

## Box 1

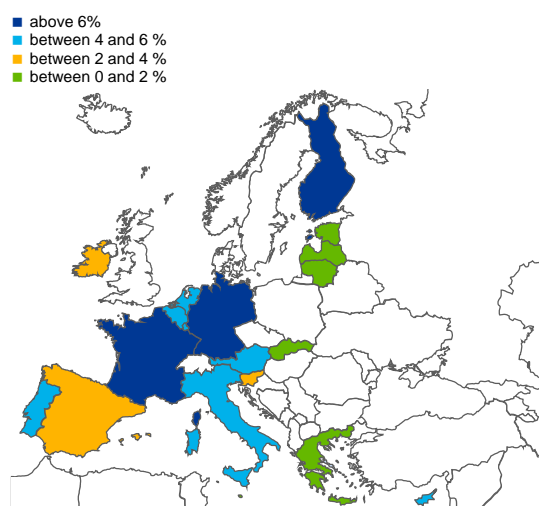
### Understanding the links between China and the euro area

#### Chart A

##### Trade linkages with China are limited

##### Exports to China across the euro area

(Q2 2015; percentage share of total extra-euro area exports of goods)



Source: IMF Direction of Trade Statistics.

A reassessment of global economic growth prospects has been under way since late 2014, as economic activity in emerging markets has receded from the strong growth seen over the last years. A key focus in this regard has been China, not only given its sheer size and growing role in international trade and finance, but also given the uncertainties related to the country's ongoing rebalancing from an investment and export-driven to a consumption-led growth model. The correction in Chinese stock markets in the third quarter of this year sparked a pronounced rise in uncertainty which was pervasive enough to have significant global effects, including on euro area financial markets. Indeed, developments in China could affect the euro area in multiple ways from a financial stability perspective, including via trade, commodity and financial channels, which may work either directly or indirectly.

Starting with the trade channel, trade between the euro area and China has increased substantially over the past decade, reflecting China's rapid pace of growth, its accession to the World Trade Organization and the growth of global value chains (GVCs) in which China is a key player. China's share in world GDP rose to 13% in 2014, which is more than half the size of that of the United States at 23% (using market exchange rate weights). Despite China's size, euro area exports to China remain limited at around 6% of total extra-euro area exports of goods. At the country level,

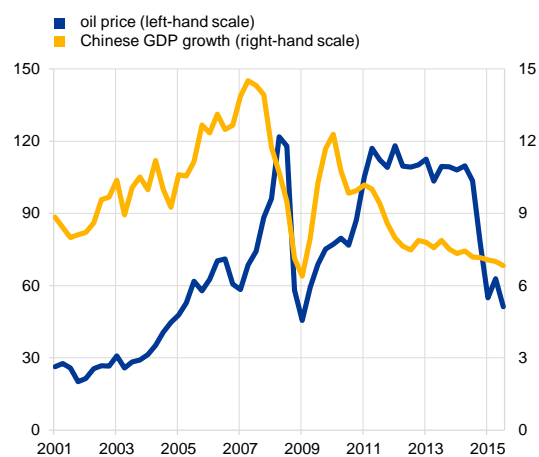
Germany has the largest share, with some 9% of its total extra-euro area exports of goods targeting China, while for other euro area countries the importance of China as an export destination ranges from around 1% (Lithuania) to 8% (Finland) of their total extra-euro area exports of goods (see Chart A). The majority of exports to China consist of manufactured goods, reflecting the relatively high share of investment in GDP. However, a growing share of euro area exports also relates to intermediate goods, which is due in part to China's prominent role in GVCs, suggesting that the demand for euro area exports partially depends on foreign demand rather than domestic demand in China.

## Chart B

China has been an important driver of oil prices

### Oil prices and Chinese GDP growth

(Q1 2001 – Q3 2015; USD per barrel; annual percentage change)



Sources: Bloomberg and OECD.

Note: Oil prices are nominal Brent crude oil prices.

Turning to the commodity channel, given the size of the economy, a slowdown in Chinese economic activity would also clearly affect global commodity markets (see Chart B), with subsequent repercussions for the euro area.

