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Global Fixed Income  
Research Team

# Size & Structure of the World Bond Market: 2002

*Governments, Corporates, Eurobonds, Emerging Markets*

Global

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## Special Features

Ratings Transitions  
IL Bonds  
EU Savings Directive  
Emerging Markets  
Indexing the Global Bond Market  
S&S Methodology

## Tables and Charts Included

World Bond Market Growth by Country and Sector

Special thanks to Alix Van Der Kemp, whose efforts made this publication possible.

## Highlights

- The size of the world bond market at the end of 2001 was US\$33 trillion, up 5% from one year earlier.
- In spite of widening fiscal deficits, the share of central governments' bonds in the world bond market continued to fall to 30%, a 12-year low. The decline of government bonds has been chiefly an English-speaking and Scandinavian countries phenomenon. Both in Japan and Euroland, government markets continue to grow.
- Agencies were the fastest growing market in 2001 (13.6%), reflecting the strength of the housing market in many countries. Eurobonds ranked second (9.5%) as a result of the increasing popularity of this format.
- The rating quality of the corporate sector continued to fall. Bond downgrades in 2001 rose 18% from 13% in 2000, resulting in a ratio of three downgrades for every upgrade, double the ratio for 2000. BBB-rated bonds now account for 27% of the major corporate markets.
- The emerging markets tradable debt universe continued to expand in 2001 to US\$1.6 trillion, 8% up over the previous year.

## The Changing Composition of the World Bond Market: A Comparison by Sector (In US\$ Terms, 1995-2001, Data Represents Percentage Share of the World Bond Market)

	2001	2000	1999	1998	1997	1996	1995
Central Government	30.1	32.9	36.0	37.4	38.8	41.3	41.4
Quasi-Government	6.1	5.8	5.8	6.3	6.2	6.2	6.9
Agency	17.0	15.7	14.6	13.7	13.8	12.8	13.2
Corporate	29.7	29.0	28.9	27.6	26.9	26.9	27.1
Foreign	2.6	2.7	2.5	2.9	2.9	2.7	2.6
Eurobond	14.5	13.9	12.2	12.1	11.4	10.1	8.8

Note: To illustrate important themes, we have broken down the Government sector into its component parts. Due to rounding, percentages may not add up to 100.

## Executive Summary

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### Special Focus

#### ■ Ratings Transitions in 2001

Higher number of downgrades (18% in 2001 vs. 13% in 2000), especially in the global industrial sector. BBB-rated securities now account for 27% of the major global corporate markets.

#### ■ Inflation-Linked Bonds – A Growing Global Market

The U.K. started the market in 1981 and IL Gilts are now 20% of U.K. government debt.

In the last five years, there has been an explosion in growth thanks to the U.S. (biggest IL market with US\$12bn issuance per year) and France (IL market is developing the most with a 10% of government debt).

#### ■ Proposed EU Savings Tax Directive – Update

Why did the French Treasury tap every French government bond outstanding by 1 euro on 1 March 2002? And why did the U.K. government tap all Gilts by £0.25m-£30m each on the same day?

#### ■ Emerging Markets

Emerging tradable debt now stands at US\$1.6 trillion. Domestic debt grew while external, especially corporate, declined quite a bit at -2%.

Latin America (47%) dominates with Asia (31%) the emerging market tradable debt, and will go on doing so in the near future.

Eurobonds have taken over a bigger than ever part of the Brady market, with Brady bonds representing less than 25% of sovereign external tradable debt. They could drop to 15% by the end of 2002.

#### ■ Indexing the World Bond Market

Despite having considerably more restrictive qualification criteria than the *Size & Structure of the World Bond Market* universe, the total coverage of all Merrill Lynch indices is over 47% of the whole. The large cap indices cover 86% of the market value of the global broad index with only 30% of the issues!

### Methodology

We explain at large all the methodological subtleties underlying our data in an improved methodological section. We discuss in detail the differences between the BIS, the ECB and ourselves. A practical glossary is included.

### Country Markets

#### ■ U.S.

Agencies were the fastest growing sector of the U.S. fixed-income market in 2001. The mortgage market has also experienced strong growth thanks to a refinancing boom and rising home values.

The corporate issuance had a record year in 2001, which is expected to slow in 2002.

The steady growth of the asset-backed securities market in the past few years and the foreseeable future is due to the fact that it is seen as a relatively safe investment.

#### ■ Japan

Strong growth in the government market. Ratings have been downgraded because of worsened deflation and high debt burden. The government is promoting individual ownership of JGBs while corporate bonds are declining.

#### ■ Euroland

Wider fiscal deficits and strong corporate supply were the main drivers of market growth in 2001. The quasi-government and Agencies market grew strongly, while the Pfandbrief market shrank slightly.

In Italy, France and Spain, the corporate bond market grew quite substantially; whereas, in Germany, Belgium, and Greece the government market grew the most.

#### ■ U.K.

The U.K.'s non-Gilt market increased sizably in 2001, as demand shifted away from the Gilt market driven by regulatory factors.

#### ■ Northern Europe & Switzerland

In Scandinavia, continued budget surpluses drive the decline of their government bond markets. Corporate markets tend to continue growing.

The Swiss bond market declined as growth in the government sector is outpaced by a decline of the corporate sector.

#### ■ Canada, Australia & New Zealand

Corporate debt markets grew strongly. The government debt market continues to decline, offset partially in Canada by the Provinces' borrowing.

#### ■ Asia

Expansive fiscal policies drive government debt markets' growth.

#### ■ Latin America

Very mixed picture with devaluation and default in Argentina, quality improvement for Mexico and strong market growth in Brazil.

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## Size & Structure of the World Bond Market: Overview

### The Aggregate Picture

The global bond market in US\$ terms grew 5.2% in 2001, up from 4.2% in 2000. Four main features characterise this accelerated growth. All are continuations of significant trends:

- **In spite of widening fiscal deficits, the global central government bond market continued to decline** both in absolute and in relative terms. Absolute growth was negative (-3.0%). The decline in relative terms was less pronounced than in previous years but still substantial (-1.8 percent points). This decline is likely to decelerate further in 2002, as net financing needs of many governments are likely to continue increasing.
- **Agencies were the fastest growing market (13.6%)**, increasing its relative weight in the global bond market to 17%. In 2002, Agencies are likely to continue gaining market share, especially if the housing market continues its current strong performance.
- **Growth in the corporate bond market was strong, especially in the Eurobond market (9.5%)**. In 2001 the broad corporate market share (corporate plus foreign and Eurobonds) had increased to 47% of the global bond market up from 39% in 1995. Growth of the corporate market in 2002 is likely to decelerate relative to last year, as some sectors have already reached substantial leverage thresholds. Moreover, interest rates are likely to rise, thus configuring a less favourable environment for bond issuance.

**Table 1: Size & Structure of the World Bond Market in 2001**  
(Nominal Value in Billions of U.S. Dollars)

Country	Total Outstand.	% World Bond Mkt	Government		Corporate		Foreign		Eurobond	
			US\$ bn	% of Gov	US\$ bn	% of Corp.	US\$ bn	% of For.	US\$ bn	% of Eurob.
United States	17090.9	51.9	8588.8	48.2	5174.9	53.1	486.8	59.5	2840.4	61.7
Euroland	6466.9	19.7	3127.1	17.6	2690.0	27.7	0.0	0.0	649.8	14.1
Japan	5305.2	16.1	3938.7	22.1	854.6	8.8	61.0	7.5	450.9	9.8
United Kingdom	1081.6	3.3	390.9	2.2	55.6	0.6	145.1	17.7	490.0	10.6
Canada	514.4	1.6	356.0	2.0	111.0	1.1	0.4	0.0	47.1	1.0
Switzerland	261.6	0.8	49.6	0.3	82.1	0.8	110.4	13.5	19.5	0.4
Denmark	252.3	0.8	67.9	0.4	175.5	1.8	0.0	0.0	8.9	0.2
Australia	182.7	0.6	57.2	0.3	86.2	0.9	9.9	1.2	29.4	0.6
Sweden	128.6	0.4	60.2	0.3	60.7	0.6	3.9	0.5	3.8	0.1
Norway	47.7	0.1	20.5	0.1	22.2	0.2	0.5	0.1	4.6	0.1
New Zealand	16.6	0.1	10.7	0.1	0.0	0.0	0.0	0	5.9	0.1
<b>Sub-Total</b>	<b>31348.5</b>	<b>95.4</b>	<b>16667.6</b>	<b>93.6</b>	<b>9312.8</b>	<b>95.6</b>	<b>817.5</b>	<b>100.0</b>	<b>4550.3</b>	<b>98.8</b>
<i>Emerging/Converging Markets</i>										
Asia	1000.7	2.8	538.8	3.0	419.0	4.4	na	na	42.9	0.9
Latin America	391.6	1.2	389.1	2.2	na	na	na	na	2.5	0.1
Eastern Europe, Middle East, Africa	231.3	0.6	220.1	1.3	na	na	na	na	11.2	0.2
<b>Total</b>	<b>32972.1</b>	<b>100.0</b>	<b>17815.6</b>	<b>100.0</b>	<b>9731.8</b>	<b>100.0</b>	<b>817.5</b>	<b>100.0</b>	<b>4606.9</b>	<b>100.0</b>

All data in this publication is for calendar year-end. Data is from national sources for Government, Corporate and Foreign markets. Eurobond data is from the BIS. For Euroland, we use ECB data for all sectors. For a complete discussion of methodology and sources, see Methodology article. In this table, the Government sector includes bonds issued by the central government, quasi-government, and agencies. In the U.S., agency debt is included in the government category. In Euroland, Pfandbriefe are included in the corporate category because the underlying loans remain on the balance sheet of issuing banks.

For a complete listing of countries included in the emerging and converging markets, see Table: "Emerging Markets Tradable Debt Universe". In some of these emerging/converging markets, complete data on local currency bonds outstanding, especially for the corporate sector, is not made available.

- **The rating quality of the corporate sector continued to fall.** According to the Merrill Lynch Global Corporate and Global High Yield indices, bond downgrades in 2001 rose to 18% from 13% in 2000, resulting in a ratio of three downgrades for every upgrade, double the ratio for 2000 (see the Special Focus on page 8).

**Table 2: Annual Growth in the World Bond Market (In US\$ terms, % Chg., 1996-2001)**

	2001	2000	1999	1998	1997	1996
Central Government	-3.0	-4.9	1.9	9.2	-4.6	5.1
Quasi-Government	5.9	2.2	-0.7	13.7	2.7	-0.6
Agency	13.6	8.8	20.6	15.6	6.7	8.3
Corporate	7.7	4.6	11.7	16.3	1.2	4.7
Foreign	0.3	14.4	-7.2	11.4	7.4	13.5
Eurobond	9.5	19.4	11.1	15.6	15.1	21.1
<b>Total</b>	<b>5.2</b>	<b>4.2</b>	<b>6.4</b>	<b>13.4</b>	<b>1.4</b>	<b>5.4</b>

Note: To illustrate important themes, we have broken down the Government sector into its component parts.

Source: Statistics compiled by Merrill Lynch from various national sources.

**Table 3: The Changing Composition of the World Bond Market: A Comparison by Sector**

(In US\$ terms, 1995-2001, Data Represents Percentage Share of the World Bond Market)

	2001	2000	1999	1998	1997	1996	1995
Central Government	30.1	32.9	36.0	37.4	38.8	41.3	41.4
Quasi-Government	6.1	5.8	5.8	6.3	6.2	6.2	6.9
Agency	17.0	15.7	14.6	13.7	13.8	12.8	13.2
Corporate	29.7	29.0	28.9	27.6	26.9	26.9	27.1
Foreign	2.6	2.7	2.5	2.9	2.9	2.7	2.6
Eurobond	14.5	13.9	12.2	12.1	11.4	10.1	8.8

Note: To illustrate important themes, we have broken down the Government sector into its component parts. Due to rounding, percentages may not add up to 100.

Source: Statistics compiled by Merrill Lynch from various national sources.

## Regional Patterns

The aggregate picture discussed above conceals a variety of different regional patterns. Moreover, the necessary conversion of all data to one currency, in our case the US\$, further obscures the picture as historical comparisons are distorted by exchange rate fluctuations.

Table 4 presents a comparison of local currency rates of growth of the main sectors in the three major markets. Different regional patterns emerge:

**Table 4: A Comparison of the Growth of Major Bond Markets by Sector, 1998-2001**

(In local currency terms, Percent Change)

	Government						Financial		Non-Financial		
	Central Government		Quasi-Government		Agency		% chg 01-00	% chg 01-00	% chg 01-98	% chg 01-98	
	% chg 01-00	% chg 01-98	% chg 01-00	% chg 01-98	% chg 01-00	% chg 01-98					
United States	-6.5	-18.6	6.3	12.9	14.4	49.7	14.7	41.5	14.5	39.9	
Euro	5.3	15.6	22.5	40.9	—	—	10.2	35.6	20.2	53.8	
Japan	18.6	47.3	-5.0	-0.2	11.9	36.2	-10.3	-21.6	1.8	8.9	

Source: Statistics compiled by Merrill Lynch from various national sources.

Note: To illustrate important themes, we have broken down the Government sector into its component parts. The ECB breaks down government data into only two sectors: central government and other government. The percentage change for other government is displayed under "quasi-government."

- **The decline in absolute terms of central government bonds has been chiefly a U.S. phenomenon** (it has also occurred in other English-speaking and Scandinavian countries). Both in Euroland and Japan, the government bond market continues to grow, particularly in the latter case. However, in relative terms, the share of government bonds in Euroland is declining, while in Japan is rising at a very fast pace.
- **The quasi-government and Agencies sectors are quite heterogeneous across countries.** Housing investment is reflected in the U.S. in the Agencies market and in Germany in the Pfandbrief market (included in the financial sector). The former has soared while the second has stagnated. High growth in the Euro-zone quasi-government sector reflects the financing activity of a number of international or supranational bodies and also the interest of U.S. Agencies in tapping the European market. In Japan, the strong growth of Agencies reflects the large financial needs of all levels of government.
- **Japan is, again, the exception in the corporate sector.** Troubled Japanese financial institutions have actually reduced quite dramatically their outstanding bonds. On the contrary, U.S. and Euroland financial corporations have been very active issuers. In the non-financial sectors, growth has been particularly strong in Euroland where the corporate bond market has become fully integrated under the single currency (in fact, much more integrated than the government bond market, which is still fragmented into 12 separate markets).

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## Emerging Markets

**The emerging markets tradable debt universe continued to expand in 2001 to US\$1.6 trillion, growing 8% relative to the previous year.** Salient features are:

- Domestic debt increased 13% while external debt decreased -2%. Emerging countries continue to rely increasingly on their domestic debt markets for financing, and we expect this trend to continue.
- The regional breakdown has been relatively stable for the last three years with Asia gaining some market share in 2001 at the expense of Latin America.

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## **Special Focus**

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## 1. Ratings Transitions in 2001

The Merrill Lynch Global Index system allows you to analyze global ratings transitions using the underlying data from the Global Corporate (G0BC) and Global High Yield (HW00) indices. In this and future issues of the *Size and Structure of Global Debt Markets*, we will look at how these changes impact on the structure of global corporate bond markets.

### ■ Methodology for Comparisons:

The table on the following page is constructed using the following methodology:

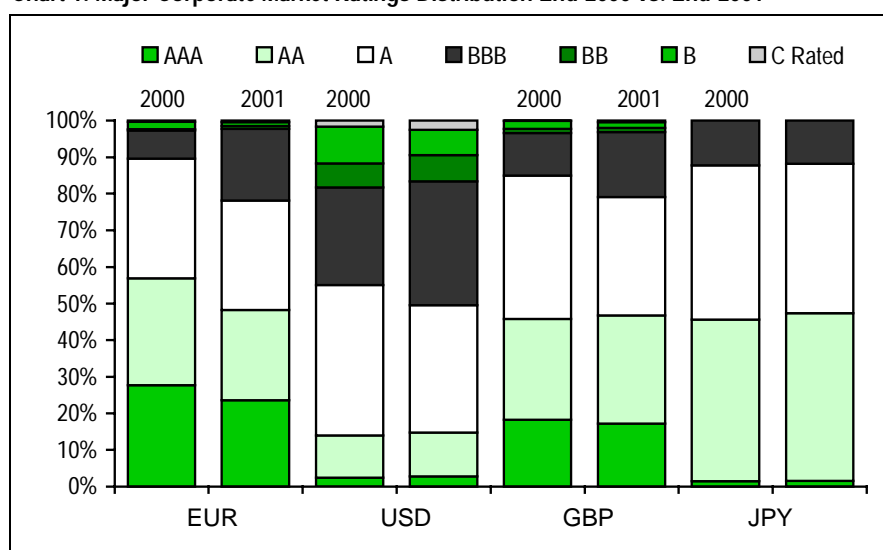
- Ratings transition data covers all bonds that appeared in the Merrill Lynch Global Corporate (G0BC) and Global High Yield (HW00) indices during the course of 2001.
- Comparisons are based on a composite rating of Moody's and S&P.
- The transition data compares the difference between the rating of a bond on 31/12/00 (or its first date of entry) and 31/12/01 (or its point of exit from the index). It does not account for interim changes to the rating.

### Downgrades & Defaults Rise Dramatically in 2001

- **The number of corporate bond downgrades in 2001 rose to 18% of the Global Corporate and High Yield indices, vs. 13% in 2000, resulting in a ratio of 3 downgrades for every upgrade, double the ratio for 2000.** Of these downgrades, two companies (Enron and Edison) moved down 15 notches on our composite scale. Furthermore, 76 companies representing 159 securities defaulted from the corporate markets (see Table 5), double that of the previous year. Enron again stands out, being the only company to go into default while a member of the investment grade indices.
- **BBB-rated securities now account for 27% of the major global corporate bond markets, up from 18% a year ago.** The structure of corporate bond markets globally is moving closer to the U.S., where BBB's account for 34% of outstanding debt.

*BBB-rated bonds account for 27% of all corporate bonds, an increase of 9% on last year.*

Chart 1: Major Corporate Market Ratings Distribution End-2000 vs. End-2001



Source: Merrill Lynch Global Index System

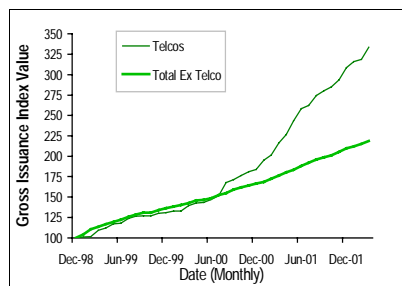


Table 5: 2001 Global Rating Transition Recap

	# Notches Downgraded								Unch. Total	# Notches Upgraded							Grand Total
	Default	>-5	-5	-4	-3	-2	-1	Total		1	2	3	4	5	>5	Total	
By Currency:																	
AUD						4	14	18	157	4	2				1	7	182
CAD					3	20	129	152	500	14	1				1	16	668
EUR	19	14	2	1	23	47	130	236	1,180	40	6				1	47	1,463
GBP	2	7		1	7	20	56	93	413	32	8					40	546
JPY						9	38	47	1,128	6						6	1,181
USD	138	69	39	27	108	245	624	1,250	4,408	387	55	5	4	12	33	496	6,154
By Initial Rating:																	
AAA						8		8	724								732
AA1			5	5	4	3	21	38	156								194
AA2				1	11	23	66	101	347	11						11	459
AA3					5	11	55	71	1,100	72						72	1,243
A1		10	1	2	5	17	98	133	844	92	25			7		124	1,101
A2		7		6	14	110	275	412	936	28	6	1				35	1,383
A3				3	9	41	146	199	813	5	4				10	19	1,031
BBB1	13	3	1		2	19	77	115	624	34	4				7	45	784
BBB2	2	2			1	8	47	60	612	78	9	3				90	762
BBB3				1	25	15	22	63	589	56	1				2	59	711
BB1		2	6	1	1	1	35	46	182	27	7					34	262
BB2		6			9	7	24	46	107	14	2					16	169
BB3	6	3			1	8	28	46	108	10	2	1	4			17	171
B1	3	10		3		6	22	44	122	18	5					23	189
B2	11	30	12		29	10	23	115	197	17	3				11	31	343
B3	52	7	11	5		48	32	155	181	10	2			5	4	21	357
CCC1	14	7		2	13		19	55	51	4	1				1	6	112
CCC2	37	3	5		12	10		67	76	7	1					8	151
CC1	14						1	15	7								22
CC2	6							6	7								13
C1	1							1									1
C2									3						1	1	4
By Sector:																	
Banking					4	6	134	144	1,994	86	14					100	2,238
Brokerage							8	8	215	7	22					29	252
Finance & Invest	20	1				13	187	221	654	64	2				10	76	951
Insurance						10	17	27	224	20	1	1		6		28	279
Total Financial	20	1			4	29	346	400	3,087	177	39	1		6	10	233	3,720
Basic Industry	20	3		3	10	15	88	139	321	13						13	473
Capital Goods	6	2	2	2	11	14	38	75	376	21	3					24	475
Consumer Cyclical	20	6	1	1	9	77	88	202	388	3	2					5	595
Consumer Non-Cyc	3		5		1	23	58	90	531	20		3			6	29	650
Energy	15		1		1	13	76	106	565	87	7		4			98	769
Media	3	15	2	1	22	30	53	126	268	58					2	60	454
Real Estate						3	14	17	164	16	1				2	19	200
Services Cyclical	10	5	11	10	40	43	54	173	459	23	1	1		5	1	31	663
Svcs Non-Cyc						1	1	2	118	9	3					12	132
Telecom	48	39	14	6	23	73	59	262	458	23	3				13	39	759
Technology & Elec	14	3	5	6	20	17	35	100	208	8					1	9	317
Total Industrial	139	73	41	29	137	309	564	1,292	3,856	281	20	4	4	5	25	339	5,487
Total Utility		16				7	81	104	843	25	13			1	1	40	987
Grand Total	159	90	41	29	141	345	991	1,796	7,786	483	72	5	4	12	36	612	10,194

Source: Merrill Lynch Bond Index Almanac 2001 (Galdi, 22 January '02)

**Chart 2: Percent Increase in Gross Global Telco Issuance vs. Gross Global Issuance ex Telco since Dec-98**



Source: Merrill Lynch Global Index System

*The consumer cyclical sector had a downgrade/upgrade ratio of 14:1 in 2001.*

## Industrials Hit Hard by Ratings Transition

The global industrial sector accounted for 80% of the issuers that were downgraded or defaulted in 2001, yet the sector only accounts for 46% of outstanding corporate debt as of end-December 2001.

Within specific sectors, 69 telecommunications companies were downgraded (21 of which defaulted), compared with only 16 upgrades.

Despite a challenging year for the sector, (and perhaps the reason for much of the negative ratings action), over \$150bn in investment grade telecom new issuance entered the ML indices in 2001.

Putting this into perspective, this amount was second only to banking, with just under \$195bn in qualifying investment grade banking issuance entering over the same period.

Consumer cyclicals also fared badly in relative terms, with 14 issuers being downgraded for every upgrade in the sector. Furthermore, downgrades in this sector included some of the largest issuers globally, including Daimler Chrysler, General Motors and Ford Motor Co.

**Table 6: Investment Grade & High Yield Issuer Rating Changes by Sector**

Industrial Sector	Issuers Downgraded/Defaulted	Issuers Upgraded	Ratio Downgrades/Upgrades
Banking	37	22	1.7
Brokerage		1	
Finance & Investment	28	5	5.6
Insurance	12	5	2.4
<b>Financials</b>	<b>77</b>	<b>33</b>	<b>2.3</b>
Basic Industry	61	5	12.2
Capital Goods	45	10	4.5
Consumer Cyclical	55	4	13.8
Consumer Non-Cyclical	37	12	3.1
Energy	24	23	1.0
Media	37	10	3.7
Real Estate	7	8	0.9
Services Cyclical	42	19	2.2
Services Non-Cyclical	2	6	0.3
Technology & Electronics	30	7	4.3
Telecommunications	69	16	4.3
<b>Industrials</b>	<b>409</b>	<b>120</b>	<b>3.4</b>
<b>Utility</b>	<b>29</b>	<b>12</b>	<b>2.4</b>
<b>Total No. Issuers</b>	<b>515</b>	<b>165</b>	<b>3.1</b>

Source: Merrill Lynch Global Index System

On a more positive note, a number of the smaller global corporate sectors had a more symmetric ratings transition over the course of the year, with the energy, real estate and service non-cyclical sectors producing as many upgraded issuing companies as downgrades. In the case of the latter, the number of healthcare company upgrades outweighed downgrades by nearly 3 to 1.

**Table 7: 2002 Q1 Global Rating Transition Recap**

	# Notches Downgraded								Unch. Total	# Notches Upgraded								Grand Total	
	Default	-7	-6	-5	-4	-3	-2	-1		1	2	3	4	5	6	7			
Initial Rating																			
AAA									627								627		
AA1								1	1	141							142		
AA2								3	3	406	1					1	410		
AA3						1	9	83	93	948	4					4	1045		
A1							11	28	39	806	1					1	846		
A2					2			63	65	855							920		
A3						1	45	84	130	878	5	23				28	1036		
BBB1							15	71	86	813	1	3				4	903		
BBB2							1	36	37	726							763		
BBB3								5	5	549	5	1				6	560		
BB1						9	4	22	35	214							249		
BB2	9			3		2		12	17	133	3					3	162		
BB3				1	1		5	6	13	151	2		1			3	167		
B1					4	3	5	26	38	141	6	2		1		9	188		
B2	2			3			11	9	23	194	3					3	222		
B3	1						4	14	18	189	3	1	1		4	9	217		
CCC1	2	1				6		20	27	76	3					3	108		
CCC2	7		5			6	24		35	103	1				5	6	151		
CCC3	8				9			8	17	21			1		3	4	50		
CC1	8					10			10	17				1		1	37		
CC2	18									4			6			6	28		
Grand Total	55	1	5	7	16	38	134	491	692	7992	38	30	9	1	1	12	1	92	8831

Source: Merrill Lynch Global Index System

Special Focus

## Q1 2002 Offers Little Solace

**Despite the high number of downgrades and defaults in 2001, the first quarter of 2002 has not been any more forgiving, with downgrade rates running at 38% on an annualized basis.**

The downgrade to upgrade ratio for Q1 2002 also stands at nearly 8 to 1, a large increase on the ratio for 2001. Furthermore, the telecom and basic industry sectors remain at the top of the list for numbers of companies downgraded.

Although the downgrade rate for 2002 is likely to slow following the rapid changes that have occurred, the risks remain weighed to the downside. This risk has been compounded by the decision of Moody's Investor Services in February 2002 to stray from accepted practice by downgrading a number of issuers without first putting them on formal downgrade review.

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## 2. Inflation-Linked Bonds – A Growing Global Market

- U.K. started the market in 1981, and IL Gilts are now 20% of U.K. government debt
- Explosion in growth has come in the last 5 years thanks to U.S. and France
- More sovereign issuers expected to join the party

The development of the inflation-linked bond markets started with the innovative **introduction of IL Gilts by the U.K. in 1981**, subsequently followed by Australia in 1985, Canada in 1991, Sweden in 1994, and New Zealand in 1995. A truly global IL marketplace opened when the **U.S. Treasury issued TIPs in 1997**, followed by **France issuing OATi in 1998**.

France issued the first sovereign inflation-linked bond linked to a non-national inflation index in autumn 2001. OATie 3% 2012 are linked to the EMU12 inflation index (ex. tobacco as with OATi).

This trend of new sovereign issuers is fully expected to continue, as debt issuers look for ways to diversify their debt portfolio and propel cheap funding, thanks to the growing demand base for the IL asset globally. Special focus is in the Eurozone – now that France has linked bonds to EMU inflation, the path is open and clear for other sovereigns to do so.

There are many other inflation-linked bond issuers – we count 20 sovereign issuers in total, with a further 15 other countries that have non-government IL bonds. Our index system concentrates on the larger, high grade, sovereign issuers.

### ■ IL Market Growth – Most Concentrated in the U.K., up to Now

Between 1976 and 1980, average annual inflation in the U.K. was 13.6%, leading to highly volatile, *and negative*, real returns for pension funds. Such funds were desperate for a product that would not destroy real assets. In 1980, the Wilson Committee recommended the government issue a bond linked to earnings.

**Problems with revisions and delays to publication meant using an earnings link was impractical**, and a bond linked to the headline RPI index was issued in March 1981 at 2% real yield. The original restrictions on ownership to tax-free funds (i.e. pension funds) was relaxed in 1982.

**All of the 20 sovereign issuers globally of IL bonds have linked their bonds to inflation rather than earnings**, due to these revision/publication problems. Some, such as India, index to wholesale prices rather than a consumer-based index.

Since the U.K. started issuing in 1981, growth has been rapid. We expect the IL Gilt market to continue to grow strongly, matching the increasing demand for inflation-linked product by U.K. pension funds. The U.K. government has a key focus on IL Gilt issuance – during the **past 5 years, IL sales have averaged 27% of all Gilt supply**.

By end-2001, **IL Gilts** (including the inflation uplift) made up 26% of the Gilt market and **20% of all central government state debt<sup>1</sup>**, easily the most significant proportion among the major markets. This proportion is set to grow, partly due to the inflation uplift, but also because the government has a clear policy of focusing supply into demand – and we think demand rises through time.

The corporate sector is likely to be an increasingly important issuer of U.K. IL bonds in coming years. This has been a very slow burning fuse, but there is evidence that there is increasing willingness to supply IL bonds (though we do not think it will be anywhere close to matching the strong demand). Much of this is coming from the **utility sector, which could see more than £2bn supply over the coming 12 months**.

*We think more sovereigns will issue IL debt in coming years.*

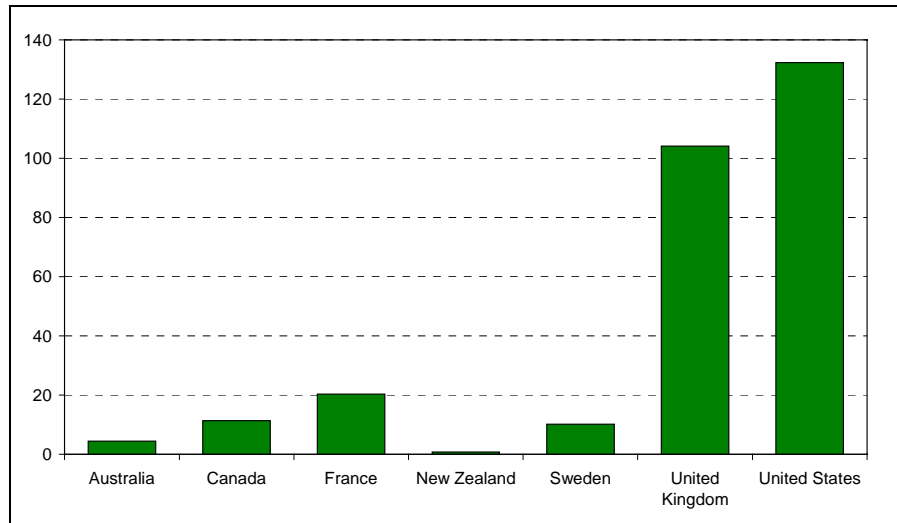
*U.K. was first major IL market, thanks to appalling real returns in late 1970s.*

*All major IL markets have a link to consumer prices . . .*

*IL Gilts now 26% of Gilt market, 20% of all state debt.*

<sup>1</sup> Source: HM Treasury

**Chart 3: Outstanding Market Value of Main IL Bond Markets**  
(US\$bn, End-March 2002)



Source: Merrill Lynch Index System, 31 March 2002

*U.S. TIP introduction was the spark for a global IL marketplace . . .*

#### ■ Enter the TIPs Dragon

Treasury Inflation Indexed Securities (TIIS) – generally referred to as TIPs – were first issued in January 1997, against the worst economic background possible. U.S. trend growth rate was being revised up, real returns on equities were buoyant (and expected to remain buoyant), and inflation was perceived as dead/dormant. **Real yields** rose consistently from issue, **peaking at 4.4% in January 2000**, around the peak of the equity hubris.

This was a key factor in the development of the market, which has been more sluggish than expected before the advent of the market. In 2001, the **U.S. Treasury announced it was canceling issuance of 30-year TIPs**, leaving issuance of 10-year paper only, in a January and July cycle.

*. . . & marketplace now wants increased TIPs issuance.*

The U.S. Bond Market Association wrote to the U.S. Treasury in April 2002 with a range of requests for improving TIPs liquidity. One of these was for **more issuance, more regularly – starting in 2003 with an additional April auction.**

#### ■ Is IL Issuance Regarded as Significant by Sovereigns?

The Treasury appears committed to TIPs, but there is a key difference in how the product is viewed:

*In France & U.K., IL issuance is a key part of funding.*

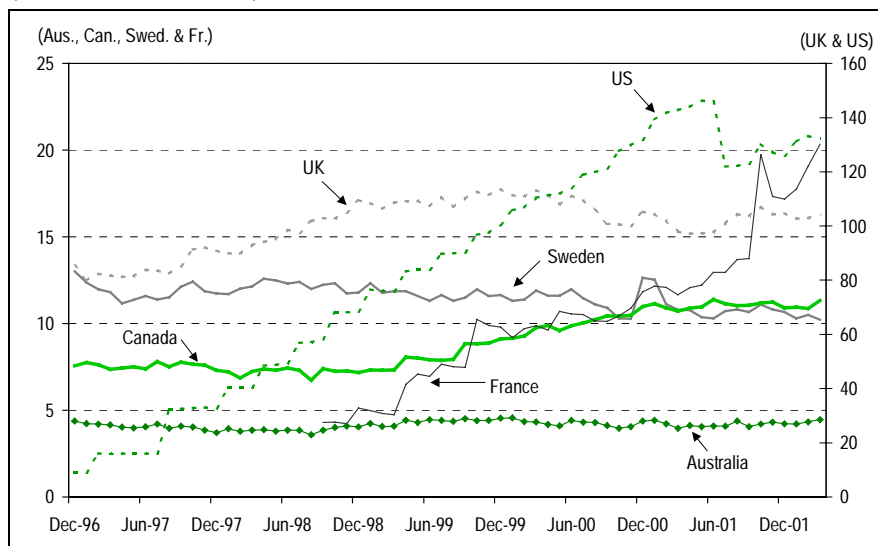
U.K. IL Gilts will form 20% of gross government bond issuance in 2002/03; French OATi/OATie (combined) will form at least 10% of bond sales in 2002.

