Appendix Table A. Data Definitions and Sources

Variable	(billions)	Periodicity	Source	Series
Total external debt (EDT)	US$	annual	WEO	D
Gross national product (GNP, current prices)	US$	annual	WEO	NGDPD
Gross domestic product (GDPNC, current prices)	National	annual	WEO	NGDP
Gross domestic product (GDP90, 1990 prices)	National	annual	WEO	NGDP_R
Total debt service (TDS)	US$	annual	WEO	DS
Exports (XGS)	US$	annual	WEO	BX
Exports (X)	US$	monthly	IFS	M#c|70__dzf
Reserves (RESIMF)	US$	quarterly	IFS	q#c|_1l_dzf
Imports (IMP)	US$	quarterly	IFS	q#c|71__dzf
Domestic bank credit (CLM_PVT)[1]	National	quarterly	IFS	q#c|32d__zf
Short-term bank debt (BISSHT)[2]	US$	semi-annual	BIS	
Total bank debt (BISTOT)[3]	US$	semi-annual	BIS	
Credit rating (CRTG)	Scale	semi-annual	Institutional Investor	
Debt rescheduling (DRES)	Indicator	annual	WDT/GDF	
Inflation rate	Percent per quarter	quarterly	IFS	

[1] Credit to the private sector.

[2] Cross-border bank claims in all currencies and local claims in non-local currencies of maturity up to and including one year.

[3]Total consolidated cross-border claims in all currencies and local claims in non-local currencies.

Appendix Table B. Determinants of Credit Rating

Variable	Full sample	Before Mexico	Mexico -Asia	After Asia
Debt rescheduling	-8.63	-5.26	-11.51	-5.71
	(-12.69)	(-5.42)	(-9.84)	(-3.59)
Reserves/GDP	6.19	3.57	10.15	14.06
	(24.44)	(11.43)	(17.94)	(22.9)
Debt/GNP	-18.1	-23.00	-12.29	-4.76
	(-29.62)	(-26.92)	(-11.32)	(-3.04)
GDP Growth	166.3	119.31	542.4	81.91
	(15.09)	(9.16)	(15.33)	(2.59)
Standard Deviation of Export	-32.4	-23.3	-47.33	-34.37
Growth	(-28.94)	(-15.6)	(-22.38)	(-11.62)
Latin America	-10.8	-12.5	-6.32	-2.80
	(-11.53)	(-8.98)	(-3.90)	(-1.27)
Latin American interactions with:				
Debt rescheduling	17.2	20.44	9.57	5.75
	(11.1)	(8.98)	(3.15)	(1.89)
Reserves/GDP	4.05	1.97	8.54	2.32
	(4.29)	(1.51)	(5.07)	(0.88)
Debt/GNP	-2.00	4.63	-2.08	-13.56
	(-1.23)	(2.14)	(-0.66)	(-3.15)
GDP Growth	-241.7	-316.59	-553.9	262.06
	(-6.31)	(-5.21)	(-8.73)	(2.81)
Standard Deviation of Export	0.30	-17.65	15.87	10.15
Growth	(0.11)	(-4.09)	(3.18)	(1.91)
Constant	50.75	51.48	45.58	41.19
	(132.2)	(95.57)	(57.98)	(42.50)
Adjusted R-squared	0.44	0.47	0.51	0.38
Number of observations	7553	3003	2528	1770

Table 1. Descriptive statistics for issuers (is=1) and non-issuers (is=0)

