LEHMAN BROTHERS

FIXED INCOME RESEARCH

OCTOBER 15, 2001

GLOBAL Relative Value

Has the Eye of the "Market Storm" Passed?

RELATIVE VALUE

Investors confront an unusually difficult question. Most capital market professionals understandably remain highly wary and would answer this question negatively. Yet the velocity of the capital markets' rebound over the past month has been a reassuring surprise. We attempt to reconcile this contradiction. We also discuss the prospects for the JGB curve. Reminder: economics and strategy conferences set for October 16-18.

ECONOMICS

We quantify the range of uncertainty by showing plausible "good" and "bad outcomes and assess the probabilities of the two at 65:35, respectively. In the U.S., evidence of economic damage from the terrorist attack continues to accumulate. In Europe, the markets appear to be waiting to see what happens next and implying that volatility is cheap.

INTEREST RATE STRATEGY

The market continues to look for another two eases by the Fed, with the funds rate bottoming out at 2% by the end of the year. The wings of the agency curve outperformed the belly last week; while we are sanguine about one of the wings—the long end—continuing its stellar performance, we are not so optimistic about the other. In European markets, a brief spike in risk premium has dissipated, with stocks rebounding and swap spreads tightening. But economic uncertainty will remain high for months to come. Risk-averse carry strategies feature prominently in our recommendations.

CREDIT STRATEGY

Credit holds its own, heading into peak uncertainty season. Extension trades continue to make sense. In Europe, we discuss the recent spate of blow-ups and introduce a new asset selection method for euro corporates. Sovereign spreads have taken to mirroring performance in U.S. equity markets—as is usual when investors lack conviction.

SECURITIZED STRATEGY

Spreads in CMBS markets are stabilizing, though we are reluctant to overweight the sector at this point. We discuss our near-term concerns and offer evidence that real estate markets are not headed for a repeat performance of 1991.We recommend prime U.K. mortgages as a diversification strategy.

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Global Fixed-Income Asset Allocation

GLOBAL AGGREGATE [a]

October 12, 2001

	Amt. Out. ($ billion)	# of Issues	OAD (years)	Year-to-Date Total Return (%) Local Currency	100% Hedged into U.S.	Yen	Euro	Sterling	% of Index	Recommended Portfolio (%)	Diff.	% Over (+) or Under (-) Weight
U.S. Aggregate	5,754	2,996	4.56	8.37	8.37	4.74	8.34	8.94	43.4	44.3	**0.9**	**2**
Eurodollar (ex-U.S. Agg)	244	376	3.54	9.45	9.45	5.76	9.44	10.02	1.8	1.9	**0.0**	**2**
144A (ex-U.S. Agg)	79	154	5.99	11.19	11.19	7.46	11.16	11.83	0.6	0.6	**0.0**	**2**
Canadian Government	150	35	5.82	5.78	5.59	1.93	5.49	6.10	1.2	1.2	**0.0**	**3**
Pan-Euro Aggregate	3,924	1,939	5.21	5.42	5.44	1.93	5.42	6.02	29.8	30.5	**0.7**	**2**
Asian-Pacific Aggregate	2,987	1,239	5.40	3.56	7.13	3.56	7.24	7.77	22.7	21.0	**-1.7**	**-7**
Euroyen	55	88	4.73	3.01	6.56	3.01	6.65	7.19	0.4	0.4	**0.0**	**-7**
Global Aggregate Index	**13,192**	**6,827**	**4.95**	**-**	**7.17**	**3.58**	**7.17**	**7.76**	**100.0**	**100.0**		

*Based on $300 million liquidity criterion. Note: regional aggregate indices have lower liquidity criterion (usually $150 million) under current rules.

GLOBAL AGGREGATE INDEX* BY CURRENCY OF ISSUER [a]

	Market Value ($ billion)	Number of Issues	OAD (years)	% of Index	Recommended Portfolio (%)	% Over (+) or Under (-) Weight
Global Aggregate	**14,125**	**6,827**	**4.95**	**100.0**	**100.0**	
Currency:						
U.S. Dollar	6,475	3,526	4.53	45.8	47.0	**3**
Euro	3,561	1,621	4.95	25.2	25.8	**3**
Other Europe	156	41	4.12	1.1	1.1	**-2**
Sterling	491	277	7.45	3.5	3.5	**2**
Yen	3,045	1,100	5.45	21.6	20.0	**-7**
Other Asia	227	227	4.61	1.6	1.5	**-7**
Canadian Dollar	170	35	5.82	1.2	1.2	**1**

*Based on $300 million liquidity criterion. Note: regional aggregate indices have lower liquidity criterion (usually $150 million) under current rules.

ASIAN-PACIFIC AGGREGATE [a]

	Market Val. (yen billion)	Number of Issues	OAD (years)	YTD Return (yen)	% of Index	Recommended Portfolio (%)	Difference	% Over (+)/ Under (-) Weight
Asian-Pacific Aggregate	**403,706**	**1,769**	**5.37**	**3.18**	**100.00**	**100.0**		
Country of Issuer								
Japan	368,972	1,371	5.45	16.45	91.40	96.5	**5.1**	**6**
South Korea	10,527	138	2.71	17.70	2.61	0.0	**-2.6**	**NA**
Taiwan	6,983	52	7.46	6.51	1.73	0.0	**-1.7**	**NA**
Non Asian-Pacific	5,083	101	4.65	0.00	1.26	0.0	**-1.3**	**NA**
Australia	4,429	24	4.06	3.42	1.10	1.5	**0.4**	**36**
Malaysia	3,618	44	4.12	3.66	0.90	0.8	**-0.1**	**-11**
Singapore	2,217	17	4.85	13.16	0.55	1.0	**0.5**	**82**
New Zealand	1,036	6	4.22	8.73	0.26	0.2	**-0.1**	**-23**
China	151	5	2.69	0.00	0.04	0.0	**0.0**	**NA**
Thailand	690	11	4.61	3.41	0.17	0.0	**-0.2**	**NA**

[a] Index returns as of October 11, 2001.

