China’s stock market and, recently, the Chinese currency have been stirring up global financial markets and creating uncertainty. The recent overheating on China’s stock market was modest in comparison with previous and other bubbles, meaning the correction was also manageable. For the time being, this episode is likely to leave few traces in Chinese consumer spending behaviour overall as the weight of the Chinese stock market in the household financial assets portfolio is relatively low. Shares also only play a minor role in companies’ financing mix. To foreign investors, China’s stock market has been and remains virtually closed anyway.

On the real estate and credit markets, on the other hand, a potential for substantial future corrections has emerged as a consequence of the investment-driven growth of past years. This should not be forgotten.

Many observers are worried about China’s stock market. Within just a few months, China’s most important stock market index, the Shanghai Composite, rose by a good 150% (from mid-2014 to the peak in mid-June 2015). This was followed by a decline of around one third (mid-June to early July 2015). The state then intervened to halt the meltdown, suspending trading, making support purchases and reducing key interest rates.

Stock market bubbles and their bursting normally have tangible consequences for the real economy. In boom phases, rising prices of stock portfolios can result in strong growth in household consumption if the asset position is an influencing factor for consumers’ spending behaviour. When the bubble bursts, consumers must adapt their spending behaviour relatively quickly and this in turn has restrictive effects on the business sector. The stock market also has a general influence on sentiment. If share prices drop very sharply in a short period of time, households and companies also feel a surge in uncertainty, even those who are not directly involved in stock trading. This weakens overall economic demand additionally. Furthermore, the bursting of a bubble on globally important stock markets can spill over to other stock markets.

The stock market bubble is too small and too young to be just that

China’s stock market boom of the past months is the result of an interplay of several factors. First, the Chinese government strongly encouraged the ‘normal’ population to also invest in shares. That message fell on fertile ground because interest paid on savings in China is very low and the state pension insurance system is patchy. The many migrant workers, in particular, have hardly any prospects of receiving a state pension. So investing in the stock market presents itself as a retirement planning option with high returns. Additionally, there was a rapidly increasing volume of what is known as ‘margin debt’ – loans taken up to finance stock purchases. The outstanding volume of these loans soared from RMB 350 billion (around USD 55 billion) at the beginning of the year 2014 to around RMB 2,270 billion (some USD 365 billion) in mid-June 2015, when the boom peaked. In the meantime, this volume has dropped again as a result of repayments and margin calls made in parallel with the stock market index (to RMB 1,425 billion or around USD 230 billion). Eventually even companies increasingly invested their profits in the stock market because the (allegedly) achievable returns have exceeded those of their actual business. That created a rapid increase in share prices that was accelerated by borrowing and disconnected from the development of the real economy – so the ingredients of a serious bubble were indeed there.

Figure 1: Stock market in China and the USA

Source: Bloomberg, own calculations
roughly half a percent of total share capitalisation (on the Shanghai and Shenzhen stock exchanges). Foreigners are also eligible to buy and sell shares on the Hong Kong stock exchange (‘H shares’). The ‘A shares’ segment, which is intended for Chinese nationals, is now open to trading by international investors as well but they need government-issued licences. Accordingly, the different market segments also show different index progressions (Figure 2). So long as the Chinese stock market is regulated in this manner, the extent of international spillovers will remain low.

**Figure 2: Stock market segments in China**

![Graph showing the stock market segments in China](image)

Source: Bloomberg, own calculations

It is unclear how wealth-dependent demand is

Although the bursting of the (relatively small) stock market bubble therefore has only relatively limited potential to cause damage, it could nevertheless have consequences for the real economy. That would be the case if households and companies responded to share price drops by adapting their spending behaviour to offset their financial losses. This is said not to be the case in China, after all, consumers had also not increased their spending as their share values (and thus private assets) were rising. If that correlation is accurate, it presupposes symmetry in consumer behaviour. At the same time, it would also be conceivable that consumers behave differently when their share assets are declining than when they are rising and then reduce their spending nevertheless. A similar channel could open up for companies that have invested their profits in the share market and are now cutting back their investment demand to consolidate.

