Erste Group Research
The Austrian View | Equities | Global
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ERSTE GROUP

The Austrian View

An 'outside the box' approach to equity prices. Past stock market cycles have shown that equity investors can gain valuable insight from tracking money and credit statistics.

"All things are subject to the law of cause and effect. This great principle knows no exception."

Carl Menger

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All prices are as of Dec. 20th 2011.

Debt-driven equity prices?
We come to the conclusion that it makes sense for equity investors to track monetary and, especially, debt developments closely. We believe that the changing dynamics of monetary as well as debt aggregates are often a good leading indicator for equity markets. Historic data shows that accelerating money and credit growth drives equity prices, while decelerating growth in the money and credit supply generally puts pressure on equity prices.

Financial history shows that equity markets are 'addicted' to new money and credit creation. To keep rallies going, the equity markets need ever more fuel (faster rate of change in the money and credit supply). As soon as the rate of change is negative (decelerating money and credit supply) markets tend to become sluggish and lose momentum, even though in absolute terms the money and credit supply is still rising.

Global monetary developments decisive for CEE stocks
The financial crisis of 2008/09 has shown that CEE is not an isolated island, but is deeply interwoven into the global economy and highly dependent on monetary developments all over the world. Who would have imagined that a banking crisis would bring the region to its knees in 2008/09? This publication will track monetary and credit trends in the major global currency areas to provide the necessary information to evaluate possible impacts on CEE stocks in a timely manner and ahead of the crowd.

Upswing in equities bolstered by accelerating EM debt as well as developed world public debt
Global debt statistics reveal that the upswing in equities that started in 1Q09 was quite likely bolstered by (1) substantially accelerating debt growth in major EMs (2) massively accelerating debt growth of the public sector of the developed world. Currently, both forces are decelerating and the weak performance of equity indices YTD is a reflection of this trend; but…

Right measures taken to support equities – monetary aggregates have to respond positively
…we believe that monetary authorities in many currency areas have already taken the right measures in order to give equities the necessary support in 2012. The response of monetary aggregates to these measures over the next months will be decisive for equities. Due to the fact that markets will have to digest weak and disappointing data for quite some time, we do not believe that a stock market rally is imminent. The first signs that the growth pace of monetary aggregates in sluggish areas, such as the Eurozone, China or India is picking up again, would make us outright bullish.

Equities and monetary statistics

Product based on ideas of Austrian School of economics

At the heart of this product lies the analysis of the development of historic money and credit statistics. It is called the 'Austrian View' because studying the theories of the Austrian School of economics (especially Ludwig von Mises' book: 'The Theory of Money and Credit'; which, by the way, will celebrate the 100th anniversary of its first publication in 2012) has inspired us to examine the relation between money/credit developments and equity prices. We have come to the conclusion that, indeed, there seems to be a connection between the two. However, it is necessary to have the right angle of vision when poring over the money and credit statistics, because otherwise they are pretty useless.

M1 and M2 seem to good leading indicators for equities

We have to admit that it has become very difficult to determine what money and credit actually is. Money supply aggregates like M0, M1, M2, M3, sometimes even M4, are being published. To complicate things further, central banks publish credit statistics as well. Finally, money and credit are just two sides of the same coin in today's monetary order. Someone's savings account (contained in the calculation of M1) is at the same time the credit financing someone else's project (contained in credit outstanding). We therefore believe that one should denote currency (apart from cash in your pocket) in savings and other bank accounts as claim, not as money. We believe that M1 and M2 are good short-term leading indicators for equities. In this publication we also track the development of debt as a supplemental indicator.

Change in rate of money and debt supply drives equity markets…

Apart from the question of which aggregates to track it is important to understand that the rate of change in the money supply is of interest. In order to drive a rally, the rate of change in the money supply has to increase. As soon as the rate of change is slowing down, equity markets tend to get sluggish and weaken. There is, however, a certain time lag effect involved. We decided to use the US stock market cycle 2001 - 2007 as a case study in order to demonstrate how the analysis of monetary forces can improve an investor's decision-making process. The appendix of this publication will track several monetary aggregates for the main currency areas.

…and can act as leading indicator for equity investors

The punch line is that this framework advises investors to establish long positions in equities (or overweight cyclical or financial stocks) as long as the credit supply is loose and accelerating; as soon as the credit supply becomes tight and decelerates, investors should gradually sell their positions or switch into more defensive sectors.

Credit growth as single best predictor of financial instability confirmed by detailed NBER research paper

In this context, we would like to mention, that in December 2010 an interesting paper was published by Jordà, Schularick and Taylor, titled 'Financial Crises, Credit Booms and External Imbalances: 140 years of lessons'. They have studied the experiences of 14 developed countries over 140 years and exploited a long-duration dataset in a number of different ways (application of new statistical tools to describe the temporal and spatial patterns). Their final conclusion confirms our interest in money and credit statistics, because the overall result is that credit growth emerges as the single best predictor of financial instability[1].

[1] Retrieved from: http://www.nber.org/papers/w16567.pdf

Additional tool at the investor's disposal

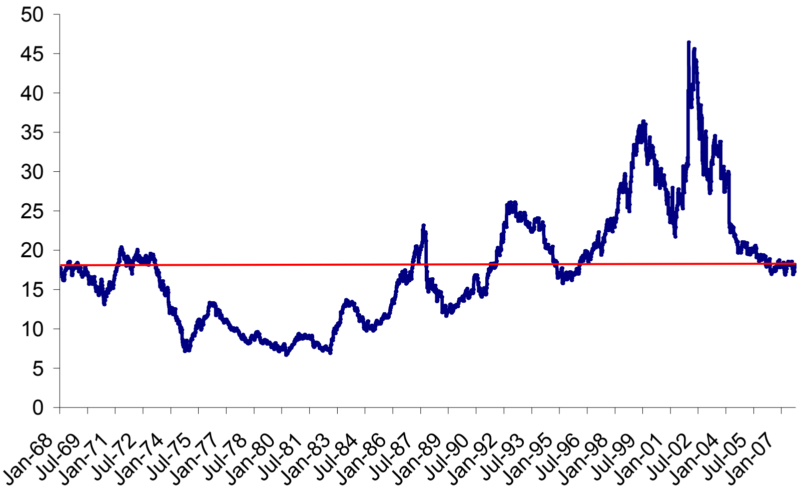
The overall framework has to be understood as an additional tool within the toolbox at the investor's disposal. It is not the Holy Grail or something like that, but we believe that it can provide equity investors with an informative basis in times when fundamental analysis does not seem to be of any use.

S&P 500 2001 - 2007

Fundamentally sound equity valuations ahead of subprime bust

We will use the US stock market development from 2001 - 2007 to demonstrate how you can use the rate of change in monetary and credit aggregates to build expectations about possible future equity market developments. Fundamental-driven investors could have quite easily avoided the TMT bubble, given the fact that it was mainly driven by lofty valuation levels. The graph below shows that P/E ratios hit a historic high level of around 35 in March 2000 when the bubble burst. However, in October 2007, ahead of the subprime bust, the picture looked different. Back then, the S&P 500 traded on a P/E level of around 17.5. It later turned out that investors were affected by an earnings bubble driven by substantial prior money and credit growth around the globe.