Variable	Before Mexico		Mexico--Asia		Asia–Russia		After Russia	
	is=1	is=0	is=1	is=0	is=1	is=0	is=1	is=0
Number of issues per quarter	59	213.8	111.9	198	89.6	198.8	63	205.3
Spread (basis point)	296		227		287		408	
Amount (mil. US$)	130		184		244		275	
Maturity (years)	5.1		6.8		7.9		7.04	
Share of issues privately placed	.34		.34		.48		.84	
Credit rating	43.8	31.7	51.2	34.6	46.5	38.3	44.7	38.2
Credit rating residual	3.9	-4.3	7.4	-3.7	5.9	-1.05	6.7	-0.9
Debt/GNP	0.32	0.49	0.31	0.48	0.37	0.49	0.43	0.48
Share of issuers that had debt rescheduling in previous year	0.53	0.34	0.38	0.40	0.48	0.38	0.57	0.39
Debt service/export	0.34	0.19	0.27	0.18	0.33	0.19	0.34	0.19
GDP growth	0.012	0.002	0.012	0.009	0.009	0.007	0.005	0.007
Reserves/GNP	0.35	0.55	0.49	0.49	0.44	0.57	0.48	0.54
Reserves/short-term debt	1.06	3.37	1.53	6.9	1.47	3.25	1.47	3.52
Domestic credit/GDP	29.6	5.4	110.7	21.1	389.6	53.6	510.4	99.9
U.S. 10-year treasury rate	6.56	6.91	6.49	6.48	5.84	5.69	5.28	5.05
U.S. (10-year - 1 year) treasury rate (percentage points)	2.37	2.42	0.82	0.79	0.46	0.37	0.42	0.47
Inflation rate (percent per year)	273	178	15	108	13	17	10	14
Share of private issuers	0.56	0.33	0.59	0.32	0.57	0.32	0.43	0.34
Share of public issuers	0.27	0.33	0.22	0.34	0.19	0.35	0.19	0.34
Share of sovereign issuers	0.16	0.34	0.19	0.34	0.25	0.33	0.38	0.32

Table 2. Determinants of issue probability

Variable	Full sample	Before Mexico	Mexico -Asia	After Asia
Log of 10 years US. Treasury Rate	0.097	**-0.37**	-0.026	**2.25**
	(1.25)	**(-4.66)**	(-0.11)	**(5.33)**
Log of (10 year - 1 year) Treasury Rate	**-0.086**	**-0.16**	0.095	-0.06
	(-6.81)	**(-3.96)**	(1.40)	(-1.21)
Credit rating residual	**0.012**	**0.011**	**0.010**	**0.007**
	(13.34)	**(8.22)**	**(6.84)**	**(4.15)**
Debt/GNP	**-0.39**	**-0.41**	**-0.32**	0.20
	(-7.93)	**(-5.89)**	**(-2.87)**	(1.77)
Debt Service/Export	**0.89**	**1.37**	**0.88**	**0.45**
	(9.78)	**(10.4)**	**(4.45)**	**(2.18)**
Debt rescheduled in Previous Year	0.044	**-0.09**	0.12	0.16
	(1.28)	**(-2.22)**	(1.91)	(1.55)
GDP Growth	**5.2**	0.24	**12.59**	**14.62**
	(8.49)	(0.28)	**(6.28)**	**(7.04)**
Standard Deviation of Export growth	**-1.12**	**-0.90**	**-1.71**	**-0.30**
	(-10.8)	**(-6.06)**	**(-7.94)**	**(-1.49)**
Reserves/Short Term Debt	**-0.014**	**-0.02**	**-0.02**	**-0.06**
	(-3.52)	**(-2.42)**	**(-3.12)**	**(-5.15)**
Reserves/Import	**-0.041**	**-0.09**	0.016	**0.06**
	(-4.01)	**(-5.17)**	(0.74)	**(3.87)**
Domestic credit/GDP	0.009	**0.05**	0.018	-0.0045
	(1.09)	**(4.74)**	(1.16)	(-0.22)
Dummies for:				
Public Borrower	0.002	0.014	0.061	**-0.096**
	(0.13)	(0.62)	(1.59)	**(-2.28)**
Private Borrower	**0.13**	0.02	**0.24**	0.04
	(6.79)	(0.93)	**(6.84)**	(0.99)
Latin America	**0.91**	0.27	0.80	**0.998**
	(4.46)	(0.81)	(1.07)	**(3.23)**
East Asia and Pacific	**0.17**	**0.25**	**0.25**	**0.13**
	(6.83)	**(5.90)**	**(5.12)**	**(1.91)**
Eastern Europe and Central Asia				**0.40**
				(7.46)
Thailand, Indonesia, Malaysia, Korea				**0.23**
				(2.98)
Period after Russian Crisis				**0.17**
				(2.83)
Latin America interactions with:				
Log of 10 years US. Treasury Rate	**-0.35**	-0.04	-0.45	-0.81
	(-2.57)	(-0.31)	(-0.94)	(-1.80)
Log of (10 year - 1 year) Treasury Rate	**0.18**	**0.24**	-0.086	-0.037
	(8.05)	**(3.48)**	(-0.60)	(-0.60)
Debt/GNP	**-0.72**	-0.05	**-0.77**	**-2.23**
	(-7.66)	(-0.50)	**(-3.09)**	**(-7.07)**
Debt Service/Export	-0.13	**-1.15**	**0.72**	**0.65**
	(-1.12)	**(-6.61)**	**(2.35)**	**(2.53)**
GDP Growth	**-7.86**	**-4.76**	**-13.03**	**-11.32**
	(-4.49)	**(-2.38)**	**(-3.48)**	**(-1.96)**
Standard Deviation of Export growth	**-0.36**	-0.15	0.31	**-0.85**
	(-2.13)	(-0.63)	(0.78)	**(-2.70)**
Reserves/Short Term Debt	**-0.70**	**-0.12**	**-0.15**	-0.0026
	(-4.08)	**(-5.22)**	**(-3.02)**	(-0.06)
Reserves/Imports	**0.08**	**0.20**	**0.16**	**-0.079**
	(6.63)	**(8.94)**	**(3.88)**	**(-3.72)**
Domestic credit/GDP	**-0.04**	**-0.10**	-0.047	0.0006
	(-2.01)	**(-4.01)**	(-0.81)	(0.01)
Public sector issue	**-0.11**	0.08	**-0.25**	**-0.23**
	(-3.29)	(1.72)	**(-3.83)**	**(-3.35)**
Private issue	**0.12**	**0.31**	-0.032	0.041
	(3.36)	**(5.84)**	(-0.46)	(0.57)
Debt rescheduled in Previous Year	-0.04	**0.17**	**-0.21**	-0.07
	(-0.83)	**(2.56)**	**(-2.51)**	(-0.47)
Credit rating residual	**0.014**	0.005	**0.016**	**0.02**
	(6.95)	(1.88)	**(3.81)**	**(5.05)**
Observed probability	.38	.31	.45	.37
Predicted probability	.30	.13	.38	.33
Number of observations	7078	2759	2471	1614
Log Likelihood	-2949	-854	-952.7	-675