U.S. Fixed-Income Asset Allocation

U.S. AGGREGATE CORE PORTFOLIO

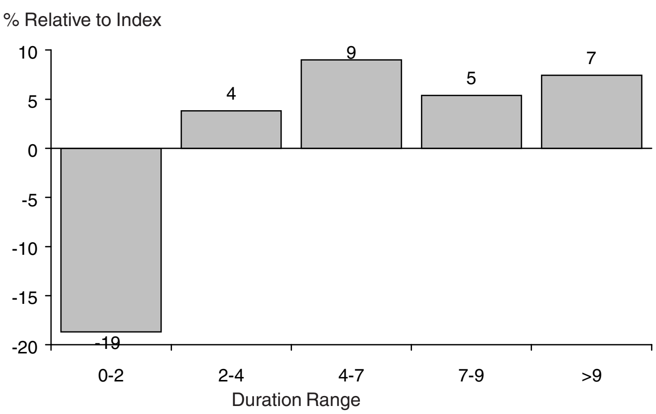
October 12, 2001

SUMMARY RECOMMENDATION	
Option-Adjusted Duration	Spread Duration
104%	109%

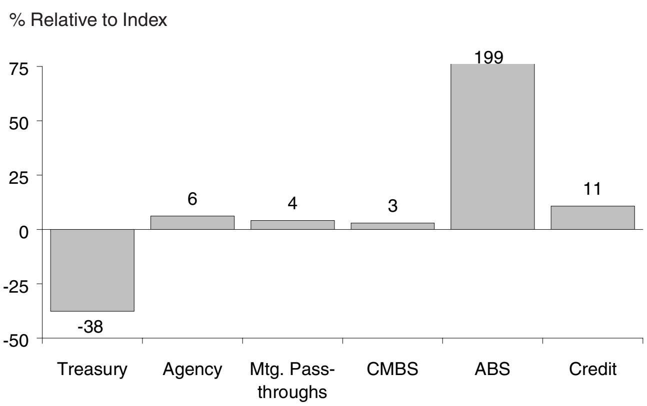
	Percent of Market Value by Duration Range													Contribution to						
	0-2		2-4		4-7		7-9		9+		Total		% Over(+)/ Under(-)	OAD			Spread Duration			% Over(+)/ Under(-)
Sector	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Weight	Index	Rec	Diff	Index	Rec	Diff	Weight
Treasury	4.73	0.62	5.30	0.00	4.21	3.34	1.27	1.60	7.25	8.66	22.76	14.22	-38	1.39	1.32	-0.08	0.00	0.00	0.00	-
Agency	3.56	2.33	3.16	4.14	2.75	4.71	0.64	0.00	1.40	1.04	11.50	12.22	**6**	0.51	0.55	**0.04**	0.50	0.55	**0.04**	**9**
Mtg. Pass-throughs	12.53	11.05	18.15	20.51	4.33	4.91	0.00	0.00	0.00	0.00	35.01	36.47	**4**	1.03	1.09	**0.05**	1.09	1.15	**0.07**	**6**
CMBS	0.04	0.00	0.37	0.29	1.58	1.82	0.05	0.00	0.00	0.00	2.05	2.11	**3**	0.10	0.12	**0.01**	0.10	0.12	**0.01**	**12**
ABS	0.52	2.62	0.66	2.49	0.46	0.00	0.06	0.00	0.00	0.00	1.71	5.10	**199**	0.06	0.11	**0.06**	0.06	0.11	**0.06**	**105**
Credit	3.18	3.37	7.83	9.39	9.27	9.85	2.45	3.11	4.25	4.17	26.98	29.89	**11**	1.46	1.58	**0.12**	1.45	1.54	**0.10**	**7**
Total	**24.56**	**19.97**	**35.47**	**36.82**	**22.60**	**24.63**	**4.47**	**4.71**	**12.91**	**13.87**	**100.00**	**100.00**		**4.56**	**4.76**	**0.20**	**3.20**	**3.47**	**0.28**	**9**

	0-2	2-4	4-7	7-9	9+
% Over (+)/ Under(-) Weight	**-19**	**4**	**9**	**5**	**7**

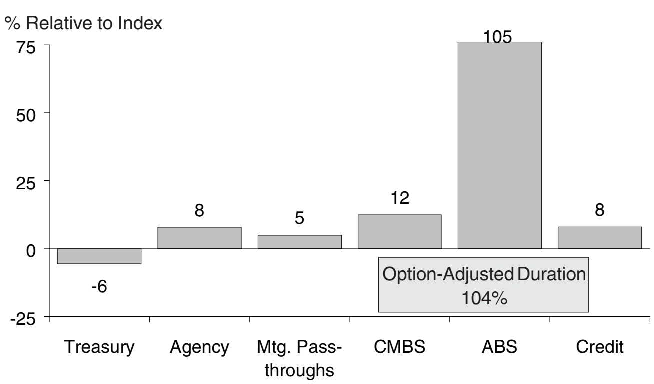
Recommended Portfolio by Duration Range



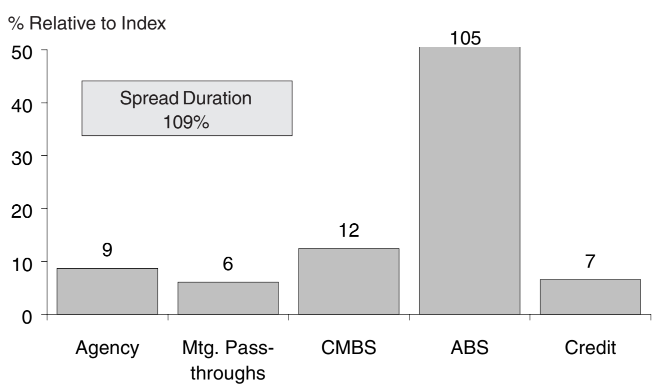
Portfolio Allocation by Asset Class



Contribution to OAD by Asset Class



Contribution to Spread Duration by Asset Class



U.S. AGGREGATE CORE PORTFOLIO

October 12, 2001

SUMMARY RECOMMENDATION	
Option-Adjusted Duration	Spread Duration
104%	109%

Percent of Market Value

Approx Matur/ Duration	T-Bills/ 0-1 yr Index	T-Bills/ 0-1 yr Rec	2 yr/ 1-2 yr Index	2 yr/ 1-2 yr Rec	3 yr/ 2-3 yr Index	3 yr/ 2-3 yr Rec	4 yr/ 3-4 yr Index	4 yr/ 3-4 yr Rec	5-6 yr/ 4-5 yr Index	5-6 yr/ 4-5 yr Rec	6-10 yr/ 5-7 yr Index	6-10 yr/ 5-7 yr Rec	10-20 yr/ 7-10 yr Index	10-20 yr/ 7-10 yr Rec	20-30 yr/ 10 + Index	20-30 yr/ 10 + Rec	Total Index	Total Rec	% Over(+)/ Under(-) Wght (%)
Treasury	0.04	0.00	4.69	0.62	2.82	0.00	2.48	0.00	1.74	0.00	2.47	3.34	2.60	2.80	5.92	7.47	22.76	14.22	**-38**
Agency	0.95	0.00	2.61	2.33	1.87	2.20	1.29	1.94	0.76	1.19	1.99	3.52	0.80	1.04	1.24	0.00	11.50	12.22	**6**
Mtg. Passthrghs	1.64	2.31	10.84	8.74	7.19	8.02	10.97	12.50	4.08	0.00	0.25	4.91	0.00	0.00	0.00	0.00	34.96	36.47	**4**
CMBS	0.00	0.00	0.04	0.00	0.16	0.29	0.22	0.00	0.33	0.00	1.25	1.82	0.05	0.00	0.00	0.00	2.05	2.11	**3**
ABS	0.02	0.00	0.50	2.62	0.38	0.69	0.28	1.80	0.23	0.00	0.23	0.00	0.07	0.00	0.00	0.00	1.71	5.10	**199**
Credit	0.30	0.00	2.88	3.37	3.24	4.85	4.59	4.54	2.84	2.78	6.43	7.07	3.32	4.24	3.38	3.04	26.98	29.89	**11**
Total	**2.95**	**2.31**	**21.56**	**17.67**	**15.65**	**16.04**	**19.83**	**20.78**	**9.98**	**3.97**	**12.62**	**20.67**	**6.84**	**8.08**	**10.54**	**10.50**	**99.96**	**100.00**	
% Over (+)/ Under(-) Weight	**-22**		**-18**		**2**		**5**		**-60**		**64**		**18**		**0**				

CORPORATE SECTOR RECOMMENDATIONS (spread duration contribution)