However, *U.S. TIPs* are likely to form *just 2.7% of gross Treasury issuance* (based on Merrill Lynch estimate of \$444bn total gross issuance). Having said this, **TIPs will still continue to be the biggest IL market.** Two issues per year of US\$6bn (nominal) TIPs each are still higher than totals of US\$6.5bn issuance in the U.K., US\$7.5bn by France, and US\$900m by Canada.

**France is the market which has developed/is developing most quickly**, as the chart above shows clearly. France has its 10% funding target for OATi/OATie under 4 years after they became the first EMU country to issue. They continue to innovate, being first sovereign to issue bonds linked to non-national inflation.

With demand dynamics suggesting that U.K. funds have a) increasing desire for inflation protected assets; and b) have increasing willingness to diversify, we suspect that the French OATi/OATie market will be the market to watch – the market which continues to grow most rapidly.

**Chart 4: Growth in IL Markets**  
(Full Market Value, US\$bn)



Source: Merrill Lynch Index System

## ■ Structure

**Table 8: Structure of Global IL Bond Markets**

Market	1st issue	Indexation	Inflation lag	Minimum Guarantee	Full Market Value (US\$m)	Longest Issue	Modified Duration	Real Yield
UK	1981	RPI	8 months	No	104202	2030	10.49	2.36
US	1997	CPI	3 months	Par principal	132373	2032	9.73	3.30
France	1998	CPI	3 months	Par principal	20334	2029	8.90	3.43
Australia	1985	CPI	3 months	No	4452	2020	9.63	3.48
Canada	1991	CPI	3 months	No	11334	2031	15.10	3.70
Sweden	1994	CPI	3 months	Par principal*	10208	2028	9.26	3.65
NZ	1995	CPI	6 months	No	735	2016	10.17	4.73

Source: Merrill Lynch Europe Plc.

Notes: France uses CPI ex tobacco; U.S. uses headline urban CPI non-seasonally adjusted; Sweden uses main CPI.

\*Sweden has some bonds with par principal guarantee (2015 & 2028), some without.

Data for end-Mar 2002.

The table of the different structure of the markets shows that they all track a measure of consumer inflation.

*Most countries work on 3-month inflation lag.*

*Guarantees against deflation offered by U.S., France, & some Sweden bonds.*

There are **major differences on the structure of time lag**. The U.K. started with an eight-month lag, so that the coupon is always known before it starts accruing. Canada moved on to a 3-month lag basis, which means that the rate of growth of accrued interest can change each month. IL coupons accrue at a rate equal to an interpolation of the rise in the inflation index three and two months previously.

The U.S. introduced a deflation floor to indexation when they issued TIPs. Simply, the bonds will repay at \$100 per \$100 nominal if there is net deflation over the course of the life of the bonds. There is, of course, no upside to how much the principal will pay back. The coupon has no minimum guarantees. Swedish IL bonds have historically not had any guarantee on them, though the SNDO has introduced some new bonds which do have a floor to the principal value.

**Andrew Roberts**

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### 3. Proposed EU Savings Tax Directive – Update

Why did the French Treasury tap every French government bond outstanding by 1 euro on 1 March 2002? And why did the U.K. government tap all Gilt by £0.25m-£30m each on the same day ?

These were actions taken by European governments to preserve the fungibility of their bonds with future reopenings. Tapping pre 1 March 2001 government issues on or after 1 March 2002 brings the WHOLE bond into the scope of the proposed EU savings tax directive, ensuring equal treatment with future taps. Bond reopenings may continue in the future, whether or not the directive ever comes into force.

**A long running ambition to stop EU individuals cheating the taxman on cross-border savings income is not yet enshrined in law. But the proposals have still affected the international bond market. The proposals affect bonds from any domicile, not just the EU.**

The main current debate in the bond market concerns the question of fungibility of tranches/reopenings of pre 1 March 2001 issues of bonds on or after that date and the possibility of “infection” of issues that would, but for the tap, have been exempt under the grandfathering proposals.

The EU has begun to clarify what is meant by a government “related entity” – a key term in the debate. For a provisional list see pages 27 to 29 of the report on 2416<sup>th</sup> Council Meeting at:

<http://ue.eu.int/pressData/en/gena/69769.pdf>

The International Primary Markets Association issued revised tax clauses for use in bonds originally issued on or after 1 March 2001. These basically carve out taxes arising from the directive as triggers for gross up and call. See

<http://www.ipma.org.uk/general/pstatements.htm>

This note is based on our current understanding of an unclear and fluid situation. It is not, is not intended to be, and should not be construed as being, advice on matters of current, proposed or potential law. Indeed, in view of the potentially wide implications of the matters referred to here, issuers and investors are strongly advised to seek their own specific professional advice in this respect and to stay in close touch with their advisors as this situation develops.

The European Union has been trying for years to ensure that residents pay at least a minimum level of tax on their savings. A third proposal for a directive is now being discussed. The aim is to have it in force within member states by 1 January 2004 at the latest. If that date were achieved, it would in our view be a triumph of hope over experience: EU unanimity is required for the directive’s adoption. Considering the position of one country will serve as an illustration: the current conditions for agreement imposed by Austria could take many years to fulfill.

The first draft in 1989 proposed a common withholding tax. It failed. The second in 1998 set out a “co-existence model” allowing member states to choose whether to levy a withholding tax or to exchange information on income received. This failed, too.

The third attempt in 2001 is a political compromise based on information sharing that all but eliminates the withholding tax aspect.

This ‘Proposal for a Council Directive to ensure effective taxation of savings income in the form of interest payments within the [European] Community’ was submitted by the European Commission on 19 July 2001. The new text may be found in the Official Journal of the European Communities of 25 September 2001 at <http://europa.eu.int/eur-lex/pri/en/oj/dat/2001/ce270/ce27020010925en02590265.pdf>.

The directive is aimed at ensuring **EU individuals** receiving **interest** (widely defined) via an “economic agent” (e.g., a paying agent, collecting agent or custodian bank) in **an EU country other than their own** are subject to **information exchange** (informing their home tax authority) at the point at which the payment is made. For a transitional period of seven years, only three member states (Austria, Belgium and Luxembourg) would levy a withholding tax. After that, all member states would exchange information.

Even though it is not yet law, the grandfathering arrangements in Article 15 of the latest proposal have already had an impact on the international bond markets. Agreed on 3 March 2001 by EU Council Ministers, they avoid the potential market disruption that worried the market back in 1998 (of widespread tax gross up and calls of bonds at premiums to par), when the second draft directive appeared. As a result:

- Domestic and international bonds and other negotiable debt securities which were first issued before 1 March 2001<sup>2</sup> would not be subject to withholding provided that no further issues of such negotiable debt securities are made on or after 1 March 2002.
- Bond issuers therefore had a window of opportunity to tap pre 1 March 2001 issues until 28 February 2002, extending the exemption to fungible tranches.
- A Government or “a related entity” can still tap pre 1 March 2001 issues after 1 March 2002, but if they do so, the “grandfathered” status of the original issue is removed: the original issue, plus subsequent taps would become subject to the directive.

**Crispin Southgate**

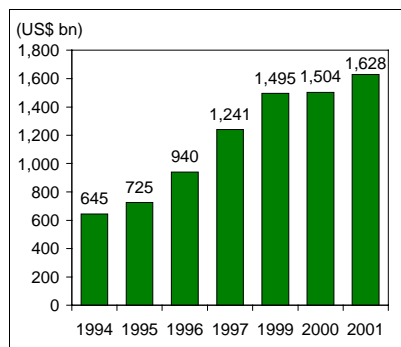
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<sup>2</sup> “or for which the original issuing prospectuses have been approved before that date by the competent authorities within the meaning of Council Directive 80/390/EEC, or by the responsible authorities in third countries” – there is some doubt among lawyers as to what this additional criterion may mean in the context of MTN and other shelf based issuing programs.

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## 4. Emerging Markets – Tradable Debt Universe

Chart 5: Emerging Markets Tradable Debt Universe (end-1994 – end-2001)



Source: Merrill Lynch

### Emerging Markets Tradable Debt Stock Now Stands at US\$1.6 Trillion

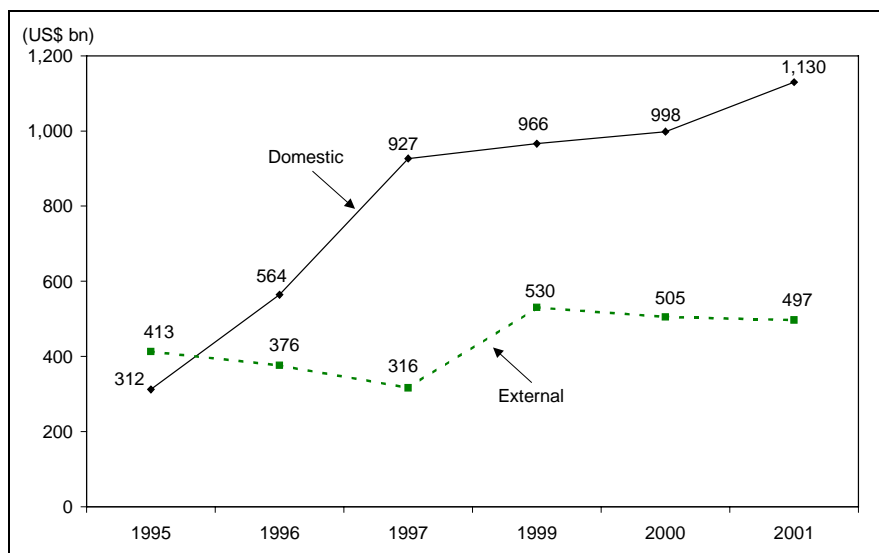
The emerging markets tradable debt universe continued to expand in 2001, growing by 8% over 2000 levels to reach US\$1.6 trillion. The rate of growth was faster than last year, but slower than the annualized growth of 15% from 1994 to 2000.

This is partly due to a collective improvement in fiscal stances throughout the emerging markets, which has led to a reduced need to borrow. However, another factor at work is the now-constant maturation of bonds issued earlier in the universe's life, which slows the rate of net new issuance even as gross issuance growth continues at a steady pace.

### Domestic Debt Grows while External Debt Declines

Domestic debt continues to dominate the emerging markets tradable debt universe, comprising 69% of the total. The stock of domestic debt also increased at a faster pace of 13% year-on-year in 2001, while external debt decreased by 2%. The greatest increase in domestic debt in US\$ terms was Argentina, China and India. Argentina's increase was the result of a debt exchange. External sovereign debt actually decreased in every region except for Middle East/Africa. Relatively new entrants to the international financial markets, with over 50% growth in debt, were primarily from the Americas: Dominican Republic, El Salvador, Guatemala, Trinidad and Tobago and Romania. The global issuance, however, resulted in a slightly decrease in the size of the external debt universe at around \$500bn. **Countries continue to rely increasingly on their domestic debt markets for financing, and we expect the development of these markets to continue.**

Chart 6: Domestic Debt Increased While External Debt Decreased



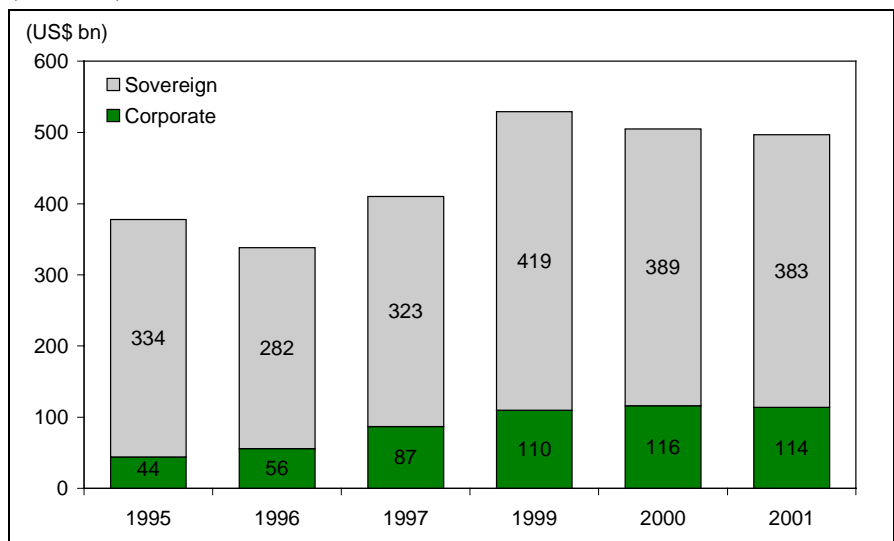
Source: Merrill Lynch



## Corporate External Debt Also Declined

**Declining overall external debt stocks has been accompanied by a leveling off of corporate debt since 1999.** The stock of emerging markets corporate external bonds registered positive growth until this year, while sovereign debt issuance has been more volatile. Latin American corporate borrowers, in particular, have had success in increasing the amount of external bonds outstanding year after year (Latin America accounts for over two-thirds of total emerging markets corporate debt.)

**Chart 7: Growth of Corporate External Debt vs. Sovereign External Debt (1995-2001)**



Source: Merrill Lynch

Special Focus

## External Issuance: Bradys Remain on the Path to “Extinction”

**A notable trend in the early to mid-1990s was the decrease in tradable loans and increase in Brady bonds (and subsequently Eurobonds) as countries completed their commercial bank debt restructurings and returned to the international capital markets.** Indeed, by 1996 the stock of Brady bonds had reached a peak of US\$150 billion, while the stock of tradable loans had slipped below US\$40 billion. However, at that time, countries began the process of retiring Brady bonds through outright buybacks and global bond exchanges. In addition, the face amount of amortizing Brady bonds began to fall. As a result, Brady debt has actually registered annual declines since 1996. For full detail on the status of the Brady market, please see article beginning on page 20.

## Latin America and Asia Continue to Dominate

**The regional breakdown has been relatively stable for the last three years, with Emerging Europe and Middle East/Africa maintaining their share of total emerging markets tradable debt, while Asia’s share of debt increased slightly at the expense of Latin America.** Latin America now represents 47% of total debt outstanding, and Asian debt has increased to 31%. In the case of Latin America, high sovereign refinancing needs have resulted in higher levels of new issuance, and as we have already mentioned, corporate borrowers continue to gain access to the international capital markets. In Asia, as countries have repaid emergency multilateral financing packages, they have issued increasing amounts of both domestic bonds. Meanwhile, we would expect the stock of eastern

European debt, which remained at 9% of the total at the end of 2000, to continue to decline going forward, as more countries converge with the EU and decrease their deficit financing, moving out of the emerging markets universe in the process.

**Table 9: Regional Breakdown of Debt Universe**  
(% of Total)

Region	2001	2000	1999	1997
Latin America	47	48	44	35
Asia	31	29	33	22
Emerging Europe	14	14	14	33
Middle East/Africa	9	9	9	10

Source: Merrill Lynch

## Outlook

**We expect the share of Asian and emerging European debt to continue shrinking as a percentage of the emerging markets tradable debt universe.**

Malaysia and South Korea are on their way to returning to their native dual-rated single-A territory after a stint in the emerging markets universe following the Asian financial crisis of 1997-1998, which would reduce emerging Asian debt by nearly US\$130 billion. In addition, split-rated China will graduate from emerging markets status when and if S&P joins Moody's in assigning the country a single-A rating. China alone contributes US\$129 billion to the Asian component of the emerging markets debt universe. Likewise, emerging European countries such as the Czech Republic and Poland are only one rating notch away from leaving the emerging markets universe.

We also expect the stock of Brady bonds to continue to shrink, as countries continue to take advantage of lower Eurobond spreads to retire the more expensive Bradys. Whether emerging markets countries become net issuers or net repayers of external bonds in 2001 depends largely on the global backdrop, fundamental developments within the countries themselves, and risk appetite among foreign investors. So far, the signs are encouraging, as U.S. high yield and equity markets have suffered, some investors are looking to emerging markets as a source of potentially higher total returns. Although some concerns over the global economy loom and Argentina faces a severe domestic crisis following its default and devaluation, Turkey has recovered well from the loss of investor confidence at the beginning of the year. **Nonetheless, if history is any guide, we would not be surprised to see the emerging markets debt universe as a whole expand again this year.**

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**Table 10: Emerging Markets Tradable Debt Universe\*, End-2001 (US\$bn)**

	Local-Currency Domestic Sovereign Debt †	Hard-Currency Domestic Sovereign Debt	Eurobonds & Global Bonds Sovereign	Eurobonds & Global Bonds Corporates	Brady Bonds ‡	Tradable Loans	Total
<b>Latin America</b>	<b>430.2</b>	<b>37.6</b>	<b>172.6</b>	<b>79.0</b>	<b>52.5</b>	<b>0.0</b>	<b>772.2</b>
Argentina	44.5	20.4	46.9	14.7	6.7	0	133.2
Brazil	269.1		42.0	28.0	19.2		358.2
Chile	4.5	8.0	1.2	8.4			22.0
Colombia	17.7		11.8	1.4			30.9
Costa Rica			1.7				1.7
Dominican Rep.	0.0		0.5	0.2	0.5		1.2
Ecuador	0.0	2.9	4.0	0.1	0.2		7.1
El Salvador	0.4		1.1				1.5
Guatemala		0.5	0.5				1.0
Jamaica	5.0		1.8	0.0			6.9
Mexico	74.6		49.1	22.5	11.9		158.1
Panama		0.3	3.2	0.5	1.8		5.8
Peru	1.0		0.0	0.6	3.8		5.4
Trinidad & Tobago	1.7		0.8	0.1			2.6
Uruguay	0.8	5.5	1.3	0.3			7.8
Venezuela	10.9		6.9	2.1	8.5		28.9
<b>Asia</b>	<b>431.5</b>	<b>0.0</b>	<b>48.0</b>	<b>20.3</b>	<b>2.0</b>	<b>0.0</b>	<b>501.8</b>
China	122.4		6.6				129.0
India	114.4		1.0	3.1			118.5
Indonesia	48.3		0.7	6.8			55.8
Malaysia	34.9		5.6	0.3			40.8
Pakistan	7.3		0.6				7.9
Philippines	16.6		9.5	4.4	1.5		32.0
South Korea	65.1		22.7	5.7			93.5
Thailand	22.5		1.2				23.7
Vietnam			0.0		0.5		0.5
<b>Emerging Europe</b>	<b>114.7</b>	<b>13.0</b>	<b>64.6</b>	<b>11.5</b>	<b>10.0</b>	<b>0.0</b>	<b>213.8</b>
Albania					0.2		0.2
Bulgaria	0.5	0.3	0.1		4.3		5.2
Croatia	0.4	0.6	2.5		1.0		4.5
Czech Republic	9.4		0.1				9.5
Estonia	0.0			0.1			0.1
Kazakhstan	0.2	1.0	1.1	0.0			2.4
Lithuania	0.5		1.2				1.8
Macedonia					0.3		0.3
Poland	40.0		3.0	6.6	4.2		53.8
Romania	1.5		1.3				2.8
Russia	17.4	11.1	35.6	1.4			65.5
Slovakia	4.7		2.0	0.4			7.0
Turkey	39.9		16.5	3.0			59.4
Ukraine	0.1		1.1				1.3
<b>Middle East/Africa</b>	<b>103.3</b>	<b>0.0</b>	<b>21.8</b>	<b>2.9</b>	<b>6.7</b>	<b>5.0</b>	<b>139.7</b>
Algeria			1.0		0.2	1.2	2.4
Egypt	31.3		1.5	0.1			32.9
Ghana				0.3			0.3
Ivory Coast					1.2		1.2
Jordan				0.2	0.7		0.8
Lebanon	18.7		7.6	0.9			27.2
Morocco	9.3		1.6			2.2	13.1
Nigeria	9.0				4.6	1.6	15.2
Qatar	1.8		2.4				4.2
South Africa	30.5		7.2	1.5			39.2
Tunisia	2.7		0.4				3.1
<b>Total</b>	<b>1079.7</b>	<b>50.6</b>	<b>306.9</b>	<b>113.8</b>	<b>71.2</b>	<b>5.0</b>	<b>1627.6</b>

\* We define emerging markets countries as those with at least one rating of BBB+/Baa1 or lower.

† Includes Argentina Domestic Tradable Loans.

‡ In addition to traditional Brady bonds, this figure includes Croatian Series A and B debt, Nigerian Promissory notes, Macedonian C-notes, and Albanian Par notes.

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## 5. Emerging Markets – The Decline of Brady Debt

- As Brady bonds disappear, Eurobonds are overtaking them as the most liquid bonds in the emerging debt market. Already, Brady bonds represent less than 25% of sovereign external tradable debt.
- By projecting the rate of decrease of Brady bonds as a percentage of total traded debt, Brady bonds could drop to less than 15% by the end of 2002. The Philippines could be down to less than 10% by the year 2002, while Mexico, Panama, Brazil and Poland might take until 2003, 2004, 2005 and 2007, respectively, to decrease to 10% Brady debt.
- During 2002, Argentina exchanged Brady debt for global debt and then re-exchanged the global debt for local debt, decreasing the Brady percentage further.

### The Size of the Brady and Eurobond Markets

During the last 12 years, most countries that exchanged defaulted bank loans for Brady debt have made a concerted effort to retire that expensive restructured debt. By the end of Q1 2002, only four Brady bonds had issue sizes greater than US\$3 billion. Currently, eight Eurobonds of greater than US\$3 billion have been issued. As the Bradys disappear, Eurobonds are overtaking them as the most liquid bonds in the emerging debt market. The Brady countries have been retiring their debt through exchanges, buybacks, calls, warrant exercises, default and subsequent restructuring, and amortization. Most of the retirements were made possible by the regained confidence of the international capital markets. A total of US\$150 billion was eventually issued. **Including the US\$26 billion USSR Vnesheobmenbank loan restructuring which did not conform to the requirements of the Brady plan, the total was over US\$175 billion in Brady/restructured debt globally. By the close of 2001, there were only US\$69 billion Brady bonds remaining, or 39% of the original face. Simultaneously, most countries have issued global Eurobonds as one of their sources of external funding.**

### The Retirement of Brady Bonds

The external sovereign emerging debt market has changed composition significantly since Mexico created the first Brady bond in 1989, with Brady bonds declining as Eurobonds increase. The public exchanges, which began on a small scale with Argentina in 1995 and on a much larger scale with Mexico in 1996, offered specific Eurobonds in exchange for one of several Brady bonds. The Brady bonds that were exchanged typically had lower coupons and lower prices, but higher spreads, than the Eurobonds that replaced them. Most of the exchanges, while keeping market capitalization fairly constant, were not equal face exchanges, thus reducing the total stock of debt (face) outstanding. The exchanges produced large multi-billion dollar issues that are liquid and actively traded (Brazil, Mexico, Venezuela, Russia, and Ecuador). Private exchanges have occasionally taken place with a few investors who hold reasonably large blocks of a bond and agree to exchange the Brady for an existing Eurobond through a reopening of an existing issue.

Some countries have discreetly bought back their debt in the open market. The purchases may have been funded with Eurobond issuance at some point prior to, or subsequent to the purchases, but neither the link, nor the timing, was ever made explicit. In 1996, Mexico called its US\$2.3 billion pre-Brady callable bond, likely using the proceeds of a Eurobond that it had issued several months before the call date. In 2000 and 2001, Mexico called several of its non-US\$ Brady issues. By the end of 2001, it had called the first tranche of its US\$-denominated discount bonds, with the remaining called in 2002. Since all Brady bonds are callable at par, many

other countries in addition to Mexico could call bonds in the future as fundamentals improve. Another source of Brady retirements in Mexico was initiated during the difficult market of early 1999. At that time, Mexico attached warrants to a Eurobond issue. By the warrant call date, the market had rallied and investors exercised their options to exchange Mexican Brady bonds for US\$400 million in Eurobonds, at the time worth much more than the Bradys themselves.

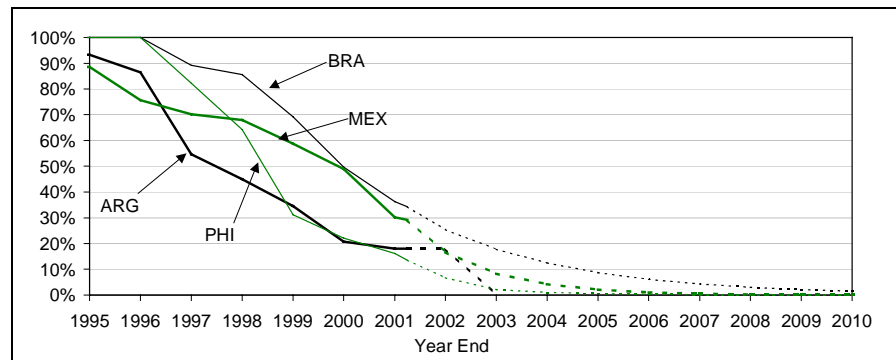
**Russia, Ecuador, and Argentina defaulted on their restructured debt in 1998, 1999, and 2001, respectively.** Russia's debt was not formally under the Brady plan. Thus, Ecuador became the first country to default on its Brady debt. In 2000, both countries restructured their debt into US\$25 billion of Eurobonds. During 2001, Argentina exchanged local debt for external debt, creating several bonds, including an US\$11.5 billion Eurobond issue. It subsequently exchanged Brady and Eurobond debt for local loans, just before it defaulted. Thus, while Argentina was earning the dubious distinction of becoming the largest sovereign default in history, only 7% of its sovereign debt (including local and Eurobond debt) was actually Brady debt at the time.

Brady bonds were almost always collateralized and/or amortizing. Although many bonds have not yet begun amortizing, January 1<sup>st</sup>, 2001 marked the first time a Brady bond actually matured. At this time, Brazil made its final amortization payment on the "Interest Due and Unpaid" (IDU) bond, its shortest Brady bond. Those bonds that do not get exchanged are and will be shrinking over time as amortization payments are made.

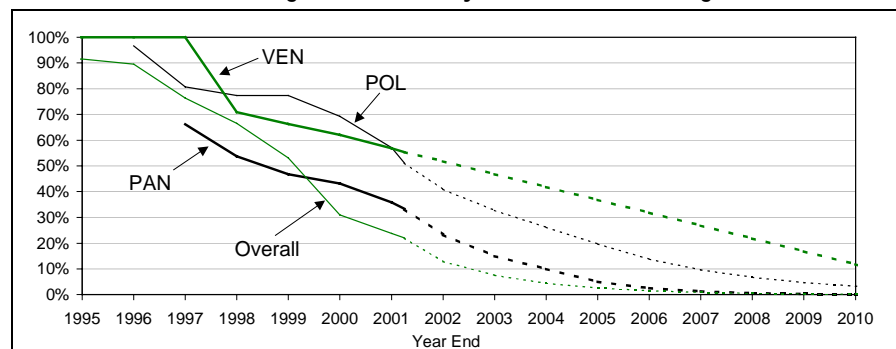
### The Trend Away From Bradys to Eurobonds Varies by Country

Table 11 on the next page shows the growth of relatively liquid tradable Eurobond debt and the concurrent shrinkage of Brady debt for each of the 18 countries with the largest external sovereign debt.<sup>3</sup>

**Chart 8: Historical Percentage of Traded Brady Debt to All Outstanding Traded Debt**



**Chart 9: Historical Percentage of Traded Brady Debt to All Outstanding Traded Debt**



<sup>3</sup> The table shows global issues that are actively traded, excluding medium term notes, private placements and small issues that do not trade.

Table 11: Decline of Brady Debt (US\$bn)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 Q1
<b>Argentina</b>											
Euro	0	0	1750	1750	3750	17113	21673	31583	43238	30519	30519
Brady	23717	25489	25489	24173	24003	20597	17710	16692	11301	6670	6670
% Brady	100%	100%	94%	93%	86%	55%	45%	35%	21%	18%	18%
<b>Brazil</b>											
Euro	0	0	0	0	0	5105	6855	15715	27506	33648	36754
Brady	8788	23905	52080	52030	53111	42469	40940	35432	27101	19169	19169
% Brady	100%	100%	100%	100%	100%	89%	86%	69%	50%	36%	34%
<b>Bulgaria</b>											
Euro	0	0	0	0	0	0	0	0	0	284	1607
Brady	0	0	0	4315	4315	4315	4315	4315	4315	4315	3372
% Brady				100%	100%	100%	100%	100%	100%	94%	68%
<b>China</b>											
Euro	0	755	1982	2285	2285	2910	2682	5155	5382	5907	6307
Brady	0	0	0	0	0	0	0	0	0	0	0
% Brady		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Colombia</b>											
Euro	0	0	0	250	250	431	2956	4419	6043	9279	9229
Brady	0	0	0	0	0	0	0	0	0	0	0
% Brady				0%	0%	0%	0%	0%	0%	0%	0%
<b>Ecuador</b>											
Euro	0	0	0	0	0	0	500	500	3932	3932	3932
Brady	0	0	0	5767	5852	5738	5828	5906	217	217	217
% Brady				100%	100%	100%	92%	92%	5%	5%	5%
<b>Lebanon</b>											
Euro	0	0	0	0	0	0	0	0	3616	5416	6416
Brady	0	0	0	0	0	0	0	0	0	0	0
% Brady									0%	0%	0%
<b>Malaysia</b>											
Euro	0	0	0	0	0	0	0	0	2239	3239	3989
Brady	0	0	0	0	0	0	0	0	0	0	0
% Brady									0%	0%	0%
<b>Mexico</b>											
Euro	2274	2474	3474	3474	7170	9503	10503	15078	20486	27428	28928
Brady	26922	26922	26922	26922	22341	22341	22341	21496	19667	11892	11892
% Brady	92%	92%	89%	89%	76%	70%	68%	59%	49%	30%	29%
<b>Panama</b>											
Euro	0	0	0	0	0	1200	1500	2000	2350	3190	3500
Brady	0	0	0	0	2340	2340	1741	1761	1785	1779	1748
% Brady					100%	66%	54%	47%	43%	36%	33%
<b>Peru</b>											
Euro	0	0	0	0	0	0	0	0	0	0	1430
Brady	0	0	0	0	0	4282	4282	4282	4282	3810	3287
% Brady						100%	100%	100%	100%	100%	70%
<b>Philippines</b>											
Euro	0	0	0	0	0	690	1690	4588	6838	7556	9306
Brady	3294	3921	3921	3921	3286	3202	3031	2078	1936	1457	1457
% Brady	100%	100%	100%	100%	100%	82%	64%	31%	22%	16%	14%
<b>Poland</b>											
Euro	0	0	0	250	250	1300	1550	1550	1982	3118	3970
Brady	0	0	0	7132	7132	5432	5282	5282	4476	4161	4161
% Brady				97%	97%	81%	77%	77%	69%	57%	51%
<b>Russia</b>											
Euro	0	0	0	0	1000	4299	15046	15046	35980	34980	34980
Restructured	0	0	0	0	0	26172	26216	26216	0	0	0
% Restructured					0%	86%	64%	64%	0%	0%	0%
<b>South Africa</b>											
Euro	0	0	0	0	0	0	0	2434	2934	3527	3777
Brady	0	0	0	0	0	0	0	0	0	0	0
% Brady								0%	0%	0%	0%
<b>South Korea</b>											
Euro	0	0	0	0	0	0	0	4000	4000	4000	4000
Brady	0	0	0	0	0	0	0	0	0	0	0
% Brady								0%	0%	0%	0%
<b>Turkey</b>											
Euro	0	0	0	0	0	0	0	9915	15969	16509	17559
Brady	0	0	0	0	0	0	0	0	0	0	0
% Brady								0	0	0	0
<b>Venezuela</b>											
Euro	0	0	0	0	0	0	4500	5107	5675	6471	6755
Brady	16692	16692	16692	16692	16692	11747	10989	10030	9273	8514	8390
% Brady	100%	100%	100%	100%	100%	100%	71%	66%	62%	57%	55%
<b>Overall</b>											
Euro	0	5636	12813	13616	17112	48133	75553	126053	207459	220014	236298
Brady	81701	99217	127392	147675	146580	155940	149740	142748	93388	68730	66804
% Brady	100%	95%	91%	92%	90%	76%	66%	53%	31%	24%	22%

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**Exchanges During the First Quarter of 2002**

**The trend in the retirement of Brady debt has continued in Q1 2002.** Bulgaria and Peru issued their first Eurobonds, leaving them each with about 70% of their debt in Brady bonds. In addition, Mexico continued calling more tranches of its US\$-denominated discount bonds.