S&P 500 P/E Jan-68 – Oct-07
P/E at historic averages in October 2007

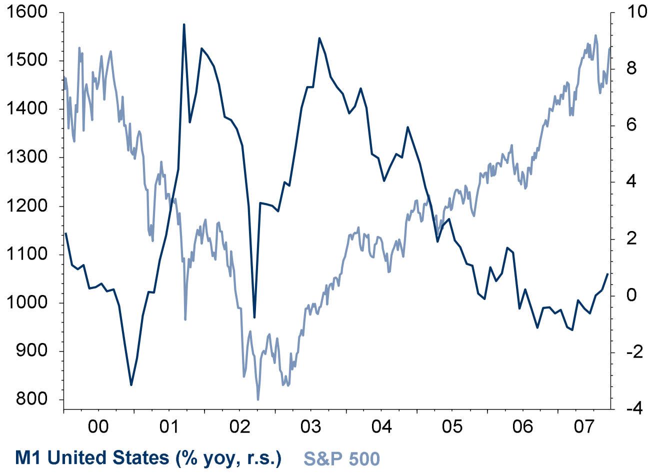


Source: Datastream

Slowing growth of monetary forces as leading indicator for equity markets

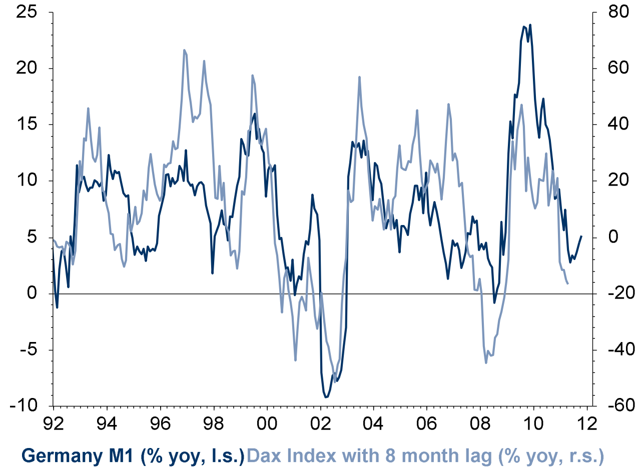
An investor incorporating the rate of change of monetary forces into his investment approach would have been cautious regarding the future development of equity markets in October 2007, despite the fact that, from a fundamental perspective, equities did not look expensive at all. The left hand graph below shows what the situation would have looked like for an investor who had tracked the rate of change in the money supply. The left hand graph below shows what the situation would have looked like for an investor who had tracked the rate of change in the money supply. However, the decelerating money supply (in terms of M1) as of 2004 was a good leading indicator that equities would have to lose momentum sooner or later. The graph however shows that there is a certain time lag involved. While M1 growth already peaked in 2003, it took equities another 4 years to peak. This is the reason why equity investors have to keep a sharp eye on debt developments as well, because total US debt growth accelerated well until 3Q06 and entered a decelerating trend thereafter. Thus the time-lag between debt growth and stock market was shorter and thus very useful.

USD M1 growth weak ahead of Oct 07 top in S&P500
S&P 500 vs. USD M1 %yoy Jan-98 – Oct 07



Source: US Fed, Reuters

German M1 growth moves ahead of the DAX
M1 Germany % yoy vs, DAX %yoy (8 months time-lag)



Source: Datastream

German DAX shows a very high correlation to German M1 growth

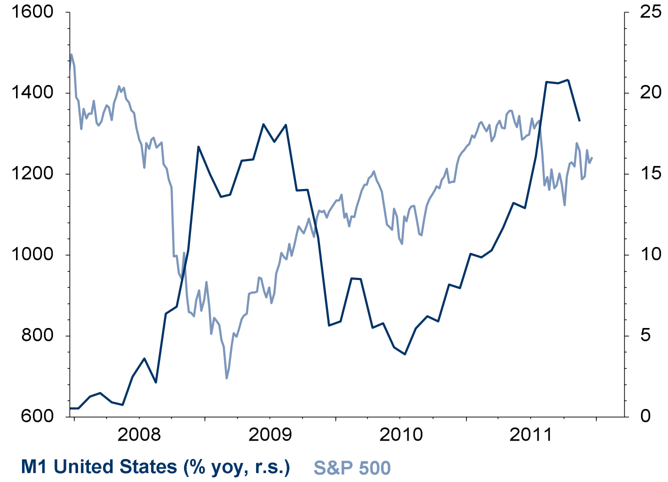
The right hand graph tracks the development of the growth pace of German M1 (dark blue line) against the growth pace of the DAX (light blue line) with an 8 month lag. It shows the high performance correlation and underlines that German M1 growth pace is a very good leading indicator for the German stock market.

Money statistics 2008 - 2011

S&P 500 bolstered by brisk USD M1 growth

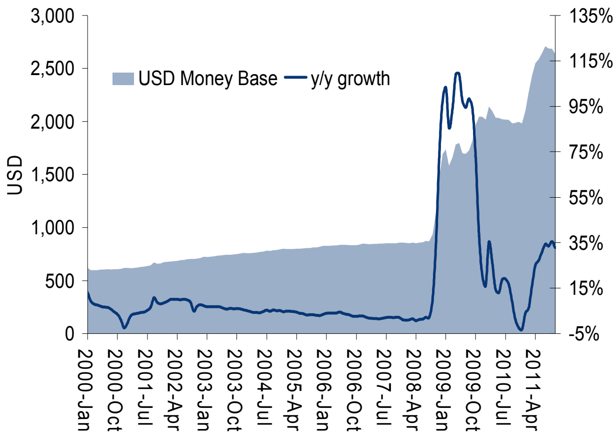
As of October 2008, the USD M1 growth pace picked up significantly (left-hand graph below, traced against the performance of the S&P 500); well in line with the acceleration of the USD base money supply (see right-hand graph below). The left-hand graph also shows that the acceleration of M1 growth preceded the rise of the S&P 500 as of February 2009. We are not 100% sure whether the recent pick-up in USD M1 growth will ignite another leg up in the S&P 500, but so far it has been sufficient to stabilize the S&P500, while equities in other markets suffered.

S&P 500 vs. USD M1 growth Oct-07 – Oct-11
growth pace of M1 easing off in October 2011



Source: US Fed St. Louis, Datastream

USD money base Jan-00 - Oct-11
September 2008 changed the game



Source: US Fed St. Louis

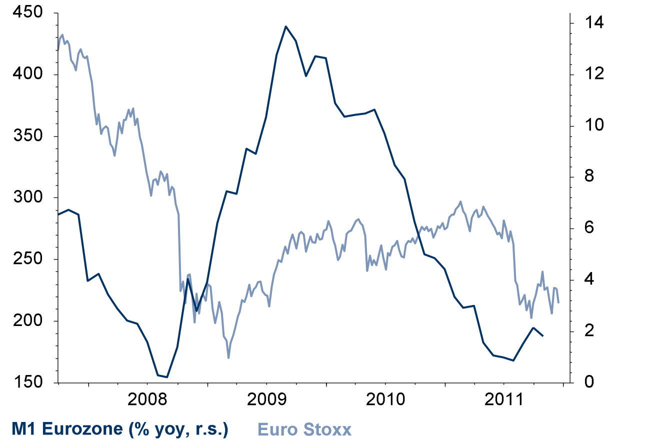
Eurozone M1 growth sluggish; although euro base money supply growth is currently picking up quite significantly

The two graphs below paint a similar picture for the Eurozone since October 2008. First, the growth pace in the base money supply (right-hand graph below) and euro M1 (left-hand graph below) picked up and preceded the pick-up in European equities, as reflected by the EUROSTOXX50 index performance. Currently, however, the Eurozone is developing in a different manner compared to the US. The euro M1 growth pace continues to decelerate; unlike in autumn 2008 it is thus not developing in line with USD M1. The EUROSTOXX50 index has followed the slowdown in euro M1 growth over the months. On the other hand, the growth pace of the base money in the Eurozone is accelerating significantly since July 2011 and has reached a new top of + 24% y/y as of December 15, 2011. It might be a bit early, but, in our opinion, this is a rather bullish signal for European equities.

EuroStoxx50 vs. EURO M1 growth Oct-07 –Nov-11

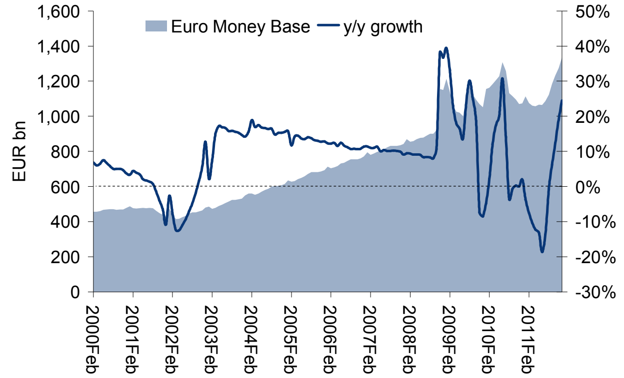
Eurozone money base Feb-2000 – Dec-2011

The sluggish development of M1 is not really supportive for European equities



Source: Reuters, ECB

Growth pace picking up significantly in Nov-2011 (+19% y/y)

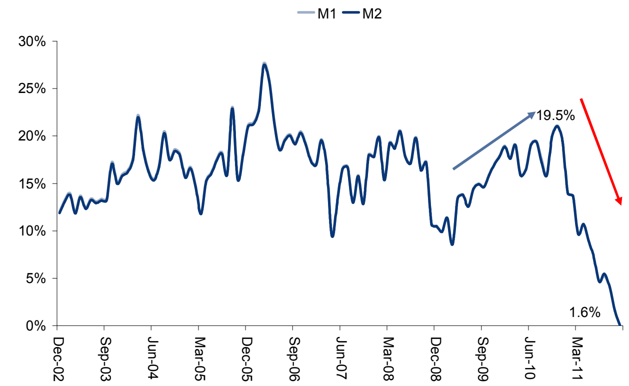


Source: ECB

EM money supply data shows similar pattern to developed world

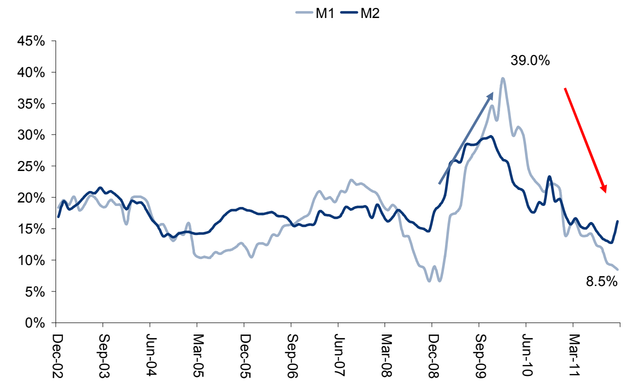
As mentioned above, the money supply data of the two biggest EM economies, China and India, display a similar pattern. In both countries, M1 and M2 accelerated as of October 2008. Deceleration started in 1H10. China shows the most extreme development, in our opinion. The most recent data shows that M1 and M2 growth in both countries is coming to a grinding halt as of September and October.

