

China Watch

Economic Research Department

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China slowed in Q3 to 9% led by falling growth in exports and real investment. The economy is expected to decelerate further in 2009 on a severe global downturn.

Nevertheless, China can still maintain a growth rate close to its potentials thanks to its solid macroeconomic fundamentals, sound banking system, and favorable fiscal and monetary conditions coming into this global financial crisis.

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Editorial

- China's economy slowed in the third quarter, registering a growth rate of 9%, a first single-digit growth since the end of 2005. Compared with Q2, the economy slowed by 1.1 percentage points. Falling export growth and real investment led the slowdown, while private consumption remained solid as indicated by robust real retail sales in Q3. For the first three quarters, the economy grew at 9.9%, which is impressive compared with other emerging market economies.
- As the economy slows, inflationary pressures are also waning. CPI inflation eased significantly to 5.2% yoy in Q3 from 7.9% in H1, on stabilizing food and falling commodity prices. Food prices are expected to fall further thanks to a bumpy harvest and a rebound in meat production. Meanwhile, the pass-through effect from high producer price is expected to diminish, as oil and commodity prices have fallen sharply and domestic demand has started to weaken.
- The global financial and economic environment has deteriorated sharply since our July review. Despite China's favorable initial conditions, the eruption of the on-going financial crisis has darkened the outlook for the Chinese economy going forward. While capital injections by governments in the EU and the US may have alleviated the fears of bank runs, they are not sufficient for banks to start lending again. Because banks' lending behaviors are procyclical in nature and as long as the real economy continues to deteriorate, banks will be hesitant to lend. This situation will be exacerbated further by the on-going deleveraging process. If this process were to continue, financial disintermediation would lead to a sharper and more protracted economic downturn.
- The policy makers in Beijing appear to have been keenly aware of the evolving global financial crises and have acted quickly to ease monetary policy and provide support to small and medium enterprises and the export sector in general. More importantly, China's economic authorities are determined to boost income of the vast rural population in this economic downturn so as to steer China's growth pattern from its high reliance on external demand to a one that will increasingly depend on its own domestic demand.
- Factoring in the much deteriorated external conditions and the expected policy initiatives that could cushion the fall of external demand, we forecast GDP growth in 2008 to be at around 9.5%. This entails a growth rate for the last quarter of 8.5% year on year. CPI inflation is expected to reach an averaged 6% for 2008. The economy will continue to moderate in 2009 to around 8.1%, as G-3 economies enter a simultaneous recession. With falling commodity prices and diminishing external demand, we expect CPI inflation to fall to an averaged 2% for 2009. Indeed, the pace of disinflation process could be faster than expected under the current circumstances.
- Looking forward, China is facing a number of risks and uncertainties that could affect its economic and financial stability. First, China's economy could decelerate faster-than-expected on falling exports and investment in areas of manufacturing and real estate market. To preempt this downside risk, the authorities would probably initiate fiscal stimulus programs. We believe that such programs would be more effective if they were complemented with structural reforms such as establishing a nationwide medical care and insurance system and improving the current pension system. Second, if external demand were to slide sharply, the risk of deflation would arise. To counter this risk, monetary policy would be relaxed more aggressively. Third, a sharp fall in export growth would lead to closures of many export-orientated manufacturing firms in the coastal region, thus pushing up unemployment rate and giving rise to social tensions and instability. Increased social spending on unemployment benefits would be required.
- Despite these risks and uncertainties, we maintain that China will continue to be a pillar of great economic strength in the current global downturn, largely because of its solid macroeconomic fundamentals, sound banking system, and favorable fiscal and monetary policy conditions coming into this global financial crisis.

Recent Economic Developments

1. Real sector

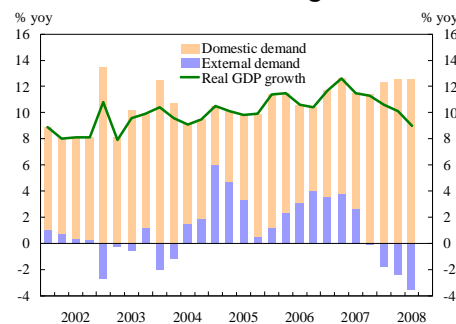
China's GDP growth slowed to 9.0% in Q3, which is a fall of 1.1 percentage points from that in Q2 and also 0.7 percentage points slower than the market consensus. This marks the first time that China's quarterly GDP growth has fallen below 10 percent since the end of 2005, fuelling expectations of a faster economic deceleration in Q4 and 2009. The deceleration in growth was mainly led by contracting net exports, while domestic demand was relatively robust (Chart 1). For the first three quarters as a whole, the economy grew by 9.9%, still a rapid pace relative to other emerging market economies.

Industrial activities have decelerated quickly in Q3 as well. Value-added industrial production grew by 13.0% yoy, down from 16.3% in the first half (Chart 2). The falling growth in industrial production in Q3 may be partly affected by the Beijing Olympic Games in August and September, as the goal for a safe and green Olympics may have led to some unintended disruptions to economic activities such as temporary suspension of factory work in some areas nearby Beijing, passenger travel, and freight transportation. However, the Olympic event alone can not explain the continued decline in industrial production. A slowdown in export growth and falling real estate related activities are the main factors behind a slowing momentum of industrial production. Specifically, growth in light industry production continued its volatile decline, while growth in heavy industry production fell sharply to enter its steepest decline since July.

Thanks to the continued rise in household disposable income, retail sales expanded strongly. Nominal retail sales grew by 23.2% yoy in Q3 from 21.4% in the first half of 2008. Real retail sales also maintained a robust growth, increasing by 16.4% yoy in Q3, after a 13.0% rise in the first half. Meanwhile, household disposable income grew further by about 15% yoy in the first three quarters in 2008, moderated from a fast growth of 20% yoy in 2007.

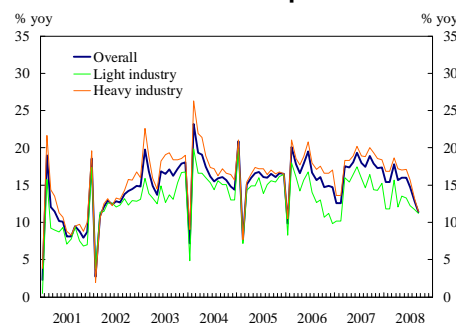
While fixed asset investment (FAI) in nominal terms continued to increase by 28.8% yoy in Q3 from 26.8% yoy in 2008 H1, real FAI growth slowed to 17.4% yoy over the same period (Chart 4), which is 5.5 percentage points lower than 2007 Q3. Slower real FAI growth was led by a fall in industrial profit growth to 19.4% yoy in the first eight months of 2008, compared with 37.0% in that of 2007, and by the tightened monetary policy conditions, particularly with respect to the real estate sector. Indeed, the real estate investment has been slowing sharply in recent months. Given the close relationship between China's investment growth and export growth, falling external demand is likely to depress investment further.

Chart 1: Real GDP growth



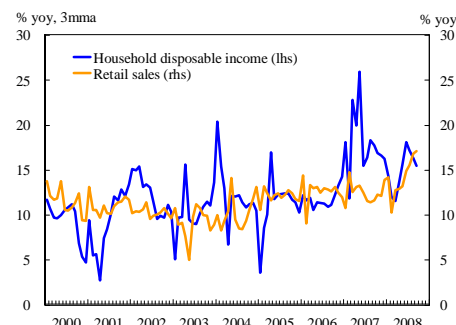
Sources: CEIC and BBVA estimates.

Chart 2: Industrial production



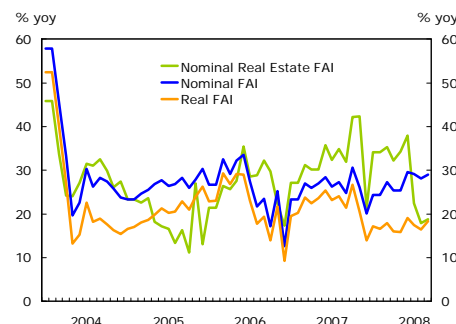
Sources: CEIC and BBVA estimates.

Chart 3: Retail sales and income



Sources: CEIC and BBVA estimates.

Chart 4: Fixed asset investment



Sources: CEIC and BBVA estimates.

2. External Trade

China's exports grew by 23.1% yoy in Q3, higher than 21.7% in the first half of 2008, but about 3.1 percentage points lower than that in 2007. In renminbi term, export growth slowed by an even larger 8.3 percentage points. Meanwhile, Q3 import growth slowed to 25.9% yoy from 30.7%, reflecting the falling oil and commodity prices. Nevertheless, trade surplus remained substantial at US\$ 181 billion in the first three quarters of 2008, which is US\$ 4.7 billion below those in the same period in 2007 (Chart 5).

The rebound of export growth in Q3 will be temporary, as China's export growth to the EU market fell sharply in Q3. Meanwhile, growth in exports to the US market recorded some rebounds in Q3 after decelerated sharply in H1 (Chart 6). Once the financial turbulence starts to affect the real sector, the demand for Chinese exports in the markets of the US and the EU is to contract sharply. In addition, although China has diversified its exports to emerging market economies in recent years, the spread of the financial crisis to emerging market economies has certainly dimmed the prospect of maintaining the same pace of export growth as before.

It is worth to note that the decrease in trade surplus in the first three quarters this year was mainly driven by the falling export growth in ordinary trade (Chart 7), a type of trade conducted by domestic firms without recourse to foreign imports. Indeed, the surge in commodity prices can partly explain why Chinese import grew faster in H1 (Chart 8). With the fall of oil and commodity prices, China's import growth is also expected to fall. Therefore, it is likely China's trade surplus will continue remain positive in the future for two reasons: First, the value of China's exports is much larger than that of imports. Second, Chinese manufacturing products are mostly concentrated in low-value chain area with relatively inelastic demand. Therefore, demand for them would not fluctuate sharply even in an economic downturn.

As shown in Chart 9 and 10, the import prices of Chinese products in US and Hong Kong markets have been rising sizably since mid-2007, consistent with the trend of RMB exchange rate appreciation. Meanwhile, China's trade surplus so far has remained large despite a close to 20% appreciation in the RMB exchange rate. This suggests that the RMB exchange rate effect on China's trade has been manageable. However, measured by an implied basket of currencies, the RMB now looks quite strong. Under the current circumstances, it is unlikely that the RMB exchange rate is going to continue to appreciate further (See Box 3).

Looking forward, Chinese export growth is likely to decline further on a slower external demand, the relatively strong RMB, and rising wages. Once the growth in exports slowed, the Chinese economy is not immune to a global slowdown. Box 4 discusses how much China will be affected by a simultaneous global recession. The slowing export sector may lead to a tide of bankruptcies in the coastal region, thus increasing unemployment rate sharply and potentially threatening social

Chart 5: External trade

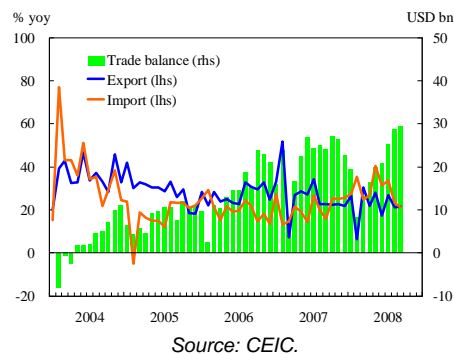


Chart 6: Exports by destinations

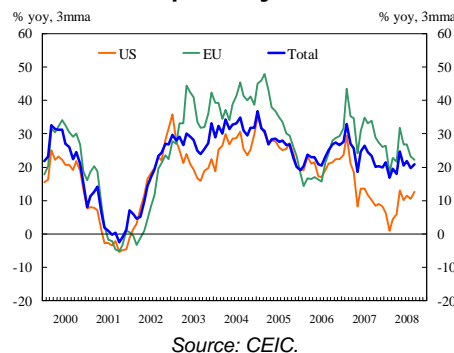


Chart 7: Trade by customs regime

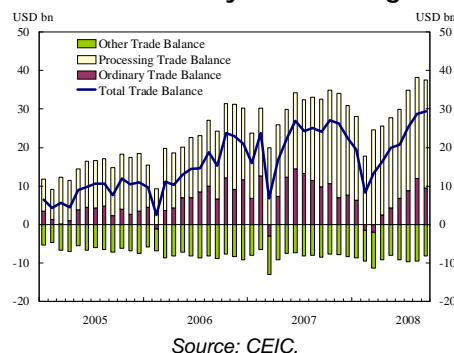
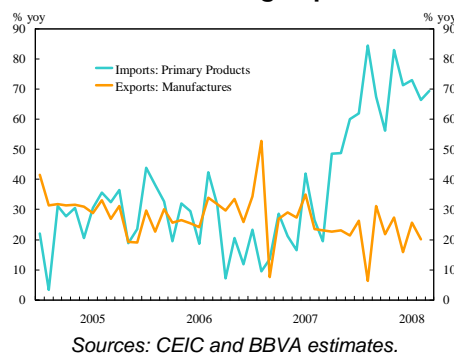


Chart 8: Primary imports and manufacturing exports



stability.

