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p.2

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By Christine Peltier

p.9

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On 24 September, Germany will elect a new parliament (see Box, page 3). The out-going Chancellor, Angela Merkel, will defend the record of her government, a grand coalition between the two largest parties CDU/CSU (Christian Democrats) and the SPD (social democrats). The economic record of the coalition, in place since December 2013, is quite good: GDP is growing well above potential, estimated at 1.3% of GDP, and unemployment has declined to levels not seen since German reunification, in 1991. Moreover, the government finances are in excellent shape. The budget balance is positive and the public sector debt is close to 60% of GDP.

The Chancellor's main contender, SPD leader Martin Schulz, has been emphasizing that these achievements have come at a cost. Many feel that the German society has become more unequal. Some have even called Germany one of the most unequal rich countries in the world.¹ Traditionally, reducing social inequality has always been a major priority for the SPD. For example, during the current coalition period, the party has been the main driving force behind the introduction of a national statutory minimum wage in 2015. During the next government period, Mr. Schulz would like to soften some of the labour market reforms implemented during the early 2000s by SPD Chancellor Schröder.

As the largest party is likely to lead the next government, media attention has mainly focussed on the CDU/CSU and SPD. The CDU/CSU has taken a clear lead in the opinion polls, with voting intentions at just below 40%, followed by the SPD at around 25%. Nevertheless, the smaller parties could also play an important role as junior partner in a coalition led by one of the major blocks, thereby offering an alternative for replacing the grand coalition.

The Linke obtained 8.6% of the votes in the 2013 federal election, making it Germany's third party. It is a radical left wing party, with its major stronghold in the eastern part of the country. In recent years, it attracted many disappointed SPD supporters, which rejected the Hartz labour market reforms. In early 2017, it stood even at around 10% in the polls. However, since the election of Martin Schulz as SPD leader in March, its support has declined. According to the latest opinion polls, it would only obtain 8% of the vote. Given its radical left programme, participation in any coalition is unlikely.

The Greens obtained 8.3% of the votes in the 2013 federal election. The party is split in a dogmatic left wing and a more pragmatic wing. It shares many points with the SPD, in particular on social justice. That explains its weakening support after Mr. Schulz was elected as SPD leader. The party could easily join the SPD in a coalition, but a coalition with the CDU is also possible. In Baden-Württemberg, the Greens already form a coalition with the CDU, headed by a Green Prime Minister.

In the 2013 federal election, the liberal FDP did not win any direct seats and failed to pass the 5% threshold. It is likely to do better in the upcoming one on a programme of tax cuts and reducing red tape. According to the latest polls, the party could obtain 9% of the vote. It could join a coalition headed by either the CDU/CSU or the SPD.

The populist right party Alternative for Germany (AfD) also failed to win any seats in the 2013 federal election. It is expected to do much better in the upcoming election. During the refugee crisis in 2015-16, its support increased to close to 15% as it rejected strongly the Chancellor's "Refugees welcome" policy. However, since end-2016, its support has dropped sharply, as the inflow of asylum seekers diminished partly due to the tightening of admission rules for migrants. Moreover, the party lost support because of infighting about the party's direction. According to the latest opinion polls, the party could gain around 8% of the vote, implying the entrance of an extreme right party in parliament for the first time since the Second World War. However, cooperation with the party is rejected by both the CDU/CSU and the SPD.

According to the polls, a coalition between CDU/CSU, Green, and FDP – called Jamaica coalition after the colours of these parties – would be the only viable alternative to the grand coalition.

A strong economy

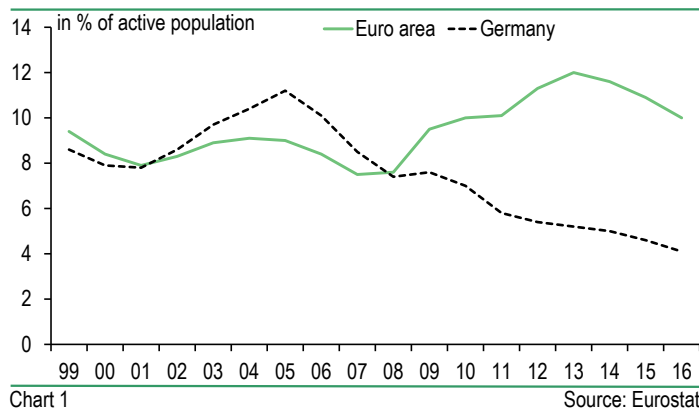
By the end of the 1990s and the early 2000s, Germany was known as the "sick man of Europe". The costs of reunification were weighing heavily on the country's prospects. Germany was growing well below potential and the negative output gap widened to 1.7% of potential GDP by 2004, a record since German reunification. The unemployment rate peaked at 11.2% in 2005 (Chart 1, page 3). In the same year, GDP per capita was only 4% higher than the EU15 average compared with 13% a decade earlier (Chart 2, page 3).

¹ See f.e. Marcel Fratzscher, 2016, "Verteilungskampf", Carl Hanser Verlag, Munich.

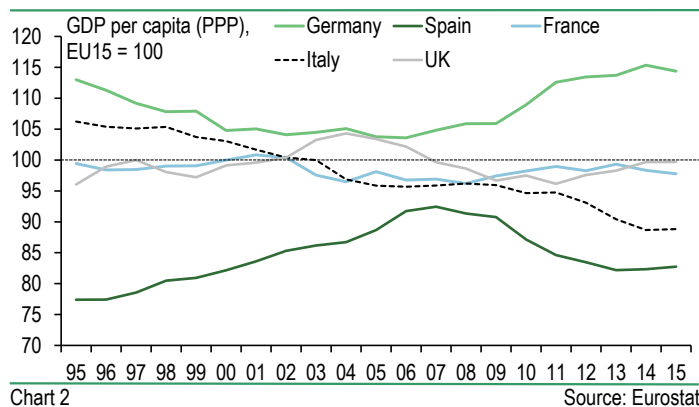


However, in the following decade, the country clearly neighbours. The relative income position gradually improved in particular after the Great Financial Crisis in 2008-09. By 2015, GDP per capita was 14% higher than the EU15 average. At the same time the unemployment rate had fallen to only 4.6%, less than half the EU average.

German jobless rate on a downward trend



Germany widens gap with the rest of Europe



An important reason is that German industry resisted better to globalisation and international competition than other European manufacturers. By 2015, the share of manufacturing in value added amounted to 23% in 2015, exactly the same as two decades earlier (Chart 3). During the same period, it had fallen by around five percentage points both in France and Italy. Contrary to its European competitors, German enterprises have been able to improve competitiveness thanks to gains in productivity and wage moderation (chart 4).

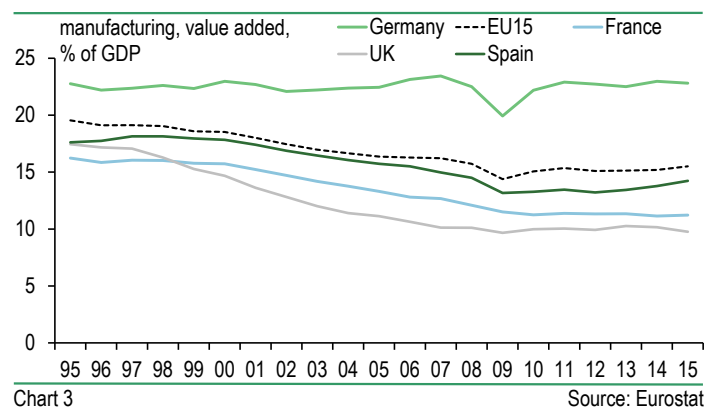
How does Germany elect its parliament?

The voting system for the German Parliament, the Bundestag, is a mixture of a district system and a proportional representation system. In principle, the parliament has 598 seats, half of which are elected by local constituencies. Each voter gets two votes. The first one (*Erststimme*) is for the local candidates. They are elected according to the first-past-the-post system (*Mehrheitsrecht*). The second vote (*Zweitstimme*) is for a party and determines the party's relative strength in the Bundestag.

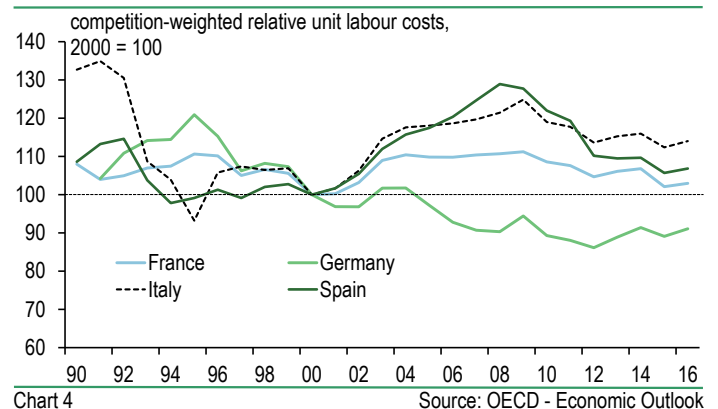
In the first phase, the 598 seats are allocated to the 16 *Länder* on the basis of population data. The local mandates are deducted from the seats allocated to the *Land*. It is possible that in a *Land*, a party wins more direct mandates than seats to which it is entitled according to the second vote (the so-called *Überhangmandate*).

In the second phase, the seats are recalculated at the Federal level. Parties that are disadvantaged compared to the parties with *Überhangmandate* get compensated by more seats (*Ausgleichmandate*) to preserve proportionality. For this reason, the number of seats can exceed 598; the current Bundestag has 630 seats. To be represented in the Bundestag, the party has to pass at least the 5% threshold of the *Zweitstimme* at the federal level. However, the 5%-rule is not applied for parties that gain at least three direct mandates.

German manufacturers maintain their output share



Significant gains in competitiveness of German enterprises



Labour market governance allow for flexibility

Durtmann and Schönberg (2016) attributed the improvement in competitiveness to slowing wage growth after 1995, in particular in western Germany.² In this part of the country, wages for full-time workers at the bottom of the distribution declined in real terms from 1995 onwards. By the early 2000s, also real median wages started to decline; only wages at the top of the distribution (85th percentile) continued to grow in real terms.

One would expect that in particular wages in the tradable manufacturing sector would contribute to this pattern. However, in this sector, real wages at the bottom (15th percentile) started to decline only by the mid-2000s, after the non-tradable sector and tradable services. According to the authors, the sector resisted for much longer thanks to stronger productivity gains than in the other two sectors. Moreover, the sector benefited from low wages in the other domestic sectors and cheap imports. The German manufacturers made much more use of imported intermediate goods, in particular coming from Central and Eastern European countries, than their competitors.

Durtmann and Schönberg argue that the German economy resisted better to globalisation because of the typical governance structure of labour market relations. In Germany, relations between the main labour market parties, trade unions, employer associations and work councils³, are not regulated by laws but are laid down in contracts and mutual agreements. In practice, this has led to consensus-based decision making in which negotiating parties pursue the common interest.

