Goldman Sachs

China Economics Quarterly 中国经济研究季刊

4th Quarter 2007

- Growth moderated further in 4Q2007
- Inflation continued to accelerate
- Downside risks to global growth have risen
- Domestic policy continued its tightening stance

Asia Economics Research

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China impression – 4Q2007:

- Growth moderated in 4Q on the back of slower net exports growth. However, inflation accelerated to a decade high of 6.9% in November before moderating slightly in December due to the high base effects (see *Real GDP growth came in at 11.2% for 4Q2007 and CPI inflation at 6.5% for December*).

- We foresee a below consensus GDP growth rate and above consensus CPI inflation for 2008 on the back of (1) rising downside risks to global growth and (2) the on-going policy tightening in China. We believe these risks will continue to put downward pressures on China related asset prices in the near term until at least one the uncertainties get cleared. However, we expect policymakers in China to switch to a more domestic demand friendly policy stance in mid-2008, and also allow more CNY appreciation to help rebalance the economy. As a result of these policy adjustments, we expect China's economy to gradually advance back to its potential growth rate in 2009 with domestic demand this time leading the charge. (see *Sticky inflation, more policy tightening, and slower (but hopefully more balanced) growth—Forecast adjustments for 2007 and 2008; Re-coupling, re-balancing, and recharging—our growth and inflation outlook for 2008 and 2009; Thoughts at the start of 2008 and More headwinds from trade—trimming our growth forecast to 10% for 2008*).

- We raised our USD/CNY forecast because of rising domestic inflation, ongoing generalized weakness in the USD, reversing interest rate differentials between China and the US, a reacceleration of "hot money" inflows, and mounting international pressures (see *China's Renminbi: An unbearable straitjacket for the central bank*).

- We reviewed the implications of the snow storm that hit China in late January 2008 (*Energy shortage and inflation pressures aggravated by price controls and bad weather and More thoughts on the implications of the snow storm*).

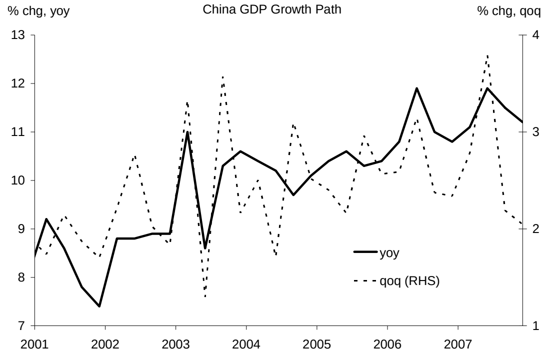
What else is in this issue:

- We discussed a few policy initiatives implemented in this quarter, including the price control measures which contributed to the coal and electricity shortages since mid-January (see *The PBOC raised benchmark interest rates once as well as the RRR four times since October; Credit "freeze" and policymakers' dilemma; and China to enforce stricter controls over new investment projects*).

- We reviewed China's annual Central Economic Working Conference (see *China's 2008 economic policy agenda set by the Central Economic Working Conference*).

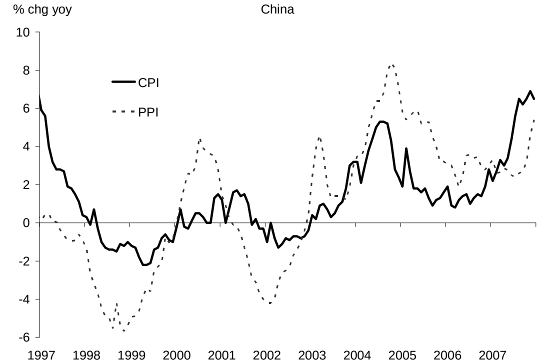
Key charts of the quarter:

Exhibit 1: Real GDP growth moderated further to 11.2% yoy in 4Q2007



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 2: While both CPI and PPI inflation accelerated



Source: CEIC, Goldman Sachs Economics Research.

4Q2007 data summary:

% change, unless otherwise stated

	2007				2006				2005			
GDP	**4Q**	**3Q**	**2Q**	**1Q**	**4Q**	**3Q**	**2Q**	**1Q**	**4Q**	**3Q**	**2Q**	**1Q**
yoy	**11.2**	11.5	11.9	11.1	10.8	11.0	11.9	10.8	10.4	10.3	10.6	10.4
qoq (sa)	**2.0**	2.2	3.8	2.8	2.3	2.4	3.1	2.6	2.6	3.0	2.2	2.4
	2007											
	Dec	**Nov**	**Oct**	**Sep**	**Aug**	**Jul**	**Jun**	**May**	**Apr**	**Mar**	**Feb**	**Jan**
Industrial Production												
yoy	**17.4**	17.3	17.9	18.9	17.5	18.0	19.4	18.1	17.4	17.6	18.5	18.5
qoq (sa, ann)	**11.6**	9.6	9.2	11.0	18.9	14.7	20.5	20.0	38.3	28.4	24.4	12.7
mom (sa)	**1.3**	0.9	0.3	1.8	0.6	-1.1	3.3	1.9	1.2	-3.0	10.2	-0.6
Retail Sales												
yoy	**20.2**	18.8	18.1	17.0	17.1	16.4	16.0	15.9	15.5	15.3	16.9	12.7
qoq (sa, ann)	**22.9**	20.5	19.6	19.0	18.9	20.1	19.5	18.8	16.1	14.9	13.9	14.0
mom (sa)	**2.2**	1.6	2.0	1.2	1.7	1.5	1.1	1.9	1.4	1.8	1.0	1.2
Fixed Asset Investment												
yoy	**19.6**	26.0	30.7	24.8	27.3	26.2	28.5	26.9	25.9	26.9	23.4	23.4
qoq (sa, ann)	**22.4**	22.7	23.0	22.5	23.9	24.7	24.9	28.1	28.4	33.2	28.2	29.7
mom (sa)	**0.8**	1.3	2.4	1.4	1.8	1.4	2.0	1.9	1.6	2.3	1.7	3.6
Price Indicators												
Consumer Price Index												
yoy	**6.5**	6.9	6.5	6.2	6.5	5.6	4.4	3.4	3.0	3.3	2.7	2.2
qoq (sa, ann)	**6.2**	6.9	9.6	10.9	10.3	8.3	5.8	4.7	3.2	3.9	4.5	4.7
mom (sa)	**0.4**	0.7	0.5	0.0	1.2	1.0	0.9	0.6	0.1	1.0	-0.3	0.2
Producer Price Index												
yoy	**5.4**	4.6	3.2	2.7	2.6	2.4	2.5	2.8	2.9	2.7	2.6	3.3
qoq (sa, ann)	**8.2**	5.5	4.0	3.7	4.0	3.8	3.5	2.8	2.8	2.2	1.6	0.5
mom (sa)	**0.9**	1.3	0.5	0.3	0.3	0.2	0.4	0.3	0.4	0.1	0.3	0.2
Trade Indicators												
Exports												
yoy	**21.7**	22.8	22.3	22.8	22.7	34.2	27.1	28.7	26.8	6.9	51.6	33.0
qoq (sa, ann)	**5.9**	12.0	15.4	29.9	59.5	24.7	14.9	-18.5	36.6	42.1	55.4	14.4
mom (sa)	**-2.3**	1.6	1.3	0.1	-0.7	5.5	0.6	3.6	18.7	-27.8	20.8	7.4
Imports												
yoy	**25.7**	25.3	25.5	16.1	20.1	26.9	14.2	19.1	21.3	14.5	13.1	27.5
qoq (sa, ann)	**24.0**	24.2	25.1	35.2	28.8	23.7	17.8	19.2	25.6	25.6	16.8	7.4
mom (sa)	**0.6**	1.8	5.0	-0.9	-0.8	9.7	-2.1	1.7	4.3	-2.7	4.0	3.4
Trade Balance (USD bn)	**22.7**	26.3	27.1	23.9	25.0	24.4	26.9	22.5	16.8	6.9	23.7	15.9
% yoy	**8.0**	14.8	13.5	56.2	32.8	67.1	86.7	73.5	62.3	-38.5	838.5	64.6
Financial Indicators												
M2												
yoy	**16.7**	18.5	18.5	18.5	18.1	18.5	17.1	16.7	17.1	17.3	17.8	15.8
qoq (sa, ann)	**11.3**	16.9	15.2	20.7	21.3	22.2	16.3	14.2	16.0	18.8	21.6	20.8
mom (sa)	**0.0**	1.3	1.4	1.2	0.9	2.6	1.3	1.1	1.3	0.9	1.5	1.9
Total Loans												
yoy	**16.4**	17.5	18.0	17.3	17.0	16.5	16.3	16.0	16.0	15.7	16.6	15.4
qoq (sa, ann)	**11.2**	14.1	17.9	18.1	18.9	17.6	17.5	14.5	19.1	19.2	22.8	17.6
mom (sa)	**0.5**	0.7	1.5	1.1	1.5	1.6	1.3	1.2	1.6	0.6	2.2	1.6
FX Reserves (USD bn)	**1528**	1497	1455	1434	1409	1385	1333	1293	1247	1202	1157	1105
Proprietary Indicators												
GSCA	**11.1**	11.6	12.2	12.2	12.0	12.9	12.7	12.5	12.1	10.9	13.1	13.2
CEMAC-GS Coincident Indicator (Index)	**102.94**	103.13	103.10	102.93	102.68	102.52	102.48	102.40	102.14	102.06	102.10	101.72
CEMAC-GS Leading Indicator (Index)	**102.41**	103.07	103.57	103.94	104.14	104.18	103.94	103.54	103.07	102.53	102.79	103.01
GS China FCI (Index)	**108.0**	108.1	106.8	106.8	107.0	106.7	107.4	107.3	106.9	107.1	107.2	107.8

Source: NBS, CEMAC, PBOC, CEIC, Goldman Sachs Economics Research.

Real GDP growth came in at 11.2% for 4Q2007 and CPI inflation at 6.5% for December

This comment was first published on January 24, 2008.

1. Activity growth moderated

Real GDP growth moderated further to 11.2% yoy in 4Q2007 from 11.5% yoy in 3Q2007. On a quarter-on-quarter (qoq) basis, GDP growth softened to 2.0% from 2.2% in 3Q (see Exhibit 1). The softening was mainly driven by slower growth in trade surpluses, which decelerated to 12.2% yoy in 4Q from 50.2% yoy in 3Q.

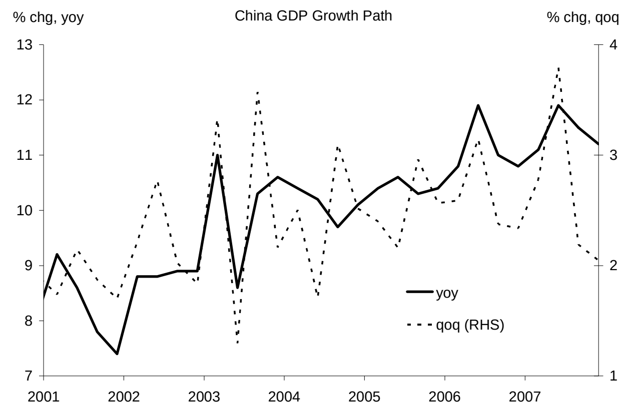
Domestic demand appeared to be the main driver for growth in 4Q, while the contribution from net exports decelerated significantly (see Exhibit 2). However, the monthly indicators of retail sales or fixed asset investment, adjusted for inflation, do not indicate any noticeable acceleration in the second half of the year vs. the first half. This may reflect an acceleration in inventory investment. In addition, the on-going credit tightening may lead to a softening in domestic investment demand in the coming months.

December monthly activity indicators sent more mixed signals. Industrial production growth remained flattish at 17.4 % yoy in December, compared with 17.3% yoy in November. Fixed asset investment growth decelerated to 19.6% yoy in December, down from 26.0% yoy in November.[1] On the other hand, retail sales posted strong growth of 20.2% yoy in December, compared with 18.8% yoy in November. However, these data need to be viewed with caution because the statistical discrepancies between the monthly and annual data series tend to "be reconciled" in the December data.

2. Headline inflation rate moderated to 6.5% in December

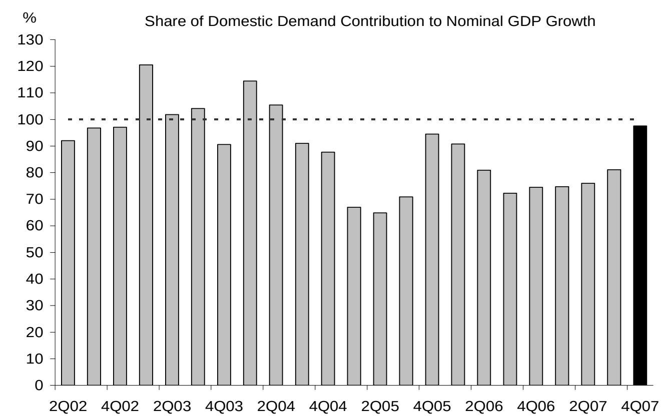
Headline CPI inflation moderated to 6.5% yoy in December from 6.9% yoy in November, mainly due to high base effects. Sequential growth moderated to 6.2% qoq ann. from 6.9% qoq (see Exhibit 3). However, we believe the underlying inflationary pressures remain significant and risks remain high that CPI inflation will rebound in the coming months. The yoy reading of PPI inflation in December continued to accelerate to 5.4% from 4.6% in November. Its sequential momentum also accelerated to 8.2% qoq from 5.5% qoq.

Exhibit 1: Growth moderating in 4Q2007



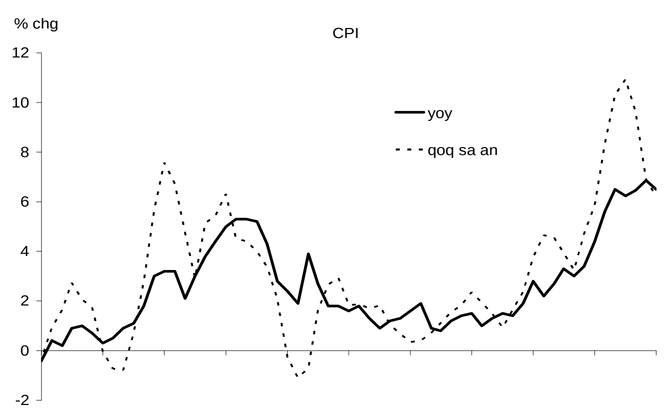
Source: National Bureau of Statistics (NBS), CEIC, Goldman Sachs Economics Research.

Exhibit 2: Contribution of domestic demand growth to GDP growth rose significantly



Source: NBS, CEIC, Goldman Sachs Economics Research.

Exhibit 3: CPI inflation moderated



Source: NBS, CEIC, Goldman Sachs Economics Research.

[1] Year-to-date growth rates for December and November were 25.8 % and 26.8% respectively.

3. Tightening stance to be maintained

Despite the moderation in activity growth in 4Q and lower yoy inflation in December, we believe the government is likely to maintain its tightening stance until they see clear signs of a softening in the underlying inflationary pressures. We expect this package to include strict orders from the central bank for commercial banks to abide by the lending target (Rmb3.6 trillion in new CNY loans for the whole year and no more than 35% of the annual target in 1Q2008), moderate appreciation of the CNY (we expect 10% USD/CNY appreciation in 12-month's time), further withdraws of liquidity via open market operations and regular hikes to the reserve requirement ratio. Anecdotal evidence suggests at least some commercial banks have already extended significant amounts of loans in the first few weeks of the year. This could pose further upward inflation risks and further policy tightening risks.

Hong Liang
Yu Song

Box 1: The timeline of policy tightening in China since 2007

January 16, 2008
The PBOC raised the reserve requirement ratio (RRR) on January 16, 2008 by 50 bp to 15.0%, effective January 25.

December 20, 2007
The PBOC raised the 1-year deposit rate by 27 bp, lending rate by 18 bp, and other rates by various degrees, effective December 21.

December 8, 2007
The PBOC raised the reserve requirement ratio (RRR) on December 8 by 100 bp to 14.5%, effective December 25.

November 21, 2007
The State Council issued a statement urging the ministries and local governments to ensure that all new projects have been properly authorized and meet the land-use, energy efficiency and environmental protection criteria.

November 10, 2007
The PBOC raised the reserve requirement ratio (RRR) on November 10 by 50 bp to 13.5%, effective November 26.

October 13, 2007
The PBOC raised the reserve requirement ratio (RRR) on October 13 by 50 bp to 13%, effective October 25, 2007.

Late September, 2007
Monetary authorities gave strict orders for commercial banks to abide to the 15% total CNY loan growth target set for the year.

September 14, 2007
The PBOC hiked the 1-year benchmark deposit rate by 27 bp to 3.87% p.a. and the 1-year lending rate by 27 bp to 7.29% p.a., effective September 15.

September 6, 2007
The PBOC raised the RRR on September 6 by 50 bp to 12.5%, effective September 25.

August 21, 2007
The PBOC hiked the 1-year benchmark deposit rate by 27 bp to 3.60% p.a. and the 1-year lending rate by 18 bp to 7.02% p.a., effective August 22.

July 30, 2007
The PBOC raised the RRR by 50 bp to 12%, effective August 15.

July 20, 2007
The PBOC raised benchmark interest rates by 27 bp, effective July 21.

July 20, 2007
The MOF cut the tax on interest income to 5% from 20%, effective August 15.

June 18, 2007
The MOF announced a series of export tax rebate adjustments affecting about 37% of China's export categories.

May 30, 2007
The MOF raised the stamp duty on A and B shares to 0.3% from 0.1% overnight.

May 18, 2007
The PBOC widened the USD/CNY trading band from +/-0.3% to +/-0.5% around the central parity.

Box 1: The timeline of policy tightening in China since 2007-continued

April 5, 2007
The RRR was increased by 50 bp, effective on April 16.

March 17, 2007
Both the benchmark 1-year deposit and lending rates were increased by 27 bp.

February 16, 2007
The RRR was increased by 50 bp, effective on February 25.

January 5, 2007
The RRR was increased by 50 bp, effective on January 15.

Sticky inflation, more policy tightening, and slower (but hopefully more balanced) growth—Forecast adjustments for 2007 and 2008

This article was first published on November 5, 2007.