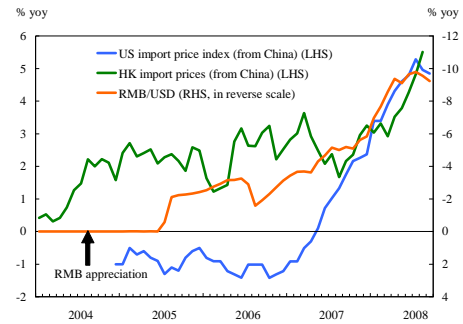
3. Inflation

CPI inflation eased sharply to 5.3% yoy in Q3 from 7.9% in H1 (Chart 11), in line with the eased food prices (Chart 12). Although China's food supply is mostly self sufficient, China does import large quantity of soybean and corn. As prices of these two commodities have fallen, it is expected that China's food price will have further room to fall (Chart 13 a) to d)).

Falling commodities prices will also affect China's producer prices, thus relieving inflationary pressure further. In the first three quarters in 2008, non-food component inflation surged, though from a relatively low level. In particular, surges in prices of raw materials for industrial uses such as the base metal and iron and steel put large inflationary pressures on the producer prices and hence the non-food component inflation (Chart 14).

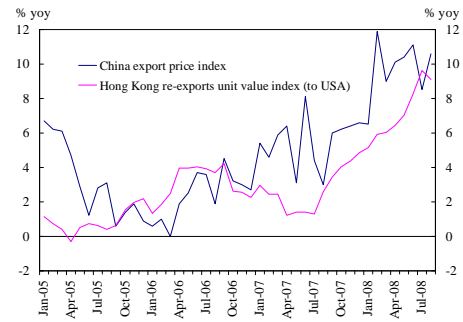
As the year-to-date price increases in international commodities eased sharply from 62% yoy in June to 25% in September (Chart 15), the pass-through effect on PPI inflation will attenuate in the near term. According to our estimates, a 10 percent decrease in commodity prices will likely lead to 1.2 percent and 0.22 percent falls in PPI inflation and non-food inflation, respectively. This entails a further ease of PPI inflation in the coming months. As inflationary pressures originating from food and industrial commodities dissipate, we expect China's CPI inflation will fall sharply, thus raising the risk of deflation.

Chart 9: Trading partners' import prices for Chinese products



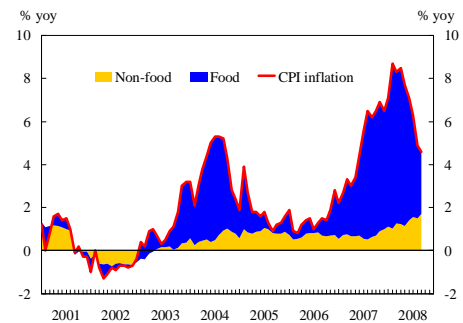
Sources: US Department of Labour and CEIC.

Chart 10: Chinese export prices



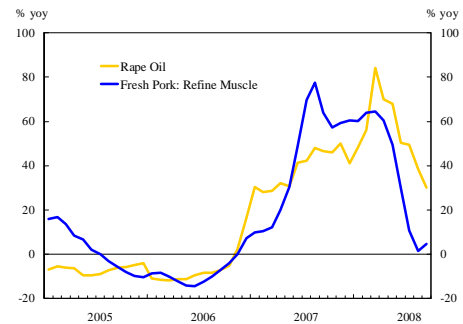
Source: CEIC.

Chart 11: CPI inflation



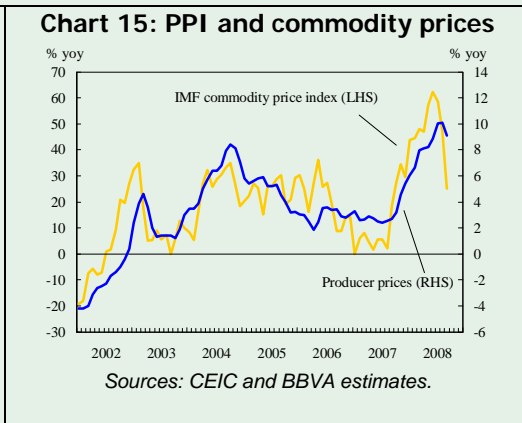
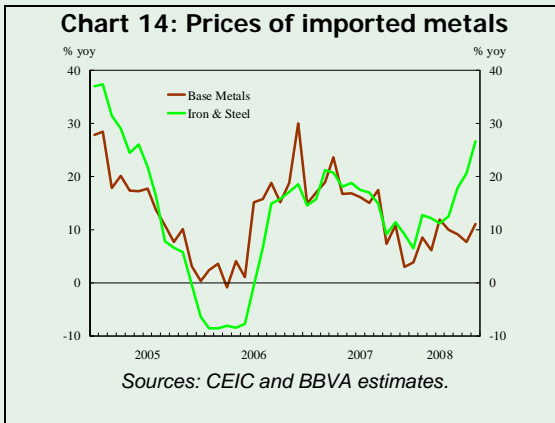
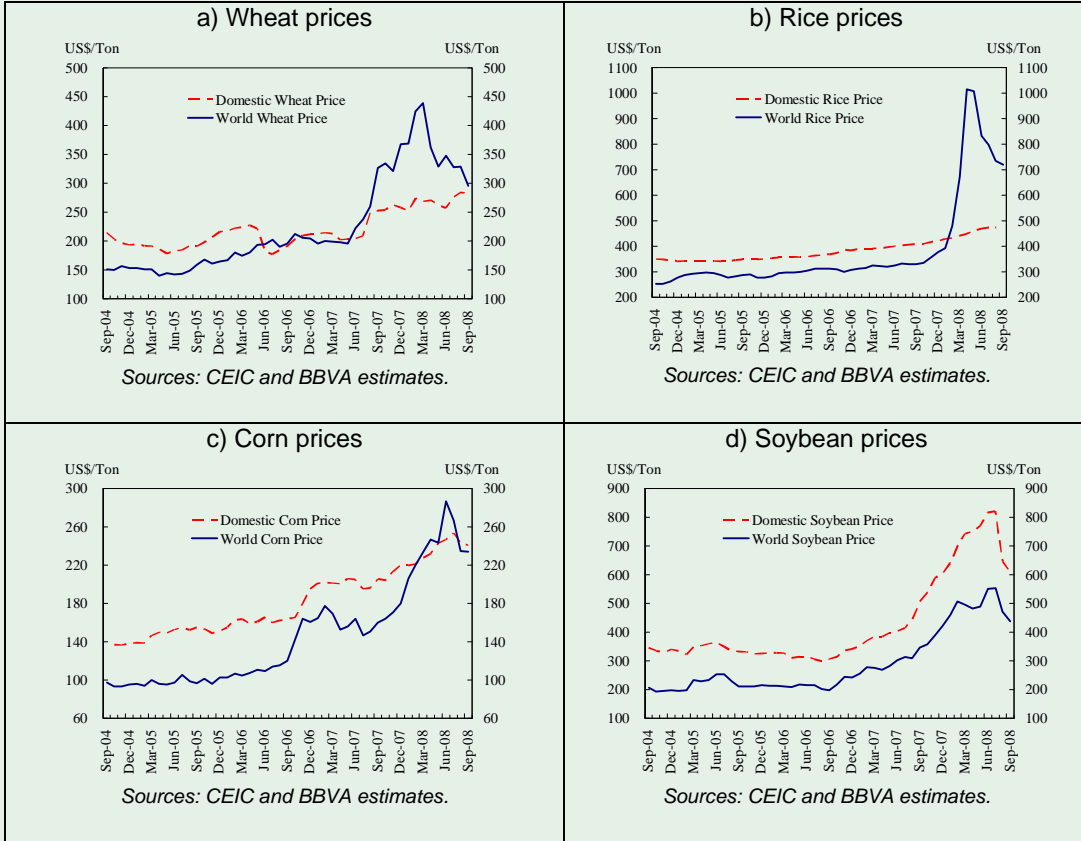
Sources: CEIC and BBVA estimates.

Chart 12: Retail prices of selected food



Sources: CEIC and BBVA estimates.

Chart 13: Global Commodities Prices and China Domestic Food Prices



4. Monetary conditions

Broad money (M2) growth fell considerably to 15.3% yoy in Q3, from 17.4% in Q2, while credit growth changed slightly in Q3 (Chart 16). People bank of China (PBoC) has started to relax the monetary policy, especially with respect to those small and medium enterprises, since mid-September on fear that economic slowdown may have been faster than expected. Given China's monetary policy had been tightened substantially coming into this downward economic cycle, the PBoC has plenty of room to ease going forward should China's economic growth decelerate quickly (Chart 17).

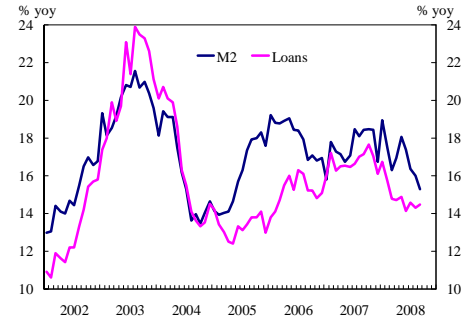
PBoC's open market operations contracted sharply since Q2 as net capital inflows eased. This has reduced the costs of sterilization, measured as the spread of Chinese policy rate over US fed fund target rate, which rose sharply since 2007 H2 (Chart 18).

Net capital inflows have moderated after strong inflows in H1. In fact, portfolio capital inflows reversed in August. The net portfolio inflows decreased by US\$ 9 billion in Q3, compared with an increase by US\$ 86 and 45 billion in Q1 and Q2, respectively, possibly reflecting profit repatriation motives as some FDI firms may need liquidity in their home markets as the global credit conditions worsened.

Nevertheless, China's foreign exchange reserves continued to increase, rising by US\$97 billion in Q3 alone on large trade surplus and FDI inflows. Though still large, the pace of reserve accumulation has slowed, relative to an increase of US\$ 154 and 127 billion in Q1 and Q2, respectively. By the end of September 2008, China's FX reserves stood at US\$1.906 trillion (Chart 19).

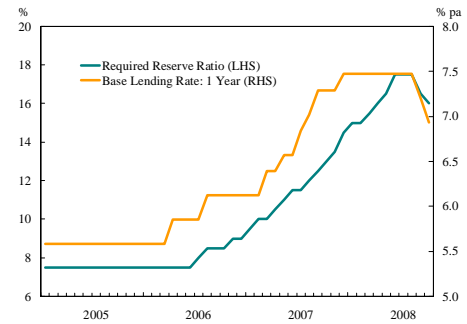
Falling net capital inflows can also be explained by the recent strengthening of US dollar. For example, the 1-year deposit interest differential between China and Hong Kong is 3.2% p.a. in Q3. If deducting 1.7% of the one-year implied NDF depreciation, the expected return on RMB deposit will be only 1.5%. Should the RMB exchange rate revert to depreciation at a fast pace, the return on hot money inflows will be become much diminished. This would lead to capital outflows.

Chart 16: M2 and credit growth



Sources: CEIC and BBVA estimates.

