

COPPER QUARTERLY

Q4, 2011

Recommendations

Copper LME

SELL at 6800-7500 Targeting 5900 and 5700 with Stop loss above 8010
BUY at 5700-5800 Targeting 6800 and 6900 with Stop loss below 5420

Copper MCX

SELL at 348 -353 Targeting 290 and 270 with Stop loss above 385
BUY at 270-260 Targeting 320 and 340 with Stop loss below 240

"The resilient metal might consolidate in the coming quarter due to the grimming economic outlook despite strong likely demand growth from China. However, seasonal demand might prosper if and only if Bernanke's urge for a better housing sector reform plan works out..."

Q3, 2011 Economic Glance

The quarter gone by, world economic recovery remained fragile. Fears of “Double-dip” recession although did not materialize, anxiety is still knocking. The growth of advanced economies would fizzle largely after the fiscal stimulus turned in to fiscal consolidation. Fears have turned in to commodities prices reflecting anchored inflation expectation and thereby accommodating credit policy through out the world left confined space to a speedy recovery. In most of the advanced economies and emerging economies unemployment remained high retracing back to the pre crisis excesses and crisis wounds. In the US especially, the housing sector remained pretty distressed leading to anemic housing investments.

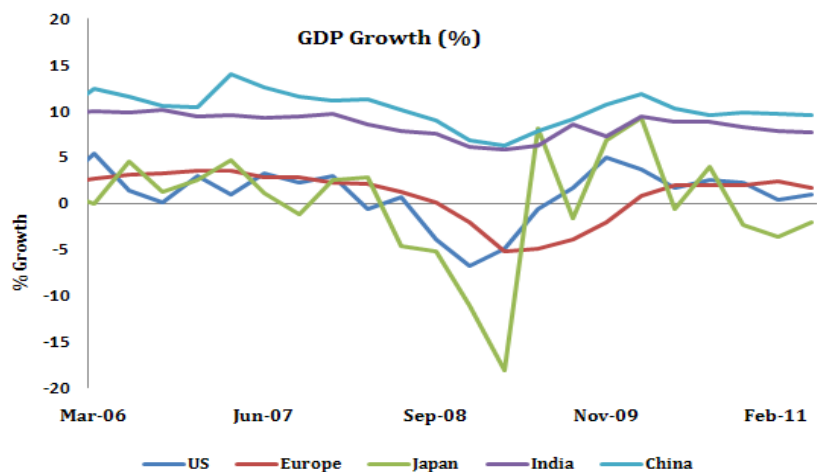
The problem of the Euro periphery, stemming from the combined interactions of low growth, fiscal woes were particularly acute. While the month of June was marred by the Euro debt crisis and downgrades of the Euro nations by rating agencies, July brought the arrival of US debt ceiling issues. Fitch cut Greece’s credit grades to its lowest for any country in the world. The move from “B+” to “CCC” reflected the absence of a new fully funded and credible program by the IMF and the EU which intensified a real possibility of default. Despite Greece got a 110 billion Euros of aid after a promising austerity measures, contagion speeded to Italy and focus shifted on to the world’s largest economy (US) at the brink of default. The debt ceiling issue came in to limelight as the Republicans and Congress were trapped in to an impasse since they were bound to find solution on or before August 2. With debt negotiations at a clear, heavily entrenched standoff over how to deal with the \$14.3 trillion debt ceiling, financial markets remained jittery. Despite the increase in debt limit ceiling after many political controversies, growth momentum still remained subdued, rather, it grew at a slower pace. The expected US credit rating downgrade by the S&P was then announced on August 5, first time ever in the US history, undoubtedly added more volatility in to the global financial markets. *S&P has downgraded US credit rating by one notch from “AAA” to “AA+” which slammed the nation’s political process in absence of a credible plan to lower deficits even if the nation’s \$14.3 trillion debt limit was lifted.* Federal Reserve vowed to keep the interest rate near zero and also discussed a range of policy tools to bolster the economy, raised speculation of a third round quantitative easing through bond purchases. US treasuries yields lowered to its five decades rate which prompted investors to expect Feb chairman Bernanke to signal a third round of asset purchase to boost the economy. The US president on 19th Sep therefore announced for \$1.5 trillion increase in tax over the next decade from the wealthy and corporate preferences as a part of a plan to cut the deficit by \$3 trillion.