	Aaa-Aa Index	Aaa-Aa Rec.	Aaa-Aa Diff.	A Index	A Rec.	A Diff.	Baa Index	Baa Rec.	Baa Diff.	Total Index	Total Rec.	Total Diff.	Over(+)/ Under(-) Wght (%)
Spread													
0-3	0.05	0.05	0.01	0.05	0.04	-0.01	0.03	0.06	0.04	0.12	0.17	0.05	43
3-5	0.10	0.09	0.00	0.11	0.15	0.03	0.08	0.11	0.03	0.30	0.35	0.06	**18**
5-7	0.08	0.09	0.02	0.17	0.28	0.10	0.16	0.04	-0.12	0.41	0.41	0.00	**-1**
7-10	0.05	0.07	0.02	0.11	0.20	0.09	0.11	0.00	-0.11	0.27	0.27	0.00	**-1**
10+	0.06	0.11	0.05	0.16	0.24	0.08	0.13	0.00	-0.13	0.35	0.35	0.00	**1**
Total	**0.33**	**0.43**	**0.09**	**0.60**	**0.90**	**0.30**	**0.51**	**0.22**	**-0.30**	**1.45**	**1.55**	**0.10**	**7**
% Over (+)/Under(-) Weight			**28**			**50**			**-58**			**7**	
Sector													
Industrial	0.09	0.20	0.11	0.31	0.72	0.41	0.34	0.07	-0.27	0.74	0.99	0.26	**35**
Financial	0.12	0.13	0.01	0.22	0.18	-0.04	0.04	0.00	-0.04	0.38	0.31	-0.06	**-17**
Utility	0.01	0.00	-0.01	0.04	0.00	-0.04	0.09	0.11	0.02	0.13	0.11	-0.02	**-17**
Non-Corp.	0.09	0.09	0.00	0.05	0.00	-0.05	0.06	0.03	-0.02	0.20	0.13	-0.07	**-36**
Total	**0.31**	**0.43**	**0.11**	**0.61**	**0.90**	**0.29**	**0.52**	**0.22**	**-0.31**	**1.45**	**1.54**	**0.10**	**7**
% Over (+)/Under(-) Weight			**37**			**47**			**-59**			**7**	

MBS SECTOR RECOMMENDATIONS (spread duration contribution)

Program & Price		Index % Mkt. Val.	Index % Spread Dur.	Recommended % Mkt. Val.	Recommended % Spread Dur.	Difference % Mkt. Val.	Difference % Spread Dur.	% Over (+)/Under(-) Weight % Mkt. Val.	% Over (+)/Under(-) Weight % Spread Dur.
GNMA									
30-year	< 98	0.02	0.00	0.00	0.00	-0.02	0.00	**N/A**	**N/A**
	98 to <102	1.19	0.05	1.82	0.07	0.63	0.02	**53**	**30**
	102 to <106	5.79	0.19	3.24	0.11	-2.55	-0.08	**-44**	**-43**
	106+	0.59	0.02	2.23	0.07	1.64	0.05	**N/A**	**N/A**
15-year									
	< 98	0.00	0.00	0.00	0.00	0.00	0.00	**N/A**	**N/A**
	98 to <102	0.01	0.00	0.00	0.00	-0.01	0.00	**N/A**	**N/A**
	102 to <106	0.24	0.01	1.23	0.03	0.99	0.02	**N/A**	**N/A**
	106+	0.00	0.00	0.00	0.00	0.00	0.00	**N/A**	**N/A**
GNMA Summary		**7.84**	**0.27**	**8.52**	**0.27**	**0.68**	**0.00**	**9**	**2**
Fannie Mae and Freddie Mac									
Conventional 30-year									
	< 98	0.10	0.00	0.95	0.05	0.85	0.05	**865**	**978**
	98 to <102	6.03	0.23	8.57	0.34	2.54	0.11	**42**	**47**
	102 to <106	14.79	0.41	9.05	0.22	-5.74	-0.19	**-39**	**-47**
	106+	0.57	0.01	1.21	0.04	0.64	0.02	**111**	**159**
Conventional 15-year									
	< 98	0.00	0.00	0.00	0.00	0.00	0.00	**-**	**-**
	98 to <102	1.32	0.05	3.63	0.12	2.31	0.07	**175**	**163**
	102 to <106	4.07	0.11	4.55	0.12	0.48	0.01	**N/A**	**N/A**
	106+	0.02	0.00	0.00	0.00	-0.02	0.00	**N/A**	**N/A**
Conventional Summary		**26.90**	**0.82**	**27.95**	**0.88**	**1.05**	**0.07**	**4**	**8**
Balloons		**0.28**	**0.01**	**0.00**	**0.00**	**-0.28**	**-0.01**	**N/A**	**N/A**
Total Pass-Throughs		**35.01**	**1.09**	**36.47**	**1.15**	**1.46**	**0.07**	**4**	**6**
CMBS		**2.05**	**0.10**	**2.11**	**0.12**	**0.06**	**0.01**	**3**	**12**
Total		**37.05**	**1.19**	**38.58**	**1.27**	**1.52**	**0.08**	**4**	**7**

U.S. DOLLAR CORE PLUS

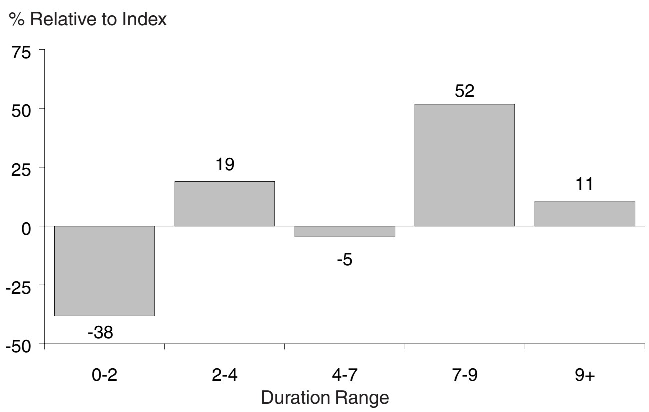
October 12, 2001

SUMMARY RECOMMENDATION	
Option-Adjusted Duration	Spread Duration
104%	108%

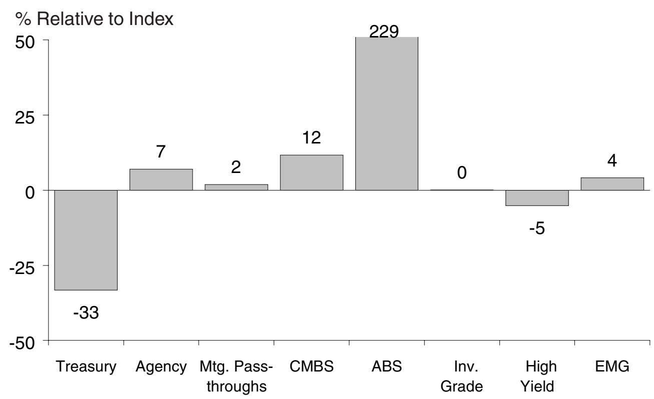
	Percent of Market Value by Duration Range													Contribution to						
	0-2		2-4		4-7		7-9		9+		Total		% Over(+)/ Under(-)	OAD			Spread Duration			% Over(+)/ Under(-)
Sector	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Weight	Index	Rec	Diff	Index	Rec	Diff	Weight
Treasury	4.18	2.04	4.69	3.46	3.72	0.00	1.12	1.23	6.41	6.70	20.12	13.43	-33	1.23	1.11	**-0.12**	0.00	0.00	0.00	-
Agency	3.15	1.09	2.79	3.96	2.43	3.68	0.56	1.59	1.24	0.56	10.17	10.88	**7**	0.45	0.49	**0.04**	0.45	0.49	**0.04**	**9**
Mtg. Pass-throughs	11.23	5.96	16.49	21.98	3.84	4.21	0.00	0.00	0.00	0.00	31.56	32.14	**2**	0.92	1.02	**0.10**	0.96	1.02	**0.05**	**6**
CMBS	0.04	0.00	0.34	0.57	1.61	1.76	0.10	0.00	0.00	0.00	2.09	2.33	**12**	0.11	0.12	**0.02**	0.11	0.12	**0.02**	**14**
ABS	0.46	3.04	0.58	1.89	0.41	0.00	0.05	0.00	0.00	0.00	1.50	4.93	**229**	0.05	0.10	**0.05**	0.05	0.10	**0.05**	**106**
Corporates																				
Inv. Grade	3.95	2.54	8.30	8.01	9.79	9.30	2.51	2.79	4.07	6.01	28.62	28.65	**0**	1.50	1.61	**0.12**	1.47	1.60	**0.13**	**9**
High Yield	0.26	0.00	0.98	0.49	2.35	2.87	0.17	0.13	0.10	0.00	3.86	3.66	**-5**	0.18	0.16	**-0.02**	0.18	0.17	**-0.01**	**-5**
EMG	0.47	0.00	0.39	0.76	0.88	1.06	0.14	0.33	0.18	0.00	2.06	2.15	**4**	0.08	0.10	**0.02**	0.12	0.11	**-0.01**	**-10**
Municipals	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	**NA**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	**NA**
Total	**23.74**	**14.67**	**34.56**	**41.11**	**25.03**	**23.88**	**4.65**	**7.06**	**12.00**	**13.27**	**100.00**	**100.00**		**4.52**	**4.71**	**0.20**	**3.34**	**3.61**	**0.27**	**8**