There exist three basic regimes of wage bargaining. First, wage bargaining may take place at the industry level between employers' associations and labour unions. These contracts are normally negotiated at the regional level rather than the national level. As a result, there are slight variations between regions. The agreements apply to all members of the employers' association and also to all employees in these enterprises irrespective of their union membership. Deviations from collective agreements are only allowed, if these would be more advantageous for the employee (*Gunstigkeitsprinzip*) or when the collective agreement contains opt-out clauses (*Offnungsklausel*). The latter allow management and work councils to reach agreements at the plant level on wages, working time and other working conditions. Second, labour contracts can be negotiated at the company level between the employer and the trade union. This is less common and mainly concerns large enterprises. Finally, labour contracts can be concluded between the employer and the work council. In this case, the industry-wide collective agreement is often used as reference for the negotiations within the company.

² Durtmann and Schönberg mainly studied wage developments in western Germany. In the eastern part of the country, wages were still strongly affected by catching-up effects after German reunification.

³ Work councils are consultative elected bodies, representing the employees in a company. A work council can be set up in all private sector workplaces with at least five employees. In practice, they are mainly present in large enterprises. Although not formally trade union bodies, union members play a key role within them.

Since the middle of the 1990s, the application of collective agreements has shown a clear downward trend. In 1995, more than 80% of German employees were covered by union agreements, at the industry or company level. By 2013, 60% of employees in western Germany were covered by collective agreements, 52% signed at sector level and 8% at company level. In eastern Germany, only 47% of employees were covered by a collective agreement, of which 35% by sector contracts and 12% by single company contracts. Moreover, the relevance of the sector agreements has been diminished by the increased use of opt-out clauses.

The reason for these developments is globalisation. In the past, collective sector agreements assured that all enterprises were subject to similar competitive conditions. However, the maintenance of equal competitive conditions at a national level makes less sense in a globalised economy and could even be very harmful for national enterprises. German enterprises needed more flexibility to fend off growing competition from Asia and, even more importantly, from Central and Eastern Europe. The possibility for employers of moving their installations to these areas has shifted the balance of power between workers and employers. Unions and work councils were willing to strike very flexible deals with companies on wages and working conditions in exchange of job guarantees. In addition, the reduction in the coverage rate of collective agreements is also due to structural change, as sectors covered by collective agreements have lost ground to sectors in which such agreements play a less important role, such as business to business services.

Many have linked the turnaround of the German economy to the labour market reforms, the so-called Hartz reforms, which were implemented during the period 2003-2005.⁴ However, their role was probably limited, as wages at the lower end of the income distribution already started to decline around 1995. Nevertheless, these reforms were crucial in improving the functioning of the labour market, by reducing long-term unemployment (chart 5, page 5). Before the reforms, incentives to look for paid employment were low, as in many cases the unemployed could keep a benefit related to their last earned salary until retirement (*Arbeitslosenhilfen*). In fact, the scheme functioned like an early-retirement scheme. The Hartz IV reforms ended this in 2005, by shortening the duration of the unemployment benefit (*Arbeitslosengeld I*) from 26 to 12 months⁵ and by replacing the *Arbeitslosenhilfen* by a means-tested social assistance payment (*Arbeitslosengeld II*).

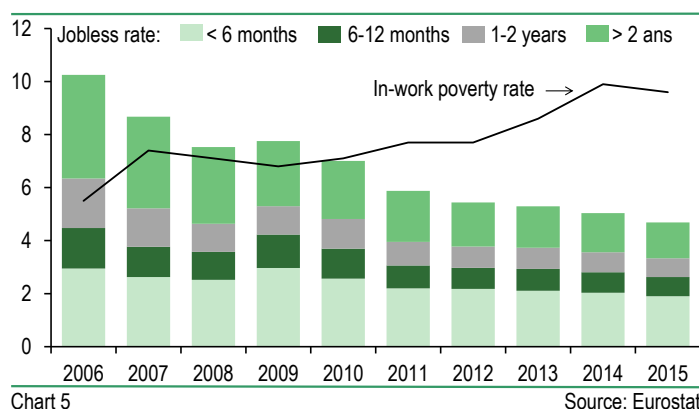
Even more than a decade later, the Hartz IV reforms remain firmly contested. Proponents argue that thanks to these reforms Germany was the only European country that experienced a substantial decline in long-term unemployment since the start of the financial and economic crisis. Whereas in the EU, long-term unemployment increased from 28.4% of unemployment in 2009 to 39% in 2016, it declined in Germany from 46% to 31.8 (Chart 5). By contrast, for the opponents, the Hartz reforms have resulted in growing poverty among workers.

⁴ The Hartz reforms were part of the Agenda 2010, launched by SPD Chancellor Schröder.

⁵ Older unemployed benefit from extended benefit periods: 15 months for those 50 years or older, 18 months for those 55 or older, 24 months for those 58 years and older.



Less unemployment, more in-work poverty

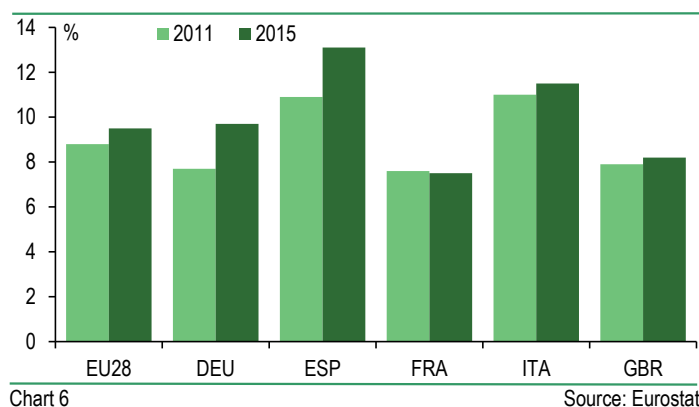


The SPD has lost much support since the introduction of the Hartz IV reforms. Its leader, Mr Schulz, is trying to gain back those voters, disgruntled by the labour market reforms, by proposing a softening of these measures. However, the proposals do not envisage the scrapping of Hartz IV. He would like to give all those who are unemployed for more than 3 months the right of retraining. During this period, the person will receive a new benefit *Arbeitslosengeld Q*, at the same level as their current unemployment benefit. The result is that he/she can receive an unemployment benefit for longer before falling back on means-tested social assistance payments.

Increased inequality

In Germany, the decline in unemployment was accompanied by a substantial increase in the risk of in-work poverty - defined as employed persons receiving less than 60% of the overall equivalised median disposable income. It rose from 5.5% in 2006 to 9.7% in 2015 according to the EU-SILC survey (Chart 6). An increase in in-work poverty rates is also observed in other European countries, albeit to a lesser extent according to the EU-SILC survey (Chart 6). An increase in in-work poverty rates is also observed in other European countries, albeit to a lesser extent.

In-work poverty risk has increased in Germany



The development is related to the growth of the low wage sector, i.e. workers earning less than the low-pay threshold, equal to two-thirds of median earnings. Its expansion was in particular observed in western Germany. In eastern Germany the percentage of people working in the low-wage sector has been much higher (around 40% since reunification). In 2014, 22% of employees earned less than the low pay threshold. In Western Europe, only the UK and Ireland reported similarly high percentages. By contrast, in France and Italy, the low wage sector amounted to less than 10% of wage earners. Low wage jobs are in particular prevalent in agriculture, private households and the hospitality sector. More than a third of workers in these three sectors are earning below the low-wage threshold.⁶

The increase of the low-wage sector is not in itself bad. For instance, it should be noted that many previously unemployed have found jobs in this segment of the labour market. Also the expansion of the low wage sector is a response to changes in the structure of the labour force. In the 1990s, part-time employment was less than 20% of total employment. However, in 2013-2016, it was around 26.5%. Moreover, the number of foreign workers has increased from 8.1% of employment in 1995 to 10.6% in 2016. About one in three foreigners work in the low-wage sector in 2016, twice as many as in 1995.

What is worrisome is the increasing risk of remaining in the low-wage segment. Wage mobility has dramatically slowed since German reunification. In the 80s, 50% of people working in the low wage sector were still there five years later. In the 1990s and 2000s, this had increased to close to 70%. This has led to a dramatic change in the age structure. In 1984, 40% of full-time employees in the low-wage sector were younger than 25. That figure was halved by 2014, resulting in a rise of the average age of the low-wage sector employees from 32 in 1984 to 39 in 2014.

The German Council of Economic Experts (Sachverständigenrat) has studied the income distribution of individuals in households with at least one member in working age i.e. between the age of 15 and 64.⁷ They concluded that the major shifts in the income distribution took place between 1991 and 2005. The median market income, adjusted for purchasing power, remained almost unchanged during this period. However, those in the 90th and 95th percentiles experienced an increase by around 20%, whereas income in the first decile declined by 60%. This decline was associated with a sharp fall in hours worked. This group worked in 2005 55% fewer hours than in 1991.

After 2005, the Gini coefficient of these households, after taxes, has remained remarkably constant at just below 0.3.⁸ The EU-SILC survey also notes that income inequality over the past decade has hardly changed for the overall German population. In 2015, it was 0.30, close to France (0.29) and the EU average (0.31).

⁶ The risk of poverty of the overall population has also substantially risen over the past decade. In 2015, it stood at 16.7%, 4.5 points higher than 10 years earlier. It is at the same level as the UK, but much higher than in France, where the poverty rate has remained close to 13% during the whole decade to 2015.

⁷ Sachverständigenrat (2016).

⁸ The Gini coefficient is a measure for income inequality. It ranges between 0 (perfect equality) and 1 (all income is earned by only one person).



Rising income inequality has been observed in almost all OECD countries. Recently, several economists have questioned the consequences of the widening income differences in society. A study conducted by the OECD Directorate for Employment, Labour and Social Affairs argues that the increases in income inequality have dragged down growth through undermining education opportunities for the disadvantaged and lowering social mobility.⁹ The author states that rising inequality by 0.03 Gini point over the past decades would have dragged down economy growth by 0.35 percentage point per year. He estimates that Germany might have lost 6% of GDP over the period 1990-2010. The implication would be that policies that help to limit or reverse inequality may not only make societies less unfair, but also wealthier.¹⁰

In the case of Germany, the negative effect on output looks exaggerated. In the analysis, the author neglects the growth enhancing effect of the policies that have increased income inequalities, such as the Hartz reforms. The rise in inequality is an unintended consequence. Nevertheless, it is important to pay attention to these unintended consequences, not only out of equity concerns but also for political reasons. Turning a blind eye to them might weaken the acceptance among the population of structural reforms, provoke a backlash against globalisation, and contribute to the rise of populism.

In a recent policy paper, the OECD Economics Department recognises that income inequality has increased in many OECD countries, in particular in the lower half of the income distribution.¹¹ One clearly identified source is technological progress that creates proportionally more high-skilled and better-paid jobs. This benefits in particular households in the upper-half of the income distribution. As response to these effects, the Organisation recommends increasing the provision and quality of education and training.

The OECD also found that a tightening of unemployment benefits for the long-term unemployed, as in Germany, would increase income inequality, by lifting GDP per capita and average household incomes, but reducing disposable incomes at the bottom of the distribution. Tightening unemployment benefits should be matched by other forms of social protection or targeted requalification measures. Unemployment benefits and active labour market policies should be primarily geared towards shortening the unemployment spell.

Reducing regulatory barriers to entry and competition could be important for reducing income inequality by creating more job opportunities for the lower skilled. In the case of Germany, the OECD signals that in 41 crafts professions, including in the construction industry, self-employment is restricted to holders of tertiary level vocational degrees.¹² Alternatively, workers in these professions can open business with a minimum experience of six years, of which four in managing positions in addition to a vocational education degree at the upper secondary level required to exercise the profession. These requirements raise entry barriers for self-employment. In a similar vein,

self-regulation by sector specific business chambers, notably in the professional services and the crafts, also risks protecting incumbents.