Note: The coefficients presented are marginal effects, for the dummies - the effects of change from 0 to 1,
z is the test of underlying coefficient being equal to 0. Shaded coefficients are significant at 10% confidence level, shaded bold face coefficients are significant at 5% confidence level.

Table 3. Determinants of the maturity of bond issues

Variable	Full sample	Before Mexico	Mexico -Asia	After Asia
Log Amount	**0.18** **(12.17)**	**0.19** **(9.30)**	**0.10** **(4.09)**	**0.20** **(6.22)**
Private placement	**0.07** **(2.72)**	**0.10** **(2.82)**	**0.095** **(2.28)**	0.04 (0.83)
Guarantee	0.025 (0.86)	**0.10** **(2.36)**	**0.14** **(2.87)**	**-0.19** **(-2.26)**
Log Inflation rate	0.0044 (0.41)	0.0028 (0.25)	**-0.29** **(-4.89)**	0.052 (0.83)
Log Inflation rate squared	-.0001 (-0.078)	-0.011 (-1.93)	**-0.04** **(-4.94)**	0.0017 (0.19)
Credit rating	**0.073** **(11.0)**	**0.046** **(4.82)**	**0.05** **(4.56)**	**0.10** **(4.92)**
Credit rating squared	**-0.00057** **(-8.49)**	**-0.0004** **(-3.89)**	**-0.0005** **(-4.26)**	**-0.0008** **(-3.74)**
Log of 10 years US. Treasury Rate	0.041 (0.33)	-0.19 (-1.30)	-0.47 (-1.19)	-0.56 (-0.83)
Log of (10 year - 1 year) Treasury Rate	-0.012 (-0.62)	**-0.23** **(-2.87)**	**0.31** **(3.52)**	0.14 (1.74)
Dummies for:				
Latin America	0.084 (1.67)	**-0.29** **(-3.70)**	-0.13 (-1.42)	**0.42** **(3.37)**
East Asia and Pacific	**0.12** **(2.29)**	0.10 (1.16)	0.096 (1.15)	-0.19 (-1.34)
Eastern Europe and Central Asia	-	-	-	0.09 (0.77)
Thailand, Indonesia, Malaysia, Korea	-	-	-	0.20 (1.44)
Period after Russian Crisis	-	-	-	**-0.28** **(-2.68)**
Constant	**-1.89** **(-6.21)**	-0.03 (-0.08)	0.22 (0.26)	-1.65 (-1.19)
Inverse Mills Ratio	**0.28** **(7.03)**	0.034 (0.66)	-0.014 (-0.17)	**0.53** **(8.85)**
Number of bonds	2573	850	1079	542
Log likelihood	-5079	-1366	-1898	-1130

