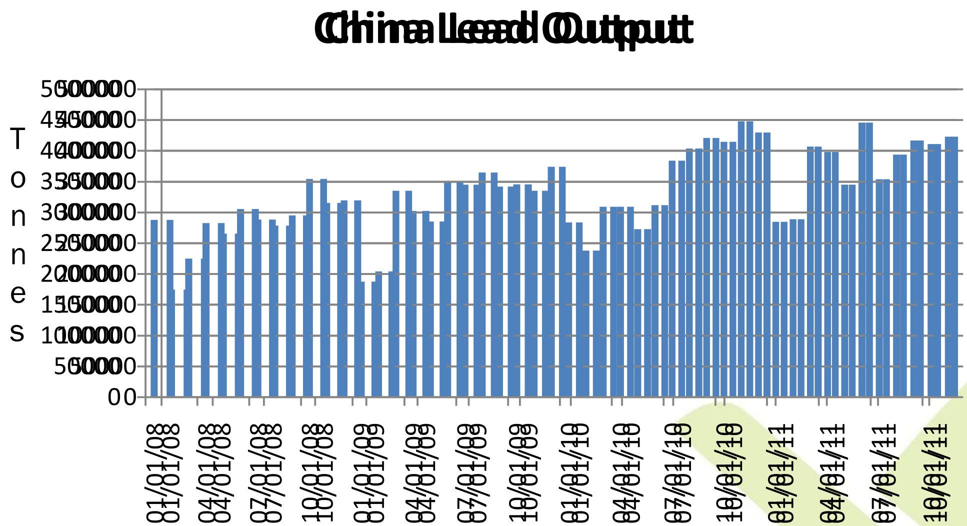


Source: Reuters, NB Research

- ✓ LME Lead inventories have shown a continuous built in its exchange monitored warehouses since the start of the year 2011, where as in the last quarter we have seen some drawdown in the LME stocks.
- ✓ LME lead stocks finished at 351725 tonnes on 30th Dec 2011, down from 374550 tonnes a month earlier.
- ✓ World commercial stocks of lead at the end of September were 691,000 tonnes, or 6.2 weeks of demand, up from 634,500 tonnes or 5.7 weeks at the end of August and from 446,000 tonnes or 4.0 weeks at the end of 2010.

China Lead Imports & Output





- ✓ China Refined Lead Imports stood at 536 tonnes in November 2011 after a mere 50 tonnes of import in October 2011.
- ✓ Over the past couple of year Chinese imports of the metal has gone down substantially given a massive metal import policy by China in the year 2009.
- ✓ Chinese refined Lead output was seen under pressure at the start of the year. However, gradually it is again into an uptrend. Chinese production of the metal in November has gone up by about 3 percent over the previous month.
- ✓ According to ILZSG, In China, despite closure of battery production facilities for environmental reasons, an increase of 7.4% in usage is anticipated in 2011, and 6.0% in 2012.

Source: Reuters, NB Research

Major Market Developments

- ✓ Neil Hawkes of industry consultants CRU Group said seasonal demand, particularly in the United States, had remained surprisingly strong, given most restocking by battery makers normally was completed by late November.

- ✓ China produced 3,922,000 tonnes of refined lead in the first 10 months of the year, up 13.5 percent from the same period last year, according to the National Bureau of Statistics. Output of mined lead rose by 29.6 percent over the period to reach 2,152,000 tonnes.

- ✓ Most of China's larger battery manufacturing plants have reopened after obtaining environmental clearance, pushing demand for refined lead higher and prompting smelters to raise production, industry sources said on Tuesday. Earlier this year, China's authorities launched a crackdown on lead-acid battery plants after incidents of lead poisoning were traced back to a large factory in Zhejiang province.

- ✓ Lead premiums are rising in Singapore as Chinese smelters cut production due to weak lead battery demand from the slack domestic automotive sector, tightening supply in Southeast Asia and lending support to futures prices on the London Metal Exchange.

- ✓ About 80 percent of lead is used in batteries, according to the International Lead and Zinc Study Group in Lisbon. Production in China, the biggest exporter, may rise about 20 percent in 2012, according to the Beijing-based China Battery Industry Association, which represents more than 700 producers. That will use a total of about 3.3 million tons of lead.