The challenges for the next government

Despite considerable progress in recent years, such as the decline of the unemployment rate and the reduction in unemployment duration, the functioning of the labour market remains among the major challenges faced by the next German government. In the first place, more should be done on reducing of long-term unemployment, despite progress made since the Hartz IV reform. Nevertheless, by the end of 2016, still about 1% of the labour force was unemployed for more than 2 years.

Special attention should be given to the labour market situation of non-EU nationals. Unemployment in this group is significantly higher than among German citizens. By the end of 2016, their unemployment rate amounted to 11.4%, compared with 3.9% for the overall population. At the same time, employers complain not being able to find sufficiently skilled workers. This signals significant mismatches in the labour market. It calls for better targeting requalification measures and active labour market policies.

In the coming years, there is a risk that unemployment among non-EU nationals will rise again, as large numbers of recognised asylum seekers will enter the labour market. Many of them have no qualifications that are recognised by the German authorities. Moreover, their integration is difficult because of limited understanding of the German language. In 2015 and 2016, the number of asylum seekers amounted to 477 thousand and 746 thousand, respectively. In 2016, most of them came from Syria (36.9%), Afghanistan (17.6%) and Iraq (13.3%). In 2016, 700.000 applications for asylum were accepted, which corresponds with an acceptance rate of close to 50%, a historical high. This group is now also showing up in the labour market statistics. In May 2017, the Federal Labour Market Agency reported that just over 7% of unemployed or 200 thousand job seekers were recognised asylum seekers. By end 2017, this group could make up almost 10% of Germany's unemployed.

The reintegration of the long-term unemployed in the labour market requires a panoply of measures, many of them directed at improving qualifications. Active labour market policies should be directed at preventing people staying for more than one year unemployed. In the case of non-German nationals, priority should be given to improving their knowledge of the language. Nevertheless, active labour market policy can only play a secondary role in reducing entrenched unemployment. Improved integration of the long-term unemployed and low-skilled workers can only be achieved in the next few years if a sufficient number of jobs is available in the low-wage sector. In that respect, the introduction of the national minimum wage has made entry to the labour market for low productivity workers more difficult (cf. Sachverständigenrat, 2016).

To improve their employment chances, the long-term unemployed already benefit from a temporary lifting of the minimum wage legislation. This measure could be extended to unemployed refugees. In addition,

⁹ Cingano (2014)

¹⁰ DIW researchers reached a similar conclusion. See Albig *et al.* (2017)

¹¹ OECD(2015).

¹² OECD(2016)

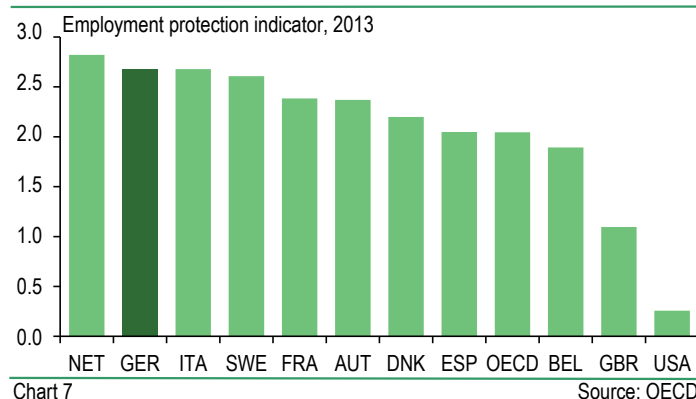


marginal employment of up to 15 hours per week, which is frequently low paid, can enable unemployed persons to maintain a certain proximity to the labour market until they find a job with more hours.¹³ Most of these temporary jobs are found in retail and hospitality. Nevertheless, it should be remarked that these jobs often represent dead-end employment. In addition, measures to stimulate self-employment could be beneficial for long-term unemployed and refugees. This would imply the lifting barriers to entry, such as abolishing the requirement of a master craftsman's certificate in non-hazardous occupations.

Many fear that the increased migration may put greater competitive pressure on the unemployed and low-skilled people. This could further exacerbate the income difference. However, there is no conclusive evidence of long-term displacement of domestic workers by migrants. In fact, an exogenous supply shock caused by migration may also bring about positive displacement effects for domestic workers in low skilled jobs. For example, a study in Denmark showed that because of immigration, domestic workers were transitioning from manual tasks to more complex ones and thereby earning higher wages.¹⁴

Moreover, a study conducted on the effect of immigration during the Balkan Wars showed that the displacement effects were much more marked in EU countries with rigid labour market institutions than in others.¹⁵ The study confirms that reducing barriers to entrepreneurship and improving labour market flexibility could facilitate the absorption of immigrants. In both these areas, Germany can still make much progress. Despite drastic reforms, it has still one of the most regulated labour markets in the world according to the OECD labour market indicator (chart 7). However, this indicator only covers the costs and procedures involved in dismissals, and does not include other labour market characteristics, such as collective bargaining.

Germany has one of the strictest employment protection legislations



¹³ According to the national definition, a person working less than 15 hours a week and willing to work more is counted unemployed, if registered at the Federal Employment Agency. To be counted as unemployed for the harmonised ILO definition, the working time should not exceed one hour per week and registration is not required.

¹⁴ Foged and Peri (2016)

¹⁵ Angrist and Kugler(2003)

Conclusion

The German federal election in September will decide who will become Chancellor for the coming four years. The two main contenders are the outgoing Chancellor Angela Merkel (CDU) and the SPD leader Martin Schulz. The winner will probably become the next Chancellor, if he/she can find suitable coalition partners.

As both parties have governed the country in a grand coalition during the past four years, it is difficult for them to differentiate themselves from one another. In many areas such as European policy, budget policy, energy transition, security and immigration their positions are rather similar. Martin Schulz has chosen to focus his campaign on social justice. He responds to widespread sentiment that not everybody has shared equally in the current economic boom. In particular, unskilled workers have experienced a decline in their real wages and rising poverty risk during the last decade. Nevertheless, labour market outcomes in terms of earnings and employment in Germany still compare favourably with those in many European countries.

In the inequality debate, it is often forgotten that this is not only related to income but also encompasses equality in access to care, education and employment. Concerning the latter, it is important to remember that much of the deterioration in income equality is related to the successful integration of low skilled workers in the economy. In many countries, low skilled workers are simply priced out of the market because of high wage costs. The creation of low skilled work is important as it could serve as a springboard towards better jobs. Unfortunately, many of the low paid jobs are dead-end jobs with hardly any prospects.

Recently, the CDU won three regional elections in Saarland, Schleswig-Holstein and Nord Rhine-Westphalia. Local issues have undoubtedly played an important role. Nevertheless, thanks to these victories, the Merkel campaign has gained significant momentum. Moreover, Mrs Merkel can benefit from the economic successes and an international stature. By contrast, Mr. Schulz is relatively unknown for German voters, having spent most of his active political life in the European Parliament, which he presided from January 2012 to January 2017. He has hoped to improve his election chances by making social justice an election theme. Given the booming economy, it remains to be seen whether social justice is indeed a major issue for the voters.

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Danger in China's financial nebula

Christine Peltier

Vulnerabilities in the Chinese financial sector have increased significantly in the past decade. Given the high level and multiple sources of credit and liquidity risks and the opacity of both shadow banking activities and links between banks and non-bank institutions, containing these vulnerabilities poses a major challenge for the authorities. Measures recently taken to tighten monetary conditions and continued efforts to strengthen financial-sector supervision are positive actions. However, they could also weigh on economic activity, and the government's resolve to stay the course on slowing the growth of domestic debt should soon be put to the test once again.

Since last year, China's corporates and local governments have been able to improve their financial performance slightly in a context of economic growth stabilization, industrial recovery and property market rebound, and corporate debt-to-GDP ratios have stopped increasing. Nonetheless, China's domestic credit boom persists whereas economic growth is projected to continue to slow. The excess debt of the corporate and local government sectors remains at the root of high credit risks, even though recent credit growth has been driven more by mortgage lending to households. High credit risks and the expansion of poorly-supervised shadow banking activities have had increasingly negative consequences for the soundness of the broad financial sector, and episodes of turbulence have multiplied. To address financial-instability risks, the authorities have strengthened the regulatory framework for bank and non-bank institutions little by little while their efforts to contain credit growth have been countered by their other objective of supporting economic growth. Recently, they appear to have adopted a more comprehensive strategy to improve financial supervision and have also combined it with actions to tighten monetary conditions.

Credit boom continuing

A broad estimate of the total debt of the Chinese economy amounted to a huge 300% of GDP at the end of 2016. In this total, the domestic debt of the Non-Financial Sector (NFS, which includes households, corporates, local governments and their financing vehicles) is by far the largest component and the key source of vulnerability. Chinese debt also includes external debt of the NFS and central government debt, but both represent a moderate burden and recent dynamics have not been especially worrisome. Central government debt, which is almost exclusively domestic, has increased slightly in the past two years and stood at only 16% of GDP at the end of 2016. External debt has declined to a low 12% of GDP (including both foreign-currency and RMB-denominated debt).

Excessive domestic debt burden still worsening

The domestic debt of the NFS represents a problem in terms of level, dynamics as well as quality. First, as regards its level, we estimated total domestic debt of the NFS at about 270% of GDP at the end of 2016, taking into account: i) the debt deducted from official statistics on

"Total Social Financing" (TSF)¹, which includes bank loans, bonds and part of shadow banking credits provided to households, corporates and local government financing vehicles². The total TSF stock stood at 200% of GDP at the end of 2016. ii) Additional local government debt that is currently excluded from TSF data (including "regular" deficit financing, which is minimal, and bonds issued by local governments since May 2015 as part of the "bond swap programs"³); this portion of debt is estimated to amount 13% of GDP. iii) A range of shadow banking components that do not appear in TSF data⁴; according to Moody's estimates, these "non-core" shadow banking assets represented a huge 55% of GDP at the end of 2016⁵.

The domestic debt-to-GDP ratio of the NFS, which is gigantic by any standard, is 100pp above its level of five years ago. In fact, China's "credit boom" (defined as a situation in which credit exceeds its country-specific, long-run trend by more than a given threshold) has worsened continuously since 2009. Even in the recent past, although growth in total domestic credit outstanding has trended downward, it has remained strong and still stood faster than nominal GDP growth (see chart 1, page 11). New flows of TSF still represented 24pp of GDP in 2016 (vs. 35% on average in 2009-2010). Debt-to-GDP ratios have continued to rise steadily and have increasingly deviated from the level that would be "normal" for China given its income per capita (see chart 2, page 11). In the meantime, the credit-to-GDP gap (gap between the credit-to-GDP ratio and its historical trend) has also continuously widened until last year. According to BIS calculations, the credit gap

¹ Social Financing comprises the main, but not all, domestic sources of financing provided by banks and nonbanks to Chinese agents. It includes bank loans, bonds and equity issuance, and part of shadow banking credits: trust loans, undiscounted banks' acceptance bills and entrusted loans (these in reality are inter-company loans). We exclude equity issuance when we estimate domestic debt. TSF data is the only available long-term time series on domestic credit.

