

June 9, 2004

# Fundamentals to Spreads

## Updated baseline assumptions and key results

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We are sending the newest update of our Fundamentals to Spreads Model. Our main conclusions are:

- As a result of the sell-off of the last months, most countries appear now either fairly valued or even cheap.
- Thus, most countries have corrected (or more than corrected) the expensiveness we reported in our January update.
- Among the countries that appear significantly cheap according to our model are Brazil, Russia and Peru.
- Our model gives as an indication of fundamental fair valuation but markets usually overshoot in both directions.
- If the fixed income in the US sells off further, an overshooting is likely to be the case this time yet again.
- Consequently, we don't believe investors should see our results as a recommendation to buy the market. Instead, it should be used as a reference of medium-term directionality once markets start to fully price the US rate tightening cycle.
- Investors can also access our web-based interactive tool allowing users to enter custom assumptions to calculate default probabilities and fair spreads for Bonds and CDS. The model is available at <https://gmr.db.com/f2s>

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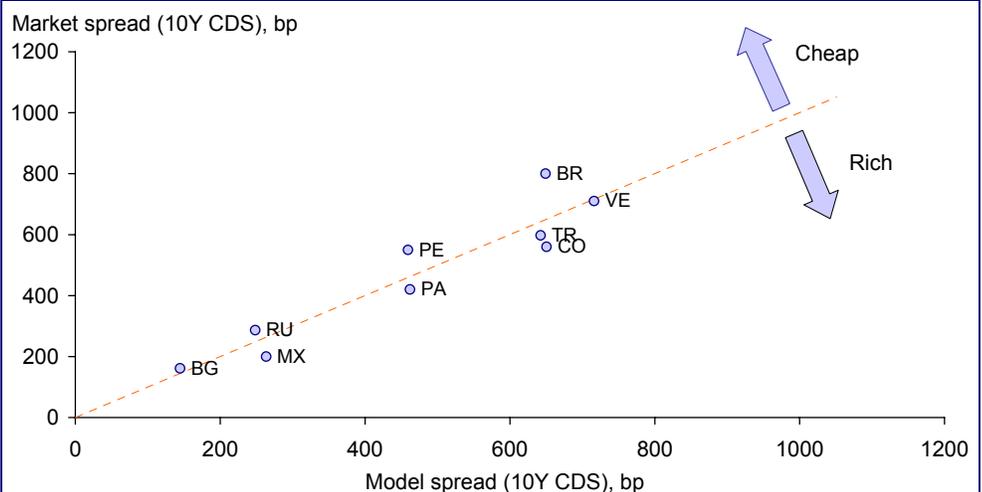
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### Brazil, Russia and Peru appear cheap

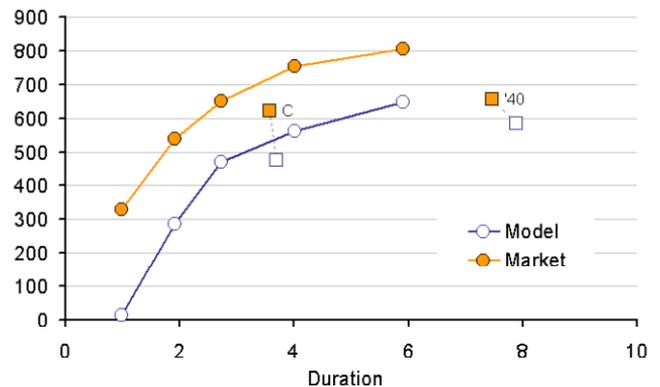


## Brazil

- Following the price adjustment of the last sell offs, Brazil's external debt is cheap according to our model.
- Our model assumes a medium term-primary balance of 4.0% of GDP (down from 4.25% currently), a real Selic rate of 9% and medium-term growth of 2.5%.
- In order to justify current market valuations one would need to assume for example that the government will relax fiscal policies and achieve a medium-term primary surplus just above 3% of GDP.
- While the model indicates that Brazil curve is currently cheap, it also indicates that in terms of curve shape, the market is reasonably fairly priced. The cheapness of the market from 2Y to 10Y is consistently around 150-200bp.

### CDS Curve and selected bonds

Spread over Libor, bps



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Growth			
	3.0%	4.0%	5.0%	1.5%	2.5%	3.5%	
<b>CDS</b>							
1Y	330	36	15	7	72	15	7
2Y	540	437	286	185	482	286	158
3Y	650	653	469	316	650	469	313
5Y	755	737	561	381	702	561	425
10Y	805	824	648	487	776	648	525
<b>Bonds</b>							
C	674	687	529	387	655	529	415
'40	702	766	627	481	719	627	524