	0-2	2-4	4-7	7-9	9+
% Over (+) / Under (-) Weight	**-38**	**19**	**-5**	**52**	**11**

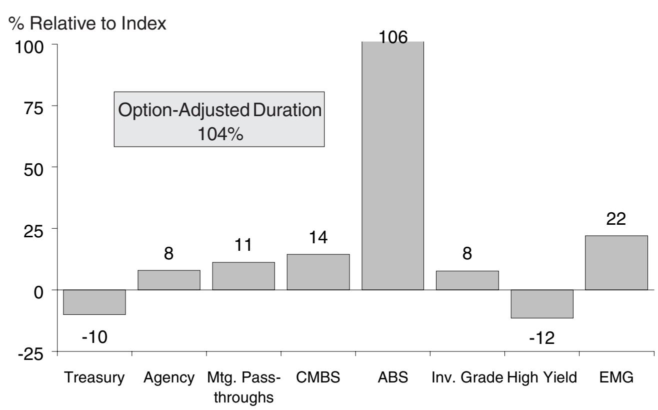
Recommended Portfolio by Duration Range



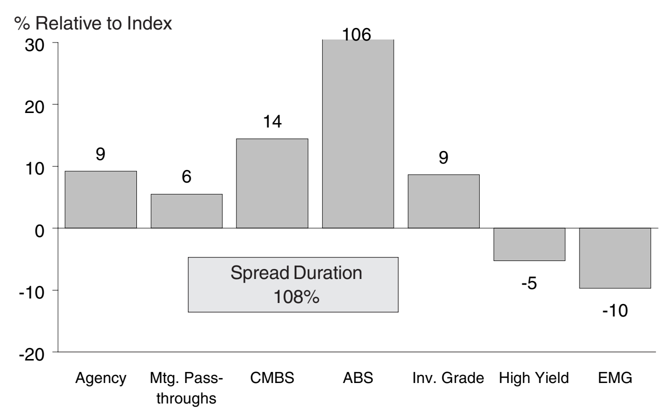
Portfolio Allocation by Asset Class



Contribution to OAD by Asset Class



Contribution to Spread Duration by Asset Class



European Fixed-Income Asset Allocation

EURO-AGGREGATE PORTFOLIO

October 11, 2001

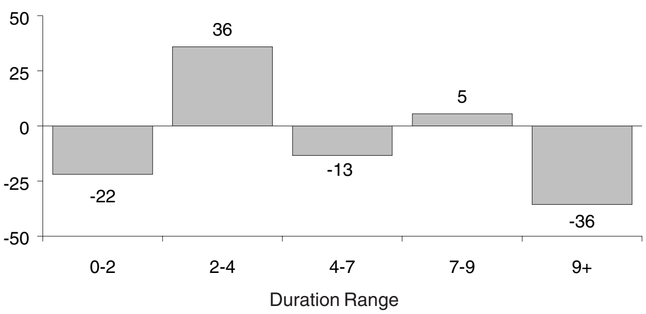
SUMMARY RECOMMENDATION

Option-Adjusted Duration	Spread Duration
99%	99%

	Percent of Market Value by Duration Range													Contribution to Spread Duration			
	0-2		2-4		4-7		7-9		9+		Total		% Over(+)/ Under(-)	OAD			% Over(+)/ Under(-)
Sector	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Index	Rec	Weight	Index	Rec	Diff	Weight
Treasury	11.88	13.49	16.60	21.19	17.58	18.04	5.86	3.69	7.50	5.27	59.42	61.68	4	3.10	2.94	-0.16	-5
Agency	1.34	0.00	2.31	7.23	2.86	0.00	0.90	0.00	0.32	0.00	7.73	7.23	-6	0.36	0.22	-0.13	-37
Collateralized	3.14	0.00	5.33	3.47	5.72	1.33	0.77	2.17	0.07	0.00	15.04	6.97	-54	0.61	0.39	-0.22	-37
Credit	2.37	1.13	6.43	9.76	7.24	9.58	1.47	3.65	0.29	0.00	17.81	24.12	35	0.80	1.24	0.45	56
Total	**18.74**	**14.62**	**30.66**	**41.65**	**33.41**	**28.95**	**9.01**	**9.50**	**8.19**	**5.27**	**100.00**	**100.00**		**4.86**	**4.79**	**-0.07**	**-1**
% Over(+)/Under(-) Weight		**-22**		**36**		**-13**		**5**		**-36**							

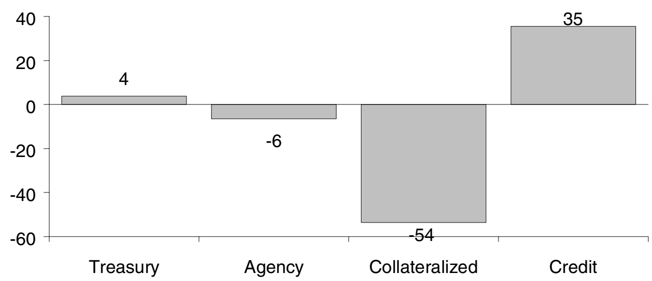
Recommended Portfolio by Duration Range

% Relative to Index



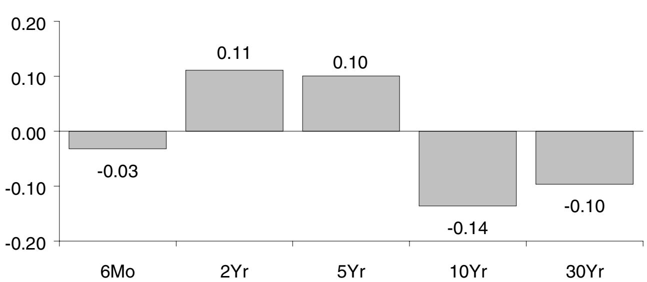
Portfolio Allocation by Asset Class

% Relative to Index



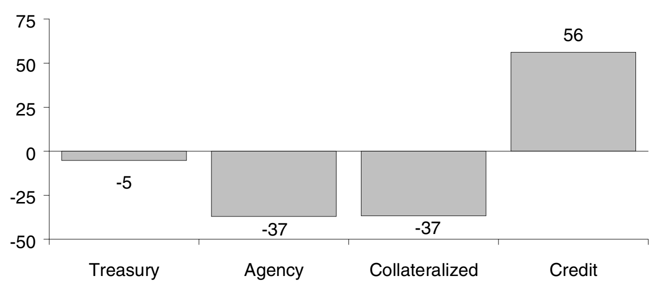
Portfolio Allocation by Key Rates

Relative to Index
OA Duration (years)