² Local government financing vehicles are entities fully owned and operated by local governments, set up in order to borrow money to finance quasi-fiscal activities such as infrastructure projects.

³ TSF includes credits to LGFVs but does not capture bond issuance by local governments. See page 12 for details on bond swap programs.

⁴ Shadow banking credits that are included in TSF data are designated as "core" shadow banking. Other shadow banking activities have expanded in recent years and are presently excluded from official statistics on social financing flows. These "non-core" shadow banking credits, as designated by Moody's, include assets funded by Wealth Management Products (WMPs), and loans by finance and consumer credit companies, microcredit, online peer-to-peer lending, etc. They are not included in debt ratios that appear in our graphs.

⁵ Source: Moody's Investors Service, "Quarterly China Shadow Banking Monitors".



was over 25% of GDP in 2016, which is very high by international standards and in theory can be seen as an early warning indicator of potential crisis⁶.

The credit boom mechanically aggravates credit risks because the cost of debt servicing gradually increases while new loans finance investments with a gradually deteriorating mix of risk/return (less rigorous selection of investment projects, excess production capacity in the industry, propensity for asset market bubbles). In China, this trend has been clearly highlighted by the significant decline in the efficiency of new credits/new investments since 2009. The rise in credit risks has been exacerbated by major governance issues. Generally speaking, the soft budget constraints of local governments, forbearance of the authorities, weak governance of corporates (especially state enterprises) and, most importantly, moral hazard (i.e. the belief that implicit and unlimited state guarantees will limit losses in case of negative credit events) have largely contributed to the worsening efficiency of capital allocation in the past decade.

The rise in debt and credit risks have in fact clearly remained concentrated in the domestic corporate and local government sector. However, since last year, growth in domestic leverage has been driven more by an increase in household debt while the rise in corporate debt ratios has stabilized (see chart 3, page 11).

Credit risks emanate principally from corporates

Corporate debt surged to 124% of GDP in 2016 from 97% in 2011 and 80% in 2008 (this is excluding non-core shadow banking credits), and the average corporate debt-to-equity ratio increased from about 60% in 2009 to close to 80% in 2014 and 2015 (IMF estimates). The rise in corporate leverage has been driven largely by State-Owned Enterprises (SOEs).

The debt repayment capacity of the corporate sector weakened severely between 2010 and 2015. On the one hand, debt servicing costs have increased. On the other, the financial performance of corporates, especially SOEs, is constrained by structural weaknesses (governance and inefficiency issues, excess production capacity, etc.) and has been highly vulnerable to the slowdown in GDP growth, the crisis in the industrial sector and the various episodes of property market correction of the last few years (see charts 4, 5 & 6, page 11). Therefore, the increase in corporates' leverage has gone with a fall in their profitability until 2015. On the basis of calculations made by the IMF on a sample of listed companies, the median debt/EBITDA (earnings before interest, taxes, depreciation and amortization) ratio more than doubled between 2010 and 2015. Real estate, mining and steel appeared to be the most fragile sectors in 2015, showing both the highest median debt/EBITDA ratios and the highest proportions of debt owed by loss-making companies⁷.

⁶ Source: BIS (Bank of International Settlements) credit-to-GDP gap statistics. See also BIS, Quarterly Review: "The credit-to-GDP gap and countercyclical capital buffers: questions and answers" by M. Drehmann & K. Tsatsaronis, March 2014.

⁷ See IMF Working Paper: "Resolving China's corporate debt problem", October 2016 and "Financial Stability Reports", April 2016 & April 2017.

In this context, corporates have found it increasingly difficult to: i) pay their suppliers: payables days have increased steadily since 2011, thus spreading stress throughout the economy, and ii) service their debt: non-performing loans on bank balance sheets have risen and default risks have also increased in the shadow banking sector and bond markets.

In 2016, the average performance of corporates improved. The stabilization in economic/industrial growth, producer price reflation and recovery in the property sector have boosted profits of enterprises and lower interest rates have also alleviated the debt servicing burden. All this has provided corporates with a respite through reduced short-term liquidity constraints and total corporate debt ratios stopped rising (see chart 7, page 12). However, excess debt and solvency problems persist. Corporates will likely prove to be vulnerable to the episode of interest rate increase that has just started, the property market correction, which is a short-term risk in some provinces, and the slowdown in economic/industrial growth that is expected in the coming quarters.

Fiscal reform needed to improve local government solvency

Local Governments (LGs) were asked in 2009 to finance infrastructure projects programmed in the large stimulus package implemented after the global financial and trade shock. This was the beginning of a continuous rise in the debt of LGs, mostly incurred through their financing vehicles (LGFVs). The debt increase has also been sustained by the lack of discipline of LGs and their creditors and the belief that an implicit state guarantee would prevent any default. Based on IMF data, total debt of LGs and LGFVs rose to 40% of GDP in 2015 from 27% in 2011 and 18% in 2008. It was estimated to amount to 45% of GDP at the end of 2016 (see chart 8, page 12).

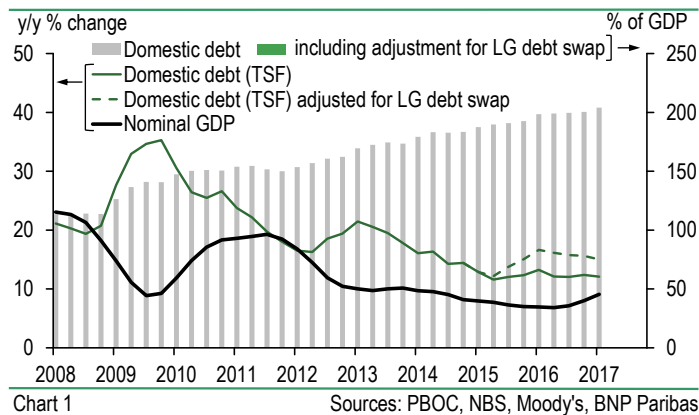
Like for corporates, the average repayment capacity of LGs weakened in 2010-2015, with wide discrepancies between provinces: capital spending has remained high in order to support activity, revenue growth has deteriorated amid slowing economic growth and lower land sales proceeds, and a number of projects financed by debt have not been either rapidly or sufficiently profitable. The real estate market correction in 2013-2015 had a particularly severe impact on LG revenues (land sales have accounted for 15% to 25% of total revenues of provinces since 2008): gross proceeds from land sales rose by only 3% in 2014 and fell by about 20% in 2015 (vs. +45% in 2013).

In response to the mounting financial difficulties of local governments and their financing vehicles, a large part of maturing debt has been either rolled over or repaid with new borrowing, which has helped reduce short-term liquidity risk but further worsened LG solvency. The authorities have also intended to reform public finances.

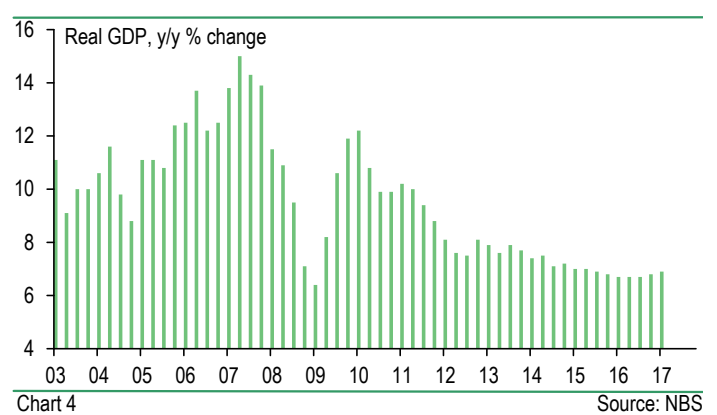
The new Budget Law adopted in October 2014 set out the principles of the needed changes in the public finance framework, including rationalizing LG spending through multi-year fiscal planning and regularizing off-budget borrowing by financing vehicles, and increasing reliance of LGs on bonds issued in their own names.



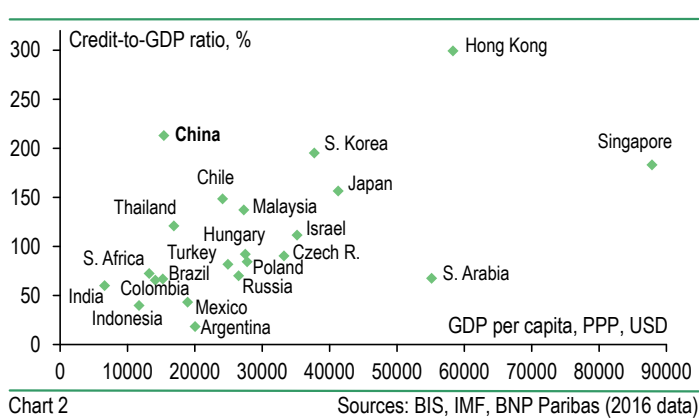
Domestic debt of the non-financial sector: credit is still growing faster than GDP



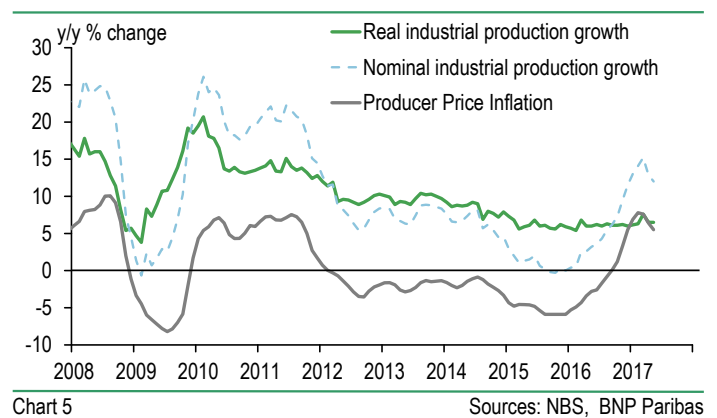
Economic growth: structural slowdown



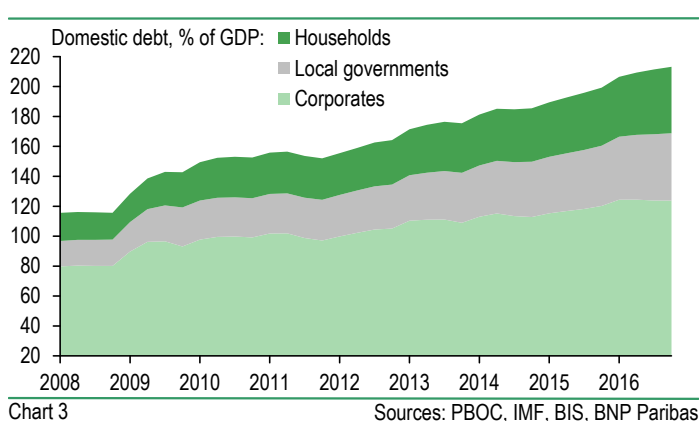
Credit ratios in emerging countries: China is the outlier