- Inflation appears to be on the rise again after a brief stabilization in September.
- Credit control seems to be the main policy tool for dis-inflation,…
- …but we have also raised our interest rate and currency forecasts.
- Consequently, we have made modest downward adjustments to our growth forecasts for 2007 and 2008.

Exhibit 1A: Our revised annual forecasts,...

Summary Indicators

(percentage change, unless otherwise indicated)

	2004	2005	2006	2007F	2008F
Real sector					
GDP by expenditure (at 1990 prices)					
GDP	10.1	10.4	11.1	**11.6**	**10.3**
Private consumption	7.1	6.7	7.8	**8.5**	**9.6**
Government consumption	7.3	9.7	8.6	**9.0**	**9.2**
Fixed investment	12.1	11.4	10.6	**10.4**	**10.0**
Net exports (contribution to growth)	0.6	2.5	2.3	**3.4**	**1.8**
Exports (G&S)	27.7	22.4	18.6	**19.0**	**16.0**
Imports (G&S)	29.0	20.3	16.6	**16.5**	**15.8**
Memo:					
CPI inflation (period average)	3.9	1.8	1.5	**4.8**	**4.5**
Current account balance (as % of GDP)	3.6	7.1	9.3	**11.6**	**11.7**

Note: GDP by expenditure data are revised based on the 2006 China Statistical Yearbook.

Source: CEIC, Goldman Sachs Economics Research.

Exhibit 1B: ...and the implied quarterly path

	1Q06	2Q06	3Q06	4Q06	1Q07	2Q07	3Q07	4Q07F	1Q08F	2Q08F	3Q08F	4Q08F
GDP (Constant Price)												
% chg yoy	10.8	11.9	11.0	10.8	11.1	11.9	11.5	**11.7**	**11.1**	**9.7**	**10.0**	**10.4**
% chg qoq, sa.	2.7	3.2	2.4	2.1	3.0	3.9	2.2	**2.2**	**2.3**	**2.5**	**2.5**	**2.6**
% chg qoq, sa, ann.	11.3	13.4	10.0	8.7	12.4	16.3	9.3	**9.1**	**9.7**	**10.6**	**10.6**	**10.8**
CPI Inflation (period average)												
% chg yoy	1.2	1.4	1.3	2.0	2.7	3.6	6.1	**6.6**	**6.5**	**5.2**	**3.3**	**2.8**
% chg qoq, sa	0.2	1.7	1.0	4.3	3.9	5.4	10.8	**6.2**	**3.2**	**0.2**	**3.8**	**4.0**
USD/CNY (end-of period)	8.04	8.01	7.91	7.81	7.73	7.61	7.51	**7.34**	**7.17**	**7.00**	**6.84**	**6.71**

Source: CEIC, Goldman Sachs Economics Research.

The latest news reports from China, aside from the increase in regulated oil prices, suggest that CPI inflation is on the rise again after a brief stabilization in September. It appears to us that the probability of seeing a 7% or higher CPI print is fairly high in the coming two months. In our view, when inflation reaches such an elevated level, it would leave the authorities with little choice but to tighten monetary policy further, despite rising uncertainties surrounding global demand going into next year. Therefore, we see a notable worsening in growth and inflation trade-off in the near term when policies in China will be pre-occupied by engineering a landing in inflation risks.

In this article, we outline our forecast changes for 2007 and 2008. **We have lowered our real GDP growth forecast to 11.6% for 2007 and 10.3% for 2008,** down from 12.3% and 10.9% respectively (see Exhibit 1A). **We have raised our CPI inflation forecasts to 4.8% for 2007 and 4.5% 2008**, up from 4.5% and 4% respectively. These forecasts are based on a significant policy tightening path and a modest softening of global demand, in particular that of the US. On the policy front, **we have raised our interest rate forecasts to two more 27-basis-point (bp) hikes in the benchmark lending and deposit rates by the end of this year, and we have also raised our CNY appreciation trajectory versus the USD to 7.28, 7.11 and 6.78 over 3, 6, 12-month horizons**. In the meantime, we foresee the direct quantity control of commercial banks' lending will continue to be an important part of the tightening package.

In our view, much of the policy challenge facing China in the near term is the result of policy being behind the curve for too long this year. In other words, decisive policy actions continued to be delayed when all signs suggested significant overheating pressures were building up in the economy in the first three quarters of the year. A few incremental policy adjustments that were taken, such as reserve requirement and interest rate hikes, were far from being adequate to dampen the strength in aggregate demand. As a result, the eventual "landing" of this overheating episode will likely be a bit "rougher" than otherwise the case.

Inflation has become sticky

After a brief stabilization in September, food prices appear to be on the rise again since the second half of October. This time the main drivers for price increases are a rebound in pork prices and a re-acceleration in vegetable prices. In our view, much of these price pressures are driven less by any supply-side issues, but rather by rising costs of production (including labor and transportation costs) and buoyant income growth this year. As a result, these pressures are unlikely to come off easily without aggregate demand being cooled off first.

Based on the information we gathered on the latest food price movements, we see headline CPI inflation to be in the range of 6.8%-7.1% for October, and a high probability of an even higher reading in November, before base effects from last year potentially can lead to some decline in year-on-year inflation for December. The risks to this forecast remain on the upside, in particular because there are substantial uncertainties regarding grain prices and the inventory situation in China.

Monetary policy has tightened, and we believe it will tighten more

A slew of policy measures have been adopted to slow down money supply growth since early October. These include strict orders from the central bank to commercial banks to abide by the 15% total CNY loan growth target set for the year, an Rmb150 billion direct issuance of PBOC bills to a selected group of banks, and another 50 bp reserve requirement ratio hike. **Among these measures, we believe the credit control will have the most dampening impact on demand and inflation** (see *More liquidity tightening measures implemented to suppress inflation*, China Views, October 15, 2007). Please refer to the Appendix on page 6 for a detailed Q&A discussion on this policy measure.

Moreover, we have raised our interest rate call to two more 27-bp hikes in both the lending and deposit rates before the end of the year from our original call of only one more rate hike. Despite the enforcement of the stringent credit control, we believe if CPI inflation rebounds from the current high levels, it would leave the central bank with little choice but to hike rates to anchor inflation expectations and to prevent bank deposits from fleeing out of the banking system to chase goods and services, or other assets.

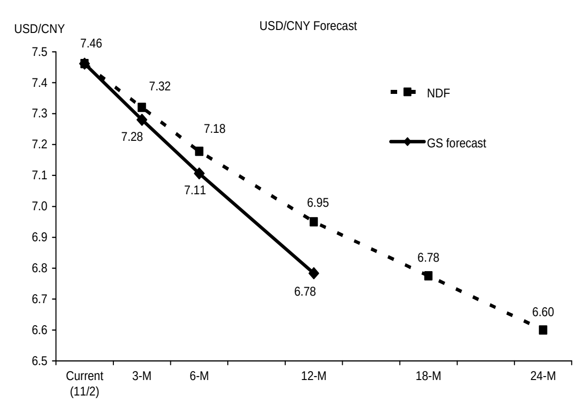
In addition, if CPI inflation surprises significantly on the upside, the risks will also rise for interest rate to be raised more than 27 bp in one go.

On the other hand, we believe the chances of further rate hikes in 2008 are fairly low, partly because we expect the stringent credit controls would be able to bring inflation down gradually next year. But more importantly, in our view, the reversing interest rate differentials between China and the US would make any further rate hikes too painful for the central bank. The negative carry would not only make the central bank's sterilization operations more costly, but also would likely invite surging de facto capital inflows to speculate on the CNY.

The currency shall become more of a help in 2008

We believe rising domestic inflation, coupled with the reversing interest rate differentials vs. the US, will make the potential significant benefits from faster CNY appreciation even more obvious to the Chinese policymakers as well as to the market. Therefore, we have raised our USD/CNY forecasts to 7.28, 7.11, 6.78 on 3, 6, and 12-month horizons, up from 7.40, 7.25, 6.93, respectively (see Exhibit 2).

Exhibit 2: Our new CNY forecasts vs. forwards



Source: CEIC, Goldman Sachs Economics Research.

Slower (but hopefully more balanced) growth in 2008

As a result of these expected policy tightening measures, coupled with a modest slowdown in external demand, we project real GDP growth to slow from 11.5% in 3Q2007 to about 10.3% in 2008. Consequently, we believe CPI inflation will also come down to the 2%-3% range in 2H2008 (see Exhibit 1B, on page 3).

In addition, the expected modest slowdown in external demand and faster CNY appreciation are projected to reduce the contribution of net exports to growth to about half of the level it reached this year (although the current account surplus as a percent of GDP may still expand slightly next year). Within domestic demand, we also expect an acceleration in private consumption relative to fixed asset investment, on the back of rising household incomes (rural and urban) and more favorable policy tailwinds, as in contrast to policy headwinds towards investment demand (see Exhibit 1A on page 3)

Risks to our forecasts

We see risks to the upside for our growth and inflation forecasts, since the on-going government reshuffling till next March may lead to policy relaxation again in early-2008. However, we believe the elevated inflation pressures in the near term will keep such risks relatively low compared with our base-case scenario. On the other hand, a stronger-than-expected export performance might again lead to upside surprises in headline growth next year, while China's external imbalances continue to worsen. In our view, this presents a relatively bigger risk compared with a premature relaxation of policy tightening on domestic investment demand, especially if the CNY continues to depreciate on a TWI basis. Nevertheless, recent data points from the G3 (US, Europe, Japan) are mostly pointing to softening demand. Therefore, we expect some headwinds (or at least no tailwinds) for export demand in 2008.

Concluding thoughts

While the medium term compelling growth story for China remains intact, we believe the "excess" overheating pressures accumulated this year will need a cooling period, during which growth decelerates to its potential level and inflation pressures subside. Delays in policy actions this year have made the dis-inflation process this time more difficult than otherwise the case. But as CPI inflation has reached 6% and above, some rough landing (i.e., dis-inflating) is almost inevitable.

If the needed policy tightening is delayed (or prematurely relaxed), both growth and inflation would be higher than we project here. However, in that case, the risks would also rise for the current overheating episode to eventually end with some serious bruises in the economy.

Hong Liang

Appendix: A Q&A section on credit controls in China

A few questions have been frequently raised by investors since we published our comment on this tightening measure three weeks ago. In this appendix, we try to address them in more detail:

Has the credit control been strictly enforced?

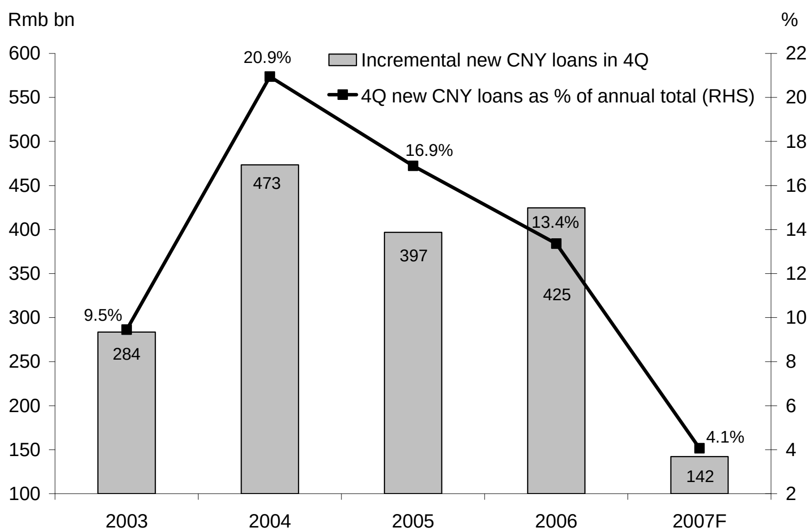
Yes, information we collected from various commercial banks suggest that they are following the orders this time because of the potential severe negative consequences for any banks that breach such targets.

Doesn't loan growth slow down every year in 4Q?

True, but never of the magnitude as requested by the central bank this year.

Exhibit A1 illustrates how stringent the credit control this year, if fully implemented, will be for banks compared with the past. The incremental new loans for 4Q2007 would be essentially equal to nil.

Exhibit A1: Credit control in 4Q2007 is likely to be much more stringent than in the past



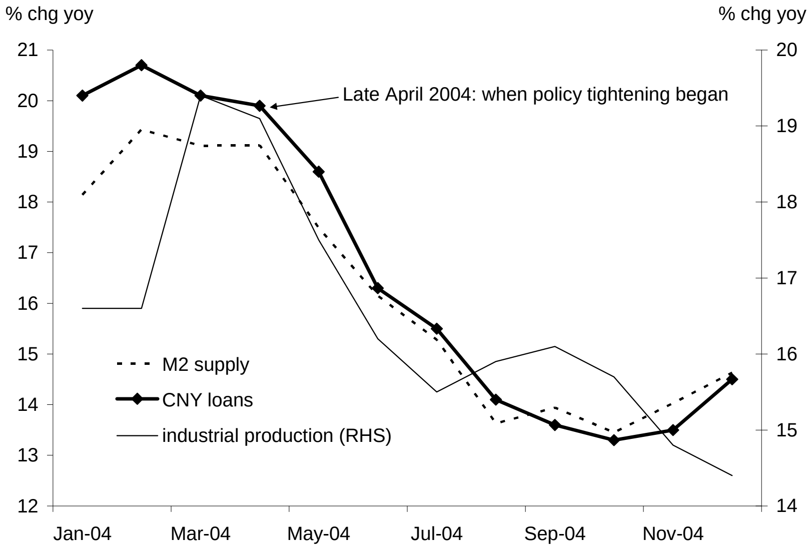
Source: CEIC, Goldman Sachs Economics Research.

But haven't the companies enjoyed very strong profit growth and therefore relied less on bank credits?

Very true, but a credit crunch would still hurt some companies on the margin.

For example, 2004 was a year when companies' profit growth and cash flows were very strong (profit growth was running at 41.6% in 1H2004). However, when the government pushed forward stringent credit controls, many companies' cash flows and earnings were impaired severely (see Exhibit A2). Note that bank credits still provide about 90% of the external financing for corporates.

Exhibit A2: Credit tightening was fast and effective in slowing down growth momentum in 2004



Source: CEIC, Goldman Sachs Economics Research.

Shouldn't we expect banks to get a new loan quota at the beginning of next year, and therefore, they can rush to lend again?

Yes, banks will get a new quota for 2008, but 1) the quota is unlikely to be generous; and 2) the central bank may begin to enforce their monthly monitoring of credit provisions. More importantly, before the central bank sees clearly signs of subsiding inflation risks, the control measures are unlikely to be loosened. In other words, we would need to see a slowdown of growth and inflation first before expecting some relaxation of policy controls.

When and where we may see the first signs of this credit control becoming restrictive?

The fact that not much bad news is flowing out of China after 3 weeks of little net new lending from the banking system tells us that liquidity was indeed excessive and it would take a bit longer for the monetary tightening to become restrictive for activities than in the past. Nevertheless, latest news of falling property sales and softening of some industrial commodity prices suggest that the tightening measures have become more binding on the margin. In our view, the construction sector tends to be hit the hardest by policy-engineered credit controls, and commodity and property demand will likely be the areas first to see strains from the credit tightening.

With CPI inflation likely to be on the rise again, we would expect the credit controls to be fully enforced in November as well, and the "collateral damages" would likely be more visible as well.

Will a slowdown in the US help alleviate these inflation pressures?

Yes, only if such a slowdown can translate into a meaningful slowdown in China's total exports. So far, export demand has held up strongly despite slowing US demand. Although rising uncertainties of the US economy may argue for some caution in the intensity of policy tightening, it does not take away the immediate need for tighter monetary policy nor for some quick actions to prevent inflation expectations from running up further.

Re-coupling, re-balancing, and recharging—our growth and inflation outlook for 2008 and 2009

This article was first published on November 29, 2007.

- Rising downside risk to global growth and the on-going policy tightening in China have raised the risks of re-coupling in 2008.
- Our 2008 growth forecast is below consensus for the first time in four years, while our inflation forecast is above consensus.
- However, in response to the growth challenges, we expect policymakers in China to switch to a more domestic demand friendly policy stance in mid-2008, and also allow more CNY appreciation to help rebalance the economy.
- As a result of these policy adjustments, we expect China's economy to gradually advance back to its potential growth rate in 2009 with domestic demand this time leading the charge.

In the beginning of November, we downgraded our 2008 growth forecast, as we foresee more policy tightening risks on domestic investment in China in the near term but in the meantime, the downside risks to global growth has also risen significantly.[1] This is the first time in four years that our projected growth rate for China is below the consensus level. In addition, although still strong believers in decoupling (eventually), we have highlighted the risks of re-coupling in 2008, mostly because policy choices in China have not yet allowed or prepared the economy to decouple from a significant slowdown in exports.[2]

However, not all is doom and gloom. We continue to believe in the strong fundamentals of the economy over the medium term, and foresee that the difficulties China may potentially face in 2008 would likely push policymakers to take the long-overdue strides towards rebalancing the economy, in particular in the area of currency adjustment. We expect the real economy to respond effectively and swiftly to these policy adjustments once they are implemented, and it could be recharged and get back on a more balanced and sustainable growth path in 2009.

In other words, although we foresee quite a few serious bumps in the growth path of 2008, we maintain our faith that Chinese policymakers and entrepreneurs would be able to take on these challenges (albeit with some pains) and recoup into a better and more robust shape. Specifically, our growth and inflation outlook for 2009 projects a more balanced economy with stronger domestic demand and lower inflation than 2008 (see Exhibit 1). We believe that the more quickly China undertakes the necessary policy adjustments (including those on its currency) to rebalance the economy, the earlier it would be able to get back on a decoupling path again.

