

Asia Economics Flash

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China: M2 growth may have understated the speed of monetary expansion

- We find that the M3 growth rate has been faster than that of M2 since 2Q2006, ...
- ...likely reflecting the fast accumulation of capital-market-related financial assets, such as mutual funds and bonds held by non-financial institutions.
- The speed of monetary expansion, as measured by the M3 growth rate, has now approached its peak level as of mid-2003.
- As a result, we see upside risks to growth and inflation, as well as risks of more decisive policy tightening in 2H2007.

Data from China has continued to show strength in the economy since the beginning of this year. At this moment, few investors are concerned about any imminent slowdown in growth, but anxiety is running high on the near-term trajectory of inflation, as well as potential policy responses given the buoyancy in the economy. In our view, the key for assessing the near-term growth-inflation outlook goes to how monetary expansion has been, or has not been, controlled.

In this context, we find that some recent developments in the Chinese financial markets may have complicated the assessment of monetary expansion compared with earlier periods. Specifically, we noticed that the M3 growth rate has been faster than that of M2 since 2Q2006, likely reflecting the fast accumulation of capital-market-related financial assets.

Indeed, we believe the growth rate of M3 has now approached its peak level as in mid-2003, highlighting the need for *swift* policy actions to rein in excess demand growth and control inflation pressures. We believe delays in monetary tightening will increase the risks of macro volatilities of a similar magnitude as those in the 2003-2004 tightening episode.

M3 growth has been much faster than M2 since 2Q2006

M2 supply in China includes currency in circulation, demand deposits, time deposits and savings deposits in banks, plus the customer clearing reserves in non-bank financial institutions.¹ M3 is defined to include M2, plus deposits in non-bank financial institutions other than customer clearing reserves, and securities issued by financial institutions. In other words, total M3 liabilities

Goldman
Sachs

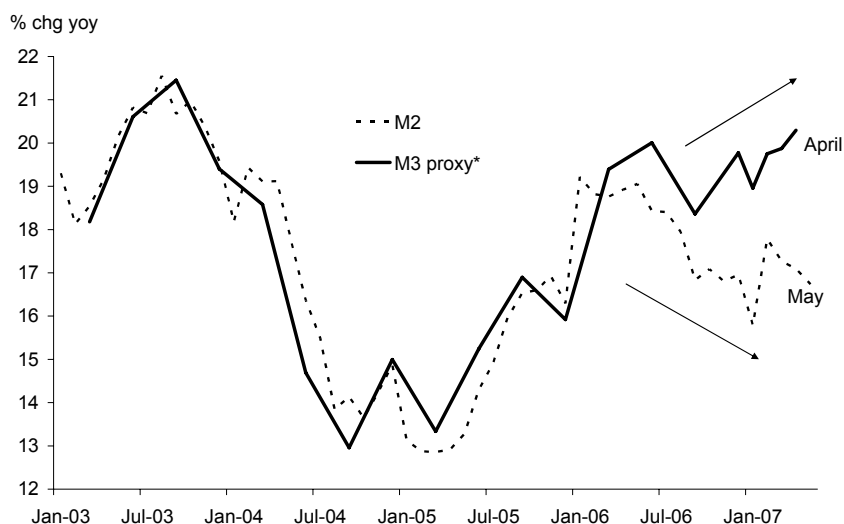


¹ M2 supply statistics first started to include customer clearing reserves in 2006.

should equal the amount of total financial assets of the overall banking system (including the central bank).

In the past, the growth rate of M2 had tracked that of M3 very closely, because changes in non-M2 liabilities in China's financial system were relatively small. However, the growth rates of these two series have begun to diverge noticeably since 2Q2006: M3 growth has remained on an overall expansionary track while M2 growth has moderated except for an up-tick in January-February 2007 (see Exhibit 1). By April 2007, the gap in these two growth rates has widened to 2.1 percentage points. While M2 growth edged down to 17.1% year on year (yoy), M3 growth picked up to 19.2% yoy. M2 supply growth moderated further to 16.7% yoy in May, but with credit growth staying flat and trade surplus growth picking up, it is highly likely that M3 growth had inched up further and the gap had widened more in May.