Source: DB Global Markets Research

### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	4.0%
Primary surplus volatility	1.5%
Current primary surplus (% of GDP)	4.3%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	2.5%
Real GDP growth volatility	1.5%
Real FX depreciation	0.0%
Real FX volatility	5.0%
Current treasury reserves as % of GDP	5.9%
Current debt/GDP ratio	64.0%
Domestic floating debt as % of total debt	43.0%
Real interest rate on domestic floating-rate debt	9.0%
Real interest rate vol on dom. floating-rate debt	7.0%
Domestic fixed debt as % of total debt	6.9%
Real interest rate on domestic fixed-rate debt	9.0%
Real interest rate vol on dom. fixed-rate debt	2.0%
Foreign debt as % of debt	50.1%
Real interest rate on foreign debt	9.0%
Real interest rate vol on foreign debt	4.0%

Source: DB Global Markets Research

### Bond spreads and prices

Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
EI	98.50	99.64	-1.14	253	145	108
DCB	83.25	88.19	-4.94	674	500	174
C	90.25	95.18	-4.93	674	529	145
NMB	89.50	93.29	-3.79	605	424	181
'08N	105.50	109.89	-4.39	627	493	134
'06	106.63	108.80	-2.18	345	208	137
'05	106.25	107.59	-1.34	178	59	119
'07	106.25	108.98	-2.73	569	473	96
'09	114.50	120.85	-6.35	699	558	142
'10	104.50	110.84	-6.34	697	557	141
'11	94.50	100.42	-5.92	694	572	123
'12	98.75	104.66	-5.91	702	586	115
'13	94.00	97.99	-3.99	689	615	74
'20	102.50	110.75	-8.25	769	654	114
'24	79.50	83.53	-4.03	663	601	62
'27	86.00	91.93	-5.93	701	615	86
'30	100.50	106.87	-6.37	726	645	81
'34	74.25	77.34	-3.09	618	569	49
'40	91.38	96.89	-5.52	702	627	75

Source: DB Global Markets Research



## Bulgaria

- On balance, Bulgarian debt is fairly priced, despite being extremely tight relative to history.
- Main driver of results are the relatively-large level of treasury (fiscal) reserves and favourable fiscal dynamics.
- We are conservative on our baseline treasury reserves. We are assuming that they will fall to the EUR1.2bn included in the IMF agreement for financing emergencies. Debt would be clearly cheap had we assumed the actual level of treasury reserve, which amounts to EUR2.26bn, so that means that there are about EUR1bn as "free" reserves. We think it is likely that the government uses the available cash to call the Discounts and pre-pay IMF debt by USD100-200m.
- Market CDS spreads appear tight. The basis in Bulgaria has remained tight, while it has widened for most EM credits over the past couple of months. Indeed, the F2S model indicates that the cheapness of CDS spreads is substantially less than the cheapness of the bonds.
- Given their embedded call option (at par) the IABs and the FLIRBs are unlikely to appreciate to their model-implied level. As a result, we favour the 15s, particularly relative to 10Y CDS.

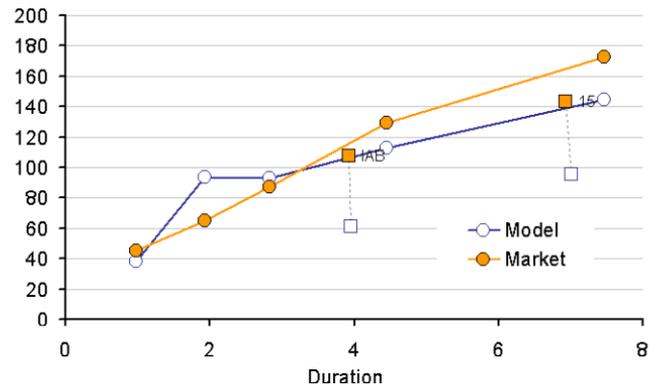
### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	2.0%
Primary surplus volatility	3.2%
Current primary surplus (% of GDP)	1.6%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	4.0%
Real GDP growth volatility	2.0%
Real FX depreciation	0.0%
Real FX volatility	6.0%
Current treasury reserves as % of GDP	7.1%
Current debt/GDP ratio	48.1%
Domestic floating debt as % of total debt	3.2%
Real interest rate on domestic floating-rate debt	2.0%
Real interest rate vol on dom. floating-rate debt	3.0%
Domestic fixed debt as % of total debt	40.5%
Real interest rate on domestic fixed-rate debt	2.0%
Real interest rate vol on dom. fixed-rate debt	2.0%
Foreign debt as % of debt	56.2%
Real interest rate on foreign debt	5.0%
Real interest rate vol on foreign debt	2.0%

Source: DB Global Markets Research

### CDS Curve and selected bonds

Spread over Libor, bps



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Growth		
	1.0%	2.0%	3.0%	3.0%	4.0%	5.0%
<b>CDS</b>						
1Y	45	39	38	38	47	38
2Y	65	149	94	62	149	94
3Y	87	149	93	69	146	93
5Y	129.5	197	113	75	164	113
10Y	172.5	265	144	86	203	144
<b>Bonds</b>						
IAB	160	196	113	73	163	113
15	195	259	147	85	201	147

