

César Molinas
Merrill Lynch

Resum

Tres raons principals són darrera el creixement explosiu recent dels mercats de bons corporatius. Primer, pel que fa a la demanda, el secular mercat alcista de bons ha produït rendiments molt baixos en termes històrics. Això ha posat sota pressió els inversors per augmentar el creixement de les seves carteres: per fer-ho han de prendre més risc i allunyar-se dels bons governamentals. Segon, de la banda de l'oferta, la consolidació fiscal ha comportat una reducció de la mida relativa dels mercats governamentals de bons. Tercer, també des del punt de vista de l'oferta, les mercats de bons corporatius han crescut ràpidament a mesura que les empreses han alterat la seva estructura de capital a favor del deute. Aquest canvi d'enfocament, dels bons governamentals als corporatius, ha implicat un gran canvi cultural en la comunitat d'inversors institucionals. Ha sorgit un sentit de desorientació i frustració a mesura que els bons corporatius fallaven en superar els governamentals en els darrers cinc anys.

Abstract

Three main reasons lie behind the recent explosive growth of corporate bond markets. First, on the demand side, the secular bull bond market has brought about very low yields in historical terms. This has put investors under pressure to enhance yield in their portfolios: In order to do so they have to take more risk and move away from government bonds. Second, on the supply side, fiscal consolidation has resulted in a reduction of the relative size of government bond markets. And third, also on the supply side, corporate bond markets have grown rapidly as firms have altered their capital structure in favour of debt. This change of focus, from government to corporate, has implied large cultural changes in the institutional investment community. A sense of disorientation and frustration has followed as corporate bonds have failed to outperform government in the last five years.

Contents

1. Three reasons for more credit-oriented bond markets
2. A cultural change it is: Managing interest rates and credit risks require very different skills
3. The disappointing performance of credit: Are investors being paid for the additional risk they are taking?
4. Goin' South: Voluntary and involuntary components of the migration through the ratings scale
5. Looking ahead



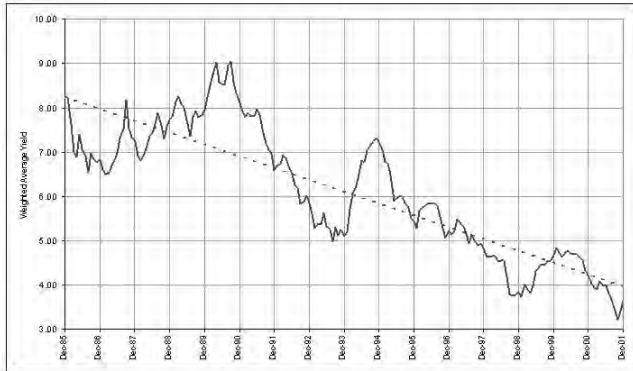
1. Three Reasons for Increased Focus on Credit Markets

1. The global bond market has been on a secular bullish trend since 1986. Average government yields have halved, now standing below 4%. This level is insufficient to meet many institutional investors' targets. These investors need higher yields and, to get them, they have to take higher risks in the corporate bond market.
2. Global fiscal consolidation (with the notable exception of Japan) has reduced the weight of government bonds in global indices. Many institutional investors are benchmarked to these indices and have had to increase their holdings of non-sovereign bonds.
3. The perceived optimal structure of corporate capital is changing. Firms all over the world, especially in the US, have been voluntarily increasing their Debt/Equity ratios. Large increases have also occurred in sectors like Telecommunications in a much more involuntary a manner.