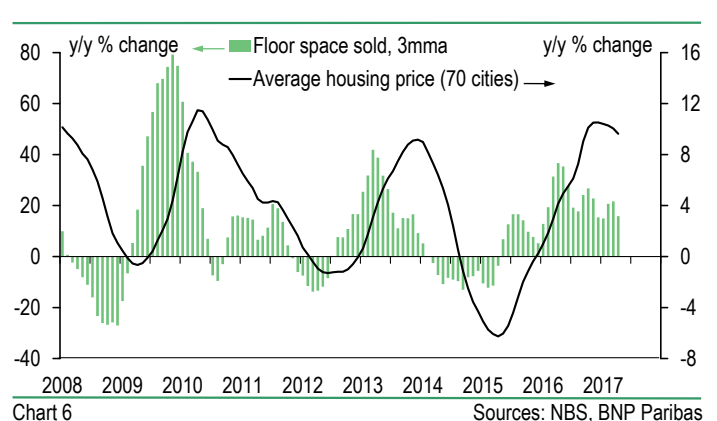
Industrial production growth recovered in 2016



Credit boom in the corporate and local government sector, and rapid increase in household debt



Ups and downs in the property sector



Corporate debt:
stabilization in debt ratios and rebound in profits in 2016



Chart 7 Sources: PBOC, NBS, IMF, BNP Paribas

Local government debt:
a strong increase over the last ten years

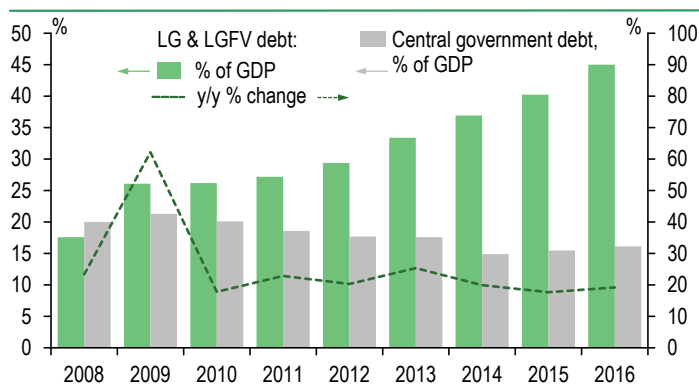


Chart 8 Sources: Ministry of Finance, IMF, BNP Paribas

Household debt:
recent growth has been driven by housing loans

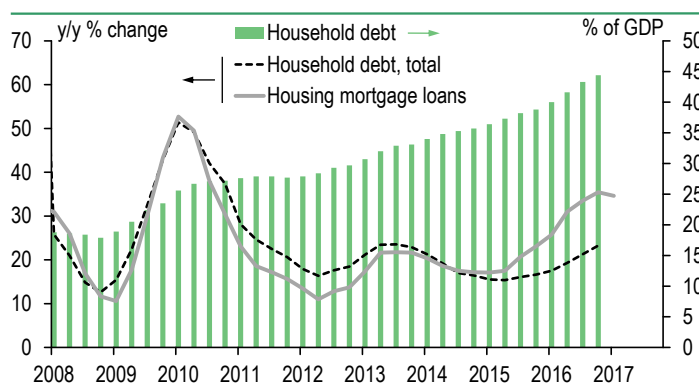


Chart 9 Sources: PBOC, NBS

However, in the context of weaker economic growth in 2015 and the first part of 2016, reform implementation was very slow and the new controls over LGFV borrowings were relaxed. LGFVs have in fact continued to be the main source of investment in infrastructure development.

Meanwhile, local governments have been authorized to borrow on local bond markets within limits set by the authorities. Bond issuance has been allowed to be used not only to finance LG deficits but also to swap for maturing bank debt. The “bond swap program” is in fact aimed at replacing bank credits previously incurred by LGs or LGFVs to finance infrastructure projects, with LG bonds that are less costly and have longer maturities. The program has gone well since it was initiated in May 2015: in total, bonds issued within the swap program represented about one-fourth of LG debt at the end of 2016 (see chart 1, page 11).

In 2016, the bond swap programs, refinancing of debt by banks, the rebound in the property market (LGs’ gross proceeds from land sales recovered by 14% y/y in the first three quarters of 2016), economic growth stabilization and the decline in real interest rates have all helped alleviate LGs’ short-term liquidity constraints. However, their debt ratios, including those of their financing vehicles, continued to rise.

Household debt is catching up rapidly

Household debt has grown steadily in the past decade, starting from low levels (18% of GDP at end-2008). After a period of slowdown, household debt growth has re-accelerated since mid-2015 in response to the loosening of both monetary policy and property policy (i.e. the prudential rules applied to property loans and transactions). Household debt reached 44% of GDP at the end of 2016, up from 38% in 2015 (see chart 9).

Household debt has remained in a catch-up phase so far and is presently considered to be roughly consistent with China’s level of development. However, the recent expansion in household debt has been largely driven by increased mortgage lending, which has contributed to the sharp rise in property prices since last year. Given recent property market overheating in large cities and, more generally, the propensity for sudden ups-and-downs to occur in the real estate sector, the quality of household mortgage lending could be highly vulnerable to declines in house prices and become a growing source of credit risk in the future (loans to property developers and mortgages represented 25%-30% of total commercial bank loans in 2016). However, for the time being, loan-to-value ratios for mortgage loans are below 50% on average and their quality is believed to be adequate (the official non-performing loan ratio for commercial banks’ mortgage portfolio was estimated to be at a very low 0.4% in 2015).

The credit boom and the rise in credit risks have also come from significant changes in the composition and the size of the financial sector. Shadow banking credits have expanded steadily and represented a rising portion of total domestic debt. Domestic bond issuance has also gained importance whereas the share of “traditional” bank loans has declined. Bank loans represented 145% of GDP at end-2016, accounting for 72% of the total TSF stock and 53% of our total NFS debt estimate. At the end of 2011, they represented 117% of GDP,



but 78% of the TSF stock and 69% of total NFS debt (see chart 10). The share of bonds increased from 11% of GDP to 24% over the same period (excluding LG bonds issued to swap bank debt). Meanwhile, the share of all (core and non-core) shadow banking credits rose from an estimated 40% of GDP in 2011 (23% of total NFS debt) to a very large 87% of GDP in 2016 (32% of NFS debt). Although regulation of shadow banking has made progress in the last five years, it remains insufficiently stringent and debt accumulation continues to be partly driven by credit originated by the most poorly supervised institutions in the financial sector. This largely contributes to the quality problem of domestic credit.

Domestic credit: the share of shadow banking and bonds has increased

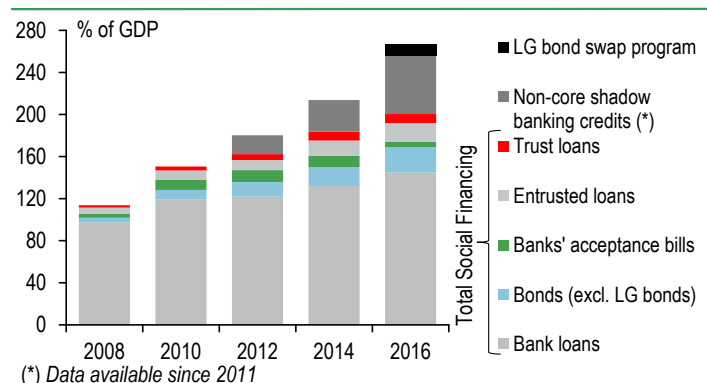


Chart 10 Sources: PBOC, IMF, Moody's, BNP Paribas

Mounting fragility in the financial system

The financial sector has grown fast in recent years while its average performance and overall solidity have deteriorated. Banks have faced asset quality deterioration while their provisioning and capital ratios have been under pressure. The rapid expansion of shadow banking has also raised credit risks, contributed to increased leverage of financial institutions, and contributed to rising interconnectedness between banks and nonbanks. Finally, default risks have also started to hit the local bond market.

Regulatory loopholes have encouraged financial institutions to take risks

Flaws in the supervision and prudential framework of the financial sector, combined with the abundance of liquidity, have encouraged risk-taking by creditors, including: i) lending to risky sectors (local government financing vehicles, real estate loans, loans to fund investment in stock or bond assets, etc.) and ii) innovation and proliferation of new investment products and new types of credits (in

the so-called shadow banking sector⁸) favored by financial liberalization measures, the search for profits and financial institutions' continuous attempts to circumvent existing regulations (on disclosure, loan quotas, calculation of risk-weighted assets and minimum capital ratios, etc.).

All this has resulted in the continuous emergence of new sources of vulnerability in the financial system. The credits of the shadow banking sector, which are generally higher-yield/higher-risk than bank loans, have expanded rapidly, and their composition has been changing as steps were made in tightening regulation. In the end, the least regulated and most opaque – and thus highest-risk – activities have often been among the fastest growing. At the same time, links between the different financial institutions and products have become increasingly complex and opaque.

Trust loans, entrusted loans and undiscounted bank acceptance bills (the "core" shadow banking credits included in TSF data) started to expand in 2010 when monetary policy was tightened to curb bank loan growth after the lending binge of the previous year. Their expansion has come with the development of risky practices given the lack of adequate supervision. In the following years, variations in the growth of core shadow banking activities have then been largely explained by regulatory changes (see chart 11). From 2013 to mid-2016, the tightening of prudential and reporting rules for core shadow banking activities contributed to their slowdown, in part because banks have put activity back on their balance sheet. In the meantime, borrowers have also gained greater access to the bond market as a result of liberalization measures. Moreover, "non-core" shadow banking credit instruments (such as e-finance or wealth management products) have also expanded rapidly. Therefore, the credit growth slowdown on one side (core shadow banking) has been offset by the expansion in bond financing and "substitutes" on the other side ("non-core" shadow banking credits, which are not captured into TSF and for which supervision and prudential rules have made less progress).

Total Social Financing: diverging growth trends between the various components

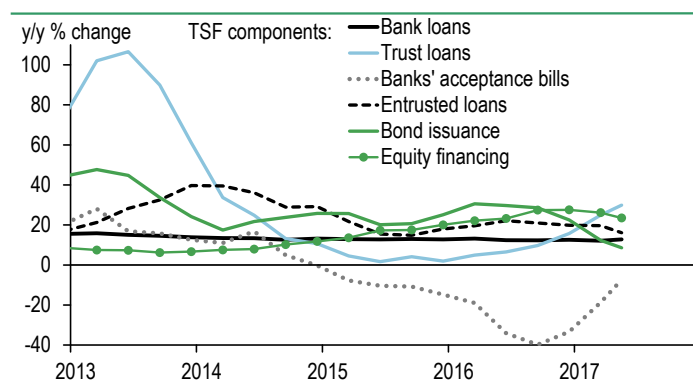


Chart 11 Source: PBOC

⁸ Shadow banking products comprise all investment instruments structured by trust, securities or asset management companies set up by banks (often off-balance sheet) and non-bank institutions, with credit generally being the underlying asset.



