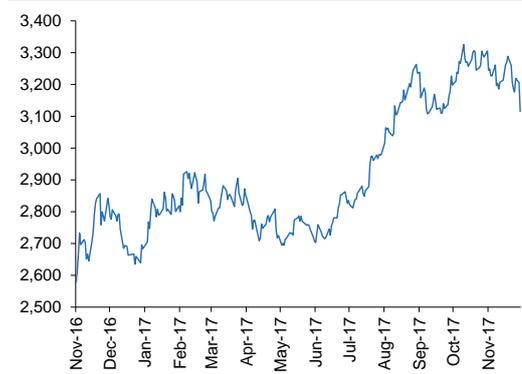
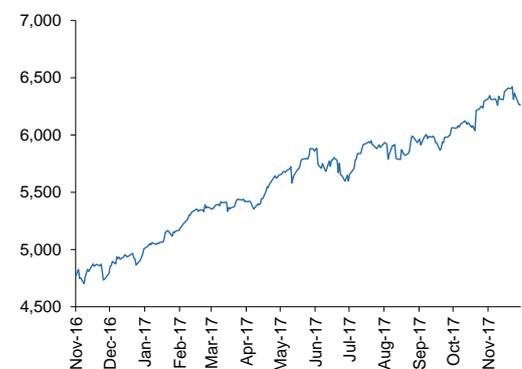


6 December 2017

LME Metals Index

Source: Bloomberg

NASDAQ index

Source: Bloomberg

Periodical**Global Macro Jottings****Steady global growth**

The latest global PMI composite index for November, which is a barometer of economic activity, points to global economic growth remaining steady at a 2.5-year high. Most of the major economies are still on an improving trend, with Brazil being the only major economy to remain in contraction. The PMI data also highlighted an increase in price pressures, as rates of inflation in input costs and output charges strengthened. However, as yet, headline CPI inflation rates in the major economies remain muted and underscore the debate about whether low inflation is 'transitory' or likely to be more permanent in response to structural factors, such as demographics and the 'Amazon effect'. Labour participation rates, especially in the US, remain low and some way from pre-crisis rates. The 'black hole' in employment might be another factor over and above the contribution of labour supply in China and India to a flattening national Phillips Curves.

The consensus view on the global economic outlook is that global growth is strengthening and looks more synchronised. The G20 economies are expanding together for the first time since the financial crisis ten years ago and even the Eurozone has caught up with expansion in all the EU economies for the first time, though the unemployment rate remains unusually high. Monetary policy stimulus is sustaining the upturn, though this could well become a diminishing factor through 2018 as QE makes the transition to QT and more of the major economies start to 'normalise' interest rates.

The fiscal stance has also eased, according to the OECD, which also helps to underpin economic growth. There is less appetite for more 'fiscal austerity', although the ability to expand any fiscal stimulus stands constrained by high government debt levels. In the US, it is unclear whether the current US tax plans will have much of an impact on US growth next year and the most recent commentary is focusing on how the [corporate alternative minimum tax](#) might diminish the fiscal impact of President Donald Trump's proposal to reduce the corporate tax rate.

Goldman's assessment of the US tax plans envisages a peak boost to growth of nearly 0.3% points in 2019 and an eventual boost to the level of GDP of over 0.6%. The tax plans generate a further 0.25% point decline in the unemployment rate and some modest upward pressure on inflation. How would the Fed respond to the tax package? A 25bp hike in the fed funds rate is 'baked in the cake' at next week's FOMC meeting, and the FOMC's current interest rate projections (the 'dots') look for 3x25bp rate hikes in 2018. According to Goldman, **the Taylor Rules built into the Fed's economic model add two extra 25bp hikes in the fed funds rate above the FOMC's current rate projections.**

In its most recent [Economic Outlook](#), the OECD highlights the consensus view with forecasts that global GDP will increase 3.6% in 2017, 3.7% in 2018 and 3.6% in 2019. Out of the major economies, the fastest growth in 2018 is led by the US at 2.5%, before slowing to 2.1% in 2019. The current US expansion is the third longest since 1850 and in its ninth year. In the modern era, US expansions have never gone beyond ten years.

Neil MacKinnon, Economist
+44 20 3334 8865 // neil.mackinnon@vtbcapital.com

Prices cited in the body of this report are as of the last close before, or the close on, 06 Dec 2017 (except where indicated otherwise). VTB Capital analysts update their recommendations periodically as required.

Please refer to the Disclosures section of this report for other important disclosures, including the analyst certification and information as required by EU-MAR. Additional disclosures regarding the subject company(ies) discussed in this report can be found at <http://research.vtbcapital.com/ServicePages/Disclosures.aspx>.