Global Government Index Weighted Average Yield

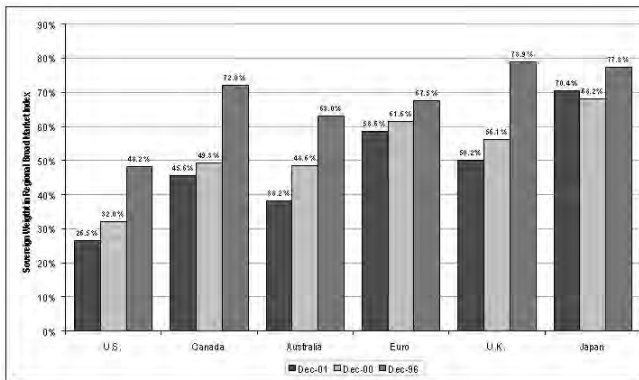
Global Yields Have Been Falling Since 1986



Merrill Lynch

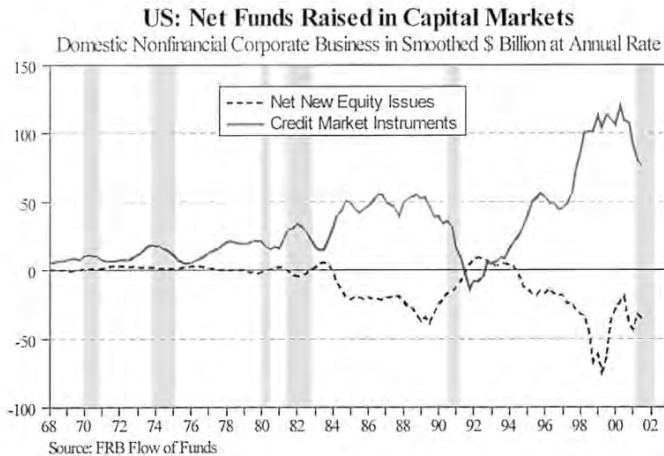
Sovereign Allocation in the Major Regional Broad Market Indices

Governments in Retreat



Merrill Lynch

Changes in the Perceived Optimal Structure of Capital



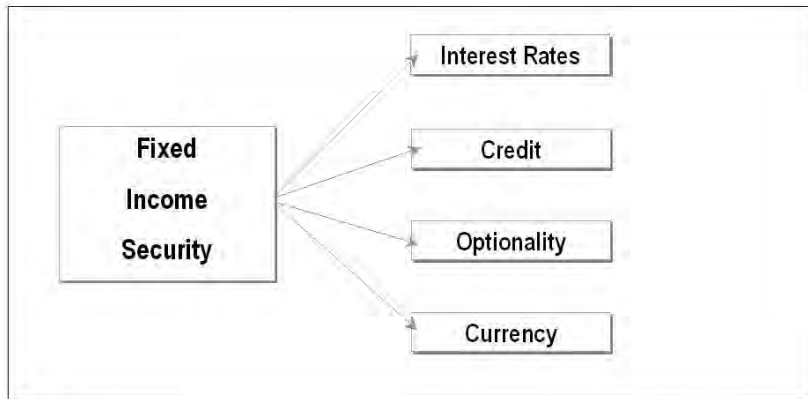
 Merrill Lynch

2. A Cultural Change It Is!

1. Banks have a century-long history of managing separately different sources of risk. This is not necessarily the case for other institutional investors where risks are managed jointly. As a consequence, interest-rate risk management in default risk-free assets has historically dominated.
2. More focus on corporate credit entails a substantial cultural change. From macro to micro, from economics and mathematics to accounting and intuition: Welcome to a new illiquid world where information is far from free!

 Merrill Lynch

A Classical Framework: Sources of Risk and Return

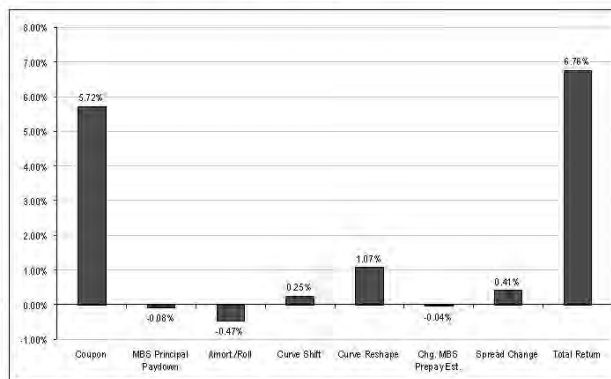


Source: Merrill Lynch



Global Broad Market Index 2001 Return Attribution (Local Currency Terms)