Contribution to Spread Duration by Asset Class

% Relative to Index



Global Fixed-Income Index Return Forecasts

U.S. ASSET CLASSES

October 12, 2001

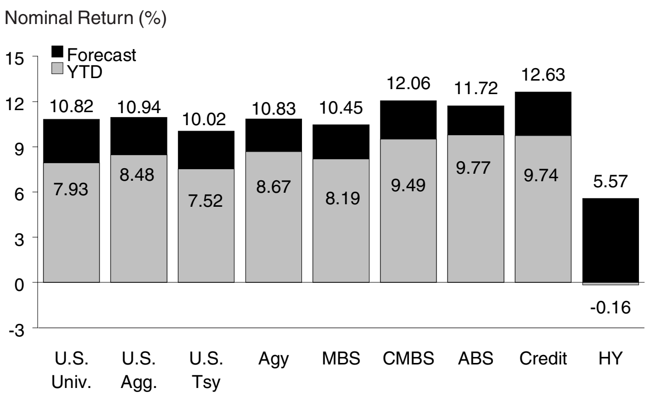
Asset Class	2001 Total Return (%) Year-to-Date*	Forecast	2001 Excess Return (bp) Year-to-Date*	Forecast
U.S. Universal Index	7.93	10.82	-11	24
U.S. Aggregate	8.48	10.94	43	60
U.S. Treasuries	7.52	10.02	-	-
Agencies	8.67	10.83	80	86
MBS	8.19	10.45	1	17
CMBS	9.49	12.06	48	73
ABS	9.77	11.72	138	156
Credit	9.74	12.63	136	171
High-Yield Corporates	-0.16	5.57	-791	-622
EMG	0.87	-	-601	-
Municipals	6.49	-	-	-

Assumptions

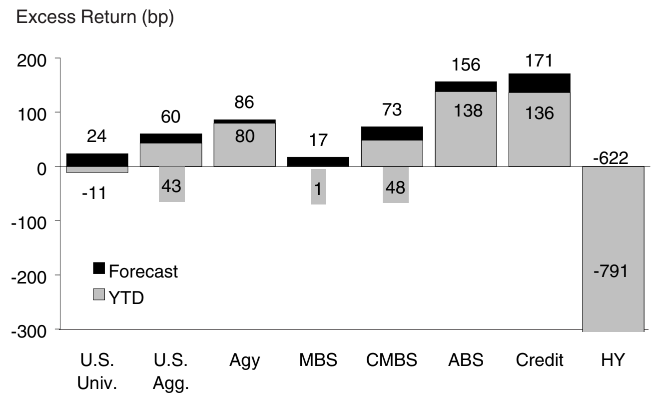
	Fed Funds	2-Year	5-Year	10-Year	30-Year	2s-10s (bp)	2s-30s (bp)
U.S. Treasury Curve on 12/31/01	1.91	2.60	3.68	4.43	5.20	183	260

Spread Scenarios No Change

U.S. Dollar Indices
2001 Nominal Returns and Forecast



U.S. Dollar Indices
2001 Excess Returns and Forecast



* Index Returns as of October 11, 2001.

Global Fixed-Income Index Return Forecasts

EUROPEAN ASSET CLASSES

October 12, 2001

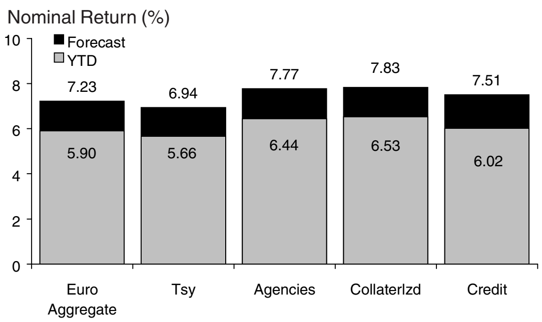
Asset Class	2001 Total Return (%) Year-to-Date*	Forecast	2001 Excess Return (bp) Year-to-Date*
Euro Aggregate**	5.90	7.23	45
Treasuries	5.66	6.94	26
Agencies	6.44	7.77	89
Collateralized	6.53	7.83	90
Credit	6.02	7.51	32
Pan European Aggregate***	5.49	6.81	50
Treasuries	5.18	6.46	22
Agencies	6.31	7.64	92
Collateralized	6.41	7.71	91
Credit	5.54	7.00	84
Pan European High Yield***	-17.62	-13.96	-2,308
Sterling Aggregate	3.78	5.42	95
Swedish Krona Aggregate	3.11	4.54	22
Danish Krone Aggregate	5.99	7.29	-4
Norwegian Krone Aggregate	4.50	6.28	5
Swiss Franc Aggregate	4.95	6.04	12

Assumptions (as of 12/31/01)

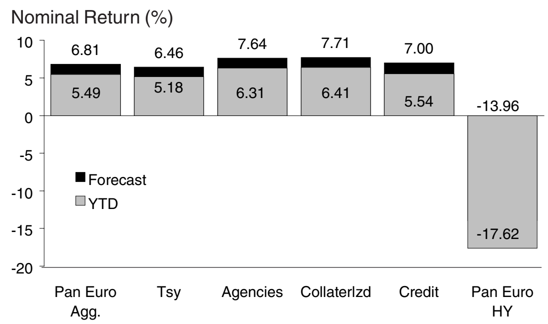
	Short Rate	2-Year	5-Year	10-Year	30-Year	2s-10s (bp)	2s-30s (bp)
Euro Curve on 12/31/01	3.50	3.60	4.15	4.80	5.55	120	195
Sterling Curve on 12/31/01	4.25	4.40	4.90	4.84	4.72	44	32
Swedish Curve on 12/31/01	3.75	4.46	4.76	5.30	-	84	-
Danish Curve on 12/31/01	3.85	3.95	4.57	5.00	-	105	-
Norwegian Curve on 12/31/01	6.75	6.22	6.09	6.15	-	-7	-
Swiss Curve on 12/31/01	1.75	1.95	2.70	3.15	3.80	120	185

Spread Scenarios No Change

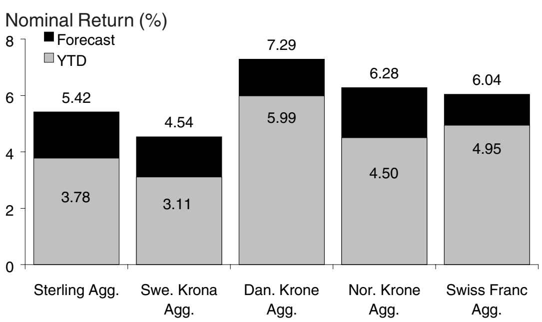
Euro-Aggregate
2001 Nominal Returns and Forecast



Pan-European
2001 Nominal Returns and Forecast



European Indices (Local Currency)
2001 Nominal Returns and Forecast



* Index Returns as of October 11, 2001.
** Euro-Aggregate Indices reported in euros.
*** Pan-European Indices reported in hedged euros.