Source: DB Global Markets Research

### Bond spreads and prices

Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
FLIRB	98.88	100.80	-1.93	166	113	54
IAB	99.00	100.86	-1.86	160	113	47
15	112.00	115.91	-3.91	195	147	48

Source: DB Global Markets Research

## Colombia

- Our model suggests that Colombian debt is not cheap despite the sell-off this year.
- We are assuming (conservatively) a medium-term primary balance of 2.0% of GDP and economic growth rates of 2.5%. Our primary surplus assumptions are below the numbers projected by the government (over 3% on average during the next five years). This is the reflection of the challenging oil sector and social security dynamics.
- The biggest challenge is fiscal. If the government is successful consolidating fiscal results close to the above-mentioned 3%, spreads would have significant room for tightening.
- From a relative value perspective, the shape of the market CDS curve largely reflects that of the model – albeit at a level around 60-100bp tighter.
- On the bond curve, the 27s appear to be the least rich bonds at just 1 point above the model (compared to 4-5 points for most of the bonds).

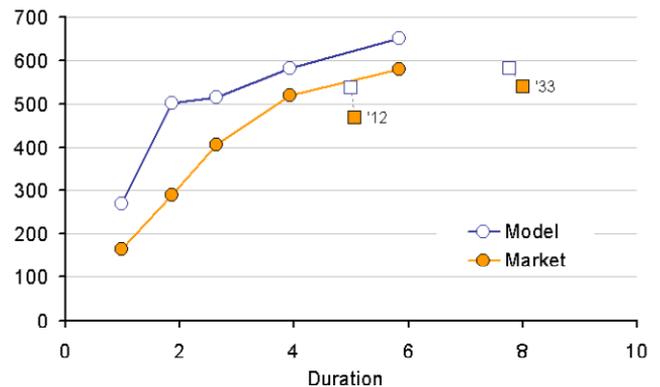
### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	2.0%
Primary surplus volatility	2.5%
Current primary surplus (% of GDP)	2.0%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	2.5%
Real GDP growth volatility	1.3%
Real FX depreciation	0.0%
Real FX volatility	5.0%
Current treasury reserves as % of GDP	5.1%
Current debt/GDP ratio	55.6%
Domestic floating debt as % of total debt	3.0%
Real interest rate on domestic floating-rate debt	4.3%
Real interest rate vol on dom. floating-rate debt	3.0%
Domestic fixed debt as % of total debt	50.0%
Real interest rate on domestic fixed-rate debt	6.3%
Real interest rate vol on dom. fixed-rate debt	2.0%
Foreign debt as % of debt	47.0%
Real interest rate on foreign debt	5.5%
Real interest rate vol on foreign debt	2.0%

Source: DB Global Markets Research

### CDS Curve and selected bonds

Spread over Libor, bps



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Growth			
	1.0%	2.0%	3.0%	1.5%	2.5%	3.5%	
<b>CDS</b>							
1Y	165	309	270	235	394	270	176
2Y	290	654	502	364	690	502	320
3Y	405	761	516	339	759	516	328
5Y	520	943	582	344	831	582	378
10Y	580	1057	650	390	892	650	462
<b>Bonds</b>							
'12	526	959	595	356	817	595	416
'33	586	919	630	407	801	630	480

Source: DB Global Markets Research

### Bond spreads and prices

Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
'06	111.50	105.32	6.18	178	492	-314
'07	105.63	98.95	6.68	229	501	-272
'08	106.00	100.08	5.92	332	511	-179
'09	106.05	101.09	4.96	438	563	-125
'10	106.90	102.76	4.14	497	586	-89
'11	111.50	102.00	9.50	263	544	-281
'12	102.50	98.91	3.59	526	595	-68
'13	106.00	101.06	4.94	531	617	-86
'20	108.50	103.52	4.98	586	652	-66
'24	79.75	77.55	2.20	563	596	-34
'27	79.50	78.51	0.99	582	597	-15
'33	95.25	91.89	3.36	586	630	-44

Source: DB Global Markets Research



## Ecuador

- Ecuador's external debt is cheap in our model but only moderately so.
- We are assuming a medium term primary balance of 4% of GDP (down from 4.5% previously), growth rates of 3%, and a (relatively conservative) 50% of domestic rollover and no IMF-linked disbursements.
- The government's relatively-high primary surplus have benefited significantly from extremely high oil prices. A big challenge will be to keep primary surpluses above 4% once oil prices converge to lower levels.
- In the near term, the relatively low level of treasury reserves (2.7% of GDP) contributes to Ecuador's elevated default probabilities and fair spreads.
- The government has accumulated USD170bln in the Oil Stabilization Fund (FEIREP). If it starts purchasing external debt with those resources, debt may overshoot fair level.