Another effect can result from companies cancelling or deferring planned share issues because the stock market environment is not ideal. That may also cause enterprises to change their investment plans.

Ultimately, it is hard to determine the effect a falling stock market has on demand and, thus, on growth, not least because reliable data is lacking. So far (as of the first half of 2015), the stock market has not had a noticeable impact on the growth of gross domestic product (GDP).

**Shares have little weight in assets held ...**

The effects of falling prices on demand behaviour in the private sector can be examined, however, by looking at how much importance the population attaches to stock market investments. They held financial assets of roughly RMB 75 trillion (as at 2013) with around 70% in liquid funds (cash and bank deposits), while shares accounted for 8½%, more than insurance and bonds. Since 2013, however, the ratio of shares has most likely risen, possibly to over 10% (for comparison: in 2007, during the all-time high of the stock market in China, their proportion of financial assets was 15½%). Thus, a slump in share prices would not throw consumers’ assets completely off balance but they would not escape unscathed either.

**Figure 3: Structure of household financial assets**

![Bar chart showing the structure of household financial assets](image)

Source: CEIC, own calculations

... and in financing

Moreover, China is a bank-based economy. Loans take up a proportion of close to 70% of total social financing (TSF), which represents the supply of financial
resources for the private sector\textsuperscript{2}, while shares account for only around 3\% (Figure 4). For the corporate sector that generally means very limited reliance on financing via the stock market. As a result, significant slides in share prices are a relevant problem only for (usually larger) enterprises that may have to defer planned share issues. However, a general problem for corporate finance in China cannot be inferred from this.

**Figure 4: Total Social Financing**

Proportion of financing channels in total social financing (in per cent)

![Graph showing the proportion of financing channels in total social financing.]

Nevertheless, it is also evident that capital markets have become significantly more important for corporate finance in recent years. The proportion of shares and bonds in the TSF, which was still at around 4\% in late 2006, since then has trebled. In addition, instruments not traded on stock exchanges, such as debt certificates, bills of exchange or loans between companies, have also become increasingly important. If this trend continues, stock market turbulence may in future have stronger impacts on corporate finance and the real economy.

**Shares? Loans!**

The biggest threat to the Chinese economy is the credit market and the resulting indebtedness. Indeed, growth in aggregate credit is not yet at 2009/2010 levels, when growth rates in some months and specific types of credit were more than 50\%, a staggering proportion by Western European standards. But, while GDP growth is slowing steadily (much of which is intended by the government), credit dynamics have moved sideways (with fluctuations) since 2011, roughly along a line of 14 to 15\% p.a. Now credit dynamics are significantly above (nominal) GDP growth – in the mid-2000s this was still a different story (Figure 5). Lending is apparently starting to exceed the financing needs of the real economy.

**Figure 5: Lending and GDP**

Average annual growth on previous year (in per cent)

![Graph showing the annual growth of lending and GDP.]

This development manifests itself in rising indebtedness, predominantly in the private sector. Private sector debt has risen from around 120\% of GDP in the year 2008 (and prior) to currently around 190\% (Figure 6). The business sector accounts for the main portion (around 80\%). In this process of rising indebtedness, the gap between per-capita income and per-capita debt is widening as a result of slowing population growth (Figure 7).

**Figure 6: Private sector debt**

In relation to nominal GDP (in per cent)

![Graph showing the private sector debt as a percentage of nominal GDP.]

Based on the official NPL statistics of the Chinese Central Bank, the volume of non-performing loans is just under RMB 1 trillion (as at 30\textsuperscript{th} March), roughly one fourth of the capital base of the Chinese banking sector. This ratio has increased again since 2011 even though, at the same time, the banking sector has been better capitalised (Figure 8). Nevertheless, these figures show that the risk-bearing capacity of the banking sector is secured. The NPL volume represents an NPL ratio of just under 1.5\% (of loans outstanding), an unremarkable figure but one that is rising.\textsuperscript{3} The core capital ratio is currently around 10\%\%\%. It is hard to tell to what extent the official data on non-performing loans reflect the reality so it is difficult to draw a realistic image of the Chinese banking sector’s resistance to shocks.

