

### BOX 3.3 Investment slowdown in China

*Investment growth in China has halved since 2012, in a rebalancing towards more sustainable growth. Private investment growth slowed sharply amidst a policy-driven decline in investment in state-owned enterprises.<sup>1</sup> Most recently, stimulus-driven infrastructure investment through share-holding enterprises has partly offset a decline in private and SOE investment. Private investment weakness has reflected deteriorating business confidence and weak return prospects. The investment slowdown in China has weighed on output growth in other countries, especially commodity-exporting EMDEs.*

China is deeply integrated into the global economy. Its imports account for one-tenth of global imports, its output for more than one-tenth of global output, its investment for one-fifth of global investment, and its investment growth for 42 percent of post-crisis global investment growth (during 2010-15).

A policy-driven rebalancing away from investment- and export-driven growth towards a more sustainable growth model has been underway for several years (Hong et al. 2016). In the process, investment growth in China slowed sharply from a stimulus-driven 21 percent in 2012 to 10 percent in 2015—with global repercussions.<sup>2</sup> China's investment slowdown accounted for one-third of the slowdown in global as well as EMDE investment growth from 2010 to 2015. Given the role of China in the global economy, it generated sizable adverse spillovers to other EMDEs.

Monthly data available for nominal fixed asset investment (FAI) suggests a further slowdown in 2016: growth in this measure fell to 8 percent (year-on-year) in October 2016 from 21 percent in the year to December 2012, with a sharp shift in composition from the private sector to the publicly controlled sector. FAI by state-owned enterprises or enterprises with majority state participation grew by 20.5 percent (year-on-year) while private investment growth slowed to 2.9 percent (Figure 3.3.1).<sup>3</sup> Weak private sector investment adds to concerns about growth prospects as the private sector generates about 65 percent of total investment, around 50 percent of GDP, and 80 percent of employment.

Note: This box was prepared by Ekaterine Vashakmadze, Hideaki Matsuoka, and Trang Nguyen, with contributions from Raju Huidrom.

<sup>1</sup>Private investment (“minjian” investment) is defined by the Chinese National Bureau of Statistics as the sum of Fixed Asset Investment (FAI) made by enterprises that are registered as collectively-owned, cooperative, private sole proprietorship, private partnership, private limited liability company, business individual, or partnership of business individuals. Private (“minjian”) investment also includes FAI by those enterprises in which the above-mentioned entities hold a controlling ownership stake.

<sup>2</sup>Major stimulus was initiated in 2009.

<sup>3</sup>In the remainder of this box, investment is measured as FAI (in nominal terms), for which monthly data are available. Unlike gross fixed capital formation (in real terms) in the national accounts, it includes purchases of land and other already-owned assets. Real gross fixed capital formation from the national accounts is only available on an annual basis.

Against this backdrop, this Box addresses the following questions:

1. How has investment in China evolved since 2010?
2. What has driven the slowdown in China's investment growth?
3. How large are the spillovers from China's investment slowdown?
4. Which policies can support an orderly rebalancing of investment in China?

This box documents the slowdown in China's investment growth as well as its shifting composition, with pronounced private sector investment weakness. The slowdown in China's investment growth may have reduced commodity-exporting EMDEs' growth by about 0.8 percentage point a year, on average, during 2012-15. Policy options to reinvigorate private investment include efforts to facilitate private firm entry and reduce administrative burdens.

#### Evolution of fixed asset investment since 2010

**Sharp slowdown in investment, shift away from private and SOE investment.** Overall investment growth has slowed sharply to 9 percent (year-on-year) in October 2016, from 10 percent at end-2015 and 24 percent in 2010 (Figure 3.3.1). The slowdown was most pronounced in the private sector. In October 2016, private investment growth slowed to 2.9 percent year-on-year—a steep slowdown from 10.2 percent growth a year earlier and 30 percent in 2012.<sup>4</sup> Meanwhile, state-owned enterprise (SOE) investment growth also continued to slow to -6 percent (year-on-year) in October 2016 from 12 percent in the previous year.<sup>5</sup> The slowdowns in SOE and private investment were partly offset by state-supported investment by state-owned enterprises or enterprises with majority state participation.

**State-supported investment by state-owned enterprises or enterprises with majority state participation.** To stem

<sup>4</sup>Narrowly defined private investment growth that refers to private enterprises also slowed from 30 percent in 2012 to 9.7 percent in October 2016.

<sup>5</sup>SOE refers to state-controlled or non-corporatized SOEs.