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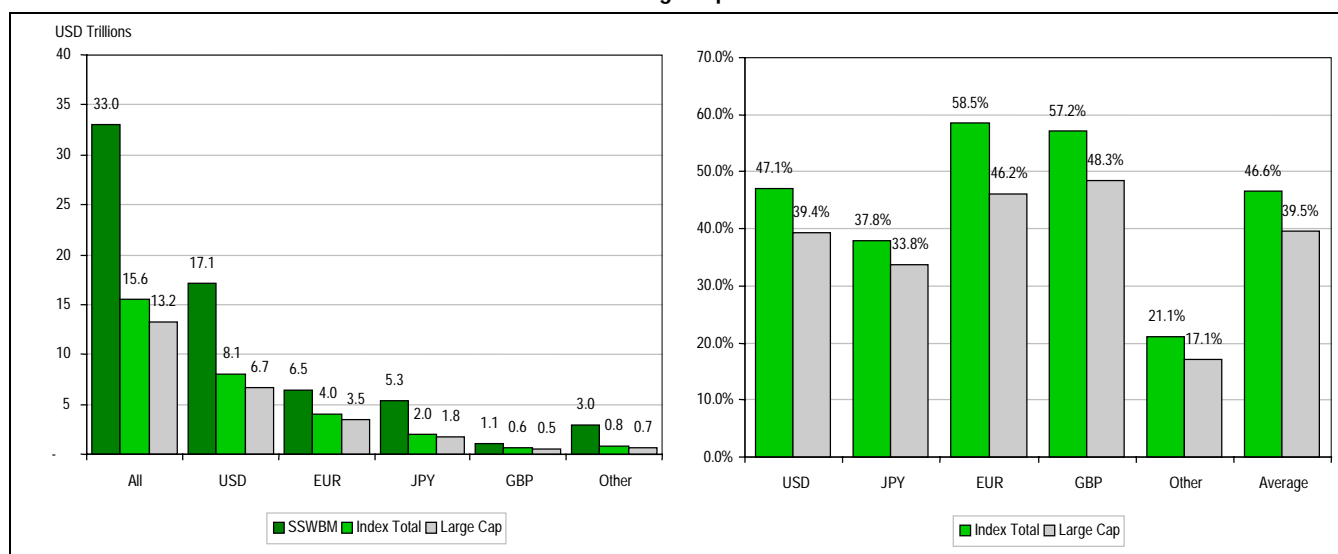
## 6. Indexing the World Bond Market

### The Big Picture

Though the total size of the world's bond markets continued to grow last year, this growth was again powered almost exclusively by the major credit markets in the U.S. and Europe. In fact, it was the corporate sector in both cases that saw the largest percentage increase, and in both cases at the expense of sovereigns. This was particularly impressive during 2001 as defaults and downgrades reached proportions that caused some substantial shifts in credit quality (see **Ratings Transitions in 2001**, page 8).

Despite having considerably more restrictive qualification criteria than the *Size & Structure of the World Bond Market* (SSWBM) universe, the total coverage of all Merrill Lynch indices is over 47% of the whole. If we subject this "broad market" coverage to a much higher liquidity threshold (i.e., "large cap"), it is interesting to note that total coverage as a percentage of the SSWBM drops only 7%. That is, the global large cap index currently captures 86% of the market value of the global broad market index, but with only 30% of issues!<sup>4</sup>

Chart 10: Size & Structure Totals vs. Global Broad Market and Large Cap Indices



Source: Merrill Lynch Indices, Size & Structure of the World Bond Markets

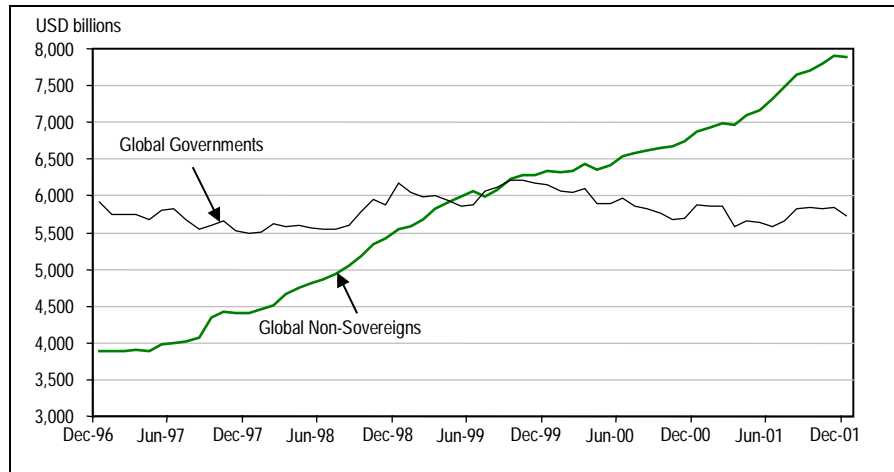
### The Explosive Growth of Credit Continues

Structural trends already well in place over the last several years continued through 2001. The most notable of these from a structural perspective was credit market growth and the incredible shrinking government bond market. The sovereign allocation in most countries dropped between 5% and 10% during 2001. When the current allocations are compared to five years ago, the extent of the credit takeover of the fixed-income markets is startling. U.S. Treasuries, for example, have fallen to almost half their weight at the end of 1996. Japan is the only major market bucking the trend – the JGB share of the yen index rose more than 2% last year.

<sup>4</sup> The global large cap series has a higher minimum size threshold for bonds to be included. As an example, in the broad market the minimum size for USD corporates is \$150 million, in the large cap it is \$500 million.



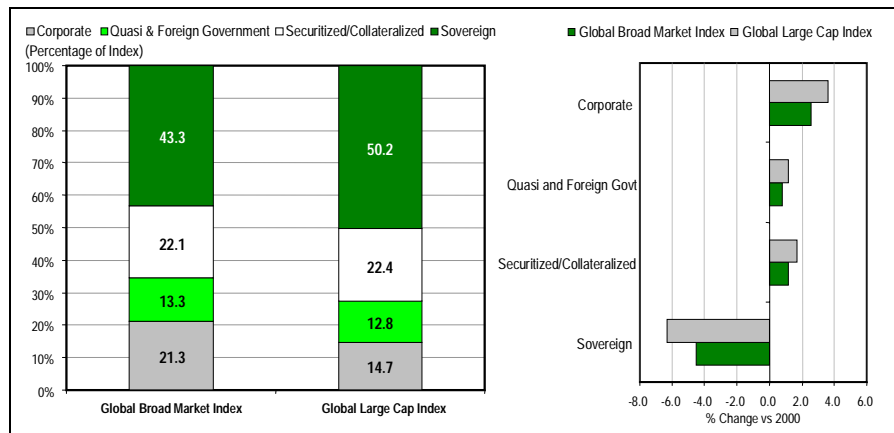
*In terms of U.S. dollar amounts outstanding, non-sovereigns grew 15% in 2001 – 104% over the last five years!*

**Chart 11: Global High Grade Sovereigns vs. Global High Grade Corporates**


Source: Merrill Lynch Indices

Credit grew as a percentage of both the broad market and large cap indices by roughly 5%. The lion's share of the redistributed weight was absorbed by the corporate sector, and even more notably in the large cap index.

*All credit sectors gained at the expense of a shrinking sovereign allocation in 2001. The sector distribution between the broad market and large cap indices is even more similar now than a year ago. The differential between the two corporate allocations is 6%, down from 7% a year ago.*

**Chart 12: Global Broad Market vs. Global Large Cap Sector Allocations**


Source: Merrill Lynch Indices

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## 7. Methodology

### General Methodological Considerations

The *Size and Structure of the World Bond Market* is an annual publication, which provides comprehensive data on the size and composition of the global bond market. The scope of this publication is broad. We cover the domestic bond markets of over 20 industrialized countries – including Euroland – and 12 emerging markets; and the international Eurobond market. **Domestic data presented in our publication is obtained largely from national central banks. In some instances, however, data may be obtained from other national sources such as stock exchanges; government debt management agencies; finance ministries or statistical bureaus. Recently released “securities issuance statistics” by the European Central Bank (ECB) are also displayed. Data on Eurobonds is extracted from statistical publications of the Bank for International Settlements (BIS).**

Every effort is made to maintain consistency across these often diverse capital market systems and to ensure that comparisons between markets are valid. The potential for overstating market size due to double counting is also addressed. To accomplish this objective, certain standards are followed which will be fully explained in this article. In addition, the methodologies employed by the ECB and the BIS will be explored. We will also define the domestic, Eurobond and foreign markets and explain how these definitions have become blurred in an increasingly global bond market. Finally, data considerations unique to the emerging markets will be considered.

#### ■ Framework Utilized in the Size and Structure Publication

**This publication initially breaks down the global bond market by currency of issue.** Within these currency groupings, bonds are further categorized as domestic – those issued in the country’s currency and subject to national security law and

### Glossary

**International Bonds** – (BIS terminology) Foreign Bonds and Eurobonds.

**Domestic Bonds** – (BIS terminology) Resident issuance in a country’s currency and subject to national security law and regulation.

**Foreign Bonds** – (BIS terminology) Non-resident issuance in a country’s currency and subject to national security law and regulation.

**Eurobonds** – (BIS/ECB terminology) Issuance through an international syndicate simultaneously on at least two countries’ markets; denominated in a currency that need not be that of either. Trading largely based in London. Bonds issued in bearer format and generally free from withholding tax as well as other domestic regulatory restrictions.

**Global Bonds** – (ECB terminology) Simultaneous issuance of multi-tranches which may vary in features including currency denomination; separate tranches specifically targeted at resident and non-resident investors. Typically issued in U.S. dollars.

**Government Bonds** – (ML terminology) Broad category that includes issuance by central governments, state/local governments, government-sponsored agencies and other quasi-governmental entities.

**Inflation-Linked Bonds** – (ML terminology) Bonds’ principal value and coupon payments fluctuates in accordance with a specified inflation index.

**Local Currency Bonds** – (ML terminology) Bonds issued in an emerging market country denominated in the national currency of that country.

**Hard Currency Bonds** – (ML terminology) Bonds issued in an emerging market country denominated in a foreign currency, typically U.S. dollars, Japanese yen or Euro.

**Brady Bonds** – (ML terminology) Bonds issued by emerging markets when restructuring their debt under a plan developed by former U.S. Treasury Secretary Nicholas Brady. The principal of the bonds, as well as 12 to 18 months of interest payments, are backed by U.S. Treasury securities.

regulations – and international – bonds issued in the traditional Eurobond format. (Later, we will contrast this framework with those employed by the ECB and BIS.) Domestic securities are categorized by sector to the extent possible, largely depending on data availability and market depth. At the very least, government and non-government securities are differentiated. In general, coverage of the larger markets – such as the United States and Japan – is more sectorized.

For Euroland, we still maintain individual country coverage. In this regard, pre-unification data is presented in legacy currencies and in euros beginning in 1999. In addition, we display a Euroland composite, extracted from data provided by the European Central Bank (ECB), which provides aggregate market data. An individual country perspective is presented by utilizing Merrill Lynch data, which is based on national central bank data.

Other considerations include:

- **Nominal Value versus Market Value.** Following the standards set by international organizations such as the BIS, nominal value outstanding is reported for all bond markets.
- **Foreign Exchange Conversions.** For comparison purposes, the sizes of the individual bond markets are reported in U.S. dollar terms in the overview and appendix tables and in national currencies in the individual country tables. Outstandings in local currencies are converted to U.S. dollars at the exchange rate effective at the close of December 31 of each year. (An exchange rate table is provided in the *Appendix*.) Because of this convention, slight discrepancies may exist between the data that we report and those cited in other publications, which employ different conversion standards.
- **Government Sector.** The composition of the government sector differs from country to country, which may distort comparisons. For example, in the United States, the government sector includes bonds issued by the central government, agencies (including mortgage securities), and municipalities. In other countries, the government sector is not as broad. In Germany, Pfandbrief are included in the corporate sector.

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## Special Methodological Considerations: Euroland

### ■ Introduction

**The ECB has very clearly set the statistical standards that national central banks (NCBs) must follow.** This allows the ECB to present aggregate data on the size and sectoral composition of the bond market of Euroland. Because of the stringent data requirements imposed by the ECB, most NCBs have changed their data collection and reporting systems. Most of the 12 countries now report all data issuance and outstandings – even those for periods prior to January 1999 – in terms of the euro and not their former, national currencies. This is in contrast to previous reporting conventions: data after January, 1999 was reported in euros but data prior to unification remained stated in terms of national currencies. In fact, the Bundesbank, in their publication “*Capital Market Statistics*” still employs this methodology.

**The ECB, together with the BIS, has recognized that during this transitional period, certain countries may have difficulty completely complying to the new data standards,** especially with regards to domestic residents’ issuance activity in foreign markets. The BIS has offered national central banks technical assistance and both the ECB and BIS encourages information exchange between NCBs. The ECB also allows NCBs to deviate somewhat from their data standards as long as these deviations are fully documented.

**Chart 13: The European Central Bank's "Conceptual Framework" for the Collection and Classification of Securities Issue Statistics**  
Includes ECB Foreign Exchange Conversion Methodology

	Securities Issued by Euro-Area Residents	Securities Issued by Rest of World
<b>Securities Denominated in Euro/National Currencies</b>  <i>Source</i> <i>Currency Conversion (pre-99)</i> <i>Currency Conversion (post-99)</i>	<b>BLOCK A</b> Indiv. NCBs submit data to ECB in Euros Irrevocable Exchange Rates – 12/31/98 No conversion required	<b>BLOCK B</b> BIS submits data to ECB in US\$ ECB converts to Euro – ECU/US\$ market rate ECB converts to Euro – Euro/US\$ market rate
<b>Securities Denominated in all other Currencies</b>  <i>Source</i> <i>Currency Conversion (pre-99)</i> <i>Currency Conversion (post-99)</i>	<b>BLOCK C</b> Indiv. NCBs submit data to ECB in Euros Convert to natl. currency; to euros–irrevocable FX Mid-Mk Euro/For. Curr. FX Rate –end of period	<b>BLOCK D</b> Data not required.

Source: This table is extracted from the ECB's Guideline #11, February 2001.

### ■ The ECB's Methodology for Foreign Exchange Conversion

The ECB requires that NCBs submit all data in euros. Chart 13 reviews the foreign exchange conversion practices employed by the NCBs and ECB. These practices comply with the ESA 1995, which is described in the next section of this article. Obviously, no conversion is required for euro-denominated issuance after January 1, 1999. **For outstandings prior to unification, the irrevocable conversion rates set on December 31, 1998 are applied.** Thus, the ECB's long-term data series (which dates back to January 1, 1990) has been created by converting legacy currencies outstanding to euros with the exchange rates set on December 31, 1998. **Utilizing 1998 exchange rates to convert 1990 outstandings may distort values somewhat, especially in selected countries such as Italy and Spain where devaluation of the currency occurred. When an aggregate Euroland composite is created from this underlying data, total market size and growth rates are minimized. However, there is no perfect solution.** To remain consistent with the ECB, we have applied the same methodology in our individual country analysis of Euroland. **The NCBs also submit resident issuance in non-euro currencies in terms of euros. Conversion is done at the mid-market exchange rate** effective the close of business on the last working day of the reporting period. For periods prior to January 1999, foreign currency mid-market rates are converted to euros at the irrevocable exchange rates. **The BIS reports foreign issuance in euros or national currencies in terms of U.S. dollars at the foreign exchange rate effective at the end of the reporting period.** For post-unification data, the ECB converts these outstandings to euros utilizing the end of period euro/US\$ rate. For pre-unification data, the ECU/US\$ rate is used.

### *Background*

The ECB's methodology is based to a large extent on the *1995 European System of Accounts (ESA 1995)*. This is a European system of national and regional accounts, which defines accounting rules necessary to describe the economies of member states in consistent, quantitative terms. An update of a 1979 document, the 1995 version provides greater clarification and explanation of terminology. The ECB also draws on the International Monetary Fund's *Monetary and Financial Statistics Manual 2000* to define certain key terms, such as "securities other than shares." (This term will be discussed later in this article.)

### *Description of ECB Securities Data*

The diagram in Chart 13 also summarizes the framework utilized by the ECB in their compilation and reporting of data on outstanding securities. The ECB essentially categorizes their security issuance data into four groups, referred to as “blocks.” **Block A** encompasses securities issued by all euro-area residents denominated in the euro or their legacy currencies. **Block B** represents securities issued by residents of the rest of the world (RoW) denominated in the euro or legacy currencies. **Block C** contains data for securities issued by euro-area residents in other currencies. Finally, **Block D** represents securities issued by the RoW denominated in other currencies. The ECB relies on the individual NCBs to provide the data reported in Block A and Block C and the BIS for the data reported in Block B. The ECB does not report data for Block D. The ECB provides separate reporting forms for both the BIS and NCBs.

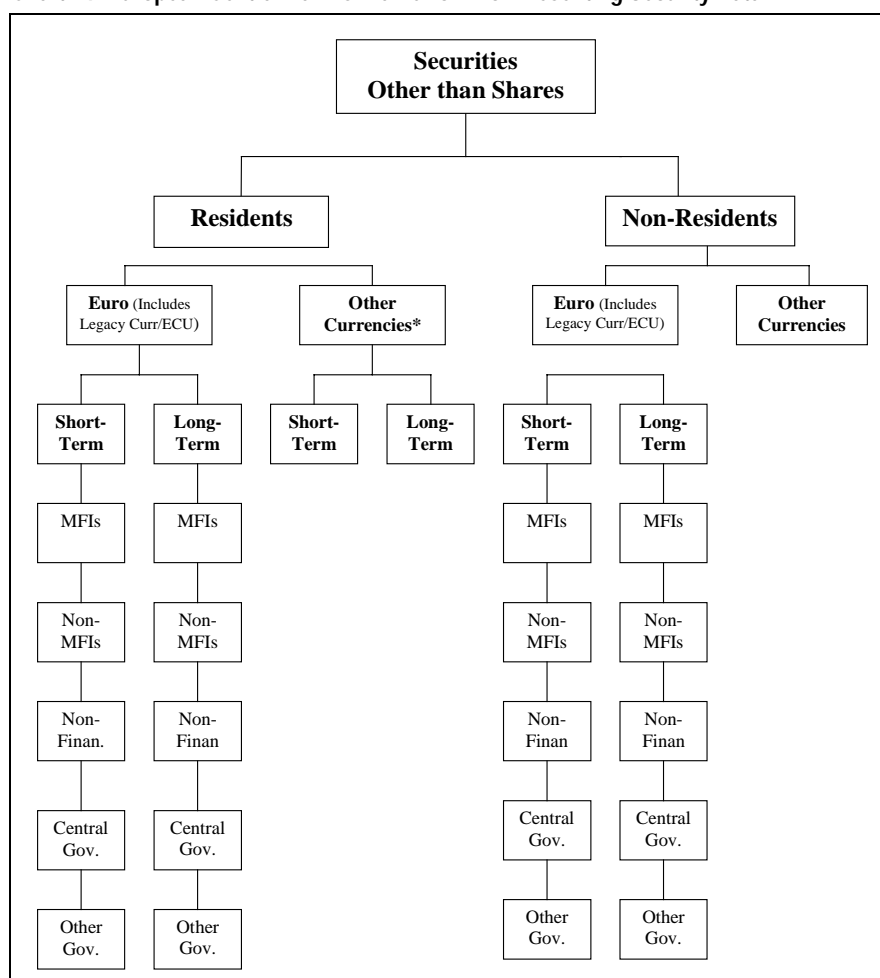
**Time Perspective.** The ECB presents three time perspectives. The “*current data*” provides statistics on securities outstanding from the inception of unification to the present. “*Historical data*” covers the period from January 1, 1995 to January 1, 1999. Finally, in February 2001, the ECB expanded their time series back to January 1, 1990. This last series only provides data for securities issued by residents of Euroland in both euro and foreign currencies. Data on euro-denominated securities are updated monthly; data on foreign currency issuance by residents is updated on a quarterly basis.

### *Analysis of ECB Framework*

Chart 14 further explores the ECB’s framework.

- **Residency of the issuer is the principal distinction employed in the ECB’s methodology.** Because NCBs, in theory, have the most comprehensive data on their residents, NCBs are responsible for providing data on all issuance by these domestic entities, while the BIS, with their global perspective, is responsible for providing data on the “rest of the world”, that is, issuance by all non-euro area residents. Separate data is provided by the BIS for the three non-euro area EU countries. The ECB, employing the ESA 1995, defines a “*resident*” as an entity having a center of economic interest in the territory of the reporting country. That is, it engages in economic activity in this territory for an extended period of one year or more. (The Bundesbank does not require this one-year standard to qualify as a “resident.”)
- **The second level of differentiation is by currency of issue.** Only two broad categories exist. The first category is composed of issues denominated in the euro issued after January 1, 1999 combined with all issues denominated in the legacy currencies and the ECU prior to January 1, 1999. The second category consists of issues denominated in all other currencies including those of the non-euro EU countries. Recent structural innovations relating to currency denomination is also addressed in their framework. *Dual-currency bonds*, where the coupon is paid in a different currency from denomination, are classified according to denomination. *Global bonds*, which allow for simultaneous issuance in multiple markets, are typically denominated in U.S. dollars. If these bonds are issued in more than one currency, each portion is reported as a separate issue. This is consistent with the methodology employed in other markets.
- **The ECB further divides securities denominated in each of these currency groupings into two categories: “securities other than shares” which excludes financial derivatives and quoted shares, which excludes mutual fund shares.** The focus of this report, “*securities other than shares*,” follows the IMF definition. *These are considered debt securities that are negotiable and traded on secondary markets.* Private placements are covered to the extent possible and as long as they are potentially negotiable. Bonds utilized in repurchase agreements are not included. **Data is provided in four categories: amount outstanding, gross issues, redemptions and net issues.**

Chart 14: European Central Bank's Framework For Presenting Security Data



Source: *Statistical Information Collected and Compiled by the ESCB*, ECB, May 2000.

\* In their monthly statistical publication, the ECB does not breakdown outstanding bonds issued by residents in other currencies into sectors. However, this data is provided in their long-term series which is available at their web site.

- **Securities other than shares are further categorized by maturity.** The ECB defines “*short-term securities*” as *debt obligations with an original maturity of one year or less, even if these securities have been issued under long-term facilities*. (In contrast, the BIS categorize all securities issued under long-term facilities as long term.) Conversely, “*long-term securities*” are defined as *those with an original maturity greater than one year*. Securities with optional maturity dates, as long as the latest is more than one year away, and those with indefinite or perpetual maturities are also classified as long term.

**Because the focus of this publication is bond outstandings, the ECB's data on long-term securities is especially important.** In addition to traditionally structured bonds, the ECB also includes the following in this category: floating-rate notes; index-linked bonds; bonds structured through the securitization process; convertible bonds; and non-participating preference shares. Eurobonds are also part of this category. The ECB explicitly defines these securities as “*bonds that are placed simultaneously on the market of at least two countries and denominated in a currency which need not be that of either, usually through an international syndicate of financial corporations in several countries.*”



- Both short- and long-term securities denominated in the euro currency and issued by resident and non-resident issuers are categorized according to the sector incurring the liability. Nine sectors are identified by the ECB: the ECB/NCBs; other monetary financial institutions; other financial intermediaries; insurance companies and pension funds; non-financial enterprises; central government; state and local governments; social security funds and, lastly, international organizations. The NCBs are required to submit their data to the ECB utilizing this categorization system. In their statistical release, the ECB combines these sectors and presents data in six categories.

The ECB defines these sectors in accordance with ESA 1995 as follows:

**Monetary Financial Institutions (MFIs):** financial institutions, which form the money-issuing sector of the euro area. It includes the Eurosystem (ECB/NCBs combined), resident credit institutions and all other financial institutions whose primary business is deposit taking and lending.

**Non-Monetary Financial Institutions:** institutions principally engaged in financial intermediation by incurring liabilities other than deposits. Includes insurance companies and pension funds that are involved in financial intermediation as the consequence of pooling risk.

**Non-Financial Corporations:** institutions not engaged in financial intermediation but rather in the production of market goods and non-financial services.

**Central Government:** administrative departments of state and other central agencies whose competence extends over the whole economic territory of the reporting country.

**Other Government:** state and local governments and social security funds.

**International Organizations:** supranational and international organizations such as the European Investment Bank, the IMF and the World Bank.

## Methodology Employed by the Bank for International Settlements

It is important to fully understand the statistical methods employed by the BIS. The ECB depends on this international organization to provide security issuance data for non-residents in euro or the legacy currencies. This publication utilizes BIS data for tabulating the size and composition of the traditional Eurobond market.

### ■ Description of BIS Methodology

**The BIS's perspective on security statistics differs markedly from that employed by the ECB.** The most crucial differentiation for the BIS is between international and domestic issuance. The BIS classifies securities as international or domestic based on three criteria: the location of the transaction; the currency of issuance; and the residence of the issuer. **Data on international securities released by the BIS combines Eurobond issues with foreign issues, which consist of domestic currency issues by non-residents.** The BIS also provides data on domestic securities. However, their data on international securities is more comprehensive and is gathered on an individual security basis. In contrast, the BIS relies on aggregate data provided by national sources for domestic statistics. (The BIS has given considerable attention to the compilation of international financial statistics. In fact, the BIS will publish “*Guide to the BIS International Financial Statistics*” later this year.)

**The BIS considers the nature of the investor base through an analysis of the security's syndicate.** This is generally not a material consideration for Eurobonds – by their very nature they are international and targeted at global investors. However, the BIS believe the distinction is crucial for domestic bonds. The BIS

consider a domestic issue specifically targeted to international investors as an international security. **In contrast, the ECB does not consider the potential investor base when classifying securities.** Thus, what the ECB classifies as resident issuance – what we tend to think of as “domestic” – actually includes securities that the BIS would consider international. To illustrate, included in the BIS’ tabulation of international bonds denominated in the euro currency includes euro-denominated bonds issued by residents of Euroland. (The ECB considers these bonds as “resident” issuance.) To avoid double counting, the BIS – when providing the required data on non-residents’ issuance in the euro currency to the ECB – makes an adjustment to their data – extracting euro-denominated bonds by euro residents. However, this disaggregated data is not provided to the public in the BIS’ statistical releases.

### ■ Our Methodology versus the ECB

**By combining domestic and international outstandings, the ECB’s intent is to present Euro-denominated bonds as one large, unified market. However, this methodology conflicts with the basic framework traditionally employed in this report. The *Size and Structure* publication very clearly differentiates between domestic and international bond outstandings.** When we create our Euroland composite from the individual country data and compare these statistics to those reported by the ECB, the differences are evident. Our government data closely matches that provided by the ECB. However, our estimate for non-government outstandings consistently falls approximately 15% below what is reported by the ECB because of their inclusion of Eurobonds. **Despite these differences, our data allows us to present the relative breakdown of the government and non-government sectors by Euroland country – a perspective that the ECB does not provide in their aggregate data.** These figures appear in the Euroland section.

### ■ Distinguishing Between Euro, Foreign and Domestic Bonds

**An analysis of these conflicting methodologies raises an important question. Has market forces blurred the distinctions between euro, foreign and domestic bonds to the extent that differentiation is no longer possible?**

Table 12, extracted from the BIS report “*What is left of the traditional distinctions between eurobonds, foreign bonds and domestic bonds,*” distinguishes between these three bond types. However, forces such as deregulation, consolidation and globalization have diminished the uniqueness of these features.

- **Composition of the Syndicate.** The composition of the issuing syndicate may not always reveal the security’s international or domestic nature. Deregulation has broadened opportunities for foreign underwriters in domestic markets. Consolidation within the financial service industry – especially between foreign entities – further clouds this analysis.

**Table 12: A Comparison of the Traditional Characteristics of Eurobond, Foreign and Domestic Bonds**

	<b>Eurobond</b>	<b>Foreign</b>	<b>Domestic</b>
Currency Denomination	Local/Foreign	Local	Local
Target Investor	International	Domestic	Domestic
Withholding Tax	No	Yes	Yes
Issuance Method	International Syndicate	Domestic Syndicate	Domestic Syndicate/Auction
Listing	London/Luxembourg	Local Stock Exchange/OTC	Local Stock Exchange/OTC
Trading	OTC	OTC/Local Stock Exchange	OTC/Local Stock Exchange
Settlement	Euroclear/Cedel	Local Clearinghouse	Local Clearinghouse

Source: The Bank for International Settlements, “What is left of the traditional distinctions between Eurobonds, foreign bonds and domestic bonds,” 1997.



- **Absence of Withholding Tax.** The traditional euro bond market was permitted to flourish under liberal regulatory guidelines. These bonds were issued in bearer format, free from withholding tax and registration requirements. However, absence of withholding tax and bearer-format issuance may be incorporated into the structure of domestic securities.
- **Settlement Location.** Domestic securities are still cleared largely through domestic entities. However, trading through Euroclear and Cedel is no longer limited to international securities. According to the BIS, the largest proportion of securities cleared through these international exchanges is domestic.
- **Registration and other Regulatory Requirements.** In some markets, differentiation between euro, foreign and domestic is eased by regulatory requirements. For example, the United States' requirement that all bonds issued within their market be registered clearly identifies domestic from international dollar-denominated bonds. Similar differentiation can be made with bonds denominated in Australian dollars, yen, and the British pound. The Swiss authorities maintain regulations that virtually prevent offshore issuance. Thus, 80% of Swiss franc-denominated bonds issued by non-residents are foreign bonds. Previously, the German authorities required that a German syndicate lead all Deutschmark-denominated bonds. Although these securities had the traditional characteristics of domestic bonds, they were considered international because of their targeted investor base.
- **Unique Considerations with Global Bonds.** Global bonds, which are typically issued in U.S. dollars, are expressly targeted at both domestic and international investors. However, differentiation is complicated: to insure compatibility between tranches, domestic features will be incorporated into the eurobond security and vice versa. In their March 2002 Quarterly Review, the BIS discusses the significant increase in issuance of bonds targeted at both resident and non-resident investors. In this environment, the potential of overstating market size is elevated. For example, in 1995, less than 5% of net new issues by U.S. government agencies were classified as international by the BIS compared to 50% in 2001.

### ■ Special Methodological Considerations: Emerging Markets

The incorporation of the emerging markets into this publication presents other methodological challenges. **The availability, consistency and accuracy of data differ widely across the emerging markets causing adherence to a standard methodology for all countries impossible.** Government bond markets tend to be the most developed in the emerging markets; consequently, documentation is most complete for this sector. Non-government outstandings are often not available. For some emerging markets, we have incorporated short-term securities, especially Treasury bills, into the outstandings tabulation due to their heavy reliance on short-term funding. This is contrary to the methodology we employ in the industrialized countries.

**Unique bond structures also exist in the emerging markets.** Domestic outstandings in these markets will be classified as either “*local currency*” – securities denominated in the country’s national currency – or “*hard currency*” – securities denominated in a foreign currency, typically U.S. dollars, Japanese yen or euro. “*Brady bonds*” compose an important, albeit declining, segment of the emerging markets. Brady Bonds are bonds issued by emerging markets when restructuring their debt under a plan developed by former U.S. Treasury Secretary Nicholas Brady. The principal of the bonds, as well as 12 to 18 months of interest payments, are backed by U.S. Treasury securities.

**Gioia Bales**

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## Country Bond Markets

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## 8. Country Bond Markets, Industrial

### United States

#### ■ U.S. Treasuries

*Deficit forecast because of lower tax revenues, and the decline of the stock market.*

*Federal spending should increase.*

*Quarterly 5-year issuance in 2002...*

**Budget Review and Outlook:** Through the first six months of fiscal year (October 2001 – March 2002), revenues (adjusted for the \$23 billion of corporate tax payments transferred from FY 2001 into FY 2002) are down about 7.3% from the analogous period a year ago. The decline was paced by individual income taxes, which fell by \$42 billion, or 9.6%. Corporate tax receipts (adjusted) fell about \$24 billion, or 30%, on a year-on-year basis. The apparent economic rebound is not likely to improve revenues for a while. Further, the decline in the stock market during 2001 will depress capital gains revenue. **Although revenues should pick up markedly as the economy gathers steam in the second half, we still see a deficit of \$45 billion for FY2002, with the risk as high as \$60 billion.**

The upward risk to our budget forecast stems from the prospect of even more federal spending this year than presently forecast. Through the first six months of the fiscal year, federal spending is up an adjusted 7.1%, thanks to more spending on defense, Medicare and Medicaid, transportation, and unemployment insurance. Going forward, spending should be even stronger due to the continued growth in defense spending and the recently enacted extension of benefits for the long-term unemployed.

**Implications for Treasury Finance:** Our deficit forecast for FY 2002 supports our call that the Treasury will institute quarterly stand-alone 5-year note auctions beginning in May, suspending the scheduled reopenings, thus resulting in 4 separate cusips a year. This would allow the Treasury to meet its increased borrowing need and continue with a modest amount of buybacks (\$10 - \$15 billion). By eliminating the scheduled reopenings, the Treasury could issue more 5-year debt and minimize additional supply pressures in the bill and 2-year sectors.

**Table 13: U.S. Dollar Bond Market**  
(1980, 1985, 1990-2001; Nominal Value Outstanding in Billions of U.S. Dollars)

Year		Government																
		U.S. Treasury							Agencies				Mortg. Sec		Municipal			
		Total	% of Total	Notes/ Bonds	Inflat- Index	Total	% of Total	Federal	Fed Spons	Total	% of Total	Total	% of Total	State/ Local	Reven.			
1980	1485.2	973.4	65.5	407.1	27.4	407.1	—	164.3	11.1	na	na	114.0	7.7	288.0	19.4	na	na	
1985	3396.5	2298.3	67.7	1037.8	30.6	1037.8	—	261.0	7.7	na	na	368.9	10.9	630.6	18.6	na	na	
1990	6281.9	4144.1	66.0	1668.4	26.6	1668.4	—	393.7	6.3	na	na	1019.9	16.2	1062.1	16.9	na	na	
1991	6904.6	4536.3	65.7	1881.2	27.3	1881.2	—	421.5	6.1	18.6	402.9	1156.5	16.8	1077.1	15.6	1077.1	na	
1992	7491.8	4932.1	65.8	2096.4	28.0	2096.4	—	461.9	6.2	18.8	443.1	1272.0	17.0	1101.8	14.7	1101.8	na	
1993	8344.4	5431.8	65.1	2274.9	27.3	2274.9	—	550.3	6.6	26.6	523.7	1356.8	16.3	1249.8	15.0	1124.9	124.9	
1994	8925.6	5804.0	65.0	2392.2	26.8	2392.2	—	727.3	8.2	26.7	700.6	1472.1	16.5	1212.4	13.6	1080.7	131.7	
1995	9634.0	6113.8	63.5	2546.5	26.4	2546.5	—	834.7	8.7	28.2	806.5	1570.3	16.3	1162.3	12.1	1027.5	134.8	
1996	10576.4	6454.2	61.0	2667.3	25.2	2667.3	—	923.5	8.8	26.6	896.9	1711.4	16.2	1152.0	10.9	1014.1	137.9	
1997	11558.6	6779.1	58.6	2726.4	23.6	2693.4	33.0	1021.8	8.9	26.5	995.3	1825.8	15.8	1205.1	10.4	1063.1	142.0	
1998	12803.8	7266.3	56.8	2649.5	20.7	2581.9	67.6	1302.1	10.2	28.5	1273.6	2018.4	15.8	1296.3	10.1	1148.5	147.8	
1999	14283.6	7755.6	54.3	2492.9	17.5	2392.2	100.7	1620.0	11.3	28.3	1591.7	2292.3	10.1	1350.4	9.5	1197.6	152.8	
2000	15417.5	8025.9	52.1	2305.0	14.9	2183.8	121.2	1852.1	12.0	27.3	1824.8	2491.9	16.2	1376.9	8.9	1222.7	154.2	
2001	17090.9	8588.8	50.3	2156.3	12.6	2016.2	140.1	2141.3	12.5	26.8	2114.5	2828.2	16.5	1463.0	8.6	1305.6	157.4	

Federal Agency bonds primarily include bonds issued by: Export-Import Bank; Federal Housing Administration; GNMA; Tennessee Valley Authority.