In particular, financial institutions, especially small and medium-sized banks and non-bank institutions have been very active in issuing Wealth Management Products (WMPs)⁹. As a consequence, credit assets funded by WMPs more than tripled between end-2013 and end-2016 to represent 40% of GDP, according to Moody's estimates. WMPs are structured and distributed by banks' off-balance sheet or issued by non-bank financial institutions (securities firms, insurance companies, etc.). They attract savers by offering high returns and, in turn, are invested in high-risk high-yield assets such as bonds, sub-standard loans and other assets that have been diversified into increasingly innovative and complicated financial products. In fact, as the authorities have gradually introduced rules to control WMPs' business, financial institutions have partly reduced their investments in non-standard assets and instead have increased them in bonds and money market instruments. But they have also found strategies to circumvent the new regulations in order to keep high-yield assets (for instance, they have repackaged non-standard credit assets to make them appear standardized)¹⁰. This evolution combined with monetary policy shifts has led the average rate of return of banks' WMPs to decline slightly in the past three years (it reached a peak of 5.6% in early 2014) while still standing much higher than bank deposit rates (it has been close to 4% since end-2016 against 1.5% for one-year benchmark deposit rates). Regulations on banks' WMP activities were strengthened again in mid-2016 and early 2017 (improved disclosure and monitoring, new restrictions on underlying investments, equalized capital buffer requirements for banks' on- and off-balance sheet items). Consequently, growth in WMP assets has slowed over the past year, whereas growth in trust loans has picked up.

Asset quality has deteriorated

Non-Performing Loans (NPLs) reported by commercial banks started to rise in Q4 2011 after several years of decline. Growth in NPLs then accelerated until 2015, reaching +30% per year in average, and has lost speed since last year. The average official NPL ratio rose from 1.13% in 2010 to 1.76% in September 2016 and has been almost unchanged since (1.74% in March 2017). This remains low but in fact gives only a very partial picture of banks' asset quality. Firstly because it underestimates the level of banks' debt at risk due to sub-standard accounting norms. When "Special-Mention Loans" (SMLs) are included, banks' average NPL ratio is much higher, at 5.9% in September 2016 (see chart 12). Moreover, the IMF has calculated that "loans potentially at risk" rather surged to a high 15.6% of commercial banks' total corporate loan portfolio in 2015 from 4% in 2010¹¹.

⁹ WMP assets under management are estimated to represent about 10% of total on-balance-sheet assets for the large SOCBs (20% for Bocom), and up to 40% for some small and midsize banks.

¹⁰ In 2016, banks' WMPs were principally invested in bonds and money market instruments (56% of their WMP assets), cash and bank deposits (18%), equity (8%), non-standard credit assets (18%) and other instruments.

¹¹ The IMF has adopted a bottom-up approach in using corporate data. Loans at risk are held by companies that lack sufficient revenues to cover debt interest payments, i.e. that have an EBITDA/interest expense ratio lower than 1.

Commercial banks' asset quality: NPL ratios underestimate the extent of the deterioration

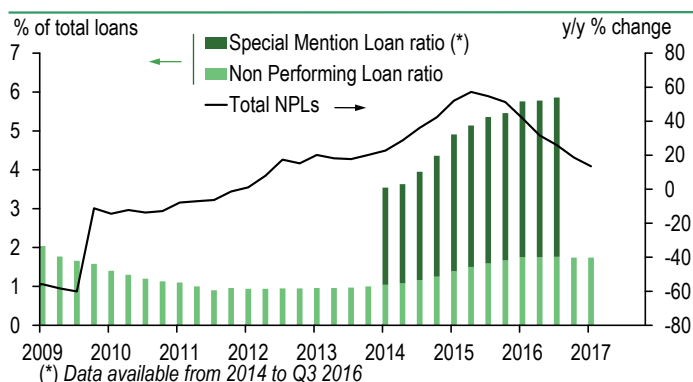


Chart 12 Source: China Banking Regulatory Commission

Secondly, NPLs, SMLs and even the IMF's estimate of corporate loans potentially at risk are limited to the perimeter of traditional loans of commercial banks. They exclude banks' other assets, especially shadow credit exposures, which are a preferred source of financing for less creditworthy borrowers and pose a higher risk of loss than traditional bank loans. This is illustrated by the higher rates on shadow credits (estimated to be at 11%-14% in 2015) than on bank loans (5%-6%) and corporate bonds (3%-4% at end-2015 and 4%-5% in June 2017). Banks do not provide data on shadow credit quality. The IMF estimated that about half of shadow credits posed a high risk of default at the end of 2015.

Finally, banks have taken actions to curb the net rise in their reported NPLs. They have resorted to the refinancing of deteriorating loans and taken a series of steps to deal with their bad assets. First, write-offs and sales to Asset Management Companies (AMCs) have increased steadily since 2012 (they represented 62% of the previous year's NPLs at end-2015 for the 12 banks rated by Moody's, up from 17% in 2013). AMCs include the big four nationwide state-owned AMCs (set up in 1999-2000) and an increasing number of small, local AMCs (allowed since 2013). Local AMCs still hold a small market share but could grow faster going forward after regulatory relaxation in October 2016 (two AMCs per province now allowed vs. one before, looser rules on how they are permitted to dispose of bad loans).

Moreover, the authorities have launched since last year programs for NPL securitization and debt-to-equity swaps (DES). New guidelines for DES were announced in October 2016 to push forward a new round of market-driven swaps; the targets are mainly large, viable SOEs with high debt ratios. These programs, which so far remain fairly small, may enable banks to report lower NPL ratios and corporates to reduce their headline debt ratios, but the overall quality of bank assets may not improve. For instance, securitized packages of poor-quality loans may end up on banks' balance sheets, which at the same time will no longer need to recognize the underlying NPLs; bank-linked WMPs and trust funds can be invested in debt-equity swaps, meaning banks maintain their exposure to the same underlying credit risks, but through more complex structures.

All these measures, combined with corporates' slightly improved financial performance in a period of economic growth stabilization, have explained the slower rise in reported NPLs since last year. At the same



time, however, high credit risks continue to plague the financial system, in a more and more opaque way. Meanwhile, the poor quality of new credit flows persists.

Banks' buffers are under pressure

Chinese banks remain profitable but profit growth has decelerated steadily in the last five years. Profit ratios have deteriorated mostly as a result of rising credit costs (provisioning, bad loan disposals) and narrowing Net Interest Margins (NIMs account for around 70% of banks' total revenue). The average NIM for commercial banks fell to 2% at end-2016 from 2.7% at end-2014 principally due to the decline in lending rates (in 2014-2016) and growing funding competition. In particular, deposits have migrated from the medium-sized and small banks to WMPs, which have attracted savers seeking higher yields. Funds collected by WMPs surged from RMB7trn at end-2012, or 8% of commercial bank deposits, to RMB29trn at end-2016, equivalent to 19% of bank deposits.

Headline provision and capitalization levels reported by banks seem adequate on average. However, they have been under growing pressure in recent years as a result of rapid asset growth and asset quality deterioration. Moreover, they are over-stated as they do not incorporate risks from off-balance sheet activities (WMPs in particular). Loan loss provision ratios have fallen rapidly since 2013. Meanwhile, banks have had to respond to the rise in risk-weighted assets, weaker internal capital generation resulting from low profit growth and tighter regulatory capital requirements by raising capital. This is positive as it has prevented any worsening in commercial banks' average capital adequacy ratios (they were up slightly in 2014-2015 and down slightly in 2016). However, going forward, some banks could find increasingly difficult to raise fresh capital given their declining profitability and more volatile domestic market conditions. See table.

Key indicators for commercial banks

	2010	2012	2014	2016
Capital adequacy ratio (%)	12.2	13.3	13.2	13.3
Non performing loan ratio (loan %)	1.13	0.95	1.25	1.74
Provision-to-NPL coverage ratio (NPL %)	218	296	232	176
Loan to deposit ratio (%)	64.5	65.3	65.1	67.6
Total profit growth (%)	n/a	19.0	9.6	3.5
Return on Assets, ROA (%)	1.1	1.3	1.2	1.0
Return on Equity, ROE (%)	19.2	19.9	17.6	13.4

Table

Sources: CBRC, CEIC, BNP Paribas

The deterioration in banks' asset quality, profitability, provisioning and capitalization mean that while potential loan losses have increased, their loss-absorbing buffers have eroded at the system level. In reality, major differences exist between the largest banks (Tier-1) and small and medium-sized institutions (Tier-2 and Tier-3 banks). Tier-1 banks include the "Big Five" State-Owned Commercial Banks (SCOBs), which enjoy better asset quality indicators, more comfortable levels of liquidity and funding (benefiting from long-established nationwide franchise and higher depositor confidence) and stronger capital buffers than the smaller banks. On the contrary, Tier-2 and Tier-3 banks, especially

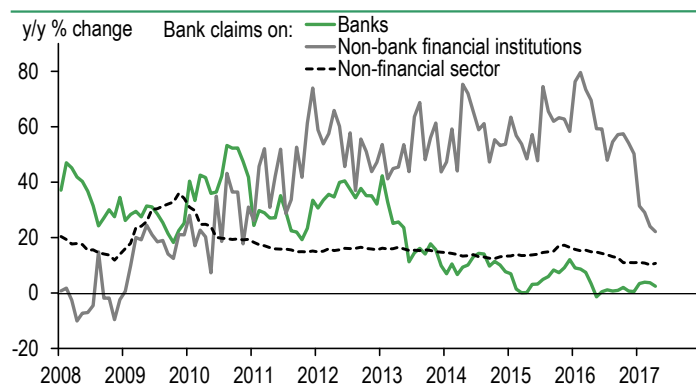
unlisted ones, are far more exposed to asset quality deterioration, weakening solvency and liquidity stress.

Financial institutions are now more vulnerable to liquidity tensions

Overall, liquidity in the financial system is still comfortable. The banking sector as a whole has long benefited from robust funding and liquidity levels, supported by a large deposit base, low loan-to-deposit ratios of the larger banks and limited reliance on foreign funding. However, these points of comfort are weaker today than a few years ago. First, pressures on systemic liquidity have emerged due to rapid asset growth and rising capital outflows. Second, like capitalization ratios, banks' headline liquidity indicators have become over-stated as they do not incorporate off-balance sheet/shadow credit exposures.

Finally, medium-sized and small banks as well as non-bank financial institutions have relied increasingly on wholesale funding to compensate for their lack of customer deposits and fund their fast-growing loan and investment portfolios. This has increased their leverage and deteriorated their liquidity ratios. Wholesale funding (which is mostly made of interbank financing) accounted for almost 35% of the total funding of small and midsize banks at the end of 2016 (up from about 15% in 2013), vs. around 10% for the large SOCBs. The SOCBs as a group are net funding providers in the interbank market while midsize and small banks and non-bank financial institutions are net borrowers (see chart 13). Moreover, leverage of financial institutions has also often been obtained through opaque financing structures involving several layers of intermediaries (banks, WMPs, etc.). All this has contributed further to both the expansion of total financial-system assets and the growing complexity of links between institutions.

Interbank funding: adjusting downwards after a period of rapid expansion



Increasing reliance on wholesale funding makes financial institutions more vulnerable to liquidity tensions, because sources of wholesale funding are less stable than customer deposits and aggravate maturity transformation risks (short-term wholesale funds are invested in longer-term investments). It has also contributed to the rising interconnectedness in the financial sector and increased spillover risks



from one institution to another during episodes of liquidity stress. This vulnerability was demonstrated in late 2016 when a liquidity squeeze caused by central bank tightening actions rapidly spread to a number of leveraged financial institutions and also hit the bond market.