Exhibit 1: Growth of M2 supply and overall financial assets in the banking system started to diverge in 2Q2006



* 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.

Fast accumulation of capital-market-related financial assets is responsible for this divergence

Upon more detailed analysis of the balance sheets of financial institutions, we find faster bond issuance to the public and surging equity-related deposits are the key driving forces behind the divergence between M3 growth and M2 growth.

Specifically, the rise in "bonds held by non-financial institutions" and "deposits in financial institutions not including M2" has contributed most to the rapid build-up in non-M2 liabilities (see Exhibit 2).² Bonds issued to non-financial institutions have been growing at 30%+ yoy as of April 2007. In the meantime, "non-M2 deposits by other financial institutions," albeit off a lower base, increased by 63% yoy in April. These non-M2 deposits include mutual funds, retained gains from investments and funds transferred from "other channels." Micro-level evidence suggests that the dramatic increase in this item is connected to the stellar equity market performance.

² See Box I for a detailed examination of financial institutions' balance sheet.

Exhibit 2: China financial institutions' balance sheet (including the central bank) by end-April 2007

	Rmb trillion	(% chg yoy)
Total outstanding financial assets	44.0	(19.2)
Domestic credit (DC)	30.4	(14.7)
Net foreign assets (NFA)	11.3	(38.5)
Other financial assets*	2.4	(2.5)
Total outstanding financial liabilities	44.0	(19.2)
M2	36.7	(17.1)
Non-M2 liabilities	7.3	(30.9)
Bonds issued to non-financial sectors	2.8	(30.3)
Paid-in capital	1.6	(40.2)
Deposits not included in M2	1.1	-(5.9)
Deposits of other financial institutions** not included in M2	1.8	(62.8)

* Other financial assets are mainly made up of the asset injections for NPL disposal in 2003 and 2005, the total amount has not changed much since then.

** Other financial institutions include insurance companies, securities companies, stock exchange, trust companies etc.

Source: CEIC, Goldman Sachs Economics Research.

Why is M3 becoming a better indicator for monetary expansion in China?

With ongoing fast development in the capital markets, we believe that a broader money supply measure, such as M3, would increasingly be a more useful parameter to assess the extent of monetary expansion and to forecast future changes in aggregate demand.

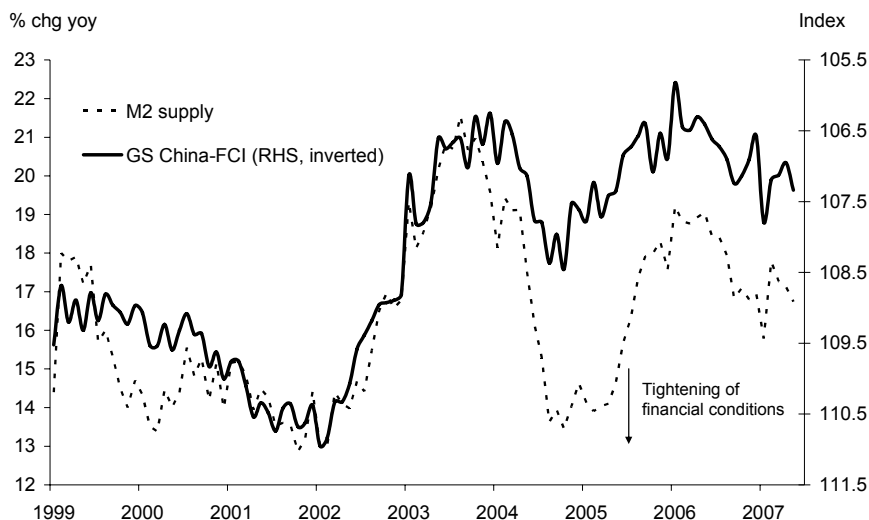
Economists define “money” as properties that carry three functions: 1) unit of account; 2) store of value and 3) medium of exchange. In our view, the “power” of those non-M2 items have become increasingly similar to the traditional M2—bonds issued to the public can now be priced and exchanged in liquid markets, and equity-related financial institution deposits, such as mutual funds, are as liquid as, if not more liquid than, savings deposits.