Global Fixed-Income Index Return Forecasts

ASIAN-PACIFIC ASSET CLASSES

October 12, 2001

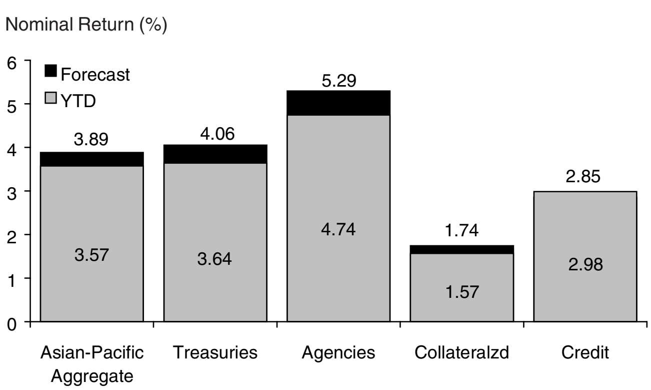
Asset Class	2001 Total Return (%) Year-to-Date*	Forecast	2001 Excess Return (bp) Year-to-Date*
Asian-Pacific Aggregate	3.57	3.89	2
Treasuries	3.64	4.06	-
Agencies	4.74	5.29	15
Collateralized	1.57	1.74	11
Credit	2.98	2.85	14

Assumptions

	Overnight Call Rate	2-Year	5-Year	10-Year	20-Year	2s-10s (bp)	2s-20s (bp)
JGB Curve on 12/31/01	0.03	0.15	0.50	1.30	2.05	115	190

Spread Scenarios No Change

Asian-Pacific Aggregate
2001 Nominal Returns and Forecast



* Index Returns as of October 11, 2001.

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HAS THE EYE OF THE "MARKET STORM" PASSED?

REMINDER: ECONOMICS AND STRATEGY CONFERENCES SET FOR OCTOBER 16 (BOSTON); OCTOBER 17 (NEW YORK); OCTOBER 18 (CHICAGO)

There rarely has been more to discuss. Our research team looks forward to seeing you this week. Conference details are on the back cover of *GRV* and are available through your Lehman representative.

LEHMAN BOND SHOW WITH ANDY SPARKS

Andy Sparks, our director of securitized strategy, joins us to discuss the outlook for the U.S. securitized markets. We like the U.S. MBS sector for its liquidity and absence of credit risk. We like MBS even more if prepayment speeds weren't on course for another new all-time record. Overall, this makes us neutralish toward MBS allocation over the short haul (technically, our overall model portfolio is slightly overweighted). Catch our webcast at http://www.webcast.lehman.com.

REMINDER: *DAILY GLOBAL RELATIVE* NOW AVAILABLE FOUR DAYS A WEEK

For investors not on our e-mail distribution list, please contact our director of publications, Larry Pindyck (lpindyck@lehman.com) to be placed on our e-list. In this week's GRV dailies, we commented on capital market behavior in the wake of the commencement of military operations in Afghanistan; compared this U.S. economic cycle to 1990-1991; reviewed the structural changes in the U.S. bond market since the past recession; highlighted the contraction of outstanding U.S. commercial loans as banks substitute MBS for credit during recession; examined the ability of credit assets to outperform during recession periods since 1929; looked at timing the inevitable economic rebound, the prime asset allocation decision; considered the effects of capital repatriation to local markets and advanced the case for maintaining global diversification; cautioned on the low correlations between changes in long U.S. yields and changes in the U.S. government fiscal position; highlighted the long-term advantage of munis over taxable debt; highlighted the understandable upward bulge in our risk index; profiled the performance of major equity and debt indices one month after September 11; and provided revised estimates of shifts in our *Global Aggregate Index* through 2010.

The Lehman Brothers Bond Show Webcast

Director of Securitized Strategy Andy Sparks discuss the outlook for the U.S. securitized markets.

http://live.lehman.com, **https://client.lehman.com**, and **http://www.webcast.lehman.com**.

HAS THE EYE OF THE "MARKET STORM" PASSED?

We don't think so, but there's a chance.

This question may seem foolish to some readers. The military campaign against terrorism has just begun in Afghanistan. The U.S. government expects a multi-year campaign. President Bush warns the Bin Laden may not be brought to justice for a year or two. Anthrax scares have erupted in Florida and now New York. Major and even minor population centers in North America and Europe fear the dawning of the age of bio/chem terrorism.

Most economic/corporate news has been dreadful. U.S. retail sales plunged 2.4% in September. Global trade has slowed. Argentina again teeters on the brink of rescheduling. Third-quarter earnings are even worse than expected for many firms.

And yet as shown in our accompanying exhibit, most global equity markets have completed a round-trip to their position immediately prior to September 11. As of October 11, our U.S. Agency (-20.9%) and MBS Indices (-5.5%) actually sport lower spreads (OAS basis). To our mild surprise, the damage sustained by many sectors has not been greater. Our Pan-European Aggregate Index widened only 2 bp (8.0%). Led by U.S. investment-grade corporates (up 16.0%), our U.S. Aggregate Index recorded just a 4 bp expansion (4.9%). Of course, the damage still lingers for our lower-quality indices: U.S. High-Yield (up 166 bp, 23.2%); Pan-European High-Yield (out 282 bp, 25.3%), and emerging markets (up 124 bp, 16.0%).

This two-week recovery in the capital markets has strengthened the dollar versus the yen (now 121.3, admittedly with some intervention help) and stabilized the dollar to the euro (0.91). And after racing lower for nearly three consecutive weeks, major non-Japanese yield curves lofted last week in a related manifestation of risk disinversion. The damage was most acute for the U.S. curve (up 10-15 bp across the curve) followed by the U.K. curve (front end up 22 bp, back end down 5 bp) and the euro curve (same pattern as the U.K.). The JGB curve was effectively static. Best of all, investment-grade spread contracted by about 3-5 bp, while high-yield (13 bp) and EMG (33 bp) compressed to a greater extent.

As a result of these gyrations, **mid-October and possibly full October returns now shape up as less auspicious for absolute returns and pretty solid for relative returns**. Through October 11, our U.S. Aggregate Index had produced 8 bp excess returns thanks mainly to 38 bp from the investment-grade credit sector. Despite all the evident risks across the global capital markets, October looks like a mean reversion month for the spread sectors.

