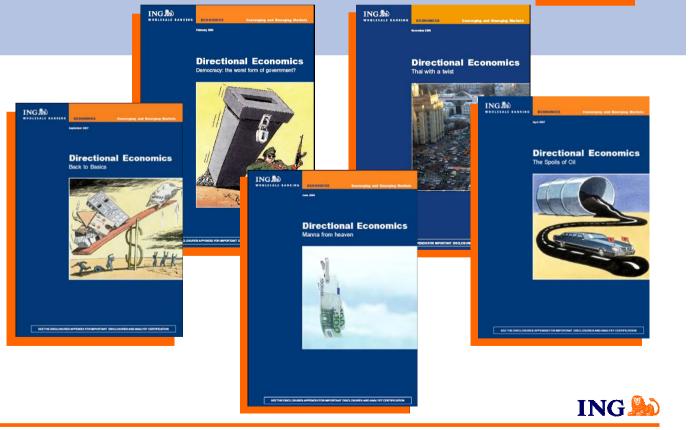
Directional Economics

Emerging and Converging Markets The opportunity of "sub-prime" lending

Charles Robertson

Head of Research and Chief Economist, EEMEA 2008

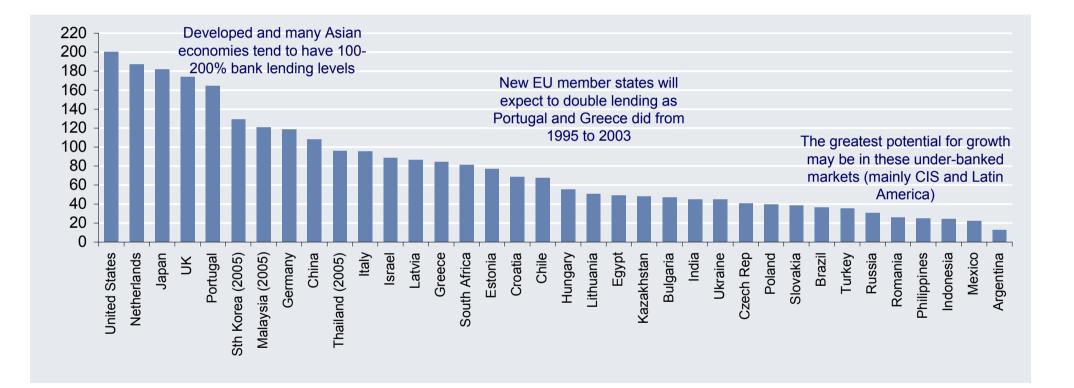
charles.robertson@uk.ing.com +44 20 7767 5310



WHOLESALE BANKING

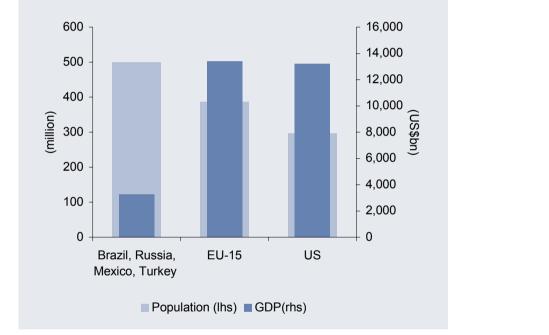
Bank lending – good prospects for EM

2006 bank lending to corporates/households (% of GDP)



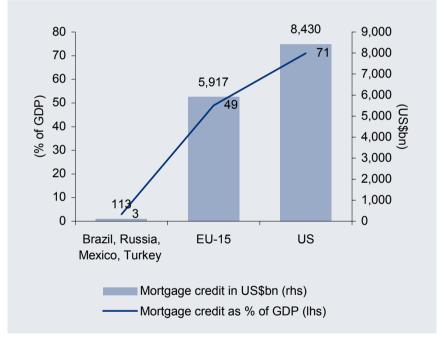


High debt might imply high wealth



GDP and population (2006)

Mortgage credit (2006)