Note: shaded coefficients are significant at 10% confidence level, shaded bold face coefficients are significant at 5% confidence level. Dummies for currencies, industrial sectors and private and public borrowers, supranational institutions are included in the regressions, but not reported here.

Table 4. Determinants of spreads for low credit rating borrowers

Variable	Full sample	Before Mexico	Mexico -Asia	After Asia
Amount	**0.11**	-0.0019	0.05	0.099
	(3.85)	(-0.03)	(1.56)	(1.72)
Predicted maturity	**-0.71**	-0.34	**-0.62**	-0.43
	(-5.35)	(-0.98)	**(-4.08)**	(-1.84)
Private placement	**0.073**	0.059	**0.11**	0.064
	(2.75)	(1.13)	**(2.40)**	(1.50)
Guarantee	**0.16**	-0.02	**0.19**	**0.37**
	(5.04)	(-0.29)	**(2.91)**	**(4.45)**
Log of 10 years US Treasury Rate	**-0.33**	0.24	0.25	**-1.59**
	(-2.23)	(1.15)	(0.47)	**(-2.80)**
Log of (10 year - 1 year) Treasury Rate	**-0.05**	0.0085	-0.14	**0.15**
	(-2.39)	(0.07)	(-1.07)	**(2.11)**
Credit rating residual	**-0.02**	**-0.03**	**-0.026**	**-0.025**
	(-5.83)	**(-4.22)**	**(-5.29)**	**(-2.60)**
Debt/GNP	**1.14**	**1.16**	**0.71**	**0.59**
	(9.29)	**(5.39)**	**(3.74)**	**(2.19)**
Debt rescheduled in previous year	-0.05	0.069	0.0079	-0.11
	(-1.03)	(1.15)	(0.11)	(-1.06)
GDP Growth	**4.92**	3.67	1.02	-1.06
	(2.17)	(1.27)	(0.29)	(-0.21)
Standard deviation of export growth	**1.23**	**1.97**	0.20	**0.94**
	(4.99)	**(4.36)**	(0.45)	**(2.90)**
Reserves/short term debt	**-0.05**	0.049	**-0.095**	-0.0059
	(-3.76)	(1.24)	**(-4.55)**	(-0.24)
Domestic credit/GDP	**-0.055**	0.0006	-0.064	**-0.11**
	(-2.21)	(0.018)	(-1.14)	**(-2.34)**
Dummies for:				
Latin America	**-0.22**	**-0.40**	-0.03	**-0.27**
	(-5.11)	**(-3.04)**	(-0.41)	**(-2.30)**
East Asia and Pacific	**-0.35**	**-0.77**	**-0.36**	-0.31
	(-4.65)	**(-5.77)**	**(-2.91)**	(-1.67)
Eastern Europe and Central Asia	-	-	-	-0.14
				(-1.35)
Thailand, Indonesia, Malaysia and Korea	-	-	-	0.28
				(1.65)
Period after Russian crisis	-	-	-	0.018
				(0.17)
Constant	**6.15**	**5.19**	**5.43**	**8.00**
	(20.14)	**(9.27)**	**(5.36)**	**(7.43)**
Inverse Mills Ratio	**-0.55**	**-0.53**	**-0.42**	**-0.46**
	(21.96)	**(-14.55)**	**(-8.53)**	**(-9.12)**
Number of bonds	1523	496	575	393
Log Likelihood	-2945	-830	-984	-673