Exhibit 1: Our 2008-2009 forecasts

Summary Indicators

(percentage change, unless otherwise indicated)

	2005	2006	2007F	2008F	2009F
Real sector					
GDP by expenditure (at 1990 prices)					
GDP	10.4	11.1	11.6	**10.3**	**10.0**
Private consumption	6.7	7.8	8.5	**9.6**	**10.3**
Government consumption	9.7	8.6	9.0	**9.2**	**9.8**
Fixed investment	11.4	10.6	10.4	**10.0**	**10.3**
Net exports (contribution to growth)	2.5	2.3	3.4	**1.8**	**0.9**
Exports (G&S)	22.4	18.6	19.0	**14.0**	**15.0**
Imports (G&S)	20.3	16.6	16.5	**13.5**	**16.0**
Memo:					
CPI inflation (period average)	1.8	1.5	4.8	**4.5**	**2.5**
Current account balance (as % of GDP)	7.2	9.4	12.0	**12.2**	**10.6**

Source: CEIC, Goldman Sachs Economics Research.

Why re-coupling in 2008?

Because 1) we foresee a potential sharper slowdown in external demand, driven by the de-leveraging of financial institutions in the G-3 economies due to their sub-prime related losses. Our US Economics Team has lowered their growth forecast to 1.8% in 2008 from 1.9%, and more importantly, the risks to these forecasts seem to be still predominantly on the downside. Even such a dismal growth path projection would require the support of a 3% Fed Funds rate by mid-2008.[3] We also foresee slower growth in Europe and Japan next year compared with 2007, with risks skewed to the downside as well.

[1] See *Sticky inflation, more policy tightening, and slower (but hopefully more balanced) growth—Forecast adjustments for 2007 and 2008*, Asia Economics Analyst 07/20, November 5, 2007.

[2] See *China's renminbi: An unbearable straitjacket for the central bank*, Asia Economics Flash, November 12, 2007.

[3] See *US Daily: Q&A on the Housing Outlook and Changes to the US Economic Forecast*, US Economics Daily, November 27, 2007.

2) By keeping the renminbi (CNY) quasi-fixed at a significantly undervalued level, the policy choices made by China in 2007 (as in the past four years) have continued to repress domestic demand while preserving the strength of exports. In other words, these policy choices have made the economy more "coupled" with any significant slowdown in external demand than otherwise would have been the case.

As for the policy trajectory, we expect stringent credit control on domestic investment demand to be the main policy tool used to dis-inflate the economy in the near term (likely at least until 1Q2008). However, **we now expect only one more 27-basis-point (bp) rate hike by the end of 2007, compared with our previous call of two more rate hikes** and we expect no interest rate hikes in 2008. In the meantime, we maintain our baseline forecast that China will stay with its "gradualist" appreciation approach with annualized appreciation close to double digits for 2008, although the probability of a more substantial one-off adjustment has risen.

If China's growth re-couples with a global slowdown in 2008, where would we mostly likely see pains? In our view, the pains would likely concentrate in exporters (particularly those related to the consumer and housing demand in the developed countries), industrial cyclicals, and in industries that face significant cost pressures (from wages, input costs, and interest costs) but could not pass on these costs because of falling demand.

Why do we believe re-balancing would also be the theme in 2008?

Because we believe policymakers in China are pro-growth and pragmatic.

If exports growth falls more quickly than expected, and the CNY is "forced" to appreciate more meaningfully, the downward pressures from weaker external demand on growth would likely push policymakers to re-examine their domestic demand policy stance, in particular those related to domestic investment demand.

We have long held the view that to re-balance the economy to be more domestic demand driven, China not only needs to consume more, but it also needs to invest more.[4] Fortunately, the balance sheets of both households and corporates in China continue to have plenty of room to be leveraged up for this task. The question remains to be whether policy adopted by the government would allow this to happen, or what it would take for China to switch away from the policy tightening package used in the past four years that effectively repressed the domestic demand and fueled the unsustainable strength in exports.

In this context, a sharp slowdown in exports coupled with a more substantial CNY appreciation (our forecast is a 10% CNY appreciation vs. the USD over the next year, with risks to the upside) would be a good thing, because the dampening cyclical impact on growth from these "shocks" may trigger the much needed and long-overdue policy shift.

What would it take for China to re-charge and decouple again in 2009?

Obviously, given the extent of currency adjustment needed (at least 15%-20% in TWI adjustment), China would need a comprehensive policy package to re-balance the economy away from its excessive reliance on exports (evident by this year's double digit current account surplus as a percent of GDP) towards a truly domestic demand driven economy.

1. In our view, a substantial nominal appreciation of the CNY needs to be an integral part of this policy package, as it would help send the right price signals for the private sector to re-allocate their resources. In addition, it would help dampen the domestic inflation pressures when domestic demand is on the rise again. Otherwise, when external demand recovers at some point in the future, China may need to repress domestic demand again.

2. The administrative controls on domestic investment need to be taken off. These include the credit rationing and the lengthy (and oftentimes opaque) investment project approval procedures. In addition, the strings attached to the domestic residential investment need to be untangled. No economy is likely to succeed in boosting its domestic demand while trying to repress its housing demand. Increasing effective supply of urban housing to meet rising demand could come a long way to boost domestic demand by creating jobs (just as exporters do) and foster the rise of a middles class, as well as to dampen the upward price pressures in the sector.

3. Fiscal policy could become more of a help to the rebalancing process if needed. However, at this point, we don't foresee the need for any major fiscal stimulus program. Rather, a better expenditure rationing coupled with a full implementation of the already agreed tax reforms (VAT rebate and unification of enterprise income taxes) would help reduce the tax burden and leave more room for the non-government sector to grow. Given the government's limited capability in delivering public service, we believe tax cuts are likely to be much more effective than expenditure increases to help

[4] See *China's investment strength is sustainable*, Global Economics Paper No. 146, October 3, 2006.

support domestic consumption. Again, the persistent faster-than-GDP growth of government revenue in the past twelve years should give the government plenty of room to cut taxes (personal income tax could be a starting point) and fees, as well as more fiscal transfers using the land auction fees, with little negative impact on the overall fiscal position (see Exhibit 2).

4. Structural policies that continue to deregulate and open up the economy for more private sector participation (both domestic and foreign) in the remaining SOE dominant sectors, such as financials, heavy industries, and utilities, would also be important for domestic job creation and productivity growth over the medium term. In addition, land reform efforts in the rural areas, which would allow farmers to enjoy a larger share of the increased land value from the industrialization and urbanization processes, could transform millions of farmers into consumers of China's mighty manufacturing capacity with fast speed and vast scale.

In 2008, we expect to see meaningful progresses made in areas 1, 2 and 3 that would allow the economy to recoup from the slowdown in 1H2008 and recharge again in 2009. We will watch for progresses made in area 4 to assess how China's potential growth rate will likely trend over the medium to long term.

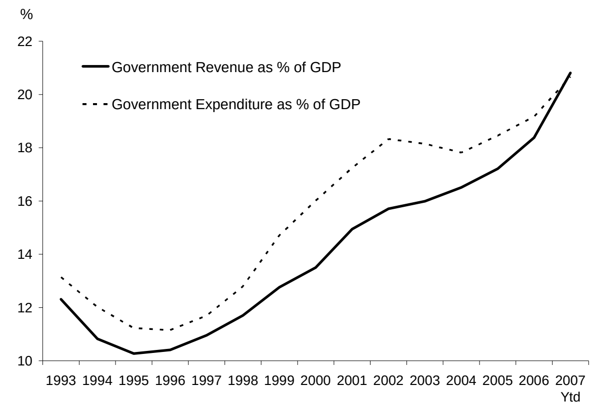
What to watch?

Relative to market expectations, we are more concerned about downside risks to growth, and unfortunately upside risks to inflation in the short term. Therefore, in our view, before the China-related assets are to outperform again, investors would need to see 1) reduced uncertainties about the speed and extent of the global slowdown (i.e., some sense of where the bottom might be); and 2) inflation risks in China being brought under control.

2Q2008 might be the earliest we could see such an inflection point, as we expect growth to be slightly below 10% (after three quarters of below-trend sequential growth) (see Exhibit 3) and CPI inflation to trend down to below 6% (see Exhibit 4). In response, we expect policy to begin reflating the economy again, and China would gradually advance back to its potential growth rate with domestic demand leading the charge this time.

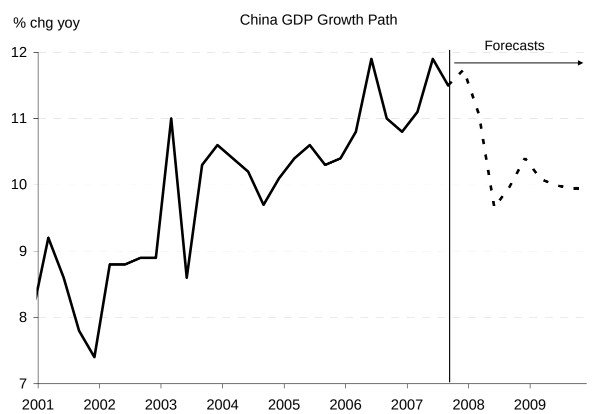
We see the risks to our forecasts as balanced at this point. The downside risks include 1) a sharper and more prolonged slowdown in global demand than we projected in our baseline, and 2) a more delayed policy reaction to the negative external demand shocks. Under these circumstances, the slowdown in China could be sharper and the recovery of the domestic economy may take

Exhibit 2: The government has enough cushions for tax cuts



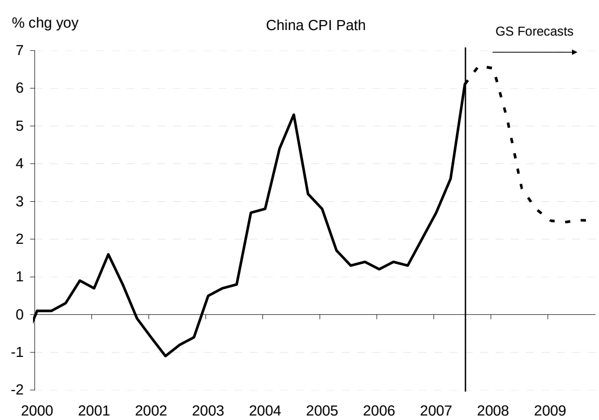
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 3: We expect headline growth to trough in 2Q2007 in the baseline scenario...



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4: …and we also expect inflationary pressure to start receding in 2Q2008



Source: CEIC, Goldman Sachs Economics Research.

longer than we envisaged here. On the upside, there could be more demand boosting effect from the Olympic Games, or from the tendency for every new government to undertake large fixed asset investment at the beginning of their new term (although we believe the central government would begin 2008 with a much more hawkish policy stance than usual because of the perceived heightened inflation risks).

Hong Liang

Thoughts at the start of 2008

This article was first published on January 7, 2008.

Rising downside risks on two fronts—namely, the state of the US economy and the policy tightening in China—have already led to a marked correction in China-related asset prices since November last year. We believe these risks will likely continue to exert downward pressure in the Chinese asset space, and the overhang is unlikely to resolve until at least "one of the shoes" is fully dropped.

In our view, the most important macro questions for China in 2008 are the behaviour of inflation and the choices of policy responses. The goldilocks phase of the business cycle with fast growth and low inflation is clearly behind us. Five-year cyclical expansion, particularly the substantially-above-potential growth in 2007, has resulted in capacity pressures, on a much broader base than in 2003-2004, as evident by the rising capacity utilization, increasing unit labor costs, and escalating inflation pressures.

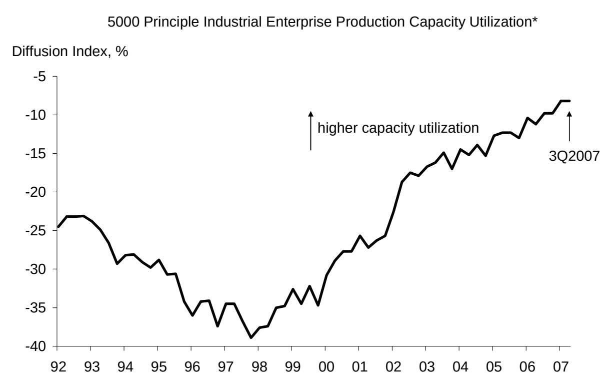
Our baseline forecast of a decelerating inflation trend in 2008 assumes a significant monetary policy tightening path. However, it remains to be seen whether the current tightening package, which involves a lot of arm twisting but little change in the underlying economic incentives, will be effective. If not, the risks of a more aggressive CNY appreciation would rise considerably.

In the meantime, US data continues to suggest growing weaknesses in the economy. Given the significant contribution to growth from net exports, a meaningful slowdown in trade surplus growth will surely have a notable impact on China's growth and corporate profitability in the industrial sector. The risk is that the slowdown in exports may be a gradual but prolonged process, while policy tightening also becomes an extended exercise in 2008.

Needless to say, 2008 will likely be a more challenging year for the Chinese economy and its markets compared with the past few years. Rising downside risks on two fronts—namely, the state of the US economy and the policy tightening in China—have already led to a notable correction in China-related asset prices since November last year. Both A and H shares have been down by about 20% from its peak in late October 2007. In our view, these risks will likely continue to exert downward pressure in the Chinese asset space, and the overhang is unlikely to resolve until at least "one of the shoes" is fully dropped. In this article, we offer our current thoughts on these issues.

1. **In our view, the most important macro questions for China in 2008 are the behavior of inflation and the choices of policy responses**. The goldilocks phase of the business cycle with fast growth and low inflation is clearly behind us. Five-year cyclical expansion, particularly the substantially-above-potential growth in 2007, has resulted in capacity pressures, on a much broader base than in 2003-2004. This can be seen from the Production Capacity Utilization Index compiled by the government (see Exhibit 1), and worrisomely, in rising unit labor costs (see Exhibit 2).

Exhibit 1: Excess capacity is at an all-time-low



* The diffusion index measures the difference between the shares of firms that reported above-capacity production vs. below-capacity production. For example a -X% reading means that there are X% more firms that reported under-capacity than those that reported over-capacity production.

Source: CEIC, Goldman Sachs Economics Research.

2. We believe the significantly positive output gap, that is, the excessive growth in aggregate demand relative to the economy's aggregate supply capacity, has been the main driver for CPI inflation this time around as well as in the past inflation episodes (see

Exhibit 3). In other words, the 11-year-high CPI inflation of 6.9% as of November 2007 is not the result of any temporary domestic or international supply shocks. Therefore, for inflation to subside meaningfully, we need to see policy measures or other demand shocks that will bring down aggregate demand growth.

3. Our baseline forecast of a decelerating inflation trend in 2008, particularly in 2H2008, is predicated on a significant monetary policy tightening path, which we believe will involve strict quantity rationing of domestic credit by the central bank, no further rate hike, limited currency appreciation (relative to what is needed), as well as frequent hikes in the required reserve ratios for commercial banks.

4. Money and credit data in 1Q is, therefore, of crucial importance for investors to assess the effectiveness of the present tightening package, which involves a lot of arm twisting but little change in economic incentives. It is reported in the media that the total new bank lending target for 2008 is around Rmb3.3-3.6 trillion, and the first quarter's share should be around 35%. The credit quotas will be monitored on a quarterly basis and banks that breach their quotas will be subject to punitive bill issuances by the central bank.

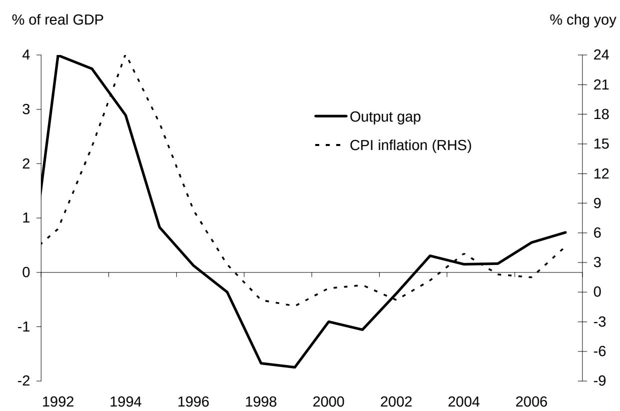
5. Our baseline assumption is that credit rationing will still work since the government remains the dominate player in the financial markets. However, the risks have clearly risen that this old trick may not work as well as it did in the past (even compared with 2004, a very recent past) because Chinese banks/corporates have become increasingly commercial oriented, and its economy more integrated with the rest of the world. Nevertheless, the longer the needed policy tightening is delayed, the "rougher" the eventual landing of this overheating episode would be.

6. What if the banks again rush to lend at the beginning of the year? In that case, we believe the Chinese authorities would be forced to rethink their policy choices and the risks of a more meaningful upward currency (as well as some interest rate) adjustment would become significant. A significant appreciation of the CNY remains the key for putting China's macro house in order on a sustainable and efficient basis. **We believe China would make a meaningful stride towards this goal in 2008, and forecast a 10% CNY/USD appreciation over the next 12 months**. More specifically, our most updated 3, 6, and 12-month USD/CNY forecasts are 7.09, 6.92, and 6.61.

Exhibit 2: Rising unit labor cost points to inflationary impetus

Source: CEIC, Goldman Sachs Economics Research.

Exhibit 3: Excessive aggregate demand expansion leads to rising inflation with a time lag



Source: CEIC, Goldman Sachs Economics Research.

7. **In the meantime, US data continues to suggest growing weaknesses in the economy**. The latest ISM and employment data have clearly raised the risk of a recession in the US economy this year. Although import demand in most emerging markets and the Middle East continue to hold up well, export data from Asia have also pointed to slowing import demand in the Euro zone. As we foresee more downside risks to growth in the developed countries, we also expect the growth momentum in China's exports to ease markedly in 2008 from 2007, and the growth rate of China's trade surplus to decline as well.

8. Given the significant contribution to growth from net exports (China's trade surplus is likely to have reached 10% of GDP in 2007), a meaningful slowdown in trade surplus growth (53% in the first

11 months of 2007) will surely have a notable impact on China's growth and corporate profitability in the industrial sector. Therefore, trade data in 1Q will be very important for investors to assess whether (as well as how much) trade may become a drag for growth this year. The risk is that the slowdown in exports may be a gradual but prolonged process, while policy tightening also becomes an extended exercise in 2008.

9. In short, despite much of the Olympic-related hype, we see more downside growth risks to the real economy in 2008, and policymakers will likely be forced to face many difficult choices. In the near term, the growth-inflation trade-off has worsened considerably, and the overheating pressures accumulated so far will require a cooling period for the economy, during which growth needs to come down to its potential level. Such a growth deceleration may be brought about by effective policy tightening, or a large external demand shock, or worse, a combination of both factors inadvertently. The uncertainties surrounding the timing, scale, and speed of these two growth headwinds will make 2008 a particularly tricky year for investors.