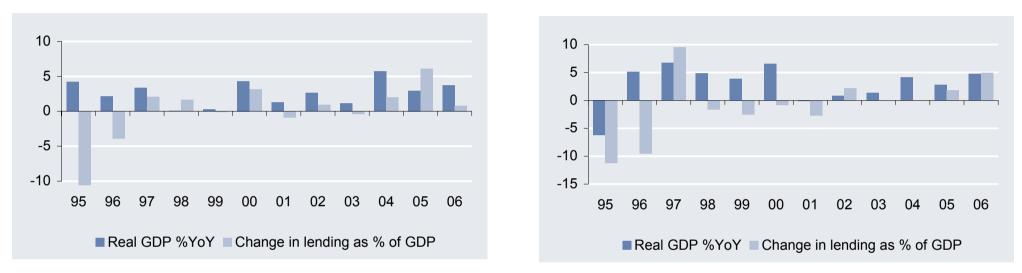
The biggest emerging markets in the debt world – accounting for 60% of the EMBIG – have per capita GDP in the US\$5,000-10,000 range – and very little debt. Their populations are bigger than the EU-15 and nearly double that of the USA, but their total GDP is ¼ of the USA's.

One reason may be a lack of "sub-prime" lending. Mortgage debt is roughly US\$100bn and just 3% of GDP in these countries vs US\$8 trillion and 71% of GDP in the USA. Less debt = less wealth.

If mortgage levels rise by 20 percentage points of GDP in the coming 10 years – to 21% in Russia, 22% in Brazil, 23% in Turkey and 28% in Mexico – mortgage credit would increase by half a trillion dollars in Russia, Brazil and Mexico and US\$200bn in Turkey, helping double their GDP.



Bank lending – low lending explains low growth



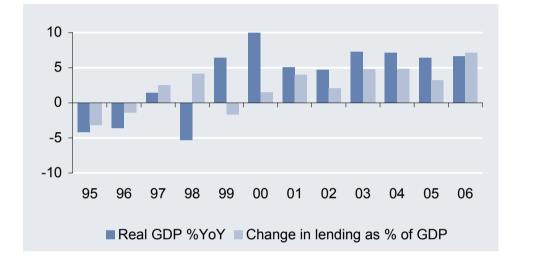
Mexico lending data

Brazil lending data

- Latin America has generally performed weakly in terms of economic growth and this may be closely linked to low levels of bank lending. Credit injection has been no more than 2% of GDP in the past 5 years in Mexico or Brazil.
- But consumer credit in Brazil (now 7% of GDP and rising fast) and mortgage lending in Mexico (+80% real YoY growth in 2005) may help diversify economic growth.

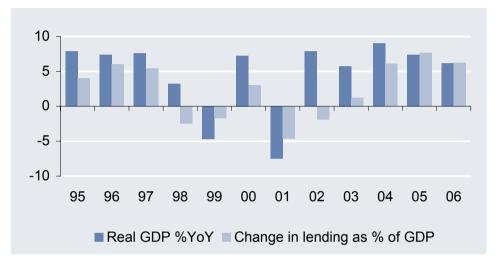


Bank lending – on the rise in EEMEA



Russia lending data

Turkey lending data



- Russian banks have not been protected by legislation, which has deterred them from lending. However credit growth is now rising by some 100% annually which again may help diversify growth. This is pushed by the Kremlin and state-owned banks.
- By contrast, in Turkey it is private sector banks that are renewing lending after the last crash in 2001. Scope for long-term growth means foreign ownership is rising from 2% of assets to 22% (early 2007).