The Asian markets also got the burnt of the US and Europe. Global equities hammered by losing more than \$14 trillion globally while commodities like bullions prices surged to new life highs. Volatility emerged in all sectors of the financials amid Europe and US crisis.

ECONOMIC OUTLOOK

Q4 GDP

The global recovery has not picked up to encompass enough jobs and more components of aggregate demand. The recovery in the United States has not gained strength over the past six months and showed signs of a flagging economy. Significant lower levels of manufacturing and services activity, industrial productions have put a lid in U.S. labor market growth. Unemployment stand tall at 9.1% with the private sector openings slashed. Following a relatively weak than expected second quarter GDP results, and some flagging in the pace of the recovery in the second quarter, GDP growth is expected to remain subdued for the world’s largest economy.



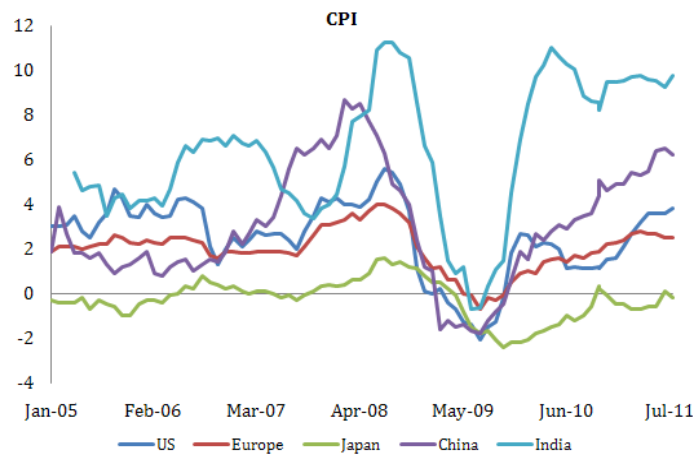
The recovery in Europe continued to face substantial headwinds from uncertainty surrounding sovereign debt in several Euro Area members, and a wide-reaching but necessary process of fiscal consolidation. Growth is becoming constrained by fiscal consolidation programs, ongoing

banking sectors stress tests and restructuring and by cynicism regarding the financial sector that is serving to raise the borrowing cost. As monetary policy has entered a renewed tightening phase, additional stresses in the financial sector may become more apparent, presenting further challenges for these economies. Overall, the debt laden Europe and the peripheral nations are expected to limp unless the bottleneck of PIIGS is broken.

While Japan's second quarter GDP declined at a 2.10 percent annualized rate, the pace of activity is expected to pick up. The export driven country is likely to prop up with the BOJ's decision to keep the borrowing rate unchanged at 0.10% and government's aid to the tsunami affected area to grow the business. For developing countries like India and China, the slowdown stems from a moderation in domestic demand due to elevated inflationary pressure which had bite in to people's disposable income and household spending. Beside, the restrictive monetary conditions have contributed to a dampening investment activity. To rein in domestic demand and curb the inflationary pressure, monetary authorities have initiated subsequent rate hikes with RBI started raising rates from March 2010. Thus, Asian inflation may be reduced with the effort but at the cost of accepting slower economic growth for the next quarter.

INFLATION, INTERSET RATE AND MONETARY POLICY

International food prices have risen to levels last seen during 2005-08 levels. Oil and energy prices also rose in recent months on concern of geo political turmoil and supply disruptions. The price of barrel crude reached \$110 in April 2011, compared with an average of \$34 a barrel over the past 30 years. The significant volatility in commodities prices and the prospect that the food prices remain elevated for a sustained period are a challenge for monetary policymakers. From Aug' 2009 the significant rise in prices played the major role to spike the prices of inflation hedged commodities like gold and silver.



Country	US	Europe	Japan	China	India
% change in CPI	353.33%	1350.00%	88.24%	616.67%	3054.84%