10. All that said, we continue to believe in the strong fundamentals of the economy over the medium term, and see the challenges facing the market in 2008 are likely to be some sort of complex bull market correction rather than the beginning of a real bear market. With a new economic team coming to power in March 2008 after the National People's Congress meeting, we may see fresh policy initiatives or more decisive policy implementation that could help enhance both China's short-term macro stability as well as its medium-term growth potential.

It would be fascinating to watch, and so please stay tuned. But for now, we wish everyone a Happy and Prosperous 2008!

Hong Liang

More headwinds from trade—trimming our growth forecast to 10% for 2008

This article was first published on January 14, 2008.

1. Most recent economic data suggest that the shock waves from the housing sector slump and tighter credit conditions are pushing the US economy into a recession. Accordingly, our US Economic Research Team has downgraded their already below-consensus economic forecast to reflect an outright contraction in economic activity in 2008.

2. Given the significant contribution to growth from net exports, a meaningful slowdown in global demand, triggered by a US recession, would surely have a visible impact on China's growth and corporate profitability. Therefore, we are lowering our already below-consensus 2008 growth forecast for China still further to 10% from 10.3%, with most of the additional weakness coming from slower export growth (see Exhibit 1).

3. In the meantime, we are keeping our 10% growth forecast for 2009 unchanged, because we believe the weakness in export performance would prompt the government to ease its tightening stance against domestic investment, likely in 2H2008. We expect domestic demand would have sufficient strength to recover, and the economy could rebound back to its trend growth in 2009.

4. We see the risks to be on the downside for our growth forecast, not the least because the external headwind may turn out to be worse than expected. More importantly, as we highlighted in our article of growth downgrade for China last November, macro policies in China are presently trying hard to restrain domestic investment, mainly through stringent bank credit rationing. The need for tightening stems from rising inflation pressures, and the policy response continues to be constrained by the quasi-fixed but significantly undervalued CNY. Therefore, in our view, the combination of restrictive policies towards domestic investment demand coupled with accelerating weakness in external demand presents more downside risks to growth in the short term than expected by the consensus.

Exhibit 1: 2008 forecasts before and after the adjustments

(percentage change, unless otherwise indicated)

	2006	2007E	2008F		2009F
			New	Old	
GDP	11.1	11.6	**10.0**	10.3	10.0
Private consumption	8.1	8.5	**9.5**	9.6	10.3
Government consumption	8.9	9.0	**9.2**	9.2	9.8
Fixed investment	11.0	10.4	**9.9**	10.0	10.3
Net exports (percentage point contribution)	2.3	3.4	**1.6**	1.8	0.8
Exports (G&S)	19.6	19.0	**12.0**	14.0	15.0
Imports (G&S)	18.3	16.5	**11.5**	13.5	16.0

Source: CEIC, Goldman Sachs Economics Research.

5. It is true that policymakers in China have many levers to jump start domestic demand if the slowdown in exports leads to a visible slowdown in the overall economy. However, 1) with inflation running at above 6% and potentially going higher in 1Q2008, macro policies are unlikely to be eased; and 2) the slowdown in exports may be a gradual but prolonged process, and policy tightening also may become an extended exercise. In other words, some visible slowdown in growth and easing of inflation pressures are the *prerequisite* before policies can start to change course.

Hong Liang

Energy shortage and inflation pressures aggravated by price controls and bad weather

This article was first published on January 28, 2008.

1. Reports of coal and electricity shortages have begun to surface in a few Chinese provinces since mid-January, following the government's decision not to adjust upward electricity prices and to put temporary price controls on a number of goods deemed essential for household consumption. However, heavy snow storms in southern China in recent days have now led to a severe energy shortage affecting more than half of the provinces in China. In response, the central government urged local authorities to increase energy production and cut supply to high energy consuming industrial firms.

2. While the bad weather is certainly an important factor, we believe other (equally important) factors have also contributed to the present acute energy shortage and transportation bottlenecks—namely, the various government controls of energy prices. Specifically, electricity and gasoline prices are capped by the government for fear of their inflation implications, whereas market prices of coal and oil have continued to rise. One result of such controls is the reduced supply of electricity and transportation services. It is therefore not surprising to hear power companies in the main coal producing provinces, such as Shanxi and Shaanxi, blaming the "lack of coal" for their selected shut-down of power plants.

3. In our view, these nature-led and policy-induced energy shortages and transportation bottlenecks are likely to aggravate inflation pressures in China in the short term, as well as to have a negative impact on economic activities. Vegetable and other food prices are reported to be on the rise again. Given the current elevated inflation level, these latest developments will likely push up near-term CPI inflation to levels that will be very uncomfortable for either the policymakers or China's investors.

4. In addition, the higher "shadow" inflation that is currently repressed by various government controls are still pushing to come out. The government's partial controls on energy prices seem increasingly unattainable in the face of an increasingly open and market-oriented economy. The temporary controls on food prices are also detrimental to future supply responses from farmers, as well as running against the government's stated goal of promoting farmers' income. The (eventual) abolishment of these controls, although a very positive step towards price liberalization, may exacerbate the inflation problem in the short run.

5. Bringing down inflation appears to be on the top of the macro policy agenda this year. However, bad weather, and more importantly, bad policy choices have made this goal even more difficult to attain. Will the government choose to impose more controls? If so, China may find its inflation problem not disappearing (or even getting worse) after the weather clears up. As clouds over the US economy gets darker, the hope of "decoupling" hinges on China making the right policy choices. That is, China needs to tackle the root cause of its macro imbalances head-on through a meaningful currency appreciation and a series of domestic-demand-friendly policy initiatives. Unfortunately, as for now, the bad weather and administrative controls seem to rule. As a result, volatility and downside risks will likely continue to be the theme of the Chinese asset markets.

Hong Liang

More thoughts on the implications of the snow storm

This article was first published on January 31, 2008.

1. The severe snow storm started over the last weekend has quickly turned into one of the worst winter storms in decades, affecting 6 provinces and close to 80 million people in China. Our thoughts go out to the millions of migrant workers struggling in the cold to try to get home before the Chinese New Year, and those working hard to help them by restoring power and transport in the affected areas.

2. No doubt that a severe natural disaster like this will likely have a negative impact on the real economy. However, it is also important to remember that a *temporary* supply shock does not tend to have a lasting impact on the economy. That is, it seldom alters the cyclical trend that has already begun before the supply shock hits, although it can make a downturn feel more painful at times. For example, the economic downturn in 1998 in China was mainly caused by the aftermath of the Asian crisis rather than the severe floods in the summer of that year, whereas the severity of SARS in spring 2003 did not forestall the powerful cyclical upturn that was already underway and since lasted for more than 4 years.

3. So, what are likely to have only temporary negative impacts from this snow storm? i) the pure weather-induced spikes in food inflation; ii) short-term loss of production (note that industrial activities untaken in the first quarter constitute a relatively small share vs. the rest of the year); and iii) the impact of the snow storm on grain production this year is likely to be ***positive***, because China is structurally short of water. The 1998 severe flood was associated with a record good grain harvest.

4. However, a few issues are unlikely to go away even after the snow stops. Specifically, the crisis and risks exposed by the perfect storm can lead to future policy changes aiming to address these vulnerabilities. So, what are the few areas this snow storm could lead to some re-thinking? We offer the following four thoughts:

   a) China's potential growth rate. The 11%+ GDP growth has clearly left little spare capacity at the macro level, and a small shock to the supply side can cause massive bottlenecks and inflation pressures. In other words, China's inflation-free growth rate does not seem to be at 11%, as some have recently claimed, rather it is probably in the 9%-10% range. Therefore, to eventually bring inflation down to the comfort zone, overall growth would likely need to slow down further from its current level.

   b) Price controls. The government will need to eventually loosen the last few price controls it still imposes, namely those on energy prices (hopefully in the not too distant future). Once the weather clears up, the government will still be left with their mission impossible: how could they ensure sufficient energy production by requiring its commercial-oriented energy producers to incur financial losses? The current winter storm merely exacerbated a blooming crisis in the making before: power producers had under-invested in their coal inventories to about half of normal levels before the winter storm even hit. Of course, policymakers may try to broaden price controls to more products. However, in our view, it would be very difficult to justify such controls once the "extreme weather" can no longer be blamed upon. More importantly, we believe, after embarking on market-oriented reforms for 30 years, China will most likely continue to move forward, rather than backward, on its chosen course.

   c) The need for more infrastructure investment. The massive bottlenecks in transportation and electricity provision have also reminded us that, despite 30 years of close to 10% growth, China still has tremendous need for infrastructure investment, in its railways, highways, airports, power plants, electricity transmission networks, and so on. We have long held the view that the so-called over-investment problem in China is a fallacy, and China needs to and can invest more over the medium term to help itself eventually consume more.[1] Hopefully, this winter storm, as well as the dark clouds over the global economy this year, will help lead China soon to use more of its precious capital for its own domestic investment rather than exporting it and earning a much lower return.

[1] See *China's Investment Strength is Sustainable*, Global Economics Paper No. 146, October 3, 2006.

d) Urbanization and migrant workers. Pictures of thousands of stranded migrant workers waiting to get on the next train/bus to go home has not only invoked widespread sympathy for their current plight, but also cast the spotlight on the deep rural vs. urban divide in China. Why many migrant workers cannot settle in the cities they oftentimes have worked for years? The answer is tangled in the urban Hu Kou system, and rural land ownership, as well as a slew of public service policies (such as those on education) that have held up the rural-urban divide for decades. It is reported that the government is experimenting with abolishing the Hu Kou system and granting more land property rights to farmers in a few selected provinces. Meaningful progress in these two areas can go a long way to jump start consumer demand in China, and more importantly, to ensure the long-term stability of the country.

Hong Liang

The PBOC raised benchmark interest rates once as well as the reserve requirement ratio four times since October

The People's Bank of China (PBOC) hiked benchmark lending and deposit rates once since the end of 3Q (on December 20). The 1-year benchmark deposit rate was raised to 4.14% p.a. from 3.87% p.a. and the 1-year lending rate was raised to 7.47% p.a. from 7.29% p.a. The central bank also raised the reserve requirement ratio (RRR) four times, on October 13 (by 50 bp), November 10 (by 50 bp), December 8 (by 100 bp), and January 6 (by 50 bp) to 15.0% from 12.5%.

In our view, these moves, especially in combination with the PBOC's intensified window guidance measures to curb commercial lending, have demonstrated the central bank's resolve to rein in inflationary pressures. Furthermore, the higher frequency of the interest rate and RRR adjustments indicates the stronger will of the authorities to use market-oriented tools to manage the economy.

However, the impact of the interest rate hike may be diluted by the reduction in demand deposits rate by 9 bp. We found this cut difficult to understand, given rising inflation expectations. In addition, such a move is likely to extend commercial banks' lending margin, and therefore, potentially make it more difficult for the central bank to restrict their lending activities.

Although the RRR already exceeded the peak level in 1988, the central bank may continue to rely on this measure to sterilize liquidity caused by the intensified external imbalances. We maintain our view that RRR changes are an ineffective policy tool to control monetary expansion.

Going forward, we expect the monetary authority to implement more tightening measures including further RRR hikes and intensified moral suasion on commercial banks to curb lending. On the other hand, we are not expecting further interest rate hikes in 2008 mainly because the rising positive carries for CNY speculation may lead to more hot money inflows. We maintain our view that administrative measures such as setting loan quotas are not efficient in managing the economy and that market-based adjustments, in particular exchange rate adjustment, are preferable. However, we believe the likelihood of a major change in exchange rate policy in the near term is low and we expect the central bank to continue to depend on credit rationing as its main policy tool.

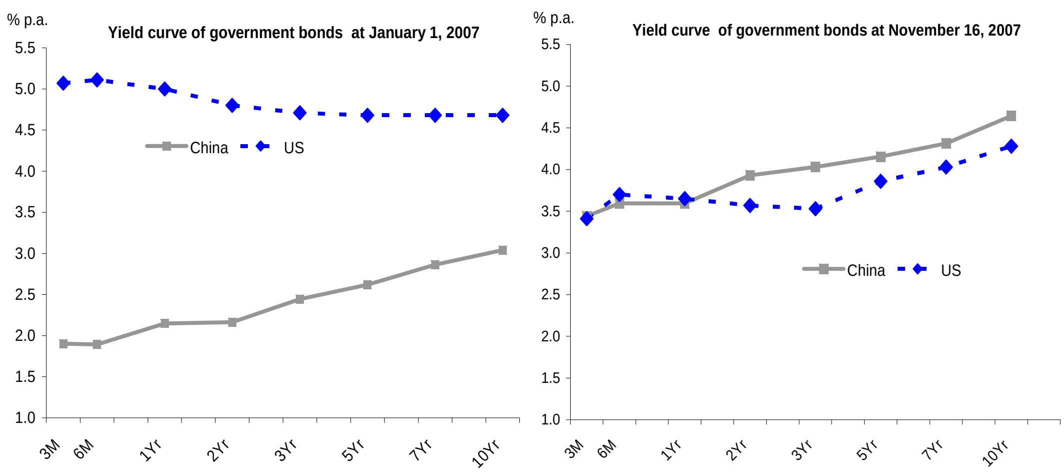
Hong Liang
Yu Song

Credit "freeze" and policymakers' dilemma

This article was first published on November 19, 2007.

- This morning we got many inquiries from clients on the Wall Street Journal report that China's government has ordered commercial banks to freeze lending through the end of this year in an attempt to rein in surging investment and cool economic growth. The China Banking Regulatory Commission (CBRC) has denied it—but they also denied that there was a lending freeze back in April 2004.
- We have highlighted this risk in our articles in the past few weeks.[1] In this article, we review a few key issues on this subject laying out why we think credit control would be the main policy instrument used by the government to control inflation and how the transmission mechanism would work.

Exhibit 1: The yield curve in China has been shifting above that of the US



Source: CEIC, Goldman Sachs Economics Research.

This morning we got many inquiries from clients on a Wall Street Journal report that China's government has ordered commercial banks to freeze lending through the end of this year in an attempt to rein in surging investment and cool economic growth. The CBRC has denied it—but they also denied that there was a lending freeze back in April 2004.

We have highlighted this risk in our articles in the past few weeks, laying out why we think credit control would be the main policy instrument used by the government to control inflation and how the transmission mechanism would work. In this article, we review a few key issues on this subject.

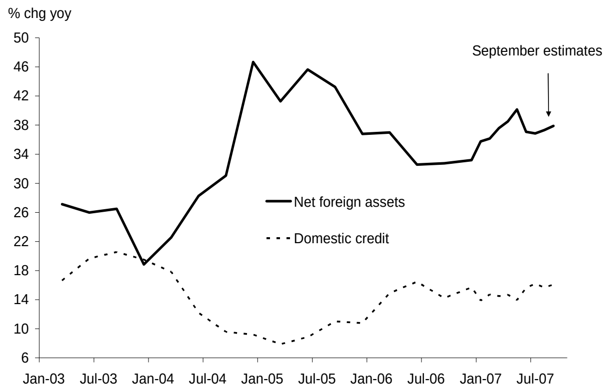
Why domestic credit control?

Because the significantly undervalued renminbi (CNY) has increasingly become a straitjacket for the Chinese central bank to conduct independent monetary policy, as the business cycle in China is diverged from that of the US.

First, any interest rate hike at the present has become much more painful for the China's central bank, mainly because the disappearance of the negative carries for the CNY speculation may lead to more hot money inflows (see Exhibit 1). This seems to have already been happening since the Fed cut rates in September.

[1] See *More liquidity tightening measures implemented to suppress inflation*, China Views, October 15, 2007; *Sticky inflation, more policy tightening, and slower (but hopefully more balanced) growth—Forecast adjustments for 2007 and 2008*, Asia Economics Analyst 07/20, November 5, 2007.

Exhibit 2: Growth of net foreign assets has significantly outpaced domestic credit since 2004



Source: CEIC, Goldman Sachs Economics Research.

Second, domestic credits have been crowed out by FX inflows. Net foreign assets are now a much larger source of money supply compared with 2003 (see Exhibits 2 and 3), mainly thanks to the surge in China's trade surplus by 27 times between 2003 and 2007. If the growth rate of these assets continues to run at the pace we have seen in the past few years, the "ceiling" on domestic credit growth would need to be lowered each year in order to keep the broad money supply growth stable.

Q&A on credit controls in China: How does it work?

1. Doesn't loan growth slow down every year in 4Q?

True, but never of the magnitude as requested by the central bank this year.

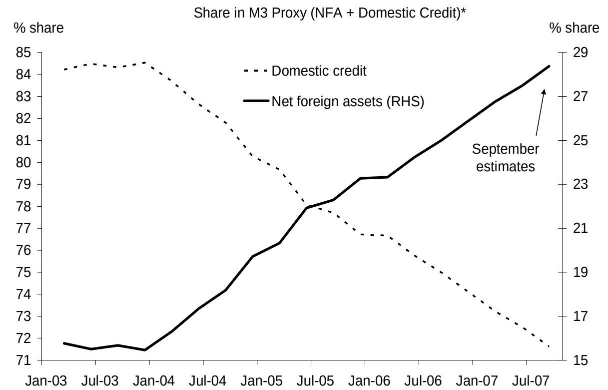
Exhibit 4 illustrates how stringent the credit control this year, if fully implemented, will be for banks compared with the past. The incremental new loans for 4Q2007 would be essentially equal to nil.

2. But haven't the companies enjoyed very strong profit growth and therefore relied less on bank credits?

Very true, but a credit crunch would still hurt some companies on the margin.

For example, 2004 was a year when companies' profit growth and cash flows were very strong (profit growth was running at 41.6% in 1H2004). However, when the government pushed forward stringent credit controls, many companies' cash flows and earnings were impaired severely (see Exhibit 5). Note that bank credits still provide about 90% of the external financing for corporates.