The Coupon Is Typically the Largest Source of Return



Source: Merrill Lynch



Sources of Return: How They Compare

Relative Contributions to Total Returns by Interest -Rate and Credit factors (100% Means Equal Contributions)

	2000			1999		
	US\$	€	£	US\$	€	£
Corporate High Grade	84%	111%	13%	1%	2%	19%
AAA	29%	63%	8%	4%	1%	11%
AA	47%	86%	15%	2%	0.2%	2%
A	75%	127%	2%	2%	5%	2%
BBB	109%	310%	68%	9%	16%	21%
Corporate High Yield*	381%	← 593% →		3%	← 112% →	
BB	241%	-	-	-	-	-
B	446%	-	-	-	-	-
C	575%	-	-	-	-	-

Source: Merrill Lynch Bond Index Almanac and own calculations. * Global Currency European Issuers Index HWPO used for € and £. Note: The relative contributions to total returns is measured as the absolute value of the ratio of the return factors "spread change" to "curve shift + curve reshape" in the Merrill Lynch Return Attribution Model. This is $100 \times \text{ABS}(\text{Spread Change} / (\text{Curve ShR} + \text{Curve Reshape}))$.

Interest-Rates

- The interest rate risk can be decomposed into:
 - Market direction (bull = lower yields; bear = higher yields)
 - Yield curve reshape (steeper, flatter)

- Main tools
 - Economics
 - Central banks watch
 - Yield curve modelling

- Not a labour intensive activity. A few strategists cover the world

Credit Analysis: Multidimensional and Fuzzy



Government & Credit Markets – Market Character

From Curve Trading	To Credit Investment	Issues
<i>Market Character</i>		
Short term trading	Holders for longer term income and value gain	Core investors - the "Noyaux Durs" Distinguish MTM holders from accruals
Precision	Fuzzy logic of spread product	Multiple relative value criteria Investor relations a strategic priority
Transparent firm pricing	Weak indicative price disclosure	Major issue for the Eurobond industry Congruence of benchmark and portfolio pricing difficult to achieve
Substitutability of risk free cash flows	More subjective valuation of corporate obligations	Limitations in risk transfer tools
Deep and liquid markets	Shallow, close held, small float	Higher volatility in stressed markets
Comparability	Concealed fundamental distinctions	Distinctions applicable both to individual instruments/issues and to holders
AAA/AA	A/BBB and High Yield	Indices for core market definition Calibration of non-rated issues and loans

Government & Credit Markets – Decision Support

From Curve Trading	To Credit Investment	Issues
<i>Decision support needs</i>		
Understanding of macroeconomics	Understanding business	Cross border dimensions Quality of accounting information
Vertical information by country	Horizontal information by industrial sector/company	Sector model through the cycle Equity market information
Data, maths and models	Information, knowledge and experience	Overlapping analytical frameworks
Currency and rate gap limits	Rating, market, sector, name and instrument limits	Diversification
"Bonds" meaning governments	Value at Risk separating rates (currency & interest) and credit	New information systems New analytical tools
Yield	Spreads: against Governments or Swaps/EURIBOR	EMU govt benchmark Balance of bank and non-bank investors

 Merrill Lynch

You Want Something From Them? Look at it From Their Point of View

Fixed Income Investors – What Do They [Should They] Consider?