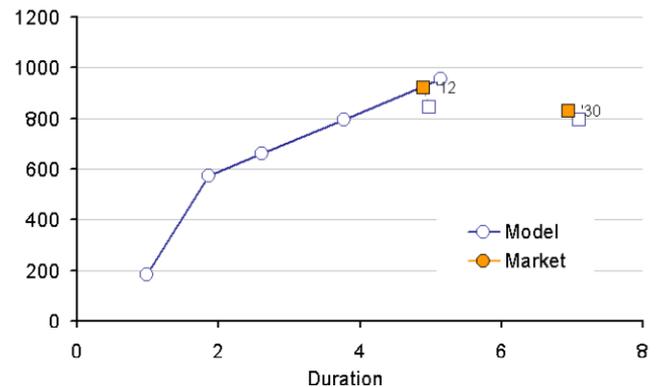
### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	4.0%
Primary surplus volatility	4.0%
Current primary surplus (% of GDP)	4.5%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	3.0%
Real GDP growth volatility	2.0%
Real FX depreciation	0.0%
Real FX volatility	2.5%
Current treasury reserves as % of GDP	2.7%
Current debt/GDP ratio	54.0%
Domestic floating debt as % of total debt	0.0%
Real interest rate on domestic floating-rate debt	0.0%
Real interest rate vol on dom. floating-rate debt	0.0%
Domestic fixed debt as % of total debt	0.0%
Real interest rate on domestic fixed-rate debt	0.0%
Real interest rate vol on dom. fixed-rate debt	0.0%
Foreign debt as % of debt	100.0%
Real interest rate on foreign debt	8.0%
Real interest rate vol on foreign debt	3.0%

Source: DB Global Markets Research

### CDS Curve and selected bonds

Spread over Libor, bps



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Treasury Reserves		
	3.0%	4.0%	5.0%	1.7%	2.7%	3.7%
<b>CDS</b>						
1Y -	264	184	138	704	184	44
2Y -	777	575	442	970	575	364
3Y -	892	663	470	1006	663	439
5Y -	1081	793	557	1134	793	554
10Y -	1219	954	710	1268	954	710
<b>Bonds</b>						
'12 976	1147	902	673	1186	902	670
'30 882	1024	848	681	1052	848	680

Source: DB Global Markets Research

### Bond spreads and prices

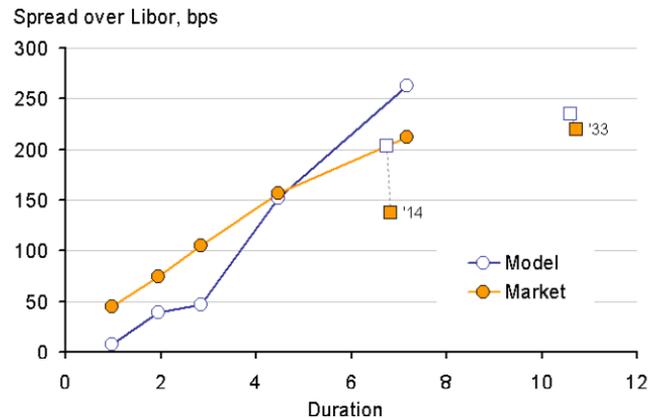
Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
'12	90.00	93.39	-3.39	976	902	74
'30	70.75	72.52	-1.77	882	848	34

Source: DB Global Markets Research

## Mexico

- Mexico's debt is now fairly priced to moderately expensive. We are using the non-financial public sector (and not the central government) as the relevant definition of the public sector.
- We also assume that in a situation of stress, government could use up to 20% of the Central Bank's reserves.
- Although the model indicates that the 10Y sector (of both the bond curve and the CDS curve) is somewhat rich, it also indicates that the longer end of the bond curve is close to fair. 2031s for instance are just 8bp tighter in the market than their model spread.

### CDS Curve and selected bonds



Source: DB Global Markets Research

### Sensitivities

	Market Level	Primary surplus			Growth		
		2.5%	3.5%	4.5%	2.5%	3.5%	4.5%
<b>CDS</b>							
1Y	45	16	8	8	16	8	8
2Y	75	74	39	24	78	39	27
3Y	105	127	47	29	105	47	29
5Y	157	287	152	81	231	152	116
10Y	212	455	263	158	359	263	206
<b>Bonds</b>							
'14	190	437	256	153	347	256	201
'33	260	425	274	177	349	274	220

Source: DB Global Markets Research

### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	3.5%
Primary surplus volatility	1.5%
Current primary surplus (% of GDP)	4.4%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	3.5%
Real GDP growth volatility	3.7%
Real FX depreciation	0.0%
Real FX volatility	5.2%
Current treasury reserves as % of GDP	4.0%
Current debt/GDP ratio	51.4%
Domestic floating debt as % of total debt	0.0%
Real interest rate on domestic floating-rate debt	3.0%
Real interest rate vol on dom. floating-rate debt	10.0%
Domestic fixed debt as % of total debt	70.0%
Real interest rate on domestic fixed-rate debt	4.0%
Real interest rate vol on dom. fixed-rate debt	5.0%
Foreign debt as % of debt	30.0%
Real interest rate on foreign debt	5.5%
Real interest rate vol on foreign debt	0.8%

