



China Overheating Indicator

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A tool to monitor overheating pressures in China

Internal use only!

- *There has been increasing concern over overheating pressures building up in China, which could lead to a boom-bust cycle with global repercussions.*
- *We have therefore constructed a China overheating indicator (COI) in order to assess overheating pressure, gauge the risk of a hard-landing and derive conclusions for the future policy response by the Chinese government, including potential exchange-rate liberalisation.*

China Overheating Indicator: Description

Our China Overheating Indicator (COI) tracks demand factors that exert upward pressure on prices and can be used as leading indicator for inflation with a lead of roughly 12 months. To gauge the extent of overheating pressures, we have established 2 thresholds, amber and red, which indicate increasingly high degrees of overheating risk. The amber and red thresholds represent 1.5 and 2.5 standard deviations from the historical average of the series, starting in the period after the last big overheating / high inflation episode in China in the early to mid 1990s. The 2 thresholds are intended to serve as warning: If the COI crosses the "amber threshold" from below, it signifies that the COI is nearly entering overheating territory. Moving above the "red threshold" indicates the presence of overheating. Conversely, if our indicator falls below the "amber threshold" it would indicate that overheating pressures are subsiding.

Variables included in the COI

The COI tries to capture **demand-push factors** that could eventually lead to a rise in inflation. This must be distinguished from exogenous cost-push factors, such as higher oil prices or higher food prices due to adverse weather or other external shocks.

We include **six variables** available in monthly series at least since January 1993 (the year of the latest overheating episode). The variables are:

- **Merchandise imports** as a gauge of overall domestic investment and consumption demand;
- **Retail sales** as a gauge for private consumption;
- **Industrial sales**, a proxy for industrial production, as a gauge for investment activity;
- **Money supply** as a gauge for inflationary pressures arising from monetary policy;
- **Domestic credit**, to gauge the risk of a boom-bust credit cycle;
- **Income per capita**, as a proxy for wages, to gauge the tightness of the labour market.

Ideally, we would have liked to include variables such as government expenditure, real estate prices and stock market data, but the unavailability of reliable and sufficiently frequent data prevented us from doing so.

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