Note: shaded coefficients are significant at 10% confidence level, shaded bold face coefficients are significant at 5% confidence level. Dummies for currencies, industrial sectors and private and public borrowers, supranational institutions are included in the regressions, but not reported here.

Table 5. Determinants of spreads for high credit rating borrowers

Variable	Full sample	Before Mexico	Mexico -Asia	After Asia
Amount	0.15 (0.47)	-0.40 (-1.17)	**-0.43** **(-2.19)**	0.065 (0.32)
Predicted maturity	-1.13 (-0.35)	2.55 (1.42)	2.54 (1.48)	-0.57 (-0.66)
Private placement	0.22 (1.47)	-0.36 (-1.55)	-0.06 (-0.32)	-0.004 (-0.04)
Guarantee	0.11 (1.00)	-0.24 (-1.02)	**-0.37** **(-1.51)**	**0.26** **(1.37)**
Log of 10 years US Treasury Rate	-0.35 (-1.05)	-0.18 (-0.31)	1.10 (1.07)	2.64 (0.91)
Log of (10 year - 1 year) Treasury Rate	**-0.15** **(-2.21)**	0.19 (0.40)	-0.83 (-1.46)	-0.54 (-1.59)
Credit rating residual	**-0.058** **(-3.34)**	-0.0096 (-0.30)	-0.02 (-1.40)	-0.06 (-1.88)
Debt/GDP	**0.97** **(3.96)**	**1.14** **(2.01)**	-0.62 (-1.08)	**-3.273** **(-2.80)**
GDP Growth	-17.47 (-0.98)	-3.19 (-0.16)	**-94.14** **(-2.99)**	**-47.18** **(-2.51)**
Standard deviation of export growth	**4.44** **(4.44)**	**5.14** **(2.58)**	**4.54** **(2.13)**	-0.17 (-0.06)
Reserves/short term debt	0.17 (0.42)	-0.32 (-1.81)	**0.18** **(4.37)**	-0.057 (-0.48)
Domestic credit/GDP	-0.28 (-0.59)	-0.03 (-0.38)	-0.12 (-1.30)	-0.36 (-1.47)
Dummies for:				
Latin America	0.31 (0.90)	-	0.47 (1.12)	-
East Asia & Pacific	**0.70** **(2.71)**	-	0.22 (0.50)	-
Eastern Europe and Central Asia		-	-	**-1.08** **(-2.30)**
Thailand, Indonesia, Malayisa and Korea		-	-	0.49 (1.52)
Period after Russian Crisis		-	-	0.69 (1.32)
Constant	**5.12** **(5.39)**	1.62 (0.80)	0.82 (0.24)	3.27 (0.58)
Inverse Mills Ratio	0.13 (1.59)	**0.24** **(2.04)**	**-0.47** **(-4.76)**	-0.14 (-0.88)
Number of bonds	719	169	417	95
Log Likelihood	-1297	-276	-631	-133

Note: shaded coefficients are significant at 10% confidence level, shaded bold face coefficients are significant at 5% confidence level. Dummies for currencies, industrial sectors and private and public borrowers, supranational institutions are included in the regressions, but not reported here.