For example, the flip side of the diverging M2 and M3 growth is the swift rise of equity-market-associated financial institutions in China. In our view, their rapid asset accumulation is now contributing a non-trivial share to the overall monetary expansion. Therefore, M2 supply growth alone might have been understating the true extent of monetary expansion by leaving out part of the most vibrant segment of the financial sector.

For the same reason, we have revamped the Goldman Sachs China Financial Conditions Index (GS China-FCI) in January to incorporate equity prices as an important parameter in gauging monetary policy stance.³ We argued that the equity market expansion is becoming a more important force in driving growth in China. Our new GS China-FCI shows that with the rapid increase in asset prices and equity market capitalization, current financial conditions in China are more accommodative than the narrower measures of monetary policy suggest (see Exhibit 3) Furthermore, our GS China-FCI rightly predicted the pickup in activities growth in 1H2007, and has flagged further need for monetary tightening.

³ See *China: Financial conditions loosening and asset price inflation*, Asia Economics Flash, January 19 2007.

Exhibit 3: Our GS China-FCI suggests that financial conditions are more accommodative than indicated by the changes in M2



Source: CEIC, Goldman Sachs Economics Research.

Implications of rapid M3 expansion: Strong activity growth and elevated inflation pressure in the near term

In our view, inflation risks in China are driven by monetary easing and the resulting over-expansion of aggregate demand relative to the economy's supply capacity.⁴ Domestic food price inflation also mainly reflects buoyant aggregate demand, although it could be set off by supply-side factors, or rising global food prices. Since M3 growth has been hovering over 19% yoy in recent months, we are likely to see continued acceleration in activities growth, and as a result, elevated inflation pressures in the near term.

Fast monetary expansion has also highlighted the need for *decisive* monetary tightening to rein in the excess demand and avoid the risk of another overheating episode similar to the one in 2003-2004. The experience from the 2003-2004 tightening cycle suggests that the longer the authorities put off decisive policy actions, the higher the risk of blunt administrative measures being used by policymakers, in an attempt to get back on the curve.

Therefore, we expect macro policy to maintain a tightening bias and more tightening measures to be introduced in the near term. We continue to expect two more 27-basis-point lending and deposit rate hikes in the remainder of the year, and 9% CNY appreciation in 12 months. In the meantime, tighter controls on credit expansion and investment demand are also likely to be enforced more strictly.

We maintain our top-of-the-consensus CPI inflation forecast of 3.6% in 2007, which implies an average of over 4% CPI inflation in the rest of the year. Given our forecast of more decisive tightening in 2H2007, we continue to expect CPI inflation to ease to 2.6% in 2008.

⁴ See *Growth-inflation nexus part 1: China*, Asia Economics Analyst, May 26, 2006 and *Assessing inflation risks in China*, Asia Economics Flash, March 26, 2007.

Box 1: Deciphering the banking system’s balance sheet (including the central bank)

In this section, we investigate the combined balance sheet of all financial institutions (including the central bank) in order to find out the driving forces behind the recent divergence between M2 and M3 growth.

In the official “Depository Corporation Survey” published by the central bank, there are two items under “assets”—net foreign assets (NFA) and domestic credits (DC), and five items under “liabilities”—M2, bonds held by non-financial institutions, paid-in capital (PIC), deposits not included in M2 and net other liabilities (see Exhibit B1).