- ✓ China will have 150 million electric bikes by 2015, compared with 120 million in 2010, according to the association. Each bike uses an average of 13 kilograms (28.7 pounds) of lead, according to Brook Hunt, a research unit of Wood Mackenzie Ltd.

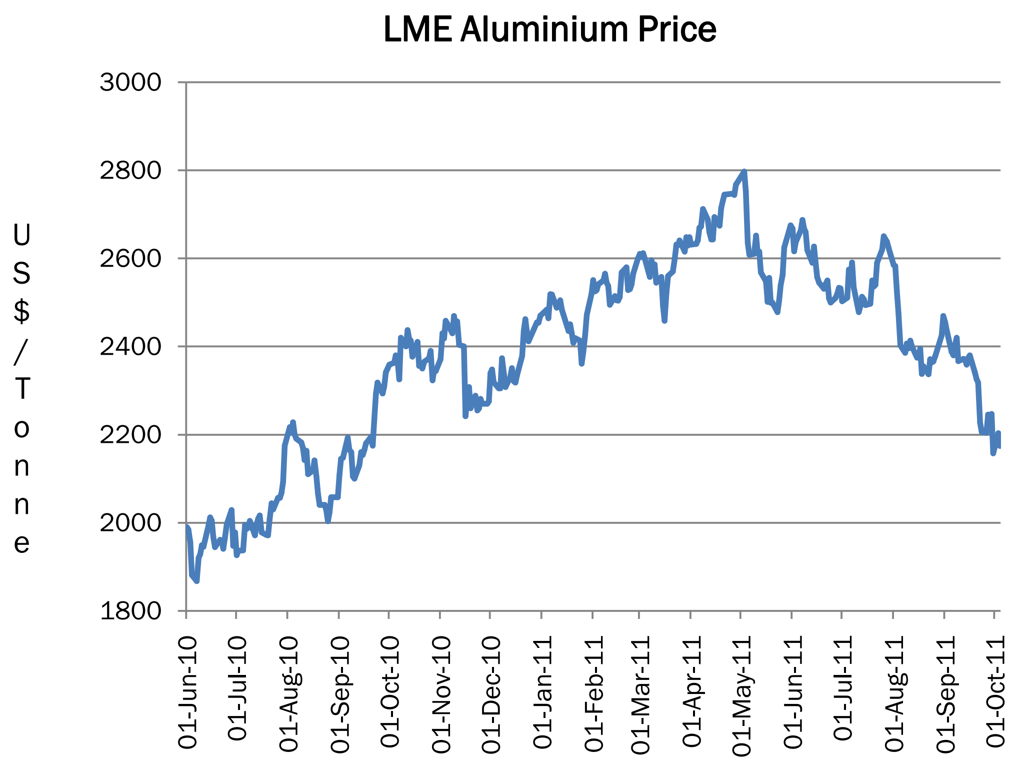
Demand – Supply Scenario

Year	Production (In 000 tonnes)	Consumption (In 000 tonnes)	Surplus / Deficit (In 000 tonnes)
2009	8,992	8,935	57
2010	9,604	9,569	35
2011 (E)	10,340	10,148	188
2012 (F)	10,657	10,560	97

Source: ILZSG, NB Research

- ✓ The global usage of refined lead metal is expected to increase by 6.1% to 10.15 million tonnes in 2011 and by a further 4% to 10.56 million tonnes in 2012.
- ✓ In China, despite a slowdown in automobile sales and closure of battery production facilities for environmental reasons, an increase of 7.4% in usage is anticipated in 2011, and 6.0% in 2012.
- ✓ Global production of refined lead metal in 2011 is expected to increase by 7.3% to 10.34 million tonnes. In 2012 a further rise of 3.1% to 10.65 million tonnes is expected due to higher output in India and China.
- ✓ The forecast is for the global supply of refined lead metal to exceed demand by about 188,000 tonnes in 2011 and 97,000 tonnes in 2012.