Federal-Sponsored Agency bonds include bonds issued by: FHLB; FHLMC; FNMA; Farm Credit Banks; SLMA; Financing Corp.; Farm Credit Financial Assistance Corp.; Resolution Funding Corp.

Mortgage securities are created through federally-related pools.

Source: Flow of Funds Accounts of the United States, Flows and Outstandings, Fourth Quarter 2001; Summary of the Public Debt, The Public Debt Online. Eurobond data is from the BIS.

**Table 14: Fiscal Year 2002 Financing Needs**  
(Billions US\$)

Sector	Avg. Size Currently*	Avg. Size Estimated**	Number of Auctions/Yr	Total Issuance
2-year	23.3	24.3	12	292
5-year	16	20	4	80
10-year	12	15	4	60
TIPS	6	6	2	12
<b>Total</b>				<b>444</b>

\* Represent the average size without a change in the schedule.

\*\*This new estimated averages assume the size of the 2-year auctions rise to \$27bn from \$25bn. The 5-year auctions rise to \$25bn from \$16bn and 10-year auctions to \$17bn from \$13bn.

Maturing Coupons†	Issuance Coupons	Net Raised In Coupons	Budget Balance	Financing Needs	Net Raised In Bills
407	444	37	-45	80	43

†Assumes just \$10bn in buybacks

Source: Merrill Lynch

*...as well as a rise in 2 Yr and 10-Yr issuance.*

**We expect the Treasury to begin issuing stand-alone 10-year notes in August, but the overall increase in supply will be less in the 10-year sector than the 5-year sector (see Table 14).** That said, we do not rule out increases in the 2-year note offerings by another \$1 billion or so. Despite the opinion of the Borrowing Advisory Committee, the Treasury sees no evidence to suggest that the 2-year sector could not handle even larger auction sizes.

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### ■ Agencies

The pace of Agency market debt growth picked up in 2001, as it remained one of the fastest growing sectors of the U.S. fixed-income market. In 2001, total debt outstanding grew by approximately \$290 billion, or 16% to over \$2.1 trillion. Gross issuance of long-term debt (i.e., of greater than one year maturity) was even

**Table 13: U.S. Dollar Bond Market (Cont'd)**

(1980, 1985, 1990-2001; Nominal Value Outstanding in Billions of U.S. Dollars)

Year	Corporate											Non-Financial		Foreign		Eurobond	
	Financial											Non-Financial		Foreign		Eurobond	
	Total	% of Total	Total	% of Total	ABS	Com Bk/ BHCs	Savings Instit.	REITS	Finance Co.	Funding Corp.	Broker/ Deal	Total	% of Total	Total	% of Total	Total	% of Total
1980	453.5	30.5	93.2	6.3	na	na	na	na	na	na	na	360.3	24.3	na	na	58.3	3.9
1985	767.9	22.6	212.5	6.3	na	na	na	na	na	na	na	555.4	16.4	60.0	1.8	270.3	8.0
1990	1497.7	23.8	537.5	8.6	na	na	na	na	na	na	na	960.2	15.3	115.4	1.8	524.7	8.3
1991	1689.7	24.5	602.8	8.7	na	na	na	na	na	na	na	1086.9	15.7	130.4	1.9	548.2	7.9
1992	1842.5	24.6	688.0	9.2	na	na	na	na	na	na	na	1154.5	15.4	147.2	1.9	570.0	7.6
1993	2105.6	25.2	875.9	10.5	442.0	134.9	3.9	16.8	215.6	40.0	33.7	1229.7	14.7	230.1	2.8	576.9	6.8
1994	2261.8	25.3	1008.8	11.3	506.1	142.6	3.1	15.3	247.4	60.0	34.3	1253.0	14.0	242.3	2.7	617.5	6.9
1995	2548.8	26.5	1204.7	12.5	611.3	161.1	3.1	15.5	300.0	84.4	29.3	1344.1	14.0	291.9	3.0	679.5	7.1
1996	2841.9	26.9	1381.5	13.1	719.7	168.9	2.7	16.8	332.5	113.6	27.3	1460.4	13.8	347.7	3.3	932.6	8.8
1997	3168.4	27.4	1557.5	13.5	822.1	192.6	2.8	31.6	328.8	144.2	35.3	1610.9	13.9	394.9	3.4	1216.2	10.5
1998	3679.0	28.7	1849.4	14.4	1012.8	220.2	2.6	53.4	339.7	178.1	42.5	1829.6	14.3	420.0	3.3	1438.5	11.2
1999	4129.0	28.9	2069.5	14.5	1111.3	240.7	2.7	59.2	394.8	235.5	25.3	2059.5	14.4	422.4	3.0	1976.6	13.8
2000	4515.9	29.3	2281.4	14.8	1196.0	273.2	3.4	72.1	464.3	237.5	40.9	2234.5	14.5	495.4	3.2	2380.3	15.4
2001	5174.9	30.3	2616.1	15.3	1364.8	310.5	3.6	71.9	563.3	259.7	42.3	2558.8	15.0	486.8	2.8	2840.4	16.6

*The fastest growing sector of the U.S. fixed-income market (15.6%), but the coming recovery will moderate this growth.*

more impressive, reaching a record \$921 billion in 2001, more than double the \$428 billion issued in 2000. The spike in issuance was driven largely by the need of the agencies to replace almost \$520 billion in callables that were redeemed in 2001, as a result of the Treasury market rally. However, each of the three biggest Agencies – Fannie Mae, Freddie Mac, and the Federal Home Loan Bank (FHLB) – also expanded their portfolios aggressively last year.

**Agencies' share of the U.S. fixed-income market rose to 15.6% from 14.0% the prior year and only 6.1% a decade ago.** Agencies' debt contribution to the Merrill Lynch Government Master Index grew at an even faster pace: in 2001, Agency debt accounted for 31% of this index, up from 25% in 2000, and only 12% a decade ago.

In 2002, with rates likely to trend higher as economic recovery takes root, we expect gross issuance to moderate from last year's breakneck pace. Also, with the MBS/Agency basis no longer as attractive as it was for much of 2001, the portfolio growth rate for the major GSE's should also slow, which in turn will likely dampen the pace of gross issuance. However, net agency issuance should rise by at least 15% in 2002.

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### ■ Corporate Market

*Record 15% growth rate in 2001 expected to slow in 2002...*

**The U.S. corporate bond market set a new issuance record level in 2001 at a 15% growth rate.** As a result of increased supply, total corporate bonds outstanding increased last year by \$659 billion, as compared to \$387 billion in 2000. The most active sectors were telecom, utilities, auto, and banking (in order of new issue size), which accounted for nearly 50% of the new issues. The primary reasons for this record were historically low term funding rates, the terming out of the CP market, M&A related funding, and delayed capital expenditures from 2000.

**This year, we expect the corporate issuance to slow by 10% - 20% from 2001's record pace.** The new issue market has gotten off to a fast start with \$131 billion new issues in Q1. Corporate issuers continue to either lose access to the CP market or take advantage of low rates to fund maturing debt. However, given that a massive amount of CP has already been paid down in the last few quarters, we believe the CP extension trade is nearly exhausted. Furthermore, as we expect the economy to recover, higher funding rates will cap opportunistic borrowing.

*... except for high frequency borrowers' issuance.*

Compositionally, we expect the high frequency borrowers – autos, banks, and finance – to have robust issuance. In contrast, the sectors that will experience the sharpest drop in supply are energy merchants, telecom, and utilities. The maturity structure will continue to be concentrated in the short- to intermediate-portion of the curve. The long-dated supply has accounted for 15% of total supply year-to-date, while it has averaged for 18% in the last 5 years.

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### ■ Mortgage Market

*13.5% growth thanks to a refinancing boom and rising home values.*

**Record issuance of mortgage-backed securities and continued contraction of Treasuries helped the MBS sector gain index share in 2001. The sector solidified its position as the largest component of the U.S. fixed-income markets after corporate bonds.**

Driven by a refinancing boom and a strong housing market, the outstanding balance of the mortgage-backed securities market grew at about a 13.5% rate in 2001, at about the same rate as in 1999, after the last refinancing boom. However, the actual balance grew by a record \$336 billion, easily eclipsing the previous peak of \$273 billion seen in 1999. In addition to refinancing activity, rising home values drove gross issuance to a record \$1.2 trillion – an increase of 150% year-over-year. In 2002, we expect gross issuance to be about 25% lower than last year. Last year saw a significant jump in the issuance of hybrid ARM securities; as long as the yield curve continues to be steep, we expect this pattern to continue.

Expectations of an improved economy and an eventual rise in interest rates combined with profit concerns as well as headline risks in the corporate market have led mortgages to a stellar performance this year. The economic outlook for the remainder of the year continues to bode well for the MBS sector. The combination of paydowns of higher coupons and concentrated issuance of 6.0% and 6.5% securities has moved the average coupon of the mortgage index close to 6.5%. In a rising rate environment, the lower coupon distribution is likely to lead to an extension of the index duration.

**Mahesh Swaminathan**

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#### ■ ABS Market

*A relatively safe investment, steady growth of the ABS market is expected.*

**The U.S. Asset Backed Securities (ABS) market set another record in 2001 with almost \$250 billion of public supply.** Perhaps the most important theme in the ABS market in both the past and coming year is that the strength and stability of the market has made it a safe haven relative to other spread products. Both the term ABS and the ABCP markets continue to avoid most of the risks and events that have plagued other fixed-income markets. Weakness in other fixed-income markets has led to, and will continue to lead to, greater ABS supply and demand.

2001 was a major success for the ABCP market, which proved resilient in the face of numerous market disruptions. **ABCP growth is robust, with an increase of \$117 billion in 2001 and an expected \$110 billion in 2002, bringing total ABCP outstandings to \$850 billion by year-end 2002.** As the ABCP market grows in prominence, we would expect that market to see tighter spreads relative to unsecured CP, due to its inherent ratings stability and improving liquidity.

**2002 supply will be consistent in composition and amount to 2001. Public term ABS supply will reach \$260 billion in 2002.** ABS supply will continue to be dominated by the three largest sectors: home equity, automobiles, and credit cards, which together account for more than three-quarters of total ABS issuance. In terms of growth, the home equity sector will see volume increase due to high refinancings and the equipment sector should have significant growth due to greater market acceptance. Auto issuance should be bolstered by favorable funding costs. Credit card supply should benefit from \$43 billion of expected runoff that needs to be refunded. **We expect private supply to reach \$90 billion and to be dominated by collateralized debt obligations. Altogether, we are expecting \$350 billion of ABS issuance in 2002.**

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#### ■ Municipals

*The third largest volume in history.*

**Total new issuance for the municipal bond market in 2001 rose 43% to \$286 billion from \$200 billion in 2000 as states and local governments took advantage of the low interest rate environment.** This is the third largest volume in history after 1993 and 1998. New financing was the largest ever with \$198 billion of issuance, a 16.5% growth over year 2000's \$164 billion. Refunding volume increased to \$88 billion from \$34 billion in 2000.

*Issuance outpaces redemption.*

For 2002, we expect total new issuance to be around \$250 billion and bond redemption to be approximately \$150 billion. The total size of outstanding municipal bonds stood at \$1.5 trillion at the end of year 2001. As issuance continues to outpace redemption, we expect the total outstanding municipals to reach \$1.8 trillion by the end of this year.

*Strong issuance in general purpose and education bonds.*

Issuance continues to be strongest in general purpose bonds and education bonds, each accounting for approximately 25% of the total in 2001. Other large sectors, in order of size, are transportation (14%), utility (10%), healthcare (8.1%) and housing (7.6%). Going forward, the growth areas continue to be general purpose, education, transportation and utility. Issuance of tobacco bonds should also be substantial as \$10 billion in new bonds are expected.

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**Table 15: Credit Ratings for  
G7 Government Debt Issues\***

	Moody's	S&P	Fitch
USA	Aaa	AAA	AAA
UK	Aaa	AAA	AAA
Germany	Aaa	AAA	AAA
France	Aaa	AAA	AAA
Canada	Aa1	AAA	AA+
Italy	Aa3	AA	AA-
Japan	Aa3	AA-	AA

\* as of 16 April '02

*Ratings have been downgraded  
because of worsened deflation  
and high debt burden.*

*The Government is promoting  
individual ownership of JGBs  
while corporate bonds are  
declining.*

## Japan

### ■ JGB Downgrades Unavoidable in 2001 and 2002 Despite Fiscal Restructuring Efforts

In retrospect, the most significant event in 2001 was the formation of the Koizumi cabinet with grass-roots support. Prime Minister Koizumi started actively addressing privatization of special-purpose entities, fiscal restructuring, tax system reforms, and other issues under a banner of structural reform. The JGB market paid close attention to the cabinet's fiscal restructuring initiative. Expenditure-cutting activities were launched to fulfill Prime Minister Koizumi's ¥30 trillion cap (limiting new JGB issue value to ¥30tn), put forth as a political commitment. The administration managed to keep its word and maintain the ¥30 trillion cap by creating "hidden loans" – such as using the proceeds from selling NTT shares held by the Ministry of Finance (MoF) to cover second supplementary budget funding in 2001.

Nevertheless, the JGB rating was downgraded one notch each by Fitch, S&P, and Moody's late in 2001. In April 2002, S&P lowered Japan's rating once again. Moody's, which lowered its rating from Aa2 to Aa3, is expected to go still further in 2002 to the A1 level. U.S. and European credit rating agencies are downgrading JGBs, despite the Koizumi cabinet's fiscal restructuring activities (see Table 15 in the margin). The main reason cited by Moody's for its tough stance – the harshest among major rating agencies – is worsening deflation in the Japanese economy, and associated increase in real debt burden in a deflationary environment.

### ■ Debt Management Policies for the Future

The administration intends to enforce the ¥30 trillion cap again in 2002, but Prime Minister Koizumi has decided to switch to spending caps from 2003 (restricting national and local government spending to no more than 37.6% of GDP). With

**Table 16: Japanese Yen Bond Market**

(1980, 1985, 1990-2001; Nominal Value Outstanding in Trillions of Yen; End-2001 Exchange Rate = 131.06 Yen/US\$)

Year	Total	Government							
		Gov't Total	% of Total	Total JGBs	% of Total	Public Offering	BoJ, TFB	Municipal	Gov't Guar.
1980	145.7	107.8	74.0	66.0	45.3	54.0	12.0	3.6	7.0
1985	257.2	195.1	75.9	133.0	51.7	94.7	38.3	5.9	15.8
1990	346.4	230.0	66.4	156.4	45.1	94.4	62.0	7.2	19.7
1991	366.9	239.5	65.3	161.1	43.9	98.2	62.9	7.4	19.9
1992	386.5	251.2	65.0	166.9	43.2	101.5	65.4	7.7	19.7
1993	410.4	267.3	65.1	174.8	42.6	107.2	67.6	8.3	19.6
1994	448.4	293.6	65.5	190.9	42.6	122.2	68.7	9.0	20.4
1995	483.9	319.2	66.0	206.6	42.7	136.4	70.2	10.2	21.6
1996	524.0	345.4	65.9	226.9	43.3	149.0	77.9	11.2	22.9
1997	542.0	366.3	67.6	241.6	44.6	158.2	83.4	12.3	24.0
1998	551.5	383.3	69.5	265.5	48.1	168.2	97.3	13.2	20.7
1999	586.2	419.7	71.6	296.5	50.6	192.2	104.3	14.6	21.9
2000	634.6	456.9	72.0	329.7	52.0	228.0	101.7	16.1	25.2
2001	695.3	516.2	74.2	391.1	56.2	272.3	118.8	17.8	28.2

Beginning in 2001, we display private placement separately for the government and corporate sectors.

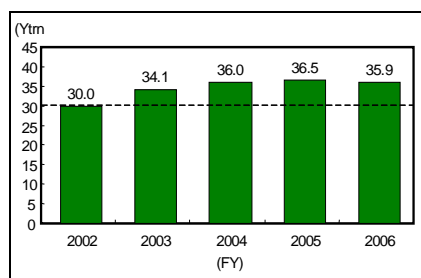
The breakdown of the Government bond sector reflects the three major issuance methods: underwritten by a syndicate (5 and 10 year notes); public offering via auction (30, 20, 6, 4, 2 year); or underwritten by the Ministry of Finance's Trust Fund Bureau. In addition, the Postal Savings Account Fund underwrites government bonds and the Bank of Japan accepts government bonds to rollover its maturing bond holdings.

Government-guaranteed bonds are issued by government-affiliated agencies which include 31 separate entities whose principal and coupon payments are guaranteed by the government.

Foreign bonds are known as "samurai."

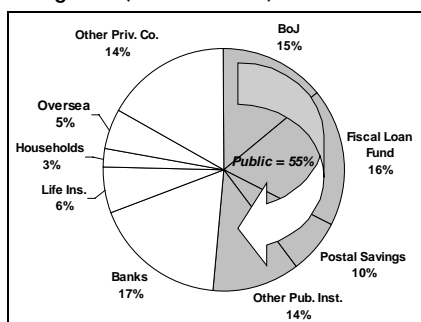
Source: Securities Dealers Association of Japan, Shoken Gyoho, Table: New Issue Value and Volume. Eurobond data is from the BIS.



**Chart 15: Outlook for New JGB Issue Value**


Source: Cabinet Office

this approach, new JGBs can be issued within the scope of the spending caps if the economy continues to weaken, and if tax revenue falls and are expected to surpass the ¥30 trillion level from 2003 (see Chart 15). In an effort to prevent yields from rising in response to higher JGB issue volume, MoF is trying to promote more individual JGB ownership. Tax system revisions are being considered as one way of giving individuals an incentive to purchase JGBs. Since individuals are likely to be “buy-and-hold” investors, higher levels of individual JGB ownership should reduce JGB market volatility. Diversification is another strategy with the introduction of JGB strips and other deregulation. At the same time, the Bank of Japan (BoJ) is likely to continue increasing the JGB outright purchase value to buffer against worsening market conditions. It should also be noted that the distorted JGB ownership structure, in which more than 50% is held by public entities, gives the government considerable control over the JGB market (see Chart 16).

**Chart 16: JGB Ownership by Investor Categories (as of end-2001)**


Source: Bank of Japan

### ■ Corporate Bond Issue Value Headed Downward for 2002

Japanese companies are preparing capital investment plans for 2002 that cut outlays even deeper than 2001 levels. Meanwhile, an overall decline in Japan’s credit ratings is making it difficult for low-rated companies to issue corporate bonds – only high-rated companies are likely to issue bonds. While ¥6.6 trillion in corporate bonds are scheduled for redemption in 2002, we are projecting under ¥8 trillion, or slightly less than 2001, in total domestic corporate bond issues for 2002.

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**Table 16: Japanese Yen Bond Market (Cont’d)**

(1980, 1985, 1990-2001; Nominal Value Outstanding in Trillions of Yen)

Year	Corporate										Foreign		Eurobond	
	Total	% of Total	Non-Financial				Financial		Private Placements		Total	% of Total	Total	% of Total
			Total	% of Total	Straight	w/ Warrants	Total	% of Total	Total	% of Total				
1980	35.8	24.6	9.8	6.7	8.6	1.2	26.0	17.8	—	—	1.8	1.3	0.3	0.2
1985	54.9	21.3	13.6	5.3	9.1	4.5	41.3	16.1	—	—	5.2	2.1	2.0	0.8
1990	95.0	27.4	27.4	7.9	9.7	17.7	67.6	19.5	—	—	5.8	1.8	15.6	4.8
1991	103.2	28.1	29.6	8.1	11.0	18.6	73.6	20.1	—	—	6.2	1.8	18.0	5.3
1992	110.1	28.5	31.6	8.2	13.2	18.4	78.5	20.3	—	—	6.5	1.8	18.7	5.2
1993	113.6	27.7	35.2	8.6	15.9	19.4	78.4	19.1	—	—	7.4	1.9	22.1	5.8
1994	116.4	26.0	38.2	8.5	18.1	20.1	78.2	17.4	—	—	8.1	2.0	30.3	7.4
1995	118.2	24.4	41.6	8.6	22.0	19.6	76.6	15.8	—	—	9.2	2.1	37.3	8.5
1996	123.6	23.6	47.6	9.1	26.5	21.1	76.0	14.5	—	—	12.3	2.6	42.7	9.1
1997	117.0	21.6	49.8	9.2	31.3	18.5	67.2	12.4	—	—	12.1	2.5	46.6	9.6
1998	114.5	20.8	57.6	10.4	41.8	15.5	56.9	10.3	—	—	9.9	2.0	43.8	8.8
1999	115.7	19.7	59.0	10.1	45.7	12.6	56.7	9.7	—	—	8.3	1.4	42.5	7.3
2000	111.3	17.5	61.6	9.7	50.0	11.6	49.7	7.8	—	—	8.3	1.3	58.1	9.2
2001	112.0	16.1	62.7	9.0	52.4	10.3	44.6	6.4	4.7	0.7	8.0	1.2	59.1	8.5

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**Table 17: The Composition of the Euroland Government Bond Market, by Country** (Percent of Total Euroland Government Market)

	1999	2000	2001
Germany	24.3	24.3	24.1
Italy	29.6	29.9	29.4
France	18.5	18.4	18.7
Spain	7.4	7.6	7.8
Belgium	6.5	6.4	6.6
Netherlands	5.6	5.2	5.0
Austria	2.5	2.8	2.9
Finland	1.4	1.2	1.2
Portugal	1.1	1.2	1.4
Ireland	0.5	0.6	0.5
Greece	2.4	2.3	2.3

Source: Various national sources, compiled by Merrill Lynch. See individual country tables, for specific sources.

**Table 18: The Composition of the Euroland Non-Government Bond Market, by Country** (Percent of Total Euroland Non-Government Market)

	1999	2000	2001
Germany	63.2	62.3	59.5
Italy	12.1	11.9	13.3
France	7.4	7.7	8.8
Spain	3.0	2.9	3.3
Belgium	4.3	3.9	3.5
Netherlands	5.8	7.2	7.8
Austria	3.0	2.9	2.7
Finland	0.4	0.4	0.4
Portugal	0.5	0.4	0.4
Ireland	0.2	0.3	0.3
Greece	0.0	0.0	0.0

Source: Various national sources, compiled by Merrill Lynch. See individual country tables, for specific sources.

## Euroland Market

The size of the Euroland bond market increased by 10% in 2001. Euro-denominated bond issuance accelerated from the 8% growth recorded in 2000. The most remarkable features of market growth in 2001 are:

- Wider fiscal deficits caused by weak economic activity resulted in **an acceleration of government bonds' supply from 4% in 2000 to 6% in 2001**. However, governments' share in the aggregate Euroland market continued to decline due to the very high rates of growth recorded in other sectors. Government market growth in 2002 is likely to be around 5%.
- **The quasi-government and Agency market grew 18% in 2001, up from 6% in 2000**. The issuance programs by Freddie Mac and other agencies have contributed decisively to the dynamics of this sector. We expect this sector to grow around 25% in 2002.
- **The Pfandbrief market shrank 0.3% in 2002, versus a positive growth of 4% in 2000**. Weakness in the German housing sector as well as relatively strong financial positions in states and municipalities are chiefly responsible for this deceleration. We expect the Pfandbrief market to grow around 3% in 2002.
- **The corporate bond market (excluding Pfandbrief and including Eurobonds) grew 20% in 2001 versus 13% in 2000**. A small starting point in 1999, low yields, large financing needs in some sectors, and attractive spreads explain the strong dynamics of this sector. We expect the corporate bond market to decelerate substantially and to grow around 12% in 2002.
- **The Eurobond market grew 26% in 2001 after having grown 33% in 2000**. These high growth rates illustrate the increasing popularity of the Eurobond format among issuers and investors alike.

Tables 17 and 18 show the country composition of the Euroland government and non-government markets. The inclusion of the Pfandbrief in Germany's non-government market explains the large German share of the non-government market and also its 1.8% drop in 2001 as the former market shrank. Tables 20 and 21 reproduce ECB's sector profile starting in 1990. These data should be interpreted with caution because the use of the irrevocable rates to convert currencies affects all data prior to 1999. The size of those markets whose currencies devalued at some time in the nineties shrinks relative to the alternative method of using year-end prevailing exchange rates.

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**Table 19: The Size and Structure of the Euroland Market** (1998-2001; Nominal Value Outstanding in Billions of Euros)

Year	Total	Government		Non-Government					Eurobond
		Total	% Total	Financial Total	of which Pfandbriefe	Nonfinan.	Total	% Total	
1998	5511.8	3013.2	54.7	2135.5	710.6	363.0	2498.6	45.3	849.7
1999	6132.3	3190.5	52.1	2451.9	789.8	490.0	2941.8	48.0	1413.7
2000	6617.2	3318.6	50.2	2824.6	825.9	473.9	3298.5	49.8	1886.6
2001	7264.3	3512.7	48.4	3192.2	823.6	559.4	3751.6	51.6	2368.7

Outstandings calculated by using the conversion rates formally established by the EU on 31 December 1998. These rates are 1 Euro =: DM1.95583; FRF6.55957; Lira1936.27; Pta166.386; Esc200.482; Dfl2.20371; Bfr/Lfr40.3399; Ats13.7603; FMs.94573; Punt0.787564; GRD340.750.

We have modified our methodology for presenting data on Euroland since our last publication. The data for government and non-government outstandings is taken directly from the ECB's Monthly Statistical Report. (Previously, we displayed ECB data for non-government sector and Merrill Lynch data for the government sector.) The Eurobond data is from the BIS Quarterly Report. To avoid double counting, this Eurobond data is not included in the total. For a more complete explanation of the methodology of this report and those of the ECB and BIS, see the Methodology article. Pfandbriefe data is calculated by Merrill Lynch based on the Bundesbank Monthly Report.

The BIS reports international bonds as the total of traditional Eurobonds and foreign bonds. It is our view that, in practice, the vast majority of foreign issuance in euros is done in the Eurobond format. Because disaggregated data is not available, we present the total as Eurobonds to remain consistent with the framework of this publication.

**Table 20: A Sector Profile of Euro-Denominated Bonds Issued by Residents**  
(In Billions of Euros)

	2001					2000			1999		
	Euros	% of mk	% chg 01-00	% chg 01-98	% chg 01-90	Euros	% of mk	% chg 00-99	Euros	% of mk	% chg 99-98
Monetary Financial Institutions	2316.0	36.2	6.4	25.2	141.0	2175.9	36.9	8.0	2014.7	36.4	8.9
Non-Monetary Financial Institutions	359.8	5.6	42.3	194.0	581.4	252.8	4.3	28.5	196.7	3.6	60.7
Non-financial	346.6	5.4	20.2	53.8	128.8	288.4	4.9	14.4	252.1	4.6	11.9
Central Government	3238.4	50.7	5.3	15.6	191.8	3075.3	52.1	3.2	2979.9	53.8	6.3
Other Government	130.5	2.0	22.5	40.9	348.5	106.5	1.8	11.9	95.2	1.7	2.8
Total	6391.3	100.0	8.3	25.5	177.4	5898.9	100.0	6.5	5538.6	100.0	8.8

	1998			1997			1996			1995			1990	
	Euros	% of mk	% chg 98-97	Euros	% of mk	% chg 97-96	Euros	% of mk	% chg 96-95	Euros	% of mk	% chg 95-90	Euros	% of mk
Monetary Financial Inst.	1849.9	36.3	7.8	1716.1	36.0	8.2	1586.7	35.7	8.2	1467.0	35.5	52.7	960.7	41.6
Non-Monetary Financial Inst.	122.4	2.4	18.7	103.1	2.2	10.7	93.1	2.1	11.9	83.2	2.0	57.6	52.8	2.3
Nonfinancial	225.3	4.4	2.5	219.7	4.6	-0.9	221.7	5.0	-0.9	223.7	5.4	47.7	151.5	6.6
Central Government	2802.5	55.0	6.4	2633.0	55.3	7.2	2455.8	55.2	8.3	2268.4	55.0	104.4	1109.7	48.1
Other Government	92.6	1.8	1.5	91.2	1.9	1.1	90.2	2.0	6.2	84.9	2.1	191.8	29.1	1.3
Total	5092.4	100.0	6.9	4763.1	100.0	7.1	4447.5	100.0	7.8	4127.2	100.0	79.1	2303.8	100.0

Source: This table is derived from data presented by the ECB in their "Euro Area Securities Issues Statistics."

Data represents outstanding bonds denominated in euro or the legacy currencies by residents of Euroland. For a complete discussion of the terminology employed by the ECB, see methodology.

**Table 21: A Sector Profile of Foreign Currency-Denominated Bonds Issued by Residents of Euroland**  
(In Billions of Euros)

	2001					2000			1999		
	Euros	% of mk	% chg 01-00	% chg 01-98	% chg 01-90	Euros	% of mk	% chg 00-99	Euros	% of mk	% chg 99-98
Monetary Financial Institutions	337.1	54.8	21.0	65.2	554.6	278.6	51.6	13.3	245.9	53.6	20.5
Non-Monetary Financial Institutions	105.5	17.1	-0.6	68.0	332.4	106.1	19.7	32.1	80.3	17.5	27.9
Non-financial	64.9	10.5	36.3	142.2	234.5	47.6	8.8	50.6	31.6	6.9	17.9
Central Government	103.6	16.8	0.7	22.0	368.8	102.9	19.1	6.5	96.6	21.1	13.8
Other Government	4.5	0.7	4.7	32.4	4400.0	4.3	0.8	13.2	3.8	0.8	11.8
Total	615.6	100.0	14.1	61.2	423.9	539.5	100.0	17.7	458.2	100.0	19.9

	1998			1997			1996			1995			1990	
	Euros	% of mk	% chg 98-97	Euros	% of mk	% chg 97-96	Euros	% of mk	% chg 96-95	Euros	% of mk	% chg 95-90	Euros	% of mk
Monetary Financial Inst.	204.1	53.4	11.8	182.6	51.4	32.3	138.0	48.1	22.9	112.3	45.4	118.1	51.5	43.8
Non-Monetary Financial Inst.	62.8	16.4	5.9	59.3	16.7	22.5	48.4	16.9	15.8	41.8	16.9	71.3	24.4	20.8
Nonfinancial	26.8	7.0	5.1	25.5	7.2	22.6	20.8	7.3	3.0	20.2	8.2	4.1	19.4	16.5
Central Government	84.9	22.2	0.6	84.4	23.8	9.6	77.0	26.8	9.2	70.5	28.5	219.0	22.1	18.8
Other Government	3.4	0.9	-2.9	3.5	1.0	34.6	2.6	0.9	4.0	2.5	1.0	2400.0	0.1	0.1
Total	382.0	100.0	7.5	355.3	100.0	23.9	286.8	100.0	16.0	247.3	100.0	110.5	117.5	100.0

Source: This table is derived from data presented by the ECB in their "Euro Area Securities Issues Statistics."

Data represents outstanding bonds denominated in Foreign currencies by residents of Euroland. For a complete discussion of the terminology and foreign exchange conversion system employed by the ECB, see methodology.

## Germany

**The growth of German bond market in 2001 was Eur84bn.** All sectors contributed equally; consequently, the structure remains largely unchanged, with Pfandbriefe continuing to represent 35% of the market. Non-financial corporates grew by a sizeable Eur9bn in 2001.

*With the worst fiscal performance in Euroland, gross issuance of central government bonds is planned to continue its 2001 rise in 2002.*

Germany's fiscal performance in 2001 was the worst in Euroland. Due to 2% lower economic growth than in original forecasts, the government fell short of revenues and missed the deficit target of 1.5% of GDP. The budget deficit was estimated at 2.5% of GDP by the government in the Stability Program update in December, and at 2.7% by Eurostat in March. Although the Council has decided not to give a formal early warning to Germany regarding an excessive deficit, the government now faces a tough task of delivering on the promises it made to the Council.

The updated Stability Program now projects budget deficits of 2% and 1% in 2002 and 2003 and a balanced budget starting in 2004, based on the assumption of 2.5% economic growth in 2002. Given tax revenue shortfalls due to lower economic growth in 2002 and tax cuts in 2003, limiting regional spending becomes paramount for achieving budgetary goals. The government managed to reach an important agreement with the 16 states to cap their expenditure growth to a maximum one percent, although no formal measures were adopted for dealing with breaches of the ceiling.

Gross issuance of central government bonds is planned to be Eur136bn in 2002, up Eur30bn from 2001, largely due to higher bond redemptions. Net issuance is estimated at Eur52bn.