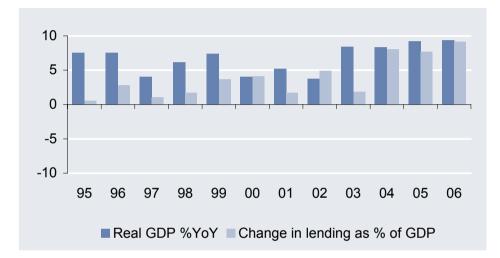
Bank lending – China and India

20 15 10 5 95 96 97 98 99 00 01 02 03 04 05 06 ■ Real GDP %YoY ■ Change in lending as % of GDP

China lending data



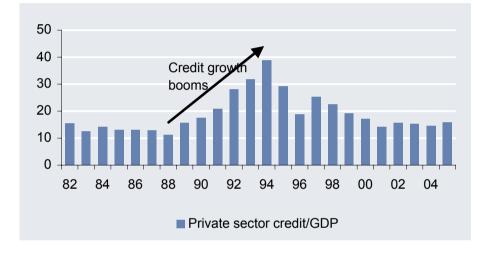
India lending data



- Revised GDP data for China show that bank lending growth was not quite so unsustainable as it previously appeared. The stock of lending remains worrying. But the slowdown in 2004, the sale of stakes to foreign groups/equity investors and a more realistic lending rate policy are helpful factors. The undervalued pegged exchange rate is a further support.
- China is more dependent on net exports than previously; a US slowdown could have a big impact.
- India seems to be experiencing a credit boom, with considerable potential to sustain growth in a 7-10% range over the medium term.

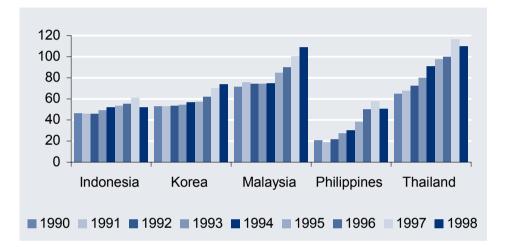


Too much bank lending – Tequila and Thai crises



Mexico – The Tequila crisis

The Thai crisis and Asian contagion



 Excessive bank lending contributed to both the Mexican "Tequila" crisis and to the Asian crisis of 1997-98. Post-communist banking crises have been seen in Russia (often), Bulgaria (1996) and the Czech Republic (1997). In all cases, the banking sectors were dominated by local operators and were poorly regulated. Up to half the loans in Bulgaria and Czech Republic were seen to be "bad" lending – a similar figure in China would be the equivalent of US\$1 trillion.



The external debt trigger

100% usually a threshold for a crisis

Argentina 25 29 26 42 86 126 194 164 134 137 154 139 152 133 114 144 167 155 Brazil 35 43 50 44 55 61 90 93 66 138 98 73 65 68 97 111 222 298 China 7 7 7 7 7 7 9 111 221 23 25 31 34 69 72 26 30 Hindies 25 25 24 04 9 14 24 28 23 13 56 43 499 49	External debt	due to f	oreign	banks	within	12 mon	ths as	% of fx	reserv	es (exc	l gold)								
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US 2080 1933 1592 1027 842 806 975 938 764 0 0 0 0 0 0 0 0 0 0 0	Iceland	632	589	833	355	378	600	635	531	430	375	223	187	241	202	141	157	135	138
																			0
	New Zealand	85	102	141	196	182	131	178	135	144	179	145	83	96	87	126	155	157	84

Bold is crisis year. Shading indicates a number >=100%. Source: JEDH



Emerging Markets safer than some developed markets

The great EM disasters of the 1990s were usually the consequence of poor policy choices by EM governments, with the crisis occurring when foreign financing for these bad policies disappeared. The triggers came when:

1) Governments could no longer borrow money (Russia in 1998, Argentina in 2001, Turkey in 2001, Brazil in 2002).

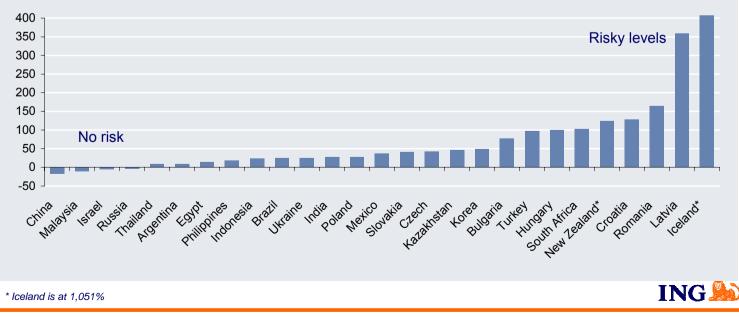
2) Foreign banks would not roll over private sector external debt (Korea in 1997, Mexico in 1994, Brazil in 2002).