Aluminium

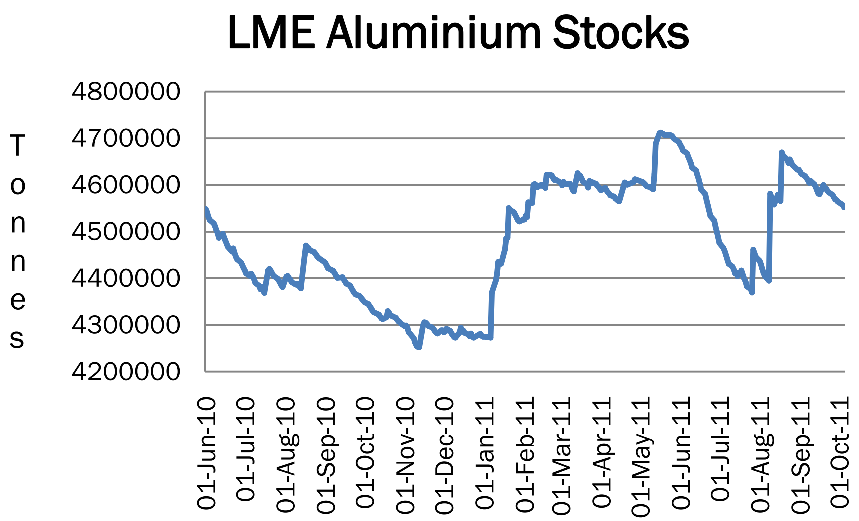


Source: Reuters, NB Research

Review:

- ✓ Aluminium prices fell to as low as $1962 after reaching to a high of $2797 this year. It has corrected by more than 18 percent.
- ✓ It provided an absolute negative return of above 18 percent to the investors on annual basis and 8 percent on quarterly basis.
- ✓ However, due to prices reaching to its marginal cost of production prices found some support at lower levels.
- ✓ Rising crude oil prices is further expected to push the cost of production for the metal higher thus, resulting into a limited downside in Aluminium.