### BOX 3.3 Investment slowdown in China (continued)

stock market volatility in August 2015, state-owned companies and government units purchased private company shares on the order of 2 percent of stock market capitalization at end-2015.<sup>6</sup> As a result, the state became the major or controlling shareholder in companies that previously were not state-controlled. This reclassification of firms in the official data has exaggerated the divergence between SOE, mixed-ownership enterprise, and private investment in 2016 (Lardy and Huang 2016; Kuijs 2016; Coflan 2016).<sup>7</sup>

**Broad-based slowdown in private investment growth.** The slowdown in private FAI growth since 2010 has been broad-based across all sectors. Private FAI has actually contracted sharply in overcapacity sectors, especially mining and construction. FAI growth has also slowed in the manufacturing sector, as weak export growth and eroding profit margins have discouraged investment spending by private companies. Even in the services sector, after 9.4 percent growth in 2015, private investment growth declined to 2.1 percent (year-on-year) in 2016H1 and came to a virtual standstill in July 2016 as investment in the transport sector stalled.

#### Drivers of the investment slowdown

**State-controlled enterprises: Policy-driven cuts in overcapacity.** The slowdown in SOE investment growth has partly reflected policy-driven capacity cuts or deleveraging in overcapacity sectors where SOEs predominate (Xing, Sun, and Zheng 2016). Micro-economic policy interventions, especially since 2013, have sharply reduced activity in officially designated “excess capacity” or polluting industries, such as coal and steel production. These cuts are likely to continue in the medium-term. In February 2016, additional capacity reduction targets were announced for coal and steel and a

fund was established to re-employ or compensate affected workers. Capacity cuts were accompanied by other measures to strengthen SOE efficiency, including ten pilot programs for SOEs introduced in September 2015 and February 2016. Some provinces began in June 2016 to restructure unviable SOEs.

**Private enterprises: Falling returns.** Just over a third of the deceleration in private investment growth thus far in 2016 can be attributed to the slowing manufacturing sector (Qu and Wang 2016). Weakness in manufacturing investment reflects deteriorating business confidence and rising funding costs amid weak return prospects. Slowing export and domestic demand growth and persistent producer price deflation have weighed on return prospects. Between 2011 and 2015, the annual return on investment of private industrial enterprises has been estimated to have fallen by 3 percentage points to 8.5 percent, according to official data. Despite recent efforts to cut red tape, private enterprises still face high entry barriers, sales taxes, and surcharges by comparison with other countries in the region (Ernst and Young 2016).

#### Spillovers from China’s investment growth slowdown

While the investment growth slowdown is an integral part of ensuring sustainable growth in China in the medium to longer term, it has had significant negative repercussions on activity both domestically, given investment’s large share in China’s GDP (about 43 percent in 2015), and globally because of China’s large role in the global economy. A slowdown in investment spills over to other sectors of the domestic economy through industry and financial linkages.<sup>8</sup> Since investment is more import-intensive than other components of demand, adverse external spillovers from China’s investment slowdown have been particularly pronounced. For example, China imports large volumes of minerals and metals from countries in Latin America and Sub-Saharan Africa (World Bank 2015a, c). Thus, about 40-50 percent of China’s import growth slowdown from 2014-15 has been attributed to weak investment (Kang and Liao 2016).

The GDP growth slowdown triggered by an investment slowdown can generate sizable cross-border spillovers (World Bank 2016a; Huidrom, Kose, and Ohnsorge forthcoming). A structural vector autoregression model was

<sup>6</sup>The purchase happened in August 2015, but the reclassification started from 2016. The SOE assets reported by SOE jumped in August 2015 (Lardy and Huang 2016).

<sup>7</sup>State investment includes three components: state enterprises, government administrative units, and public institutions. State enterprises include 1) traditional state-owned companies; 2) state-owned companies that have been converted to a corporate form of ownership, typically a limited liability or joint stock company, in which the state is the sole, majority, or dominant owner; 3) companies, including joint ventures, in which the state and a non-state firm or individual each contribute 50 percent of a firm’s capital; and 4) consultatively state-controlled companies in which the state capital contribution is less than that of one or more other shareholders but in which the state exercises control by virtue of agreement with the other shareholders or capital contributors. State investment also includes investment by government administrative units and public institutions (Lardy and Huang 2016).

