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Emerging Markets Research

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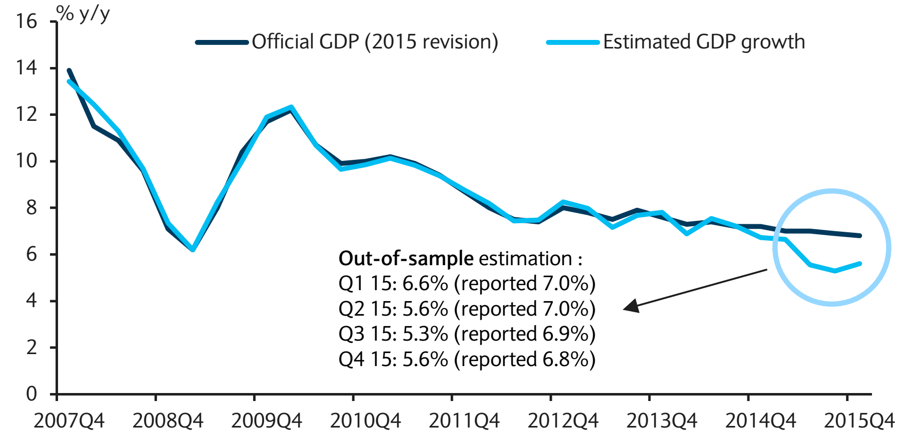
China

Alternative activity indicator update

- Today, China's NBS reported that Q4 15 real GDP grew 6.8% y/y, leaving full-year 2015 growth.
- In *China: Alternative activity indicators,* 17 Sep 2015, we introduced a framework using monthly data to track China's underlying GDP growth and found y/y growth had started to deviate from the headline number since mid-2014 by 50-150bp.
- In this note, we provide an update to our framework, with a few modifications, and using the latest available data, we estimate underlying GDP growth in China continues to be 100-150bp below the official reading. We find it noteworthy that the gap has narrowed somewhat from Q3 – we estimate Q4 growth to be 5.6% (6.8% reported), and 2015 annual growth to be 5.8% (6.9% reported; see Figure 1).
- Our indicator suggests a modest pickup in activity in Q4, driven by contributions from the Caixin manufacturing PMI and strong Q4 retail sales (Figures 2-3).
- Our model-based forecast suggests Q1 16 GDP growth of 6.3% y/y growth. We also expect quarterly SAAR growth to be 6.0% in H1 16 due to lagged effects of policy easing in late 2015, before it moderates to 5.6% in H2 16.
- That said, we continue to expect accommodative macro policies in China to stay for an extended period, though such policies are not expected to change the structural downtrend in growth.

FIGURE 1

Official and model-implied underlying growth



Source: Bloomberg, CEIC, Wind, Barclays Research

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China: model-implied growth still weaker than official print

In *China: Alternative activity indicators,* 17 Sep 2015, we introduced a framework using monthly data releases to estimate China's underlying GDP growth and found y/y growth had started to deviate from the headline GDP growth by 50-150bp since mid-2014. Based on historical correlations, China's real economic growth in H1 15 may have only been 5.6-6.1% y/y, compared with official GDP growth of 7.0%.

In this note, we provide an update to the framework with a few modifications, including: 1) replacing railway freight with total cargo freight; 2) deflated nominal variables (fixed asset investment, imports and exports, and retail sales; and 3) adding two survey-based indicators, the Caixin manufacturing and services PMIs (see also Box 1 for details).

Key findings with the updated framework and latest data

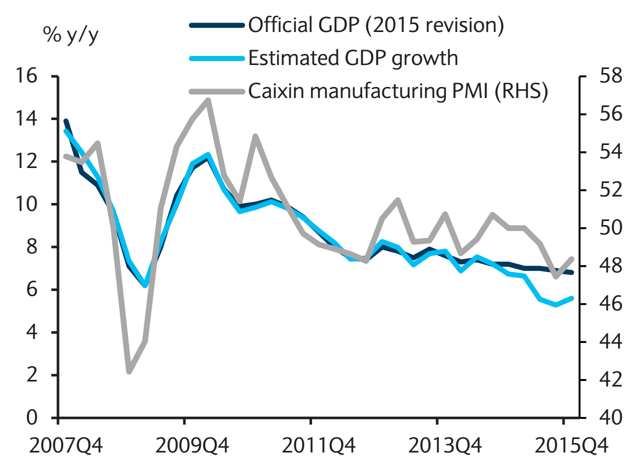
With this refinement of our model, we find our Q2-Q3 15 estimates discussed in the original note to be robust – that is, the gap of 100-150bp below official GDP growth remains. Using the monthly 4Q 15 data, we find that China's most underlying GDP growth remains 100-150bp below the official reading, although the gap narrowed somewhat from Q3 15 – we estimate Q4 growth to be 5.6% (6.8% reported), and 2015 annual growth to be 5.8% (6.9% reported). Our model also suggests a modest pickup q/q in activity in Q4, led by contributions from the Caixin manufacturing PMI and strong Q4 retail sales (Figures 2-3).