Source: DB Global Markets Research

### Bond spreads and prices

Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
'05	106.65	106.43	0.22	-17	9	-26
'06	109.05	109.11	-0.06	40	37	4
'07	114.95	115.78	-0.83	78	47	31
'08N	98.75	98.81	-0.06	123	121	2
'08	113.45	115.23	-1.78	121	73	48
'09	121.25	121.52	-0.27	142	137	6
'09FRN	101.50	99.41	2.09	84	135	-51
'10	120.40	119.53	0.87	162	178	-16
'11	112.95	112.03	0.92	182	197	-16
'12	107.15	105.39	1.76	197	226	-29
'13	99.10	95.97	3.13	200	250	-50
'14	95.05	90.71	4.34	190	256	-66
'15	98.55	94.78	3.77	207	260	-52
'16	138.75	131.24	7.51	197	274	-77
'19	105.25	104.25	1.00	266	277	-11
'22	102.25	102.34	-0.09	278	277	1
'26	137.50	136.13	1.37	284	294	-11
'31	103.35	102.47	0.88	274	282	-8
'33	95.25	93.76	1.49	260	274	-15

Source: DB Global Markets Research

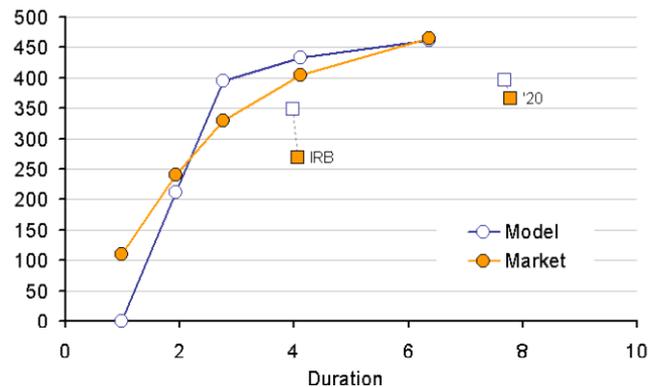


## Panama

- Following the recent sell off and the consolidation of the fiscal accounts, the CDS curve now appears close to fair. The bond curve however, continues to look rich – albeit less than in the recent past.
- The fiscal situation has improved somewhat as the government was able to tighten expenditure last year and economic recovery improved revenues. Debt to GDP has been falling in the last two years. Overall, concerns over debt dynamics are reduced.
- High treasury reserves (6% of GDP) are an important cushion.
- The Fiduciary Fund is currently holding approximately USD600mln that potentially could be allocated in the purchase of external bonds.

### CDS Curve and selected bonds

Spread over Libor, bps



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Growth			
	0.5%	1.5%	2.5%	1.5%	2.5%	3.5%	
<b>CDS</b>							
1Y	110	0	0	0	21	0	0
2Y	240	407	211	106	453	211	96
3Y	330	677	394	201	686	394	200
5Y	405	735	434	230	690	434	255
10Y	465	747	461	256	683	461	297
<b>Bonds</b>							
IRB	322	655	401	223	615	401	248
'20	428	713	459	265	650	459	309

Source: DB Global Markets Research

### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	1.5%
Primary surplus volatility	1.0%
Current primary surplus (% of GDP)	1.5%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	2.5%
Real GDP growth volatility	1.5%
Real FX depreciation	0.0%
Real FX volatility	2.0%
Current treasury reserves as % of GDP	6.0%
Current debt/GDP ratio	67.2%
Domestic floating debt as % of total debt	0.0%
Real interest rate on domestic floating-rate debt	0.0%
Real interest rate vol on dom. floating-rate debt	0.0%
Domestic fixed debt as % of total debt	0.0%
Real interest rate on domestic fixed-rate debt	0.0%
Real interest rate vol on dom. fixed-rate debt	0.0%
Foreign debt as % of debt	100.0%
Real interest rate on foreign debt	6.5%
Real interest rate vol on foreign debt	2.8%

Source: DB Global Markets Research

### Bond spreads and prices

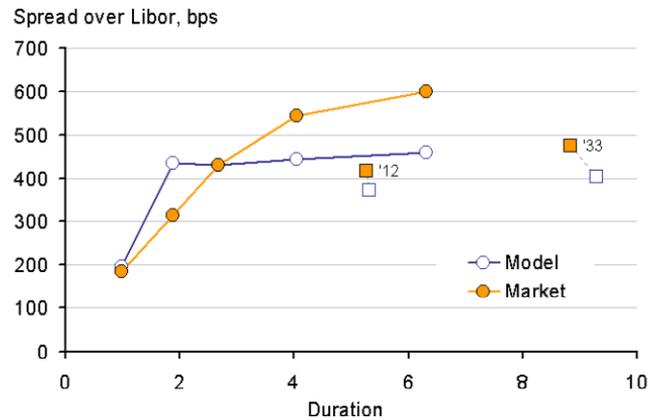
Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
IRB	92.50	89.56	2.94	322	401	-80
PDI	86.50	82.46	4.04	358	433	-75
'08	108.50	102.04	6.46	225	412	-186
'11	110.50	106.41	4.09	345	421	-77
'12	109.25	103.80	5.45	345	436	-90
'20	113.70	110.99	2.71	428	459	-31
'23	102.50	100.08	2.42	416	444	-28
'27	98.00	95.15	2.85	401	433	-32
'34	89.00	87.33	1.67	397	417	-20