Chinese GDP growth gradually slows from 6.8% in 2017, to 6.6% in 2018 and 6.4% in 2019. The Chinese authorities continue to face the challenge of deleveraging the economy, especially in the corporate sector, as well as curbing excess leverage. However, there are buffers in the form of relatively high household savings as well as a current account surplus that could prevent or mitigate a possible credit crisis. More immediately, the PBoC has withdrawn liquidity in its most recent money-market operations. HIBOR rates have risen sharply, reflecting either Chinese bank funding pressures or upcoming IPOs, but the Chinese 10-year bond yield also remains elevated. Cross-currency basis swaps are also widening out again, pointing to dollar funding pressures in the money markets. Commodity prices, especially base metal prices, have also dropped quite sharply, which is indicative of slower Chinese demand. Four of the five largest banks globally are from China, suggesting that an adverse shock to the Chinese financial system could have global consequences, especially as the [BIS data](#) shows that foreign bank lending to China is up 25% on the year.

The OECD more generally warns that financial vulnerabilities and high debt could undermine medium-term growth. High debt makes households in many countries vulnerable, not just to economic shocks but also to an environment of rising interest rates. The BIS highlighted similar concerns about debt levels in its latest [Quarterly Review](#) with regard to weighing on potential GDP growth, especially as investment rates remain low in the major economies. The evolution of GDP per capita in the OECD is below a linear trend stretching back to 1990, with the effects of the 2007-08 financial crisis being the main culprit. Income gains by age and birth decade have also slowed. The OECD highlights a growing disconnect in both the US and the Eurozone between corporate debt and the productive capital stock. Corporates have preferred to buy back shares rather than invest in productive real assets. It is possible that 'unconventional' monetary policies, through negative or zero interest rates, send a message that low domestic demand will persist, so why invest?

It is not just the overhang of debt that weighs on prospective economic growth, but there is also growing concern that a market crash could undermine the consensus view of a 'Goldilocks scenario' of sustained increases in economic growth alongside subdued inflation rates (and, by implication, gradual and limited increases in future interest rates).

The OECD warns how low volatility has encouraged excessive risk-taking, manifesting itself in shifts from corporate borrowing towards less regulated finance i.e. the shadow banking sector. This results in declining credit quality. European leveraged lending volume, for example, has had its biggest year since the financial crisis. European junk bond yields have fallen below US Treasury yields. **Low volatility can paradoxically make the financial system more fragile.** Risk parity and low-vol targeting strategies have created imbalances that could lead to massive dislocations, should volatility spike. Some commentators estimate that if equity volatility doubles from current levels, short vol ETFs might lose up to 75% of value.

This is all part of the search for yield behaviour encouraged by ultra-easy monetary policies that encourages long-only positions. Excessive central bank liquidity is also creating bubbles in crypto-currencies and in speculative financial assets such as [property](#) and art. The [latest report](#) from the Office of Financial Research (OFR), an independent arm of the US Treasury, notes that one-sixth of all hedge funds are 15x leveraged. The net short position on the CBOE Volatility Index (VIX) is now higher than before the crisis. We have termed this position 'The Big Short'. The OFR's Financial Stability Report, published yesterday, makes the point that "market vulnerabilities now are high" and that "valuations in equity and fixed-income markets are stretched by historical standards." These observations are hardly new, and stretched valuations have not prevented US equity markets making new highs. Duration, the sensitivity of bond prices to interest rate moves, has steadily increased since the crisis and in early 2017 reached an all-time high of just over six years. The OFR estimates that a 1% point increase in interest rates would lead to a decline of almost USD 1.2tn in bond values. What will burst the bubble? Inflation shocks that force unexpected increases in interest rates are the obvious answer, but sometimes it is the more esoteric and not so obvious events that create an investor run for the exits.

Disclosures

Important Disclosures

The information and opinions contained within VTB Capital Research are prepared by JSC VTB Capital. As used in this disclosure section, "VTB Capital" includes JSC VTB Capital, VTB Capital Plc and their affiliates as necessary.

VTB Capital and/or any of its worldwide affiliates which operate outside of the USA (collectively, the "VTB Group") do and seek to do business with companies covered in their research reports. Thus, investors should be aware that the VTB Group may have a conflict of interest that could affect the objectivity of this research report. Investors should consider this research report as only a single factor in making their investment decision.

Where an issuer referred to in this report is not included in the disclosure table, the issuer is either considered not to be covered by VTB Capital Research, or the reference is considered to be incidental and therefore the issuer is not a subject company within this report.