Development of Indian M1 & M2 Nov-02 – Oct-11
M1 growth down to 1.6% y/y in Sep-11



Source: Datastream

Development of Chinese M1 & M2 Oct-02 – Nov-11
M1 growth down to 8.5% y/y in Oct-11



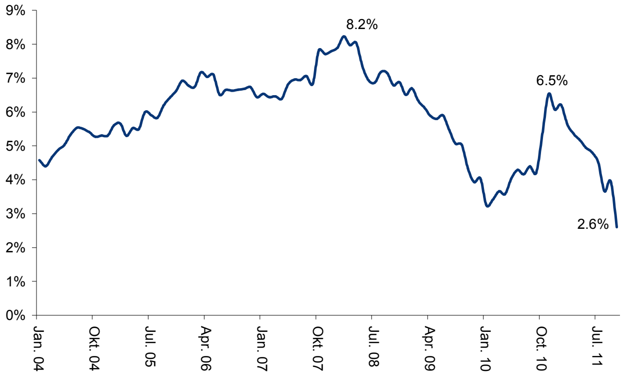
Source: Datastream

Debt statistics 2008 - 2011

USD and Eurozone debt growth dominated by public sector

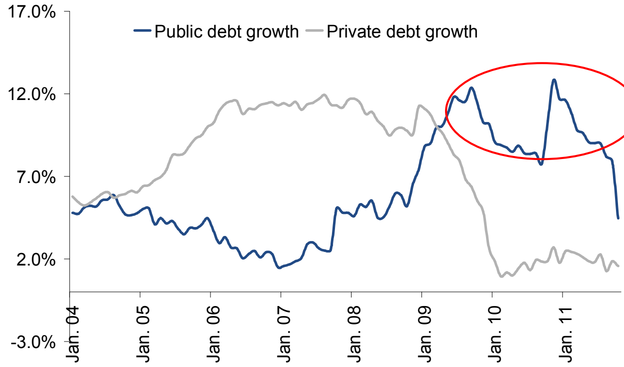
We would also like to show you how debt statistics have fared since October 2008. You can see on the charts below, that public debt growth has especially driven overall debt growth in the USD as well as the Eurozone since October 2008. You can see on the two graphs below that current debt growth in the Eurozone is currently decelerating.

Decelerating trend after peaking out in Nov. 2010
Eurozone total debt growth Jan-04 until Oct-11:



Source: ECB, Level shift as of October 2010 influenced by the creation of the second 'bad bank' in Germany (FMS Wertemanagement)

Public sector debt growth in steep decline 2011
Euro area private vs. public debt growth Jan-04- Oct-11:

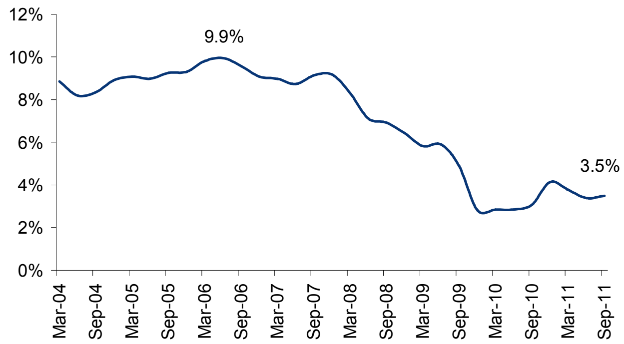


Source: ECB, Level shift of public debt as of October 2010 influenced by the creation of the second 'bad bank' in Germany (FMS Wertemanagement)

Recent pick up of debt growth pace (+3.7%) of US businesses is a bright spot

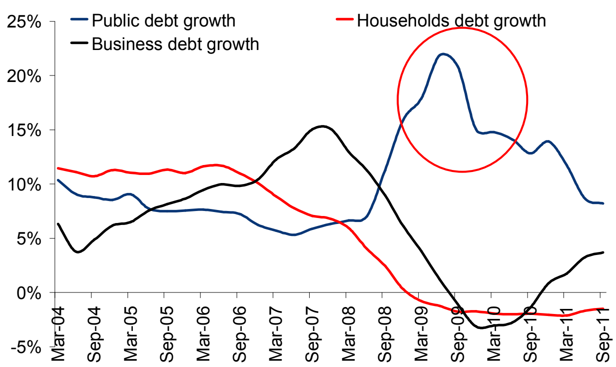
The US shows a similar picture, as can be seen on the two graphs below. **Total debt growth picked up, but it is still way below the peak level witnessed in March 2006, and, as of recently, it has started to again decelerate.** The right-hand graph shows the disparate development between the private and public sector US debt since October 2008. US households even continue to deleverage in absolute terms, with US household debt shrinking at a rate of around 1.5% y/y. The bright spot in the US is the debt growth of businesses, which is in an accelerating trend and posted a debt growth pace of 3.7% y/y as of 3Q11.

USD total debt growth stabilizing at around 3-4%
Mar-04 - Sep-11:



Source: US Fed

Brisk public sector debt growth, private sector weak
USD private vs. public debt growth Mar-04 - Sep-11

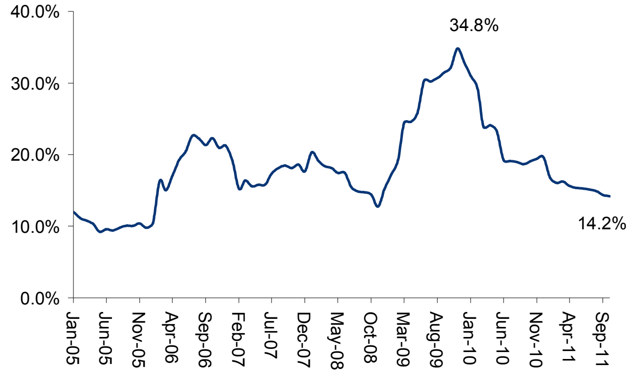


Source: US Fed

Substantial debt growth in EM since October 2008

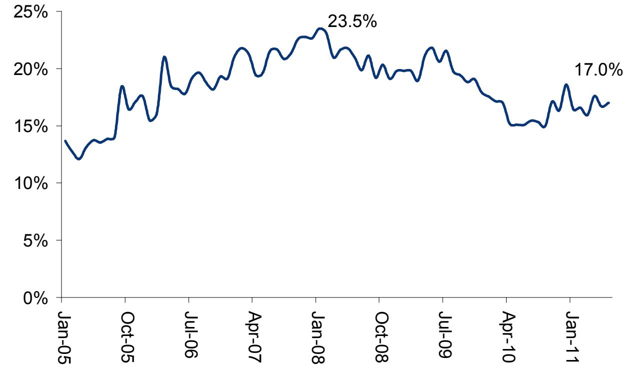
Analysis of debt development in China and India, as the biggest representatives of the EM world, shows a rather different picture. In these areas, loan and debt growth was strong and, in the case of China, easily exceeded previous peak levels. (For India, we have chosen M4 as the closest proxy for development of loans and debts outstanding).