3) The current account position made them vulnerable (Turkey in 2001, Mexico in 1994, Thailand in 1997).

Now governments do not borrow money – or not much. Short-term external borrowing is low. The current account + FDI picture is much improved.

External debt due in 12 months + FDI + C/A, all as % of fx reserves in 2007

The chart shows the total of the external debts due within 12 months + the C/A + FDI, as a ratio of fx reserves. le, it would take South Africa and Turkey a year to run out of reserves if they could not roll-over any debt. But it would take Iceland just 3 weeks (Iceland is off the scale of our chart). Russia's reserves would still grow!



Foreign bank ownership

Poland	% of assets (2005)	Assets (€bn)
Unicredito (Bank Pekao - Bank BPH)	20	<u>A33613 (CDI)</u> 31
PKO BP	16	23.8
ING (Bank Slaski)	7	10.9
Commerzbank (BRE)	6	8.6
Citigroup (Handlowy)	6	8.5
AIB (Bank Zachodni WBK)	5	7. <u>7</u>
Hungary	% of assets (2005)	Assets (€bn)
OTP	19	14.2
KBC (K&H)	10	7.5
Bayerische Landesbank (MKB)	9	6.5
Intesa (CIB)	8	5.8
Erste	8	5.7
Raiffeisen	7	5
Unicredito (HVB)	5	4
Czech Republic	% of assets (2005)	Assets (€bn)
KBC (CSOB)	25	25.4
Erste (Ceska Sporitelna)	22	22.6
Soc Gen (Komercni)	17	17.8
Unicredito	7	7.4
Commerzbank	4	3.6
Raiffeisenbank	3	2.7

Bulgaria	% of assets (2005)	Assets (€bn)
Unicredito (Bulbank, Hebros, Biochim)	21	3.5
OTP (DSK)	14	2.3
NBG (UBB)	10	1.6
Raiffeisen	9	1.4
First Investment Bank	8	1.3
EFG Eurobank (Bulgarian Post Bank)	5	0.9
Romania	% of assets	Assets (€bn)
	(2005)	`
Erste (BCR)	26	9
Soc Gen (BRD)	15	5.2
Unicredito	9	3.1
Raiffeisen	9	3
ING	5	1.8
EFG Eurobank	4	1.6
CEC	4	1.5

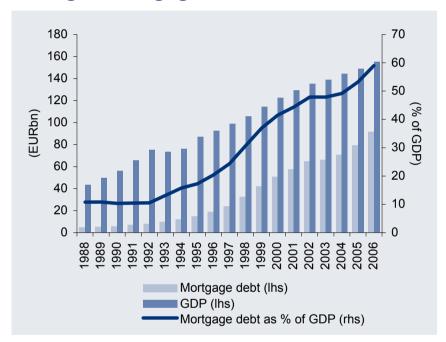
Russia	% of assets (2005)	Assets (€on)
Sberbank	26	73.7
Vneshtorgbank	6	18.4
Gazprom	4	12.4
Alfa	2	6.8
Uralsib	2	6.7
Bank of Moscow	2	6.5
Rosbank	2	5.9
Ukraine	% of assets	Assets (€bn)
	(2005)	
Privatbank	11	4.2
Raiffeisen (Aval)	8	3.3SG was reportedly interested
Prominvestbank	6	2.4
BNP Pari. (UkrSibbank)	6	2.3SG was reportedly interested
Ukreximbank	5	2State
Unicredito (Ukrsotsbank)	5	1.9
Oshchadbank	4	1.5State
OTP	3	1.3Was Raiffeisenbank
Nadra	3	1.2Possible take-over target
Finance and Credit Bank	2	0.8Possible take-over target
Turkey		Assets (€on)
	(Jun-06)	
ls	15	
Ziraat	15	
AK	12	
YKB	10	
Garanti	10	
Vakif	7	16.9State 59% and may sell in 2008, employees 16%, free-float 25%
Halk	7	
NBG (Finansbank)	4	8.6NBG owns 87% with strat stake (46%) + after buying shares
ING (Oyakbank)	4	5.3ING bought 100% in Dec-07
Dexia (Denizbank)	2	5.3Dexia owns over 95%