Liquidity

- Often wished for, rarely obtained in corporate bonds
 - Narrow Bid/Offer spreads
 - Two way market in reasonable size (●10 million)
- Just in Case . . . "Readily Realisable Without Loss"

Fundamentals

- The standard credit analysis -
- The less obvious criteria and some key questions

Risk

- Asymmetric payoff for the bond investor
- No surprises please
- Representation - a place at the table

 Merrill Lynch

The Liquidity Question

Aspects of The Bond Issue

- Size** ■ Large means Euro500m, entry point for ML and other large capitalisation bond indices. *MLGIS*
- Large Issuer** ■ Big borrowers seeking benchmark status by accommodating investor needs
e.g. Ford, GE Capital. *Excel pivot table on MLGIS (par, mkt value or index %) by Ticker*
- "Known Name"** ■ Especially important with issues that are otherwise structured to appeal to retail investors.
E.g. BMW UK Capital in £ for UK tax shelter accounts (PEPs)
- Seniority** ■ Many institutional investors have a policy of limiting or forbidding investment in subordinated issues, substantially reducing the potential investor base
- Rating** ■ Generally, the higher rating provides the greater liquidity, so long as the size is sufficient and the structure is not unusual. *MLGIS provides Bloomberg composite rating*
- Maturity** ■ Shorter rather than longer for liquidity. *MLGIS provides maturity and duration data.*
- Structure** ■ Conventional always preferable to structures with unusual features
- Lead Manager
Market Maker** ■ Check the names of the Lead Managers. Look for a major market maker as Lead or member of a joint launched deal. *See Bloomberg DES page for the bond*

 Merrill Lynch 11

The Liquidity Question

Rule Systems

- Eligible for
General
Collateral at the
European
Central Bank** ■ Issues will tend to be more liquid generally if they can be used specifically by EMU banks to raise funds through repo with the European System of Central Banks (ESCB). The rules and the current list of "eligible assets" may be found on www.ecb.int
- Bank Regulation
- Risk Weights** ■ Issues which fall into the preferred habitat of banks (up to 5 years then decreasing with maturity) will tend to have higher liquidity if they have low risk weights on either the Banking Book or the Trading Book. These rules are currently subject to revision proposals issued by the Basel committee in January 2001. See www.bis.org. (*ML research available*)
- Investor Tax
Treatment** ■ Historically, advantageous tax treatment for investors has been a major driver of liquidity. (Particularly where income could be converted into capital gains taxed at lower rates e.g. preference for low coupon bonds issued at a discount). This tended to be a one sided kind of liquidity - plenty of bids, very few offers - yet satisfying the Hicksian definition: "Ready realisable without loss".
- EU Mutual Fund
Criteria (UCITS,
OPCVMs etc** ■ Issues which meet the qualifying criteria for the EU model of mutual funds for retail investors (EU Council Directive 85/611/EEC + amendments)

 Merrill Lynch 11

Some Fundamental Questions

Everything Raised in the Rating Discussion and . . .

Would you buy the Equity?

- If the answer is "No" on fundamental grounds, think hard about "Why?". Corporate bond investing requires a longer-term view than investing in Government paper: the transaction costs are greater. If the issuer is of doubtful value as a long-term equity investment, the reasons are more than likely to be relevant to assessment of the long term credit quality. There are exceptions: some natural monopoly utilities for example. Read equity research: it tends to be written by teams that spend all their time following a particular sector. Most of a fundamental equity research report should cover matters of direct relevance to the bondholder.

What do you make of the People?

- Ask three questions about each of the key managers of the issuer:
 - 1. Can they do the job?
 - 2. Will they do the job?
 - 3. What are they like?

The Bottom Line

- Just as you would ask your friend who wants you to invest in her business: . . .
 - 1. Why will the market continue to want the issuer's products and services?
 - 2. Why should the market buy from the issuer rather than a competitor?
 - 3. Why can the issuer expect to make money in the future from its current business?
- Ask all of these questions about the issuer's plans for new businesses.