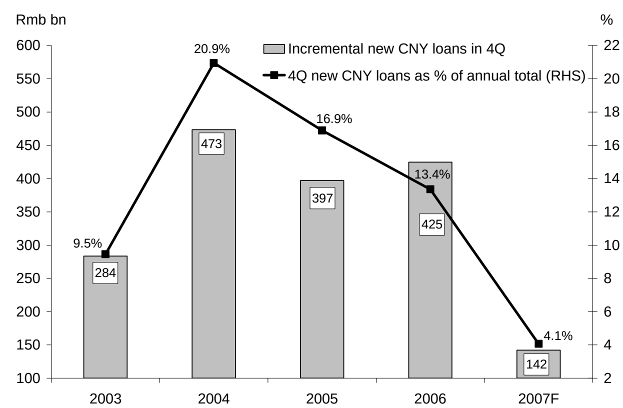
Exhibit 3: Rapid increase in the share of net foreign assets in total money supply



* M3 proxy includes net foreign assets and domestic credits, "other assets" are not included in this graph as the level is only attainable since 2006. However, it should not have much impact on the growth rate of overall financial assets due to its small share and stable performance.

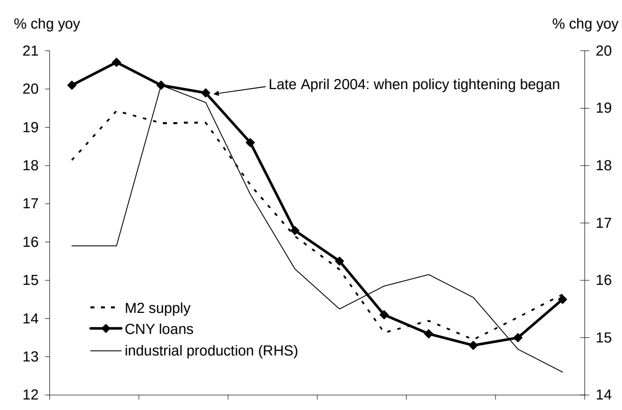
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4: Credit control in 4Q2007 is likely to be much more stringent than in the past



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 5: Credit tightening was fast and effective in slowing down growth momentum in 2004



Source: CEIC, Goldman Sachs Economics Research.

3. Shouldn't we expect banks to get a new loan quota at the beginning of next year, and therefore, they can rush to lend again?

Yes, banks will get a new quota for 2008, but 1) the quota is unlikely to be generous; and 2) the central bank may begin to enforce their monthly monitoring of credit provisions. More importantly, before the central bank sees clearly signs of subsiding inflation risks, the control measures are unlikely to be loosened. In other words, we would need to see a slowdown of growth and inflation first before expecting some relaxation of policy controls.

4. When and where we may see the first signs of this credit control becoming restrictive?

Latest news flows of falling property sales and softening of some industrial commodity prices suggest that the tightening measures have become more binding on the margin. In our view, the construction sector tends to be hit the hardest by policy-engineered credit controls, and commodity and property demand will likely be the areas first to see strains from the credit tightening.

With CPI inflation likely to be on the rise again, we would expect the credit controls to be fully enforced in November as well, and the "collateral damages" would likely be more visible as well.

5. Will a slowdown in the US help alleviate these inflation pressures?

Yes, only if such a slowdown can translate into a meaningful slowdown in China's total exports. So far, export demand has held up strongly despite slowing US demand. Although rising uncertainties of the US economy may argue for some caution in the intensity of policy tightening, it does not take away the immediate need for tighter monetary policy nor for some quick actions to prevent inflation expectations from running up further.

Near-term outlook

As we have highlighted in our forecast change article,[2] we see a notable worsening in the growth and inflation trade-off in the near term when policies in China will be preoccupied by engineering a landing in inflation risks.

We have lowered our real GDP growth forecast to 10.3% for 2008, slightly below consensus (but this is the first time in the past four years that our forward-looking growth forecast is below consensus). On the policy front, we have raised our interest rate forecasts to two more 27-basis-point (bp) hikes in the benchmark lending and deposit rates by the end of this year, and we have also raised our CNY appreciation trajectory versus the USD to 7.28, 7.11 and 6.78 over 3, 6, 12-month horizons. In the meantime, we foresee the direct quantity control of commercial banks' lending will continue to be an important part of the tightening package.

In our view, much of the policy challenge facing China in the near term is the result of policy being behind the curve for too long this year. In other words, decisive policy actions continued to be delayed when all signs suggested significant overheating pressures were building up in the economy in the first three quarters of the year. A few incremental policy adjustments that were taken, such as reserve requirement and interest rate hikes, were far from being adequate to dampen the strength in aggregate demand. As a result, the eventual "landing" of this overheating episode will likely be a bit "rougher" than otherwise the case.

On the back of a worsening trade-off between growth vs. inflation and a continued tightening bias on the policy front amid lofty valuations, our Strategy Team has recently lowed our allocation view on Hong Kong-listed China equities to market weight, after being overweight for three years.[3]

Hong Liang

[2] See *Sticky inflation, more policy tightening, and slower (but hopefully more balanced) growth—Forecast adjustments for 2007 and 2008*, Asia Economics Analyst 07/20, November 5, 2007.

[3] See *Moderating our China stance*, Asia Pacific Portfolio Strategy, November 8, 2007.

China to enforce stricter controls over new investment projects

This comment was first published on November 21, 2007.

Earlier today (November 21), the State Council issued a statement on its official website urging the ministries and local governments to ensure that all new projects have been properly authorized and meet the land-use, energy efficiency and environmental protection criteria. In the statement, the State Council described current investment growth as "*too rapid*," and has "*become a prominent problem that threatens the stability of the economic growth*."

We believe this is part of the government's tightening package, which also include a "credit freeze"[1] order by the China Banking Regulatory Commission (CBRC). The government's intensified tightening efforts, which aim to rein in the overheating pressure in the economy, are likely triggered by the 30.7% year-on-year (yoy) growth in fixed asset investment, 18% yoy loan growth and 6.5% yoy CPI inflation in October. The elevated inflation and undying overheating pressure despite the persistent tightening efforts highlight the challenge for the government to manage a very open economy under a significantly undervalued currency.[2]

We reiterate our long held view that such blunt administrative tightening measures are inefficient policy tools that are associated with significant efficiency loss.

Against the backdrop of a slowing US, we believe the stricter controls over domestic investments will intensify the potential slowdown in China's aggregate demand, and therefore impose downward risks to growth in the near term.

Eva Yi
Hong Liang

[1] See *China: Credit "freeze" and policymakers' dilemma*, Asia Economics Flash, November 19, 2007.

[2] See *China's renminbi: An unbearable straitjacket for the central bank*, Asia Economics Flash, November 12, 2007.

2008 economic policy agenda set by the Central Economic Working Conference

This comment was first published on December 6, 2007.

China held its annual Central Economic Working Conference between December 3-5. China's top political leadership, including all nine members of the Politburo Standing Committee, was present at the conference.

The messages of the conference came at no surprise to us and is consistent with our view that further policy tightening is needed to rein in inflationary pressures. Key takeaways are as follows:

1. The prevention of overheating and the control of inflation were clearly placed on top of the economic policy making agenda in the coming year.

2. Monetary policy is set to be on a tightening stance. In particular, the government will strictly control the size and pace of money and credit supply.

3. Fiscal policy will maintain its neutral stance. While headline government expenditure will be "appropriately" controlled, expenditures will be skewed towards health, education, social security and residential housing sectors.

4. The pace of growth in new fixed asset investment projects will be strictly controlled to prevent a rebound in fixed asset investment growth.

We expect the monetary authorities to issue quarterly or monthly lending quotas to individual commercial banks before the end of 2007 to prevent the usual lending rush at the beginning of the year. We expect these credit rationing measures to be strictly enforced until the government sees clear signs of lower inflation and slower growth.

Hong Liang
Yu Song

China's renminbi: An unbearable straitjacket for the central bank

This article was first published on November 12, 2007.

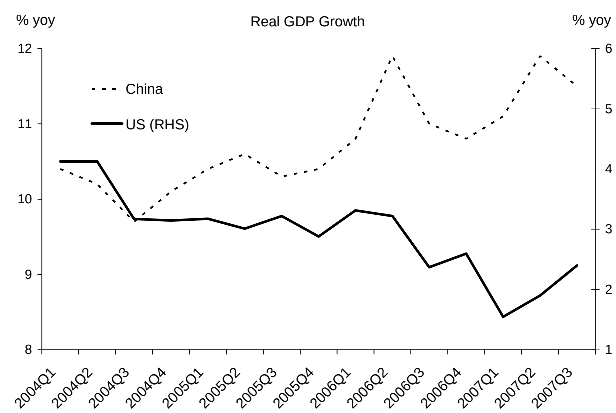
- Four years ago, we made the call that it is in China's own interest to revalue the renminbi (CNY) because the business cycle in China is not synchronized with that of the US.
- However, little progress has been made in the past four years to appreciate the CNY on a trade-weighted basis, and as a result, inflation risks are on the rise and the current account surplus will likely reach a staggering 12% of GDP this year.
- In our view, rising domestic inflation, ongoing generalized weakness in the USD, reversing interest rate differentials between China and the US, and a re-acceleration of "hot money" inflows, let alone mounting international pressures, will likely lead to a change in the status quo in the not too distant future.
- Therefore, we have recently raised our CNY forecast to about 10% appreciation vs. the USD in 12 months, and believe the risks are on the upside that China may do more rather than less on the currency front in 2008 compared with our baseline projection.

In September 2003, we released an article titled "Chinese renminbi: Whose problem is it?"[1] In that article, we argued that the significantly undervalued CNY is indeed also a serious problem for China. The fixed exchange rate has increasingly become a straitjacket for the Chinese central bank to conduct independent monetary policy, because the business cycle in China is not synchronized with that of the US. Therefore, a currency revaluation is the most cost-effective way to maintain a stable macro-environment conducive to growth.

The diagnosis and conclusion of that article, unfortunately, remain valid even four years after we first published it.

The CNY has continued to be managed within a very narrow range vs. the USD and the cumulative appreciation since the currency revaluation in July 2005 has been about 9% (not including the 2% initial reval). Despite this, the CNY has only appreciated by a meager 1% on a trade-weighted basis, as most other important currencies, relevant for China, have risen sharply against the USD (in some cases even more than the amount of CNY/USD appreciation). As a result, the imbalances related to China's currency policy within the Chinese economy (to some extent in the global economy) have again reached a testing point, opening up questions of how long the Chinese authorities would or could continue to stick with the status quo. It is notable that European policymakers are now as vocal as those in the US, about the CNY "issue."

Exhibit 1: China has so far decoupled well



Source: CEIC, Goldman Sachs Economics Research.

Besides external pressures, in our view, rising domestic inflation, ongoing generalized weakness in the USD, reversing interest rate differentials between China and the US, never mind the staggering current account surplus (likely reaching close to 12% of GDP this year!), will likely bring a change in the status quo in the not too distant future. Therefore, we have recently raised our 3, 6, and 12-month USD/CNY forecasts to 7.28, 7.11, and 6.78, and believe the risks are on the upside that China may do more rather than less on the currency front in 2008 compared with our baseline projection.

The Chinese cycle has diverged from that of the US

The growth path of the Chinese economy has decoupled notably from that of the US since the US economy began to slow in mid-2006 (see Exhibit 1). The cyclical divergences between these two large economies are starkly reflected in the divergences between their

[1] See *Chinese renminbi: Whose problem is it?*, Asia Economics Flash, September 29, 2003. Incidentally, that was the second article I published after joining the Goldman Sachs from the IMF.

monetary policy stances: the US Federal Reserve cut its Fed Funds rates by another 25 bp in October after the 50 bp cut in September, while the Chinese central bank is poised to raise interest rates again after five rate hikes this year. In the meantime, the USD continues to break multi-year new lows vs. other major currencies, while the pressures on the CNY to appreciate have intensified.

More importantly, Chinese inflation has continued to surprise on the upside this year along with record high real economic growth in the past twelve years and accelerating asset inflation. In our view, the rapid rise in food prices this time round is again driven more by the excessive broad money expansion rather than by any temporary supply disruptions (see Exhibit 2). Therefore, we believe overall inflation pressures will not subside without decisive monetary tightening.

After five interest rate hikes and nine reserve requirement ratio (RRR) hikes this year, financial conditions merely tightened by 0.2 point since last December as measured by our GS China Financial Conditions Index (GS China-FCI) (see Exhibit 3). The fact that broad financial conditions remain very accommodative despite “apparent” tightening efforts reflects the ineffectiveness of monetary policy tightening in the absence of a meaningful currency appreciation: not only because NEER depreciation (since September) loosens the FCI directly, but more importantly, a significantly undervalued currency would likely boost money supply growth by attracting massive foreign exchange (FX) inflows. Furthermore, persistent expectations of currency appreciation and low interest rates will also likely fuel excessive exuberance in the equity market.

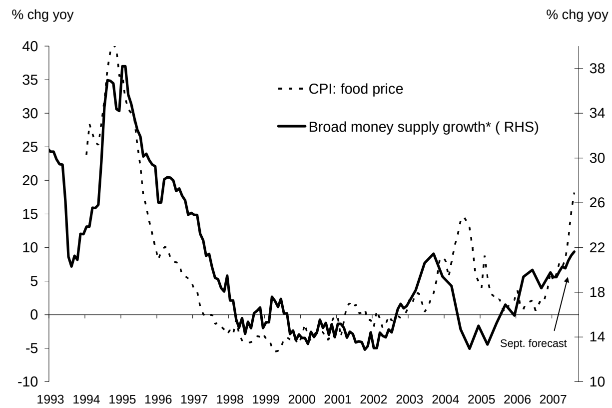
Why can’t China keep raising interest rates to combat inflation?

While we do expect China’s central bank to raise rates two more times this year given mounting domestic inflation pressures, we believe any rate hike beyond that would become much more painful in three ways.

1. The costs of sterilization would rise significantly. Two more 27-bp rate hikes from China and two more rate cuts by the Fed, as we expect, could lead to the disappearance of the “positive carry,” even without the adjustment for currency losses.

2. It would also make the financial losses from accumulating FX reserves even more explicit in the public eyes. Exhibit 4A illustrates that, after adjusted for currency losses, the estimated financial loss of holding FX reserves is now about US$5 billion per month (2% of GDP annualized), and the trend clearly is accelerating as the FX reserves continue to grow faster than GDP.

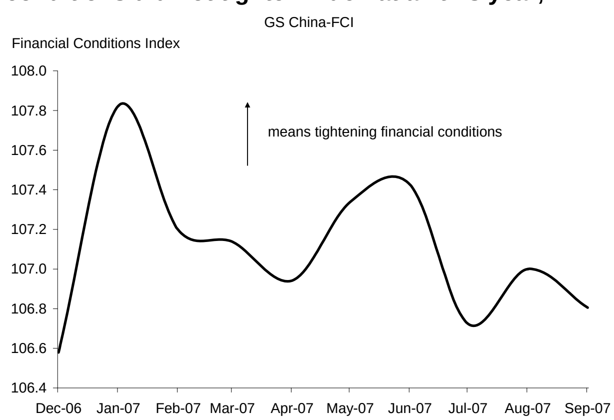
Exhibit 2: Food price inflation is largely driven by monetary expansion



Broad money supply only contains M2 before 2003, since non-M2 components in M3 supply take up very small weight back then. We used a "M3 proxy" for broad money supply after 2003. M3 proxy includes net foreign assets and domestic credits, and the only item in M3 that is not included in the M3 proxy is "other assets", whose level is only attainable since 2006, however, it should not have much impact on the growth rate of M3 due to its small share and very stable growth.

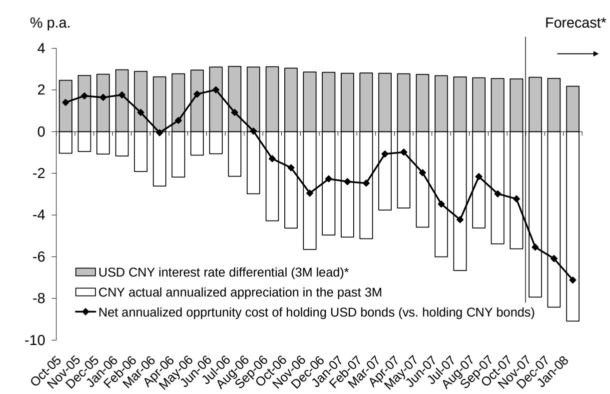
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 3: Our GS China-FCI shows that financial conditions did not tighten much at all this year, ...



Source: CEIC, Goldman Sachs Economics Research.

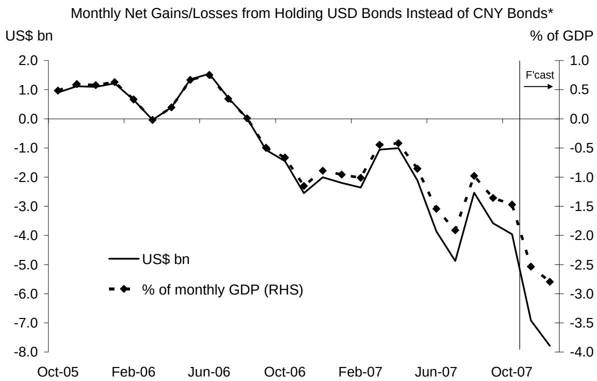
Exhibit 4A: Holding USD bonds is increasingly a money-losing business



Note: interest rate differential between 3M USD LIBOR and 3M PBOC bill yield. In Nov 2007 - Jan 2009, we used the actual interest rate differential in Aug-Oct 2007, the CNY appreciation rate was estimated using our forecast.

Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4B: Surging capital loss from holding USD bonds (instead of CNY bonds)



* Monthly net gain/loss = monthly opportunity cost (% p.a.) from holding USD bonds vs. CNY bonds X (monthly avg. FX reserves).
Source: CEIC, Goldman Sachs Economics Research.

3. More importantly, the disappearance of the negative carry for CNY speculation may lead to more hot money inflows. This seems to have already been happening since the Fed cut rates in September.

Flood of hot money inflows: coming yet?

We notice that the FX assets in the overall banking system (including the central bank and the commercial banks) jumped significantly in September. The incremental increase in September was **US$72 billion**, an amount we have not seen since 2004 and much larger than that in a normal month. A significant amount of the FX assets was added to commercial banks' balance sheets (see Exhibit 5A).