Source: National sources

Just 1% of the Mexican banking sector was foreign owned in 1994, 16% in 1997 and 82% in 2004. Just 2% of Turkey's banking sector was foreign owned in 2004, but around 40% now.

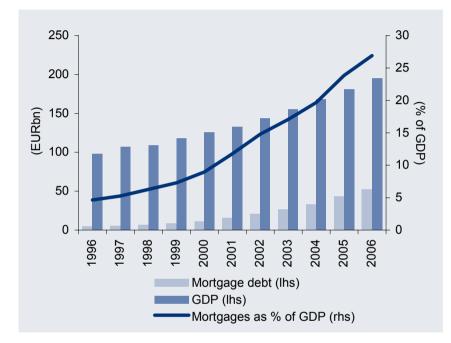


The precedent of Greece and Portugal



Portugal: mortgages and GDP

Greece: mortgages and GDP



- Portugal was a typical emerging market in the early 1990s when mortgage lending was just 10% of GDP. It soared along with Euro adoption in 1999.
- Greece has lagged Portugal due to high transaction taxes on property (roughly 25% of property value) but has risen five-fold in 10 years.



Nominal convergence but not yet

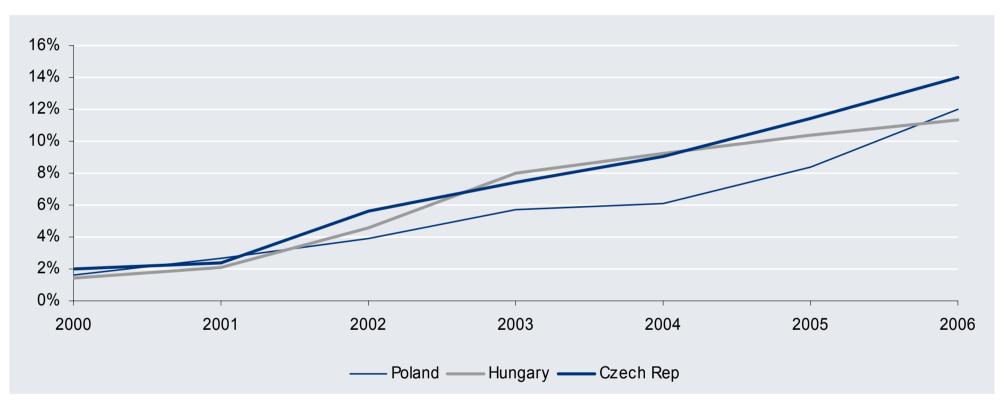


Note: CE4 data lagged by 13 years



Central Europe – steady convergence

Mortgage levels as % of GDP

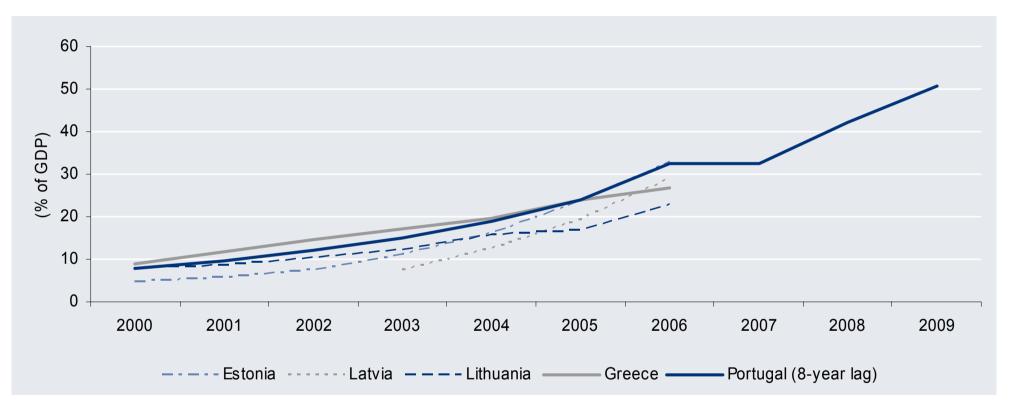


By contrast, central Europe's mortgage growth seems limited, sustainable and on course to continue converging with other EU member states.

We assume fx borrowing has an inbuilt protection mechanism – which is that the greatest risk (of HUF devaluation) should be avoided by interest rate hikes which would encourage more fx borrowing rather than less. However, forced sale of assets and repayment of loans means significant economic problems cannot be totally discounted.