Some Fundamental Questions

Investor Relations & Disclosure

- On which stock exchanges is the issuer listed?
- How often does it publish results?
- Has the issuer adopted International or US Generally Accepted Accounting Principles?
- **How seriously does the company take both equity and debt investor relations?**

- *The basis of credit analysis is information*
- *Issuers can only get the best out of international capital markets by playing an open and transparent game. Debt investors necessarily have an information gap compared to the private relationship with a banker. Issuers that do not seek to fill some of that gap should properly be charged more for their capital.*
- *A wise credit investor will presume, until rebutted, that a manager of a company that does not maintain good standards of investor relations and disclosure is a weaker manager than one who does.*
- **Underweight weak management!**

Some Fundamental Questions

Contexts

Sector & Regional Drivers

- The government bond investor properly concentrates on vertical information by country. The credit investor must look at horizontal sector information across national boundaries, both in regions and globally.

Other Issuers - Comparatives

- Other Issues
 - in the same sector
 - in the same rating and maturity segment
 - in different currencies

The Borrowing Company in the Group Context

- Cash Flow Pipework
 - As the number of international issuers rises, in Euro in particular, pay careful attention to those aspects of credit analysis that involve how cash is moved around the corporate structure. Consolidated cashflow may look great, but it is no use to a bondholder if the issuer cannot move the cash across the necessary national or corporate borders to pay the debt holders.
- Covenants in this issue and the other issues - *now tracked by proprietary information systems that can detect differences . . .*



3. The Disappointing Performance of Credit

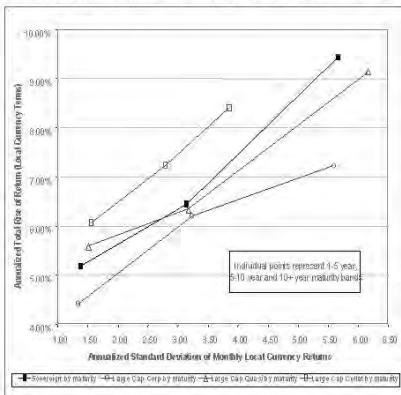
1. Historically, total returns of corporate bonds have amounted on average, to the coupon. This resulted in positive excess returns relative to duration-matched sovereigns thus rewarding the additional risk taken by investors by holding credit risk.
2. However, in the period 1997-2000 corporate bonds underperformed sovereigns. Their risk-return profiles were worst among investment grade broad asset categories. In 2001 excess returns were positive but insufficient to change 5-year trends.
3. This underperformance occurred in spite of increasing demand for credit risk exposure, thus leading to frustration among many investors.



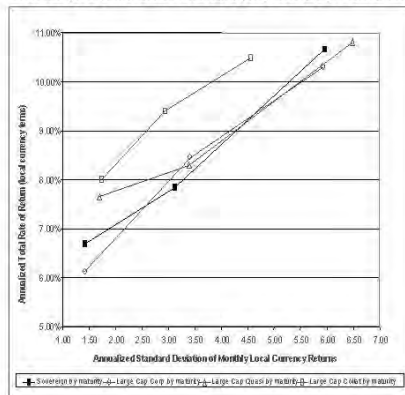
Credit Risk: Are You Being Properly Paid?

- Risk-Return profiles of Corporate and Quasi-Gov. Bonds have been worse than Government's.

Global Large Cap Risk Return Relationships by Sector (4 Years Ended Dec-00)



Global Large Cap Risk Return Relationships by Sector (5 yrs ended Dec-01)



Merrill Lynch 20

4. Goin' South

1. Ratings downgrades have largely exceeded upgrades in the last years: In investment grade, downgrades exceeded upgrades by 56% in 2000 and by 77% in 2001. In the high yield universe, the deterioration was milder in 2000 as downgrades exceeded upgrades by just 20%, but worse in 2001 when downgrades exceeded upgrades by 380%.
2. It is quite likely that in 2000 the voluntary component of the migration to lower credit quality was still dominant in spite of involuntary credit deterioration in some sectors such as Telecommunications. In 2001 the global economic slowdown and equity market corrections have been the main propellers of a largely involuntary reduction of credit quality.
3. Remarkably enough the US\$ market has experienced the largest absolute number of defaults but its performance in the investment grade universe has been quite similar to other major markets.

Merrill Lynch 21

Is Credit Deterioration Market Specific?