Capital markets have become another potential source of instability

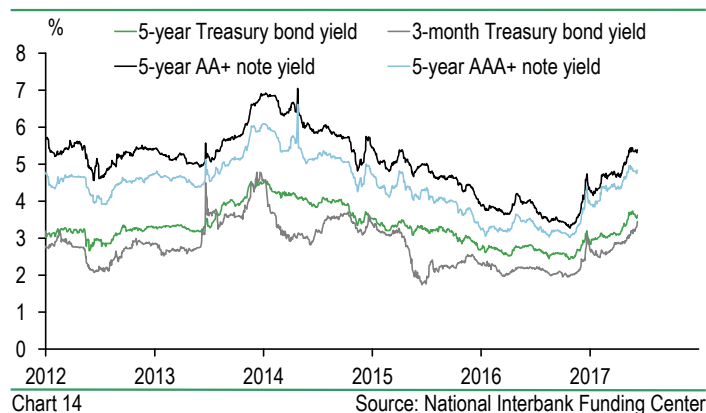
In recent years, the propensity for asset market bubbles and sudden bursts has extended to equity and bond markets, which have become another potential source of financial instability.

The corporate and local government bond market has expanded rapidly, supported by low interest rates and liberalization measures (removing of quota limits, expanding access to local and foreign investors, LG bond issuance programs etc.). In theory, this represents a positive step for financial deepening and improved capital allocation. However, the surge in bond issuance (17% of new TSF flows in 2016, vs. 15% in 2014 and 8% in 2010) has come in a context of deterioration in corporates' financial health while pricing has been, here again, distorted by perceived implicit state guarantees. This leads to substantial risks of repayment problems and/or abrupt repricing of corporate credit risk. In fact, both risks have already materialized. First, since the first-ever default on the onshore corporate bond market in March 2014, the number of corporates defaulting on their interest or principal payments has surged (more than 20 up until late 2016 and seven for Q1 2017 alone). Defaulting companies have included SOEs and private firms in heavy industries, construction-related and overcapacity sectors (such as steel, coal, cement and energy). State support of failing SOEs has been determined on a case-by-case basis, varying from administrative intervention to financial help from state-owned banks.

Second, market sentiment suddenly deteriorated in late 2016. In a context of increasing default risks, less predictable state support and regulatory measures, repricing was triggered by central bank actions to tighten liquidity conditions in interbank and repo markets. Higher repo rates led to losses for leveraged institutions investing in bond markets, to a large sell-off of securities and a fall in government and corporate bond prices. The authorities responded to the market turbulence by temporarily restraining some trading and asking state-owned banks to provide emergency loans to struggling institutions. The situation stabilized in January 2017. However, other episodes of sudden market correction are likely going forward. Meanwhile, corporate bond issuance has declined substantially since the beginning of this year as a result of the rise in interest rates and the increased perception of high counterparty risks. See chart 11 page 13, and chart 14.

The equity market has also contributed to the broadening of financial stability risks since the boom-and-burst episode of 2014-2015. The role of equity markets in financing the economy is still modest albeit growing (equity represented 7% of new TSF flows in 2016, vs. 3% in 2014 and 4% in 2010). Finally, banks' direct exposure to the equity market is limited, but links between equity market performance and asset quality of financial institutions have increased due to margin lending and share-collateralized lending (which were estimated by the IMF to be about 3% of GDP in total at the end of 2015) and given the expanding use of shadow financial vehicles to invest in the stock market.

Domestic bond market correction since late 2016



Systemic risks are still contained though contagion risks are rising

Financial vulnerabilities have increased dramatically since 2008 as the result of excess debt, rising credit risks, banks' weakening financial performance and creditworthiness, the expanding size of the financial sector, the rising leverage of bank and non-bank institutions and their growing interconnectedness. As a consequence, the financial system has repeatedly faced episodes of disruption and instability, which may become more frequent going forward. They can result from an increasing number of corporate defaults, losses reported on some WMPs/investment products, temporary funding squeezes affecting certain institutions, liquidity tightening in the interbank market, abrupt corrections in asset prices, etc. In case of disruptions hitting one type of assets or institutions, the risk of contagion effects to similar assets/institutions and to banks is also higher today than five years ago.

In fact, interconnectedness between financial institutions has grown gradually with the expansion of shadow banking businesses, the multiplication of layers of cross-ownership in investment vehicles and the rise in interbank funding. Shadow banking institutions and banks are very much intertwined; banks issue and/or distribute shadow products, provide them with funding or get funding from them and often bear the underlying credit/investment risk (for instance, it is expected that the issuing bank of an investment product will ultimately stand behind it and will not pass losses on to investors, even though there is no legal obligation for this). Extensive interconnectedness increases spillover risks in case of credit events and liquidity tensions – as has already been seen in the very recent past. For instance, a liquidity squeeze affecting certain institutions can rapidly spread to others that rely on wholesale funding; a negative shock at one institution can trigger collective risk aversion and funding withdrawal from other similar institutions; a default can lead the creditor to have difficulty repaying its own debt and possibly result in other defaults. In the end, no single institution can be said to be totally isolated from the high



credit risks plaguing the system while the bulk of the potentially bad assets in the shadow banking may ultimately end up as losses for banks.

All in all, the risk of a "systemic" financial crisis is higher today than at the start of the current decade. However, it continues to be contained by a number of key supporting factors: i) domestic credit is funded by ample domestic savings and the financial sector does not rely on foreign financing sources. ii) Systemic liquidity remains comfortable and the central bank (People's Bank of China, or PBOC) maintains a solid capacity to inject liquidity when necessary (through short-term funding lines, release of required reserves, etc.). iii) The five large state-owned banks are robust. They still account for the largest part of the financial system, even though their importance has declined in recent years: they represented 40% of total bank assets in mid-2016 vs. 50% in 2010, and 28% of total financial-sector assets in 2016 vs. 42% in 2010. They enjoy better soundness indicators than small and midsize institutions and benefit from the infallible willingness of the sovereign to support them when needed. iv) The central government still has extensive means and still strong financial capacity to act to reduce systemic risk and contain turbulence (direct support, liquidity injection, administrative intervention, regulatory tightening, moral suasion on banks, etc.). Although potential state support for the smallest institutions is now less predictable than in the past, it should still prove strong as long as the authorities give priority to stability. As a result, while there is a high risk of contagion in case of disruption, this contagion should be "restricted" (to a certain segment of the financial sector, a region, a few institutions, etc.) thanks to state intervention.

Sovereign resources are expected to be needed at some point to address China's debt and bad loan problem (at least through the recapitalization of state banks and AMCs and possibly through a massive injection of funds in the system to write off a portion of debt). The IMF estimates that banks' potential losses resulting from their corporate loan portfolio amounted to 6.9% of GDP in 2015 (applying a 60% loan loss ratio on the "loans potentially at risk" – see page 14). This could represent the fresh capital needed to absorb banks' losses under the assumption of a one-off resolution of the debt problem. Such potential losses will most probably be realized only gradually, which makes them manageable, given the still adequate provisioning and capital buffers of the banking system as a whole and the financial space that the central government still enjoys. However, the estimate of potential losses based on banks' corporate loan portfolio is only very partial as it excludes policy bank loans, loans to LGFVs and banks' shadow credit exposures (the IMF estimates that the inclusion of these components would have resulted in additional losses of 3.6% of GDP in 2015), and is limited to the perimeter of commercial banks.

Last but not least, opacity of non-bank and bank off-balance sheet activities and of financing flows between institutions makes it difficult for supervisors to identify and contain vulnerabilities. Further policy actions to address these transparency issues and mounting vulnerabilities in the financial system remain urgently needed.

Policy actions need to become more coordinated and more comprehensive

Overall, the authorities' regulatory tightening actions in recent years have most often been a response to a new development in the financial sector, and led to slowing the growth (at least temporarily) of the credit component targeted by the new rules. In the meantime, financial institutions have taken advantage of other regulatory loopholes to innovate, offer new investment and credit products, and take new types of risks to improve their profits. This has been facilitated by the soft and targeted nature of regulatory tightening measures that always leave some financial activities poorly-supervised, by the persistence of abundant liquidity in the domestic financial system and by the loose monetary policy stance maintained from 2014 to Q3 2016. Policy actions taken since late 2016 may start to help mitigate some of these problems. The authorities have combined recent regulatory change with prudent monetary policy tightening and have also begun to coordinate better the policies of the various supervisors in the financial sector.

At the same time, their efforts to contain credit risks are severely constrained by their determination to continue to support activity and limit the slowdown in economic growth. Recent policy actions and announcements suggest the authorities consider that financial risks have become the top priority, but how long will this preference last?

New prudential rules may become more efficient...

China used to have a fragmented financial system with separate regulators (People's Bank Of China, China Banking Regulatory Commission, China Securities Regulatory Commission, China Insurance Regulatory Commission). With shadow banking expanding, frontiers between the various segments of the financial system have become increasingly blurred while regulators have continued to oversee their respective industries in isolated ways. Better coordination is now needed to eliminate regulatory vacuums and reduce the possibility for financial institutions to engage in regulatory arbitrage and opaque structuring of financial products. In order to curb systemic risks, the authorities also need to get a more systemic viewpoint that takes into account all the links between financial institutions.

Since early 2017, actions have been taken along these lines. In February, the central bank together with the various regulators drafted a comprehensive framework to strengthen supervision on all existing investment products in the financial sector and get a coordinated regulatory approach to the broad asset management industry (improved transparency, limits on cross-ownership, etc.). In the meantime, each regulator has taken new measures to crack down on risky shadow banking activities in its sector (banks, insurance companies, security firms). Moreover, the leaders of the CSRC, CBRC and CIRC have been changed over the past year or so and are now President Xi's appointees while the President chaired a Politburo seminar on financial risks in April, a signal that he wants to increase his control of the financial sector and change the process of coordinating regulatory decisions.



Meanwhile, the central bank has incorporated better the banks' shadow activities under its supervision. In particular, banks' off-balance sheet WMP businesses have been included in the Macro-Prudential Assessment (MPA) framework since Q1 2017. Under the MPA framework, introduced in 2016, Chinese banks are given scores based on a series of soundness indicators (credit quality, capital adequacy, leverage, etc.). The rating then determines the return on required reserves paid to banks (with benefits or penalties depending on soundness indicators) and the conditions for banks to access central bank liquidity facilities. The MPA framework also enables the regulators to monitor growth closely in a broad range of assets and funding provided to other financial institutions. The inclusion of WMP businesses in the MPA framework means they are fully incorporated into banks' risk management systems (and therefore have the same capital buffer requirements as on-balance sheet items, the same reporting rules, etc.).

... as they are complemented by monetary policy tightening

Monetary authorities have given priority to two major goals in the recent past: supporting economic stability and containing financial-instability risks. From 2014 to Q3 2016, the PBOC maintained a rather loose monetary policy in response to the rapid slowdown in industrial growth and to ease the debt servicing burden of corporates and local governments. Since Q4 2016, as economic growth stabilized, industrial performance improved, inflation accelerated, asset market bubbles developed and capital outflows revived, monetary policy has shifted its focus from supporting growth to containing credit and financial instability risks.

The PBOC has announced a "prudent and neutral" monetary policy for 2017, and set a target for growth in total social financing (+12%) that is only slightly lower than the 2016 target (+12.8%). But in fact the authorities have already tightened monetary conditions since Q4 2016.

i) The central bank uses a wide range of liquidity management tools. It has resorted less to Reserve Requirement Ratios (RRRs) in the recent past and instead has increasingly used open-market operations (OMOs) that enable to guide money-market rates, and other "liquidity facilities" (SFL, MLF, PSL¹²) that enable it to provide liquidity to certain well-targeted institutions. Interest rates on these liquidity facilities and repo rates have become the main determinants of interbank market rates and provide information about the central bank's desired policy direction (while the PBOC has de-emphasized the importance of official M2 growth targets).