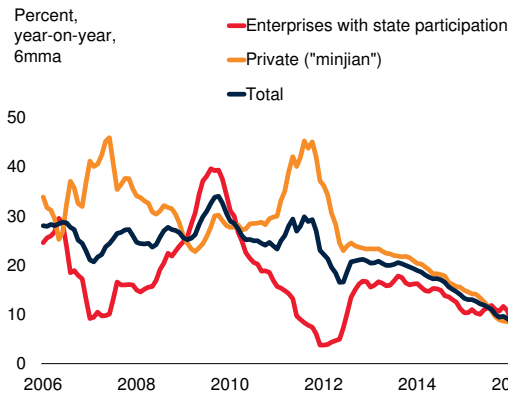
<sup>8</sup>For example, real estate investment in China, which accounts for 25 percent of FAI, has extensive industrial and financial linkages with other sectors of the domestic economy (Ahuja and Nabar 2012a).

**BOX 3.3 Investment slowdown in China (continued)**

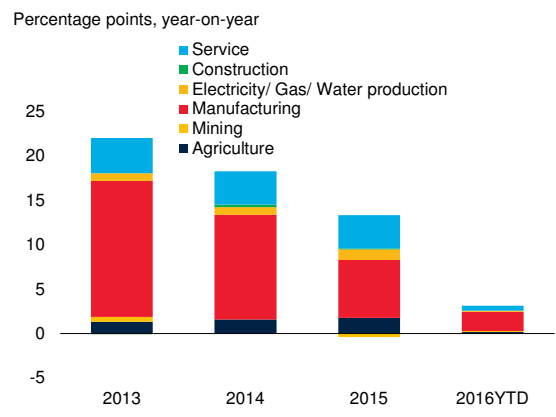
**FIGURE 3.3.1 Investment growth in China**

Investment growth has slowed sharply since 2012, especially private investment (or “minjian” investment) growth. The slowdown in private investment growth has been broad-based, with only a modest part explained by data reclassifications. The private investment slowdown reflects deteriorating business confidence and weakening returns prospects, partly as a result of weaker demand prospects but also because of rising impediments to firms’ startup and exit, contract enforcement, and tax payments.

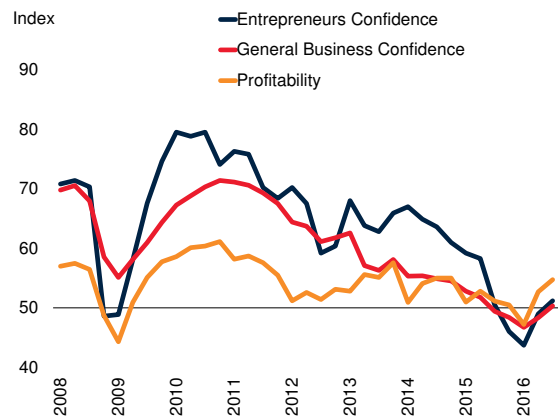
**A. Fixed asset investment (FAI) growth**



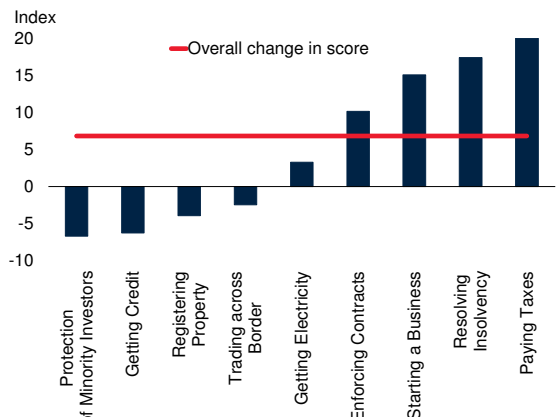
**B. Sectoral contribution to private (“minjian”) investment growth**



**C. Business confidence**



**D. Change in doing business’ distance to frontier rankings from 2010 to 2016**



Sources: China Economic and Industry Data Database, China’s National Statistical Office, Haver Analytics, The Conference Board, World Bank.  
 A.B. “Enterprises with state participation” includes enterprises that are state-owned or those with state participation. Investment is defined as fixed assets investment, which differs from gross fixed capital formation in the national accounts by including land sales. Six-month moving averages (6mma) of year-on-year growth rates. Latest observation is October 2016. See Footnote 1 for the definition of private (“minjian”) investment.  
 C. China industrial enterprise survey of 5000 leading enterprises to rate their perception on selected topics. Index higher than 50 indicates improvement. Latest observation is 2016Q3.  
 D. Distance of China to the “frontier”-best performers whose score is 100. An increase in scores indicates improvement; a decrease deterioration.

estimated for 1998Q1–2016Q2 for 18 EMDEs to assess the magnitude of these spillovers. Details of the estimation are described in Annex 3.2C.