If we were to classify the difference between credit expansion and nominal GDP growth as an overhang, then a ‘healthy’ credit volume as at the end of 2014 would have been around RMB 20
China’s economy is restructuring

The Chinese economy is embarking on a staggering restructuring process. Its core element is balancing the demand structure (moving away from strongly investment-driven demand) and making growth more sustainable, coupled with gradual and cautious liberalisation. This process, however, will also lead to uncertainties and friction which, given the size of China’s economy, may have the potential to cause disturbances outside its borders.

The developments currently taking place on the share and currency markets need to be seen in this light, as they are a reflection of this restructuring process. However, they have to be placed in the context of medium to long-term developments and objectives. Thus, the most recent devaluation of the renminbi by slightly more than 4% in nominal terms against the US dollar has to be assessed in the context of exchange rate developments of the past years. Having been accused for many years of artificially undervaluing the renminbi, China permitted an effective appreciation of nearly 30 per cent in real terms since mid-2010, so that the renminbi was last regarded as fairly valued. Accordingly, the recent correction reflects the lowered growth expectations and therefore does not justify excessive market reactions so long as it does not usher in the start of another controlled devaluation.

The German and European economy does not just pose risks, however. It also offers opportunities for its trading partners. If properly prepared, German and European companies can indeed participate in major environmental and social policy projects in China, such as realigning climate protection policy, improving health services and setting up a nationwide pension system.

Conclusion

The extent of the recent turmoil on China’s stock market is generally not very problematic. Moreover, it does not carry a particularly heavy weight in China, neither as a form of asset investment nor as a financing channel for companies.

So there are many reasons why the sudden end of the stock market boom should have limited consequences for the real economy but this conclusion should not be drawn all too recklessly in spite of many investors’ high risk appetite. Although it still carries relatively little weight, the stock market has significantly gained in importance in the past decade and is taking on macro-economically relevant dimensions.

In addition to observing the capital market and the stock market in the narrower sense, in future particular attention should be paid to credit development because this is the more relevant development in conjunction with economic conditions and high private debt. The banks, of course, are at the heart of credit market development. They currently appear to be stable enough to be able to absorb limited shocks on the credit market, not least because they can count on state support if worse comes to worst.

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1 Total Social Financing (TSF) is an aggregate for illustrating the supply of the Chinese economy with financial resources. The TSF is the sum of all financing sources: bank loans, bonds, shares, debt certificates/bills of exchange and loans between companies (sometimes arranged by banks).

2 ‘Private sector’ here refers to the (aggregated) sector of private households and companies, taking into account that many enterprises in China are not privately but state-operated. The expression is nevertheless used to distinguish companies and households from the state sector in the meaning of territorial authorities and public administrations.
According to the most recent press reports, both the NPL volume and ratio increased again strongly as at 30th June 2015. The NPL volume is reported to have grown to some RMB 1.8 trillion, which would be nearly twice the volume at the end of March, and the NPL ratio is now said to be 1.8%. The reports quoted the Chairman of the China Banking Regulatory Commission, Shang Fulin. These figures are not yet included in the available statistics.

The three leading rating agencies currently rate the Chinese state AA- (S&P), Aa3 (Moody’s) and A+ (Fitch), which means a probability of default of roughly 0.1%. Assuming a probability of default of 10% for China’s private sector in the scenario calculation performed here appears to be rather conservative, given a relatively high willingness of the state to implement rescue measures, while 50% is a relatively strong assumption. The 50% LGD (loss given default, the portion of debt outstanding that is lost) is merely a ‘Solomonic assumption’ that selects the mean between zero and one hundred. It reflects the assumption that the RMB 20 trillion represents more risky lending business, although it must be considered that not all of these loans are uncollateralised. The expected loss incurred in the assumed ‘excess’ credit volume of RMB 20 trillion would then result from 0.1×0.5×20 trillion = 1 trillion. In the case of a 50% PD, the result would be: 0.5×0.5×20 trillion = 5 trillion. In both cases the expected loss of the credit volume not assumed to be excessive (around RMB 70 trillion) has to be added, to which the official NPL ratio of 1.5% has to be applied. That would then result in approximately RMB 0.5 trillion.