China: Slowdown continues
Chinese loans development Jan-05 – Oct-11



Source: PBoC

India: Picture not as clear as in China
India M4 development Jan-05 – Sep-11

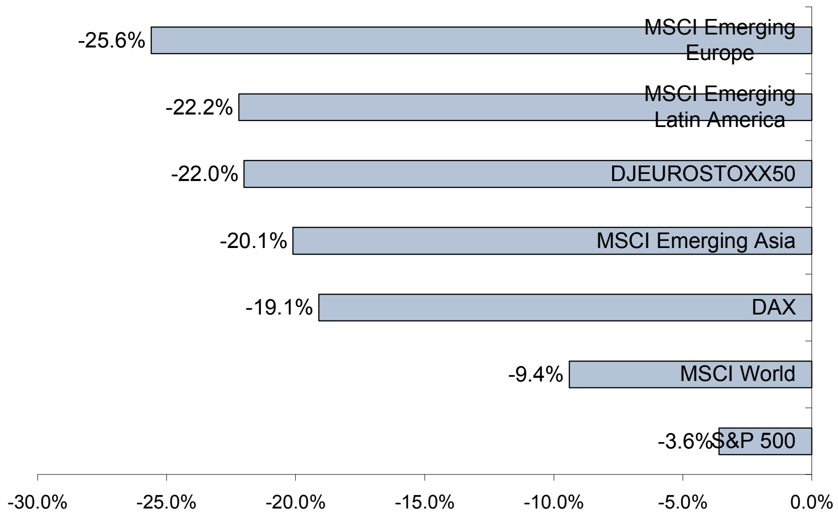


Source: Datastream

Sluggish debt growth reflected in weak equity performances YTD

The ongoing deceleration of debt growth in major currency areas (again apart from business debt growth in the USD) is quite well reflected in the weak performance of global equity indices YTD (see graph on the left hand side). However, the recent concerted action of global central banks, as well as the fact that China has lowered bank reserve requirements for the first time in three years, is an early indicator that equities might gain momentum over the next couple of quarters.

Equity indices YTD performance 2011



Source: Factset, Performance measures in USD; 01/01/2011 – 13/12/2011

Monetary developments in CEE

Turkey and Ukraine showing most dynamic monetary development in this cycle

From a strict monetary point of view (y/y growth pace of M1 and M2), Turkey and the Ukraine displayed the most dynamic development since 2008. The first two graphs below, showing the development of M1 and M2 for Turkey and Ukraine, reveal that these two economies in our core region developed in a comparable manner from a monetary perspective. However, one could argue that both economies lagged behind developments in the Far East, in both directions. Right now, monetary data continues to be stuck in a decelerating trend, which is a reflection of the global picture.

Poland's monetary development also good fit into overall global picture

Monetary development in the Czech Republic, as well as in Poland, shows similar development. We have to say that Poland is a better fit into the overall global picture, while the Czech Republic, especially with regards to M2, developed in a more subdued manner. As of October, Polish M1 (decelerating) and M2 (flat) display a mixed picture.

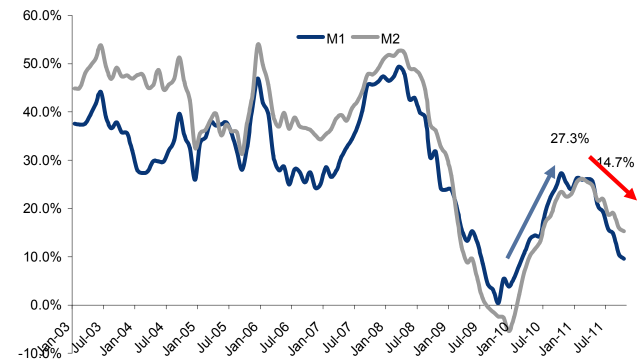
Hungary and Romania currently displaying the most dynamic monetary development

It does not come as a big surprise that the monetary picture looks somewhat weak in Hungary and Romania. However, as of July this year, M1 and M2 are accelerating quite significantly in both countries. This acceleration can be explained to a certain extent by the fact that, in both countries, monetary development was quite sluggish in 2010, while it was dynamic in most other countries.

Development of Turkish M1 & M2 Sep-02 – Nov-11
Deceleration continues after spiking in 2010

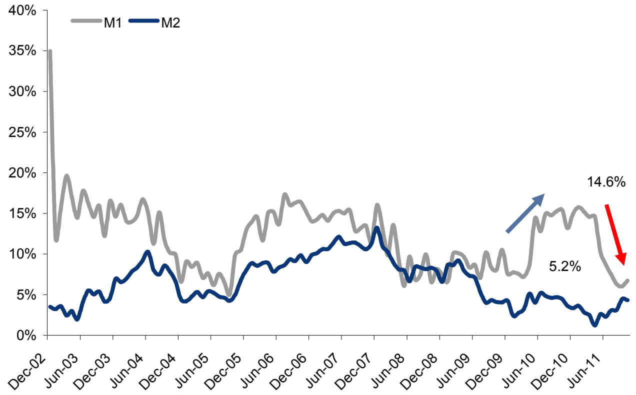
Source: Datastream

Development of Ukrainian M1 & M2 Sep-02 – Oct-11
Good fit into the global picture; deceleration trend since early 2011



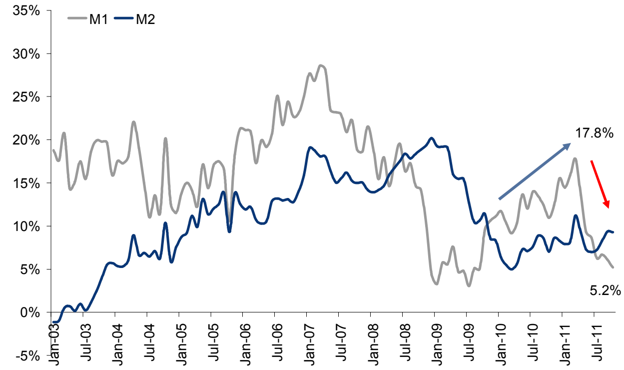
Source: Datastream

Development of Czech M1 & M2 Sep-02 – Oct-11
M1 and M2 responded differently during this cycle



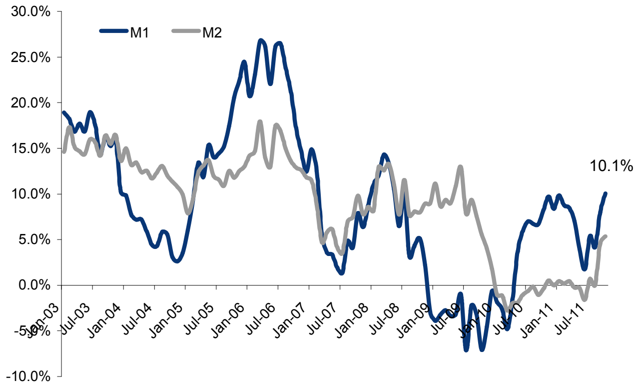
Source: Datastream

Polish M1 & M2 Sep-02 – Oct-11
M1 trending down; while M2 picking up a bit



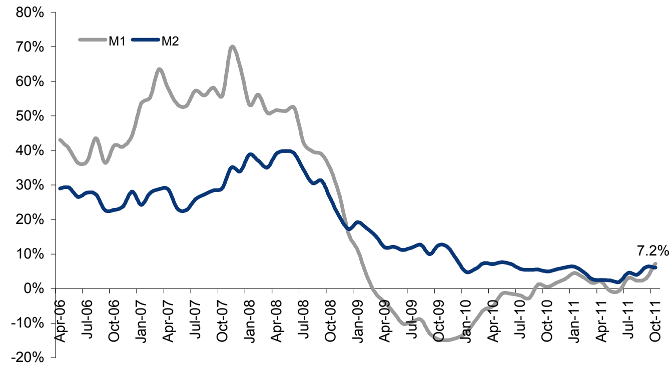
Source: Datastream

Development of Hungarian M1 & M2 Sep-02 – Oct-11
M2 recently picking up quite significantly



Source: Datastream

Development of Romanian M1 & M2 Sep-02 – Oct-11
Displaying the most sluggish performance of all CEE economies; however, as of 3Q11, M1 and M2 are accelerating quite significantly



Source: Datastream

Conclusion → Where from here?

The table below displays the underlying growth trend of M1 and M2 of major global currency areas as well as our core markets.