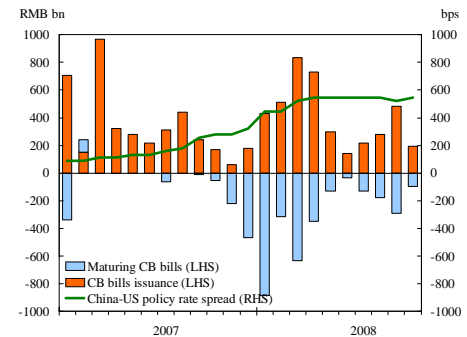
Chart 17: Policy rate and RRR



Source: CEIC.

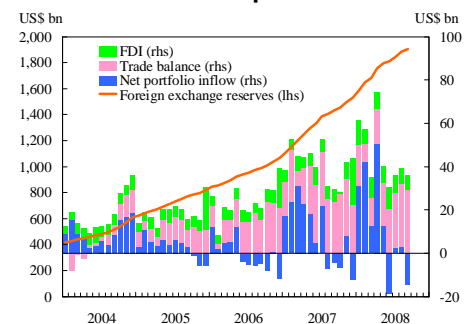
Notes: 1) In September 2008, the RRR was cut for small and medium sized banks only, while the RRR for the big four, Bank of Communications, and the Postal Savings Bank of China remained unchanged.
2) In October 2008, the required reserve ratio (RRR) for small- and medium-sized financial institutions will be 16.0%, and 17.0% for the six largest banks.

Chart 18: Open market operations



Source: CEIC.

Chart 19: Capital flows



Sources: CEIC and BBVA estimates.

Box 1: Has China started to diversify its foreign exchange reserves?

The virulent financial crisis in the US and the EU has raised fears over the safety and returns of China's over USD1.9 trillion foreign exchange rate reserves, which are mostly invested in US dollar assets. Indeed, the performance of Chinese financial investment in the West has so far been quite disappointing. On 15 October 2008, the China Investment Corporation (CIC) asked to withdraw its investment of USD 5.4 billion in Reserve Primary Fund, a U.S. money-market fund that experienced large losses and halted investor redemptions. The CIC's equity investment in Black Stone and Morgan Stanley has fared even worse, losing by over half of the value. In addition, investments made by other Chinese financial institutions such as the China Development Bank, Ping'an Insurance, and various Qualified Domestic Institutional Investors (QDII) have also fared rather miserably so far (Table B2.1). This raises a question on whether China will diversify its investment in US dollar denominated assets or at least refrain from investing in the US market further.

Table B1.1: Performance of Chinese financial investment abroad

Investors	Target	Investment (USD billion)	Initial Price (USD)	Latest Price (USD)	Current Value (USD billion)	Loss (USD billion)	Loss Ratio
CIC	Black Stone	3.00	29.61	10.87	1.10	1.90	-63.3%
	Morgan Stanley ¹	5.00	48.07-57.68	21.94	2.28	2.27	-54.4%
CDB	Barclays	3.04	14.62	4.28	0.89	2.15	-70.7%
Ping'an	Fortis	2.66	28.00	1.69	0.16	2.50	-94.0%
QDII	Oversea	16.20			8.07	8.12	-50.2%
Total		29.89			12.50	16.94	-56.7%

Note: 1) Investment in Morgan Stanley is in the form of convertible bond. The loss is net of coupon payment and calculated with the lower convertible price. 2) The returns for QDII include funds such as Huaxia, Hua'an, Harvest, Yinhu, Southern, Fortune-SGAM, SITC-JP Morgan Fleming, ICBC-Credit Swiss, Haitong-Fortis, and Boem-Schroder.

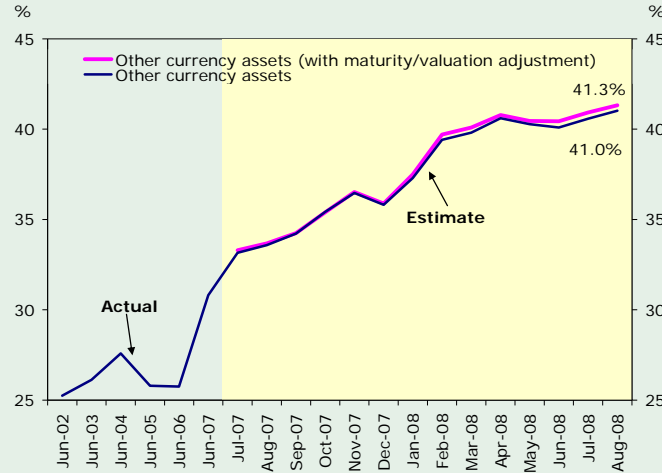
1) How much are China's FX reserves invested in US assets?

Historical data suggest that China's foreign exchange reserve has been mostly denominated in the US dollar. Using China's monthly reserve figures and US Treasury's TIC database, we are able to estimate that China held about 30% of its foreign exchange reserves in non-US dollar assets up till June 2007 (Chart B1.1). Ever since then, this pattern seems to have changed, possibly because of eruption of US subprime crisis. If we combine the data on the stock value of Chinese holdings of US assets in June 2007 and the latest Chinese monthly net purchase of US assets up to August 2008, we find that China's US asset holdings as a share of its foreign exchange reserves have declined. Our preliminary estimates suggest that China's US asset holdings declined from 68% in June 2007 to about 59% in August 2008.

However, this straightforward estimate may suffer from two important caveats: First, it is likely that some of the assets, especially those short-term ones, in the stock data ending June 2007 may have reached maturity over the period leading to July 2008. Therefore, simply accumulating Chinese net purchase over the stock data ending in June 2007 may over-estimate the accumulated stock of Chinese holdings of US assets. Second, there is a valuation issue as well, especially with respect to the equity holdings.

Recognizing these potential problems, we then make two adjustments. First, given we have information on historical averages of China's holdings on US short-term securities, we are able to make assumptions that some of portion of the accumulated stock values will reach maturity over 3 or 6 months. Because we do not have information on the structure of long-term securities, our estimates are still far from precise. The only comfort here is that the estimation period is only slightly over one year. Therefore, the errors may not be magnified too much. Second, given we have information on the estimates of S&P 500 monthly return, we can then adjust for the valuation effect of Chinese holdings of US equity to some extent. After these adjustments, we find that China's US asset holdings declined from previously 69% in June 2007 to around 58.7% in August 2008. This is not much different from our preliminary estimates.

Chart B1.1 Estimated share of other currency assets in China's foreign exchange reserves



Sources: US Treasury, CEIC and BBVA estimates.

2) Implications for the US dollar exchange rate

Our estimates seem to show that China may have been diversifying its US dollar assets holdings ever since June 2007. If this trend were to continue, what would be the implications for the US dollar?

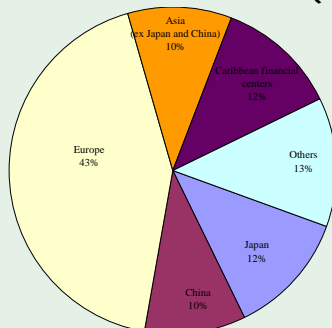
We believe China's further diversification would be inconsequential to the US dollar exchange rate for two reasons: First, China's holdings of US assets, though the second largest holder of US asset in the world among foreign investors, only account for 9.5% out of total foreign holdings of US assets (Chart B2.2). These holdings become even smaller in terms of US total financial assets, as they account for only 2% of them (Chart B2.3).

Second, the amount of a decrease from US dollar asset holdings from 70% to 50%, for example, will have even smaller share in terms of foreign holdings of US assets and US total financial assets, as it will be impossible for China not to hold any US dollar based reserves.

That said, it is likely that the volatility of the dollar may increase in the short run on reactions to news or rumors of China's reserve diversification; but they will not have any fundamental impact on the valuation of the US dollar. Indeed, should the volatility become large, central banks can always intervene in the exchange rate markets by buying US assets and selling their domestic assets, thus even nullifying the short-term volatility due to market speculations on China's diversification.

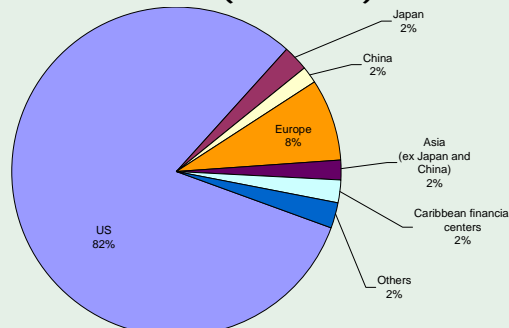
Given the dollar has reversed its depreciation trend against other key currencies, especial the euro, the argument for further reserve diversification has become less relevant. This suggests that the pace of China's reserve diversification will start to stabilize in the near term.

Chart B1.2 Total foreign holdings of US long-term financial assets (June 2007)



Source: US Treasury.

Chart B1.3 Total US long-term financial assets (June 2007)



Source: US Treasury.

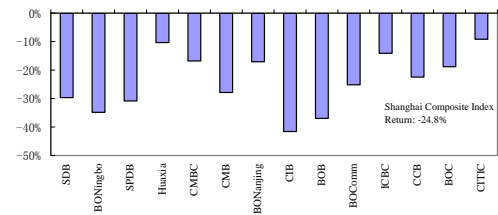
5. Banking sector performance

The Shanghai Composite Index (SCI) dropped 24.8% from July to October 15, while the weighted market capitalization of average return of 14 listed banks dropped by 20% (Chart 20). Although the average of these 14 list banks performed better than the SCI, 7 listed banks underperformed the index. Strong earnings performance may have provided support to the market return, as net profits increased 65.8% yoy in 2008 H1, much higher than 55.2% in 2007. Given these 14 listed banks account for 57.6% of China's total deposits and 54.5% of China's total loans, they may not represent the performance of the whole banking sector. In addition, these are possibly the best banks in China, their performance may overstate the average performance of China's banking industry.

Despite tightening measures in the first half of the year, the ratio of loan to deposit was 0.7 percentage points higher than that at the beginning of the year at 62.6%. This was mostly led by an increase of the ratio of 2.3 percentage points by ICBC, the largest bank in China.

The slowing economy has somewhat started to affect banking performance, despite the still robust earnings growth. Although the NPLs decreased from RMB 371.5 billion in 2007 to RMB 353.2 billion in 2008H1 and NPL ratios descended, overdue loans, as a leading indicator for NPLs, increased from RMB 437.6 billion in 2007 to RMB 468.2 billion in 2008H1. In particular, overdue loan ratio spiked in banks such as Bank of Ningbo, Minsheng Bank, China Industrial Bank, Industrial & Commercial Bank, CITIC Bank (Table 1), implying loan defaults started to increase. These banks may start to be affected by their lendings to SMEs and real estate development loans. Looking forward, it is unlikely the fast growth trend of these banks can continue to be maintained on a gloomier growth outlook in 2008 Q3 and 2009.

Chart 20: Market performance of China's listed banks (July 1-Oct 15)



Sources: Wind Financial and BBVA estimates.