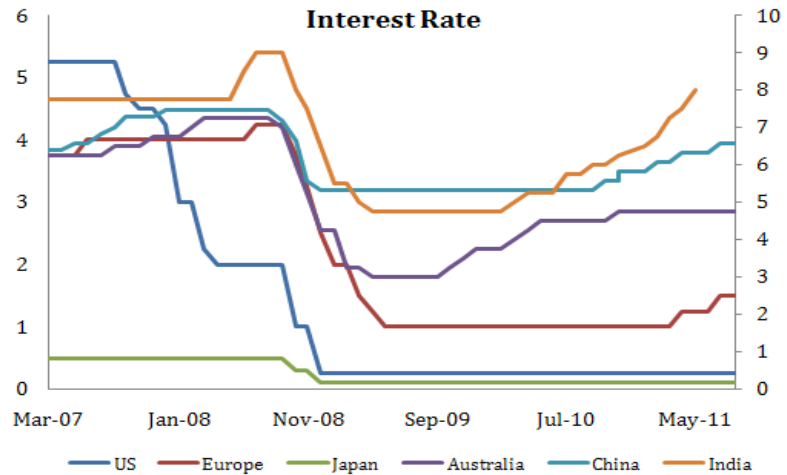
Data incorporated from Aug'09- Aug'11

One concern is that the recent rise in food and energy prices may persist, which could face the spill over effects in to higher wage demands and underlying inflation. Beside, attempts to stabilize this, could have significant economic cost. Question arises: How then monetary policies respond to tame this price rise?

Assuming inflation is high, there are good reasons to avoid placing deposits with financial institutions. The amount deposited is expressed in units of money, and if money is losing its buying power, the real value of the amount saved will decline. Even if the institution pays a rate of interest that includes compensation for the loss of buying power, that interest will be treated as income for income tax purposes, so in after-tax terms, the saver is still disadvantaged. In these circumstances it makes sense for savers not to place deposits with saving institutions, but to buy assets whose prices can be expected to rise with inflation, such as real estate. Money thus keeps on flowing and raising the future inflation expectation.

Central Banks therefore often intervene in line with target to stabilize the price rise. With various tools Central banks may come up with raising interest rate or Fiscal policies (increase in tax or decrease in government expenditure). That is what now happening through out the globe. Increased interest rate makes the borrowing costly, reducing spending and thereby makes it more attractive to save money. As a fiscal policy measure, government sometimes can raise the tax or reduce spending to curtail the aggregate demand.

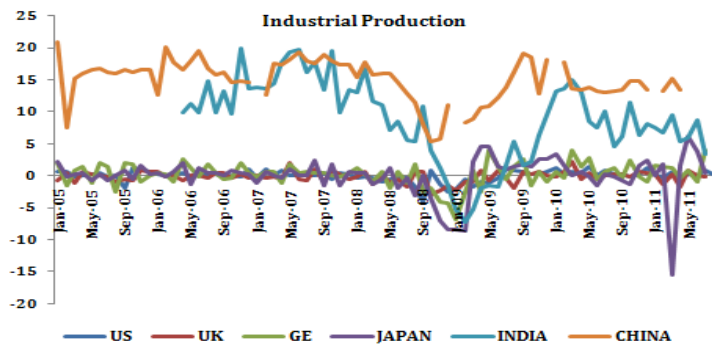
So, interest rate was being increased by the respective central banks. Among the Asian countries, India has increased its rate by 12 times in the last 18 months while China made it 5 times for the same period. The European Central Bank which kept its benchmark rate constant for the last two years was bound to raise it two times within last five months to contain the price rise. However, US due to a slowing economy could not able to raise the rate. It can be seen that among the emerging economies, India remained at the fore front in raising rates followed by China, Australia and then Europe. So, the major Asian emerging nations were also got a punch from this global inflationary pressure.



Despite these measures, real policy interest rates are negative or remain looser than they were prior to the crisis. Unfortunately, bringing inflation back down will be complicated by the trend rise in inflation over the past decade, which has contributed to an increase in inflationary expectations in recent years. Despite the steps taken earlier to reduce fuel subsidies, the pass-through of higher international energy prices is incomplete, increasing subsidization costs and contributing to fiscal deficits. The large general government budget deficits are also complicating efforts to restrict domestic demand and reduce inflation. So, global inflation is likely to remain on up trend, fuelled by higher future inflation expectation