Current Trends in M1 & M2:

- **Asset price weakness in EMs confirmed by weak monetary data**
- **US asset prices supported by dynamic growth**
- **Mixed picture for CEE**

			M1								M2							
			y/y (%)				3m/3m (%)				y/y (%)				3m/3m (%)			
		Trend	-2m	-1m	**Last**		-2m	-1m	Last		-2m	-1m	**Last**		-2m	-1m	Last	
G3	**United States**	→	20.7	20.6	**20.8**	→	6.0	8.2	8.7	→	10.2	10.1	**9.9**	→	3.8	5.0	4.8	→
G3	**Eurozone**	→	1.5	2.1	**1.8**	→	0.8	1.2	1.3	→	2.4	2.8	**2.2**	→	0.8	1.1	1.0	→
G3	**Japan**	→	5.2	5.1	**5.1**	→	-0.6	-0.5	0.0	→	2.7	2.8	**3.0**	→	0.2	-0.1	0.0	→
BRIC	**China**	↘	11.9	9.6	**9.2**	↘	2.0	0.1	0.3	→	13.6	13.1	**12.9**	→	2.4	1.7	2.9	→
BRIC	**India**	↘	5.2	4.1	**1.6**	↘	-1.9	-1.3	-0.4	↘	5.5	4.1	**1.6**	↘	-1.9	-1.3	-0.4	→
BRIC	**Brazil**	→	2.3	2.5	**1.0**	→	0.7	0.5	-0.1	→	22.4	21.9	**20.8**	→	4.9	5.2	4.8	→
BRIC	**Russia**	→	20.1	20.1	**17.4**	↘	4.6	4.2	3.2	→	20.9	21.5	**19.8**	→	4.4	4.0	3.5	→
CEE	**Austria**	→	-1.2	0.2	**1.2**	↗	0.6	0.1	1.1	→	0.3	1.4	**1.4**	→	0.8	1.0	1.4	→
CEE	**Czech Rep.**	→	6.3	6.0	**6.8**	→	0.6	0.8	1.3	→	3.1	4.5	**4.3**	↗	0.4	0.4	0.7	→
CEE	**Hungary**	↗↗	4.2	8.0	**10.1**	↗	2.1	4.0	4.8	↗	0.0	4.6	**5.4**	↗	1.2	2.9	3.8	↗
CEE	**Poland**	→	6.7	6.1	**5.2**	→	-0.5	-0.4	-0.2	→	8.3	9.4	**9.3**	↗	0.9	2.2	3.1	↗
CEE	**Romania**	↗	2.3	3.0	**7.2**	↗	4.7	5.3	4.2	→	4.0	6.3	**6.0**	↗	2.7	3.6	3.1	→
CEE	**Turkey**	↘	23.3	24.6	**17.1**	↘	5.9	3.6	1.6	↘	19.4	19.5	**15.3**	→	3.4	1.6	0.2	↘
CEE	**Ukraine**	↘	14.7	10.6	**9.6**	↘	3.3	1.3	-0.2	↘	19.0	16.0	**15.3**	↘	4.0	2.9	2.5	↘

Source: Datastream, Erste Group Research

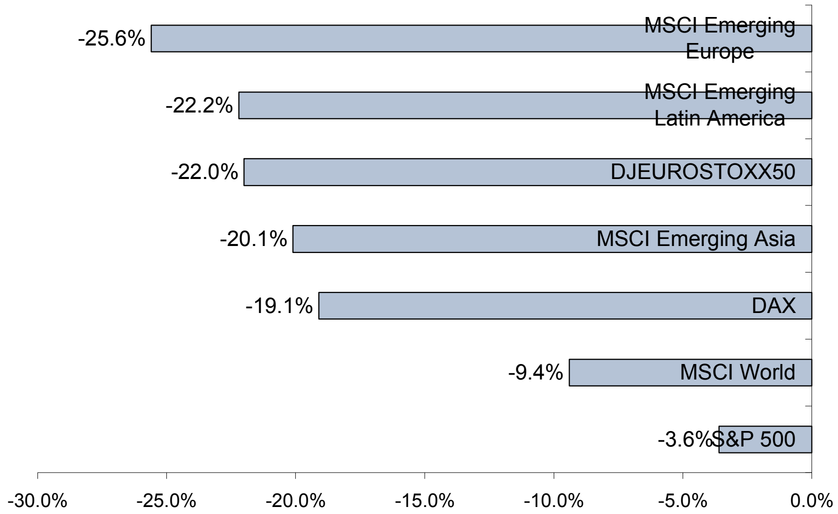
USD displays the most dynamic development globally; China and India are coming to a grinding halt

The snapshot shows that, in absolute terms, the USD is currently the only major global currency area displaying a vibrant growth pace of M1 (+20.8% y/y) as well as M2 (+9.9%); even though the trend is not accelerating anymore. Development in the Eurozone and Japan is more or less flat, and on a very low absolute level (growth pace of just 2.2% y/y for M2 in the Eurozone as of October 2011), which leaves us with a more cautious stance regarding these markets. In China and India, the growth pace of M1 and M2 is coming to a grinding halt when compared to peak levels of more than +30% growth in 2009/10. Brazil and Russia are in a sideways trend with a downward bias.

Equity indices mirror the somewhat disappointing performance of money statistics YTD

The underlying monetary trend is quite well reflected in the performance of major global equity indices. Supported by a dynamic development of monetary aggregates like M1 and M2 the S&P is down just 3.6% YTD. The performance of equities in all other regions is more or less a reflection of a flat or decelerating monetary trend.

Equity indices YTD performance 2011



Source: Factset, Performance measures in USD; 01/01/2011 – 13/12/2011

Hungary & Romania display the most promising picture. Turkey & Ukraine clear decelerating trend

In our core region, Hungary and Romania are showing the most promising development, with an accelerating monetary trend. The Czech Republic and Poland are neutral. Turkey and the Ukraine are in the midst of a clear decelerating trend. Monetary data thus does not point towards an immediate stock market rally in our core region.

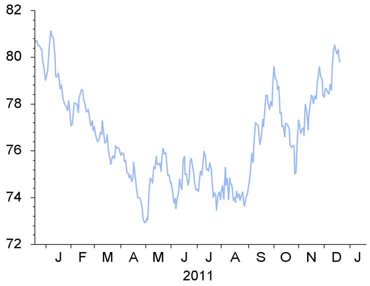
After USD liquidity was increasingly hard to get, central banks (Fed, ECB and four others) began concerted action. They cut pricing (from December 5) on the existing temporary US dollar liquidity swap arrangements by 50bp. On the same day, the PBoC lowered the reserve requirements, for the first time in nearly three years, by 50bp to 21.0%. Equity prices jumped on this news immediately. They are, however, losing steam again.

Right measures taken to support risky assets in 2012 – monetary aggregates have to respond

We believe that monetary authorities in the major currency areas have taken the right measures in order to give equities the necessary support in 2012. The response of monetary aggregates to these measures (especially in major markets that, until now are in a decelerating trend; e.g., China and the Eurozone) over the next months will be decisive for equities. Due to the fact that the markets will have to digest weak and disappointing data for quite some time, we do not believe that a stock market rally is imminent.

The USD Index displays the ongoing strength of the USD vs. other global currencies. This is another indication that risk appetite is not yet rising, and leads us to believe that equity markets in our core region will remain sluggish in the short term. However, the first signs that the growth pace of monetary aggregates in sluggish areas like the Eurozone, China or India is picking up again, would make us outright bullish. This could already happen within the next 1-3 months.

Dollar Index



Source: Datastream

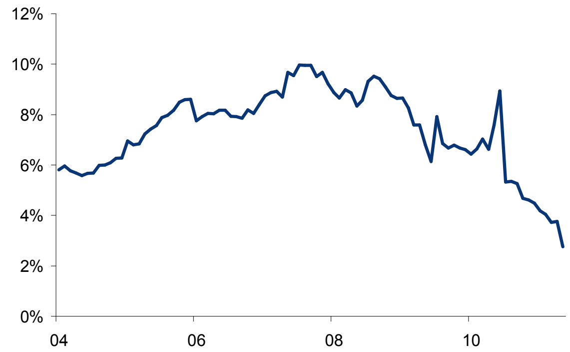
Appendix contains detailed statistics as well as a short introduction into the Austrian School of economics as alternative view

The appendix of this product contains detailed statistics about the historic development of key money and credit aggregates in the most important currency areas outside our core region (USD, Eurozone, Japan, China, India, Brazil and Russia), as well as the biggest currency areas in our core region (Turkey, Ukraine, Poland, Czech Republic and Hungary).