Since much of investment is resource-intensive, the impact of an investment slowdown on commodity-exporting EMDEs is measured to be twice that on commodity-

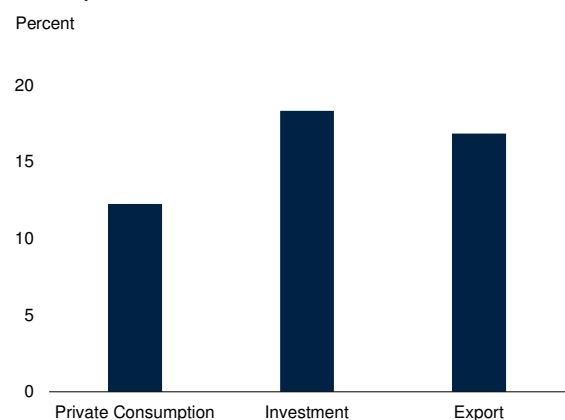
importing EMDEs. A 1 percentage point decline in Chinese annual investment growth reduces output growth in commodity-exporting EMDEs, on average, by 0.3 percentage point over the following year, about one-third the impact of a similarly-sized slowdown in overall output growth in China. In 2012-15, slowing investment growth in China may have reduced commodity-exporting

**BOX 3.3 Investment slowdown in China (continued)**

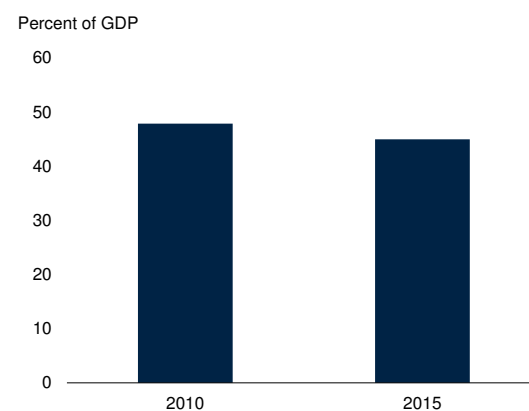
**FIGURE 3.3.2 Spillovers from China**

Since investment in China accounts for a large share of domestic output and is import-intensive, its investment growth slowdown has weighed on output growth, both domestically and in other EMDEs.

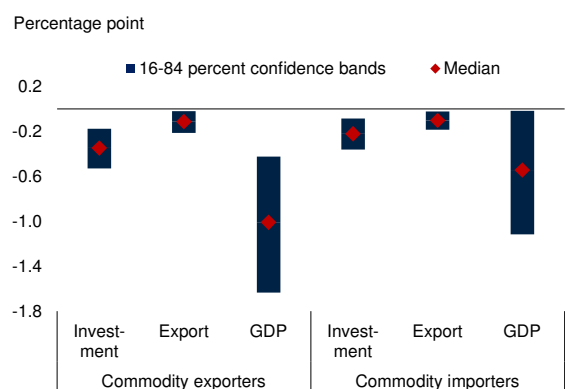
**A. Import intensity of China's investment, exports and consumption, 2014**



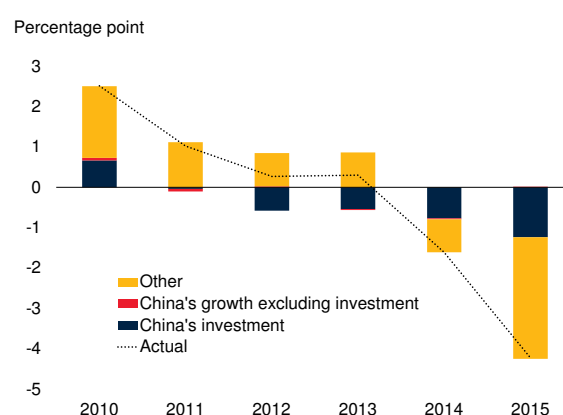
**B. Share of investment in China's GDP**



**C. Response of EMDE output growth to a decline in China's investment, export and output growth**



**D. Contribution of China's investment and non-investment movements to commodity-exporting EMDE growth**



Sources: Haver Analytics, International Monetary Fund, Oxford Economics, World Input Output Database, World Bank estimates.  
 C. Cumulative impulse response of weighted average EMDE output growth after 1 year to a 1 percentage point decline in growth in real investment, real exports, and real GDP in China. Investment spillovers based on a Bayesian vector autoregression of world GDP growth (excluding China), the U.S. 10-year sovereign bond yield, JP Morgan's EMBI index, growth in the non-investment component of China's real GDP, China's real investment growth, and real GDP growth in the spillover destination group. Oil price is exogenous. Exports and real GDP replace real investment in models that estimate spillovers from exports and output. Sample includes 18 EMDEs from 1998Q1-2016Q2. Blue bars denote 16th-84th percentile confidence interval, red dots denote median of posterior distribution.  
 D. Historical contribution of China's investment and non-investment growth based on model used for Figure C. Line denotes unweighted average demeaned GDP growth.