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**Table 22: German Mark Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Billions of German Marks; 1999-2001 in Billions of Euros\*)

Year			Government		Corporate								Eurobond	
					Financial						Non-Financial			
			Total	% of Total	Total	% of Total	Mortgage Pfandbriefe	Public Pfandbriefe	Special Cred. Inst.	Banks	Total	% of Total	Total	% of Total
1980	DM	548.8	130.8	23.8	413.4	75.3	na	na	na	na	4.6	0.8	na	na
1985		948.4	272.4	28.7	654.6	69.0	na	na	na	na	2.4	0.3	19.0	2.0
1990		1628.3	555.4	34.1	901.0	55.3	138.0	369.9	155.5	238.0	2.6	0.2	169.4	10.4
1991		1882.8	643.2	34.2	1040.4	55.3	142.8	392.2	221.0	284.4	3.2	0.2	196.0	10.4
1992		2230.4	832.4	37.3	1156.2	51.8	155.9	450.4	240.6	309.3	3.0	0.1	238.9	10.7
1993		2698.9	1075.4	39.8	1316.1	48.8	178.4	573.3	227.5	337.0	3.1	0.1	304.2	11.3
1994		3017.5	1229.1	40.7	1432.7	47.5	196.5	627.7	219.2	389.3	3.1	0.1	352.7	11.7
1995		3301.1	1261.1	38.2	1606.5	48.7	214.8	723.8	222.3	445.6	2.8	0.1	430.8	13.0
1996		3621.2	1303.9	36.0	1801.5	49.7	226.7	845.7	228.3	500.8	3.3	0.1	512.5	14.2
1997		3955.9	1371.3	34.7	1990.0	50.3	243.2	961.7	240.8	544.4	4.9	0.1	589.6	14.9
1998		4502.8	1431.6	31.8	2254.6	50.1	265.7	1124.2	259.2	605.5	8.0	0.2	808.6	18.0
1999	Eur	2098.0	768.8	36.6**	1322.9	63.1**	134.8	655.0	163.3	369.8	6.3	0.3**	—	—
2000		2265.2	805.8	35.6	1445.8	63.8	140.8	685.1	157.4	462.5	13.6	0.5	—	—
2001		2349.2	820.3	34.9	1506.6	64.1	147.7	675.9	201.7	481.4	22.3	0.9	—	—

\*1 Euro = DM1.95583

\*\* Percent of total columns effected by removal of Eurobonds from domestic Euroland markets. (See Special Focus section for further explanation.) These now appear in the Euroland composite. Government bond total only includes publicly-placed issues. Mortgage Pfandbriefe are collateralized bonds issued under strict legal guidelines to fund credit that is secured primarily by first-ranking mortgages or land charges. Public Pfandbriefe are collateralized bonds issued under strict legal guidelines to fund lending to the public sector. Special credit institutions include primarily government-owned banks.

Source: Deutsche Bundesbank, Monthly Report, Table VII.3: Outstanding Amount of Debt Securities Issued by Borrowers Domiciled in Germany. Eurobond data is from the BIS.

## France

The French fixed-income market posted strong growth last year, increasing in size by around 10%. This expansion was mainly due to the sharp rise in the corporate market, which by end-2001 accounted for a quarter of total debt outstanding, having doubled its relative weight in just three years.

The French fixed-income market posted strong growth in 2001, up nearly 10% on the 6% increase seen in 2000. As in most other euro countries, this growth was based on a small increase in the government section, which is the largest component, and a much bigger increase in the still small corporate market.

The lower than expected growth recorded last year in the government market was one of the main reasons behind the 0.1% increase in the deficit to GDP ratio (to 1.4%), although the debt to GDP ratio, at 57.2%, improved a little. This year we expect the Tresor to post a Eur30bn deficit, although the year-to-date performance does not look very positive in this respect. To finance this deficit and the year's redemptions, the Tresor is expected to issue around Eur85bn in medium- and long-term debt, plus the amounts of debt buybacks to be made this year (we expect around Eur15bn). These buybacks will help the recent AFT operations in the swap market aimed at reducing the average life of the debt portfolio. These operations started in Q4-01 have already helped to reduce the average life to six years and the Tresor is targeting a further six-month reduction by end-2002.

In the corporate market, the fast pace of growth continues. The outstanding amount rose by 25% in 2001, to represent more than a quarter of total French debt. This increase is even more significant, considering that the percentage of the total has more than doubled in just three years.

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*Strong 2001 growth due essentially to a 25% rise of the corporate bond market.*

**Table 23: French Franc Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Billions of French Francs; 1999-2001 in Billions of Euros\*)

Year	Total	Government									Corp.		Foreign		Eurobond	
		Total	% of Tot	Total Central	OATs	BTANs	Index-Link	Provinc	Municipal	Other	Total	% of Total	Total	% of Total	Total	% of Total
1980 Ff	534.7	413.2	77.3	113.9	na	na	—	3.0	13.8	282.5	108.1	20.2	3.9	0.7	9.5	1.8
1985	1324.6	1042.9	78.7	365.9	na	na	—	7.2	15.8	654.0	251.7	19.0	11.8	0.9	18.2	1.4
1990	2806.5	2187.6	77.9	1069.3	656.0	413.3	—	5.8	9.0	1103.5	450.2	16.0	28.2	1.0	140.5	5.0
1991	3251.4	2457.7	75.6	1180.8	761.0	419.8	—	17.3	7.7	1251.9	532.4	16.4	31.3	1.0	230.0	7.1
1992	3834.5	2919.8	76.1	1574.4	984.0	590.4	—	17.9	6.9	1320.6	535.4	14.0	31.3	0.8	348.0	9.1
1993	4361.2	3184.9	73.0	1908.9	1226.7	682.2	—	17.5	5.7	1252.8	609.5	14.0	29.1	0.7	537.7	12.3
1994	4774.9	3277.7	68.6	2105.7	1423.5	682.2	—	16.8	3.3	1151.9	771.5	16.2	32.9	0.7	692.8	14.5
1995	5083.6	3581.1	70.4	2414.1	1653.1	761.0	—	14.1	1.8	1151.1	755.7	14.9	29.4	0.6	717.4	14.1
1996	5607.0	3905.3	69.7	2742.1	1922.1	820.0	—	14.1	0.6	1148.5	799.8	14.3	34.1	0.6	867.8	15.5
1997	6054.5	4192.4	69.2	3096.3	2158.2	938.1	—	14.4	0.1	1081.6	804.5	13.3	28.8	0.5	1028.8	17.0
1998	6480.2	4405.8	68.0	3391.5	2381.3	984.0	26.2	na	na	1014.3	825.3	12.7	31.6	0.5	1217.5	18.8
1999 Eur	739.6	585.4	79.2	559.0	394.0	155.0	10.0	na	na	26.4	154.2	20.8	—	—	—	—
2000	786.6	607.9	77.3	573.0	419.0	154.0	—	na	na	34.9	178.7	22.7	—	—	—	—
2001	861.1	637.9	74.1	601.0	443.0	158.0	—	na	na	36.9	223.2	25.9	—	—	—	—

\*1 Euro = Ff 6.55957

OATs are longer-term bonds, ranging in maturity from over 5 to 30 years, first issued by the French Government in 1985. The majority are fixed-rate, although floating-rate OATs, index-linked to a short- or long-term index as a reference, are also outstanding.

BTANs are medium-term issues, ranging in maturity from 1 to 5 years.

Inflation-indexed OATs (OATi), first issued by the French Government in 1998, carry fixed-rate coupons, principal guaranteed at par and protected against inflation by indexation to a daily reference.

Source: French Treasury, Table: French Government Debt; Banque de France, Monthly Statistics. Eurobond data is from the BIS.

## Italy

**2001 was a year of impressive growth of the Italian corporate bond market, which rose by Eur59bn and now accounts for 25% of the Italian bond market. Two-thirds of this increase, Eur39bn, were issued in the non-financial sector.** The government bond sector increased by Eur11bn in 2001 and, at 109% of GDP, remains the highest in Euroland.

*Impressive rise of the corporate bond market (+25%).*

The 2001 budget deficit target of 1.1% of GDP was overshoot by 0.3%, as slower than anticipated economic growth depressed tax revenues and poor equity market performance forced the government to defer its privatisation schedule. Tax cuts offered during the election campaign have also been delayed until 2003. However, the government appears confident in its ability to deliver on budget consolidation promises. It has retained in its latest Stability Programme its original 0.5% of GDP budget deficit objective for 2002 (provided that its ambitious 2.3% GDP growth objective is achieved), and it continues to project a balanced budget starting in 2003. The debt reduction process has been delayed however, with public debt now expected to drop below 100% of GDP by 2004 instead of 2003.

*The government's debt reduction process will start in 2004, with the help of two new state agencies.*

To help achieve these goals, the government has created two new state agencies, one to handle state assets and the other to finance infrastructure projects. The privatisation of state assets, whose value is estimated at around Eur2tn, remains crucial to the debt reduction programme. The government envisages Eur25bn in revenues from the sale of state assets in 2002-2003, but timing remains subject to market conditions. The finance agency will be able to securitise some of the state assets, although the European Commission has yet to decide on whether revenues raised from such financing can be counted towards debt reduction. Net government bond issuance in 2002 is expected to be Eur35bn.

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**Table 24: Italian Lira Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Trillions of Lira; 1999-2001 in Billions of Euros\*)

Year	Total	Government				Corporate				Foreign		Eurobond	
		Total	% Total	Central	Agencies/ Local Adm	Total	% Total	Financial	Non-Fin.	Total	% Total	Total	% Total
1980 Lira	152.7	89.4	58.5	77.7	11.7	62.7	41.1	62.7	na	0.4	0.3	0.2	0.1
1985	457.7	355.6	77.7	336.3	19.3	100.7	22.0	100.7	na	1.0	0.2	0.5	0.1
1990	859.4	698.1	81.2	672.0	26.1	142.6	16.6	142.6	na	2.9	0.3	15.8	1.8
1991	1041.6	819.2	78.7	788.6	30.6	191.7	18.4	153.7	38.0	3.2	0.3	27.5	2.6
1992	1154.3	916.1	79.4	887.8	28.3	200.3	17.4	165.8	34.5	2.7	0.2	35.2	3.1
1993	1366.9	1079.7	79.0	1054.0	25.7	225.3	16.5	193.1	32.2	2.1	0.2	59.8	4.4
1994	1646.2	1311.9	79.7	1290.9	21.0	245.9	14.9	215.7	30.2	2.3	0.1	86.1	5.2
1995	1764.9	1418.5	80.4	1401.4	17.1	243.0	13.8	215.3	27.7	2.9	0.2	100.5	5.7
1996	2012.7	1548.5	76.9	1532.5	15.9	320.3	15.9	280.2	30.1	5.1	0.3	138.8	6.9
1997	2209.5	1610.2	72.9	1594.0	16.2	401.2	18.2	377.7	23.5	8.8	0.4	189.3	8.5
1998	2417.1	1721.6	71.2	1709.2	12.4	459.3	19.0	436.1	23.2	---	---	236.2	9.7
1999 Eur	1190.2	936.0	78.6	927.7	8.3	254.3	21.4	235.2	19.0	—	—	—	—
2000	1268.4	991.4	78.2	982.9	8.5	277.0	21.8	250.1	26.9	—	—	—	—
2001	1337.9	1001.9	74.9	990.6	11.3	336.0	25.1	269.6	66.4	—	—	—	—

\*1 Euro = 1936.27 Lira

Since 1998, the Bank of Italy includes foreign bonds in the non-financial total.

Central government includes CCTs, BTPs, CTZs.

Source: Bank of Italy, Supplementi al Bollettino Statistico; Table: Valori Mobiliari: Consintence Suddivise per Gruppi di Investitori. Eurobond data is from the BIS.



## Spain

**The Spanish bond market continued to grow in 2001, up 10%.** But this increase is due to two very different trends: a decelerating government market and an exploding corporate market. Within the latter, the financial sector posted the strongest growth in 2001, with the non-financial sector virtually unchanged all year.

**The most interesting development in the Spanish debt market in 2001 was the huge increase in the corporate sector,** whose outstanding amount rose by nearly 25% to Eur83.1bn (from Eur66.8bn in 2000). This, in addition to the less than 5% increase in the government debt market, has meant that the corporate sector now represents almost a quarter of total Spanish marketable debt, a more than respectable 10% increase in just three years.

However, **the amount of non-financial corporate debt diminished slightly in 2001, whereas the financial sector recorded a very substantial increase of 32%.** Consequently, the non-financial section continues to represent less than a quarter of the Spanish corporate debt market, with just two main issuers.

Regarding central government debt, **2001 was a very positive year for Spain in fiscal terms. The debt-to-GDP ratio decreased by more than three percentage points to 57% as the government achieved its first fiscal equilibrium in recent history.** For 2002, the government aims to maintain this fiscal equilibrium, despite the expected deceleration in economic growth. Taking into account this year's redemptions, this means that the total amount of bonds to be issued in 2002 will be very similar to the 2001 figure (Eur35bn-Eur40bn). In addition, given the ruling party's comfortable position in both houses and its commitment to fiscal equilibrium (at least), these accounts are very unlikely to overshoot in coming years.

*Increase in the financial sector of the corporate debt market of 32%, whereas the government debt market is decelerating with Spain's first fiscal equilibrium in years.*

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**Table 25: Spanish Peseta Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Millions of Spanish Pesetas; 1999-2001 in Billions of Euros\*)

Year	Total	Government						Corp.				Foreign		Eurobond	
		Total	% of Total	Central	Region.	Municip.	Other	Total	% of Total	Financial	Non-Fin.	Total	% of Total	Total	% of Total
1980 SP	2507.6	838.0	33.4	280.5	na	52.2	505.4	1669.5	66.6	411.0	1258.6	na	na	na	na
1985	5331.7	1710.7	32.1	913.7	119.9	147.5	529.7	3620.9	67.9	1616.9	2004.0	na	na	na	na
1990	9876.1	5681.4	57.5	4831.3	240.6	84.1	525.4	3614.1	36.6	1630.9	1983.2	541.8	5.5	38.8	0.4
1991	13016.2	8038.5	61.8	6887.7	269.0	77.8	804.0	4070.5	31.3	1800.9	2269.5	829.8	6.4	77.4	0.6
1992	14826.1	9461.8	63.8	8034.4	431.1	90.3	906.0	4218.1	28.5	1782.7	2435.4	997.3	6.7	149.0	1.0
1993	23057.6	16235.4	70.4	14348.4	692.4	124.6	1070.0	4954.5	21.5	2269.5	2684.9	1341.5	5.8	526.2	2.3
1994	24984.7	17968.0	71.9	15743.8	962.1	176.2	1086.0	5195.4	20.8	2610.2	2585.2	1386.5	5.6	434.7	1.7
1995	29307.0	21757.9	74.2	19419.0	1262.3	179.5	897.0	5306.3	18.1	2910.7	2395.6	1502.3	5.1	740.6	2.5
1996	33578.7	25158.3	74.9	22561.6	1568.5	197.0	831.0	5430.6	16.2	3092.7	2337.9	2018.3	6.0	971.4	2.9
1997	39037.6	29496.5	75.6	26624.6	1887.0	233.8	751.0	5654.0	14.5	3572.9	2081.2	2976.9	7.6	910.2	2.3
1998	42673.3	32370.9	75.9	29590.6	2015.6	265.5	499.2	6396.1	15.0	3791.4	2604.8	2868.6	6.7	1037.7	2.4
1999 Eur	295.6	233.5	79.0	216.1	15.6	1.8	na	62.1	21.0	50.2	11.9	---	---	---	---
2000	320.0	253.2	79.1	234.2	17.2	1.8	na	66.8	20.9	53.6	13.2	---	---	---	---
2001	349.0	265.9	76.2	246.4	17.6	1.9	na	83.1	23.8	70.1	13.0	---	---	---	---

\*1 Euro = 166.386 Pesetas

Source: Bank of Spain, Statistical Bulletin, Table 21: Mercado Primario de Valores. Eurobond data is from the BIS.



## Belgium

**In 2001, the Belgian bond market grew by Eur7bn despite the Eur2.5bn decline in the corporate market.** The government sector's share increased to 72% of the market. As the economy slowed in 2001, the government managed to maintain the second consecutive budget surplus, although 0.2% short of the original target of 0.4% of GDP.

*Decline of the corporate debt market, but increase of the bond market overall even with a budget surplus.*

One of the main objectives of accumulating surpluses remains a reduction in government debt, which was 107% of GDP in 2001, the second highest in EU-15. In order not to jeopardise the economic growth, the government is now targeting a balanced budget in 2002 instead of the 0.3% of GDP surplus envisaged in last year's projections. However, a general government budget surplus is expected to grow steadily to 0.7% of GDP by 2005, as outlined in the 2002-2005 stability program, assuming no privatisation revenues. The Treasury anticipates public debt to fall from 103.3% of GDP in 2002 to 88.6% in 2005.

The gross borrowing requirement in 2002 is estimated at Eur25bn, Eur4bn lower than in 2001, and it is expected to be financed largely by OLO issuance.

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**Table 26: Belgian Franc Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Billions of Belgian Francs; 1999-2001 in Billions of Euros\*)

Year	Total	Government				Corporate				Foreign		Eurobond	
		Total	% Total	General	Public	Total	% Total	Financial	Non-Fin.	Total	% Total	Total	% Total
1980 Bfr	3261.5	1884.3	57.8	1617.1	267.2	1302.7	39.9	1140.7	162.0	74.5	2.3	na	na
1985	5811.3	3359.4	57.8	3025.2	334.2	2238.8	38.5	2048.4	190.4	213.1	3.7	na	na
1990	8112.8	4882.6	60.2	4554.9	327.7	2687.1	33.1	2516.4	170.7	530.7	6.5	12.4	0.2
1991	8952.9	5356.6	59.8	5037.1	319.5	2977.1	33.3	2776.4	200.7	606.7	6.8	12.5	0.1
1992	9838.3	5889.0	59.9	5637.7	251.3	3260.2	33.1	2989.4	270.8	675.8	6.9	13.3	0.1
1993	10166.5	6160.7	60.6	5926.4	234.3	3205.8	31.5	2910.9	294.9	785.6	7.7	14.4	0.1
1994	10581.9	6026.1	56.9	5815.4	210.7	3671.4	34.7	3412.4	259.0	862.1	8.1	22.3	0.2
1995	11952.2	7112.9	59.5	6760.0	352.9	3725.2	31.2	3463.3	261.9	1031.7	8.6	82.4	0.7
1996	12463.7	7391.2	59.3	7037.0	354.2	3756.6	30.1	3412.7	343.9	1155.9	9.3	160.0	1.3
1997	12513.4	7483.9	59.8	7156.5	327.4	3610.9	28.9	3089.3	521.6	1204.5	9.6	214.1	1.7
1998	12901.5	7713.8	59.8	7409.7	304.1	3297.2	25.6	2805.3	491.9	1564.1	12.1	326.4	2.5
1999 Eur	295.4	204.6	69.3	204.6	na	90.8	30.7	74.4	16.4	—	—	—	—
2000	302.9	213.3	70.4	213.3	na	89.6	29.6	74.4	15.2	—	—	—	—
2001	311.2	224.1	72.0	224.1	na	87.1	28.0	71.8	15.3	—	—	—	—

\*1 Euro = 40.3399 Bfr

Public consists of issues of public companies and government agencies, including public housing companies.

Source: National Bank of Belgium, Statistical Bulletin, Table 17.1: Bonds in Belgian Franc at Over One Year Issued by General Government; Table 17.2: Bonds and Notes in Belgian Franc at Over One Year by Issuing Sector. Eurobond data is from the BIS.

## Greece

With steady improvement in Greece's fiscal balance, securitization of government cash flows and an active privatization program, Greece's public finances have shown improvement in recent years. Nevertheless, reflecting the government's objectives of reducing exchange risk, establishing a liquid domestic market in government bonds, and extending the maturity of central government debt, the government bond market has continued to grow. **We expect these trends to continue over the medium term, resulting in the gradual increase in size and liquidity of the domestic government bond market. Over time, given greater balance in the public sector and ongoing structural reforms, we would expect the corporate bond market to reverse its recent decline and begin to expand again.**

*Growth of the government bond market should continue in 2002.*

Greek government fiscal policy continues to be focused on reducing the share of general government debt relative to GDP. A decline to 97.3% in 2002 from 99.6% in 2001 or 102.7% in 2000 is expected. Nevertheless, in absolute terms, general and central government debt is expected to increase (to Eur154 billion in 2002 from Eur146 billion in 2001 for the central government), according to the Ministry of Finance's December 2001 Budget Report for 2002.

In recent years, Greece has reduced outstanding T-bill and foreign-currency (non-euro area currency debt) borrowing in favor of increased borrowing through government bonds and intergovernmental transfers. Given the government's objectives of reducing foreign currency exposure and extending the maturity of its debt, we would expect these trends to continue over the next few years. This would allow the Ministry of Finance to pursue its objective of improving further the liquidity and efficient operation of the domestic government bond market.

*Despite shriveling in 2001, we expect corporates to grow.*

Thus, while the domestic government bond market is expected to continue to increase in size, the pace should be gradual. **Given Greece's improving fundamentals and relatively high trend growth rate within the euro region, it seems odd that the corporate bond market shriveled to nothing last year. We expect this development will prove temporary and a return to growth should be expected, though here too the pace is likely to be gradual.**

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**Table 27: Greek Drachma Bond Market**

(1991-2001; Nominal Value Outstanding in Billions of Drachma; 1999-2001 in Billions of Euros\*)

Year		Total	Government		Corporate	
			Total	% of Total	Total	% of Total
1990	GrD	3876.3	3868.8	99.8	7.5	0.2
1991		5316.4	5308.9	99.9	7.5	0.1
1992		7158.5	7067.7	98.7	90.8	1.3
1993		9073.3	8941.3	98.5	132.0	1.5
1994		11836.0	11691.5	98.8	144.5	1.2
1995		17077.7	16734.7	98.0	343.0	2.0
1996		17530.7	16460.8	93.9	1069.9	6.1
1997		13730.7	12669.0	92.3	1061.7	7.7
1998		22797.0	21866.7	95.9	930.3	4.1
1999	Eur	77.0	76.2	99.0	0.7	1.0
2000		77.0	76.7	99.6	0.3	0.4
2001		77.7	77.7	100.0	0.0	0.0

\*1 Euro = 340.750 GRD

Corporate includes foreign bonds.

Source: Athens Stock Exchange, Fact Book, Table: 4.45: Bonds – Market Capitalization.

## Austria

**Table 28: Austrian Schilling Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Billions of Austrian Schillings; 1999-2001 in Billions of Euros\*)

Year	Total	Government				Corporate				Foreign		Eurobond	
		Total	% of Total	Central	Other Public	Total	% of Total	Financial	Non-Financial	Total	% of Total	Total	% of Total
1980	Ats 376.3	150.8	40.1	122.4	28.4	221.7	58.9	200.5	21.2	3.9	1.0	na	na
1985	570.9	227.2	39.8	189.6	37.6	337.5	59.1	313.6	23.9	6.2	1.1	na	na
1990	925.3	358.0	38.7	327.3	30.6	508.7	55.0	477.3	31.4	14.9	1.6	43.8	4.7
1991	999.1	401.6	40.2	372.6	29.0	523.1	52.4	492.1	31.0	19.9	2.0	54.5	5.5
1992	1061.8	443.6	41.8	413.8	29.8	539.2	50.8	509.5	29.7	26.8	2.5	52.2	4.9
1993	1201.2	510.4	42.5	480.4	30.0	612.3	51.0	577.5	34.8	29.9	2.5	48.6	4.0
1994	1322.4	579.5	43.8	548.0	31.5	670.6	50.7	628.7	41.9	26.8	2.0	45.5	3.4
1995	1443.2	641.9	44.5	616.0	25.9	732.8	50.8	682.6	50.2	26.1	1.8	42.4	2.9
1996	1534.3	698.3	45.5	674.6	23.7	781.8	51.0	740.0	41.7	19.2	1.3	35.1	2.3
1997	1692.2	770.7	45.5	742.2	28.5	864.3	51.1	817.5	46.8	23.0	1.4	34.1	2.0
1998	1760.5	871.1	49.4	845.9	25.9	824.9	46.9	773.2	51.7	24.0	1.4	39.8	2.3
1999	Eur 142.8	80.4	56.3	78.8	1.6	62.4	43.7	58.7	3.7	—	—	—	—
2000	158.8	92.3	58.1	90.9	1.4	66.4	41.8	62.9	3.5	—	—	—	—
2001	168.3	99.3	59.0	98.0	1.3	69.0	41.0	65.6	3.4	—	—	—	—

\*1 Euro = 13.7603 Ats

Other public includes issues by Lander, City governments, Public funds and Sondergesellschaften.

Source: Oesterreichische Nationalbank, Annual Report. Eurobond data is from the BIS.

## Finland

**Table 29: Finnish Markka Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Billions of Finnish Markkas; 1999-2001 in Billions of Euros\*)

Year	Total	Government				Corporate				Other		Eurobond	
		Total	% of Total	Central	Local	Total	% of Total	Financial	Non-Financial	Total	% of Total	Total	% of Total
1982	FM 24.5	10.6	43.3	10.5	0.1	13.9	56.7	10.6	3.3	na	na	na	na
1985	57.7	21.0	36.4	20.4	0.7	36.6	63.4	26.1	10.5	0.1	0.2	na	na
1990	122.1	30.6	25.1	28.8	1.8	83.3	68.2	59.8	23.5	1.3	1.1	6.9	5.7
1991	154.5	38.0	24.6	35.2	2.8	103.3	66.9	76.7	26.6	3.7	2.4	9.5	6.1
1992	171.4	49.3	28.8	44.0	5.2	108.8	63.5	82.2	26.6	3.4	2.0	10.0	5.8
1993	197.0	80.6	40.9	73.7	6.9	106.4	54.0	73.9	32.5	2.0	1.0	8.1	4.1
1994	207.5	101.9	49.1	94.9	7.0	96.7	46.6	66.5	30.2	1.0	0.5	8.1	3.9
1995	241.8	151.0	62.4	145.2	5.8	81.7	33.8	55.2	26.5	0.4	0.2	8.7	3.6
1996	266.8	183.8	68.9	179.4	4.4	69.9	26.2	44.7	25.3	0.1	0.0	13.0	4.9
1997	300.7	219.9	73.1	216.2	3.7	67.2	22.3	43.9	23.3	0.1	0.0	13.6	4.5
1998	324.5	248.7	76.6	245.4	3.3	58.5	18.0	37.9	20.6	0.1	0.0	17.2	5.3
1999	Eur 53.9	44.5	82.6	44.1	0.4	9.4	17.4	5.7	3.6	0.0	0.0	—	—
2000	51.6	41.1	79.6	40.8	0.3	10.5	20.4	6.7	3.8	0.0	0.0	—	—
2001	50.3	39.9	79.3	39.9	0.0	10.2	20.2	6.4	3.8	0.2	0.4	—	—

\*1 Euro = 5.94573 FM

Local are bonds issued by provincial and municipal governments. Other includes foreign bonds.

Source: Bank of Finland, Statistical Review, Table 6.5: Bond Issues and Stocks in Finland. Eurobond data is from the BIS.

## Ireland

**Table 30: Irish Punt Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Millions of Irish Punts; 1999-2001 in Billions of Euros\*)

Year	Total	Government				Corporate		Eurobond	
		Total	% Total	Central	Public	Total	% Total	Total	% Total
1980 Punts	4340.6	4340.6	100.0	4151.6	189.0	na	na	na	na
1985	9049.0	9027.2	99.8	8600.2	427.0	21.8	0.2	na	na
1990	13682.9	13427.1	98.1	13028.1	399.0	143.1	1.0	112.6	0.8
1991	14375.0	14025.4	97.6	13650.4	375.0	235.3	1.6	114.3	0.8
1992	13799.2	13547.9	98.2	13178.9	369.0	128.5	0.9	122.7	0.9
1993	15051.5	14476.5	96.2	14144.5	332.0	149.7	1.0	425.3	2.8
1994	15277.4	16903.0	96.2	14438.7	257.0	193.9	1.3	387.8	2.5
1995	17365.8	17382.0	90.3	15288.2	395.8	747.5	4.3	934.4	5.4
1996	19146.2	17123.5	89.4	16350.5	773.0	832.9	4.4	1189.8	6.2
1997	19926.2	17409.4	87.4	16912.4	497.0	1258.4	6.3	1258.4	6.3
1998	22854.2	17403.0	76.1	na	na	3975.4	17.4	1475.8	6.5
1999 Eur	21.9	16.8	76.7	na	na	5.1	23.3	—	—
2000	27.9	20.8	74.6	na	na	7.1	25.4	—	—
2001	26.9	18.8	69.9	na	na	8.1	30.1	—	—

\*1 Euro = 0.787564 Punts

Public includes bonds issued by The Land Commission, Semi-States and the Housing Facility Agency.

Source: National Treasury Management Agency, Report and Financial Statements for Year Ended 31 December 2001; Irish Stock Exchange, Annual Statistical Review, 2001. Eurobond data is from the BIS.

## Portugal

**Table 31: Portuguese Escudo Bond Market**

(1988-1998; Nominal Value Outstanding in Billions of Escudos; 1999-2001 in Billions of Euros\*)

Year	Total	Government					Corporate		Eurobond	
		Total	% of Total	Central		Other Public	Total	% of Total	Total	% of Total
				Fixed	Floating					
1988 Esc	140.0	140.0	100.0	140.0	—	na	na	na	na	na
1989	121.2	121.2	100.0	121.2	—	na	na	na	na	na
1990	75.4	75.4	100.0	75.4	—	na	na	na	na	na
1991	515.4	515.4	100.0	515.4	—	na	na	na	na	na
1992	563.8	563.8	100.0	563.8	—	na	na	na	na	na
1993	1627.0	1343.3	82.6	1343.3	—	na	na	na	283.7	17.4
1994	3408.1	2087.4	61.2	1698.4	200.0	189.0	955.0	28.0	365.7	10.7
1995	4968.9	3113.9	62.7	2191.4	711.5	211.0	1049.0	21.1	806.0	16.2
1996	6753.3	4290.4	63.5	2763.8	1192.6	334.0	1112.0	16.5	1350.9	20.0
1997	8770.8	5367.4	61.2	3811.0	1312.4	244.0	1363.0	15.5	2040.4	23.3
1998	9826.8	6118.1	62.3	4500.7	1294.4	323.0	1839.0	18.7	1869.7	19.0
1999 Eur	46.5	36.1	77.5	31.7	4.4	na	10.5	22.5	—	—
2000	49.3	39.3	79.7	34.9	4.4	na	10.0	20.3	—	—
2001	60.2	49.2	81.7	41.6	3.0	4.6	11.0	18.3	—	—

\*1 Euro = 200.482 Esc

The Portuguese Government began to issue medium- and long-term fixed-rate Treasury bonds in 1988 and floating-rate bonds in 1994 but discontinued floating-rate issuance in 1998.

Source: Securities Market Commission, Annual Report; Central Bank of Portugal, Research Unit; Monthly Bulletin: Divada Publica. Eurobond data is from the BIS.

## Netherlands

**Table 32: Dutch Guilder Bond Market**

(1980, 1985, 1990-1998; Nominal Value Outstanding in Billions of Dutch Guilders; 1999-2001 in Billions of Euros\*)

Year	Total	Government				Corporate							Foreign		Eurobond	
		Total	% of Total	Central	Local	Total	% of Total	Banks	Other Finan.	Insur/ Pension	Total Finan.	Non-Fin.	Total	% of Total	Total	% of Total
1980 DGL	39.8	28.9	72.6	28.9	—	na	na	na	na	na	Na	na	na	na	10.9	27.4
1985	185.1	114.7	62.0	114.7	—	46.8	25.3	na	na	na	41.3	5.3	15.2	8.2	8.6	4.6
1990	301.5	202.5	67.2	202.5	—	56.6	18.8	na	na	na	49.2	7.4	16.7	5.5	25.7	8.5
1991	325.2	228.3	70.2	228.3	—	53.7	16.5	na	na	na	46.4	7.3	14.3	4.4	28.9	8.9
1992	356.3	256.0	71.8	256.0	—	48.6	13.6	na	na	na	41.9	6.7	12.1	3.4	39.6	11.1
1993	470.4	276.7	58.8	275.7	1.0	107.7	22.9	86.2	6.8	0.0	93.0	14.7	8.7	1.9	77.3	16.5
1994	515.5	282.8	54.8	281.1	1.7	122.9	23.9	97.9	8.5	0.0	106.4	16.5	7.4	1.4	102.4	19.9
1995	572.9	314.4	54.7	311.7	2.7	136.2	23.9	108.6	9.7	0.0	118.3	17.9	6.1	1.1	116.2	20.4
1996	647.3	334.9	51.6	331.8	3.1	155.2	24.1	123.0	11.2	0.0	134.2	21.0	5.3	0.8	151.9	23.6
1997	712.0	347.2	48.6	344.0	3.2	183.6	25.9	147.5	14.5	0.0	162.0	21.6	2.7	0.4	178.5	25.2
1998	791.1	364.5	45.9	360.8	3.6	212.1	26.9	163.1	21.0	0.0	184.1	28.0	0.0	0.0	214.6	27.2
1999 Eur	302.4	175.8	58.1	173.9	1.9	126.6	41.9	89.0	20.0	0.6	109.6	17.0	—	—	—	—
2000	340.3	170.9	50.2	168.8	2.1	169.4	49.8	100.8	38.5	0.6	139.9	29.5	—	—	—	—
2001	367.2	169.9	46.3	167.6	2.3	197.3	53.7	108.4	48.2	0.6	157.2	40.1	—	—	—	—

\*1 Euro = 2.20371 DGL

The Dutch Central Bank only provides historical data by sector from 1993-1999.

Other financial institutions consist of insurance holding companies, special purpose vehicles, mutual funds and security institutions. Insurance companies and pension funds are not included.

Source: De Nederlandsche Bank, Statistical Information and Reporting Department, Table 3.6.3: Outstanding Amounts of Long-Term Securities. Eurobond data is from the BIS.

## United Kingdom

- Sterling bond market has grown by 29% in just two years
- Government bonds (Gilts) are no longer the biggest market
- We expect continuing rapid growth of the non-Government bond market
- . . . though Gilt supply is set to increase rapidly in coming years as well

The sterling bond market, encompassing both Gilt and non-Gilts, has increased by an enormous 29% in just 2 years. This is to some extent a demand phenomenon, reflecting the increasing tendency for U.K. pension funds to asset/liability match and move capital from equities into bonds. To meet this, there has been a move to raise capital via bonds, especially with the malaise in equities of the past two years.