Tables & charts

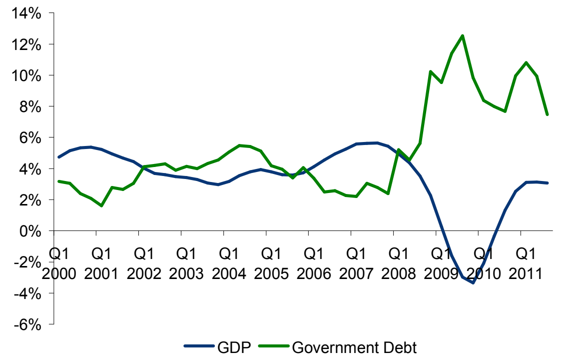
Eurozone

Total debt (y/y)



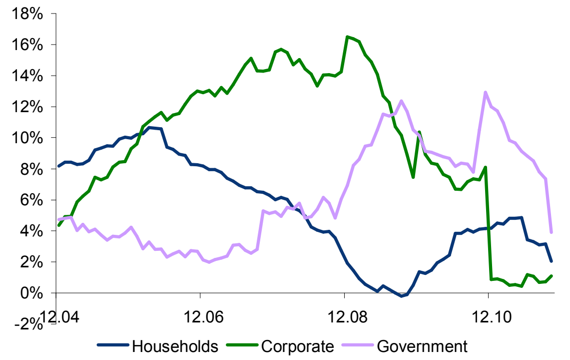
Source: ECB, Datastream, Erste Group Research

Govt. debt (y/y) and nominal GDP (y/y)



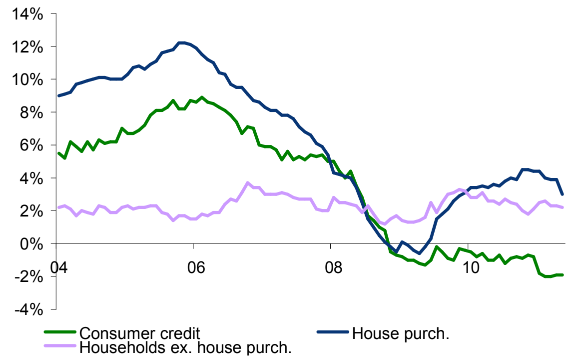
Source: ECB, Datastream, Erste Group Research

Debt growth (y/y)



Source: ECB, Datastream, Erste Group Research

Household loans (y/y)



Source: ECB, Datastream, Erste Group Research

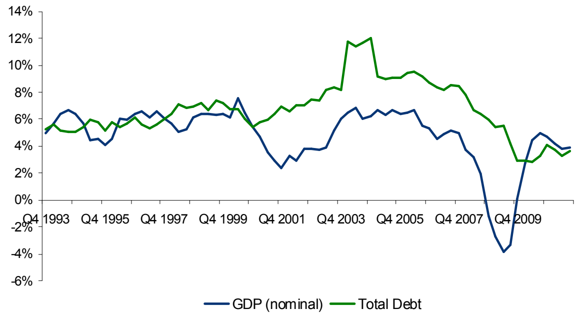
Government, corporate and household debt

	2007	y/y	2008	y/y	2009	y/y	2010	y/y	08.2011	y/y	09.2011	y/y	10.2011	y/y
Government														
Central Govt.	4.402	*3%*	4.768	*8%*	5.324	*12%*	5.840	*10%*	6.066	*7,9%*	6.057	*7,4%*	6.076	*4,5%*
Other Govt.	369	*4%*	385	*4%*	423	*10%*	496	*17%*	516	*8,9%*	518	*8,1%*	519	*7,5%*
Loans to Govt.	959	*18%*	973	*1%*	1.002	*3%*	1.222	*22%*	1.145	*7,1%*	1.146	*6,5%*	1.145	*-0,9%*
Corporations														
Loans	4.388	*14%*	4.827	*10%*	4.691	*-3%*	4.667	*-1%*	4.735	*1,1%*	4.761	*1,4%*	4.761	*1,7%*
Debt securities	2.412	*18%*	3.094	*28%*	4.051	*31%*	4.150	*2%*	4.072	*0,2%*	4.066	*-0,1%*	4.115	*0,4%*
Households														
Consumer credit	618	*5%*	632	*2%*	631	*0%*	639	*1%*	630	*-2,1%*	628	*-2,0%*	627	*-1,9%*
House purchase	3.425	*7%*	3.486	*2%*	3.547	*2%*	3.701	*4%*	3.798	*4,1%*	3.806	*4,2%*	3.769	*2,6%*
Except for house purchase	751	*2%*	767	*2%*	774	*1%*	819	*6%*	836	*2,7%*	836	*2,7%*	835	*2,5%*
Other														
Other financial intermediaries	870	*25%*	969	*11%*	1.061	*9%*	1.112	*5%*	1.162	*4,0%*	1.152	*7,6%*	1.199	*12,0%*
Insurance corp. & pen. funds	107	*17%*	104	*-3%*	89	*-14%*	95	*7%*	99	*4,5%*	97	*4,8%*	94	*1,3%*
Sum														
Government	5.730	*5%*	6.126	*7%*	6.748	*10%*	7.558	*12%*	7.727	*7,8%*	7.721	*7,3%*	7.741	*3,9%*
Corporations	6.800	*16%*	7.921	*16%*	8.741	*10%*	8.817	*1%*	8.807	*0,7%*	8.827	*0,7%*	8.876	*1,1%*
Households	4.793	*6%*	4.885	*2%*	4.952	*1%*	5.159	*4%*	5.264	*3,1%*	5.269	*3,2%*	5.231	*2,1%*
Total	18.299	*10%*	20.005	*9%*	21.591	*8%*	22.741	*5%*	23.058	*3,7%*	23.067	*3,8%*	23.141	*2,8%*
GDP (nominal)	9.032	*5,4%*	9.242	*2,3%*	8.951	*-3,2%*	9.183	*2,6%*	9.268	*3,2%*	9.323	*3,1%*	9.323	*3,1%*
Debt % of GDP														
Government			66,3%		75,1%	*8,8%*	82,9%	*7,8%*	83,4%	*3,6%*	82,8%	*3,3%*	83,0%	*0,7%*
Corporations			85,7%		97,3%	*11,6%*	96,7%	*-0,5%*	95,0%	*-2,4%*	94,7%	*-2,2%*	95,2%	*-1,9%*
Households			52,8%		55,1%	*2,3%*	56,6%	*1,5%*	56,8%	*-0,1%*	56,5%	*0,0%*	56,1%	*-0,6%*
Total			**216,3%**		**240,2%**	*23,9%*	**249,5%**	*9,3%*	**248,8%**	*1,3%*	**247,4%**	*1,6%*	**248,2%**	*-0,8%*

Source: ECB, Datastream, Erste Group Research

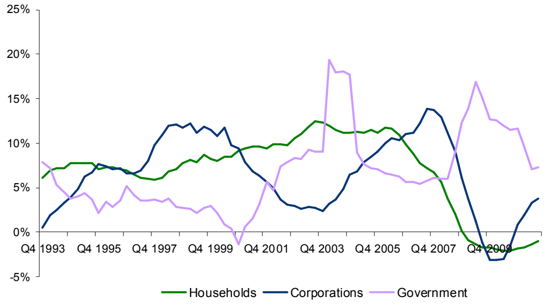
United States

Total debt & nominal GDP (y/y)



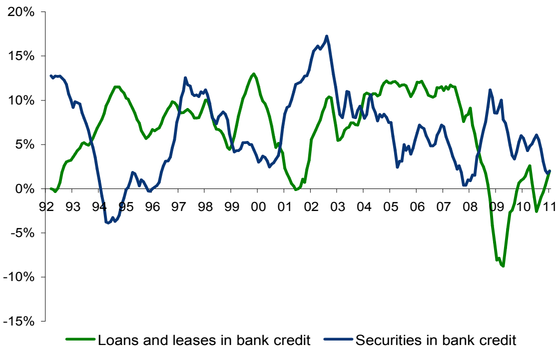
Source: Federal Reserve, Datastream, Erste Group Research

Debt (y/y)



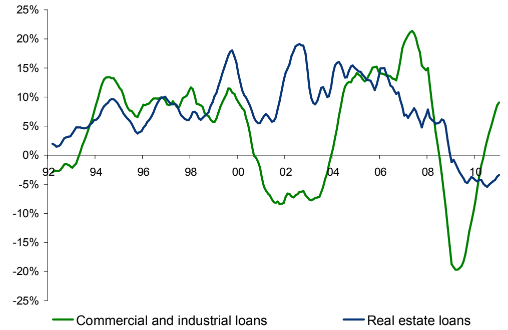
Source: Federal Reserve, Datastream, Erste Group Research

Loans and securities in bank credit (y/y)



Source: Federal Reserve, Datastream, Erste Group Research

Commercial & industrial and real estate loans (y/y)