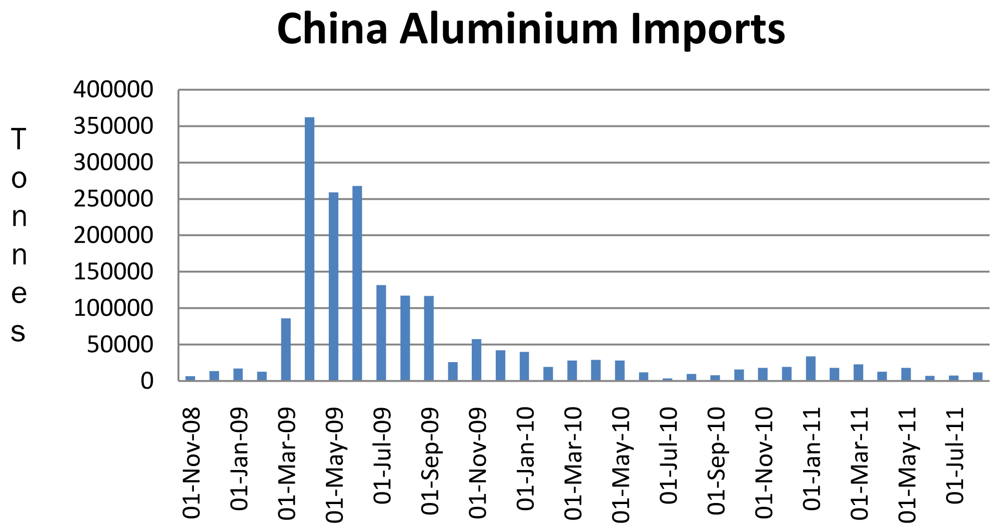
Aluminium Warehouse Stocks

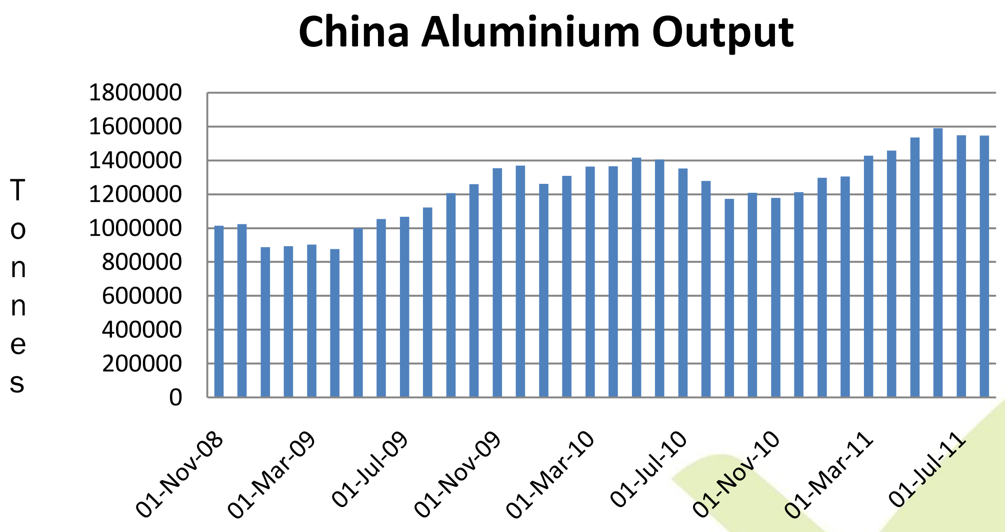


Source: Reuters, NB Research

- ✓ Aluminium stocks have increased by more than 9 percent in the previous quarter.
- ✓ Aluminium stocks monitored at LME warehouses have gone up by almost 16 percent on annual basis.
- ✓ Aluminium stocks held at Shanghai warehouses have shown a reverse trend. Stocks have fallen by more than 90 percent in the previous quarter.
- ✓ Total exchange stocks of aluminium were at 4.738 million tonnes at the end of November, equating to almost 39 days of demand.
- ✓ Total visible stocks of aluminum including latest AIA stocks were around 6.144 million, up from 6.075 million a month earlier.

China Aluminium Imports & Output





Source: Reuters, NB Research

- ✓ China Refined Aluminium Imports in November 2011 stood at 21,836 tonnes which is more than twice that imported in October 2011.
- ✓ On a y-o-y basis too the imports surged by more than 21 percent in November 2011.
- ✓ However, on the other hand we have seen a slight drop in Chinese primary aluminium output in the previous couple of months. November 2011 output is 9.5 percent lower than that in September 2011. However, is we consider the data of 2010, the output still remains strong.

Major Market Developments

- ✓ Ten to 15 percent of world primary aluminium capacity will be shut down or mothballed if global prices remain at current levels into the first half of 2012, UC RUSAL's first deputy CEO said.

- ✓ "We're well below Chinese costs and pretty much below western European costs of production, so I think the downside is limited for aluminium," said Harry Colvin of Longview Economics. Longview Economics is an independent financial market and economic consultancy organization.

- ✓ Normal operations have restarted at Guinea CBG after workers downed tools at the Alcoa, Rio Tinto and Guinean government bauxite joint venture over wage negotiations, CBG's director general said.

- ✓ China produced 14,677,000 tonnes of primary aluminium in the first 10 months of the year, up 9.5 percent from the same period last year, according to the National Bureau of Statistics. Output of alumina rose by 16.2 percent over the same period to reach 28,932,000 tonnes.

- ✓ China's primary aluminium imports are likely to rise until March with investors and merchants ramping up purchases after an arbitrage window between the London Metal Exchange and Shanghai opened for the first time since 2009.

- ✓ Japan's aluminium buyers have won a 5 percent cut in premiums charged by producers for the January-March quarter, down for the second consecutive quarter, as a global economic slowdown hurts demand, sources directly involved in the deals said.

Demand – Supply Scenario

Year	Total Primary Aluminium Production (In 000 tonnes)	Total Primary Aluminium Consumption (In 000 tonnes)	Surplus / Deficit
2010	40,795	40,058	737
2011 (E)	43007	42548	459
2012 (F)	44,642	44,427	215

Source: GFMS, NB Research

- ✓ According to GFMS, world aluminium demand-supply surplus has been narrowed down in 2011 and is further expected to shrink in 2012.
- ✓ The surplus is expected to narrow down to 0.2 million tonnes for the year 2012.
- ✓ Production cuts with respect to high costs may result into slow growth of refined production. On the other hand robust demand is expected support on the aluminium market.
- ✓ With US vehicle production being robust we can expect aluminium consumption to be strong in 2011 as well.