Table 6. Effects of crises on the issuance probability (%, actual - predicted) by region

	Mexican crisis			Asian crisis		Russian crisis	
	1995	1996	1997	1997	1998	1998	1999
Eastern Europe and Central Asia	-2.4	5.7	15.5	13.0	18.5	-9.8	-19.9
Middle East	-15.3	-9.8	-0.8	-0.9	-4.3	-5.5	-11.1
East Asia and Pacific	-21.0	-4.8	-5.6	-4.4	-16.1	-4.1	-14.9
Carribean		0.4	-2.3	-5.6	-5.5		
Latin America	2.0	6.1	9.6	-6.4	11.6	-10.9	7.2
South Asia	-20.4	-11.4	-3.2	-7.4	-17.8		
Africa	-16.0	-17.7	-28.3	-16.8	-14.0		-13.6

Table 7. Effects of crises on the maturity (years, actual - predicted) by region

	Mexican crisis			Asian crisis		Russian crisis	
	1995	1996	1997	1997	1998	1998	1999
Eastern Europe and Central Asia	0.58	-1.32	-1.13	1.10	-0.34	3.53	1.50
Middle East	-3.18	-1.55	-3.24	4.17	0.84	1.35	-0.64
East Asia and Pacific	-1.13	0.38	0.84	0.37	1.80	6.25	1.81
Carribean		1.14	0.66	0.40	4.90		
Latin America	-1.89	1.12	4.42	4.06	3.68	1.80	-1.18
South Asia	-0.83	7.37	12.21	3.44	7.57		
Africa	0.21	0.15	2.47	-4.07	24.07		5.41

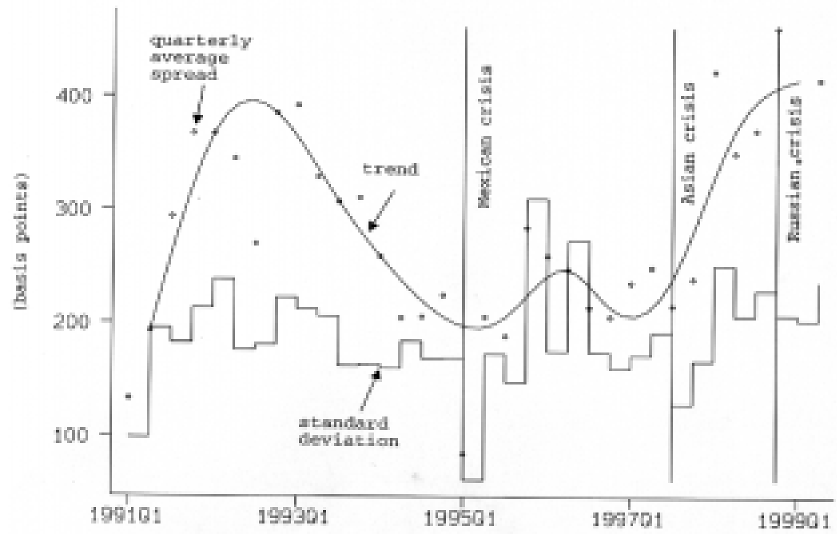
Table 8. Effects of crises on spreads (basis points, actual - predicted) by region for low rated borrowers

	Mexican crisis			Asian crisis		Russian crisis	
	1995	1996	1997	1997	1998	1998	1999
Eastern Europe and Central Asia	-598.16	-520.39	-524.52	-195.40	-132.13	-183.65	-76.74
Middle East	-188.32	-226.02	-194.91	-186.15	-504.06	126.55	-10.96
East Asia and Pacific	-48.32	-79.81	-101.87	-1.80	-34.98	-1165.46	-315.77
Carribean		-789.39	-652.21	-314.05	-300.49		
Latin America	111.13	38.42	-18.68	-96.27	-166.93	-42.35	92.13
South Asia	-326.79	-338.32	-269.58	-130.68	-105.37		
Africa	-233.13	-244.38	-252.07				178.42