Disclosures on the companies covered by this report can be obtained by writing to the offices listed on the back page. In order to receive i) a summary of any basis of the valuation or methodology and the underlying assumptions used to either evaluate a financial instrument or an issuer, or to set a price target for a financial instrument, as well as an indication and a summary of any changes in the valuation, methodology or underlying assumptions; ii) detailed information about the valuation or methodology and the underlying assumptions in any non-proprietary models; or iii) material information about the proprietary models used; please consult the VTB Capital Research web-site at <https://research.vtbcapital.com> or contact the authors of this document.

Issuer Specific Disclosures

Important disclosures and equity rating histories regarding the company (companies) that is (are) the subject of this report can be found at <https://research.vtbcapital.com/ServicePages/Disclosures.aspx>

Analysts Certification

The research analysts whose names appear on research reports prepared by VTB Capital certify that: i) all of the views expressed in the research report accurately reflect their personal views about the subject security or issuer, and ii) no part of the research analysts' compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analysts in research reports that are prepared by VTB Capital.

The research analysts whose names appear on research reports prepared by VTB Capital received compensation that is based upon various factors including VTB Capital's total revenues, a portion of which are generated by VTB Capital's investment banking activities.

Investment Ratings

VTB Capital uses a three-tiered Investment Rating system for stocks under coverage: Buy, Hold, or Sell.

The three main ratings correspond to the next 12-month Expected Total Return (ETR), defined as the difference between the Target Price and the Last Price divided by the Last Price plus the expected Dividend Yield over the next 12 months. The correspondence is as follows (as of the publishing date):

BUY: ETR exceeds plus 20% or more

HOLD: ETR is between zero and plus 20%

SELL: ETR is less than zero

VTB Capital Research assures the correspondence between the active Investment Ratings and the aforementioned definitions at the time of the Target Price and/or Investment Rating revision. Between such revisions, day-to-day movements in the prices of financial instruments could result in a temporary discrepancy between the Investment Rating and the aforementioned definition. Analysts address such discrepancies based on their scale and duration.

UNDER REVIEW: In the event that significant information about an issuer is due to be announced or is expected to become public in the foreseeable future, or the analyst needs time to evaluate such information, which was announced recently, s/he might choose to place that issuer Under Review. This means that the analyst is suspending the previously published financial forecasts, Target Price and investment rating in order to review them while waiting for the impending information. As such, they are no longer valid and should not be relied upon.

RESTRICTED: In certain circumstances, VTB Capital is not able to communicate issuer ratings due to internal policy and/or law and regulations. In this case, any revision of the financial forecasts, Target Prices and Investment Ratings will be carried out only after the Restricted status is removed.

Notwithstanding the above, VTB Capital may from time to time issue investment recommendations predicated on a different time horizon (such as short-term trading recommendations) to that which is described above. Where VTB Capital issues such an investment recommendation, the use of an alternative time horizon for the purpose of formulating such investment recommendation might result in differences between such investment recommendation and any investment rating published in accordance with the Investment Rating system described above.

The below table details the distribution of VTB Capital's Investment Ratings on the basis of the three-tier recommendation system described above.

VTB Capital Ratings Distribution

Investment Rating Distribution			Ratings Distribution for Investment Banking Relationships		
Buy	48	40%	Buy	12	50%
Hold	49	41%	Hold	8	33%
Sell	13	11%	Sell	1	4%
Restricted	0	0%	Restricted	0	0%
Not Rated	0	0%	Not Rated	0	0%
Under Review	10	8%	Under Review	3	13%
	120			24	

Source: VTB Capital Research as at 31 October 2017

As of 10 April 2016, the VTB Capital Ratings Distribution table accounts for all the instruments covered, rather than the companies covered. In instances where we provide a recommendation for more than one instrument issued by a company, these are now counted separately. This accounts for the increase in the number of ratings from the count as of 29 February 2016. A list of those companies for which we cover more than one instrument can be found at [DoubleRecPLC20171031.pdf](http://research.vtbcapital.com/ServicePages/Files/Col+Arrangements+Research.pdf).

Price Targets

VTB Capital Research analysts employ a variety of methods for estimating the fair value of financial instruments covered by them. These may include, but are not limited to, a Discount Cash Flow (DCF) model, a Dividend Discount Model (DDM), Net Asset Value (NAV) valuation, financial or asset-based multiples of analogous companies and a sum-of-the-parts (SOTP) valuation. The research analyst's choice of methods used in each particular instance is based on the specifics of the investment case in question. The Target Price reflects the research analyst's informed opinion on the price which is likely to be attained by the financial instrument within 12 months, subsequent to the date of the Target Price determination. The Target Price is underpinned by the aforementioned fair value estimates, and will belong to the range established by them.

Conflicts Management Arrangements

VTB Capital Research has been published in accordance with our conflict management arrangements, which are available at <http://research.vtbcapital.com/ServicePages/Files/Col+Arrangements+Research.pdf>.