Baltic states – mortgage levels similar to Greece

Mortgage levels as % of GDP

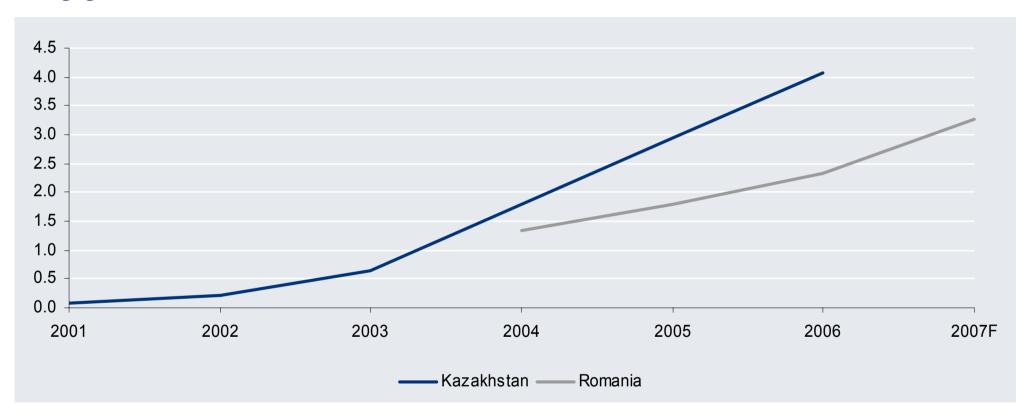


Mortgage levels in the Baltic states echo that of Greece, and Portugal with an eight-year lag. Portugal's economy hit a brick wall in 2001 and stopped converging with Germany. Deconvergence lasted some 4-5 years as Portugal grew at just 1% a year. This precedent suggests the Baltic states will hit difficulties in 2009 and have to face either stagnation or devaluation.



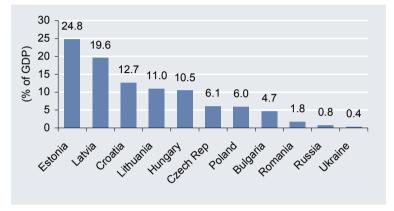
Frontier markets have much potential

Mortgage levels as % of GDP



 In Kazakhstan and Romania by contrast, mortgage levels seem very modest. But rapid growth in lending has led to excesses in both countries – as seen in the Kazakh crisis in October 07 and Romania's C/A deficit.

The outlook for mortgage lending and C/A risks



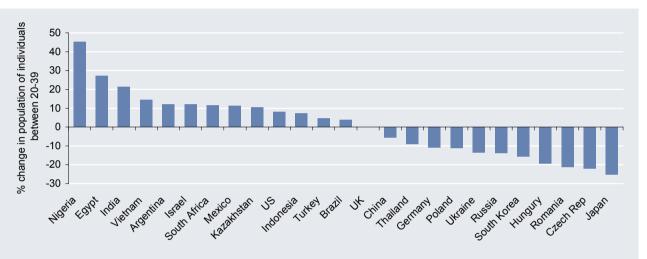
Mortgage comparison (2005)

Mortgage lending and other consumer credit growth is a key factor behind the booming C/A deficits in emerging Europe.