Source: DB Global Markets Research

## Peru

- Relative to economic fundamentals the debt appears even cheaper than before.
- The country's main advantages are its large level of reserves (5% of GDP) relative to fiscal needs, stable debt dynamics (supported by a low average interest rate) and low real exchange rate volatility.
- We believe that the market is pricing a significant political risk premium, associated with President Toledo's low popularity and the risks of a government transition. We believe this is only partly justified.
- With the exception of the '08s (which remain very rich thanks to the strong technical bid for them) all of the bonds are at least 2-3 points cheap to the model, with the '33s the cheapest at 5.7 points below the model.

### CDS Curve and selected bonds



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Growth			
	-0.2%	0.8%	1.8%	2.0%	3.0%	4.0%	
<b>CDS</b>							
1Y	185	257	197	121	283	197	82
2Y	315	619	434	249	600	434	250
3Y	430	722	431	217	622	431	246
5Y	545	845	444	205	640	444	269
10Y	600	907	459	201	643	459	314
<b>Bonds</b>							
'12	474	824	431	194	602	431	288
'33	519	760	446	216	583	446	323

Source: DB Global Markets Research

### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	0.8%
Primary surplus volatility	2.0%
Current primary surplus (% of GDP)	0.4%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	3.0%
Real GDP growth volatility	2.0%
Real FX depreciation	0.0%
Real FX volatility	3.0%
Current treasury reserves as % of GDP	5.0%
Current debt/GDP ratio	44.0%
Domestic floating debt as % of total debt	0.0%
Real interest rate on domestic floating-rate debt	5.5%
Real interest rate vol on dom. floating-rate debt	2.0%
Domestic fixed debt as % of total debt	10.0%
Real interest rate on domestic fixed-rate debt	5.5%
Real interest rate vol on dom. fixed-rate debt	2.0%
Foreign debt as % of debt	90.0%
Real interest rate on foreign debt	5.0%
Real interest rate vol on foreign debt	1.5%

Source: DB Global Markets Research

### Bond spreads and prices

Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
PDI	85.30	87.43	-2.13	473	424	50
FLIRB	80.50	83.77	-3.27	502	436	66
'08	108.25	104.74	3.51	310	418	-108
'12	100.50	102.87	-2.37	474	431	43
'15	101.50	104.80	-3.30	501	452	49
'33	85.50	91.23	-5.73	519	446	72

Source: DB Global Markets Research



## Russia

- Russia has fairly positive debt dynamics. Despite the high proportion of foreign currency denominated debt in the total stock, the low debt/GDP ratio provides a buffer against a sharp real depreciation of the currency.
- As the definition of Treasury reserves we are assuming the 1.1% of GDP in the special stabilisation fund, as well as a 20% chance that the government uses CB FX reserves to make external payments if necessary.
- The most striking feature of the model results for Russia is the apparently excessive risk premium priced into the sort end of both the bond and the CDS curve. Admittedly the model indication of a zero spread for 1Y CDS is probably a little unrealistic. But it does give a good indication of the strength of Russia's fiscal position – at least in the short term.
- Additionally, a fairly low level for real domestic rates in the medium term (together with no floating rate domestic debt), adds to the constructive outlook for debt dynamics in Russia.

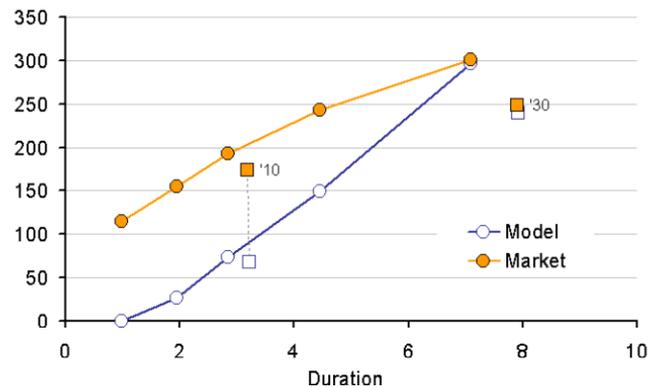
### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	2.0%
Primary surplus volatility	3.2%
Current primary surplus (% of GDP)	3.4%
Speed of mean-reversion of primary surplus	46.2%
Real GDP growth	4.8%
Real GDP growth volatility	3.0%
Real FX depreciation	0.0%
Real FX volatility	5.0%
Current treasury reserves as % of GDP	4.4%
Current debt/GDP ratio	26.0%
Domestic floating debt as % of total debt	0.0%
Real interest rate on domestic floating-rate debt	0.0%
Real interest rate vol on dom. floating-rate debt	0.0%
Domestic fixed debt as % of total debt	18.4%
Real interest rate on domestic fixed-rate debt	2.0%
Real interest rate vol on dom. fixed-rate debt	2.0%
Foreign debt as % of debt	81.6%
Real interest rate on foreign debt	4.0%
Real interest rate vol on foreign debt	1.5%