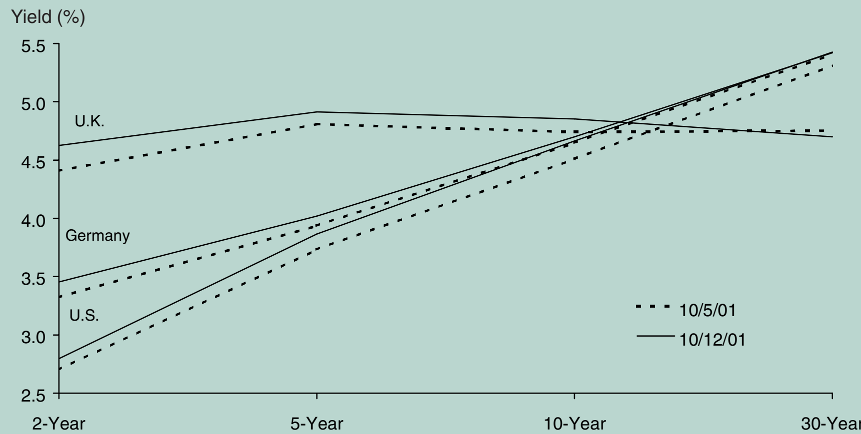
Weekly Spread Summary

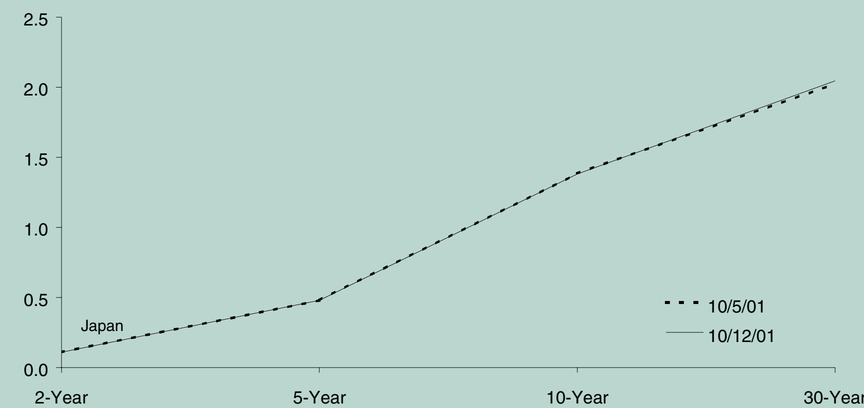
	Weekly Spread Change (bp)		Weekly Spread Change (bp)
Vol Sectors		**Credit Sectors**	
MBS	2	Euro Corporate	-3
		Sterling	-3
Credit/Vol Sector		U.S. Investment-Grade	-5
ABS	0	U.S. High Yield*	-13
CMBS	3	Emerging Markets*	-33
		Preferreds	-5

* through October 11, 2001

Global Bellwether Yield Curves

One-Week Change, October 12, 2001 versus October 5, 2001





		Yields (%)			
		2-Yr	**5-Yr**	**10-Yr**	**30-Yr**
U.S.	10/5/01	2.70	3.73	4.51	5.31
	10/12/01	2.80	3.87	4.66	5.43
	W-o-w Chg (bp)	10	14	15	12
Germany	10/5/01	3.32	3.94	4.65	5.41
	10/12/01	3.46	4.02	4.70	5.42
	W-o-w Chg (bp)	14	8	5	1
U.K.	10/5/01	4.41	4.81	4.74	4.75
	10/12/01	4.63	4.91	4.85	4.70
	W-o-w Chg (bp)	22	10	11	-5
Japan	10/5/01	0.11	0.48	1.39	2.03
	10/12/01	0.11	0.48	1.38	2.05
	W-o-w Chg (bp)	0	0	-1	2

And so, we are faced with the question of whether the eye of the "market storm," not the "fundamental storm," has passed. This is "the question" for asset managers. A successful solution likely will determine the relative performance rankings of asset managers for the fourth quarter, all of 2001, and probably the first half of 2002.

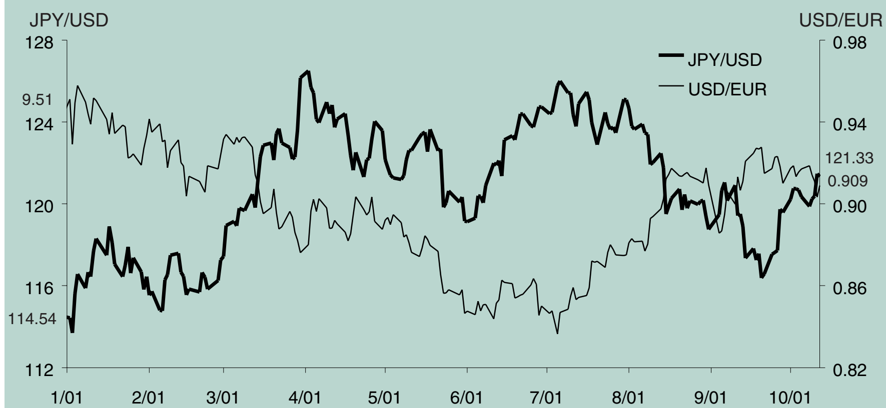
Our position since September 11 has been one of extreme caution. Over the past three weeks, we paid respectful homage to the quicker-than-expected mending of capital market valuations. Still, we questioned the persistence of this positive sway. More bluntly, we suggested a high likelihood of another test for equities and some form of a spread flare before the end of 2001. We still hold the same view. But we admit to questioning the accuracy of our position.

Like our strategy team, most asset managers take a very dim view of immediate economic, corporate, and even market prospects. Over the past few weeks, we haven't encountered any investors with a fundamental perspective more bullish than the consensus. This makes us think that either the consensus is too optimistic (and the aggregators of consensus opinion must not have spoken to many bond managers) or debt managers are too bearish.

We can't disagree too much with the debt managers. We share your concerns. The fundamental risk list has seldom been lengthier.

Why this contradiction between investor psychology and capital market behavior during the past two weeks?

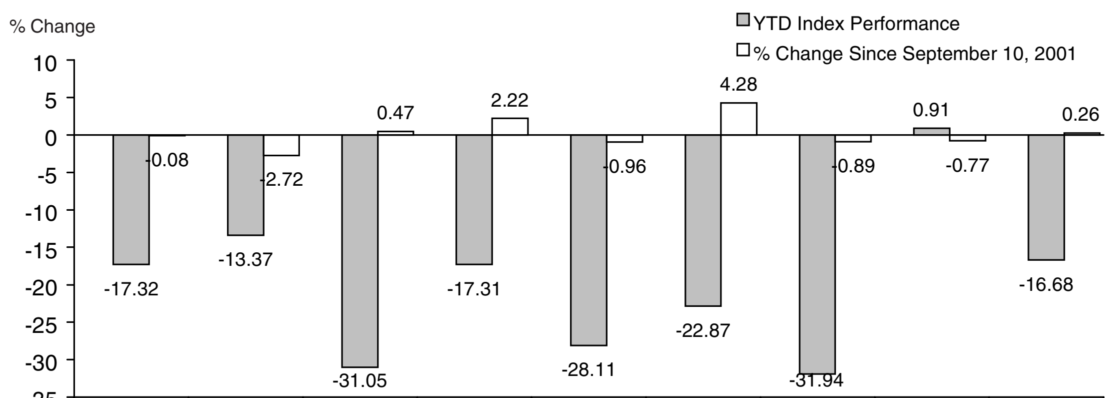
U.S. Dollar versus Euro and Yen, January 1, 2001 through October 12, 2001



1. **Capital markets do not cope well with major geopolitical events.** In our view and speaking personally as well, capital market professionals are less comfortable and less accurate in evaluating geopolitical events than ordinary economic/issuer developments. How could we expect otherwise? Most likely, few if any readers have ever set foot in Afghanistan. In contrast, nearly all readers have been to a roadshow for a new security offering, listened to an issuer conference call, dealt with a rating change, and been surprised one way or the other by a monthly economic news release. The net result: the prices of financial assets can easily lose their footing on unfamiliar geopolitical terrain and decouple from long-term fundamentals. (Great idea for our AIMR conference friends: "Successfully coping with portfolio risks during periods of high-geopolitical uncertainty.)
2. **Dimensions of military campaign against terrorism have taken shape.** All the details are not evident. Twists in the campaign road undoubtedly lay ahead. Yet, unlike Saddam Hussein's assertions in 1990, this will not be the "mother of all wars"

Figure 1. **Global Equity Market Performance**

	Index								
	S&P 500	DOW JONES	NASDAQ	FTSE 100	DAX	NIKKEI 225	HANG SENG	AUSTRALIA ALL ORDINARIES	MSCI (GROSS $ World Index)
October 12, 2001	1,092	9,344	1,703	5,146	4,625	10,632	10,274	3,159	2,614