Table 1: Key indicators of Listed Banks

	Ratio of Loan to Deposit		ROA		ROE		Net Profit growth YoY		NPL Ratio		Ratio of Overdue to total loan	
	2007	1H08	2007	1H08	2007	1H08	2007	1H08	2007	1H08	2007	1H08
Shenzhen Development Bank (SDB)	75.8%	71.9%	1.2%	0.7%	20.4%	12.7%	87.7%	90.7%	5.62%	4.64%	6.52%	6.07%
Bank of Ningbo (BONingbo)	64.0%	68.4%	1.8%	1.0%	11.9%	8.9%	50.5%	90.8%	0.36%	0.40%	0.34%	0.37%
Pudong Development Bank (SPDB)	70.2%	71.2%	1.3%	0.9%	19.4%	18.4%	63.9%	149.6%	1.46%	1.22%	1.39%	1.33%
Huaxia Bank (Huaxia)	64.6%	70.1%	0.7%	0.4%	16.1%	13.3%	44.2%	90.9%	2.25%	2.06%	2.26%	2.00%
Minsheng Bank (CMBC)	74.4%	72.4%	1.1%	0.8%	12.6%	11.1%	68.6%	114.3%	1.22%	1.21%	1.97%	2.19%
China Merchants Bank (CMB)	70.1%	74.6%	1.9%	1.3%	22.4%	17.1%	124.4%	116.4%	1.54%	1.25%	2.03%	1.89%
Bank of Nanjing (BONanjing)	59.7%	60.3%	1.6%	1.1%	9.2%	7.7%	53.0%	125.8%	1.79%	1.39%	1.77%	1.47%
China Industrial Bank (CIB)	68.7%	74.5%	1.5%	0.9%	22.1%	14.9%	126.0%	79.6%	1.15%	1.04%	1.07%	1.32%
Bank of Beijing (BOB)	52.8%	62.2%	1.5%	1.0%	13.0%	10.0%	56.4%	121.5%	2.06%	1.74%	2.32%	2.07%
Bank of Communications (BOComm)	62.6%	60.7%	1.6%	0.9%	16.0%	11.5%	66.3%	80.6%	2.06%	1.83%	2.42%	2.41%
Industrial & Commercial Bank (ICBC)	56.3%	58.6%	1.4%	0.9%	15.1%	11.7%	64.9%	56.8%	2.74%	2.41%	3.69%	3.78%
China Construction Bank (CCB)	61.3%	61.2%	1.7%	1.1%	16.4%	12.9%	49.3%	71.4%	2.60%	2.21%	2.78%	2.70%
Bank of China (BOC)	64.0%	62.0%	1.6%	0.9%	13.2%	9.7%	31.3%	42.8%	3.12%	2.58%	3.39%	3.10%
CITIC Bank (CITIC)	73.0%	74.6%	1.5%	1.1%	9.9%	9.3%	115.7%	161.5%	1.48%	1.45%	1.86%	1.95%
Weighted average	62.6%	63.3%	1.2%	0.8%	13.0%	10.1%	55.2%	65.8%	1.90%	1.63%	2.30%	2.27%

Sources: Company reports and BBVA estimates.

Chinese banks' investment in the US may have experienced sizable losses, but they will not affect these banks soundness and financial stability. By the end of June 2008, major Chinese banks held USD 25.1 billion Fannie Mae and Freddie Mac related bonds. Because of the US government bail-out, these

bonds wouldn't incur large losses if held to maturity. However, these banks will experience large losses of an original worth of USD 7.3 billion subprime mortgage-backed securities, a book value of USD 2.86 billion Alt-A securities, and USD 456 million CDOs. Given these exposures, Chinese banks have booked a USD 3.8 billion charge for those assets by the end of June. When Lehman Brothers bankrupted in September, 7 Chinese banks have an exposure in bonds and loans to Lehman of USD 722 million.

Although sizeable, the impact of these exposures and losses appears to be limited. Compared to banks' assets, the subprime products only account for a small portion of assets, 0.09% in ICBC and 0.05% in CCB. The Bank of China has the largest exposure to subprime investments among China's financial institutions, accounting for 0.58% of total assets and 8.14% of equity value. BOC may have some difficult time to weather such losses in the near future.

**Table 2: Investment of Chinese banks in US assets
(USD mn)**

Major Banks	Fannie Mae and Freddie Mac related bonds	Alt-A	Original value of subprime related investment	Subprime Provisions	CDO	Total Provisions	Lehman Brother related Bonds and loans
	2008H1	2008H1	2008H1	2008H1	2008H1	2008H1	Sep/08
Industrial & Commercial Bank (ICBC)	2,716	651	1,214			702	152
Bank of China (BOC)	17,286	1,828	5,555	1,903		2,425	129
China Construction Bank (CCB)	3,250	357	488	215	456	671	191
CITIC Bank (CITIC)	1,584	19					76
China Merchants Bank (CMB)	255						70
Bank of Communications (BOComm)							70
China Industrial Bank (CIB)							34
Total	25,091	2,855	7,257	2,118	456	3,798	722

Note: Original value is estimated by summing the book value and provisions from the biannual reports. Other investment value is book value ending in 2008H1. Total provisions don't include loss in Lehman Brothers bonds and loans.

Sources: Company reports and BBVA estimates.

Table 3: Subprime investment of Chinese major banks (USD mn)

Major Banks	Face value of subprime related investment					Subprime investment /total assets	Subprime investment /equity
	2007	2008H1	AAA	AA	A		
Industrial & Commercial Bank (ICBC)	1,226	1,214	82	276	856	0.088%	1.489%
Bank of China (BOC)	6,286	5,555	1,961	1,153	229	0.582%	8.143%
China Construction Bank (CCB)	1,000	488	385	48	9	0.047%	0.729%
Total	8,512	7,257	2,428	1,477	1,095		

Note: Original value is estimated by summing the book value and provisions from the biannual reports.

Sources: Company reports and BBVA estimates.

6. Asset prices

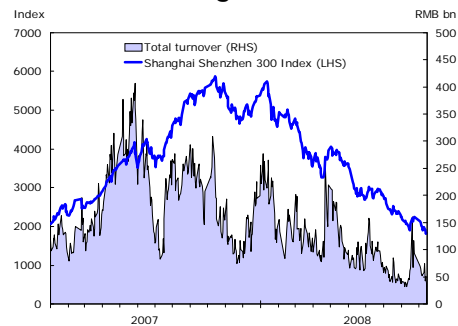
China's stock prices fell by close to 70% year to date from the peak in last October. The decline in stock prices was particular large since September, partly affected by the global financial crisis. Meanwhile, trading value also fell to about one-eighth of the turnover at the peak level (Chart 21). The PE ratio also returned to a more sustainable level, declining to around 15 times from a peak of 70 times in October 2007.

The concerns on profitability of Chinese firms, particularly those export firms, due to a global recession may have explained a large part of the decline. However, the expected circulation of previously locked shares (or non-traded shares), may also help explain the rapid downfall. As shown in Chart 22, the peak of non-traded shares entering the market will not be reached until late 2009. From 2008 Q4 to 2011, the total market capitalization for the circulation of these non-traded shares is estimated at RMB 2.4 trillion, which is 54% of market capitalization of the current market capitalization of circulated shares. If all the non-traded shares were to be sold, the stock prices will fall by one-third (i.e. the CSI 300 index will fall from 2000 to 1300). Therefore, the expected circulation of these non-traded stocks is a Damocles' sword hanging on the Chinese stock market.

To resolve this problem once for all, we suggest to set up a stabilization fund to purchase those shares that are expected to circulate in the near future. Under various plausible assumptions we estimate the fund needed for purchasing those non-tradable shares sold by their shareholders could be around RMB 700 billion. (Table 4). The funding source of this stabilization fund can be from Investor Protection's Fund or other relevant sources such as the Social Security Fund that has an aim of long-term investment.

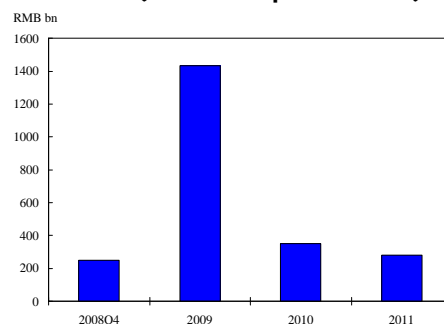
Since the beginning of 2008, property prices have started to cool, after a sharp increase in property prices in the last year (Chart 23). Housing price growth in Shenzhen fell much larger than other cities, and even recorded a negative yoy growth since June. It appears that the tight monetary policy has worked to slow rapid price growth in real estate market. Box 2 discusses the near term outlook for the property market further.

Chart 21: Stock market slumps and trading shrinks



Source: Wind Financial.

Chart 22: Circulation of non-tradable shares (market capitalization)



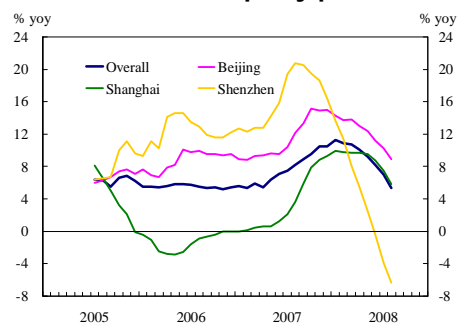
Source: BBVA estimates.

Table 4: Fund required for purchasing non-tradable shares

CSI 300 Index	2,000	1,500	1,300
Average equity prices (RMB per share)	6.9	5.1	4.4
% purchase from large shareholders of non-tradable stock	(Fund needed: RMB bn)		
20%	668	495	429
30%	891	660	572
50%	1,336	989	858

Source: BBVA estimates.

Chart 23: Property prices



Source: CEIC.

Box 2: Near term outlook for the property market

Growth in real estate prices has slowed nationwide since 2007 Q3, led by tight monetary policy and other administrative tightening measures to contain the rapidly rising housing prices. It appears that these policies have achieved their intended objectives. However, a sharp fall in the real estate prices will also have serious implications for consumption, investment, and urban unemployment rate. This box intends to provide an analysis on the latest developments of property market in China. In addition, we provide some preliminary empirical evidence on the valuation of Beijing's property prices.

1) Property prices started to fall

Growth in housing prices weakened early this year and has since started to fall. As indicated by transaction volumes, the floor space sold for the residential properties fell by 12.7% yoy in the first eight months in 2008 (Chart B2.1). Meanwhile, growth in prices for residential properties moderated nationwide and prices have even declined in some metropolitan areas. In particular, Shenzhen's property prices have already recorded a year-on-year decline of over 5 percent in latest months (Chart B2.2).

Chart B2.1 Real property prices (2000 constant prices) and floor sold

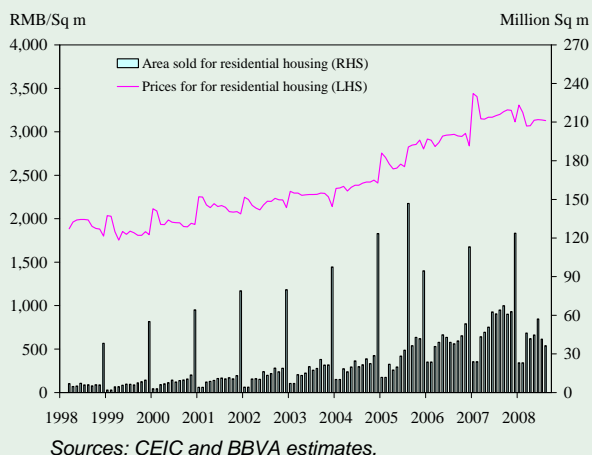
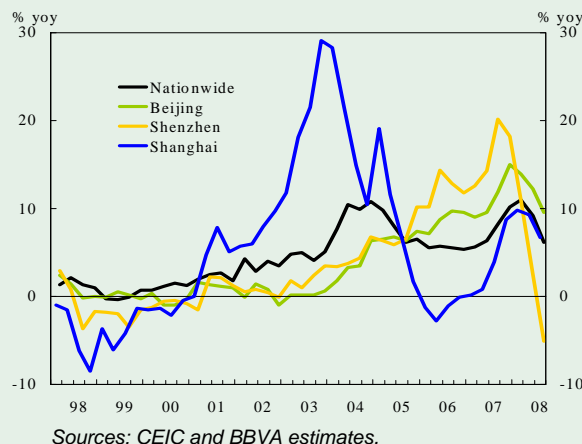


Chart B2.2 Property price growth in major cities

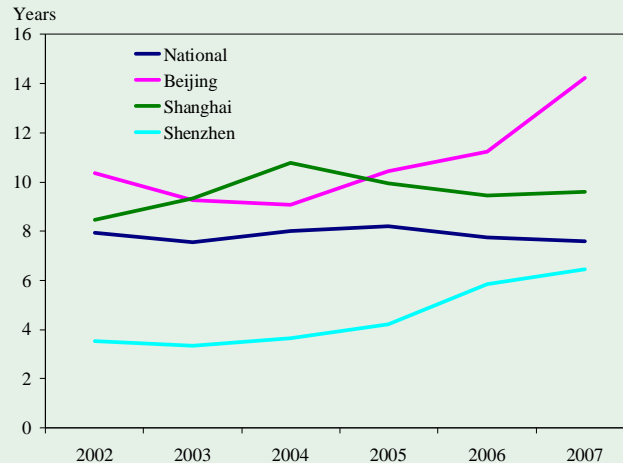


2) Some valuation assessments

Rapid rises in property prices in China before 2008, particularly in those large metropolitan areas, had raised concerns that this sector was turning into a speculative bubble. The PBoC and CBRC, along with other ministries, had used both monetary policy instruments and administrative measures to cool the market. These policies appear to have effectively contained the risk of a further property price spiral.