OUTLOOK

The Road Ahead

- ✓ These price levels so seen in industrial metals are mainly due to the worsening debt crisis of the euro zone, slowdown in major emerging nations like China and India, Strengthening US dollar thus resulting into liquidation from dollar-dominated assets.

- ✓ We feel that at current price levels of metals we would not see massive imports by China as it faces a slowdown in the economy. The Industrial output growth rate is shrinking on a m-o-m basis. Also, the housing sector in Chinese economy is badly hit with house prices correcting by more than 35 percent in major Chinese cities.

- ✓ After the rapid rise in interest rates this year in China, we have seen many commodities traders have pledged their commodity stocks to obtain loan from banks and post that we have seen massive correction in prices of many commodities which may cause problem to banks which may lead into fire sale of such commodity. Collapse in housing prices may lead to rising NPA's in Chinese bank's books leading to more problems in economy.

- ✓ High crude oil prices is likely to result into limited infusion of liquidity by policy makers of emerging nations. If we see some RRR cuts or interest rate cuts from emerging nations then we may again see inflationary pressures hindering growth in those regions.

- ✓ The recent rise in the US dollar can be attributed mainly to the recent economic recovery hints seen in the US economy. We see further improvement in the labour conditions and overall growth in that region. Thus, leading to further strength in the US dollar resulting into liquidation from dollar-dominated assets.

- ✓ Euro zone problems still persist in the global markets. Thus, rapid surge in riskier assets seems to be inevitable as far as those issues are not completely dealt with.

- ✓ However, the recovering US housing sector and liquidity infusion if so, by emerging nations as well as developed nations are likely to prove to be the savior for metals from a massive correction for the next quarter.

Quarterly Price Outlook:

- Copper prices are expected to test $6800-$6700 per tonne on LME. We do not see any rise in imports of the metal by China, as the growth outlook looks dim. Any rise upto $7700-$7750 per tonne on LME can be used as a good selling opportunity.

- Nickel prices are expected to witness a further downside as European debt problems continue to hinder demand outlook for the metal. However, due to slowing NPI production and rising marginal cost of production we do not see prices going below $17000-$17500 per tonne on LME.

- Zinc prices are also expected to go down by 7-8 percent in the coming quarter. We expect zinc prices to test $1720-$1740 per tonne on the LME.

- Lead prices are expected to follow the fall in broad base metals complex. Though strong vehicle sales is expected to keep the fall limited in the metal. We do not expect prices to go below $1925-$1920 per tonne on LME.

- Aluminium being relatively immune from the recent fall and rise in broad base metals complex is expected to show its strength. At current prices, 30-40 percent of global production is either loss-making or close to breakeven. That applies to some Chinese producers and some plants in Europe and the US. We do not expect any major downside in Aluminium prices. We expect Aluminium to test $2100-$2120 per tonne on LME until next quarter.

RESEARCH TEAM		
Name	Designation	E-mail
Kunal Shah	Research Head - Commodities	kunal.shah@nirmalbang.com
Sunit Mehta	Research Analyst (Base Metals)	sunit.mehta@nirmalbang.com
Devidas Rajadhikary	Technical Analyst	devidas.rajadhikary@nirmalbang.com
Vikash Bairoliya	Research Analyst (Precious Metals & Currencies)	vikash.bairoliya@nirmalbang.com
Ravi D’souza	Research Associate	ravi.dsouza@nirmalbang.com
Harshal Mehta	Technical Analyst	harshal.mehta@nirmalbang.com
Evelyn Rodrigues	Technical Analyst	evelyn.rodrigues@nirmalbang.com
Vinod Maloo	Technical Analyst	vinod.maloo@nirmalbang.com
Somya Dixit	Research Associate	somya.dixit@nirmalbang.com
Subhash Lalwani	Research Associate	subhash.lalwani@nirmalbang.com

For any queries contact on 022 - 3926 8043 / 8040 / 8052 / 8065 / 8167 / 8164