2000 Global Rating Transition Recap

Start Rating	# Notches Downgraded							Unch Total	# Notches Upgraded						Grand Total		
	Default	>5	-5	-4	-3	-2	-1		Total	1	2	3	4	5		>6	Total
By Currency:																	
AUD					1	4	12	17	160	4	1	1				6	173
CAD		1		1	3	6	62	73	521	34	1				3	38	632
EUR	3		5	4	0	22	125	170	1,054	79	1	1	1	1		84	1,308
GBP				6	3	14	59	82	354	45	2			3		48	484
JPY				2	5	5	48	60	1,043	13	55					70	1,173
USD	75	17	38	51	38	175	520	914	4,440	532	58	34	6	7	15	652	6,008

Source: Merrill Lynch

This is 13%
of total

This is 15%
of total

This is 17%
of total

 Merrill Lynch

Is Credit Deterioration Market Specific?

2001 Global Rating Transition Recap

Start Rating	# Notches Downgraded							Unch Total	# Notches Upgraded						Grand Total		
	Default	>5	-5	-4	-3	-2	-1		Total	1	2	3	4	5		>6	Total
By Currency:																	
AUD						4	14	18	157	4	2			1		7	182
CAD					3	20	129	152	500	14	1			1		16	558
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	1,260	4,408	387	66	5	4	12	33	496	6,154

Source: Merrill Lynch

This is 16%
of total

This is 20%
of total

This is 17%
of total

 Merrill Lynch

How Is Event Risk Distributed?

2000 Rating Transition Summary - Global Corporate Markets

Start Rating	Default	# Notches Downgraded						Total	Unch.	# Notches Upgraded						Total	Grand Total
		>5	5	4	3	2	1			1	2	3	4	5	>5		
AAA			4	18	1		1	25	736								761
AA1				8	1	13	82	104	294								398
AA2				4	7	16	66	93	461	3							458
AA3						14	2	116	132	888	39		4				1,063
A1						2	24	186	212	895	87	1		1			1,196
A2				10	3	1	20	77	111	974	98		5				1,108
A3						4	25	64	93	622	131	3	3				852
BBB1	3	8			3	2	35	61	112	513	31	8	1	1	2	8	51
BBB2				14	3	3	4	49	73	488	43	63	5	1		1	676
BBB3	11	3	1	9	4	4	12	43	283	83	25	2	1	1		1	325
Investment Grade	14	11	29	48	39	144	713	998	6,336	435	101	17	7	4	8	633	7,967
B1			3	7	3	4	10	11	38	131	12	7			6		194
B2	4	1		2	6	7	12	32	154	49	3	5					243
B3	3		4	1	2	8	14	32	97	21	4	1					155
B1	1			7	1	2	30	41	142	25	1		1				210
B2	3	3			3	8	16	33	263	36		5			2		339
B3	17		1	3		42	19	82	289	45	6		1	1	7		431
CCC1	7				1		12	20	81	12	1						94
CCC2	19		2		3	5		29	76	10	2				1		116
CC1	5							6	4		1						11
CC2	3							3	9								12
C1	1							1									1
C2	1							1									1
Below Inv Grade	64	7	14	16	21	82	114	310	1,226	210	18	18	2	7	10	285	1,809
Grand Total	75	18	43	64	60	226	827	1,216	7,562	705	119	35	9	11	19	592	9,172

The ratings transition table compares the composite rating of each security in the Index at the beginning and end of year. For bonds that were not in the Index for the full year, the comparison is based on the bond's rating at point of entry into, or exit from, the Index. The Global Corporate Bond table is a composite of all securities included in the Global Bond Market Corporate Index (GBCI) and the Global High Yield Index (HHI00).



How Is Event Risk Distributed?