But how overvalued is China's housing market? Some useful benchmarks will be suggestive. We first look at the price to income ratio. For the country as a whole, the nationwide property price is at about 8 years of average household income, much lower than Japan in the late 1980s and Hong Kong in the pre-1997 periods when both economies experienced a housing bubble. However, it is much higher than the average US housing price to income ratio (4.6) over the period of 2002 to 2006 before the recent subprime crisis. Indeed, the same ratio for Beijing looks quite alarming; it is 14 years of average household income (Chart B2.3). While it is safe to say there is no real estate bubble in China nationwide, some metropolitan areas may have shown signs of a bubble.

Chart B2.3 Price to income ratio



Sources: CEIC and BBVA estimates.

We then look at income and property price growth rates. Despite very high price to income ratio, Beijing's per capita income growth was close to three times of that in property price (Table B2.1). This may somewhat alleviate the fear that Beijing's high housing price could be justifiable. Indeed, the surging property prices in some other key metropolitan cities in recent years can also be partly explained by the strong income growth, together with increased urbanization and population growth fuelled by rural migration.

Table B2.1 Growth in income and property prices (average of 2002-07)

	Nation-wide	Beijing	Shanghai	Shenzhen
GDP per capita	14.0	14.1	15.3	11.4
Property prices	6.5	5.2	9.7	7.2

Sources: CEIC and BBVA estimates.

Another argument that high property price in urban areas in China could be justifiable is that China's population is large and housing supply has not caught up with demand. But what are the facts on China's housing supply? An international comparison will be illustrative. Compared to other countries or region in the world, the Chinese per capita residential floor space in the urban has already caught up with its wealthier neighbors. For example, in comparison with some East Asian economies, China's urban housing space per person is actually quite high relative to its income and population density. As shown in Table B2.2, China's urban per capita floor space is 27.1 square meters in 2006, which was already higher than those in Japan, Korea and slightly below the level in Singapore.

Table B2.2 Floor space per capita

Country	Floor space per capita (sq. m) (Year)	Per capita income (USD, 2007)	Urban population density (people/km ²) (City)
Japan	15.8 (2005)	37,670	14,151 (Tokyo)
Hong Kong	7.1 (2005)	31,610	6,397 (Hong Kong)
USA	60.0 (1998)	46,040	10,452 (New York City)
Singapore	30.0 (1998)	32,470	6,904 (Singapore)
Europe	45.0 (1998)	36,329	4,697 (London)
Russia	20.7 (2005)	7,560	9,644 (Moscow)
Korea	24.8 (2005)	19,690	17,213 (Seoul)
India	5.0 (1997)	950	26,276 (Delhi)
Brazil	36.0 (1997)	5,910	7,216 (São Paulo)
China	27.1 (2006)	2,360	6,968 (Beijing)

Sources: Various official statistics, Demographia, and World Bank.

3) Beijing's housing price: Is it over valued?

On valuation issue, we use a citywide database for Beijing to conduct some empirical analysis to see whether Beijing's housing prices have deviated from its equilibrium price. To estimate the equilibrium property prices, we use the demand-supply framework of fundamental property prices.¹ Under this framework, if the housing market adjusted to shocks instantaneously, then the model could be closed at the equilibrium:

$$p_t^{d^*} = p_t^{s^*} = p_t^* \quad (\text{B2.1})$$

In the long-run demand equation, the determinants include housing stocks (s), per capita household income (y), real user cost of residential capital (measured in real interest rate; rr) and population density ($dens$). To obtain the long-run demand price p^{d^*} , we use an inverted housing demand function as follows:

$$p_t^{d^*} = \alpha_1 s_t + \alpha_2 y_t + \alpha_3 rr_t + \alpha_4 dens_t \quad (\text{B2.2})$$

The coefficients of income and population density should be positive ($\alpha_2, \alpha_4 > 0$), while housing stock and user cost are expected to be negative ($\alpha_1, \alpha_3 < 0$).

On the supply side, it is assumed that market entry and exit ensure that property developers make zero profits in the long run. Therefore, given the construction cost (c), the long-run supply price, p^{s^*} , induces a sufficiently high investment rate to cover depreciation and expected housing stock growth. This relationship can be expressed as follows.

$$p_t^{s^*} = \alpha_5 (i_t - s_t) + \alpha_6 c_t \quad (\text{B2.3})$$

where the real residential investment is proxied by fixed asset investment (FAI) for real estate adjusting by FAI deflator and c_t is the real construction cost. Since higher prices encourage investment, the coefficient of the investment rate is expected to be positive ($\alpha_5 > 0$). Property prices are expected to respond to construction cost positively ($\alpha_6 > 0$).

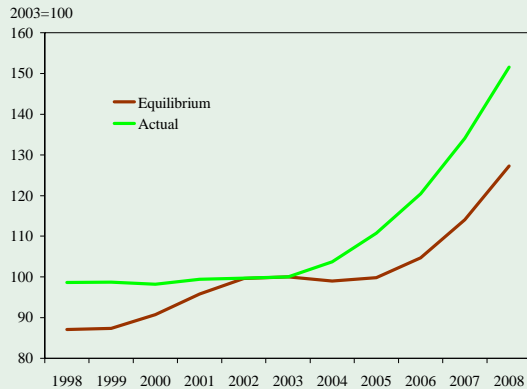
After confirming the existence of long-run relationship by applying co-integration tests, we estimate the short-run price dynamics by using an error-correction mechanism. The deviations of the observed housing prices p from $p^{d^*} = p^{s^*}$ will give us an indication as how much the actual price are overvalue or undervalued relative to the equilibrium long-term price.

Our preliminary estimates suggest that between 1998 and 2003, the actual price was higher than the equilibrium prices, but the deviation was small (Chart B2.4). After 2003, actual price rose very fast and the deviation increased to 19-25% relative to its long-term price, upon various adjustments of housing stocks (Chart B2.5).

It should be noted that despite the higher deviation of the actual property prices in Beijing from the equilibrium prices, the equilibrium prices have already increased by around 30% in last 5 years, largely driven by population growth and rapidly income growth.

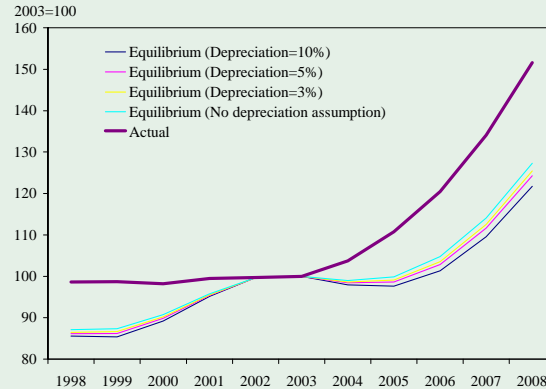
¹ McCarthy and Peach (2004), "Are home prices the next 'bubble'?" *Economic Policy Review*, Federal Reserve Board of New York.

Chart B2.4 Equilibrium property prices in Beijing



Source: BBVA estimates.

Chart B2.5 Various estimates for equilibrium property prices

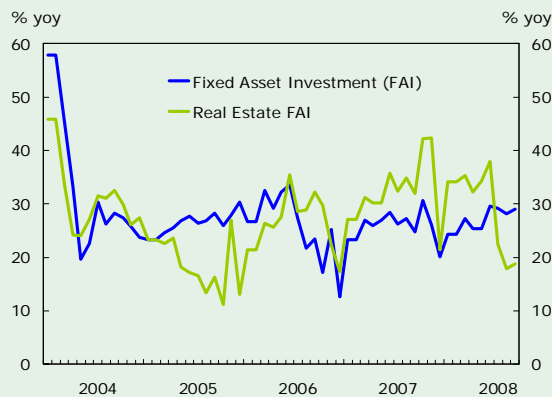


Source: BBVA estimates.

4) Falling property price and its implication for the economy

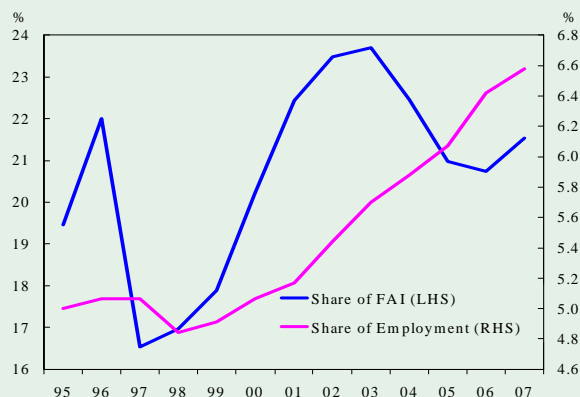
Although China's property prices in major cities have stabilized on tight monetary policy and other administrative tightening measures, the property prices are posed to fall further as the outlook for the Chinese economy darkened with a global slowdown. Given the importance of real estate sector in China's economy, a downturn will tend to have a larger effect on the real economy than the burst of stock market bubble for the following reasons: First, given the investment in real estate sector occupies around 20% of the total fixed asset investment in 2007 (Chart B2.6) and the labour force employed in real estate sector is about 6% (Chart B2.7)--a sizeable number of urban employment, a fall in investment in this sector will affect domestic demand quite considerably. Second, because sizeable local government revenues are generated from the property market, a sharp downturn in this sector will also affect local government fiscal conditions and their ability to provide social spending when the economy slows. Third, falling property prices will produce a large negative wealth effect, thus restraining consumption. In addition, increased defaults arisen from property speculation during the bubble will impair bank balance sheet and possible raise banking sector risk.

Chart B2.6 Real estate investment



Sources: CEIC and BBVA estimates.

Chart B2.7 Shares of real estate sector

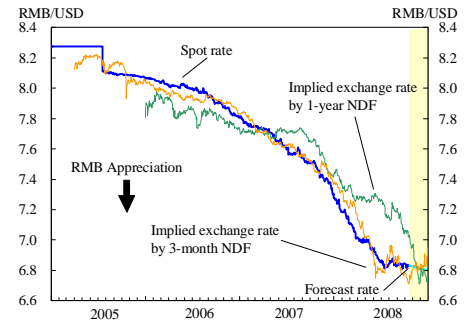


Sources: CEIC and BBVA estimates.

7. Exchange rate

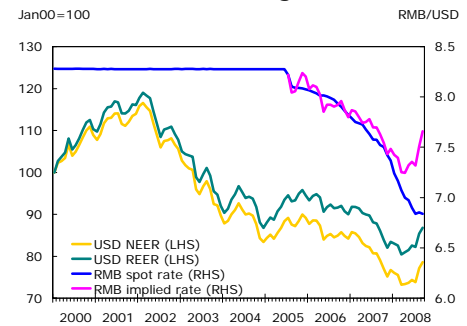
After 3-year gradual appreciation, the renminbi exchange rate has stabilised (Chart 24). A sharp rebound of US dollar recently may explain the stabilization of the RMB (Chart 25). In particular, currencies in other Asia-pacific countries, Korea and Australia in particular, have experienced large depreciation since the 1997-98 Asia financial crisis. The markets expect that the renminbi will even start to depreciate on concerns of falling competitiveness in China. As shown in Chart 5, the previous three years' appreciation has not much dented Chinese exports. Nevertheless, should the US dollar continue to appreciate, the renminbi can afford to stabilize for a while. We expect the renminbi exchange rate to stabilize at around 6.8 RMB/USD. Box 3 discusses the renminbi valuation issues and contemplates the RMB exchange rate policy going forward.

Chart 24: RMB exchange rate



Sources: Bloomberg, CEIC and BBVA estimates.

Chart 25: RMB exchange rate and USD



Sources: Bloomberg, CEIC and BBVA estimates.