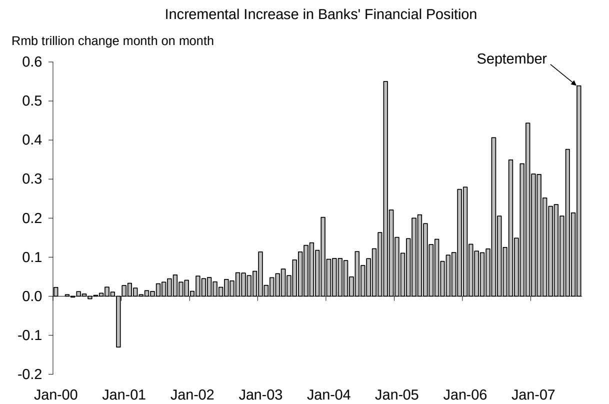
What changed in September? There were no mega IPOs in the month. In our view, the significant event of the month was the US Fed cutting the Fed Funds rate by 50 bp, more than expected by the market. As a result, the USD began another round of weakening.

If further interest rate hikes lead to a positive carry (that is, China's interest rates being higher than that of the US), it may not be an exaggeration to say that all the money in the world may try to find their way into China.

Doesn't China have capital controls? Yes, it does. But with exports and imports constituting 65% of GDP, China's capital controls can be fairly "leaky," as traders can over-invoice their exports and under-invoice their imports to build up long positions. A senior central bank official admitted recently: "*controls on the capital account are 'virtually ineffective' and speculative funds keep pouring in, betting on the CNY appreciation.*"

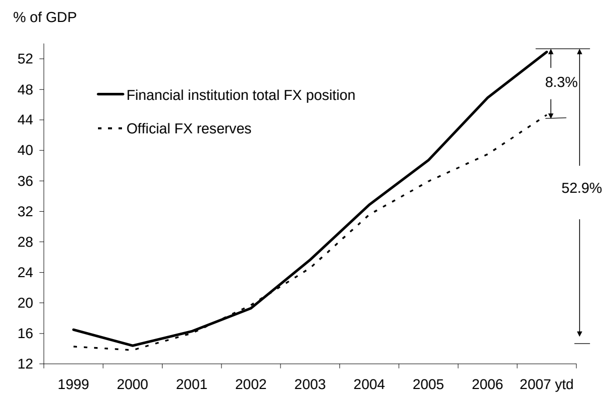
Moreover, with the USD borrowing cost at about 5% (close to the annual realized CNY appreciation rate) and is set to fall further, while the CNY lending rate stands at

Exhibit 5A: Large amount of FX inflows in September (in the absence of any major IPO)



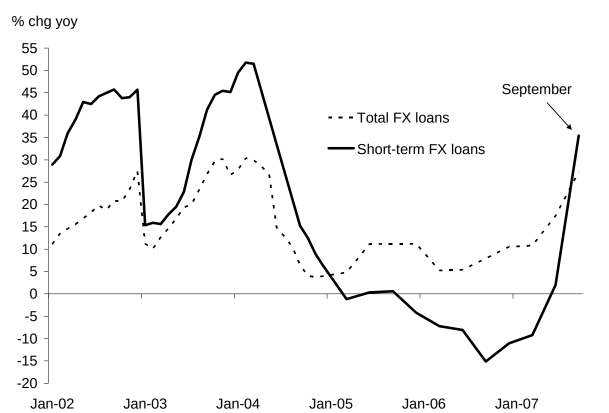
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 5B: FX assets are growing fast, on both the central bank and the commercial banks' balance sheets



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 6: Sharp pickup in short-term FX loan growth since mid-2007



Source: CEIC, Goldman Sachs Economics Research.

close to 7.5%, many would look for ways to borrow USD loans (and first sell that to the central bank) to purchase CNY assets. Looking at a chart of FX loan growth, one would wonder whether such an arbitrage has already begun (see Exhibit 6).

In the meantime, if the 1-year deposit rate (and the CNY bond yield) gets close to 5%, together with an expected CNY appreciation rate of 5% per year, it is a pretty good expected return of 10% in USD terms. Compared with many risky assets at historical high valuations, an almost "risk free" return of 10% is not bad at all for QFII investors and others who can get access to onshore CNY deposits.

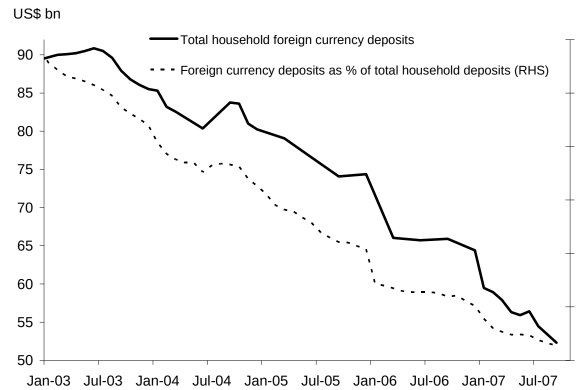
Can China beat the market?

We asked this question four years ago, and concluded that it (eventually) could not, because the Chinese economy has become increasingly market-based and integrated with the global economy. The past four years' experiences have shown that China could keep the suspense longer by using administrative controls to slow the adjustment in real exchange rates. However, these experiences have also highlighted the mounting challenges for China's central bank who tries to fix the exchange rate, the interest rate, and price levels all at the same time.

Even if China could fend off foreign speculators, domestic residents and corporates (as well as international policymakers) clearly see the dilemma the central bank is facing. Something would have to give, if it is not the exchange rate, it would be the interest rate, or inflation. Exhibit 7 shows how Chinese households have been reducing their holdings of USD deposits both in absolute level terms but also more pronouncedly as a percent of their financial assets since. Again, this is consistent with experiences elsewhere in the world that it is usually the locals who are first to start to move their funds across the border when the exchange rate is apparently misaligned, and it is usually the locals who eventually bring the central bank to a reckoning.

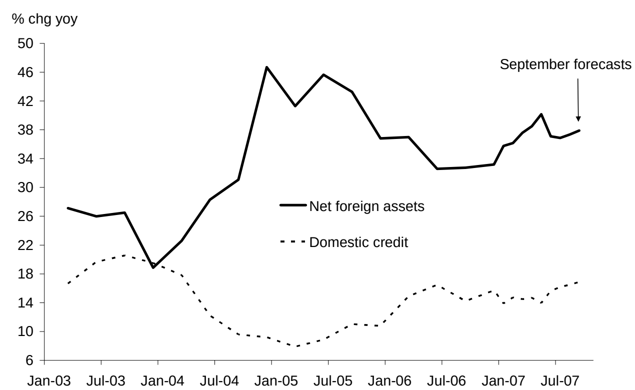
Back in 2003, we pointed out that there are only three ways to get the real undervaluation of the CNY adjusted: 1) nominal appreciation; 2) higher domestic inflation relative to its trading partners; or 3) administrative controls on domestic demand (or trade protectionist measures against China's imports). The policy options remain the same for China today, and their relative pros and cons stand intact: nominal appreciation is the most optimal policy choice in terms of total net welfare gains for the country. Option 2 is VERY costly, because it worsens income distribution, and it is very difficult to control if inflation expectations are permanently shifted up after being left ill-anchored for too long. Needless to say, option 3 is the most inefficient policy path.

Exhibit 7: Chinese households have been rapidly reducing their USD holdings



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 8: Growth of net foreign assets has significantly outpaced domestic credit since 2004



Source: CEIC, Goldman Sachs Economics Research.

Unfortunately, administrative repression on domestic demand (particular investment demand) more or less has been the main policy tool that has kept the "macro stability" in China, but it has also exacerbated the external imbalances of the economy: China's trade surplus has increased by **27** times between 2003-2007!

But even the old administrative controls have now run into some new challenges because of China's unprecedented external imbalance.

Domestic credits being crowed out by FX inflows

In the past few years, China's method to keep domestic supply growth within a targeted range has been mainly relying on repressions on domestic bank lending, while the undervalued currency has brought in persistent fast growth in foreign assets (see Exhibit 8). For example, the 2003-2004 dis-inflation process was achieved by reducing the growth rate of domestic credit by about one third within a 9-month period, but FX assets continued to run up very fast.

However, net foreign assets are now a much larger source of money supply compared with 2003 (see Exhibit 9), mainly thanks to the surge in China's trade surplus by 27 times between 2003 and 2007. If the growth rate of these assets continues to run at the pace we have seen in the past few years, the "ceiling" for domestic credit growth would need to be lowered each year in order to keep the broad money supply growth stable.

Even if the growth rate of the trade surplus may slow because of some weakness in external demand, a potential re-acceleration in capital inflows would make the central bank's job of controlling money supply a very challenging task, to say the least. Moreover, continued strong loan growth this year may signal that the effectiveness of moral suasion might have been diluted because the banks have now become more commercial oriented after their IPOs.

Can China use higher domestic inflation to achieve real exchange rate appreciation? We believe this is a very dangerous proposition because of its significant negative impact on income distribution and because the large holdings of bank deposits by the households could flood out to chase goods and services if inflation expectation shifts up permanently. Therefore, we continue to believe that most of the real undervaluation of the CNY would eventually get adjusted through the nominal appreciation of the currency.

The day of reckoning is closer

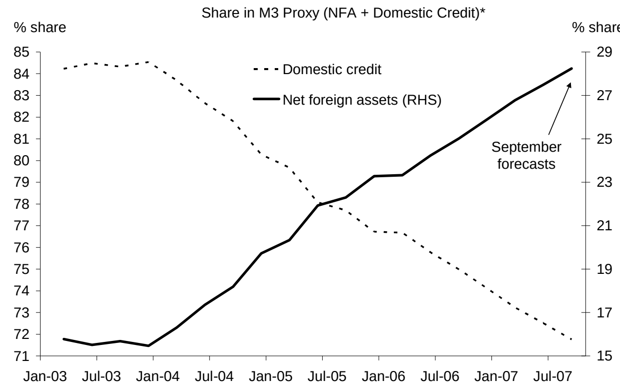
With domestic inflation running at above 6%, and the US Fed having started the rate cut cycle, we believe the day of reckoning for the CNY is getting closer. In addition, besides rising domestic inflation pressures, the external pressures on the CNY will likely intensify as well. As the US economy weakens further and the weakness spreads to the labor market, the protectionist "barking" may turn into some real "biting" on the trade front.

Moreover, we believe the pressures will increasingly come from Europe and China's Asian neighbors:

1. If one looks at the EUR/CNY cross rate and the euro's bilateral trade surplus with China (see Exhibit 10), it is not surprising that Europe is also adding its weight on the CNY issue.

2. Furthermore, as inflation begins to surface in other Asian economies, many central banks are also under pressure to raise rates and have allowed their currencies to appreciate faster than the CNY (see Exhibit 11).

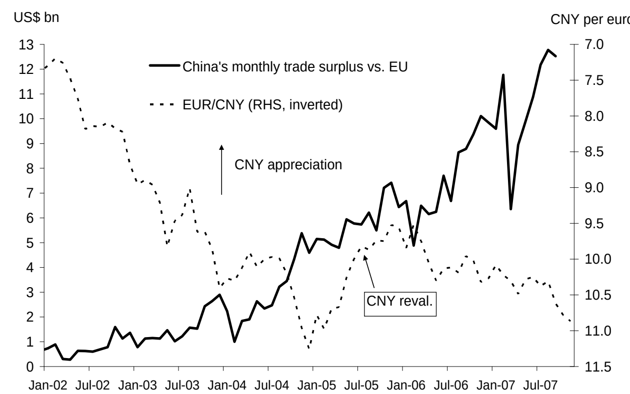
Exhibit 9: Rapid increase in the share of net foreign assets in total money supply



* M3 proxy includes net foreign assets and domestic credits, "other assets" are not included in this graph as the level is only attainable since 2006. However, it should not have much impact on the growth rate of overall financial assets due to its small share and stable performance.

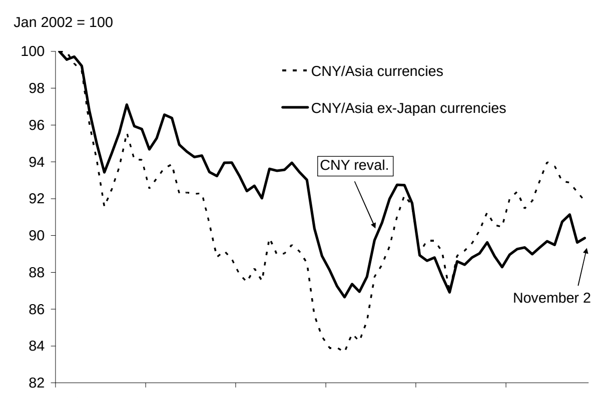
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 10: Sino-european trade surplus blossomed as the CNY depreciates vs. the EUR



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 11: CNY has *depreciated* significantly against other Asian currencies since 2002



Source: CEIC, Goldman Sachs Economics Research.

As a result of the continued piggy-bagging on the USD, the CNY has again depreciated on a trade weighted index (TWI) basis since the latest round of USD weakness began in late August. In fact, the CNY has almost given up all its meager appreciation against the TWI since July 2005 in the past two months (see Exhibit 12), again following the falling USD!

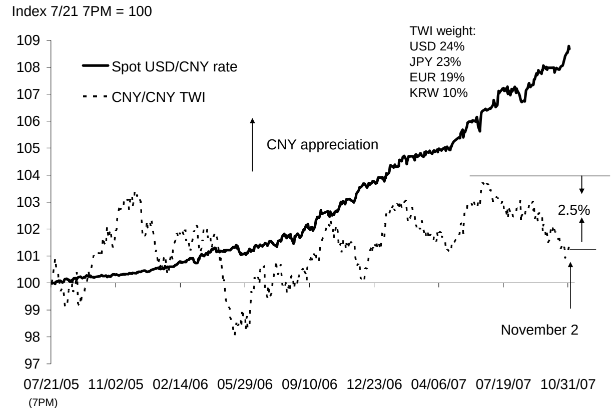
An effective depreciation of the currency at this moment could not be a worse policy choice when the broad government policy stance is trying to slow growth and combat inflation, let alone to reduce the dependence on export growth!

Needless to say China's policy decision on the timing and magnitude of its currency adjustment is of crucial importance to global (and its domestic) financial markets. If China continues to refuse to adjust its external imbalances through a meaningful CNY appreciation, the risks will rise that the eventual adjustment of these imbalances would be a very painful one. On the other hand, a decisive reset of the undervalued CNY would allow China's repressed domestic demand to blossom and dampen the underlying forces for excessive inflation and asset inflation.

We believe that the chances are rising that policymakers will re-think the currency issue in the face of rising domestic inflation, renewed weakness in the USD, mounting international pressures, and most of all, a dismal score card of trying to rebalance the economy without tackling the root cause of such imbalances in the past four years: the undervalued CNY (see Exhibit 13). Therefore, we have raised our 3, 6, and 12-month USD/CNY forecasts to 7.28, 7.11, and 6.78 last week. We believe the risks are on the upside that China may do more rather than less on the currency front in 2008 compared with our baseline projection.

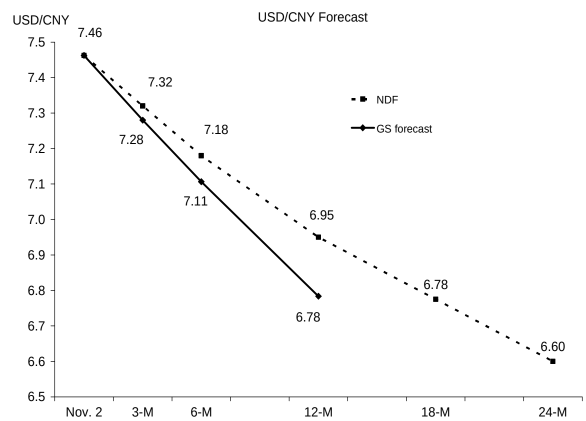
Hong Liang

Exhibit 12: The CNY hasn't appreciated much at all against the TWI since the reval



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 13: CNY—our forecasts vs. forwards

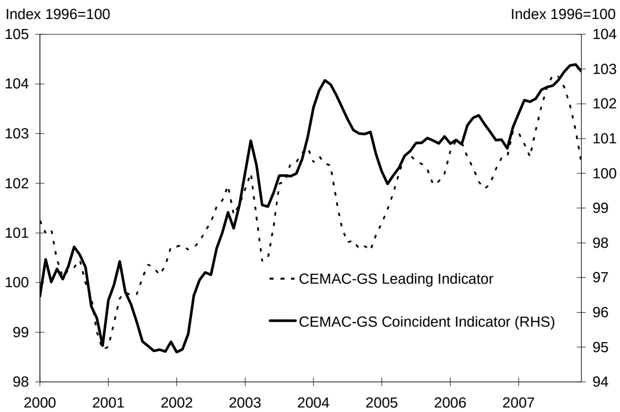


Source: CEIC, Goldman Sachs Economics Research.

Charting China

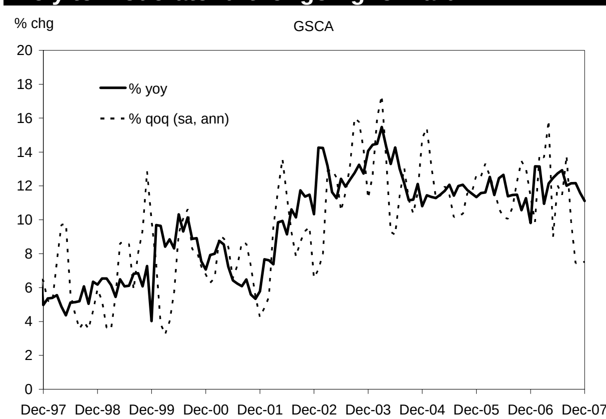
Monthly Activity Indicators

Exhibit 1: Both coincident indicator and leading indicator softened



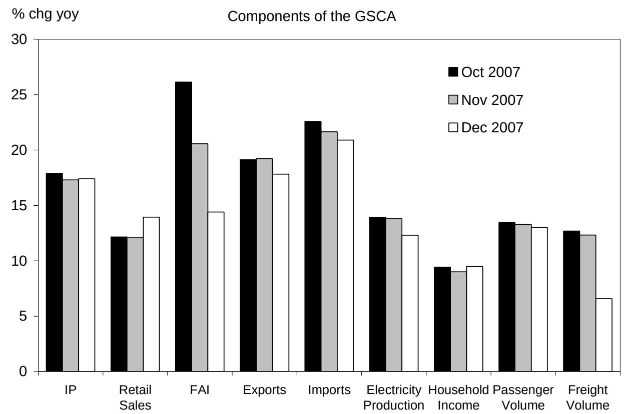
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 2: Growth moderated in December and is likely to moderate further going forward



Source: CEIC, Goldman Sachs Economics Research.