Source: Federal Reserve, Datastream, Erste Group Research

Government, corporate and household debt

	2007	y/y	2008	y/y	2009	y/y	2010	y/y	Q2 2011	y/y	Q3 2011	y/y
Federal debt	9,229	6%	10,700	16%	12,311	15%	14,025	10%	14,343	9%	14,790	9%
State and local governments	2,868	5%	2,888	1%	2,999	4%	3,065	1%	3,013	0%	3,002	-1%
Nonfinancial corporate business	6,889	14%	7,222	5%	7,004	-3%	7,300	3%	7,533	6%	7,631	6%
Nonfarm noncorporate business	3,650	14%	3,972	9%	3,839	-3%	3,627	-3%	3,626	-1%	3,644	0%
Farm business	219	7%	224	2%	218	-3%	229	6%	224	3%	220	-1%
Household Sector	13,777	7%	13,797	0%	13,565	-2%	13,324	-1%	13,207	-1%	13,204	-1%
Government	12,097	6%	13,588	12%	15,311	13%	17,091	8%	17,356	7%	17,793	7%
Corporations	10,758	14%	11,418	6%	11,061	-3%	11,156	1%	11,383	3%	11,495	4%
Households	13,777	7%	13,797	0%	13,565	-2%	13,324	-1%	13,207	-1%	13,204	-1%
Total debt	**36,633**	**8%**	**38,802**	**6%**	**39,936**	**3%**	**41,571**	**3%**	**41,946**	**3%**	**42,492**	**4%**
GDP (nominal)	14,253	4.9%	14,082	-1.2%	14,087	0.0%	14,755	3.3%	15,013	3.8%	15,181	3.9%
% of GDP												
Government	85%	1%	96%	12%	109%	12%	116%	7%	**116%**	**4%**	**117%**	**2%**
Corporations	75%	6%	81%	6%	79%	-3%	76%	-3%	**76%**	**0%**	**76%**	**0%**
Households	97%	2%	98%	1%	96%	-2%	90%	-6%	**88%**	**-5%**	**87%**	**-1%**
Total % of GDP	**257%**	8%	**276%**	19%	**283%**	8%	**282%**	-2%	**279%**	**-1%**	**280%**	**1%**

Source: Federal Reserve, Datastream, Erste Group Research

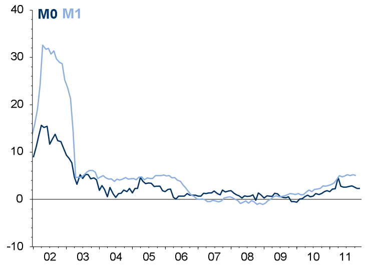
Assets of commercial banks

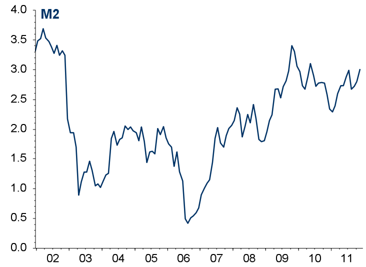
	05/2011	y/y	06/2011	y/y	07/2011	y/y	08/2011	y/y	09/2011	y/y	10/2011	y/y	11/2011	y/y
Bank credit	**9,160**	0%	**9,228**	0%	**9,294**	1%	**9,282**	1%	**9,353**	1%	**9,404**	2%	**9,437**	**2.7%**
Securities in bank credit	2,436	7%	2,447	4%	2,457	2%	2,480	3%	2,474	1%	2,481	1%	2,504	3.3%
Loans and leases in bank credit	**6,724**	-2%	**6,781**	-1%	**6,837**	0%	**6,802**	0%	**6,879**	1%	**6,924**	2%	**6,933**	**2.4%**
Commercial and industrial loans	1,261	4%	1,264	5%	1,285	6%	1,294	8%	1,307	9%	1,320	10%	1,315	8.9%
Real estate loans	3,499	-5%	3,497	-4%	3,484	-5%	3,477	-4%	3,492	-4%	3,497	-3%	3,479	-3.6%
Consumer loans	1,084	-6%	1,087	-5%	1,088	-5%	1,087	-4%	1,091	-3%	1,090	-2%	1,096	-2.2%
Other loans and leases	879	9%	932	12%	980	18%	944	12%	989	17%	1,017	21%	1,042	25.4%
Allowance for loan and lease losses	189	-17%	186	-18%	183	-18%	180	-20%	177	-19%	174	-19%	175	-18.4%
Interbank loans	127	-19%	118	-30%	136	-21%	119	-32%	117	-37%	118	-38%	104	-42.5%
Cash assets	1,869	48%	1,964	48%	1,945	45%	1,862	60%	1,672	50%	1,539	47%	1,486	43.6%
Trading assets	291	10%	294	-1%	363	13%	339	17%	307	-8%	291	-3%	283	7.0%
Other assets	1,212	-2%	1,201	-1%	1,213	-2%	1,210	-2%	1,190	-4%	1,190	-4%	1,195	-3.4%
Total Assets	**12,469**	5.4%	**12,620**	5.4%	**12,768**	5.7%	**12,632**	6.4%	**12,462**	4.8%	**12,368**	5.0%	**12,330**	**5.5%**

Source: Federal Reserve, Datastream, Erste Group Research

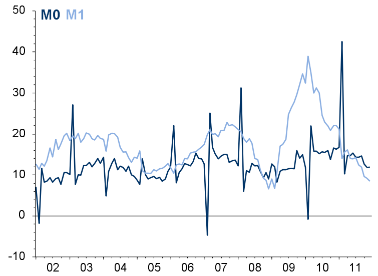
Other major markets

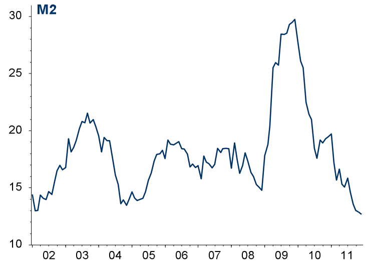
Japan (% y/y)



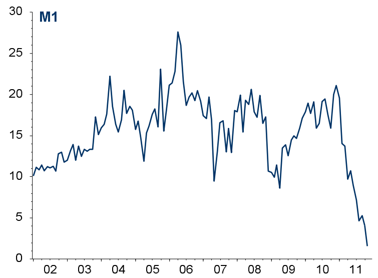


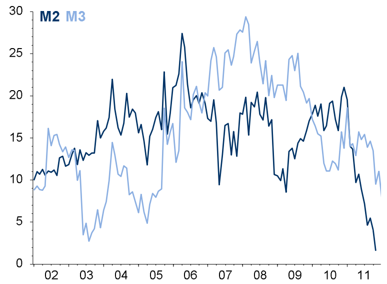
China (% y/y)



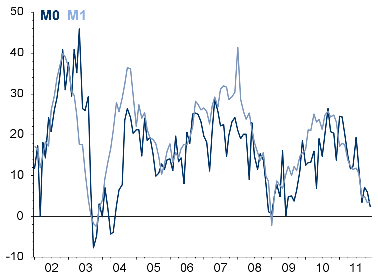


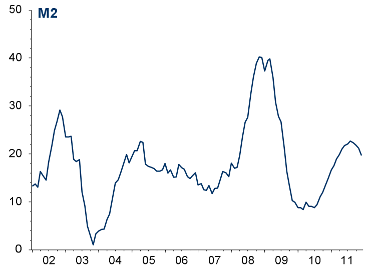
India (% y/y)



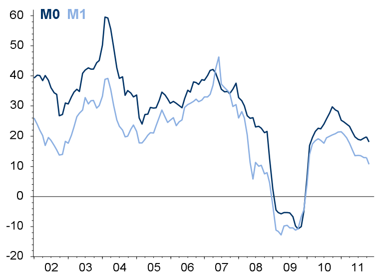


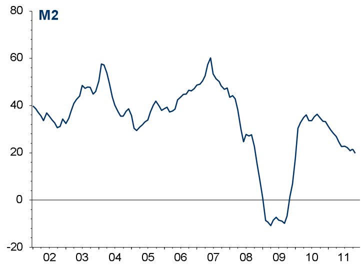
Brazil (% y/y)





Russia (% y/y)