Box 3: Outlook for the Renminbi Exchange Rate

*“When the facts change, I change my mind. What do you do, sir?”
John Maynard Keynes*

In Box 3 of our July China Watch, we argued that it would be in China’s interest to maintain a relatively strong currency as the renminbi exchange rate can be an effective monetary policy instrument to help contain rising inflationary pressures.

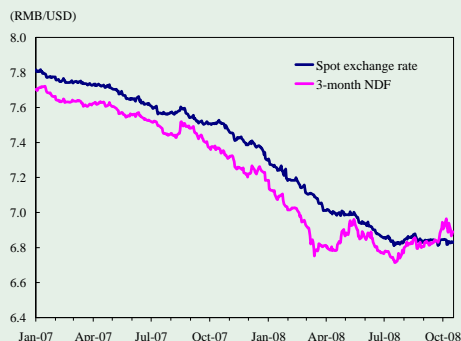
That was then. The global financial markets have since deteriorated sharply. As credit markets become strained, oil and commodity prices fell sharply by 54% and 20% as of mid-October from their respective July highs. As a severe global recession has become a more certain event, demand for oil and commodities is also expected to fall. China’s inflation in recent months have fallen considerably, largely led by stabilizing food prices. Meanwhile, the Chinese domestic economic activities have also slowed, thus dampening inflationary pressure further. Given the much deteriorated credit conditions among Western banks and corporate sectors, capital flows have started to reverse, as shown by the latest FX reserve accumulation data (Chart 19 in this report). This thus unties the hands of the People’s Bank of China somewhat because of a less need for further sterilization operations in the future.

As the domestic and global economic conditions have changed, the renminbi exchange rate policy may change as well. This box intends to provide an updated analysis on the RMB exchange rate by examining some useful benchmark valuation indicators of the renminbi exchange rate. Based on the analysis, we also offer an updated RMB/USD forecast and then discuss future prospects of the RMB exchange rate policy.

1) Have the market expectations on RMB appreciation changed?

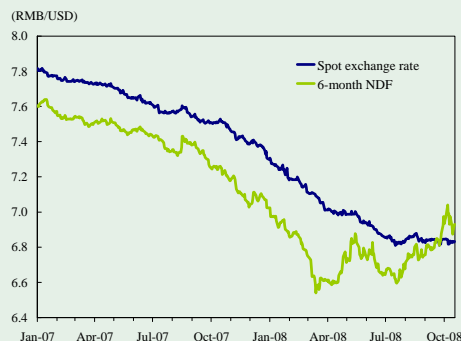
As indicated by Chart B3.1 and Chart B3.2, the 3-month and 6-month non-deliverable futures (NDF) for the RMB/USD rate have started to depreciate since Mid-August. As of 17 October, NDF rate of the same maturities are expected to depreciate by 0.8% and 1.4% compared with the current spot rate. In fact, the markets expected RMB would depreciate sizably at the beginning of October, but the NDF rates have since moved more closely to the spot rate in later part of October.

Chart B3.1 Three-month RMB NDF



Source: Datastream.

Chart B3.2 Six-month RMB NDF

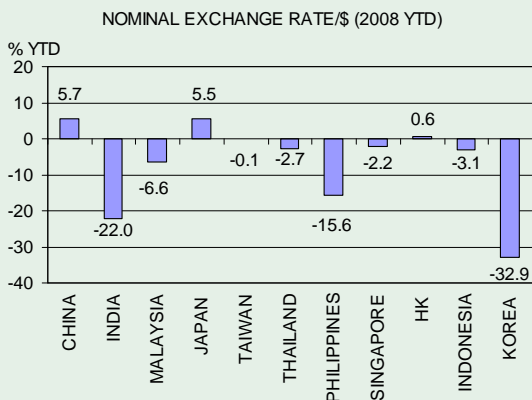


Source: Datastream.

2) How does the RMB compare with other Asian currencies?

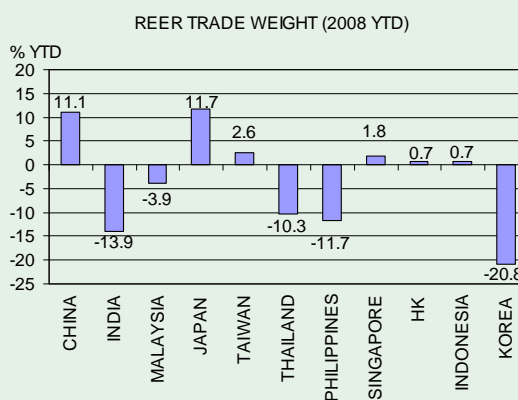
Because China often competes with its Asian neighbors in a third market, it will be useful to compare the RMB exchange rate with those of other Asian currencies in the region. In nominal terms, the RMB exchange rate has appreciated by 5.7% since the beginning of this year, the highest among some key regional currencies, while the Korean won, the Indian rupee, and the Philippine peso have experienced large depreciation (Chart B3.3). Similarly, in terms of real effective exchange rate (REER), the RMB and the yen have experienced the most appreciation by over 11% so far this year because of their relatively large nominal appreciation and their relatively low inflation rate (Chart B3.4). By these two measures, the RMB has already become a currency of strength in Asia relative to its peers.

Chart B3.3 Nominal exchange rate of Asian currencies



Source: Datastream.

Chart B3.4 REER of Asian currencies



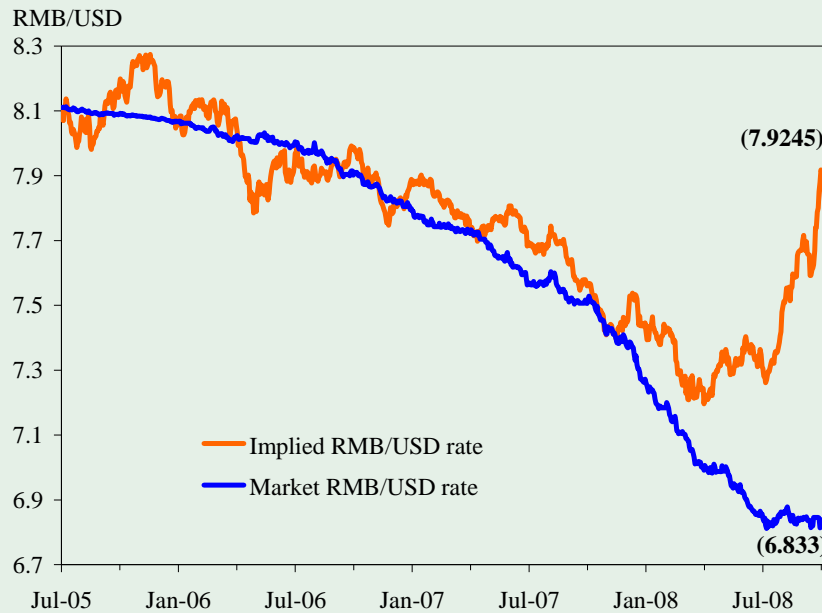
Source: Datastream.

3) How does the RMB spot rate compare with the basket measure of the RMB exchange rate?

When China's exchange rate regime was made more flexible in July 2005, the RMB exchange rate is supposed to be set with a reference to a basket of currencies. Although the PBoC never mentioned the basket, the basket can still be constructed by using the trade shares of China's major trading partners. Using China's trade share up to 70%, we find that there are roughly 11 currencies that can be used to construct the currency basket. These 11 currencies include the G-3 economies and key trading partners in Asia, North America, and Europe.

So how does the spot RMB/USD exchange rate compare with the currency basket? Some interesting observations emerge: First, the implied RMB basket follows the RMB/USD exchange rate quite closely until the end of November 2007. The basket has since deviated considerably from the RMB/USD rate with almost a path of its own. Second, according to our 11-currency basket, the RMB/USD should have been 7.92 on Oct 17, while the actual RMB/USD rate was 6.83, a 14% difference (Chart B3.5). This shows that the RMB/USD exchange rate has appreciated faster than the currency basket would warrant, possibly implying that the PBoC may no longer refer to a currency basket in determining the speed of RMB appreciation. Perhaps the domestic inflation concerns have become the driving factor behind faster RMB appreciation ever since November 2007.

Chart B3.5 RMB spot rate and the implied basket rate of the RMB



Sources: Bloomberg and BBVA estimates.

4) Implications for the near term RMB exchange rate policy

Indeed, the RMB/USD rate relative to other regional currencies and to RMB's implied basket all suggest that it has strengthened substantially from its usual references. Perhaps one of the key factors that drives the difference is that China has been running relatively sizeable trade surplus and experiencing large capital inflows, while its major trading partners in Asia have started to experience trade deficits and capital outflows (for example, Korea).

These comparisons have important implications for the RMB/USD exchange rate going forward, especially in an environment of a global downturn. The RMB exchange rate perhaps can stabilise at the current level and even can afford to depreciate should conditions deemed necessary. Indeed, this assessment is also supported by falling global energy and commodity prices, declining domestic inflationary pressure, and a strengthening US dollar. However, given China's trade surplus remains large, RMB's depreciation may invite trade protectionist pressures from China's trading partners. In addition, a strong currency is still in China's interest as it facilitates the transformation of its growth pattern with a favorable terms of trade effect.

Taking these factors into consideration, we forecast the RMB/USD rate will stabilize at 6.8 for the rest of the year and depreciate gradually to 7 in 2009 under the condition that the dollar remains at the current level against other currencies.

Economic Policy and Outlook

Policy response

The global financial and economic environment has deteriorated sharply since our July review. The policy makers in Beijing appear to have been keenly aware of the evolving global financial crises and have acted quickly to ease monetary policy and provide support to small and medium enterprises and the export sector. More importantly, the authorities have made the rural sector reform a policy priority in an attempt to steer China's growth pattern from its high reliance on external demand to a one that will increasingly depend on its own domestic demand.

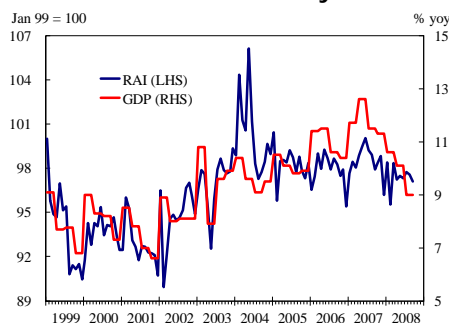
The PBoC has lowered both lending rates and the required reserve ratio twice since mid-September, one following the concerted central bank policy ease by the major central banks in the world and another in October (Chart 17). To encourage bank lending to small and medium enterprise, the central bank also lowered the reserve requirement more for those small and medium banks than that for large banks. It is expected that such monetary policy ease will intensify in coming months and next year, as the pace of China's economic deceleration becomes more evident. Indeed, given China's tight monetary policy entering into this global financial crisis, the central bank has room to ease further.

To prevent rapid falls of certain export sectors such as textiles, toys, and electronics, the Ministry of Finance, together with other relevant ministries, has adjusted the export tax rebates upwards for 3,486 export products so to increase competitiveness of these export products.

Given the importance of the property sector in the economy, the central government has also encouraged local ones to use various policies to provide support to this sector. The authorities have lowered mortgage rates, housing purchasing downpayments, and property deed and stamp duty taxes in order to revitalize the rapidly deteriorating housing market.

The government has announced to increase purchase prices of grains up to 15% to encourage China's grain production, in addition to various other agricultural policies to boost rural income. Perhaps more importantly, the ruling Communist Party has made the rural sector reform a priority to boost income and reduce rural-urban inequality. Though details are still to be worked out further, the government has allowed rent and transfer of land leases held by more than 700 million farmers. Allowing transfer of land leases will help stimulate the urbanization process by allowing more mobility of labour and potentially further enhancing the productivity in the rural sector. Although the land title reform may not have a quick and immediate effect on Chinese growth, it potentially boosts China's long-term growth prospects.

Chart 26: Real activity index



Sources: CEIC and BBVA estimates.

Economic Outlook and Prospects

Despite China's favorable initial conditions coming into the crisis, the eruption of the worst financial crisis since the Great Depression has certainly darkened the outlook for the Chinese economy. While capital injections by governments in the EU and the US may have alleviated fears of bank runs, they are not sufficient for banks to start lending again. Because lending behaviors of banks are procyclical in nature and as long as real economy continues to deteriorate, banks will still be hesitant to lend. This behavior will be further exacerbated by the on-going deleveraging process in Western banks. If this process were to continue, financial disintermediation would lead to a sharper and more protracted economic downturn than in previous economic recessions.