2001 Rating Transition Summary - Global Corporate Markets

Start Rating	Default	# Notches Downgraded						Total	Unch.	# Notches Upgraded						Total	Grand Total
		>5	5	4	3	2	1			1	2	3	4	5	>5		
AAA				5	5	4	3	21	38	724							732
AA1					1	11	23	66	101	347	11						459
AA2						5	11	55	71	1,000	72						1,243
AA3						2	5	17	98	133	844	92	25		7		1,101
A1	10	1							133	844	92	25		7			1,101
A2			7		6	14	110	275	412	936	29	6	1				1,303
A3					3	9	41	146	199	813	5	4			10		1,031
BBB1	13	3	1		2	19	77	115	624	34	4				7		784
BBB2	2	2			1	8	47	60	612	78	9	3					762
BBB3					1	25	15	22	63	589	56	1			2		711
Investment Grade	15	22	7	18	76	293	807	1,280	6,245	376	48	4		7	19	453	8,000
B1			2	6	1	1	35	46	182	102	27	7					262
B2	6				9	7	24	46	107	14	2						168
B3	6	3			1	8	28	46	108	10	2	1	4				171
B1	3	10			3	6	22	44	122	18	5						189
B2	11	30	12			29	10	23	115	197	17	3			11		343
B3	52	7	11	5		48	32	155	181	10	2			5	4		357
CCC1	14	7			2	13	19	55	51	4	1				1		112
CCC2	37	3	5	2	12	10		67	76	7	1						151
CC1	14							45	7								22
CC2	6							6	7								13
C1	1							1									1
C2									3								1
Below Inv Grade	144	68	34	11	65	80	184	596	1,041	107	23	1	4	5	17	457	1,784
Grand Total	158	98	41	29	141	345	991	1,786	7,886	483	72	5	4	12	36	612	10,194

The ratings transition table compares the composite rating of each security in the Index at the beginning and end of year. For bonds that were not in the Index for the full year, the comparison is based on the bond's rating at point of entry into, or exit from, the Index. The Global Corporate Bond table is a composite of all securities included in the Global Bond Market Corporate Index (GBCI) and the Global High Yield Index (HHI00).



5. Looking Ahead

1. On the one hand deterioration of credit quality in the investment grade universe is likely to slow down in 2002 as corporations dig in their heels to avoid losing their investment grade status. An economic recovery should also help both IG and BIG credit outlook.
2. But, on the other hand, many doubts arise regarding the proper pricing of current credit quality as reflected in current credit spreads. These still look tight in light of the huge transfer of risk from shareholders to bondholders that has taken place in the last ten years. In particular the corporate bond market looks particularly vulnerable to falling stock market prices.



Summary of 2000, 2001 Ratings Transitions

Downgradings in the IG world should decelerate as firms dig in their heels at BBB.

Percentage of Bonds Downgraded in 2001, 2002

	Global		US		Europe	
	2000	2001	2000	2001	2000	2001
AAA	3%	1%	7%	1%	1%	0%
AA	17%	11%	21%	16%	23%	11%
A	13%	15%	13%	22%	11%	23%
BBB	11%	7%	13%	11%	11%	10%
Total IG	13%	14%	14%	16%	13%	13%
BB	17%	23%	18%	23%	0%	23%
B	16%	35%	16%	33%	15%	51%
<B	20%	48%	26%	47%	21%	64%
Total BIG	18%	33%	18%	32%	14%	49%

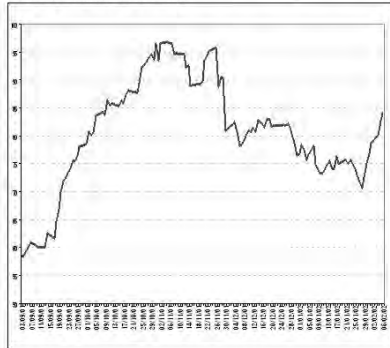
Source: Merrill Lynch Global Index System



Watch the Tightening of Credit Spreads

Credit spreads are still wider than pre-11 September levels.

EUR Non-Financial Ex. Telecom, Technology and Autos vs Jumbo Pfandbrief



USD Non-Fin Ex. Telecom, Technology and Autos vs AAA US Agency Master



Source: M. Bloomberg