There has been an increased shift in demand away from the government product into non-government bonds. Originally, this was partly due to the 100 basis-point spread advantage on AAA-rated paper. In addition, this increased demand occurred during and after the removal of the straightjacket of the MFR, which had driven a strong focus on purchases of long-end Gilts at the expense of non-government debt. Accounting standards continue this focus on corporate paper, using a sterling AA corporate bond rate to discount pension fund liabilities.

This acceleration in demand for bonds, and non-government bonds in particular, has driven supply. The Gilt market has fallen in absolute and relative importance. It formed 49% of all sterling debt at year end 1999, but is now just 35%, and in the same time the absolute outstanding has fallen from £289bn to £269bn.

Contrast this with the growth in corporate bonds outstanding (financials +53%, non-financials +180%), foreign bonds (+78%), and the overall Eurobond sector (+58%, or £124bn). We see moves from equities to bonds being sustained for many years to come, and expect further rapid growth in the non-government market as corporate gearing levels increase to meet this demand shift.

The Gilt market is also set to grow again. This year (2002/03), the Debt Management Office will have net positive issuance, of £5.8bn, for the first time since 1996/97. Net issuance in the following years is targeted at £18bn, £15bn, £15bn, and £16bn.

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*The U.K. non-Gilt market increased spectacularly in 2001, as demand shifted away from Gilts.*

**Table 33: British Pound Sterling Bond Market**

(1990-2001; Nominal Value Outstanding In Billions of British Pounds; End-2001 Exchange rate = 0.6872£/US\$)

	Total	Government				Corporate						Foreign		Eurobond	
		Total	% of Total	Conv.	Index -Link	Financial				Non-Financial		Total	% of Total	Total	% of Total
						Total	% Tot	Monet.	Other	Total	% Tot				
1980	71.7	70.7	98.6	70.7	0.0	na	na	na	na	na	na	na	na	1.0	1.4
1985	129.3	119.8	92.7	111.6	8.2	na	na	na	na	na	na	na	na	9.5	7.3
1990	183.0	125.0	68.3	107.8	17.2	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.2	57.5	31.4
1991	192.8	122.4	63.5	103.4	19.0	0.4	0.2	0.4	0.0	0.1	0.1	0.7	0.4	69.2	35.9
1992	212.3	133.1	62.7	111.8	21.3	1.0	0.5	1.0	0.0	0.0	0.0	2.3	1.1	75.9	35.8
1993	260.2	158.5	60.9	130.6	27.9	3.1	1.2	3.1	0.0	0.2	0.1	4.9	1.9	93.5	35.9
1994	315.5	203.2	64.4	168.4	34.8	5.9	1.9	5.8	0.1	0.3	0.1	6.0	1.9	100.1	31.7
1995	354.4	225.9	63.7	186.7	39.2	9.1	2.6	8.9	0.2	0.5	0.1	7.0	2.0	111.9	31.6
1996	408.0	255.0	62.5	208.9	46.1	11.7	2.9	11.5	0.2	0.4	0.1	9.9	2.4	131.0	32.1
1997	479.4	283.4	59.1	231.9	51.5	16.5	3.4	15.9	0.6	0.9	0.2	19.1	4.0	159.5	33.3
1998	539.3	281.8	52.3	223.1	58.7	18.3	3.4	17.4	0.9	3.5	0.6	39.4	7.3	196.3	36.4
1999	588.3	289.4	49.2	224.2	65.2	24.9	4.3	23.1	1.8	5.4	0.9	56.0	9.5	212.6	36.1
2000	704.5	278.6	39.5	208.9	69.7	31.6	4.5	29.6	2.0	7.8	1.1	81.8	11.6	304.7	43.3
2001	758.3	268.6	35.4	198.9	69.7	38.2	5.0	36.0	2.2	15.1	2.0	99.7	13.1	336.7	44.4

Monetary sector includes U.K. Banks and Building Societies.

"Other" Financial sector includes U.K. Insurance Companies. Non-resident sector (also known as "bulldogs") includes corporations guaranteed by U.K. parent, foreign banks, supranational organizations and foreign governments. In 1999, approximately three-quarters of the amount outstanding consisted of supranational organizations.

Source: Bank of England, Monetary and Financial Statistics, Table18: Central Government Gross Debt; Table 27.3: Sterling Other Debt Securities -- Issues, Maturities and Amounts Outstanding. Eurobond data is from the BIS.

## Denmark

The emergence of strong fiscal surpluses in the second half of the 1990s coincided with a peak in central government domestic DKK-denominated debt in 1996. Through the end of 2001, domestic DKK-denominated government debt has been reduced by DKK59.5 billion. Over this period, the overall central government debt to GDP ratio has declined to 38.1% in 2001 from a peak of 57.3% in 1995.

Though the central government fiscal surplus is expected to narrow slightly this year, abstracting from temporary factors the surplus is expected to increase slightly. As Denmark's policy of reducing government debt enjoys broad political support, Denmark's fiscal surpluses are expected to remain large over the medium term. **Accordingly, we expect the relative importance of the government bond market within the broader domestic market to continue to decline in the coming years.**

*Fiscal surplus leads to a decelerating government bond market. However, the mortgage market has and will continue to increase.*

The government targets a general government surplus/GDP ratio of around 2-3%, so despite slower economic growth in recent years the prospect is for continued substantial fiscal surpluses. The Ministry of Finance's forecast for the 2002 general government budget balance is DKK26.1 billion (a surplus of 1.9% of GDP), virtually unchanged from 2001. The government's preliminary projection for 2003 is a general government surplus of 2.1% of GDP.

The official forecast for the Central Government's 2002 gross domestic borrowing requirement is DKK78.8 billion (this includes refinancing redemptions), or DKK4.7 billion in net terms. This net issuance in the context of a fiscal surplus is occasioned by the government's re-lending and other financing activity.

In light of the strength of the Danish fiscal position and the government's policy of maintaining large fiscal surpluses over the medium term, it would appear that the Danish mortgage market will continue to grow in size and importance for the foreseeable future, increasingly dominating the domestic bond market.

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**Table 34: Danish Krone Bond Market**

(1980, 1985, 1990-2001; Nominal Value Outstanding in Billions of Danish Krone; End-2001 Exchange Rate = 8.3479 Krone/US\$)

Year	Total	Government		Other: Mortgages, Corporates and Foreign				Eurobond	
		Total	% of Total	Total	% of Total	Mortgage	Other	Total	% of Total
1980	448.7	90.8	20.2	357.9	79.8	335.6	22.3	na	na
1985	945.7	359.8	38.0	581.4	61.5	540.4	40.9	4.5	0.5
1990	1231.7	384.3	31.2	818.5	66.5	762.8	55.7	28.9	2.3
1991	1291.0	412.8	32.0	853.4	66.1	790.3	63.1	24.8	1.9
1992	1342.0	446.2	33.2	875.1	65.2	795.0	80.1	20.6	1.5
1993	1539.0	494.0	32.1	1026.0	66.7	936.7	89.3	19.0	1.2
1994	1525.1	552.8	36.2	953.4	62.5	861.6	91.9	18.9	1.2
1995	1618.7	591.2	36.5	995.9	61.5	904.3	91.6	31.6	2.0
1996	1709.4	619.3	36.2	1040.8	60.9	948.1	96.2	49.3	2.9
1997	1817.9	617.0	33.9	1125.8	61.9	1016.8	112.6	75.1	4.1
1998	1911.4	615.1	32.1	1218.7	63.8	1098.0	120.7	77.6	4.1
1999	1957.0	612.3	31.3	1259.2	64.3	1140.5	118.7	85.5	4.4
2000	2020.5	589.2	29.2	1355.8	67.1	1239.7	116.1	75.5	3.7
2001	2105.9	566.5	26.9	1465.1	69.6	1353.3	111.8	74.3	3.5

The mortgage sector represents the Danish equivalent of the Pfandbriefe market.

Source: Danmark Nationalbank, Monthly Financial Statistics – Money and Capital Markets, Table 42: Circulating Domestic Krone-Denominated Bonds Quoted on the Stock Exchange (Nominal Values). Eurobond data is from the BIS.



## Sweden

**Sweden's fiscal position has improved rapidly since a major fiscal consolidation program was put in place in 1994.** In 1999 and 2000 that trend was accelerated by the transfer of national bonds to government accounts from national pension funds – in the process extinguishing the debt. In 2000, the realization of large privatization proceeds continued the trend. Another large transfer of government bonds took place in early 2001.

Reflecting the economic slowdown, the fiscal position is expected to become less positive in 2002. **However, as the government retains its 2%/GDP fiscal surplus target over the business cycle, the stock of government bonds outstanding should continue to decline over the medium term, albeit at a slower pace than in recent years, reflecting the absence of one-off positive factors and a narrowing in the underlying fiscal surplus.**

The bulk of the fiscal improvement since 1994 has been on the spending side, accomplished mostly by reducing transfers to households. Expenditure ceilings have been retained through 2004. Because of the emergence of large surpluses, however, the ceilings have been relaxed in recent years.

In its spring budget released April 15, 2002, the government projected a general government fiscal surplus of 1.8% of GDP in 2002 and 2003, down from 4.8% in 2001. Sweden's surpluses occur mostly in the pension system.

**Despite the continuation of a fiscal surplus, the Swedish National Debt Office (SNDO) plans net issuance of domestic bonds in 2002, although issuance should decline relative to 2001, on both a net and a gross basis.** The domestic bond issuance arises as SNDO believes the krona is undervalued and intends therefore to increase its foreign currency borrowing, which it will accomplish largely through swapping its krona-denominated domestic issues into foreign-currency debt. In this way, SNDO also maintains liquidity in the domestic market.

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*With a narrower fiscal surplus,  
the outstanding amount of  
bonds should decrease...*

*...and the issuance for 2002 as  
well.*

**Table 35: Swedish Krona Market**

(1981, 1985, 1990-2001; Nominal Value Outstanding in Billions of Swedish Krona; End-2001 Exchange Rate = 10.4855Krona/US\$)

Year	Total	Government				Corporate						Foreign		Eurobond	
		Total	% of Total	Central	Municipal	Total	% of Total	Financial			Non-Fin.	Total	% of Total	Total	% of Total
								Sub-Total	Housing Instit	Banks					
1981	379.0	171.0	45.1	166.0	5.0	208.0	54.9	185.0	183.0	2.0	23.0	na	na	na	na
1985	621.0	290.0	46.7	285.0	5.0	331.0	53.3	289.0	287.0	2.0	42.0	na	na	na	na
1990	1040.4	286.0	27.5	280.0	6.0	743.0	71.4	686.0	660.0	26.0	57.0	na	na	11.4	1.1
1991	1163.7	319.0	27.4	315.0	4.0	827.0	71.1	763.0	737.0	26.0	64.0	na	na	17.7	1.5
1992	1328.8	391.0	29.4	389.0	2.0	916.0	68.9	853.0	824.0	29.0	63.0	na	na	21.8	1.6
1993	1496.4	460.0	30.7	457.0	3.0	1009.0	67.4	937.0	909.0	28.0	72.0	na	na	27.4	1.8
1994	1520.3	519.0	34.1	516.0	3.0	967.0	63.6	906.0	879.0	27.0	61.0	na	na	34.3	2.3
1995	1685.2	702.0	41.7	698.0	4.0	912.0	54.1	855.0	828.0	27.0	57.0	37.2	2.2	34.0	2.0
1996	1631.0	753.0	46.2	746.0	7.0	797.0	48.9	732.0	704.0	28.0	65.0	46.0	2.8	35.0	2.1
1997	1626.3	810.0	49.8	802.0	8.0	736.0	45.3	672.0	632.0	40.0	64.0	46.4	2.9	33.9	2.1
1998	1685.2	816.4	48.4	808.2	8.2	787.8	46.7	702.4	656.9	45.5	85.4	39.8	2.4	41.2	2.4
1999	1607.1	804.7	50.1	795.9	8.8	725.2	45.1	634.9	590.9	44.0	90.3	37.7	2.3	39.5	2.5
2000	1466.9	726.6	49.5	718.7	7.9	655.6	44.7	543.9	504.8	39.1	111.7	39.5	2.7	45.2	3.1
2001	1348.5	631.5	46.9	623.1	8.7	636.0	47.2	493.4	462.3	31.1	142.6	41.3	3.1	39.4	2.9

Housing institutions represent the Swedish equivalent of the Pfandbriefe market. Swedish mortgage bonds lack the special legislative backing present in the German market. The mortgage bonds are not covered by special collateral pools and maturities tend to be shorter than those in Germany.

Source: Sveriges Riksbank, Financial Statistics, Table IV.10: Bond Market Outstandings. Eurobond data is from the BIS.

## Norway

**Norway is in the enviable position of having run large government budget surpluses over most of the last 20 years thanks to its earnings from petroleum exports.** For 2002 the Ministry of Finance estimates a general government surplus of 12.6% of GDP. Excluding the petroleum surplus, however, the 2002 non-oil fiscal position is projected by the Ministry of Finance to be a deficit of NOK36.9 billion.

**Longer term, such large general government surpluses are likely to be reduced, given a major fiscal policy shift decided in 2001.** Last year, the government decided to increase the government's structural deficit by an amount equal to the real return on the petroleum fund, estimated at 4% per annum. On its projections, this shift will increase the government's structural non-oil deficit to 5.5% of GDP, with the overall surplus falling to 6% of GDP by 2010.

*The government debt market is being kept at a constant size in absolute terms, as it is seen as a valuable market despite a budget surplus.*

Abstracting from one-off transactions (the purchase of specialized health service facilities by the central government which will result in the liquidation of local government debt), the non-oil fiscal deficit would be NOK18.2 billion instead of the expected NOK36.9 billion. For budget planning purposes the government has assumed an average 2002 oil price of NOK185/b (at the present exchange rate of NOK8.7/US dollar about \$21.4/b), which is not greatly different from the average for 2002Q1.

The government nevertheless continues to regard the domestic government bond market as valuable in its role of providing a means for influencing domestic liquidity and as a risk-free investment benchmark for domestic investors. Outstanding central government bonds declined last year by nearly NOK15 billion, the largest decline in recent years. We have no reason to expect this will become a trend, however, and believe the government will keep the size of the government bond market roughly constant in absolute terms, though in relative terms the government bond market is likely to continue to decline as a share of the domestic market.

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**Table 36: Norwegian Krona Bond Market**

(1980, 1985, 1990-2001; Nominal Value Outstanding in Billions of Norwegian Krona; End-2001 Exchange Rate = 8.963Krona/US\$)

Year	Total	Government					Corporate				Foreign		Eurobond	
		Total	% of Total	Central	Municipal	Other Public	Total	% of Total	Financial	Non-Financial	Total	% of Total	Total	% of Total
1980	41.0	24.0	58.5	16.7	0.3	7.0	16.8	41.0	15.5	1.3	0.3	0.7	na	na
1985	128.2	80.6	62.9	59.1	12.0	9.5	41.9	32.7	35.5	6.4	3.5	2.7	2.3	1.8
1990	279.7	125.5	44.9	76.2	30.6	18.7	149.2	53.3	135.5	13.7	2.1	0.8	3.0	1.1
1991	264.0	121.4	46.0	68.4	34.3	18.6	135.9	51.5	120.0	16.0	3.7	1.4	3.0	1.1
1992	262.5	137.2	52.3	70.6	36.2	21.4	120.2	45.8	103.0	17.2	3.0	1.1	2.1	0.8
1993	307.3	164.9	53.7	99.5	43.3	22.1	139.5	45.4	119.1	20.4	2.2	0.7	0.8	0.3
1994	310.6	173.4	55.8	111.4	43.9	18.0	131.1	42.2	109.6	21.4	5.5	1.8	0.7	0.2
1995	315.9	183.1	58.0	123.3	41.4	18.4	126.0	39.9	105.6	20.4	5.5	1.7	1.3	0.4
1996	319.0	181.8	57.0	123.2	41.0	17.6	129.2	40.5	108.2	21.1	2.9	0.9	5.2	1.6
1997	373.9	202.6	54.2	136.9	41.5	24.2	161.1	43.1	137.2	23.9	2.9	0.8	7.3	2.0
1998	427.2	209.4	49.0	139.6	43.1	26.7	202.9	47.5	177.0	25.9	2.7	0.6	12.2	2.9
1999	412.0	182.2	44.2	130.3	38.8	13.1	201.1	48.8	174.7	26.4	2.2	0.5	26.5	6.3
2000	412.3	197.7	48.0	144.3	41.1	12.3	179.8	43.6	153.6	26.2	1.4	0.3	33.4	8.1
2001	427.9	183.4	42.9	129.7	41.0	12.7	198.8	46.5	160.9	37.9	4.2	1.0	41.5	9.6

Source: Oslo Stock Exchange, Monthly Bulletin, Table: Obligasjoner & Serifikater, Nominal Values. Eurobond data is from the BIS.

## Switzerland

**The Swiss bond market declined in 2001, as both corporate and Eurobond sectors shrank by CHF8 billion and CHF15 billion, respectively.** The government bond market grew by CHF8.5 billion, in line with projections one year ago, and is now at the highest level since 1990, both in terms of outstanding amount and as a share of the market.

*Government bonds have increased (Swissair disaster) as the overall debt market declined.*

As a result of the government's effort to rescue a part of Swissair group, the planned CHF18 million surplus for 2001 turned into a CHF1.3 billion deficit. This project, requiring CHF2 billion in funds, will also transform the previously expected 2002 surplus of CHF35 million surplus in 2002 into a deficit of CHF294 million (based on the assumption of 1.75% economic growth). However, the government remains committed to stopping the public debt growing. The updated fiscal plans now envisage deficits of CHF0.6 billion and CHF0.4 billion in 2003-04 and a small surplus of CHF0.8 billion in 2005. **Therefore, government debt outstanding is likely to increase only moderately over the next three years.**

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**Table 37: Swiss Franc Bond Market**

(1990-2001; Nominal Value Outstanding in Billions of Swiss Francs; End-2001 Exchange Rate = 1.6592 CHF/US\$)

Year	Total	Government					Corporate					Foreign		Eurobond	
		Total	% of Total	Central	Cant-onal	Municipal	Total	% of Total	Finan-Cial	Non-Finan.	Other	Total	% of Total	Total	% of Total
1990	225.9	24.8	11.0	11.2	10.7	2.9	92.2	40.8	73.2	16.6	2.5	106.4	47.1	2.6	1.2
1991	244.0	27.8	11.4	11.8	12.4	3.6	102.3	41.9	81.9	17.6	2.9	111.2	45.6	2.7	1.1
1992	257.9	35.8	13.9	16.4	14.9	4.6	110.9	43.0	89.7	18.6	2.7	108.8	42.2	2.3	0.9
1993	279.1	45.2	16.2	23.9	15.7	5.7	115.7	41.5	94.7	18.5	2.5	112.9	40.5	5.3	1.9
1994	286.4	49.0	17.1	27.5	15.8	5.7	117.3	41.0	97.1	17.8	2.4	112.6	39.3	7.5	2.6
1995	309.7	55.2	17.8	30.9	17.3	7.0	109.1	35.2	81.3	24.8	3.0	118.6	38.3	11.3	3.6
1996	328.1	61.7	18.8	34.4	20.0	7.3	110.2	33.6	81.4	25.2	3.6	127.3	38.8	14.8	4.5
1997	350.3	65.4	18.7	38.6	19.3	7.5	114.6	32.7	82.7	28.0	3.9	139.3	39.8	19.4	5.5
1998	386.4	73.0	18.9	45.6	19.8	7.6	133.9	34.7	90.1	39.5	4.3	154.5	40.0	29.3	7.6
1999	430.8	78.9	18.3	51.6	19.8	7.5	140.6	32.6	96.4	40.3	3.9	171.2	39.7	40.1	9.3
2000	449.5	73.8	16.4	47.6	18.6	7.6	144.3	32.1	101.2	40.3	2.8	183.8	40.9	47.6	10.6
2001	434.0	82.3	19.0	55.0	20.0	7.3	136.3	31.4	97.9	35.6	2.8	183.1	42.2	32.3	7.4

Financial corporates include mortgages. Only mortgage-backed (HypothekenPfandbriefe) may be issued. Legislative framework is similar to that of Germany but stricter as only real estate in Switzerland may be financed.

Other includes convertible and floating-rate bonds but excludes warrant issues.

Source: Swiss Stock Exchange, Monthly Report, Table: Bonds Listed on Switzerland Main Market, Change in Capitalization and Capitalization. Eurobond data is from the BIS.

## Canada

### ■ Government and Provincial Markets

**Overall C\$ bonds outstanding rose C\$10 billion, or just 1.2%, the slowest growth in the past 21 years.** The GoC market was the only segment posting a decline (down 4.8%), as the federal budget surplus likely rang in to the tune of C\$5-C\$7 billion in the FY02 fiscal year which ended on March 31<sup>st</sup> (the fifth consecutive surplus). **Reduced federal bond issuance was more than offset by more borrowing from the provinces (though the total government share of the pie fell to 69.2% from 71.2%).**

*The aim to reduce government bond issuance was offset in 2001 by the rise in the Provinces' borrowing.*

*However, debt management strategy remains unchanged.*

**Provincial bonds outstanding rose 2.7%, as cumulative budgetary balances for the provinces slipped back into deficit territory for the first time since FY99, on the back of a slowing economy and lower royalty payments from oil and gas prices.** As well, substantial tax cuts in British Columbia led to a sharp increase in that province's financing needs.

**Looking ahead, there are no major changes in Ottawa's 2002/03 debt management strategy versus 2001-2002.** Here are some of the highlights:

- There were no changes to the T-bill program.
- Gross issuance of bonds is expected to be \$40 billion, with \$35 billion of debt maturing. This gross figure includes any new bonds issued as a result of the buyback program.
- While the report stated that the government is committed to balanced budgets or better over the next two fiscal years, they did say that *"the outlook is for some modest market debt retirement in 2002-03"*, implying that they are looking for some sort of surplus in FY03. Merrill Lynch is currently estimating a federal surplus of close to C\$10 billion in FY03, which, if achieved, would further reduce the government's share of outstanding C\$-denominated debt.
- The targeted auction sizes are C\$7-C\$10 billion for the 2year, C\$9-C\$12 billion for the 5year and C\$12-C\$15 billion for the 10year and 30year.
- Issuance of RRBs is expected to remain at \$1.4 billion.

**Table 38: Canadian Dollar Bond Market**

(1980, 1985, 1990-2001; Nominal Value Outstanding in Billions of Canadian Dollars; End-2001 Exchange Rate = 1.5960C\$/US\$)

Year	Total	Government					Corporate				Other: Misc Inst		Foreign		Eurobond	
		Total	% of Total	Federal	Provin	Munic	Total	% of Total	Finan	Non-Finan.	Total	% of Total	Total	% of Total	Total	% of Total
1980	161.5	128.4	79.5	56.4	59.0	13.1	28.5	17.6	8.0	20.5	1.1	0.7	0.3	0.2	3.20	2.0
1985	297.6	250.4	84.1	129.3	101.9	19.2	33.8	11.4	8.2	25.6	1.2	0.4	1.1	0.4	11.0	3.7
1990	454.0	341.3	75.2	176.2	140.2	25.1	56.7	12.5	14.3	42.4	1.0	0.2	0.9	0.2	54.1	11.9
1991	512.5	379.5	74.0	196.6	155.6	27.4	61.3	12.0	16.4	44.9	1.0	0.2	0.9	0.2	69.8	13.6
1992	549.6	406.3	73.9	210.6	167.3	28.8	62.9	11.4	17.6	45.3	1.0	0.2	0.8	0.1	78.6	14.3
1993	615.2	441.5	71.8	233.6	178.0	30.1	67.2	10.9	20.1	47.1	1.1	0.2	0.8	0.1	104.6	17.0
1994	659.6	473.0	71.7	262.3	179.9	31.0	71.2	10.8	21.0	50.2	1.1	0.2	0.8	0.1	113.5	17.2
1995	694.3	504.1	72.6	284.7	186.8	32.0	76.4	11.0	23.9	52.5	1.0	0.1	0.6	0.1	112.2	16.2
1996	724.6	534.3	73.7	314.7	186.2	32.8	85.8	11.8	29.9	55.9	0.9	0.1	0.6	0.1	103.0	14.2
1997	754.7	554.8	73.5	333.6	191.0	33.0	104.2	13.8	39.1	65.1	0.9	0.1	0.5	0.1	94.3	12.5
1998	771.4	567.0	73.5	332.0	200.8	33.2	119.0	15.4	46.5	72.5	0.1	0.0	0.5	0.1	84.8	11.0
1999	795.6	575.0	72.3	333.0	210.9	31.1	138.2	17.4	53.8	84.4	0.1	0.0	0.5	0.1	81.8	10.3
2000	811.3	577.3	71.2	330.4	219.8	27.6	155.1	19.1	63.1	92.0	0.1	0.0	0.6	0.1	77.7	9.6
2001	821.0	568.1	69.2	314.7	225.7	27.7	176.4	21.5	71.6	104.8	0.8	0.1	0.6	0.1	75.1	9.1

Source: Bank of Canada, Banking and Financial Statistics, Table K8: Bonds Outstanding – Government of Canada, Provincial, Municipal, Corporate and Other Bonds. Eurobond data is from the BIS.

In March 2001, the Bank of Canada revised earlier data released for non-financial bonds outstanding. This table reflects these changes.

### ■ Corporate Market

*Strong increase of the corporate debt market for the seventh year running.*

**For the seventh year running, corporate bonds increased their share of the overall market, rising to 21.5% from 19.1% last year and 13.8% five years ago.** The corporate sector finished 2001 with outstandings of C\$176.4bn up 13.7% from the prior year.

**Net debt issuance, which factors in redemptions, was a record C\$21.3bn in 2001, up from C\$16.9bn the prior year.** Robust non-financial net issuance of C\$12.8bn was fueled by large transactions in the infrastructure and telecom sectors and maintained the non-financial share at 59% of the corporate bond market.

**Financial net issuance of C\$8.5bn was 8.6% lower year-to-year.** Domestic supply from the banking sector contracted roughly 45% from outsized levels the prior year due to hybrid capital issuance of C\$4bn. The insurance sector offset the drop issuing C\$3.4bn in hybrid capital up from a modest C\$750 million.

**The rating composition of the market became more evenly distributed** with triple-B bonds rising to 17.8% from 10% and double-A bonds falling to 11.9% from 18.3% the prior year. **We think the triple-B segment will rise to 20-25% in 2002,** more as a function of rating downgrades than net new issuance.

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*Corporate bonds dominate the debt market.*

*Shrinking of the government bond market is expected to continue.*

## Australia

**The Australian government bond market shrank further by A\$5bn in 2001, to A\$112bn representing 31% of the Australian bond market.** The A\$169bn corporate sector continued to dominate the market, growing by A\$24bn in 2001, with the largest contribution coming from non-financial corporate issues. Foreign issuers' share of the market rose by A\$7bn, mostly due to increased issuance by supranationals.

**The government bond market seems likely to continue contracting, as the government's borrowing needs decline further.** The budget cash surplus is projected at A\$500 million in the year ending June 2002, and A\$1 billion in the following year. The Treasury indicated that extra spending on defense and immigration after September 11, which was estimated to be about A\$2.6bn, should be offset by higher than expected tax revenues. In addition, the government might proceed with the sale of the Sydney airport, which could potentially improve government finances by A\$4.7bn.

However, despite the shrinking size of the government bond market, the government is determined to maintain liquidity in the Commonwealth government securities market. This implies keeping the amount of outstanding government bonds at least around A\$100bn.

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**Table 39: Australian Dollar Bond Market**

(1980, 1985, 1990-2001; Nominal Value Outstanding in Billions of Australian Dollars; End-2001 Exchange Rate = 1.9539A\$/US\$)

Year	Total	Government		Corporate						Foreign		Eurobond	
		Total	% of Total	Total	% of Total	Financial Total	Non-Financial		Non-Intermed.	Total	% of Total	Total	% of Total
							ABS	Other					
1980	17.4	17.4	100.0	na	na	na	na	na	na	na	na	na	na
1985	40.6	35.7	87.9	na	na	na	na	na	na	na	na	4.9	12.1
1990	99.6	51.0	51.2	16.0	16.1	na	na	na	na	na	na	32.6	32.7
1991	108.6	55.1	50.7	23.0	21.2	na	na	na	na	na	na	30.5	28.1
1992	177.8	102.0	57.4	45.4	25.5	11.9	6.7	7.2	19.6	2.2	1.2	28.2	15.9
1993	205.6	127.3	61.9	42.4	20.6	10.7	5.6	7.0	19.1	2.2	1.1	33.7	16.4
1994	223.8	140.5	62.8	40.0	17.9	8.1	6.1	6.0	19.8	2.2	1.0	41.1	18.4
1995	238.0	144.2	60.6	40.2	16.9	5.4	8.5	4.2	22.1	1.9	0.8	51.7	21.7
1996	255.4	144.2	56.5	50.6	19.8	4.0	11.6	4.7	30.3	2.2	0.9	58.4	22.9
1997	269.4	136.7	50.7	70.1	26.0	6.6	16.3	6.5	40.7	2.6	1.0	59.8	22.2
1998	266.4	132.4	48.8	76.9	28.6	8.1	17.4	7.6	43.8	3.8	1.4	53.3	20.0
1999	302.8	126.5	41.8	108.3	35.8	19.1	22.2	12.1	54.9	8.5	2.8	59.2	19.6
2000	327.8	116.4	35.5	144.7	44.2	21.5	27.1	20.2	75.9	11.9	3.6	54.5	16.6
2001	357.0	111.8	31.3	168.5	47.2	22.7	33.4	25.1	87.3	19.3	5.4	57.4	16.1

Nonintermediated debt is raised by nonfinancial corporations issuing directly to the market.

In 1990 and 1991, corporate total includes corporate and foreign issues.

Source: Reserve Bank of Australia, Information Department, Table D.04: Debt Securities Issued in Australia. Eurobond data is from the BIS.

## New Zealand

**The New Zealand bond market shrank for the second consecutive year in 2001, with the government bond sector increasing to 64.3% of the market from 61.9% in 2000.**

*Contraction of the government bonds outstanding for the second year in a row.*

Last December, the Treasury had to revise the bond issuance scheduled for 2001-2002 up to NZ\$4.1bn from the previously announced NZ\$3.5bn. The increase was prompted by an unexpected spending of NZ\$1.1bn related to the recapitalisation of Air New Zealand. Further spending may be required next year, depending on the results of the company's asset sales.

In its December Economic and Fiscal Update, the government pencilled in further increases in issuance, planning to sell NZ\$5.1bn in 2002-2003 and NZ\$5.6bn the year after. From these levels, bond issuance is expected to decline to NZ\$3.7bn and NZ\$0.8bn in 2004-2006. Gross debt, which stood at 32.2% of GDP in 2001, is expected to fall to 30.7% of GDP by 2005-2006, while net debt (gross debt less financial assets) combined with the New Zealand Superannuation Fund assets is projected to approach zero over a 10-year period.

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**Table 40: New Zealand Dollar Bond Market**

(1985, 1990-2001; Nominal Value Outstanding in Billions of New Zealand Dollars; End-2001 Non-Euro Exchange Rate = 2.4021NZD/US\$)

Year	Total	Government				Eurobond	
		Total	% of Total	Fixed-Rate	Index-Linked	Total	% of Total
1985	16.3	14.3	87.7	12.4	1.9	2.0	12.3
1990	17.3	13.4	77.5	12.7	0.7	3.9	22.5
1991	18.5	15.0	81.1	14.6	0.5	3.5	18.9
1992	21.7	19.4	89.4	19.2	0.1	2.3	10.6
1993	22.8	21.2	93.0	21.1	0.1	1.6	7.0
1994	24.0	22.6	94.2	22.6	0.1	1.4	5.8
1995	23.3	21.9	94.0	21.8	0.1	1.4	6.0
1996	27.8	21.6	77.7	21.1	0.5	6.2	22.3
1997	36.4	20.8	59.0	20.9	0.8	15.1	41.0
1998	42.5	22.8	54.6	21.7	1.1	19.7	45.4
1999	44.4	24.3	55.4	23.1	1.2	20.1	44.6
2000	42.3	26.2	61.9	24.6	1.6	16.1	38.1
2001	39.8	25.6	64.3	25.6	0.0	14.2	35.7

Source: Reserve Bank of New Zealand, Financial Statistics, Table D1: Government Securities on Issue. Eurobond data is from the BIS.



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## 9. Emerging Markets by Region

### Emerging Asia

*Governments have favored a bond market development through expansionary fiscal policy...*

*...reduction of the dependence on ST bank loans...*

*...and swapping of domestic for external debt.*

Asia's outstanding local currency debt totaled over \$900 billion as of end-2001. While the size is relatively small compared to global markets, the growth rate over the past few years has been impressive. Since the Asian crisis of 1997, there has been a clear overall shift in government financing that favors bond market development in Emerging Asia. Three factors have been driving this trend:

- Governments across the region have favored using expansionary fiscal policy – usually incurring unprecedented fiscal deficits – to stimulate domestic demand in the face of slumping exports as the global economy and the electronics cycle undergo a simultaneous downturn.
- Efforts at deepening capital markets has been actively pursued in many countries in the aftermath of the Asian crisis, as governments sought to reduce dependence on short term bank loans, arguably a key source of vulnerability that precipitated the currency crisis of 1997. Key policy measures include establishing benchmark issues, extending the term structure to fifteen years (in the case of China and Singapore), strengthening the regulatory infrastructure and enhancing liquidity in the secondary markets.
- Because low inflation and ample domestic liquidity have kept interest rates cyclically low, the costs of financing budget deficits through domestic bond issuance has fallen relative to external borrowing. Korea, Malaysia and Thailand have successfully swapped domestic for external debt, while the Philippines government has begun doing so in lieu of domestic rates falling to record low levels of late. With policy expected to stay mostly easy in 2001 (Korea may be the exception as strong growth could make it the first country in Asia to tighten), it is likely that cyclically low interest rates, together with the first two structural factors mentioned, will support domestic bond issuance in 2002.