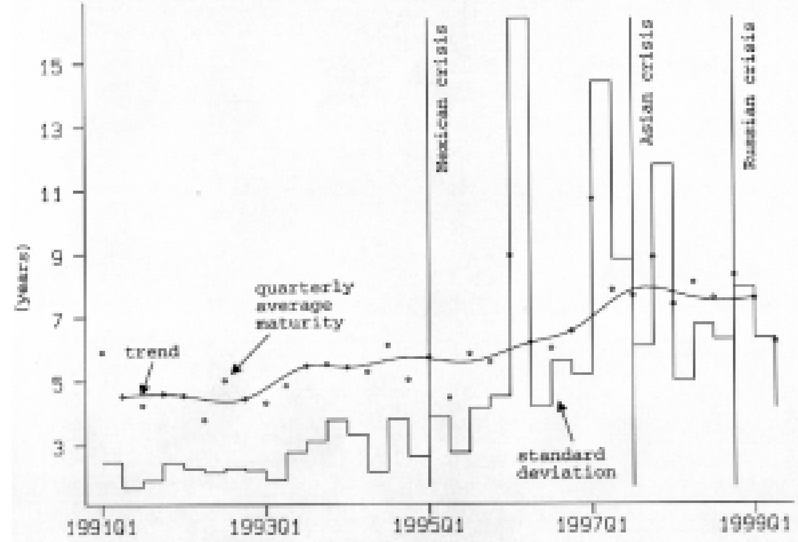
Table 9. Effects of crises on spreads (basis points, actual - predicted) by region for high rated borrowers

	Mexican crisis			Asian crisis		Russian crisis	
	1995	1996	1997	1997	1998	1998	1999
Eastern Europe and Central Asia		19.7	-20.5	-0.39	13.2	-53.6	74.59
East Asia and Pacific	-8.29	5.25	42.5	39.7	16.9		-110.1
Latin America	57.33	48.9	73.5	-86.2	-35.1		-21.2

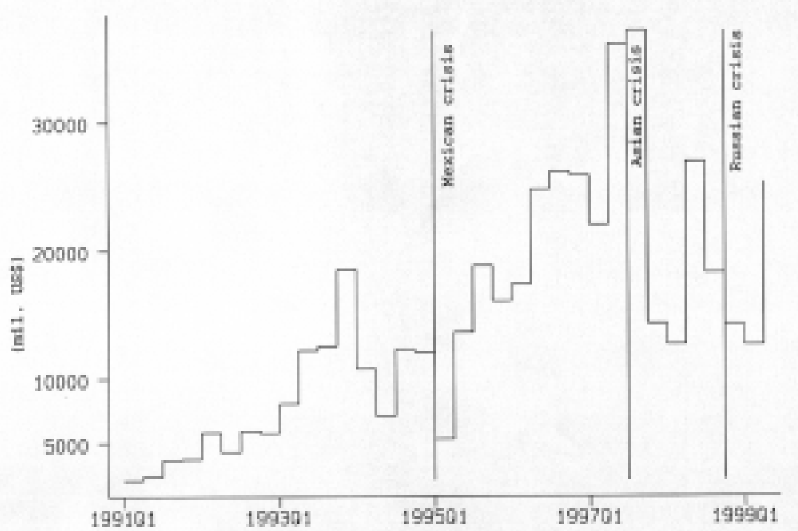
Figure 1



Spread

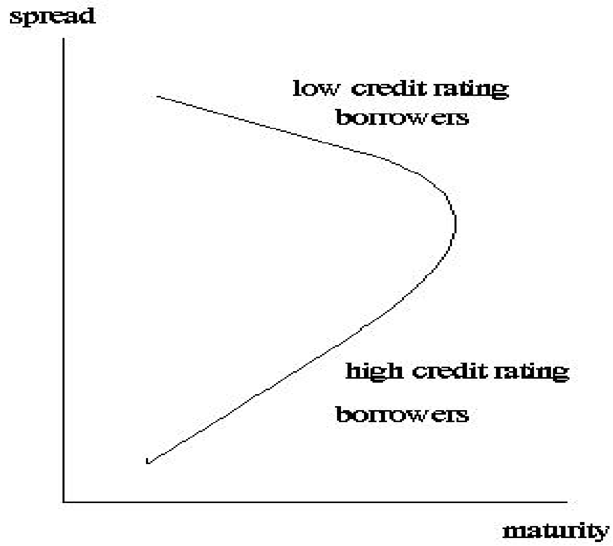


Maturity



Quarterly total volume of bond issues

Figure 2


spread
low credit rating
borrowers
high credit rating
borrowers
maturity