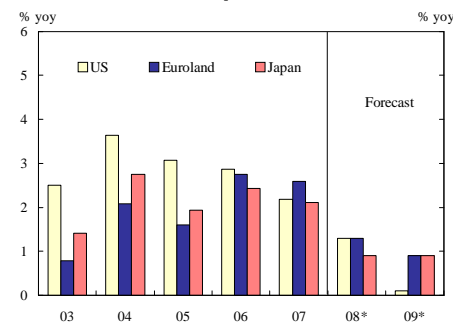
Given China's increased economic integration with the global economy and the G-3 economies in particular, a severe and protracted economic recession in G-3 economies will have a sizeable and negative quantitative effect on China's economic growth (Box 4).

Against this backdrop, China's economic activity is expected to decelerate faster in the last quarter in 2008 and also in 2009, absent from stimulative fiscal and monetary policy. Indeed, our real activity index shows that economic momentum has been quite volatile so far and is likely to continue its downward trend in Q4 (Chart 26).

Factoring in the much deteriorated external economic and financial conditions (Chart 27), we forecast GDP growth in 2008 to be at around 9.5%. This entails a growth rate for the last quarter at 8.5%. The economy will continue to moderate in 2009 to around 8.1%. Our forecast is lower than the latest market consensus at 9.1% in October, reflecting our view that China is much more integrated with the G-3 economies in recent years and its high export dependency and high investment gearing towards exports have made it vulnerable to a sharp deterioration of the global economic conditions.

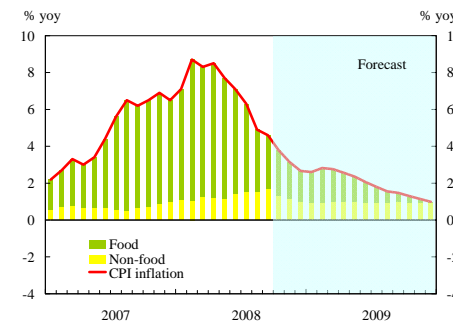
Rapid economic slowdown, falling oil and commodities prices, and a high base effect suggest China's inflation may fall faster than previously expected. Our forecast on food component of CPI inflation suggests that food price will fall to 5% by the end of 2008 and will stop rising by the end 2009, even after adjusting the expected up to 15% increase in grain purchase prices by the State. Diminishing domestic and external demand, together with falling oil and commodities prices, has reduced the pricing power of firms as well their input costs. Therefore, this may lead firms to cut prices to maintain market shares. Taking these factors into consideration, we forecast non-food prices to CPI inflation to reach 1.3%. Our overall baseline CPI inflation is at 2%, suggesting China's inflationary pressure is waning fast while the risk of deflation has increased (Chart 28).

Chart 27: Assumptions for forecasts



Sources: US Fed, Consensus Forecasts and IMF WEO.

Chart 28: Inflation forecasts (baseline)



Sources: CEIC and BBVA estimates.

Table 5: Forecasts

	2008				2009	
	Actual	Actual	Actual	Forecast	Forecast	Forecast
	Q1	Q2	Q3	Q4	Whole year	Whole year
GDP	10.6	10.1	9.0	8.5	9.5	8.1
CPI Inflation	8.0	7.8	5.2	3.0	6.0	2.0

Source: BBVA estimates.

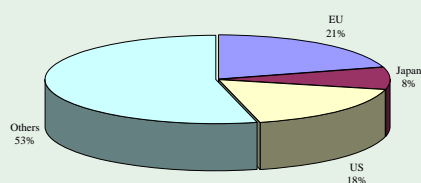
Box 4: How much China will be affected by a simultaneous G-3 recession?

For the first time in some years, the G-3 economies are entering into a simultaneous economic slowdown, resulting from the worst global financial crisis since 1929. Given China's increased economic integration with the global economy in general and the G-3 economies in particular, the natural question to ask is how much China is going to be affected this time by a potentially severe and protracted global economic slowdown. This box intends to answer this question in the following sequences: First, we provide some empirical evidence on China's economic dependence on the G-3 economies. Second, we analyze China's business cycle synchronization with the G-3 economies over time. Third, we estimate the magnitude of shocks of the G-3 economies on the China economy. Finally, we examine a unique aspect of China's economic cycles, the political business cycle (PBC), and assess whether PBC will help attenuate or intensify the expected shocks originated in G-3 to the Chinese economy.

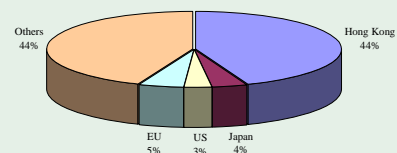
1) China isn't immune to a G-3 slowdown

Trade and foreign direct investment are important sources of economic growth in China. In terms of trade relations with the G-3 economies, China exports close to 50% of its goods to the EU, the US, and Japan (Chart B4.1). Although China only receives 12% of FDI from G-3 directly, it receives about 44% of FDI from Hong Kong (Chart B4.2). Out of which, a large chunk of FDI is conducted by G-3 firms in Hong Kong. If indirect FDI via Hong Kong is properly accounted for, FDI from G-3 economies investing in China is also substantial.

**Chart B4.1: China's exports
(Jan-Sep 2008)**



**Chart B4.2: China's inward FDI
(Jan-Sep 2008)**

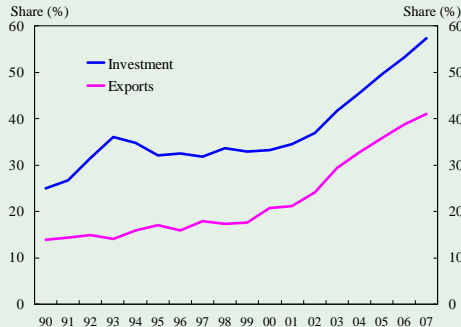


Source: CEIC.

Given the close trade and FDI linkages, China's investment share to GDP appears to be positively related to its ever increasing export share as well (Chart B4.3), possibly suggesting that China's investment has a lot to do with building up capacities for the export sector. This is also evidenced by China's investment growth has become highly correlated with its export growth after 2001 (Chart B4.4). In addition, consumption growth in both China and G-3 has shown signs of increased synchronization after 1996 (Chart B4.5). Meanwhile, China's consumption share has been falling steadily to slightly over 40% of GDP, which is in contrast to the US consumption path (Chart B4.6). Indeed, this pattern is particularly unsettling if external demand starts to fall substantially going forward. Given China's current growth pattern, a slowdown in external demand will also pull down investment, particularly the investment in machinery and equipment that has an external orientation.

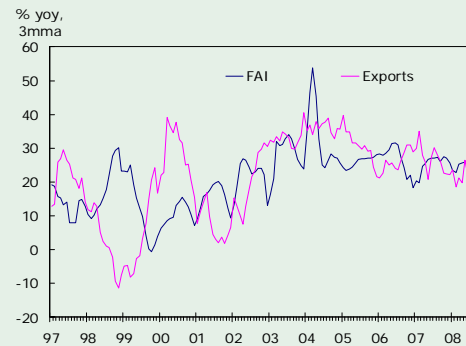
While there is no further dispute on whether China will be affected by a G-3 slowdown, an interesting question is how large an impact China will be affected by a simultaneous G-3 slowdown?

Chart B4.3: China's investment share and export share



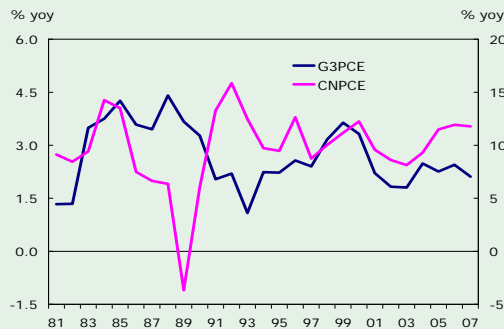
Sources: CEIC and BBVA estimates.

Chart B4.4: Growth in investment and exports



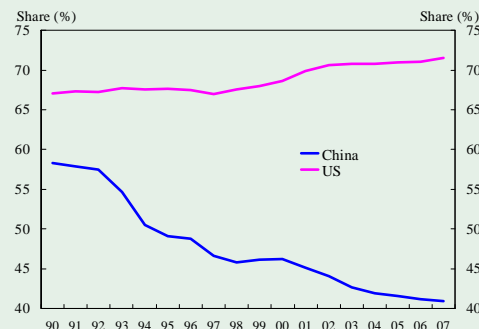
Sources: CEIC and BBVA estimates.

Chart B4.5: China's PCE and G-3 PCE



Sources: CEIC, OEF and BBVA estimates.

Chart B4.6: Consumption share in China and the US



Sources: CEIC, OEF and BBVA estimates.

2) Business Cycle Co-Movements through Time

Before answering the above question, we investigate business cycle co-movements through time between China and the G-3 economies. Table B4.1 shows some simple correlation coefficients of real GDP growth rates between China and G-3. We find that economic growth in China is quite correlated with that in the US in the 1980s; it is hardly correlated with those in the EU and Japan. Interestingly, the correlation coefficients between China and G-3 fell apart in the 1990s, seeming to suggest that China was moving on its own path of economic growth that was almost independent from those of the G-3 economies. However, China's growth correlation with the US and Japan has become highly positive again in the 2000s. In particular, the correlation coefficient with Japan reached 0.42, representing a high degree of economic co-movement between these two economies. On the other hand, the correlation between China and the EU was still negative over the post 2000 period. The divergence between China and the EU was mainly due to the weak economic performance in the EU during this period, while China's growth appeared to have accelerated, especially after its entry into the WTO. For the G-3 economies as a whole, the correlation coefficient is 0.23 in 2000s, higher than that in the 1980s and the 1990s, showing increased degree of economic linkages between China and the G-3 economies.

While the simple correlation analysis is suggestive, it would be more illustrative if the correlation analysis was conducted by filtering out the irregular variations in the quarterly GDP growth in all three economic entities. We then apply the BP filter technique, a filter that removes low-frequency trend variation (slowly evolving secular trends) and smoothes high-frequency irregular variation (rapidly varying seasonal or irregular components), while retaining the major features of business cycles.

We find that the pattern of business cycle synchronization between China and G-3 has changed rather dramatically after removing the irregular variations in the real GDP growth data. The correlation coefficients with the US were highly positive over the time frame under investigation, reaching 0.54 in the 1980s, 0.21 in the 1990s, and 0.44 in the 2000s. Although the correlation coefficients of business cycle synchronization with the EU economies remain largely unchanged, the coefficient with Japan increased for the period of 1980s and the 2000s compared with the simple correlation coefficients in Table B4.1. Even for the 1990s, the correlation coefficient between China and Japan remained negative, but the absolute size decreased substantially. Taking the G-3 economies together, the correlation coefficients between China and G-3 appears to have increased as well. The correlation with G-3 was particularly high in 1980s. Although the correlation coefficient was negative in the 1990s, it reverted back to a highly positive number in the 2000s and reached 0.34 (Table B4.2 and Chart B4.7).

Table B4.1: Correlation of real GDP (YoY growth rates)

	US	EU	Japan	G-3
1981-1989	0.24	0.07	0.09	0.18
1990-1999	0.08	-0.55	-0.40	-0.48
2000-2008	0.28	-0.28	0.42	0.23

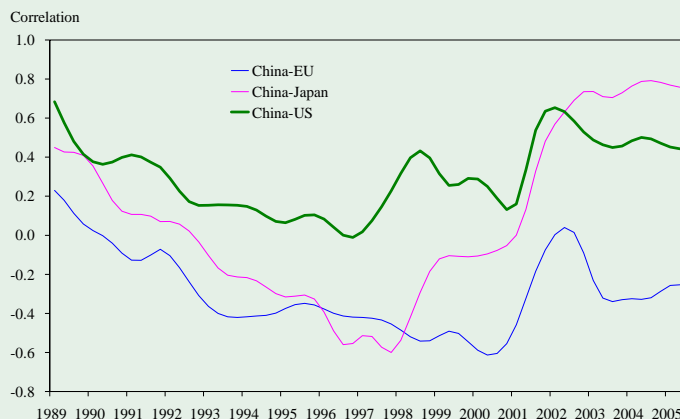
Source: BBVA estimates.