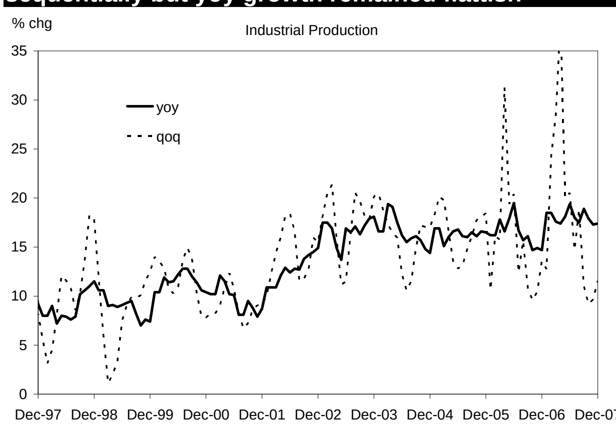
Exhibit 3: Slower yoy growth in fixed asset investment and freight were the main drivers



Note: these variables are measured in real terms.

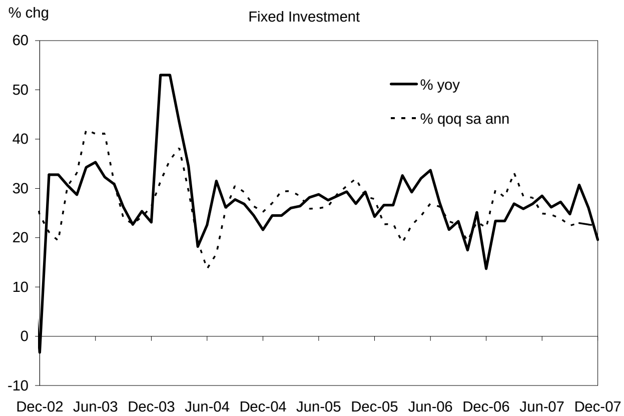
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4: Industrial production growth decelerated sequentially but yoy growth remained flattish



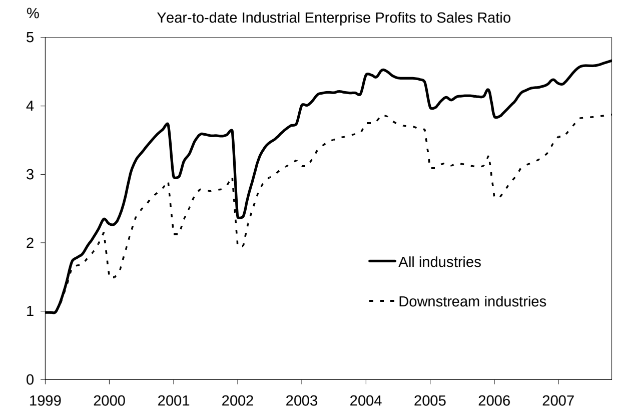
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 5: Fixed investment yoy growth softened but underlying momentum remained solid



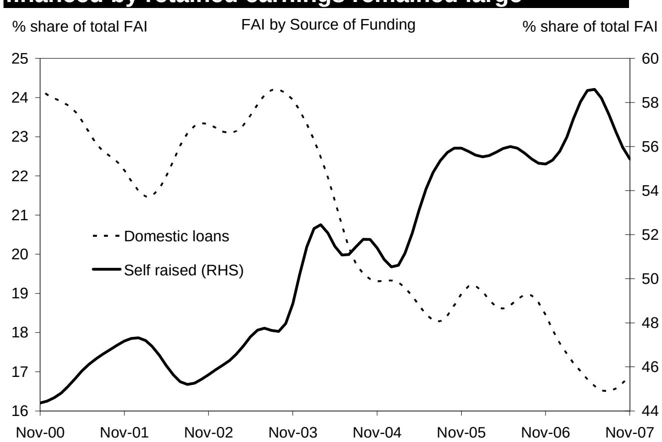
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 8: Corporate profitability has been robust and rising



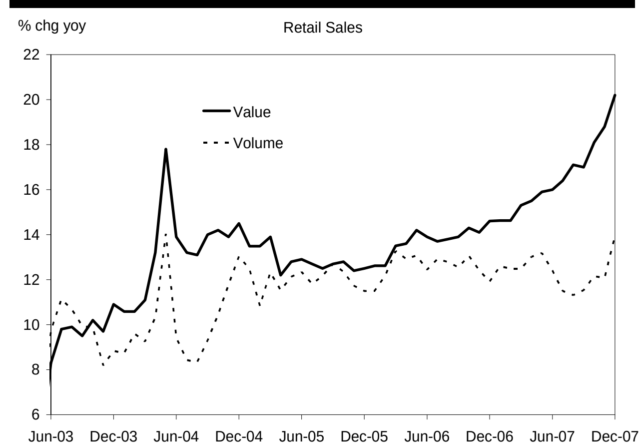
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 6: The share of fixed assets investment financed by retained earnings remained large



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 9: Retail sales growth accelerated



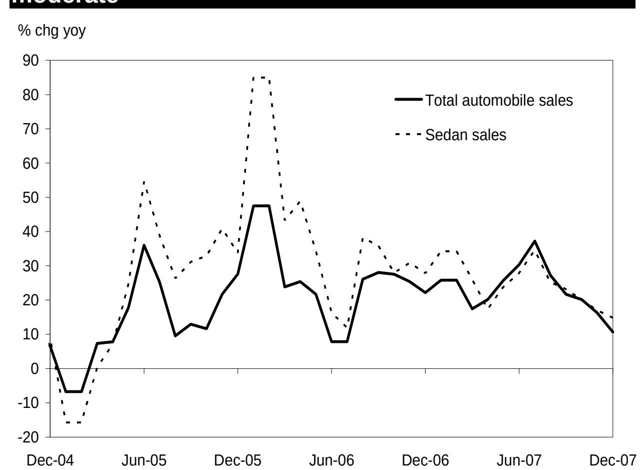
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 7: Growth of investment in the pipeline picked up

	Investment Under Construction			New Investment Projects		
	Rmb tn (ytd)	% mom	% yoy	Rmb tn (ytd)	% mom	% yoy
Jan-05	7.0	—	21.4	0.5	—	-6.6
Feb-05	7.0	—	21.4	0.5	—	-6.6
Mar-05	9.4	34.3	29.4	1.0	117.0	7.3
Apr-05	10.8	14.7	26.2	1.6	52.4	13.5
May-05	11.9	10.6	28.7	2.1	35.2	24.9
Jun-05	13.2	10.7	28.6	3.0	40.5	24.8
Jul-05	14.1	7.3	26.1	3.5	17.9	28.5
Aug-05	14.8	4.7	29.7	4.0	13.5	28.4
Sep-05	15.2	2.9	27.9	4.5	13.0	27.9
Oct-05	15.9	4.2	27.8	5.1	11.8	28.5
Nov-05	16.5	4.3	28.8	5.5	9.7	28.4
Dec-05	17.8	7.9	29.7	6.5	16.9	32.4
Jan-06	9.8	—	39.8	0.6	—	33.4
Feb-06	9.8	—	39.8	0.6	—	33.4
Mar-06	12.2	25.0	30.1	1.5	131.1	42.0
Apr-06	13.9	13.9	29.2	2.1	41.8	32.2
May-06	15.1	8.6	26.9	2.6	26.4	23.6
Jun-06	16.6	10.2	26.3	3.7	38.9	22.2
Jul-06	17.4	4.3	22.8	4.2	15.1	19.3
Aug-06	18.0	3.6	21.6	4.5	5.9	11.4
Sep-06	18.8	4.6	23.6	4.9	9.1	7.5
Oct-06	19.4	3.3	22.6	5.3	8.6	4.4
Nov-06	20.1	3.2	21.3	5.7	9.0	3.7
Dec-06	21.7	8.0	21.4	6.7	16.6	3.4
Jan-07	10.7	—	9.3	0.4	—	-35.9
Feb-07	10.7	—	9.3	0.4	—	-35.9
Mar-07	14.2	32.7	16.0	1.3	210.2	-13.9
Apr-07	16.4	15.8	18.0	2.0	61.0	-2.2
May-07	17.5	6.9	16.1	2.8	37.2	6.1
Jun-07	19.3	9.8	15.8	3.9	39.2	6.4
Jul-07	20.3	5.6	17.2	4.8	23.9	14.6
Aug-07	21.2	4.2	17.9	5.2	7.9	16.7
Sep-07	22.2	4.9	18.2	6.0	16.1	24.2
Oct-07	23.1	3.7	18.7	6.7	10.6	26.5
Nov-07	24.1	4.4	20.1	7.4	10.3	28.0
Dec-07	26.1	8.5	20.6	8.6	17.2	28.7

Source: CEIC, Goldman Sachs Economics Research.

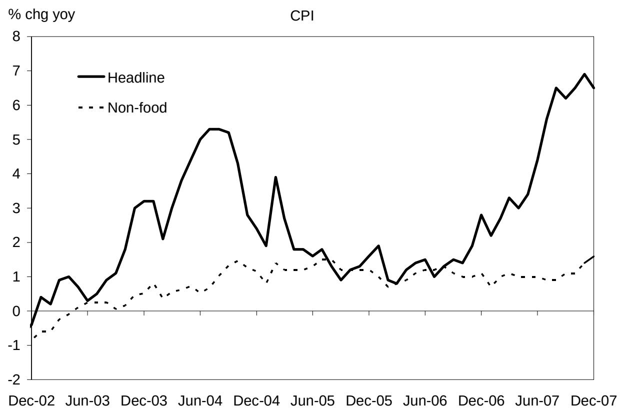
Exhibit 10: Automobile sales growth continued to moderate



Source: CEIC, Goldman Sachs Economics Research.

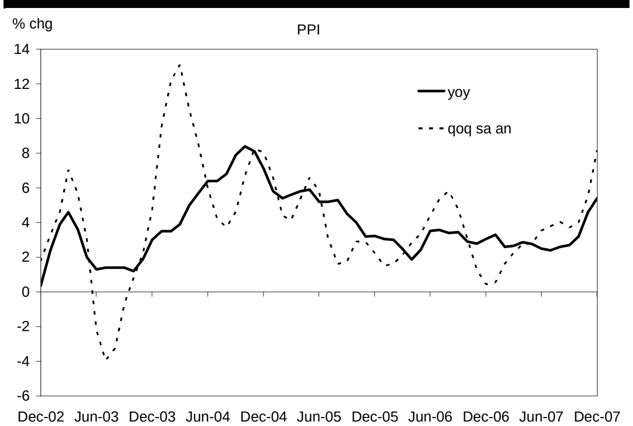
Price Indicator

Exhibit 1: CPI inflation accelerated rapidly...



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 2: ...so did PPI...



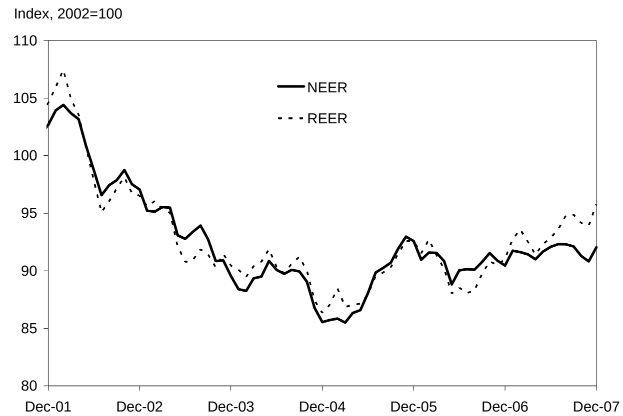
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 3: ...and property price inflation

Note: quarterly data before July 2005, monthly since then.

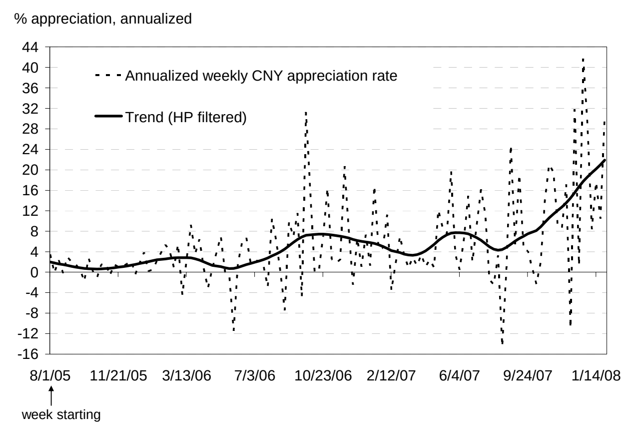
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4: Effective exchange rates appreciated but still remain undervalued



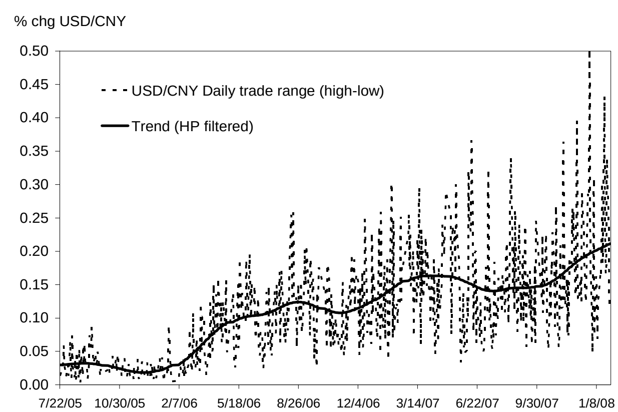
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 5: The accelerated pace of CNY/USD appreciation



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 6: Higher daily volatility of the CNY exchange rate

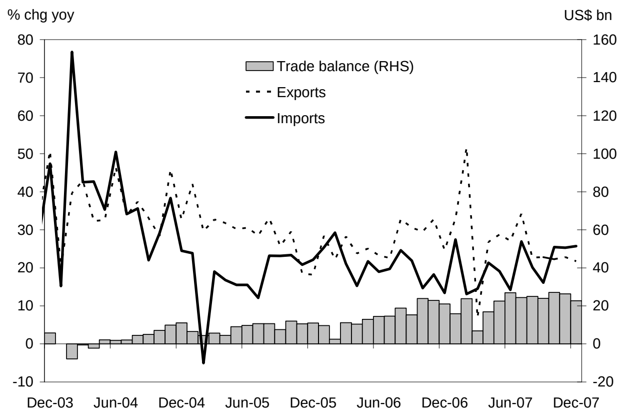


Note: quarterly data.

Source: CEIC, Goldman Sachs Economics Research.

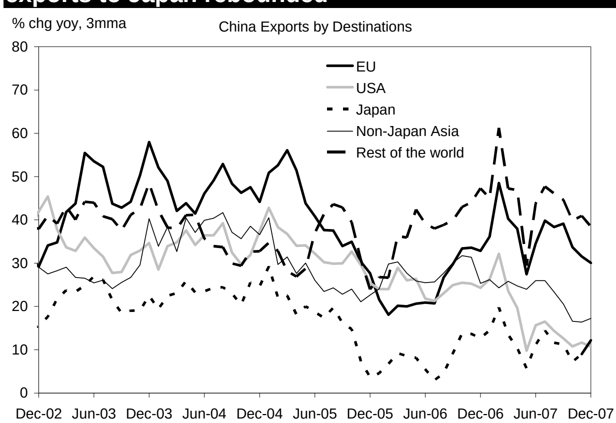
Trade Indicators

Exhibit 1: Exports growth softened while imports growth has been trending up



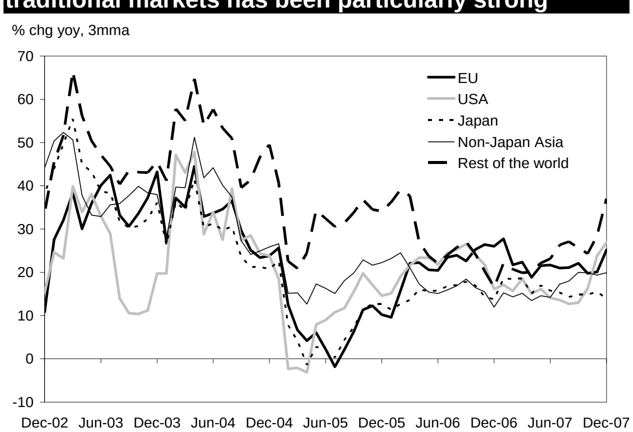
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 2: Exports to most destinations moderated but exports to Japan rebounded



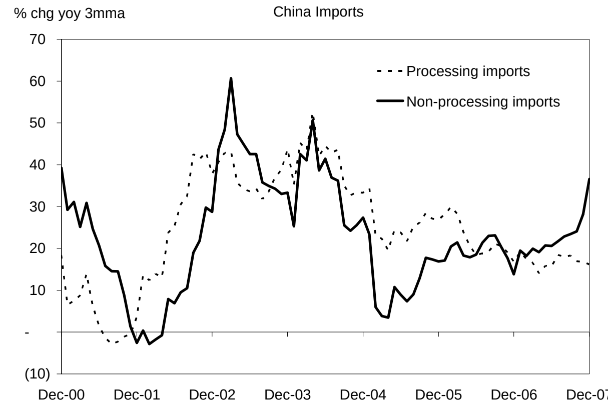
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 3: Growth of imports from EU, US and non-traditional markets has been particularly strong



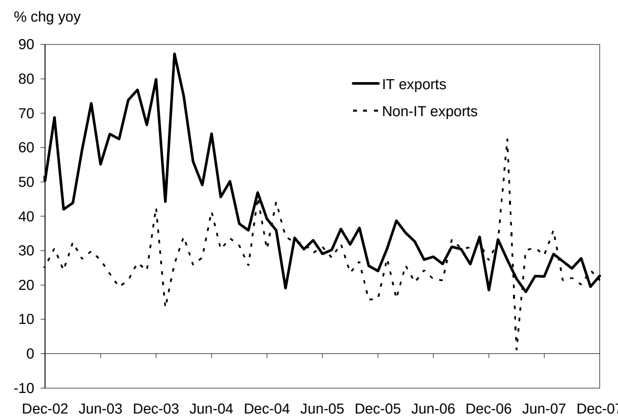
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4: Domestic-demand-driven imports growth accelerated while processing imports growth softened



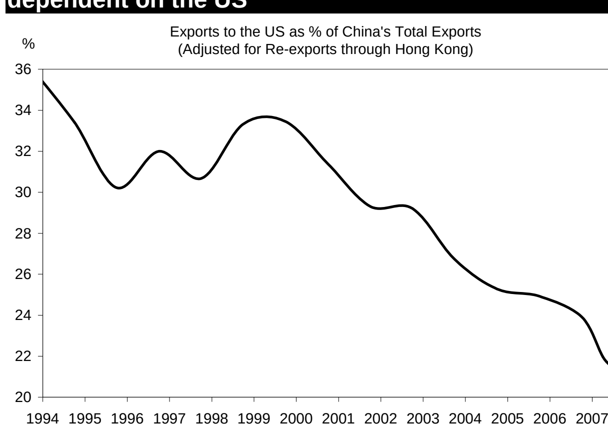
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 5: Growth of tech and non-tech exports both softened



Source: CEIC, Goldman Sachs Economics Research.