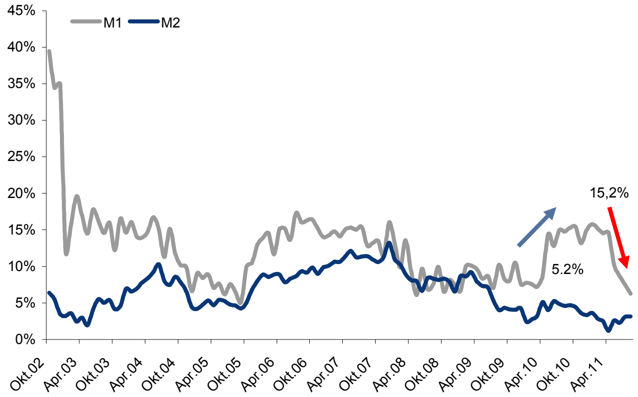


Sources: Datastream, Erste Group Research

CEE countries

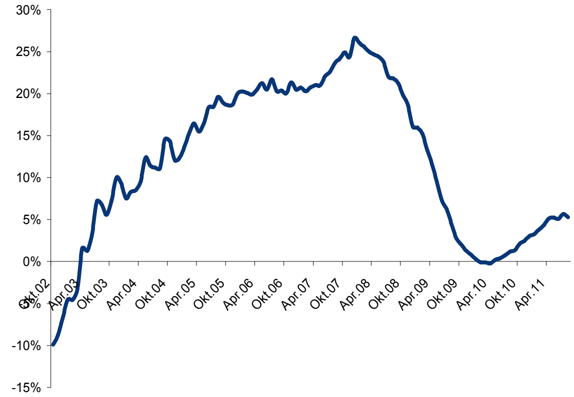
Czech Republic

M1 and M2 (y/y)



Source: Datastream, Erste Group Research

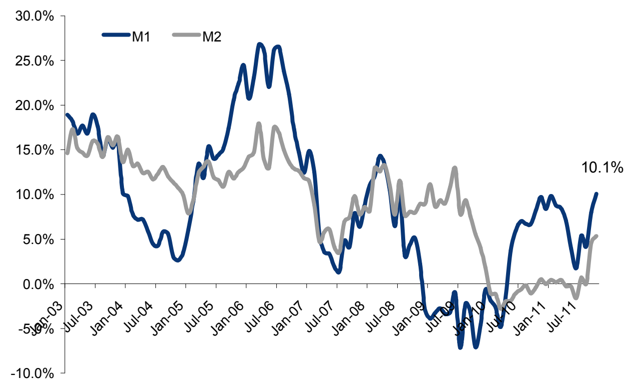
Private sector loans (y/y)



Source: Datastream, Erste Group Research

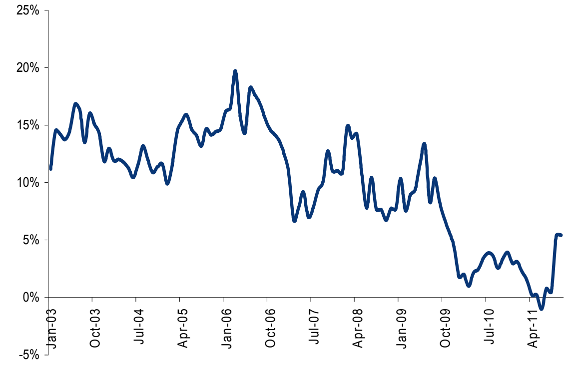
Hungary

M1 and M2 (y/y)



Source: Datastream, Erste Group Research

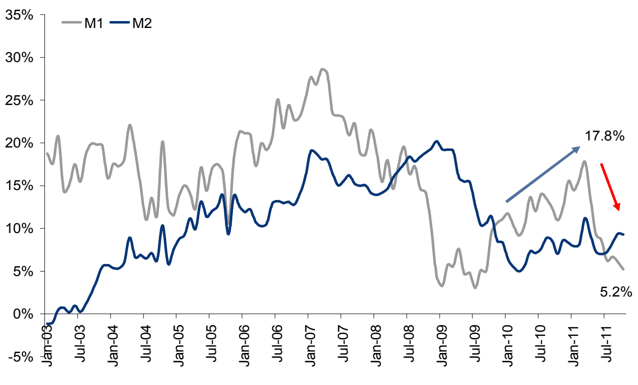
M3 (y/y)



Source: Datastream, Erste Group Research

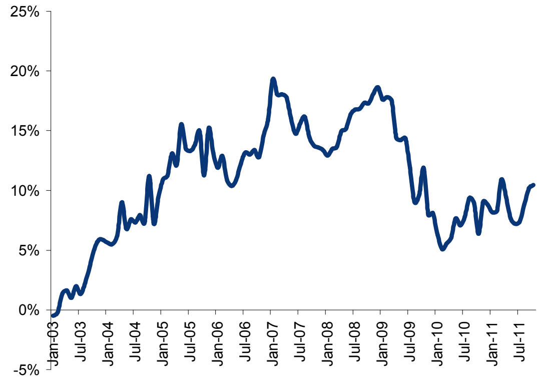
Poland

M1 and M2 (y/y)



Source: Datastream, Erste Group Research

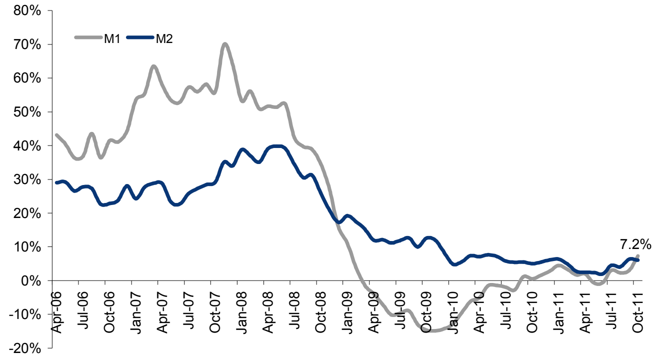
M3 (y/y)



Source: Datastream, Erste Group Research

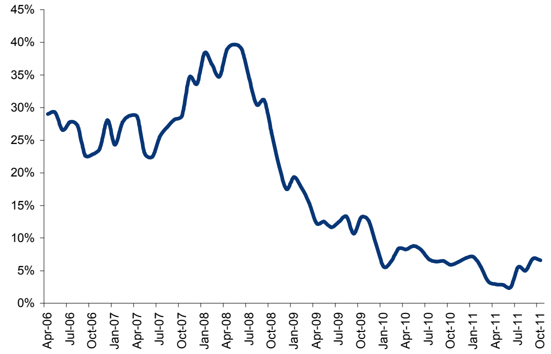
Romania

M1 and M2 (y/y)



Source: Datastream, Erste Group Research

M3 (y/y)



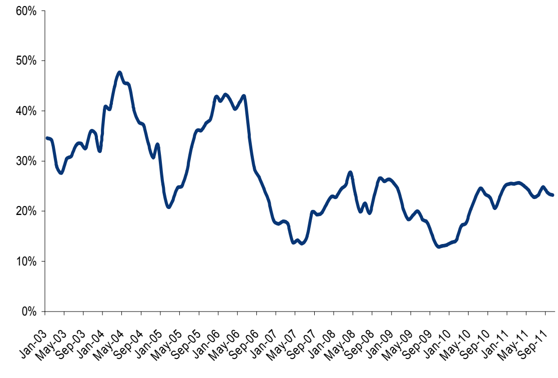
Source: Datastream, Erste Group Research

Turkey

M1 and M2 (y/y)

Source: Datastream, Erste Group Research

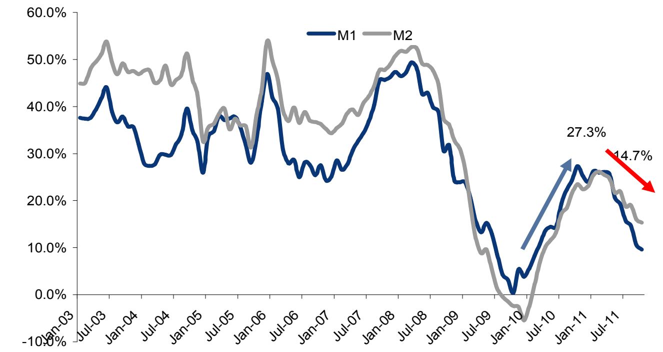
M3 (y/y)



Source: Datastream, Erste Group Research

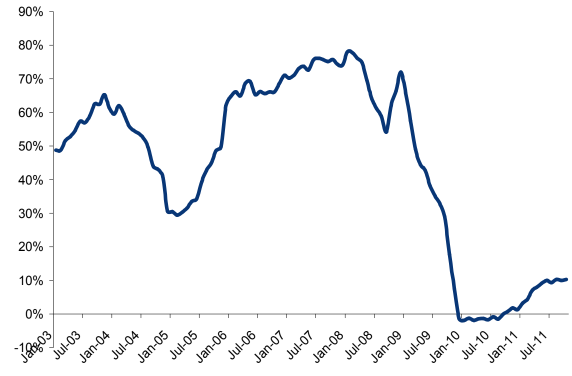
Ukraine

M1 and M2 (y/y)



Source: Datastream, Erste Group Research

Credit outstanding (y/y)



Source: Datastream, Erste Group Research

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