Table B4.2: Correlation of GDP cycles (band-pass filtered)

	US	EU	Japan	G-3
1981-1989	0.54	0.14	0.43	0.48
1990-1999	0.21	-0.34	-0.19	-0.26
2000-2005	0.44	-0.29	0.49	0.34

Source: BBVA estimates.

Chart B4.7: Cycle correlation



Source: BBVA estimates.

3) The Transmission of Economic Shocks

The correlation analysis reveals important information on the degree of business cycle synchronization. However, it does not tell us how economic shocks are transmitted across the three economic entities. This then requires a different set of analytical tools. Indeed, it is more appropriately handled by using a structural economic model, in our case a Near Vector Autoregression (NVAR) model.

Because the close relationship between the G-3, we group these economies by their GDP weights. This grouping scheme allows us to assume that the G-3 output and price shocks will affect China, but not vice versa.

Table B4.3 presents the variance decompositions that allow us to see to what extent China's output and inflation variations can be explained by G-3 shocks and by its own shocks. A few observations emerge from this table. First, China's output and price developments are mostly affected by its own domestic factors in the short run. Within a one-year period, the combined G-3 shocks through output and CPI explain over one quarter of the variations in China's output and less than 5% of variations in China CPI inflation. Secondly, for the medium run (3 years), the combined G-3 shocks appear to have explained close to 60% output variations in China and over 40% variations in China's price developments. Thirdly, it appears that G-3 shocks can explain almost three-quarters of variations in China's output and close to 70% variations in China's inflation developments in the long run (5 years).

Table B4.3: Variance decomposition of shocks (%)

	Impact on China			
	Output		Price	
	G3	CN	G3	CN
In 1 quarter	11.05	88.95	2.02	97.98
1 year	25.82	74.18	3.41	96.59
3 year	58.19	41.81	43.48	56.52
5 year	74.58	25.42	66.95	33.05

Source: BBVA estimates.

Using the impulse response analysis based on the near VAR, we can also quantify the impact of a G-3 slowdown on China. Our empirical findings suggest that a shock of one standard deviation on G-3 output growth will lead to a 0.29 standard deviation in China's output growth. Translating this impact in terms of real GDP growth rate, we find that a simultaneous G-3 economic slowdown by one percentage point will lead to a Chinese economic slowdown by 0.73 percentage point one year later.

4) The Effect of Political Business Cycle in China

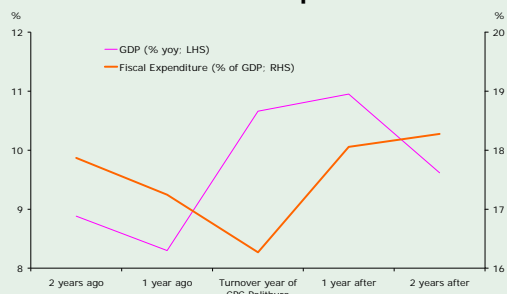
Besides external factors, the Chinese economy is also affected by its own unique political economy business cycle. As illustrated by William Nordhaus (1975) in a seminal paper, economic activities in the United States appeared to be affected by political factors such as elections and changes in government.

Although China does not have an election year cycle as in the United States, China's top leadership and provincial governors do experience some changes and rotations every five years, which coincides with the National Party's Congress of the ruling Chinese Communist Party (CPC). As local economic performance is one of the important criteria for promotions of local government officials, local officials often have great incentives to engage in policies that promote investment and economic growth by increasing spending in local infrastructure and establishing economic zones to attract both

domestic and foreign investment. Such behaviors have also formed a unique aspect of China's political business cycle.

Using the data since 1978, we find that, on average over the five-year CPC National Congress cycle, economic growth tends to be higher than the average during the year of the Party Congress and it tends to reach the peak one year right after the Party Congress. Economic growth then slows until the next round of Party Congress (Chart B4.8). With respect to fiscal expenditure (as a share of GDP), we find that it often reaches the trough during the Party Congress year, but reaches the peak in the next two years (Chart B4.8).

Chart B4.8: China's political business cycle in GDP and fiscal expenditures



Source: BBVA estimates.

Chart B4.9: The current political business cycle



Source: BBVA estimates.

Looking at the current political business cycle relative to the historical averages, we find that real GDP growth peaked during the year of the Party's Congress in 2007, one year ahead of the typical peak of China's political business cycle (Chart B4.9). It appears that real GDP growth for 2008, normally a peak year after the Party Congress with a favorable fiscal stance, will fail to surpass the previous year, largely due to a significant slowdown in external demand and a tight monetary policy to contain inflation in the first three quarters of the year. Furthermore, if we rely upon the historical pattern of China's political business cycle, China's growth will experience a slow down in the next two years. If this phenomenon is compounded by an expected severe and a protracted external economic slowdown, China's growth prospects in the next two years would be affected even more severely.

This, however, does not necessarily imply that China's growth will slow down substantially in the coming years. Given its favorable fiscal positions and tight monetary policy stance entering into this global downturn, China is actually well-positioned to use both fiscal and monetary policy instruments to stimulate the economy.

Risks and Uncertainties facing the Chinese economy

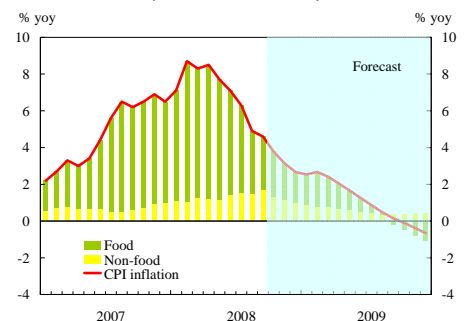
Despite China's favorable initial conditions coming into the crisis, a number of downside risks and uncertainties may potentially affect China's macroeconomic and financial stability. First, it is likely that the economy may decelerate faster than expected, weighed down by rapidly falling investment in areas of the manufacturing and real estate market. As illustrated in Box 4, China's consumption share fell to slightly over 40 percent in recent years, while its investment share increased to close to 60 percent of GDP. Given China's investment growth is highly correlated with export growth, a large external demand fall may also depress China's investment. Falling investment may be exacerbated further by China's housing prices, as they have started to fall. Given real estate related investment accounts for close to 25% of overall investment, its continuous slowdown at this juncture will only accelerate a fall in domestic investment. As private consumption is unlikely to pick up the slack left by the falling investment and exports in the short and medium run, it is thus likely that the real GDP may run the risk of a fast drop.

To preempt this downside risk from materializing, the authorities will probably initiate fiscal stimulus programs. We believe that such programs will be more effective if they are complemented with structural reform programs such as establishing a nationwide medical care and insurance system and improving the current pension system. These structural reform programs will help reduce pre-cautionary savings motives and therefore boost for private consumption.

Second, if external demand were to slide sharply, the risk of deflation will increase. As shown in Chart 29, falling external demand, together with falling food, oil and energy prices, will accelerate the pace of disinflation process in China. In addition, the pace of disinflation will be accelerated by a technical factor. That is, inflation rates were quite high in the last quarter of 2007 and the first half of 2008. This high base effect may push CPI inflation into a negative territory in mid-2009, thus raising the fear of a return of deflation in China. To prevent this risk scenario, monetary policy would be required to be relaxed more aggressively.

Third, a sharp fall in export growth may lead to closures of many export-orientated manufacturing firms in the coastal region, thus pushing up unemployment rate sharply and giving rise to social tensions and instability. Increased social spending on unemployment benefits would be required.

Chart 29: Inflation forecasts (risk scenario)



Sources: CEIC and BBVA estimates.

Appendix: China Statistical Table

	Unit	2003	2004	2005	2006	2007	2008		
							Q1	Q2	Q3
Domestic economy									
Nominal GDP	RMB billion	13,582	15,988	18,322	21,192	24,953	6,149	6,913	7,101
	USD billion	1,641	1,932	2,239	2,662	3,289	858	994	1,038
Real GDP growth	% yoy	10.0	10.1	10.4	11.6	11.9	10.6	10.1	9.0
CPI	% yoy	1.2	3.9	1.8	1.5	4.8	8.0	7.8	5.3
External economy									
Exports	% yoy	34.6	35.4	28.4	27.2	25.7	21.2	22.2	23.1
Imports	% yoy	39.8	36.0	17.6	19.9	20.8	28.7	32.5	25.9
Trade balance	USD billion	25	32	102	178	262	41	57	83
Current account balance	USD billion	46	69	161	250	372	n.a.	n.a.	n.a.
	% of GDP	2.8	3.6	7.2	9.4	11.3	n.a.	n.a.	n.a.
Balance of payment	USD billion	117	206	207	247	462	n.a.	n.a.	n.a.
	% of GDP	7.1	10.7	9.2	9.3	14.0	n.a.	n.a.	n.a.
Foreign exchange reserves ^{1/}	USD billion	403	610	819	1,066	1,528	1,682	1,809	1,906
	% of GDP	24.6	31.6	36.1	39.3	44.7	51.8	54.4	57.3
External Debt	USD billion	209	247	281	323	374	n.a.	n.a.	n.a.
	% of GDP	12.7	12.8	12.4	11.9	10.9	n.a.	n.a.	n.a.
Fiscal									
Fiscal balance	% of GDP	-2.2	-1.3	-1.2	-1.0	0.6	10.5	7.9	0.8
Monetary									
M2 growth	% yoy	19.6	14.6	17.6	16.9	16.7	16.3	17.4	15.3
Loans growth	% yoy	21.1	14.5	13.0	15.1	16.1	14.8	14.1	14.5
Benchmark lending rate	% pa	5.31	5.58	5.58	6.12	7.47	7.47	7.47	7.20
Benchmark deposit rate	% pa	1.98	2.25	2.25	2.52	4.14	4.14	4.14	4.14
Required reserve ratio ^{2/}	%	7.0	7.5	7.5	9.0	14.5	15.5	17.5	16.5
RMB/USD exchange rate	(Year-end)	8.28	8.28	8.07	7.81	7.30	7.01	6.85	6.85
	(Year-average)	8.28	8.28	8.18	7.96	7.59	7.16	6.96	6.84
Socio-economic indicators									
Population	Person (million)	1,292	1,300	1,308	1,314	1,321	1,323	1,325	1,326
Urban	% of total	40.5	41.8	43.0	43.9	44.9	n.a.	n.a.	n.a.
Rural	% of total	59.5	58.2	57.0	56.1	55.1	n.a.	n.a.	n.a.
Life Expectancy	Years	n.a.	71.4	71.8	72.0	n.a.	n.a.	n.a.	n.a.
Infant Mortality	per 1,000	n.a.	n.a.	25.4	23.7	n.a.	n.a.	n.a.	n.a.
GDP per capita	RMB	10,542	12,336	14,053	16,165	18,934	4,648	5,218	5,354
	USD	1,274	1,490	1,717	2,031	2,496	649	750	783
Energy									
Energy Production	SCE Ton mn	1,638	1,873	2,059	2,211	2,354	539	642	651
Energy Consumption	SCE Ton mn	1,750	2,032	2,247	2,463	2,656	813	877	936
Per Capita Energy Consumption	SCE Kg	154	164	180	195	203	n.a.	n.a.	n.a.
Per Capita Electricity Consumption	KWH	174	190	217	249	275	n.a.	n.a.	n.a.

Sources: National Bureau of Statistic of China, World Bank, CEIC and BBVA estimates.

Notes: 1) The quarterly figures for "% of GDP" are annualized GDP figures.

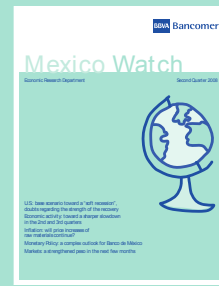
2) In September 2008, the RRR was cut to 16.5% for small and medium sized banks only, while the RRR for the big four, Bank of Communications, and the Postal Savings Bank of China remained unchanged at 17.5%.

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