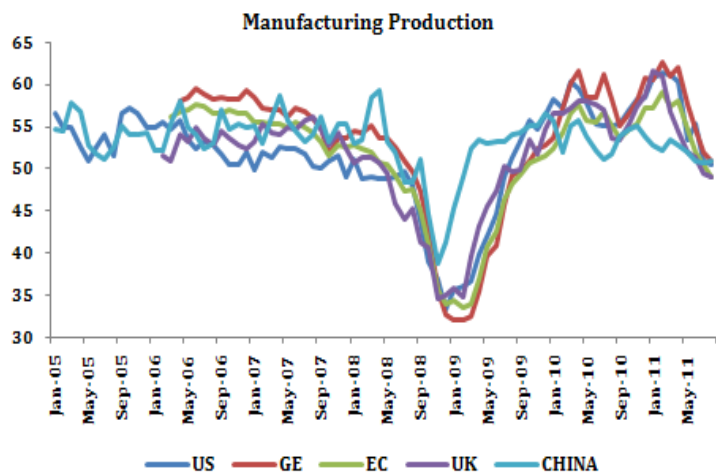
MANUFACTURING & INDUSTRIAL PRODUCTION

Global manufacturing and industrial activities shattered owing to the developed nation’s tumultuousness over debt burden and gloomy picture about the economic outlook. Much of the impetus came from lower aggregate demand and rising producer cost. Lower income due to high unemployment rate also might have eaten in to a larger part of the demand for luxurious cars, homes and other real assets. Inventories piled up, retail sales took a back step and hurt the productions. Lastly, global slowdown in GDP growth might have lessened the consumption pattern of consumers which drove the manufacturing and industrial production to fall.



Going forward, growth in GDP is less likely

to be seen in the coming quarter as discussed above. Also the US president’s plan to raise the tax from rich and corporate preferences to cover the budget deficit over the next decade might also hamper the industrial production. The root cause is the demand; which is expected to be lacking for some more time unless Obama’s job creation programs materialize. There are ways to improve the situation if foreign country demands increases, in other word, import demand rise. Like Japan, being an export oriented country, recovered smartly when it faced Tsunami this year but then again industrial production fell due to government intervention in currency market.



Overall, industry can not grow unless and until economy grows and demand increases. Foreseeing the faint outlook of global economy, we expect this sector to under perform in the coming quarter.

In a nutshell, the enduring Euro area uncertainty and rising borrowing cost globally could further reveal weakness in the global economy. IMF recently has therefore come out with a reduced target of global economic growth of 4% from 4.3%. The fiscal situation in advanced economies is expected to jitter despite recently announced spending cuts. Axing the rich and corporate, the Obama administration is although trying to reduce the country's deficit over the next decade, there arise the concern of mounting debt. At the same time in Europe, despite numerous steps to reduce deficits in several countries and multiple financial rescue packages brought to the front, concern remains that one or more Euro area has to restructure its debt. Such deterioration in financial and economic conditions in Europe could weaken demand for developing country exports. In addition, banks could be forced to reduce credit growth, or even repatriate funds from foreign affiliates with more direct impacts on credit and economic growth in developing countries; notably in Europe and Asia. Indeed, the very low long-term interest rates engineered by central banks through measures such as quantitative easing, may have allowed some firms and banks to survive and equities, commodities to prosper, the underlying structural problems have not been resolved. As central banks stop intervening in Treasury, mortgage and corporate bond markets and stricter financial regulations kick-in, long-term interest rates are expected to rise, increasing financing costs. Such higher costs may expose vulnerabilities that until now have remained hidden.

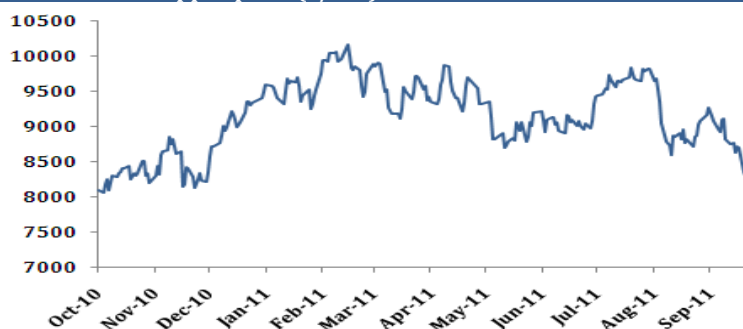
Policymakers around the world commit "to take all necessary actions to preserve the stability of banking systems and financial markets as required," according to a joint statement issued by the finance ministers and central bank governors of the G20 largest economies. The Euro zone needs the right firewall to prevent contagion, referring to the €440 billion European Financial Stability Facility, the ad hoc bailout mechanism set up last year. Fed's "Operation Twist" with an objective to reduce the long term interest rate is likely to be felt in longer term. Their aim of buying long term securities by replacing shorter term bonds might give the stability to long term interest rate, but it might not reduce the inflation expectation. Overall, economic outlook seem to remain gloomy in near future.