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**Table 41: The Emerging Debt Markets of Asia, 2001**  
(Nominal Value Outstandings in Billions of U.S. Dollars)

	Total US\$bn	Domestic			
		Government		Corporate	
		US\$bn	% of total	US\$bn	% of total
<b>North Asia</b>					
China	208.3	122.4	58.8	85.9	41.2
Hong Kong	63.8	15.1	23.6	48.7	76.4
Korea	281.6	69.8	24.8	211.8	75.2
Taiwan	62.9	56.0	89.0	6.9	11.0
<b>ASEAN</b>					
Indonesia	48.4	48.3	99.8	0.1	0.2
Malaysia	58.1	27.2	46.8	30.9	53.2
Philippines	16.7	16.6	99.4	0.1	0.6
Singapore	41.5	31.3	75.4	10.2	24.6
Thailand	42.0	30.4	72.4	11.6	27.6
<b>South Asia</b>					
India	126.9	114.4	90.1	12.5	9.9
Pakistan	7.6	7.3	100.0	0.3	3.9
<b>Total Asia</b>	<b>957.8</b>	<b>538.8</b>	<b>56.3</b>	<b>419.0</b>	<b>43.7</b>

Source: BIS, CEIC, IIF, Merrill Lynch, Bank Indonesia, Bank of Korea, Central Bank of China, Monetary Authority of Singapore.

Note: Due to their Single A credit rating, the markets of Hong Kong, Taiwan, and Singapore are not considered part of the Emerging Market Tradable Debt Universe (see page 19). The table may differ from what is presented on page 19, which includes only tradable debt. This table includes all securities. In some markets, data may include money market instruments as it is not possible to disaggregate the data.

## ■ Malaysia

**Table 42: Malaysian Ringgit Bond Market**

(1980, 1985, 1990-2001; Nominal Value Outstandings in Millions of Malaysian Ringgits; End-2001 Exchange Rate = 3.80MYR/US\$)

Year	Total	Government		Corporate	
		Total	% Total	Total	% Total
1980	16,796	16,796	100.0	na	na
1985	36,681	36,681	100.0	na	na
1990	65,464.7	62,106	94.9	3,359	5.1
1991	70,494.6	65,263	92.6	5,232	7.4
1992	73,834.2	66,643	90.3	7,191	9.7
1993	76,116.1	66,018	86.7	10,098	13.3
1994	80,117.5	64,969	81.1	15,149	18.9
1995	87,437.8	64,719	74.0	22,719	26.0
1996	100,458.4	66,910	66.6	33,548	33.4
1997	113,864.0	66,262	58.2	47,602	41.8
1998	144,533.5	75,012	51.9	69,522	48.1
1999	196,073.5	76,336	38.9	119,738	61.1
2000	208,713.0	89,050	42.7	119,663	57.3
2001	220,964.0	103,450	46.8	117,514	53.2

Corporate data includes Khazanah bonds but excludes Cagmas bonds which are issued by the national mortgage corporation to fund the purchase of housing loans from financial institutions.

Source: Bank Negara Malaysia, Website: *Ringgit Facts and Factors*.

*Increase in government bond market to finance the deficit.*

Reflecting its increased importance as a source of deficit financing, the government bond market expanded in 2001 by more than 15% (Table 42). Low interest rates, excess liquidity in the banking system and fiscal deficits over the last two years as the government sought to stimulate the economy through expansionary fiscal policy were major reasons for the increase. Besides government bonds, total issuance of Cagmas (housing mortgage) bonds and government investment bonds reached MYR26bn in 2002. In addition, in the 2002 budget, the government announced that the central bank would issue savings bonds for subscription by senior citizens and charitable organizations, to offset the impact of lower interest rates.

*Rise in corporate sector as well thanks to low interest rates.*

As a result of low interest rates, the private sector also topped the bond market for its funding needs. Corporate bond issuance was some MYR35bn in 2001, with redemptions of MYR21bn during the year. Corporate bonds outstanding reached RM118bn in 2001, about 45% of GDP. Compared to the equity market issuance of just MYR6bn for the year, the bond market remained the main source of financing in the capital market for the private sector.

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## ■ Hong Kong

**Hong Kong's government bond market increased by 5% to HKD421 billion as of end-2001.** Overall, there was an increase in product variety, as low interest rates led to embedded structures such as step-up coupons and call options to attract investors. Retail interest in bond investment also grew during the year. **Corporate issuance, however, was relatively more subdued as a result of the global economic slowdown and continued deleveraging amongst corporations.** In addition, there was a shift to international issuance and the syndicated loan market.

Reflecting government efforts at developing the bond market, the Exchange Fund accounted for about a quarter of total outstanding debt and over 60% of issuance during the year. New issuance of Exchange Fund paper amounted to HKD234bn in 2001, 15% less than a year ago as result of a shift away from short-dated issues.

*The government debt market increased by 5% in 2001, reflecting the government's efforts. The corporate debt market slowed down.*

Looking ahead, recent measures to promote debt market development should result in steady growth of Hong Kong's bond markets. Direct links set up with Euroclear, regular reviews of market makers and the publication of advanced quarterly issuance of Exchange Fund paper have promoted greater transparency and liquidity, as well as improved market infrastructure.

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**Table 43: Hong Kong Dollar Bond Market**

(1991, 1995-2001; Nominal Value Outstanding in Billions of Hong Kong Dollars; End-2001 Exchange Rate = 7.8HK\$/US\$)

Year	Total	Government		Corporate			
		Total	% Total	Total	% Total	Fixed	Floating
1991	23.7	0.5	2.1	23.2	97.9	na	na
1995	152.7	14.0	9.4	138.3	90.6	52.1	86.3
1996	211.2	22.0	10.2	189.6	89.8	61.6	128.0
1997	272.7	29.0	10.6	243.9	89.4	75.9	167.9
1998	326.3	34.0	10.3	292.7	89.7	133.4	159.5
1999	342.4	34.0	10.0	308.3	90.0	152.8	155.5
2000	399.0	35.6	8.9	363.4	91.1	227.7	135.7
2001	421.3	41.4	9.8	379.9	90.2	245.8	134.1

Source: Hong Kong Monetary Authority, Monthly Statistical Bulletin, Table 3.5: Outstanding Amount of Hong Kong Dollar Instruments Other Than Exchange Fund Bills and Notes; Table 4.2: Outstanding Amount of Exchange Fund Bills and Notes. Government includes just exchange fund notes.

## ■ Korea

*To revive domestic demand, issuance of central government debt rose. The corporate bonds have peaked in 2001.*

**In 2001, central government bonds outstanding hit KRW82 trillion, a 14% rise from a year earlier.** Gross bond issuance was KRW20 trillion during the year. Redemptions rose partly as a result of government buybacks of short term paper as the government pushed out its funding needs to longer maturity. The increase in issuance came about at a time when the fiscal balance swung from surplus to deficit, as the government sought to revive domestic demand in the face of contracting exports, especially in electronics. Moreover, monetary stabilization bonds (MSB's) issued by the Bank of Korea rose to KRW7.9 trillion as the central bank sought to absorb inter-bank liquidity that came about from rising portfolio inflows as confidence surrounding the economy improved.

**Table 44: Korean Won Bond Market**

(1985, 1990-2001; Nominal Value Outstanding in Billions of Korean Won; End-2001 Exchange Rate = 1316KRW/US\$)

Year	Total	Government				Corporate			
		Total	% Tot	Central	Other	Total	% Tot	Financial	Non-Fin
1985	16554.9	5270.0	31.8	3237.3	2032.7	11284.9	68.2	3889.3	7395.6
1990	62014.8	14527.2	23.4	13,112.0	1415.2	47487.6	76.6	23,419.8	24,067.8
1991	77251.5	20326.5	26.3	16,152.3	4174.2	56925.0	73.7	25,542.7	31,382.3
1992	94637.9	24491.0	25.9	18,553.4	5937.6	70146.9	74.1	34,762.9	35,384.0
1993	109621.2	26797.7	24.5	19,135.6	7662.1	82823.5	75.6	42,933.5	39,890.0
1994	124625.8	28253.9	22.7	20,673.7	7580.2	96371.9	77.3	48,443.2	47,928.7
1995	147703.1	31966.9	21.6	22,518.0	9448.9	115736.2	78.4	54,449.3	61,286.9
1996	170599.7	37039.9	21.7	25,644.6	11,395.3	133559.8	78.3	57,232.9	76,326.9
1997	195288.1	43124.6	22.1	28,542.6	14,582.0	152163.5	77.9	62,061.6	90,101.9
1998	273292.1	61695.9	22.6	41,572.8	20,123.1	211596.2	77.4	88,913.9	122,682.3
1999	289265.4	81522.5	28.2	59,910.1	21,612.4	207742.9	71.8	87,236.2	120,506.7
2000	333982.0	92920.6	27.8	71225.7	21694.9	241061.4	72.2	107412.8	133648.6
2001	370657.3	91885.4	24.8	82390.1	9495.3	278771.9	75.2	124771.9	154400.4

Source: The Bank of Korea, Principal Economic Indicators, Table 5: Securities.

Looking ahead, early indications are that the government looks likely to run a less expansionary fiscal policy in 2002, given that recovery is already well underway and concerns over incipient overheating are beginning to emerge. However, rising interest payments are expected to keep new issuance fairly well supported.

Corporate bond issuance may not be as buoyant however, and could have peaked in 2001, given the winding down of bond issuance from the Korea Depository Insurance Corporation (KDIC) and continued deleveraging among companies.

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## ■ Taiwan

**Table 45: Taiwanese Bond Market**

(1980, 1985, 1990-2000; Nominal Value Outstanding in 100 Millions of New Taiwanese Dollars; End-2000 Exchange Rate = 33.1NT/US\$)

Year	Total Bonds Outstanding
1980	474
1985	1124
1990	2994
1991	5086
1992	7083
1993	8697
1994	9626
1995	10,568
1996	13,396
1997	14,309
1998	16,683
1999	19,462
2000	21,361

The total includes bonds issued by the Taiwanese Government, Corporations and Supranational Organizations. Through 1995, the Government represented approximately 90% of the outstandings. The Government's dominance of the bond market has been declining in the 1996-1999 period. In 1998, Government bonds accounted for 63% of outstandings.

Source: Bank of China Website.

## ■ India

**2001 was a surprisingly important year for the Indian fixed-income markets.**

Yields on the 10-year benchmark Gilt ended around 300bp lower as the RBI lowered the bank rate by 150bp to its lowest level since the shift to a market-determined interest rate regime.

A combination of factors contributed to this fall in yields. The year started at the end of the tightening cycle which began in 2000 and the beginning of the easing cycle. Policy preference continued to favor lower interest rates to the extent that conditions permitted and 2001 was no different. Policy support was also witnessed in the urgency to remove the rigidities in small savings rates. Liquidity and the RBI – the RBI's rate cuts and a sluggish economy provided adequate liquidity and at a cheaper rate. A weak economy, poor credit offtake, low inflation, a stable currency, rising reserves, low oil prices and a concerted aggressive global easing cycle provided sufficient fuel for our markets to witness a move of this magnitude.

Issuance continued to maintain the pace seen in the last few years. The government overshot its budgeted market borrowing (they raised Rs922bn in FY02) but that did not have an adverse impact on the markets. With demand for funds by the corporate sector staying subdued on account of the economic slowdown market participants absorbed Gilt issuance with ease. There were a few rating actions; Standard and Poor's lowered India's rating by one notch. There were a few downgrades in the corporate bond market, and corporate spreads widened to their highest levels seen in the last few years, as market preference for Gilts was much higher compared to corporate papers.

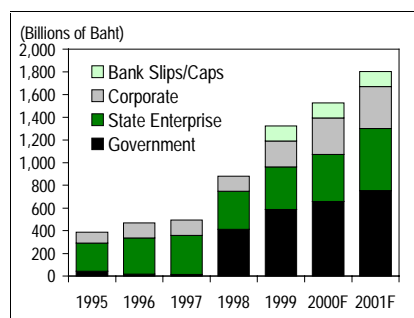
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*Yields fell while government bond issues rose contributing to a successful year for the debt market in 2001.*

### *Bond market continued to grow in 2001.*

**Chart 17: Thai Bond Market**



Source: Merrill Lynch

## ■ Thailand

**Thailand's local bond market expanded further in 2001, closing the year with total outstanding par value of Bt1,859.1bn (US\$42.1bn), up 17.1% year-over-year.** The government issued bonds and T-bills of Bt590.6bn with a net increase Bt95.7bn to fund part of the planned FY2001 budget deficit. State enterprise sector contributed a net increase of Bt115.2bn, mainly from the Financial Institution Development Fund's (FIDF) bonds. In 2001, the FIDF issued Bt112.0bn bonds to refinance its short-term debt. Meanwhile, the corporate sector issued Bt102.6bn worth of debentures with a net addition of Bt60.1bn. At year-end, the government and state enterprise sectors accounted for 43.9% and 28.4% of the total outstanding par value, respectively, while the rest were corporate and banks' debentures.

**The local bond market is expected to continue its expansion in 2002.** The government is likely to run budget deficits for the next several years and, thus, supply from the government sector is very likely. We also expect supply from the state enterprise sector, particularly from the FIDF. Meanwhile, corporates are likely to take advantage of low interest rates to fund their expansions and/or roll-over their maturing debts. We expect the bond market structure to change slightly toward higher proportion of government and state enterprise bonds (75-80% of total outstandings).

**Lertchai Kochareonrattanak**

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**Table 46: Thai Baht Bond Market**

(1990-2001; Nominal Value Outstanding in 1 Billion of Thai Baht; End-2001 Exchange Rate = Bt44.2/US\$1)

Year	Total	Government		State Enterprise		Corporate	
		Total	% Total	Total	% Total	Total	% Total
1990	213.4	195.2	91.5	18.2	8.5	0.0	0.0
1991	201.4	150.8	74.9	50.6	25.1	0.0	0.0
1992	213.2	133.9	62.8	76.2	35.7	3.1	1.5
1993	253.6	100.7	39.7	134.9	53.2	18.0	7.1
1994	314.4	62.5	19.9	190.4	60.6	61.5	19.5
1995	386.9	43.0	11.1	247.8	64.0	96.2	24.9
1996	469.4	18.1	3.8	318.9	67.9	132.5	28.2
1997	493.9	13.8	2.8	345.4	69.9	134.7	27.3
1998	879.0	411.9	46.9	336.8	38.3	130.3	14.8
1999	1,348.8	612.1	45.4	374.5	27.8	362.2	26.9
2000	1,588.1	720.7	45.4	412.9	26.0	454.5	28.6
2001	1,859.1	816.4	43.9	528.1	28.4	514.6	27.7

Source: Bank of Thailand, Thai Bond Dealer Center, and MLP (for corporate estimate)

**Table 47: Debt in Pakistan, 2001**

	US\$ bn
Domestic Debt	26.93
Permanent	5.15
Floating	9.15
Unfunded	11.83
Corporate (Private Issuers)	0.26
Corporate (PSEs)	0.54
External Debt	33.51
Eurobond	0.64
Others	32.86

Source: SBP; MoF; ML Research; Figures depict latest figures available.

## ■ Pakistan

**The corporate debt market showed immense progress since FY01.** Twelve new issues were floated in the market since the start of the fiscal year which almost doubled the total outstandings in the market. The issuance in FY02 so far was PkR7.5bn (US\$125 million) and total outstanding debt in this market stands at PkR15.4bn (US\$260 million). The issuance was further diversified with other companies in the oil refining, synthetics and fertilizer sectors issuing debt into what was a market dominated by leasing companies. Furthermore, there are issues worth PkR4.6bn (US\$77 million) in the pipeline. On the government issuance side, the growth has been in the new long-term instruments Pakistan Investment Bonds which grew from PkR46 billion (US\$770 million) to PkR91.67 billion (US\$1.5 billion).

The corporate debt market should see the most phenomenal growth where recently the State Bank of Pakistan has allowed banks to issue these as subordinated instruments, which would be eligible for Tier II capital. Muslim Commercial Bank is set to become the first bank to issue these, where it plans to issue a PkR1 billion (US\$16.7 million) issue with a PkR600 million (US\$10 million) green shoe option.

**Aqib Elahi Mehboob**

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*The federal government has continued to issue debt, mainly in the domestic market, improving its quality.*

*Increased liquidity and pension system growth have increased institutional investors' participation.*

## Latin America

### ■ Mexico

The overall stock of Mexican Peso denominated public debt closed 2001 at MXP683.4 billion (approximately US\$74.63 billion). The main driver behind the growth of the stock of debt continues to be the federal government, which has financed its deficit exclusively in the domestic market since 1996.

Declining inflation amid weak growth and a strong currency in 2001, in tandem with moderate fiscal deficits, have allowed a sustained improvement in the profile of this debt and a reduction in refinancing risk.

The average life of the total stock of domestic debt has steadily increased from about 230 days in 1995, to close to 750 days last year. **To achieve this, the government needed to issue more of both inflation-indexed (Udibonos) and floating-rate bonds. Declining inflation in 2001, however, and a lower risk premium following the awarding of investment grade ratings by S&P and Fitch, opened room for a more aggressive fixed-rate issuance last year.** In fact, fixed-rate bonds represented the main source of government financing in 2001. Capitalizing on the supportive economic backdrop, the government enhanced its menu of fixed-rate offerings with the introduction of a new ten-year bond.

Another highlight of the government's domestic debt strategy has been a number of steps to enhance the secondary market liquidity of domestic bonds. This includes the reopening of existing issues to boost depth, reducing the frequency of auctions (e.g., monthly auction of one and three year Cetes and six week auctions of Bondes) and the disclosure of rules regarding the appointment of market-makers. The pre-announcement of quarterly auctions is another innovation in order to boost transparency and predictability. **Domestic institutional investors have steadily increased their participation in the public debt market.** This trend should be supported by the growth of the private pension system, which has an investment regime that provides a structural demand for domestic public debt securities.

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**Table 48: Mexican Peso Government Bond Market**

(1990-2001; In Billions of Mexican Pesos; End-2001 Exchange Rate = 9.1575MXN/US\$)

Year	Total	Cetes		Bondes		Tesobonos		Ajustabonos		Udibonos		Bonos	
		Total	% Total	Total	% Total	Total	% Total	Total	% Total	Total	% Total	Total	% Total
1990	146.7	69.6	47.4	63.8	43.5	0.0	0.0	10.3	7.0	0.0	0.0	3.0	2.0
1991	156.8	69.3	44.2	57.5	36.6	0.9	0.6	29.3	18.6	0.0	0.0	0.2	0.0
1992	131.0	57.5	43.9	37.2	28.4	0.9	0.7	35.5	27.0	0.0	0.0	0.6	0.0
1993	128.4	75.3	58.6	16.9	13.1	3.7	2.9	32.7	25.4	0.0	0.0	0.0	0.0
1994	167.9	38.6	23.0	8.3	4.9	91.7	54.6	29.3	17.4	0.0	0.0	0.0	0.0
1995	132.5	44.1	33.3	45.1	34.1	2.0	1.5	41.4	31.2	0.0	0.0	0.0	0.0
1996	155.2	56.2	36.2	67.8	43.7	0.0	0.0	26.0	16.7	5.2	3.4	0.0	0.0
1997	221.9	89.2	40.2	81.6	36.7	0.0	0.0	15.7	7.0	35.7	16.1	0.0	0.0
1998	322.6	104.1	32.3	143.5	44.5	0.0	0.0	10.6	3.3	64.3	19.9	0.0	0.0
1999	442.6	122.7	27.7	241.7	54.6	0.0	0.0	0.0	0.0	78.2	17.7	0.0	0.0
2000	562.9	168.3	29.9	276.2	49.1	0.0	0.0	0.0	0.0	85.6	15.2	32.8	5.8
2001	683.4	187.3	27.4	300.1	43.9	0.0	0.0	0.0	0.0	91.1	13.3	104.9	15.3

Note: Cetes, Mexican Treasury bills, are issued with maturities that range from 28 days to 3 years. Bondes are floating-rate bonds with a maturity range of 1-2 years. The coupon is greater than or equal to the 28-day cetes yield. Ajustabonos are inflation-indexed bonds with a maturity range of 3 to 5 years. Udibonos are inflation-indexed bonds introduced in 1996 to replace ajustabonos with principal indexed to the UDI Inflation Index. Bonos are fixed-rate Government bonds.

Source: SHCP (Mexico Ministry of Finance and Public Credit). Table: Accumulative Balances of Governmental Securities.



*Crisis, “pesification” and  
devaluation.*

## ■ Argentina

As a consequence of a deep economic crisis, Argentina is no longer current on its bond payments. At the end of December, the country declared a default on its public debt and devalued the currency. Also, public sector debt that went into what was called Phase I of the debt exchange was re-denominated into pesos. Given the massive breach of contracts that resulted from the debt default, the *pesification*, and the devaluation, there are still many questions that does not allow us to estimate the recovery value of Argentine debt. However, for completion we present below the evolution of the peso-denominated debt by close of 2001.

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**Table 49: Argentine Peso Bond Market**

1997-2001; Nominal Value Outstanding in Billions of Argentine Pesos; End-2001 Exchange Rate = 1ARS/US\$)\*

Year	Total	Central Gov't	Provincial Gov't
1997	11.7	9.5	2.2
1998	10.1	7.8	2.3
1999	8.5	6.4	2.1
2000	6.6	4.4	2.2
2001	5.9	3.7	2.2

\* Please note that Argentina effectively defaulted on its debt in 2002. Also, some US\$-debt was re-denominated in AR\$. The currency was also devalued, trading close to AR\$3 per US\$ by the time we went to press.  
Source: Ministerio de Economia and Merrill Lynch.

## ■ Brazil

The total stock of Brazilian real-denominated public debt exhibited a material (19.9%) increase in 2001, closing the year at R\$621.7 billion (approximately US\$269 billion). But the increase in the stock of debt in the market hides some important underlying dynamics. Specifically, a major contributor to last year's increased indebtedness was the combined effect of multiple shocks that impacted the Brazilian economy in 2001. These included: The threat of contagion from Argentina, slowdown in global growth and FDI, more restrictive capital markets. With a floating exchange rate regime, the currency depreciated to restore equilibrium in the balance of payments but, amid heightened uncertainty, the exchange rate overshot materially. In the process, however, dollar-linked domestic debt increased its R\$ size and participation in the total stock of domestic debt (valuation effect). To satisfy hedging demand, a net supply of R\$11 billion of dollar-linked domestic debt was issued. A rally of the real in 2002 has provided strong support for the overshooting hypothesis and the stock of domestic debt has started to decline.

*Declining indebtedness of states  
and municipalities over the last  
two years due to structural  
reform.*

In spite of this difficult backdrop, some important positive trends were maintained in 2001. First, the trend of a dramatic decline in the indebtedness of states and municipalities has been going on for the last two years, staying constant over this 2000-2001 period. These entities have completed debt renegotiation agreements with the central government, whereby they obtain debt relief in exchange for commitments to adjust their fiscal position. Thanks to this, their participation in the total stock of debt has shrunk from almost one-third in 1994 to virtually zero last year. Better terms obtained by the central government in the market implies that the overall rollover cost for the public debt has declined as a result of these agreements.

Secondly, the trend in the stock of central bank bonds, which rose over R\$100 million, a mark not seen since 1999. This related primarily to the ongoing strategy whereby the central bank now only issues securities aimed at monetary policy objectives, rather than in support of the public sector's financing needs. In line with this change in strategy, the central bank now is the only public entity in



*The government bond market has increased, with the Central Bank issuing dollar-linked bonds for currency hedging.*

Brazil issuing dollar-linked bonds, as these primarily meet the corporate sector's demand for currency hedging. As such, the increase in this stock is also associated with a better capacity to pursue monetary goals and lower currency risk for the Treasury. The Treasury's debt, in turn, closed last year at R\$492.9 billion. The weakening of the currency amid last year's shocks deteriorated the rebalancing of coupon composition of the Treasury's debt. Floaters did not change materially going from 52.0% of the total in 2000 to 52.8% at the end of last year, but fixed-rate bonds decreased their participation from 14.8% to 7.8% in the same period. Notwithstanding, the **Treasury has managed to continue to extend the average maturity of the stock of debt in the market to around 29 months from 16 months in 2001 (and from around 6 months at the time of the devaluation).**

The improvement in domestic debt dynamics may be challenged in 2002 amid residual global pressures, and an October presidential election. But if the policy response is strong, ongoing improvement should be possible. With an explicit inflation-targeting framework in place, the demand for fixed-rate paper is expected to solidify. **In addition, the Treasury is reducing the number of issues outstanding, pre-announcing fixed dates for auctions and increasing the offering sizes, all of which should lower the rollover risk of Brazilian domestic bonds.**

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**Table 50: Brazilian Real Bond Market**

(1994-2001; Nominal Value Outstanding in Millions of Brazilian Reals; End-2001 Exchange Rate = 2.3105 BRL/US\$)

Year	Total	Government				State/Muni	
		Total	% Total	Natl. Treasury	Banco Central	Total	% Total
1994	85,985	61,782	71.9	35,329	26,453	24,203	28.2
1995	146,067	108,486	74.3	59,140	49,346	37,581	25.7
1996	226,117	176,211	77.9	93,106	83,105	49,906	22.1
1997	294,920	255,509	86.6	190,271	65,238	39,411	13.4
1998	346,203	323,860	93.6	219,151	104,709	22,343	6.5
1999	427,037	414,902	97.2	351,882	63,020	12,135	2.8
2000	518,315	516,114	99.6	432,200	83,914	2,201	0.4
2001	621,718	619,136	99.6	492,938	126,198	2,582	0.4

Includes only bonds circulating in the market.

Source: Bulletin of the Central Bank of Brazil, Table IX.9: Federal Domestic Securities – Outside the Banco Central do Brasil, Under National Treasury Responsibility; Table IV.12: State and Municipal Domestic Debt – Securities Issued.

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*Very high issuance of domestic debt in local currency, whose ownership is mainly foreign investors.*

## Eastern Europe

### ■ Poland

**Total tradable securities denominated in the local currency represented some 56% of total public debt as of the end of 2001.** This marks an increase from 44% a year earlier and 37% at the end of 1999. By comparison, foreign currency-denominated tradable debt represented a mere 8% of total public debt as of the end of 2001, almost unchanged from 2000 and lower than the 9.5% reported at the end of 1999 (this is largely due to retirement of Brady bonds).

The state budget deficit for this year is set at PLN40bn or 5.2% of GDP, up from PLN33bn or 4.5% last year. The deficit will be financed predominantly by the issuance of domestic debt. For example, the Ministry of Finance has issued a total of PLN20.5bn of T-bonds (gross amount) in the first four months of this year, compared to a total of PLN36.1bn of bonds issued in the whole of 2001. Similarly, the issuance of T-bills amounted to over PLN19bn in the first four months of 2002 versus PLN48.7bn in the whole of 2001.

Over 42% of all Treasury bonds are five-year bonds. The longest maturity bond is a 20-year T-bond, which was first issued in April 2002.

In terms of the ownership structure, foreign investors have played a significant role in the Polish T-bond market; their involvement was between 16%-21% of the total market in 2001. In particular, they owned some 25% of five-year T-bonds, compared to less than 11% owned by pension funds. However, pension funds' importance as a player in this market will continue to increase over the next few years.

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**Table 51: Polish PLN-denominated Tradable Securities**

(1997-2001; Nominal Value Outstanding in Billions of Zlotys; End-2001  
Exchange Rate = 3.96PLN/US\$)

	1997	1998	1999	2000	2001
Tradable securities:	60.1	73.4	97.6	117.5	158.7
Treasury bills	32.3	28.9	27.0	23.4	35.2
Tradable T-bonds:	27.9	44.5	70.6	94.1	123.5
Fixed rate bonds, of which:	16.4	27.8	52.7	75.4	97.5
2-year zero-coupon bonds	—	—	1.7	11.7	22.0
5-year fixed-rate bonds	9.7	16.0	31.5	42.1	51.9
10-year fixed-rate bonds	—	—	1.4	5.1	9.0
Floating-rate bonds, of which:	11.5	16.7	17.9	18.7	25.9
3-year floating-rate bonds	7.0	10.3	10.9	10.7	8.1
10-year floating-rate bonds	2.8	4.1	6.7	8.0	9.4
PLN/US\$ exchange rate	3.518	3.504	4.1483	4.1432	3.986

Source: Polish Ministry of Finance

### ■ Hungary

**The Hungarian government has no plans to issue international bonds in 2002, having decided to finance its fiscal gap entirely through domestic debt issuance.** As a result, it is estimated that net issuance will increase by some 40% to around HUF1,100bn in 2002, up from around HUF780bn estimated for 2001.

The Debt Management Agency (GDMA) decided to double the issuance frequency of the three-year T-bonds to a bi-weekly basis. These bonds also substituted for the two-year T-bonds, which will not be offered any more in 2002. As a result, the share of the three-year T-bonds should increase to 20% in 2002, up from 10% in 2001. The share of up-to-one-year notes will rise to 35% in 2002 from 27% in 2001. According to the GDMA, the combined share of five-, 10- and

*Fiscal gap is essentially funded through the domestic debt market, owned mainly by foreigners.*

15-year T-bonds should fall to 45% in 2002 from 63% in 2001, as combined net sales will remain unchanged. The longest maturity bond is currently a 15-year T-bond, which was first issued in November 2001. Some 25% of all securities were owned by foreign investors as of the end of 2001.

According to the GDMA estimates, public debt should fall to around 51.3% of GDP at the end of 2002, down from around 52% at the end of 2001, and 55% in 2000.

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**Table 52: Hungarian Central Government Securities**

(1991-2001; Nominal Value Outstanding in Billions of Hungarian Forint;  
End-2001 Exchange Rate = 274.8HUF/US\$)

Year	Total	Public Issues				Private Placements
		Total	Bonds	T-Bills	Retail Securities	
1991	116.2	75.0	15.0	60.0	0.0	41.2
1992	432.1	267.3	110.0	122.7	34.6	199.4
1993	941.3	505.5	284.7	179.1	41.6	477.5
1994	1238.0	739.7	424.6	236.0	79.1	577.4
1995	1533.6	963.6	546.6	339.7	77.2	647.3
1996	2313.3	1392.9	708.5	560.7	123.8	1,044.2
1997	2408.1	1900.9	998.7	661.3	240.9	748.2
1998	2942.5	2432.8	1386.5	689.9	356.5	866.1
1999	3470.7	3116.8	1790.8	826.7	499.3	853.2
2000	3892.6	3584.8	2224.0	837.3	523.5	831.2
2001	5169.6	4360.6	2782.4	1032.9	545.2	809.1

Source: Hungarian Government Debt Agency

*A high rollover risk, tight spreads and lack of pension reforms detract from the market.*

**Table 53: Czech Bond Market**

(1992-2001; Nominal Value Outstanding in Billions of Koruna;  
End-2001 Exchange Rate = 35.49CZK/US\$)

Year	Government Bonds
1992	9.8
1993	19.5
1994	28.3
1995	41.7
1996	43.9
1997	57.9
1998	70.0
1999	77.0
2000	104.3
2001	149.6

Source: Ministry of Finance of the Czech Republic,  
Table: Development of Central Government Debt.

## ■ Czech Republic

**The total amount of outstanding bonds at the end of 2001 has increased by over 43% since 2000 to CZK150bn (US\$4.2bn).** By comparison, the outstanding amount of T-bills increased by just 13% in the same period. Nevertheless, Treasury bills with maturities of up to one year still form over half of the state debt, which increases rollover risk.

This year's issuance is also set to increase quite substantially due to relatively high financing needs in the election year. For example, the Ministry of Finance is planning to issue (gross) approximately CZK80bn in T-bonds in 2002. (Total T-bond redemptions falling due are estimated at some CZK15bn.)

The spreads to Bunds on the T-bonds have remained very tight, decreasing the attentiveness of Czech T-Bonds. There is also no developed market for long-dated bonds in the Czech Republic. While bonds are not an insignificant portion of their balance sheets, banks are increasingly unlikely to want to participate in this market. In contrast to Poland and Hungary, there has also not been any pension system reform yet in the Czech Republic, which could help absorb additional paper.

Moreover, the Ministry of Finance also decided not to issue a planned debut sovereign bond this year, in order to avoid additional upward pressure on the buoyant koruna. (In January 2002, the CNB agreed with the government to divert privatisation-related revenue conversions of up to EUR12bn this year, off the market into central bank reserves.) Thus, we believe the government will probably be forced to rely on increased Treasury bill issuance this year.

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### ■ Turkey

*Tradable debt increased  
16.7% ...*

By the end of 2001, the total Turkish domestic debt reached TRL122.2 quadrillion or 54% of GNP, compared to TRL36.4 quadrillion or 39% of GNP in 2000. Of that, government securities represented 47% in 2001 and 81% in the previous year. The period showed an increase in tradable debt of 97% or of 16.7% in real terms, due to inflation of 68.5% in 2001.

**The stock of tradable bonds increased by 47% in 2001 compared to 2000, but in real terms fell by 12.8% year-over-year.** The Turkish tradable debt market witnessed a shift from bonds to shorter-term securities, with maturities between three and nine months. T-bills stock increased four times in real terms in 2001. Also, issuance of non-tradable debt rose sharply.

*... but overall domestic  
borrowing was reduced.*

The debt burden remains substantial. Total domestic borrowing is seen at US\$45 billion of which US\$38 billion would be via marketable securities. This implies net market borrowings of US\$4.7 billion. This reduction can be facilitated by lower-than-expected borrowing costs, official credit support and meeting a 65% of GNP primary surplus target.