EMDEs' annual output growth by as much as 0.8 percentage point on average (Figure 3.3.2).

**Policies to support an orderly rebalancing of investment**

A slowdown in China's investment growth has been necessary to ensure sustainable growth. However, the

concentration of the slowdown thus far in private investment raises concerns about growth prospects. Weak private investment lowers prospects for potential output growth, which is already under pressure from a shrinking working-age population and slowing total factor productivity growth. Potential growth is expected to slow from 10.6 percent in 2010 to 6 percent in 2020.

### BOX 3.3 Investment slowdown in China (continued)

In rebalancing the economy from investment-led towards more sustainable growth, the authorities face two challenges: to sustain private investment growth and to limit adverse spillovers from slowing private investment growth to other parts of the economy. Following an in-depth study in seven provinces, the government announced a range of measures over the past two years. These include efforts to facilitate entry by private firms in a broader range of sectors; and to promote public-private partnerships in activities accounting for 14 percent of 2016 GDP. To ease concerns about the inefficiency of public-private partnerships and limited access for private firms to such projects, the government is drafting regulations to protect private investors in the partnerships. In the short term, this may be complemented by monetary stimulus and tax reductions to encourage private investment.

#### Conclusion

A policy-driven slowdown in investment growth has been underway in China since 2012. This has weighed on global output growth, especially in commodity-exporting EMDEs. China's investment slowdown has been accompanied by a particularly sharp decline in investment growth in private enterprises, reflecting deteriorating business confidence and weakening return prospects. The slowdown in private investment raises concerns about potential growth prospects, against the backdrop of an aging population and slowing productivity growth. Policies to rekindle private investment include, in particular, measures to facilitate market access by private firms.

private investment growth since 2008 (Figure 3.15). In EMDEs, the broad-based counter-cyclical surge in public investment in 2008-09 offset a significant slowdown in private investment growth. Post-crisis, this was followed by a period of easing public as well as private investment growth. In the majority of EMDEs, public and private investment growth have both been below their long-run averages since 2010 (Box 3.4).

Policymakers can use public investment in three ways to lift overall investment and output. First, public investment can raise domestic demand as part of fiscal stimulus. Second, a shift in government expenditures toward investment away from less efficient expenditures can make government operations more growth-friendly.

Alternatively, revenues can be raised—preferably in ways that do not discourage investment—to finance public investment while containing fiscal deficits. Third, even within an existing envelope of public investment spending, spending efficiency can be improved to increase the benefits to growth from public investment.

**Counter-cyclical fiscal stimulus.** Growth prospects play a major role in investment decisions. To the extent that the EMDE growth slowdown since 2010 is cyclical, fiscal stimulus can help raise growth and investment where there is policy space (Didier et al. 2015). The current low-interest rate environment offers a rare opportunity to implement fiscal stimulus with limited impairment of long-term fiscal sustainability (Kose et al. forthcoming; OECD 2016c). Provided there is sufficient fiscal space and economic slack, and that measures are integrated into a credible medium-term fiscal framework, fiscal stimulus can support output growth (Huidrom, Kose, and Ohnsorge 2016).

In order to analyze the implications of expansion in public investment for activity and private investment, a vector autoregression model is estimated for eight EMDEs with available data, for 1998Q1-2016Q2. Details of the estimation are presented in Annex 3.2D. A 1 percent increase in public investment raises private investment about 0.26 percent above the baseline after just over a year (a temporary “crowding-in” effect). Thereafter, however, this positive effect dissipates and private investment returns toward the baseline (Figure 3.16).

Although the availability of cheap financing from global markets makes it relatively easier to undertake fiscal stimulus programs, most EMDEs have limited fiscal space for expansionary policy, given debt burdens and sizable deficits (Chapter 1; Figure 3.17). In addition, cyclical policies for commodity exporters may be ineffective if they face persistent terms of trade shocks.

**Expenditure reallocation or revenue increases.** Absent room for fiscal stimulus, spending on public investment can also be boosted by reallocating expenditures towards growth-