COPPER: Resilient metal might consolidate

Price Performance: Copper prices, which seemed resilient until the second quarter, touched its lowest level in year. Debt concerns of the Euro zone along with the decline in growth in World's largest economy, US, sent the prices lower. On LME it tumbled to end the quarter with losses of 22 percent while the losses in Indian markets were at 13.9 percent owing to weakness in rupee. During the quarter copper prices made a high of \$9,905/tonne and a low of \$7,115/tonne before ending at \$7,360/tonne. Despite nearing the \$10,000/tonne mark, copper prices did not breach those levels owing to moderation in the global economic growth. In Indian markets copper price ended the quarter at 362.5/Kg

PERIOD	LME (% change)
Q3 2011	-22.0%
Q2 2011	00.0%
Q1 2011	-01.8%
Q4 2010	+19.1%
Q3 2010	+23.8%

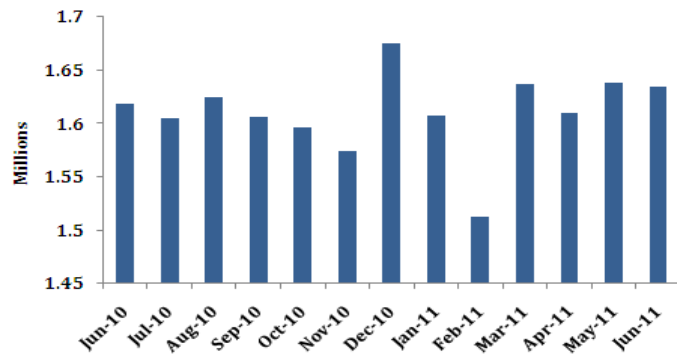
Exhibit .1: LME Copper price (\$/ton) – 3 Month Forward



Source: Bloomberg, KCTL Research

Production: Copper production across the world in the first half of 2011 amounted to 9.63 million tons thereby registering a growth of 1.4 percent in comparison to the same period in previous year. However if one looks at the more recent month of June production largely remained flat. Ahead also production growth might moderate as whole hosts of strikes in some of the World's top producing companies along with bad weather conditions in largest producing country, Chile, might impact the output.

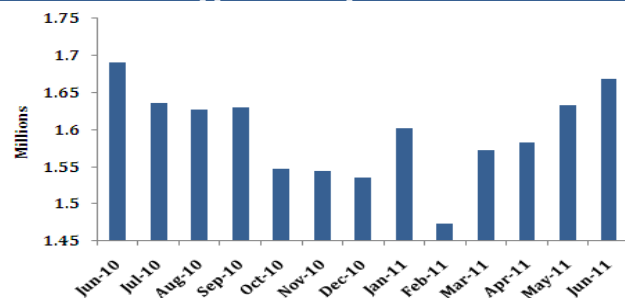
Exhibit .2: Global Copper Production



Source: Bloomberg, KCTL Research

Consumption: Global copper consumption growth has declined by 0.7 percent to 9.60 million tons in the first half of 2011 compared to same period in previous year. At the start of the year, Chinese growth witnessed some moderation owing to interest rate increase and thereby even the copper imports declined in the first few month. However if one looks at the month of May and June, consumption grew by 3.1 percent and 2.2 percent respectively. Commensurately the Chinese copper imports also increased thereby re-iterating the fact that the China remains the driver for the copper demand.

Exhibit .2: Global Copper Consumption



Source: Bloomberg, KCTL Research

Imports: After witnessing moderation in the first quarter of 2011, Chinese imports have picked up as buyers emerge at lower levels. Pause by the central bank in hiking interest rates also lead to further boost in the demand. In the month of June, imports grew by 20 percent to 0.178 million tons while in July imports grew by 8.7 percent to 0.194 million tons.

Treatment/refining charges: TC/RC charges, which represent the margins of the smelters, have been moving higher. They have increased owing to some of the smelters in Japan going off stream after the earthquake. Spot TC/RC charges are trading at close to \$120-\$150/ton as against \$80-\$110/ton earlier. Smelters in China have settled for TC/RC charges of \$90/ton for the second half of 2011 as against \$72/ton in the first half of 2011.