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**Table 54: Turkish Domestic Tradable Securities,**  
(in trillion of TRL, 1997-2001)

	1997	1998	1999	2000	2001
<b>Total Tradable Debt</b>	<b>4,643</b>	<b>9,512</b>	<b>20,198</b>	<b>29,423</b>	<b>57,880</b>
Treasury Bonds	2,268	3,816	16,961	27,373	40,227
1 Year	298	2,447	590	924	7,956
Irregular Maturity (1Year-2Years)	748	96	10,615	18,509	3,629
2 Years	976	997	1,950	4,134	5,605
Irregular Maturity (2Years-3Years)	0	0	2,455	2,455	818
3 Years	186	145	1,351	1,351	5,050
4 Years	0	0	0	0	13,127
5 Years	0	0	0	0	4,041
Treasury Bills	2,375	5,696	3,237	2,049	17,653
3 Months	0	0	740	789	2,965
Irregular Maturity (3-6 Months)	773	599	0	0	5,849
6 Months	237	1,643	1,320	0	1,079
Irregular Maturity (6-9 Months)	447	1,114	1,176	147	6,650
9 Months	171	1,711	0	0	0
Irregular Maturity (9 Months-1Year)	716	629	0	1,113	1,110
<b>Total Tradable Debt, in US\$ billion</b>	<b>22.6</b>	<b>30.3</b>	<b>37.3</b>	<b>43.7</b>	<b>39.9</b>
TRL / US\$ Exchange Rate	205,245	313,475	541,401	673,385	1,450,126

Source: Turkish Treasury

*Minimal growth of the government debt market.*

*Efforts continued to increase the efficiency of the market.*

## ■ South Africa

The secular trends in the South African local currency bond market were largely unchanged last year. **The Government remains by far the largest issuer, although corporate issuance continues to grow.** The growth of government debt remained small, thanks to the continuing trend of lower public sector borrowing requirements and a greater reliance on external financing. The government continued efforts to increase the efficiency of the already quite developed (by emerging market standards) domestic bond market. Steps included consolidating issues to increase liquidity, focusing new issuance on benchmark issues, creating new benchmark issues to fill gaps in the yield curve, issuing more T-bills to improve liquidity in the money markets and continuing efforts to expand the strips and inflation-indexed programs. The trend of net repurchases of longer-dated government debt stock continued. For much of 2001, this contributed to a strong bond market rally. However, the bullish trend was upset late in the year when the South African Rand depreciated precipitously. This fueled expectations of inflation and official rate hikes, and produced a sharp increase in bond yields.

Eric Lindenbaum

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**Table 55: South African Rand Bond Market**

(1997-2001; Nominal Value Outstanding in Millions of Rands; End-2001 Exchange Rate = 11.96ZAR/US\$)

Year	Total	Central Gov't		Eskom*		Telkom		Transnet		Other	
		Total	% Total	Total	% Total	Total	% Total	Total	% Total	Total	% Total
1997	361,490	288,024	79.7	23,631	6.5	6,532	1.8	19,361	5.4	23,942	6.6
1998	382,152	308,439	80.7	18,501	4.8	5,590	1.5	19,380	5.1	30,242	7.9
1999	398,513	327,105	82.1	17,985	4.5	7,576	1.9	17,157	4.3	28,690	7.2
2000	417,073	333,474	80.0	18,456	4.4	7,825	1.9	16,671	4.0	40,647	9.7
2001	444,557	351,988	79.2	15,245	3.4	14,259	3.2	10,379	2.3	53,236	12.8

Source: Bond Exchange of South Africa

\*Eskom (electricity), Telkom (telecommunications, partly privatized), and Transnet (transport) are the major public utility companies in South Africa.

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## **Statistical Appendix**



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## 10. Statistical Appendix

The data sources for Appendix tables 56-66 are footnoted in the “Country Bond Market” tables.

### The World Bond Market

**Table 56: History of the Size and Structure of the World Bond Market\***  
(1990-2001; Nominal Value Outstanding in Billions of U.S. Dollars)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	17090.9	15417.5	14283.6	12803.8	11558.6	10576.4	9634.0	8925.6	8344.4	7491.8	6904.6	6281.9
Japan	5305.2	5549.3	5668.9	4884.4	4170.8	4510.2	4705.8	4495.6	3669.2	3098.2	2930.5	2577.4
Germany	—	—	—	2704.1	2207.4	2338.1	2302.8	1948.3	1563.4	1381.9	1242.0	1089.9
Euroland	6466.9	6212.2	6144.6	—	—	—	—	—	—	—	—	—
Italy	—	—	—	1474.4	1255.0	1315.0	1113.7	1010.1	802.2	784.8	904.9	760.4
United Kingdom	1081.6	1065.3	939.2	891.1	791.4	692.1	548.4	492.5	385.2	321.0	360.4	352.9
France	—	—	—	1160.4	1011.0	1070.6	1037.4	893.2	739.7	696.3	627.7	547.2
Canada	514.4	540.6	548.4	502.4	528.1	529.1	508.6	470.3	464.7	431.7	443.3	391.3
Belgium	—	—	—	375.6	338.9	389.4	406.3	332.4	281.6	296.6	286.3	261.8
Netherlands	—	—	—	420.1	351.7	369.9	355.9	296.6	241.9	196.4	190.2	178.8
Spain	—	—	—	301.3	257.3	255.8	241.4	189.6	162.1	129.3	134.6	101.9
Switzerland	261.6	277.5	269.3	284.5	232.6	234.1	245.7	218.4	188.7	177.1	180.0	174.4
Denmark	252.3	254.8	263.6	300.5	266.4	287.6	291.9	225.2	227.2	214.5	218.3	213.2
Australia	182.7	182.1	197.8	163.2	175.7	203.5	177.2	173.8	139.2	122.4	82.6	77.0
Sweden	128.6	155.3	188.1	208.0	206.4	237.4	253.1	203.8	180.2	188.7	210.5	182.5
Austria	—	—	—	150.1	133.9	140.1	143.0	119.1	98.9	93.6	93.5	86.6
Greece	—	72.3	—	—	—	—	—	—	—	—	—	—
Norway	47.7	46.9	51.3	56.1	51.1	49.6	50.0	45.9	40.9	37.9	44.2	47.3
Finland	—	—	—	64.1	55.5	57.5	56.4	43.8	34.0	32.6	37.4	33.6
Portugal	—	—	—	57.7	47.7	43.5	33.3	21.4	9.2	0.0	0.0	0.0
Ireland	—	—	—	34.0	28.5	32.2	30.6	27.0	21.2	22.5	25.1	24.3
New Zealand	16.6	18.7	23.2	22.4	20.9	19.7	15.2	15.4	12.7	11.2	10.0	10.2
<b>Total</b>	<b>31348.5</b>	<b>29804.1</b>	<b>28574.2</b>	<b>26858.2</b>	<b>23688.9</b>	<b>23351.8</b>	<b>22150.7</b>	<b>20148.0</b>	<b>17606.6</b>	<b>15728.5</b>	<b>14926.1</b>	<b>13392.6</b>
<i>Annual Growth %</i>	<i>5.2</i>	<i>4.2</i>	<i>6.4</i>	<i>13.4</i>	<i>1.4</i>	<i>5.4</i>	<i>9.9</i>	<i>14.4</i>	<i>11.9</i>	<i>5.4</i>	<i>11.5</i>	

\*Excludes emerging/converging markets.

Beginning in 1999, only the total for Euroland is displayed. Prior to 1999, data for the component countries is displayed.

## The Government Bond Market

**Table 57: History of the Government Bond Market**  
(1990-2001; Nominal Value Outstanding in Billions of U.S. Dollars)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	8588.8	8025.9	7755.6	7266.3	6779.1	6454.2	6113.8	5804.0	5431.8	4932.1	4536.3	4144.1
Japan	3938.7	3995.6	4075.1	3399.9	2818.8	2970.6	3104.2	2943.6	2389.8	2013.6	1912.9	1711.3
Germany	730.3	757.5	767.8	859.7	765.2	838.6	879.7	793.6	623.0	515.7	424.3	371.8
Italy	891.9	931.6	942.4	1050.2	915.3	1011.7	895.1	805.0	633.6	622.8	711.7	617.7
France	567.9	670.7	711.3	788.9	700.1	745.7	730.8	613.1	540.2	530.2	474.5	426.5
United Kingdom	390.9	416.7	466.3	468.7	468.7	433.0	350.1	317.5	234.8	201.2	229.0	241.0
Canada	356.0	385.0	396.3	369.3	388.2	390.1	369.2	337.2	333.5	319.6	328.4	294.1
Netherlands	151.3	160.4	174.5	192.7	170.9	190.8	194.8	162.5	142.2	141.1	133.5	119.8
Belgium	199.3	201.3	195.6	224.6	202.7	230.9	241.8	189.3	170.6	177.5	171.3	157.6
Spain	236.7	219.9	223.5	228.5	194.4	191.6	179.2	136.4	114.2	82.5	83.1	58.6
Sweden	60.2	76.9	94.2	100.8	102.8	109.6	105.4	69.6	55.4	55.5	57.7	50.1
Denmark	67.9	74.6	82.5	96.7	90.4	104.2	106.6	81.6	72.9	71.3	69.8	66.5
Greece	69.2	70.5	—	—	—	—	—	—	—	—	—	—
Australia	57.2	64.7	82.7	81.2	89.2	114.9	107.4	109.1	86.2	70.2	41.9	39.4
Austria	88.4	87.6	80.6	74.3	61.0	63.7	63.6	52.2	42.0	39.1	37.6	33.5
Switzerland	49.6	45.6	49.3	53.2	44.9	45.8	48.0	37.4	30.6	24.6	20.5	19.1
Finland	35.5	38.6	44.6	49.1	40.6	39.6	35.6	21.5	13.9	9.4	9.2	8.4
Norway	20.5	22.5	22.7	27.5	27.7	28.2	29.0	25.6	21.9	19.8	20.3	21.2
Portugal	43.8	36.9	36.2	35.8	29.2	27.6	20.9	13.1	7.6	0.0	0.0	0.0
Ireland	16.7	20.5	23.8	25.9	24.9	28.8	27.9	26.1	20.4	22.1	24.5	23.8
New Zealand	10.7	11.6	12.7	12.0	12.1	15.3	14.3	14.5	11.8	10.0	8.1	7.9
<b>Total</b>	<b>16571.7</b>	<b>16314.6</b>	<b>16237.7</b>	<b>15405.3</b>	<b>13926.2</b>	<b>14034.9</b>	<b>13617.4</b>	<b>12552.9</b>	<b>10976.4</b>	<b>9858.3</b>	<b>9294.6</b>	<b>8412.4</b>
<b>Annual Growth %</b>	<b>1.6</b>	<b>0.5</b>	<b>5.4</b>	<b>10.6</b>	<b>-0.8</b>	<b>3.1</b>	<b>8.5</b>	<b>14.4</b>	<b>11.3</b>	<b>6.1</b>	<b>10.5</b>	

The Government sector includes bonds issued by the central government, state/local governments, government-sponsored agencies and other quasi-governmental entities. In 2000, Greece was added to this table. In previous years, Greece was not included because it was considered a converging market. Emerging/converging markets are not considered in the appendix tables. The methodology employed in the construction of this table differs from that employed elsewhere in this publication. In other tables, we display aggregate data for the Euroland government market provided by the ECB. In this table, the sizes of the component markets are shown. There is a slight discrepancy in the total government market displayed here and in Table 1.

**Table 58: Country Share of the Government Bond Market**  
(1990-2001; Percent of Total Nominal Value Outstanding)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	51.8	49.2	47.8	47.2	48.7	46.0	44.9	46.2	49.5	50.0	48.8	49.3
Japan	23.8	24.5	25.1	22.1	20.2	21.2	22.8	23.4	21.8	20.4	20.6	20.3
Germany	4.4	4.6	4.7	5.6	5.5	6.0	6.5	6.3	5.7	5.2	4.6	4.4
Italy	5.4	5.7	5.8	6.8	6.6	7.2	6.6	6.4	5.8	6.3	7.7	7.3
France	3.4	4.1	4.4	5.1	5.0	5.3	5.4	4.9	4.9	5.4	5.1	5.1
United Kingdom	2.4	2.6	2.9	3.0	3.4	3.1	2.6	2.5	2.1	2.0	2.5	2.9
Canada	2.1	2.4	2.4	2.4	2.8	2.8	2.7	2.7	3.0	3.2	3.5	3.5
Netherlands	0.9	1.0	1.1	1.3	1.2	1.4	1.4	1.3	1.3	1.4	1.4	1.4
Belgium	1.2	1.2	1.2	1.5	1.5	1.6	1.8	1.5	1.6	1.8	1.8	1.9
Spain	1.4	1.3	1.4	1.5	1.4	1.4	1.3	1.1	1.0	0.8	0.9	0.7
Sweden	0.4	0.5	0.6	0.7	0.7	0.8	0.8	0.6	0.5	0.6	0.6	0.6
Denmark	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.8	0.8
Greece	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	0.3	0.4	0.5	0.5	0.6	0.8	0.8	0.9	0.8	0.7	0.5	0.5
Austria	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Switzerland	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2
Finland	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1
Norway	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Portugal	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0
Ireland	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
New Zealand	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## The Corporate Bond Market

**Table 59: History of the Corporate Bond Market**  
(1990-2001; Nominal Value Outstanding in Billions of U.S. Dollars)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	5174.9	4515.9	4129.0	3679.0	3168.4	2841.9	2548.8	2261.8	2105.6	1842.5	1689.7	1497.7
Japan	854.6	973.0	1096.5	1015.6	900.3	1065.5	1149.4	1167.0	1015.6	882.6	824.3	706.8
Euroland	2690.0	2550.7	2468.7	—	—	—	—	—	—	—	—	—
Germany				1353.9	1110.4	1158.7	1120.7	925.0	762.4	716.4	686.3	603.1
Italy				280.2	228.1	209.3	153.3	150.9	132.2	136.2	166.5	126.2
France				147.8	134.3	152.7	154.2	144.3	103.4	97.2	102.8	87.8
United Kingdom	55.6	70.6	40.1	30.4	27.3	19.9	14.1	9.2	4.6	1.5	0.7	0.2
Canada	111.0	103.4	95.4	80.6	72.9	62.7	56.0	50.8	51.2	49.7	53.7	49.8
Netherlands				113.0	91.0	89.0	84.9	70.8	55.4	26.8	31.4	33.5
Belgium				96.0	97.8	117.4	126.6	115.3	88.8	98.3	95.2	86.7
Spain				45.2	37.3	41.4	43.7	39.4	34.8	36.8	42.1	37.3
Sweden	60.7	69.4	84.9	97.2	93.4	116.0	137.0	129.6	121.5	130.1	149.6	130.4
Denmark	175.5	170.7	169.6	191.6	165.0	175.1	179.6	140.8	151.5	139.9	144.3	141.7
Australia	86.2	80.5	70.8	47.1	45.8	40.3	29.9	31.1	28.7	31.3	17.5	12.4
Austria				70.4	68.4	71.4	72.6	60.4	50.4	47.5	48.9	47.6
Switzerland	82.1	89.1	87.9	97.5	78.7	81.8	84.8	89.4	78.2	76.2	75.5	71.2
Finland				11.6	12.4	15.1	18.7	20.4	18.4	20.7	25.0	22.9
Norway	22.2	20.4	25.0	26.6	22.0	20.1	19.9	19.4	18.6	17.4	22.8	25.2
Greece		1.8										
Portugal				10.9	7.4	7.2	7.0	6.0	0.0	0.0	0.0	0.0
Ireland				5.9	1.8	1.4	1.2	0.3	0.2	0.2	0.4	0.3
New Zealand	0.0	0.0	0.0	0.0	0.0	na	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>9312.8</b>	<b>8645.5</b>	<b>8267.9</b>	<b>7400.5</b>	<b>6362.7</b>	<b>6286.9</b>	<b>6002.4</b>	<b>5431.9</b>	<b>4821.5</b>	<b>4351.3</b>	<b>4176.7</b>	<b>3680.8</b>
<b>Annual Growth %</b>	<b>7.7</b>	<b>4.6</b>	<b>11.7</b>	<b>16.3</b>	<b>1.2</b>	<b>4.7</b>	<b>10.5</b>	<b>12.7</b>	<b>11.0</b>	<b>4.4</b>	<b>12.7</b>	

In 2000, Greece was added to this table. In previous years, Greece was not included because it was considered a converging market. Emerging/converging markets are not considered in the appendix tables.

For 1999 and 2000, only the total for Euroland is displayed. Prior to 1999, data for the component countries is displayed.

**Table 60: Country Share of the Corporate Bond Market**  
(1990-2001; Percent of Total Nominal Value Outstanding)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	55.6	52.2	49.9	49.7	49.8	45.2	42.5	41.6	43.7	42.3	40.5	40.7
Japan	9.2	11.3	13.3	13.7	14.1	16.9	19.1	21.5	21.1	20.3	19.7	19.2
Euroland	28.9	29.5	29.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Germany		0.0	0.0	18.3	17.5	18.4	18.7	17.0	15.8	16.5	16.4	16.4
Italy		0.0	0.0	3.8	3.6	3.3	2.6	2.8	2.7	3.1	4.0	3.4
France		0.0	0.0	2.0	2.1	2.4	2.6	2.7	2.1	2.2	2.5	2.4
United Kingdom	0.6	0.8	0.5	0.4	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0
Canada	1.2	1.2	1.2	1.1	1.1	1.0	0.9	0.9	1.1	1.1	1.3	1.4
Netherlands		0.0	0.0	1.5	1.4	1.4	1.4	1.3	1.1	0.6	0.8	0.9
Belgium		0.0	0.0	1.3	1.5	1.9	2.1	2.1	1.8	2.3	2.3	2.4
Spain		0.0	0.0	0.6	0.6	0.7	0.7	0.7	0.7	0.8	1.0	1.0
Sweden	0.7	0.8	1.0	1.3	1.5	1.8	2.3	2.4	2.5	3.0	3.6	3.5
Denmark	1.9	2.0	2.1	2.6	2.6	2.8	3.0	2.6	3.1	3.2	3.5	3.8
Australia	0.9	0.9	0.9	0.6	0.7	0.6	0.5	0.6	0.6	0.7	0.4	0.3
Austria		0.0	0.0	1.0	1.1	1.1	1.2	1.1	1.0	1.1	1.2	1.3
Switzerland	0.9	1.0	1.1	1.3	1.2	1.3	1.4	1.6	1.6	1.8	1.8	1.9
Finland		0.0	0.0	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.6
Norway	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.7
Greece		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portugal		0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Ireland		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## The Foreign Bond Market

**Table 61: History of the Foreign Bond Market**  
(1990-2001; Nominal Value Outstanding in Billions of U.S. Dollars)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	486.8	495.4	422.4	420.0	394.9	347.7	291.9	242.3	230.1	147.2	130.4	115.4
Japan	61.0	72.6	82.1	87.8	93.1	106.0	89.5	81.2	66.2	52.1	49.5	43.2
Euroland	0.0											
Germany				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy				na	5.0	3.3	1.8	1.4	1.2	1.8	2.8	2.6
France				5.7	4.8	6.5	6.0	6.2	4.9	5.7	6.0	5.5
United Kingdom	145.1	122.3	90.2	65.5	31.6	16.8	10.8	9.4	7.3	3.5	1.3	0.8
Canada	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.6	0.6	0.6	0.8	0.8
Netherlands				na	1.3	3.0	3.8	4.3	4.5	6.7	8.4	9.9
Belgium				45.5	32.6	36.1	35.1	27.1	21.8	20.4	19.4	17.1
Spain				20.3	19.6	15.4	12.4	10.5	9.4	8.7	8.6	5.6
Sweden	3.9	4.2	4.4	4.9	5.9	6.7	5.6	na	na	na	na	na
Australia	9.9	6.6	5.6	2.3	1.7	1.8	1.4	1.7	1.5	1.5	na	na
Austria				2.0	1.8	1.8	2.6	2.4	2.5	2.4	1.9	1.4
Switzerland	110.4	113.4	107.0	112.5	95.7	95.5	103.1	85.9	76.3	74.7	82.0	82.1
Finland				0.0	0.0	0.0	0.1	0.2	0.3	0.6	0.9	0.4
Norway	0.5	0.2	0.3	0.4	0.4	0.5	0.9	0.8	0.3	0.4	0.6	0.4
<b>Total</b>	<b>817.5</b>	<b>815.1</b>	<b>712.3</b>	<b>767.2</b>	<b>688.7</b>	<b>641.5</b>	<b>565.4</b>	<b>474.0</b>	<b>426.9</b>	<b>326.3</b>	<b>312.6</b>	<b>285.2</b>
<b>Annual Growth %</b>	<b>0.3</b>	<b>14.4</b>	<b>-7.2</b>	<b>11.4</b>	<b>7.4</b>	<b>13.5</b>	<b>19.3</b>	<b>11.0</b>	<b>30.8</b>	<b>4.4</b>	<b>9.6</b>	

In Euroland, foreign bonds are included in the Eurobond totals. A breakdown of these bond types is not made available. It is assumed that the majority of these bonds were issued in the traditional Eurobond format.

**Table 62: Country Share of the Foreign Bond Market**  
(1990-2001; Percent of Total Nominal Value Outstanding)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	59.5	60.8	59.3	54.7	57.3	54.2	51.6	51.1	53.9	45.1	41.7	40.5
Japan	7.5	8.9	11.5	11.4	13.5	16.5	15.8	17.1	15.5	16.0	15.8	15.1
Euroland					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Germany					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy					0.7	0.5	0.3	0.3	0.3	0.6	0.9	0.9
France				0.7	0.7	1.0	1.1	1.3	1.1	1.7	1.9	1.9
United Kingdom	17.7	15.0	12.7	8.5	4.6	2.6	1.9	2.0	1.7	1.1	0.4	0.3
Canada	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.3
Netherlands					0.2	0.5	0.7	0.9	1.1	2.1	2.7	3.5
Belgium				5.9	4.7	5.6	6.2	5.7	5.1	6.3	6.2	6.0
Spain				2.6	2.8	2.4	2.2	2.2	2.2	2.7	2.8	2.0
Sweden	0.5	0.5	0.6	0.6	0.9	1.0	1.0					
Australia	1.2	0.8	0.8	0.3	0.2	0.3	0.2	0.4	0.4	0.5		
Austria				0.3	0.3	0.3	0.5	0.5	0.6	0.7	0.6	0.5
Switzerland	13.5	13.9	15.0	14.7	13.9	14.9	18.2	18.1	17.9	22.9	26.2	28.8
Finland				0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1
Norway		0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## The Eurobond Market

**Table 63: History of the Eurobond Market**

(1990-2001; Nominal Value Outstanding in Billions of U.S. Dollars)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	2840.4	2380.3	1976.6	1438.5	1216.2	932.6	679.5	617.5	576.9	570.0	548.2	524.7
Euroland	649.8	674.5	594.9	849.7								
Japan	450.9	508.1	415.2	381.1	358.6	368.1	362.7	303.8	197.6	149.9	143.8	116.1
Germany					329.0	305.6	280.6	220.3	176.2	148.0	129.3	113.4
Italy					107.6	90.7	63.4	52.8	35.1	23.9	23.9	14.0
France					171.8	165.7	146.4	129.6	91.2	63.2	44.4	27.4
United Kingdom	490.0	455.7	342.6	326.5	263.8	222.4	173.4	156.4	138.5	114.8	129.4	110.9
Canada	47.1	51.8	56.4	52.2	66.0	75.2	82.2	80.9	79.0	61.8	60.4	46.6
Netherlands					88.5	87.1	72.4	59.0	39.8	21.8	16.9	15.2
Belgium					5.8	5.0	2.8	0.7	0.4	0.4	0.4	0.4
Spain					6.0	7.4	6.1	3.3	3.7	1.3	0.8	0.4
Sweden	3.8	4.8	4.6	5.1	4.3	5.1	5.1	4.6	3.3	3.1	3.2	2.0
Denmark	8.9	9.5	11.5	12.2	11.0	8.3	5.7	2.8	2.8	3.3	4.2	5.0
Australia	29.4	30.3	38.7	32.6	39.0	46.5	38.5	31.9	22.8	19.4	23.2	25.2
Austria					2.7	3.2	4.2	4.1	4.0	4.6	5.1	4.1
Switzerland	19.5	29.4	25.1	21.3	13.3	11.0	9.8	5.7	3.6	1.6	2.0	2.0
Finland					2.5	2.8	2.0	1.7	1.4	1.9	2.3	1.9
Norway	4.6	3.8	3.3	1.6	1.0	0.8	0.2	0.1	0.1	0.3	0.5	0.5
Portugal					11.1	8.7	5.4	2.3	1.6	na	na	na
Ireland					1.8	2.0	1.5	0.6	0.6	0.2	0.2	0.2
New Zealand	5.9	7.1	10.5	10.4	8.8	4.4	0.9	0.9	0.9	1.2	1.9	2.3
<b>Total</b>	<b>4550.3</b>	<b>4155.3</b>	<b>3479.4</b>	<b>3131.2</b>	<b>2708.8</b>	<b>2352.6</b>	<b>1942.8</b>	<b>1679.0</b>	<b>1379.5</b>	<b>1190.7</b>	<b>1140.1</b>	<b>1012.3</b>
<i>Annual Growth %</i>	<i>9.5</i>	<i>19.4</i>	<i>11.1</i>	<i>15.6</i>	<i>15.1</i>	<i>21.1</i>	<i>15.7</i>	<i>21.7</i>	<i>15.9</i>	<i>4.4</i>	<i>12.6</i>	

**Table 64: Country Share of the Eurobond Market**

(1990-2001; Percent of Total Nominal Value Outstanding)

Country	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
United States	62.4	57.3	56.8	45.9	44.9	39.6	35.0	36.8	41.8	47.9	48.1	51.8
Euroland	14.3	16.2	17.1	27.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Japan	9.9	12.2	11.9	12.2	13.2	15.6	18.7	18.1	14.3	12.6	12.6	11.5
Germany		0.0	0.0	0.0	12.1	13.0	14.4	13.1	12.8	12.4	11.3	11.2
Italy		0.0	0.0	0.0	4.0	3.9	3.3	3.1	2.5	2.0	2.1	1.4
France		0.0	0.0	0.0	6.3	7.0	7.5	7.7	6.6	5.3	3.9	2.7
United Kingdom	10.8	11.0	9.8	10.4	9.7	9.5	8.9	9.3	10.0	9.6	11.3	11.0
Canada	1.0	1.2	1.6	1.7	2.4	3.2	4.2	4.8	5.7	5.2	5.3	4.6
Netherlands		0.0	0.0	0.0	3.3	3.7	3.7	3.5	2.9	1.8	1.5	1.5
Belgium		0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Spain		0.0	0.0	0.0	0.2	0.3	0.3	0.2	0.3	0.1	0.1	0.0
Sweden	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2
Denmark	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.4	0.5
Australia	0.6	0.7	1.1	1.0	1.4	2.0	2.0	1.9	1.7	1.6	2.0	2.5
Austria		0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4
Switzerland	0.4	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.1	0.2	0.2
Finland		0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Norway	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portugal		0.0	0.0	0.0	0.4	0.4	0.3	0.1	0.1			
Ireland		0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
New Zealand	0.1	0.2	0.3	0.3	0.3	0.2	0.0	0.1	0.1	0.1	0.2	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Beginning in 1999, only the total for Euroland is displayed. Prior to 1999, data for the component countries is displayed.

## Foreign Exchange Rates

**Table 65: Historical Foreign Exchange Rates\***  
(1980, 1985, 1990–2001 Local Currency per U.S. Dollar)

	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1985	1980
Australian Dollar	1.9629	1.7986	1.5293	1.6313	1.5321	1.2555	1.3423	1.2873	1.4769	1.4522	1.3161	1.2932	1.4686	0.847
Austrian Schilling			13.7325	11.7165	12.633	10.954	10.088	11.095	12.143	11.354	16.687	10.677	17.28	13.809
Belgian Franc			40.2576	34.341	36.92	32.005	29.415	31.837	36.11	33.18	31.27	30.982	50.36	31.523
Canadian Dollar	1.5930	1.4995	1.4508	1.5355	1.4291	1.3696	1.3652	1.4028	1.324	1.2711	1.1556	1.1603	1.3975	1.1947
Danish Krona	8.3477	7.9442	7.4234	6.3621	6.826	5.9445	5.546	6.083	6.7725	6.2555	5.9135	5.776	8.969	6.015
Dutch Guilder			2.1993	1.8763	2.0172	1.7436	1.6044	1.7351	1.9409	1.8141	1.7104	1.69	2.772	2.1295
Euro	1.1242	1.0652	0.998	—	—	—	—	—	—	—	—	—	—	—
Finnish Markka			5.934	5.0623	5.4207	4.6439	4.3586	4.7432	5.7845	5.245	4.133	3.634	5.417	3.84
French Franc			6.5466	5.585	5.9881	5.237	4.9	5.346	5.8955	5.5065	5.18	5.129	2.4613	4.516
German Mark			1.9519	1.6652	1.7921	1.5488	1.4335	1.5488	1.7263	1.614	1.516	1.494	2.4613	1.959
Greek Drachma	383.081	361.67	327.75	281.9	283.75	244.98	237.67	240.15	250.12	215.5	175.85	160	148	na
Irish Punt			0.786	0.6708	0.6991	0.5949	0.6229	0.6464	0.7088	0.6137	0.5715	0.5632	0.8042	0.527
Italian Lira			1923.08	1639.34	1759.19	1530.57	1584.72	1629.74	1703.97	1470.86	1151.06	1130.15	1678.5	930.5
Japanese Yen	131.660	114.35	102.35	112.74	129.95	116	102.83	99.74	111.85	124.75	125.2	134.4	200.5	203
N.Z. Dollar	2.4013	2.2573	1.9194	1.8939	1.7191	1.4156	1.5307	1.5564	1.7896	1.9444	1.8481	1.7013	2.006	1.0392
Portug. Escudo			200	170.65	183.82	155.28	149.25	158.98	177.305	na	na	na	na	na
Norwegian Krona	8.9632	8.801	8.0334	7.6167	7.3157	6.4425	6.319	6.762	7.518	6.9245	5.973	5.9075	7.5825	5.18
Spanish Peseta			166.113	141.643	151.702	131.275	121.409	131.739	142.214	114.623	96.688	96.909	154.15	79.25
Swedish Krona	10.4810	9.444	8.5383	8.1031	7.877	6.871	6.6582	7.4615	8.3035	7.043	5.5295	5.698	7.6155	4.3728
Swiss Franc	1.6603	1.6202	1.6002	1.373	1.4553	1.3464	1.1505	1.3115	1.4795	1.456	1.3555	1.2955	2.0765	1.7635
British Pound	0.6875	0.6687	0.6206	0.6011	0.6047	0.5889	0.6452	0.64	0.6751	0.6614	0.5346	0.5187	0.6923	0.4193

\*Year-end values

Source: Bloomberg

**Table 66: Exchange Rate as of 12/31/01**  
(Local Currency/US\$)

	Currency	Description	Rate
<b>Latin America</b>			
Argentina	ARS	ARGENTINE PESO SPOT	1.00
Brazil	BRL	BRAZILIAN REAL SPOT	2.31
Chile	CLP	CHILEAN PESO SPOT	661.25
Colombia	COP	COLOMBIAN PESO SPOT	2277.50
Costa Rica	CRC	COSTA RICAN COLON SPOT	341.05
Dominican Rep.	DOP	DOMINICAN REP. SPOT	16.30
Ecuador	ECS	ECUADOREAN SUCRE SPOT	25000.00
El Salvador	SVC	EL SALVADOR COLON SPOT	8.75
Jamaica	JMD	JAMAICA DOLLAR SPOT	47.05
Mexico	MXN	MEXICAN PESO SPOT	9.16
Panama	PAB	PANAMANIAN BALBOA SPOT	1.00
Peru	PEN	PERUVIAN NEW SOL SPOT	3.44
Uruguay	UYU	URUGUAY PESO SPOT	14.43
Venezuela	VEB	VENEZUELAN BOLIVAR SPOT	757.50
<b>Asia</b>			
China	CNY	CHINA RENMINBI SPOT	8.28
India	INR	INDIAN RUPEE SPOT	48.25
Indonesia	IDR	INDONESIAN RUPIAH SPOT	10400.00
Malaysia	MYR	MALAYSIAN RINGGIT SPOT	3.80
Pakistan	PKR	PAKISTANI RUPEE SPOT	59.90
Philippines	PHP	PHILIPPINES PESO SPOT	51.60
South Korea	KRW	SOUTH KOREAN WON SPOT	1313.50
Thailand	THB	THAI BAHT SPOT	44.21
Vietnam	VND	VIETNAMESE DONG SPOT	15083.00
<b>Emerging Europe</b>			
Albania	ALL	ALBANIAN LEK SPOT	135.94
Bulgaria	BGN	BULGARIAN LEV SPOT	2.21
Croatia	HRK	CROATIA KUNA SPOT	8.25
Czech Republic	CZK	CZECH KORUNA SPOT	35.60
Estonia	EEK	ESTONIAN KROON SPOT	17.72
Kazakhstan	KZT	KAZAKHSTAN TENGE SPOT	150.20
Lithuania	LTL	LITHUANIAN LITAS SPOT	4.00
Macedonia	MKD	MACEDONIA DENAR SPOT	68.51
Poland	PLN	POLISH ZLOTY SPOT	3.96
Romania	ROL	ROMANIAN LEU SPOT	31755.00
Russia	RUB	RUSSIAN RUBLE SPOT	30.51
Slovakia	SKK	SLOVAKIA KORUNA SPOT	48.52
Turkey	TRL	TURKISH LIRA SPOT	1450100.00
Ukraine	UAH	UKRAINE HRYVNA SPOT	5.30
<b>Middle East/Africa</b>			
Algeria	DZD	ALGERIAN DINAR SPOT	77.21
Egypt	EGP	EGYPTIAN POUND SPOT	4.58
Ghana	GHC	GHANA CEDI SPOT	7350.00
Ivory Coast	XAF	CFA FRANC BEAC	749.00
Jordan	JOD	JORDANIAN DINAR SPOT	0.71
Lebanon	LBP	LEBANESE POUND SPOT	1514.00
Morocco	MAD	MOROCCAN DIRHAM SPOT	11.59
Nigeria	NGN	NIGERIA NAIRA SPOT	119.50
Qatar	QAR	QATARI RIAL SPOT	3.64
South Africa	ZAR	S. AFRICAN RAND SPOT	11.96
Tunisia	TND	TUNISIAN DINAR SPOT	1.47

Source: Bloomberg



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