Our 2016 GDP forecast is still 6.0% with expected accommodative policies

The updated estimates are consistent with our base case 6.0% growth forecast for 2016 (consensus: 6.5%), given continued strong headwinds amid market turmoil. Our base case forecast continues to expect further moderation in real estate investment growth in H1 2016, as the two main leading indicators remain in the negative territory – housing starts (-7% y/y but narrowing from -20% previously) and land purchase (still -30% y/y). We also expect a further slowdown in FAI growth in 2016, as we believe the expected pickup in the fiscal deficit and stimulus in 2016 would not be sufficient to boost infrastructure investment or to offset the downward trend in manufacturing and real estate investment. In addition, we look for consumption growth to remain the bright spot, given Chinese middle class consumption upgrading, although it will also moderate as wage growth and household income unavoidably slow along with the rest of the economy. In addition, our model-based forecast suggests Q1 16 growth will moderate further to 6.3% y/y, 50bp lower than Q4 15.

FIGURE 2

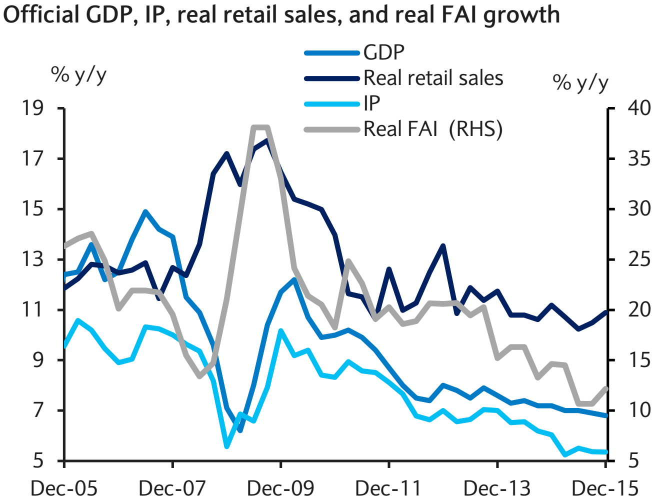
Official and estimated growth, Caixin manufacturing PMI



Source: Bloomberg, CEIC, Wind, Barclays Research

FIGURE 3

Official GDP, IP, real retail sales, and real FAI growth



Source: Bloomberg, CEIC, Barclays Research

We also expect quarterly SAAR growth to be 6.0% in H1 16 due to some lagged effects of policy easing in late 2015, before moderating to 5.6% in H2 16.

That said, the most recent activity data, the domestic market selloff and unsettled global financial markets require macro policies to stay accommodative for an extended period, in our view. On monetary policy, we continue to look for two 25bp benchmark rate cuts in H1, and we maintain our forecast of two RRR cuts in H1 2016. We note that the PBoC recently has been intensifying its open market operations, including via its Short-term Liquidity Operations (SLO), Medium-term Lending Facility (MLF) and reverse repos ahead of the Chinese New Year to stabilize liquidity and anchor rates market expectations. On fiscal policy, we expect a widening of fiscal deficit and more targeted fiscal stimulus to support consumption and infrastructure investment, as well as more reductions in corporate taxes and fees (see *China: Weak December data supports accommodative policies,* 19 Jan 2016).

In addition, the government has recently highlighted "supply-side structural reform", which emphasized "capacity unwinding, destocking, and deleveraging" along with other initiatives such as innovation. In our view, the "supply-side structural reform", if followed through, would add further pressures to industrial activity and investment growth in the short term.

Box 1: Model and data descriptions

To identify a long-term relationship between China's real GPD growth and other macro and micro variables while exploring the short-term dynamics, we apply an ordinary least squares (OLS) model to China's real GDP growth as follows:

$$\begin{aligned} GDP\ growth_t = {} & electricity\ output\ growth_t + total\ freight\ volume\ growth_t + industrial\ production\ growth_t \\ & + real\ fixed\ asset\ investment\ growth_t + NBS\ manufacturing\ PMI_t + NBS\ service\ PMI_t \\ & + real\ exports\ growth_t + real\ imports\ growth_t + real\ retail\ sales\ growth_t + auto\ sales\ growth_t \\ & + crude\ steel\ output\ growth_t + Caixin\ manufacturing\ PMI + Caixin\ service\ PMI + \mu^t \end{aligned}$$

In general, the micro data (eg, electricity output, crude steel production) are more reliable despite less information, while the macro data contain more information but are less reliable. Our 13 explanatory variables cover the service and non-service sectors, which could capture most of the forces driving GDP growth. Monthly data series are reported by the NBS and Bloomberg (except for January-February data, which are bundled into one release). Quarterly data from 2007 to 2015 are applied (monthly series are transformed to quarterly % y/y except for PMIs).

There may be concerns about the potential serial-correlation between macro and micro data (eg, IP and electricity output). In our opinion, this is not a dominating issue because we are interested in estimating accurate GDP growth for an out-of-sample period, not each individual predictor. That is, a multiple regression model with correlated predictors can indicate how well the entire bundle of predictors predicts the GDP, but it may not give valid results about any individual predictor, or about which predictors are redundant with respect to others.

Nevertheless, the model we present here inherits a few caveats from any kind of reduced-form equations, so the results need to be interpreted with caution: 1) we assume the in-sample relationship holds in general for out-of-sample forecasts without taking into account time-varying parameters; and 2) data limitations on China's service sector, as well as the labour market may affect the model's accuracy and predictive power. All are subject to further refinements and research.

Using updated Q4 15 data, we find that China's fitted GDP growth follows reported GDP growth until Q3 14, but starts to diverge from Q4 14. Model-implied GDP growth fell short of reported GDP growth by 50-150bp in 2015. Our model suggests that GDP growth in Q4 2015 remained modest, growing at 5.6%, and 5.8% for 2015 as a whole.

Analyst Certification

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