Source: DB Global Markets Research

### CDS Curve and selected bonds

Spread over Libor, bps



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Growth		
	1.0%	2.0%	3.0%	3.8%	4.8%	5.8%
<b>CDS</b>						
1Y 115	0	0	0	0	0	0
2Y 155	42	27	19	41	27	23
3Y 193	111	74	46	82	74	58
5Y 243	229	149	90	168	149	125
10Y 301	412	297	200	321	297	264
<b>Bonds</b>						
'10 222	176	116	71	130	116	95
'30 307	410	298	204	320	298	267

Source: DB Global Markets Research

### Bond spreads and prices

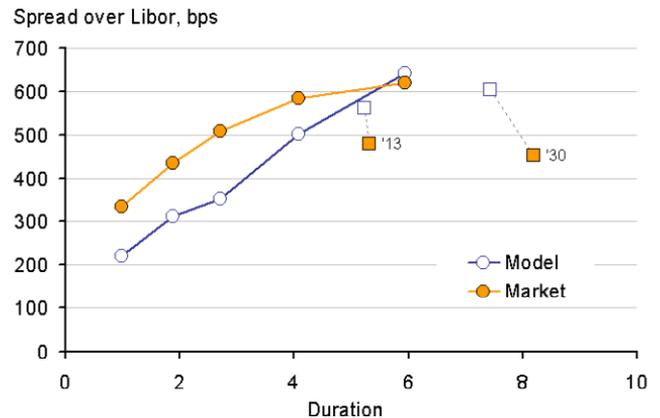
Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
'05	105.80	107.46	-1.66	143	0	143
'07	113.19	117.33	-4.14	205	70	135
'10	108.19	112.00	-3.82	222	116	107
'18	126.25	125.44	0.81	311	319	-8
'28	144.75	142.93	1.82	332	346	-14
'30	91.00	91.67	-0.67	307	298	9

Source: DB Global Markets Research

## Turkey

- Relative to economic fundamentals, the fair valuation picture is mixed in the external debt curve. At the short end of the curve, the debt appears to be cheap, while the long end looks very expensive.
- Fair valuations are sensitive to assumptions about real domestic interest rates due to the high debt/GNP ratio and short duration of domestic debt. These facts make Turkey quite sensitive to external shocks.
- In this regard, the currently high primary surplus (6% of GNP) and its constructive medium term outlook, are acting as important cushions against negative external shocks.
- Our assumption of Treasury reserves implies that, besides the 2% of GNP normally held as cash in the banking sector, we assume a 50% chance that the government uses the \$8.5bn loan facility made available by the US.
- In a context of external financing gaps, which we expect to materialise in 04 and 05, this loan (as well as securing a stand-by agreement with the IMF) is a key factor supporting current fair valuations.

### CDS Curve and selected bonds



Source: DB Global Markets Research

### Sensitivities

Market Level	Primary surplus			Real rate (Dom. Fit)			
	4.0%	5.0%	6.0%	8.0%	10.0%	12.0%	
<b>CDS</b>							
1Y	335	274	221	205	166	221	336
2Y	434	380	312	249	239	312	400
3Y	509	497	353	252	259	353	492
5Y	584	683	500	356	399	500	623
10Y	619	840	642	483	553	642	755
<b>Bonds</b>							
'13	534	798	617	464	527	617	720
'30	503	814	656	502	574	656	748

Source: DB Global Markets Research

### Economic Inputs

Medium-Term Primary Surplus (% of GDP)	5.0%
Primary surplus volatility	1.5%
Current primary surplus (% of GDP)	6.0%
Speed of mean-reversion of primary surplus	69.3%
Real GDP growth	5.0%
Real GDP growth volatility	3.0%
Real FX depreciation	0.0%
Real FX volatility	3.5%
Current treasury reserves as % of GDP	3.5%
Current debt/GDP ratio	82.8%
Domestic floating debt as % of total debt	29.4%
Real interest rate on domestic floating-rate debt	10.0%
Real interest rate vol on dom. floating-rate debt	5.0%
Domestic fixed debt as % of total debt	24.2%
Real interest rate on domestic fixed-rate debt	9.0%
Real interest rate vol on dom. fixed-rate debt	3.0%
Foreign debt as % of debt	46.4%
Real interest rate on foreign debt	5.0%
Real interest rate vol on foreign debt	2.0%