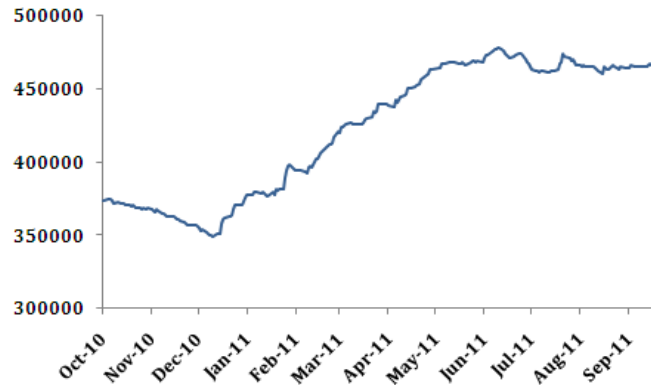
Production disruption increases - On the industry front, production disruptions owing to strike at some of the major copper producers only increased in the quarter. For instance, strike at Escondida mine in Chile lasted for 15 days over disagreement over the bonus.

Production Numbers- Some of the top Copper mining companies (in tons): Some of the prominent companies though have witnessed increased in production numbers in the second quarter, the growth rate remained slow as bad weather conditions in Chile disrupted the operations. In fact, some of the larger companies like Codelco and Rio Tinto witnessed decline in output. If one looks at some of the strikes in the third quarter, it is giving an indication that production of companies might decline in the third quarter as well.

Company	Q2 2011	Q1 2011	% Change
Codelco	419,000	425,000	-01.4%
BHP Billiton	272,300	273,600	-00.5%
Rio Tinto	127,200	146,300	-13.0%

Inventory: After witnessing build-up of stocks for three consecutive quarters, copper stocks witnessed marginal change in the third quarter of 2011. Copper stocks witnessed draw-downs of modest 700 tons thereby taking the total stocks to 464,550 tons on London Metal Exchange. Stocks on Chinese warehouse however witnessed increased of 12,164 tons but the total stocks remain at a meager 102,253 tons.

Exhibit .2: Copper Inventory on LME (in tons)



Source: Bloomberg, KCTL Research

OUTLOOK

On the back of expectation of strong demand growth from China and supply disruptions, global copper market deficit is expected to remain in deficit of 377,000 tons by International Copper Study Group. However given the bleak outlook for developed nations like US and Euro zone, the deficit might trim. Amid all the turmoil being witnessed in the developed nations, copper demand from China has remained resilient. However if the conditions deteriorate further and some of the events like default of some of the peripheral European nations pans out then China might not be able to withstand the blow. Foreseeing such scenario we believe entire commodity sector may stay bleak with copper remaining for some more time. However, going ahead the weakness may seem to be consolidating as the no worse scenario than this can be assimilated. The developed nations like U.S and Europe have to take steady steps to control the economy from faltering. In the other hand we need to look at the seasonal demand also. Since the last quarter of any calendar year is also known as winter season. The demand for Base metals per say copper may revive as the housing activities may prosper. To conclude our views on this metal we believe copper may stay weak unless any strong recovery witnessed on the global economy. The current economic concerns are likely to prolong for some more time and subsequently revival could be noticed gradually. Below is the technical analysis made on copper that will give us a clear picture on copper price trend.

Technical Analysis

Copper prices had a steep U turn amid selling pressure across the globe this quarter. Prices opened at \$9375 remained range bound and recorded a high of \$9905 at the earlier days; However heavy selling pressure drifted the prices lower by recording a low of \$6800 and ended the quarter at \$7018.

Technical charts show that prices are moving southwards and the ongoing broad bullishness is disturbed. Trend analysis reveals that prices are still within the broad uptrend channel but travelling towards the long-term trend line support which falls around 5660 (see chart). Traditional technical indicators like MACD is still trading above zero which implies that longer term trend is not disturbed, however average lines are trying to converge and preparing to give a selling signal for short term. RSI is in neutral zone indicating neither oversold nor overbought. But looking into the present bearish trend it indicates there is more room for downside. Average analysis suggests that prices are trading below 8 EMA and just holding above 21 and 34 EMA indicating bearishness. Pivotal analysis reveal that prices are formed a firm resistance at \$10000-9905 and immediate support lies at \$5800-5700 area. Going forward expect prices to remain weak and test the supports in the near future. After testing the supports prices need to consolidate and trade above 6000 consistently to continue the present long term bullish trend.



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