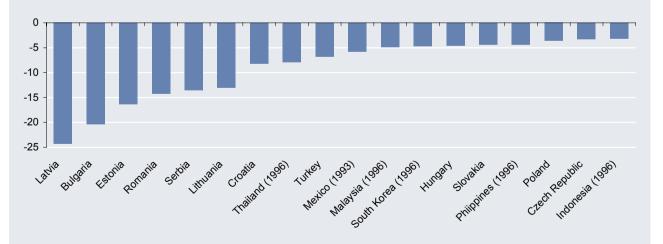
Compared to one year ago, we have more concerns because:

- 1) ERM membership has not been extended to Bulgaria
- 2) Foreign ownership of the banking sectors could be a threat
- 3) The markets are less forgiving of excessive risk-taking
- 4) Current accounts keep rising

Projected %ch in 20-39-year-olds from 2005 to 2020



Current account deficits breaching 7% of GDP danger level (2007F)



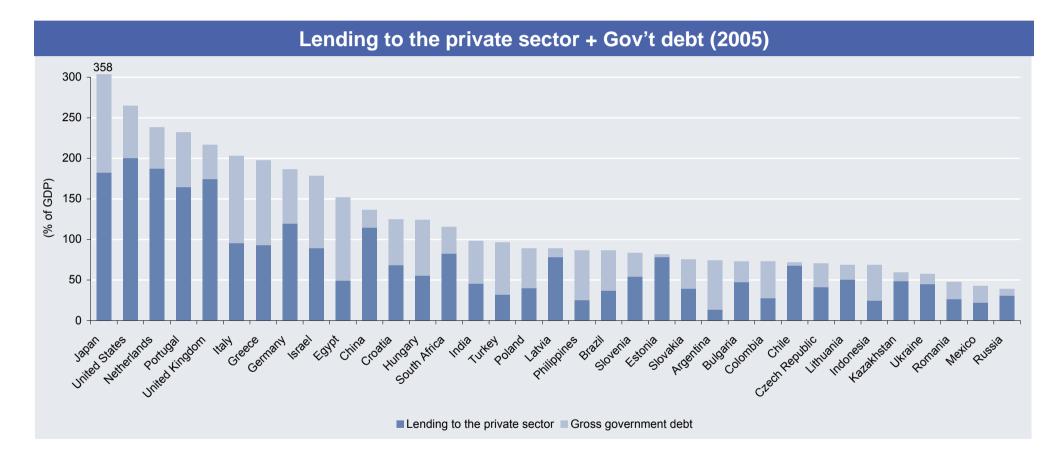


No risk of a crisis in EEMEA (*but see latest thoughts*)

- The external debt trigger is a fairly reliable signal of problems but not perfect (see Czech Republic in 1997). It suggests only the Baltics and Balkans are at risk.
- The Baltics and Balkans do not offer contagion risk to EEMEA in the same way that Thailand did for other Asian countries, but Hungary and Turkey may be vulnerable.
- EU member states have an exit strategy from a currency peg they can adopt the Euro, *but not if inflation misses the target by 0.1%*. Mexico and Thailand could not adopt the US dollar.
- ERM-2 member states are protected from very significant devaluations by the ECB, but see Bulgaria's rejection by Trichet.
- Banks are (hopefully) better regulated and better run than they were in Mexico in the early 1990s or Asia in the mid-1990s. Foreign ownership is much higher. *This might however carry its own risks given the credit crunch since August 2007*.
- Ukraine carries long-term risk that can easily be removed by widening its currency bands anytime in the next 2-3 years.
- Lastly note that economists can be particularly bad at forecasting an end to currency regimes. Most investment bank reports as late as 4q1994 predicted Mexico would not be forced to devalue!



Most high debt countries not growing fast



• Countries with the best outlook are on the right-hand side of this chart and include former Soviet countries as well as Romania and Mexico.



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