RRRs were cut five times from February 2015 to February 2016 (from 20% to 17% for large financial institutions) and have been unchanged since then. Meanwhile, liquidity facilities for targeted

credit and OMOs have expanded steadily since early 2016. The PBOC has had to ensure the continued expansion of the monetary base and offset the impact on liquidity stemming from capital outflows (M2 growth decelerated from 13.3% year-on-year at end-2015 to 11.3% at end-2016). The PBOC calibrated OMOs to ensure stabilization in money market rates in Q1-Q3 2016 following their rapid decline in 2015. Since Q4 2016, repo rates have been increased gradually and the rates on the liquidity facilities were hiked in Q1 2017 (see chart 15).

Monetary tightening has begun

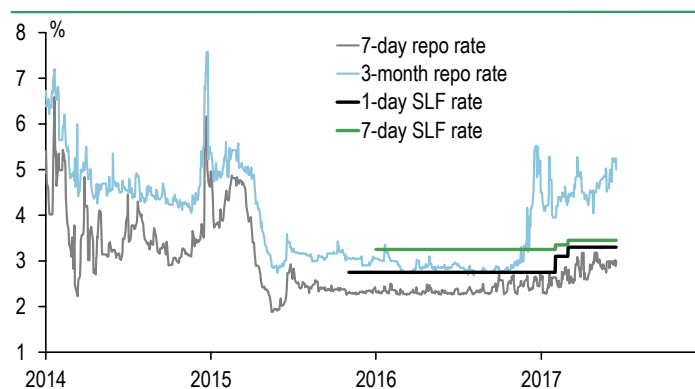


Chart 15

Sources: PBOC, Datastream

ii) Interest rates have been fully liberalized since October 2015, but the PBOC continues to "indicate" benchmark rates on loans and deposits, and commercial banks continue to monitor them to determine the rates they offer customers. These benchmark interest rates were cut six consecutive times between November 2014 and October 2015 and have been held stable ever since (the benchmark rate on one-year loans was cut by 165bps in total and has been kept unchanged at 4.35% since late 2015).

These actions illustrate the "prudent" approach of the monetary authorities. They increase money-market rates in order to discourage the use of interbank financing and reduce leverage of financial institutions but at the same time, they want to avoid raising the cost of borrowing for households and corporates in order not to weigh too much on their debt servicing burden and on credit flows to the real economy.

Nonetheless, the tightening in liquidity conditions in the interbank market since Q4 2016 has started to translate into higher borrowing costs for corporates. Bond market rates have surged, and the weighted average lending rate, which followed the same trend as benchmark lending rates from late 2014 to late 2016, has been rising since the beginning of 2017 (see chart 14 page 16 and chart 16 page 19).

¹² The SLF (Standing Lending Facility) offers short-term liquidity to local financial institutions; the MLF (Medium-term Lending Facility) offers liquidity mostly to the largest banks with preset amounts; and the PSL (Pledged Supplemental Lending facility) provides funds with one-year maturity to policy banks to finance infrastructure/urban upgrades.



Bank lending rates are starting to increase

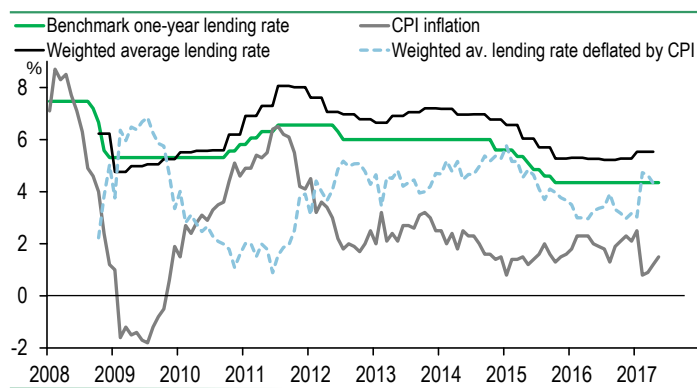


Chart 16

Sources: NBS, PBOC, BNP Paribas

Credit growth is projected to slow slightly in the short term

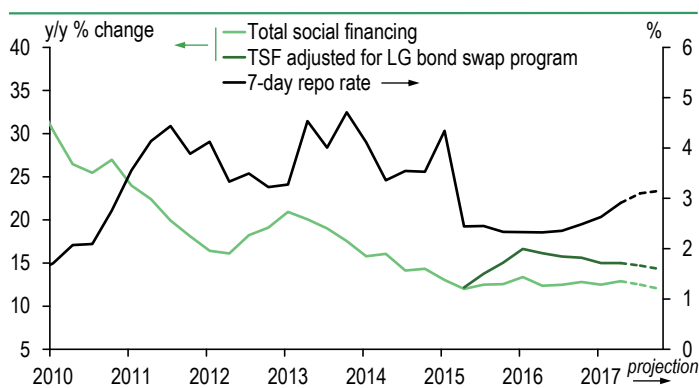


Chart 17

Sources: PBOC, BNP Paribas

Credit slowdown may be modest in the short term

The combination of monetary policy tightening, reduced interbank financing and continued regulatory strengthening could lead to some deleveraging of financial institutions and slowing growth in total domestic debt, including in its shadow banking component.

Recent policy actions have had some impact on domestic credit dynamics, with i) interbank funding and bond market financing being the most affected and ii) the slowdown in total social financing being very modest.

Interbank financing has in fact lost momentum since Q4 2016, which hit non-bank financial institutions hard (see chart 13). And bond issuance has stopped rising since December 2016, interrupting several years of steady expansion (see chart 11). Meanwhile, bank lending growth continued to decelerate slightly in Q1 2017, but re-accelerated in April and May (to 12.8% year-on-year). There have also been signs of weakening growth in WMP activity. At the same time, creditors and borrowers have increased their reliance on trust loans (which represented 4% of total TSF at the end of 2016). Overall, growth in total social financing (two-thirds of which are made up of bank loans) slowed only slightly in late 2016 and early 2017 (from 13.3% year-on-year in November 2016 to 12.5% in March 2017) and then slightly recovered (to 12.9% year-on-year in June 2017). See chart 1, page 11.

In the short term, we expect that interbank financing will continue to lose momentum and TSF growth and domestic debt growth will decelerate slightly (see chart 17). While tighter money market conditions will undoubtedly affect domestic credit, the authorities will also continue to strike a balance between containing financial-instability risks and maintaining stable liquidity conditions to contain the slowdown in economic growth. Along these lines, the large banks with abundant customer deposits could be asked to enhance loan supply to compensate for the reduced credit activity of the smaller banks and non-bank financial institutions that will face rising liquidity constraints. We expect that banks and non-bank financial institutions will face more difficult times in the short term.

Impact on financial institutions could be painful

In the coming quarters, Chinese corporates will have to deal with a combination of unfavorable circumstances: access to credit and debt rollover should be more costly, economic and industrial growth is projected to slow moderately after a period of stabilization since Q2 2016, and the real estate market could become less supportive as a number of provinces tighten their property policy. Therefore, after a period of respite last year, the capacity of corporates to service their debt could weaken again in the short term. Banks could register a new rise in their reported NPLs while asset quality of shadow institutions should also deteriorate. Meanwhile, default risks in the bond market will continue to rise.

Financial institutions are expected to suffer from lower revenue growth given slower asset growth, further rise in credit costs and increased pressures on net interest margins resulting from higher financing costs. Given weak prospects for profit growth, banks' share prices have declined since December 2016 (the financial stock index in the Shenzhen equity market fell 19% in six months whereas the composite index of the stock exchange declined by 11%) and may continue to do so in the short term, aggravating the difficulty of raising equity to maintain adequate capital ratios.

In this context (deleveraging of financial institutions, rising corporate default risks, weaker revenue growth for banks, slightly slower credit growth, bearish equity and bond markets), the risk of disruptions in the financial sector could increase while domestic credit dynamics should provide less support for economic growth. Therefore, the upcoming period will rapidly become a test for the Chinese authorities.

The government's determination to reduce financial risks is put to the test once again

The regulatory and monetary policy tightening could be called into question if economic growth were to slow excessively due to the very



impact of tightening actions, and/or if instability were to result from increasing debt defaults and financial difficulties of corporates (SOEs in particular). Stable economic growth will indeed remain Beijing's top priority at least until the 19th Congress of the Communist Party in the fall of 2017. More generally, reducing credit growth and combating financial risks require that both the central and the local governments accept lower economic growth and a period of uncertainty resulting from the deleveraging of financial institutions and corporates.

The monetary policy stance is most likely to remain cautious given its very limited leeway (the debt excess, rising inflation, property market overheating in some provinces and the risk of new episodes of capital outflows should indeed prevent any loosening). The determination (and ability) of the authorities to stay the course on credit tightening could be rather checked by the way the new supervision rules are effectively implemented by regulators and their degree of forbearance. For instance, they have already stressed the need to give time to financial institutions to apply new rules and deleverage gradually while limits on credit asset growth through the MPA are not very stringent and are likely to affect only the fastest growing institutions in a first stage.

However, the solution for the continued deterioration in credit risks that is expected in the short term should not be a step backwards in regulatory actions. Instead, the authorities will have to accompany policy actions with further progress on measures to deal with the non-performing assets of banks and nonbanks and on structural reforms aimed at strengthening governance of corporates, local governments and financial institutions as well as restructuring SOEs in order to help their deleveraging (through more market-oriented management, mergers & acquisitions, reduction of excess industrial production capacity, etc.). All these reforms would help improve the quality of capital allocation and thus reduce credit risks in the long run.

Conclusion

Vulnerabilities in the Chinese financial system have increased significantly and continuously in the past decade. In a nutshell, high credit risks have resulted from the excess debt of corporates and local governments and the major supervision flaws that have permitted the rapid expansion of shadow banking businesses without requiring creditors to adopt proper risk management practices. Liquidity risks have grown due to the increased reliance of small/medium-sized banks and non-bank financial institutions on wholesale funding in order to compensate for their lack of deposits and fund their excessively rapid asset expansion. Contagion risks in case of a credit event or liquidity stress have also increased as a result of the multiplication of (sometimes opaque) links between bank and non-bank institutions. The financial sector now looks like a big black box and regulators still face major challenges in identifying and reducing its vulnerabilities. Recent tightening in monetary conditions and efforts to get a more comprehensive and coordinated approach to strengthen the supervisory framework in the broad financial sector are positive steps.

However, tighter liquidity and credit conditions are likely to weigh on economic activity while they could also raise corporate default risks and have painful consequences for the performance of financial institutions

in the short term. This will rapidly turn into a test for the authorities. Will they remain determined to maintain momentum on measures needed to deleverage both the financial and non-financial sectors and reduce financial instability risks, at the cost of possible episodes of volatility and weaker economic growth in the short term? Nothing is less certain a few months away from the 19th Congress of the Communist Party. Thereafter, only the combination of monetary and regulatory tightening with a significant acceleration in the reform of LG finances and restructuring of SOEs will aid in reducing credit and financial-instability risks, improving capital allocation and, in turn, supporting China's transition to a more balance economic growth model.

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