Source: DB Global Markets Research

### Bond spreads and prices

Bond	Price			Spread		
	Market	Model	Δ	Market	Model	Δ
'05	103.50	104.21	-0.71	307	208	99
'06	110.00	112.06	-2.06	398	312	86
'07	106.44	108.22	-1.78	445	385	60
'08/03	104.75	107.89	-3.14	492	398	94
'08/12	111.00	114.31	-3.31	529	446	84
'08/01	106.75	109.84	-3.09	489	393	95
'09	112.63	114.33	-1.71	534	494	40
'10	110.50	110.76	-0.26	543	537	5
'12	109.88	106.39	3.49	540	603	-64
'13	107.25	102.52	4.73	534	617	-82
'14	99.88	92.75	7.13	496	618	-122
'30	116.50	102.94	13.56	503	656	-153
'34	90.00	74.63	15.37	371	576	-205

Source: DB Global Markets Research

## Uruguay

- After having spent a good part of this year on the expensive side of our model, Uruguayan debt is now close to fairly priced.
- We are assuming a medium-term primary surplus of 3.5% (from 3.0% currently) and growth rates of 2.5%.
- The government has been outperforming fiscally compared to the market's expectations. For example, the reached a 3% of GDP primary surplus last year, above our 2.4% projections. This implies that our baseline primary balance scenario seems plausible.
- Debt dynamics imply that the government will need to overshoot the above mentioned 3.5% in order to reduce the high levels of debt.

### CDS Curve and selected bonds



Source: DB Global Markets Research

### Sensitivities



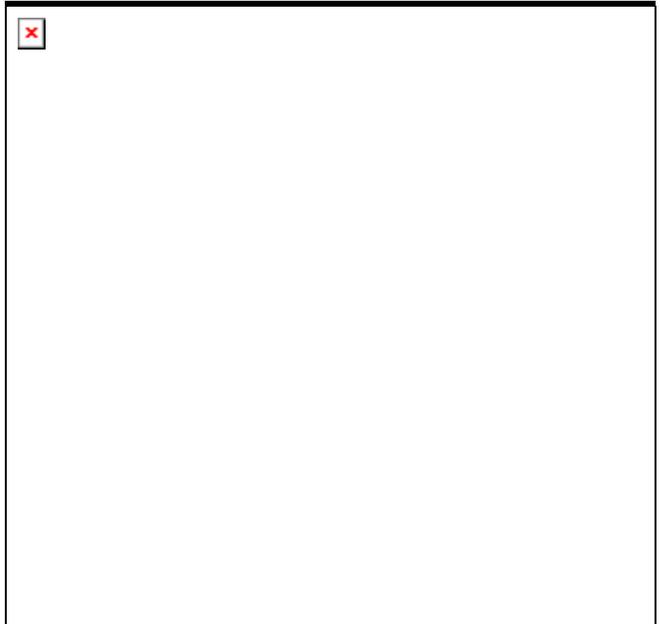
Source: DB Global Markets Research

### Economic Inputs



Source: DB Global Markets Research

### Bond spreads and prices



Source: DB Global Markets Research

## Venezuela

- Debt is now fairly priced according to our model.
- We are assuming a medium-term primary balance of 1% and a growth rate of 2%. Thus, we implicitly assume in our baseline that political uncertainty will continue affecting economic performance.
- The main weakness continues to be extreme volatility of real variables due to the economy's heavy oil dependency.

### CDS Curve and selected bonds



Source: DB Global Markets Research

### Sensitivities



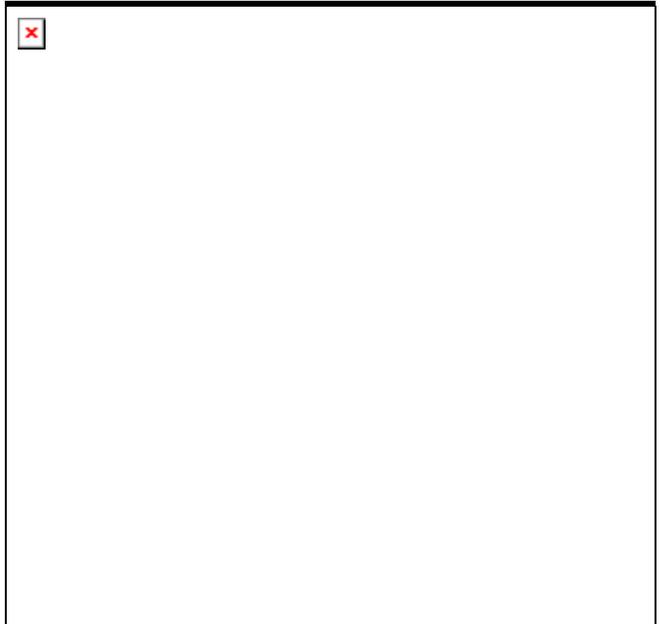
Source: DB Global Markets Research

### Economic Inputs



Source: DB Global Markets Research

### Bond spreads and prices



Source: DB Global Markets Research



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