Exhibit B1: Official banking system balance sheet (including the central bank) from the “Depository Corporation Survey” in April 2007

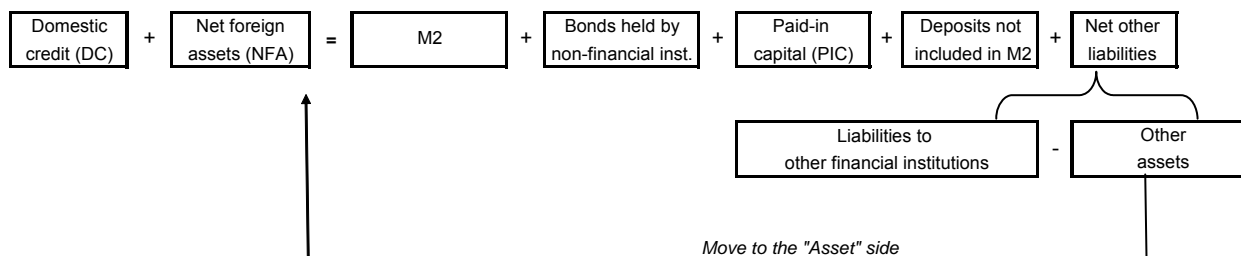
	Domestic credit (DC)	+	Net foreign Assets (NFA)	=	M2	+	Bonds held by non-financial inst.	+	Paid-in capital (PIC)	+	Deposits not included in M2	+	Net other liabilities
Rmb tn	30.4		11.3		36.7		2.8		1.6		1.1		-0.6
(% yoy)	(14.7)		(38.5)		(17.1)		(30.3)		(40.2)		(-5.9)		(level at Jan-2006: -Rmb1.3 tn)

Source: CEIC, Goldman Sachs Economics Research.

On the liability side, M2 growth has significantly underperformed those “non-M2 liabilities” (17% yoy vs. 31% yoy in April 2007), resulting in much higher total asset, i.e., M3 growth compared with that of M2. But what’s been driving the higher growth of non-M2 liabilities?

We find that the rise in “bonds held by non-financial institutions” and “other net liabilities” have contributed the most to the growth in overall non-M2 liabilities. Bonds held by non-financial institutions have been growing at 30%+ yoy, while “other net liabilities,” albeit off a lower base level, has surged to -Rmb0.6 trillion in April 2007 from -Rmb1.3 trillion in January 2006. The later increase was mostly driven by a rise in “other liabilities” by 63% yoy as of April (see Exhibit B2). These liabilities are the financial institutions’ deposits in the “other financial institutions”⁵ that are not included in the M2 statistics,⁶ including mutual funds, retained gains from investments and funds transferred via other channels. Micro-level evidence suggests that the dramatic increase in this item is associated with the stellar equity market performance.

Exhibit B2: A transformed and more comprehensible banking system balance sheet (April 2007)



Therefore:

	M3	≡	Domestic credit (DC)	+	Net foreign assets (NFA)	+	Other assets				
Rmb tn	44.0		36.7		2.8		1.6				
(% yoy)	(19.2)		(17.1)		(30.3)		(40.2)				
	M3	≡	M2	+	Bonds held by non-financial inst.	+	Paid-in capital (PIC)	+	Deposits not included in M2	+	Deposits of other financial institutions not included in M2
Rmb tn	44.0		36.7		2.8		1.6		1.1		1.8
(% yoy)	(19.2)		(17.1)		(30.3)		(40.2)		(-5.9)		(62.8)

Source: CEIC, Goldman Sachs Economics Research.

⁵ “Other financial institutions” include insurance companies, securities companies, stock exchange, trust companies, etc.

⁶ Only the “customer clearing reserves” part financial institutions’ deposits in “other financial institutions” are covered by M2 statistics, the rest are excluded from M2 and categorized under “other liabilities to other financial institutions.”

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