China is an important driver of oil prices, accounting for 12% of total world demand for oil (compared with 21% for the United States).<sup>1</sup>

While the oil price decline since mid-2014 has been largely driven by supply-side factors, such as robust US shale oil production, a decline in commodity prices induced by lower demand from China would dampen adverse growth spillovers from lower foreign demand. The commodity price channel could also affect euro area banks with direct linkages to commodity producers through debt or equity financing. The related risks appear to be limited though, as euro area bank exposures to oil-exporting

economies and the energy sector are relatively small.<sup>2</sup>

Beyond the oil sector, financial linkages between China and the euro area relate to direct bank exposures to Chinese counterparties, indirect exposures to third countries, mutual fund exposures (see Section 2) and asset price co-movements which may be partly driven by confidence effects. As regards direct bank exposures, aggregated banking supervision data suggest that cross-border claims of euro area banks on China are relatively small, accounting for less than 1% of home-country assets (see Chart C).<sup>3</sup> However, euro area banks could also be affected indirectly via exposures to third countries which are exposed to China. However, simulations factoring in such effects via network analyses find that only major financial centres can have large effects on the euro area.<sup>4</sup>

<sup>1</sup> Compared with the situation for oil, China plays a larger role in total demand for various metal commodities. For example, China's share in total world demand for aluminium and copper is around 50%.

<sup>2</sup> For further details, see Box 2 in *Financial Stability Review*, ECB, May 2015.

<sup>3</sup> These exposures to China mainly comprise traditional loans, while debt, equity and derivative exposures play a less significant role.

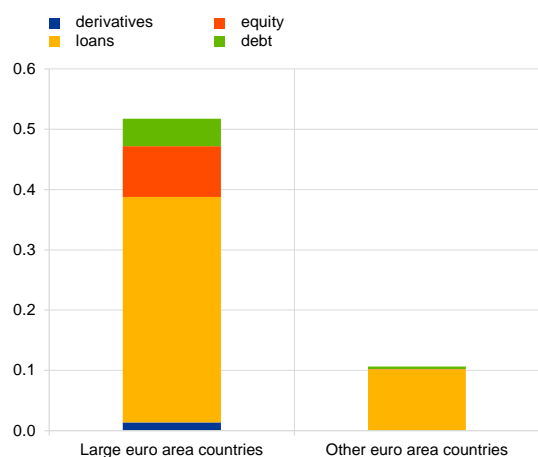
<sup>4</sup> See, for example, Espinosa-Vega, M. A. and Solé, J. (2010), "Cross-Border Financial Surveillance: A Network Perspective", IMF Working Paper No 10/105, April.

### Chart C

Euro area bank exposures to China are relatively small

#### Euro area bank exposures to China

(Q4 2014; percentage of home-country banking sector assets)



Source: ECB.

Note: Large euro area countries cover France, Germany, Italy, Spain and the Netherlands.

### Chart D

Chinese shocks can have a large impact on the VIX index

#### The Shanghai stock index and the VIX index

(Nov. 2014 – Nov. 2015; index points)



Source: Bloomberg.

Despite limited direct financial sector exposures to China, shocks emanating from China during the third quarter of this year spilled over to global equity markets, with daily declines comparable to those seen in the context of the Lehman Brothers default and significantly larger than in earlier corrections in China or in the Fed tapering episode in 2013. The market reaction differed across countries, yielding a significant degree of heterogeneity in market responses. An empirical analysis of the determinants of cross-country heterogeneity in local stock market responses shows that these differences cannot be explained by traditional spillover channels including trade linkages, commodity prices and country risk.<sup>5</sup> This indirectly lends support to the notion that global confidence shocks which would affect all risky assets irrespective of country-specific risk factors could be triggered by developments in China. This finding is consistent with an increase in the VIX index during China-related shocks (see Chart D).

To conclude, direct trade and financial linkages between the euro area and China, while having increased rapidly over the past decade, appear to be limited, and thus are rather unlikely to induce major spillovers with negative implications for euro area financial stability. The commodity channel tends to dampen adverse spillovers, as the effect of lower foreign demand is partially offset by the positive impact of lower commodity prices on euro area growth. However, despite limited financial linkages with the rest of the world, developments in China may trigger significant volatility in global stock markets and more generally adversely affect global confidence. To the extent that such confidence effects may lead to significant global portfolio adjustments, spillovers from China to global growth and thus euro area financial stability can be more powerful than direct exposures suggest.

<sup>5</sup> In a sample of 30 countries, changes in domestic stock market indices are regressed in country-specific settings on specific Chinese events and macroeconomic news in those countries, the United States and the euro area. The marginal effects of the Chinese event on exchange rates and stock markets are regressed on a set of explanatory variables, including standard gravity-type variables and proxies for the trade, commodity and country risk channels.