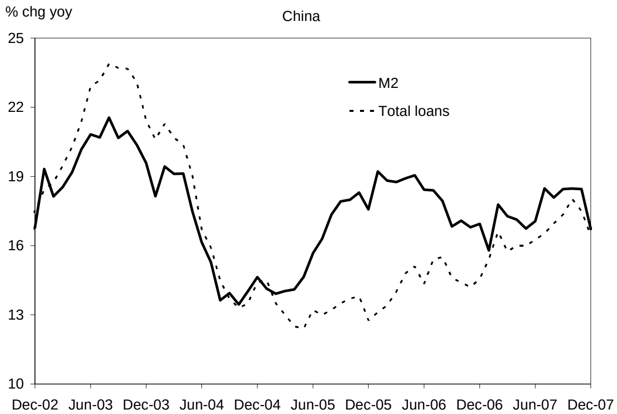
Exhibit 6: China's exports have become less dependent on the US



Source: CEIC, Goldman Sachs Economics Research.

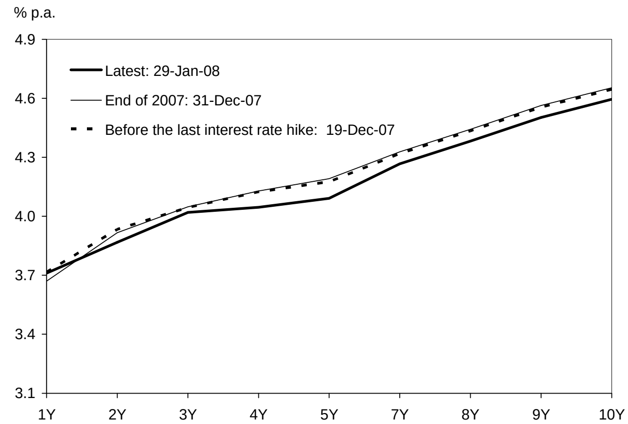
Financial Indicators

Exhibit 1: Visible deceleration in money and credit growth towards the year end



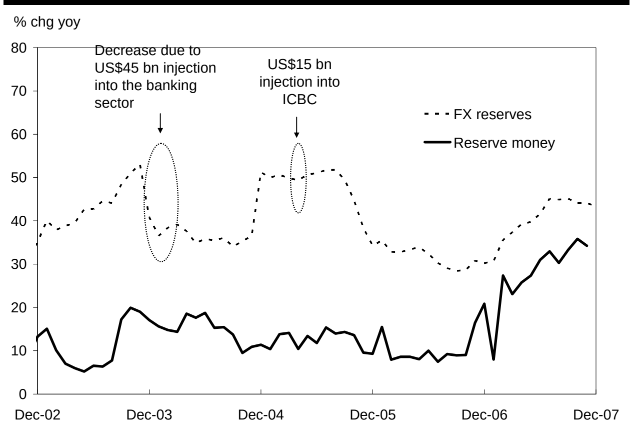
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4: Bond yields remained largely unchanged



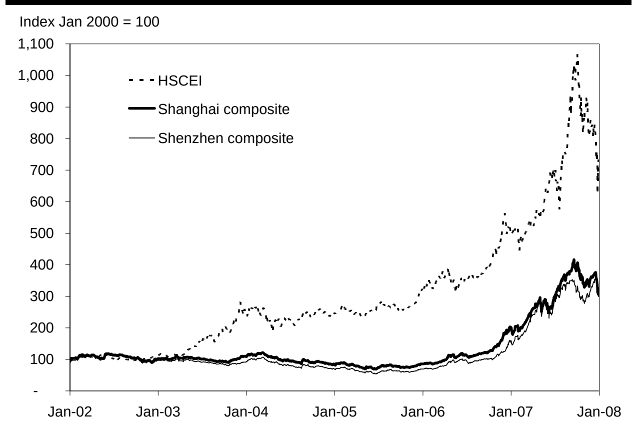
Source: Bloomberg, Goldman Sachs Economics Research.

Exhibit 2: FX reserve growth remained at high levels



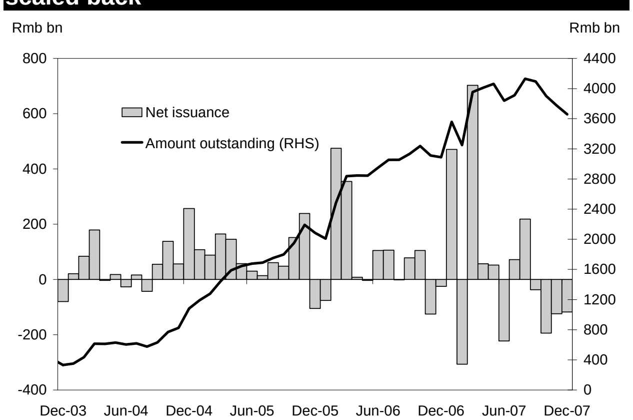
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 5: Stock markets corrected



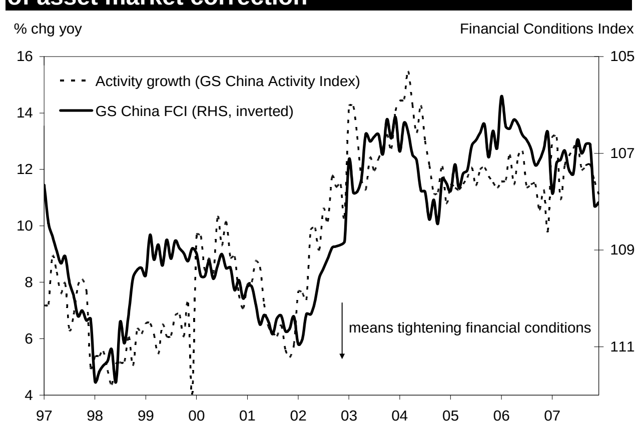
Source: Bloomberg, CEIC, Goldman Sachs Economics Research.

Exhibit 3: Sterilization by PBOC bill issuance has been scaled back



Source: Bloomberg, Goldman Sachs Economics Research.

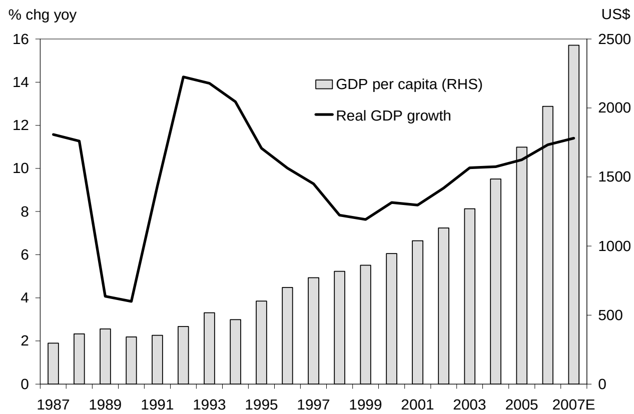
Exhibit 6: Financial conditions tightened on the back of asset market correction



Source: CEIC, Goldman Sachs Economics Research.

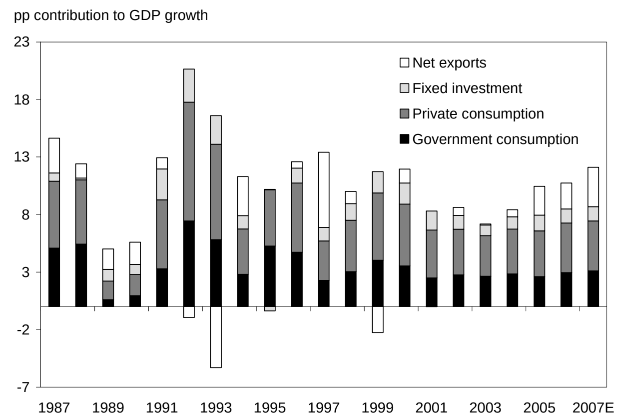
Annual Macroeconomic Indicators

Exhibit 1: GDP per capita rising steadily



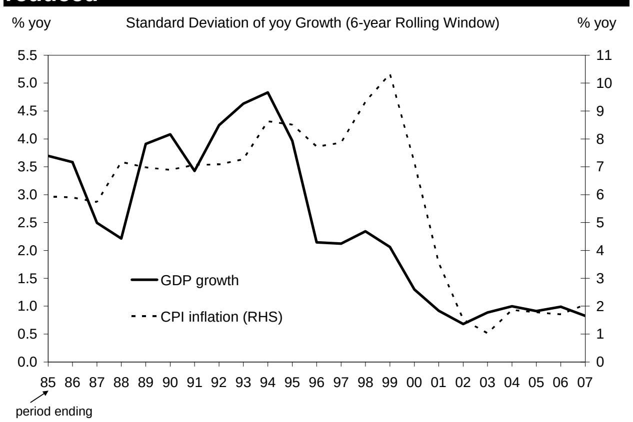
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 4: Domestic demand has remained firm, while growth contribution from external demand inched up



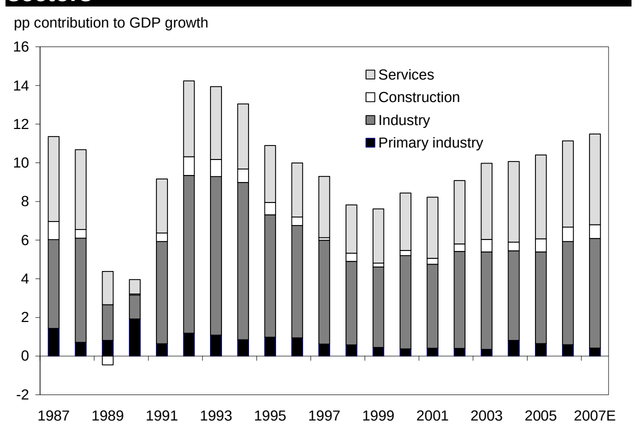
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 2: Cyclical volatility has been significantly reduced



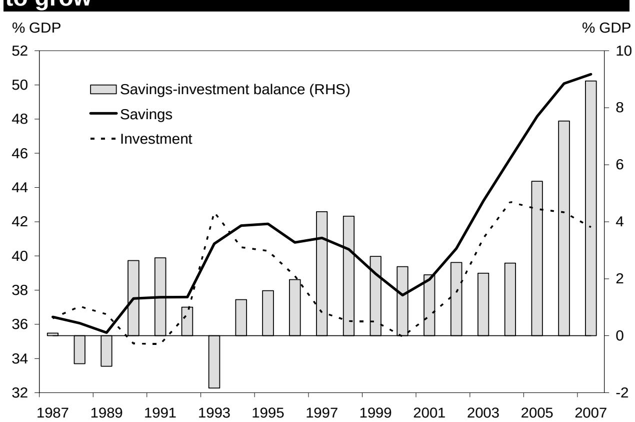
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 5: Manufacturing growth has outpaced other sectors



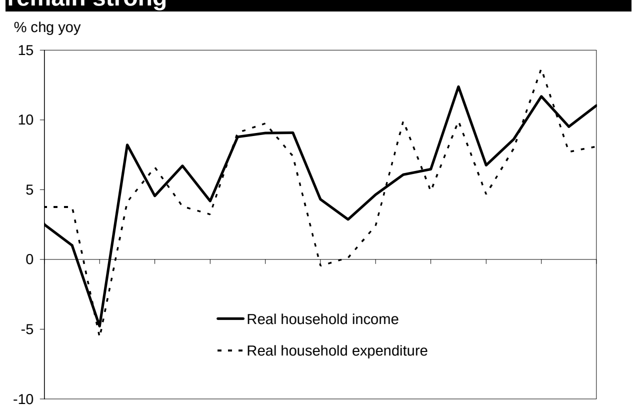
Source: CEIC, Goldman Sachs Economics Research.

Exhibit 3: The saving investment imbalance continued to grow



Source: CEIC, Goldman Sachs Economics Research.

Exhibit 6: Household income and expenditure growth remain strong



Source: CEIC, Goldman Sachs Economics Research.

Summary Indicators (Annual)

(percentage change, unless otherwise indicated)

Per capita GDP (2006): 2012 USD
Total population (2006): 1314 mn

	2001	2002	2003	2004	2005	2006	2007F	2008F	2009F
REAL SECTOR									
GDP by expenditure (at 1990 prices)									
GDP	8.3	9.1	10.0	10.1	10.4	11.1	11.4	10.0	10.0
Private consumption	5.7	6.5	6.3	7.1	6.7	7.8	8.5	9.5	10.3
Government consumption	11.1	7.9	6.0	7.3	9.7	8.6	9.0	9.2	9.8
Fixed investment	9.0	12.9	16.5	12.1	11.4	10.6	10.4	9.9	10.3
Domestic demand	8.8	8.8	10.5	10.0	8.3	9.5	8.9	9.2	10.3
Net exports (contribution to growth)	0.0	0.7	0.1	0.6	2.5	2.3	3.2	1.6	0.8
Exports (G&S)	7.1	24.7	26.9	27.7	22.4	18.6	19.0	12.0	15.0
Imports (G&S)	8.1	26.1	29.7	29.0	20.3	16.6	16.8	11.5	16.0
GDP by Industry									
Primary Industry	2.8	2.9	2.5	6.3	5.2	5.0	3.7	4.0	3.0
Secondary Industry	8.4	9.8	12.7	11.1	11.7	13.0	13.4	10.3	10.4
Industry	8.7	10.0	12.8	11.5	11.6	12.9	13.5	10.3	10.5
Construction	6.8	8.8	12.1	8.1	12.6	13.7	12.6	10.0	10.0
Tertiary Industry	10.2	10.4	9.5	10.1	10.5	10.8	11.4	11.0	11.2
Goldman Sachs China Activity Index (GSCA)	6.9	9.8	12.8	13.1	11.6	11.5	12.2	—	—
PRICES									
CPI inflation (period average)	0.7	-0.8	1.2	3.9	1.8	1.5	4.8	4.5	2.5
CPI inflation (period end)	-0.3	-0.4	3.2	2.4	1.4	2.0	6.6	2.8	2.5
GDP deflator (period average)	2.0	0.6	2.6	6.9	4.2	3.2	5.0	4.3	4.0
EXTERNAL SECTOR (USD bn unless otherwise indicated)									
Current account balance	17.4	35.4	45.9	68.7	160.8	249.9	389.5	487.1	512.4
(as percent of GDP)	1.3	2.4	2.8	3.6	7.2	9.4	12.0	11.9	10.1
Exports	318	388	520	701	904	1144	1463	1736	2006
Imports	301	352	474	632	743	895	1073	1249	1494
Capital and financial account	34.8	32.3	52.7	110.7	63.0	10.0	72.7	42.4	20.2
Foreign direct investment	37.4	46.8	47.2	53.1	67.8	60.3	62.7	57.4	70.2
Portfolio, net	-19.4	-10.3	11.4	19.7	-4.9	-67.6	-20.0	-45.0	-80.0
Other capital flow	16.9	-4.1	-5.9	37.8	0.1	17.3	30.0	30.0	30.0
Net errors and omissons	-4.9	7.8	18.4	27.0	-16.8	-12.9	0.0	0.0	0.0
Overall balance (as percent of GDP)	3.6	5.2	7.1	10.7	9.2	9.3	14.2	13.0	10.5
MONETARY & FINANCIAL SECTOR								**Latest in bold**	
Money Supply M2	17.6	16.9	19.6	14.5	16.3	17.0	16.7	**16.7**	**(Dec)**
Domestic Credit	7.1	37.5	19.5	9.2	10.8	15.7	—	**17.2**	**(Nov)**
Stock price index (Shanghai composite)	4.0	-19.9	-6.3	1.0	-22.2	41.3	160.0	**57.3**	**(Jan)**
Lending rate (1y, %pa)	5.85	5.36	5.31	5.38	5.58	5.90	6.78	**7.47**	**(Jan)**
Deposit rate (1y, %pa)	2.25	2.00	1.98	2.05	2.25	2.36	3.29	**4.14**	**(Jan)**
Memo items									
Forex reserves (USD bn)	212	286	403	610	819	1066	1528	**1528.2**	**(Dec)**
months of imports	10.5	11.6	11.7	13.0	14.9	16.2	19.2	**17.1**	**(Dec)**
Exchange rate (end of period, USD/CNY)	8.28	8.28	8.28	8.28	8.08	7.81	7.30	6.61	—
Real Effective Exchange Rate Index (period avg)	102.0	98.3	91.0	88.3	87.7	88.3	92.0	—	—

Source: NBS, CEMAC, PBOC, CEIC, Goldman Sachs Economics Research.