	S&P 500	DOW JONES	NASDAQ	FTSE 100	DAX	NIKKEI 225	HANG SENG	AUSTRALIA ALL ORDINARIES	MSCI (GROSS $ World Index)
YTD Index Performance (%)	-17.32	-13.37	-31.05	-17.31	-28.11	-22.87	-31.94	0.91	-16.68
% Change Since Sep. 10	-0.08	-2.72	0.47	2.22	-0.96	4.28	-0.89	-0.77	0.26
Cumulative Decline From 2000 Peak (%)	-28.53	-20.29	-66.26	-24.31	-42.65	-48.96	-43.86	-7.77	-31.49

or the “war that ends all wars.” As highlighted by vice president Cheney and contrary to some initial speculation by some riled-up citizens, nuclear weapons will not be deployed. The draft’s not coming back. Assuming that the U.S.-led coalition does not directly attempt to change the leadership of the Iraqi government, this campaign against terror looks more like a protracted series of skirmishes than an all-out theatre war of World War II or even Korean War dimensions. And capital market confidence has been bolstered by the careful, sober, deliberate non-emotional manner in which Mr. Bush and his crack team of advisors, along with the very able Mr. Blair, have assembled a rational plan to strike at terrorism while maximizing the desire of the West to maintain and to even improve relations with the overwhelming majority of the peaceful Muslim community.

3. **Magnitude of global economic slump has become less hazy.** The euphemisms have been retired. The hopes for a quick V have vanished. There no longer are any doubters. The global economy has been ensnared in a severe downdraft. Except for China, Asia’s aching. The U.S. has crossed the line into recession. Our U.S. economics team has revised downward its projection of fourth-quarter GDP to –2.5%. Core Europe may officially may escape recession but just barely. The markets have become acclimated to this economic reality, well underway since the second quarter of 2001. The global economy will likely deteriorate further before resuming a livelier gait. Asian, European, U.S., and Latin American firms will suffer. Third and fourth

Figure 2. **Select Lehman Indices: One Month After October 11, 2001**

	Total Return		Average Index Option-Adjusted Spread (bp)			
	MTD	**YTD**	**Oct. 11, 2001**	**Sep. 10, 2001**	**1-Mo Sprd Chg.**	**% Chg.**
Multiverse*	0.20	6.85	75	70	5	7.1%
Global Aggregate*	0.22	7.16	45	43	2	4.7%
Global Credit*	0.20	5.90	242	214	28	13.1%
Global High Yield*	-0.20	-1.11	968	803	165	20.5%
Pan-European Aggregate**	0.47	5.49	27	25	2	8.0%
Pan-European High Yield**	0.11	-17.62	1,395	1,113	282	25.3%
Euro-Aggregate	0.48	5.90	26	23	3	13.0%
US Aggregate	0.08	8.48	86	82	4	4.9%
U.S. Universal	0.06	7.93	140	131	9	6.9%
US Agency	0.03	8.67	34	43	-9	-20.9%
CMBS: Erisa Eligible	-0.53	9.49	133	116	17	14.7%
US Credit	0.29	9.74	181	156	25	16.0%
U.S. Corporate High Yield	0.31	-0.16	881	715	166	23.2%
Asset-Backed Securities	-0.06	9.77	96	89	7	7.9%
MBS	0.04	8.19	86	91	-5	-5.5%
Emerging Markets	-0.57	0.87	897	773	124	16.0%

*U.S. Dollar-Hedged Returns
**Euro-Hedged Returns

quarter profitability will be the worst since the 1990/1991 recession. And there's a chance that the combination of this "tech deboom" and outbreak of geopolitical event risk could produce an extended global economic slump akin to 1973-1975. On the other hand, the Great Depression of the 1930s is not just around the corner either. Based on our conversations with investors, this outlook has now become a consensus rather than a pessimistic view. Accordingly, this makes us begin to wonder if the surprises (not in the next fortnight, not during the fourth quarter) could now be more on the upside than the downside.

4. **Global capital markets already have priced in much of these geopolitical/ economic developments.** As of the close on Friday, October 12, 2001, the S&P 500 has fallen 28.5% from its 2000 pinnacle; NASDAQ has been chopped by 66.3%. This equity pain has hardly been confined to the U.S. In Asia, the Nikkei has forfeited 49.0%; the Hang Seng has relinquished 43.9% since 2000. In Europe, the DAX has cracked 42.7%; the FTSE has dipped 24.3% from its summit last year. There's nothing magical about the magnitude of these decreases. Equities surely could tumble again. The same pattern applies to the U.S. and European credit markets. Credit spreads have bulged since 2000. Unlucky investors sustained the worst relative drubbing for investment-grade credit since 1981-1982 and since 1990 for high-yield credit. Until the beginning of June, 2001 had been a year of recovery. This escalation of geopolitical risk and realization of outright global recession has been a major setback. But in this spread neighborhood, the markets seem to be more interested in acquiring than shedding credit assets, especially those with unassailable credit quality. Effectively, the spread pinnacle, if even slightly forward in the future, has been nearly realized and possibly already attained, especially for lower-quality assets.
5. **Horizon question.** "Prophets of the present and immediate past," an occupational hazard for all of us, justifiably can find much to fret about. Yet, capital market valuations are plebiscites on future conditions. The capital market vote's coming in. Like a surprise election, the early capital-market returns, "looking ahead, not backwards" are beginning to look more for the upside than the downside surprise. The capital markets could be wrong; they've been wrong often before and are entitled to change their minds.

Undoubtedly, we haven't resolved this question satisfactorily for all our readers. Investment committees should and will review this proposition continuously over the course of the next six months. And if the post 1991 recession period's a guide, we can look forward to a resumption of this debate in the third quarter of 2002. Still, as so often true in the past, with such rampant consensus psychology in place, history suggests high odds that the next major sentiment/market move is more likely to be to up rather than down. For our part, we won't move our allocations yet. We will retain this fall caution. But the "Winter Offensive" into the spread sectors is getting closer by the week.

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CONSIDERING POTENTIAL RISKS IN THE JGB MARKET

Emergency Response

Like the other G7 nations, Japan has now entered an emergency response mode. The government's ability to cope is likely to be tested, not only on the political and military front, but also on the economic policy front. Although there is a huge amount of uncertainty over what the future holds, we will make some bold assumptions and venture a forecast of future policy responses and the reaction of financial markets.

New Demand Is Critical

Rebuilding after a disaster or war is replacement demand, fundamentally different from the creation of new demand. There are examples in the past of a special procurement boom in the neighboring country. But today's conflicts, including information on those conflicts, have become compressed in terms of both time and space. Even battle images from wars fought in distant lands are thrust before us, and this is enough to worsen both corporate and consumer sentiment. Accordingly, the focus should now move toward the question of how to think about the economic costs of war, while estimates of the demand for reconstruction will depend on the extent to which new demand is expected. It is difficult to make such estimates under current conditions, although it is already becoming evident that Japan will be increasing its economic assistance to peripheral Asian countries and incurring economic costs. On the other hand, there is no reason to expect any return on these economic costs, which for the time being will serve to enlarge the government deficit. That said, since the amount of temporary spending required is uncertain at this point, it will be difficult to include it in the supplementary budget that will be compiled in early November. Thus there is already talk of the possibility that, depending on circumstances, a second supplementary budget could be formed early next year. In either case, the result will not be the creation of domestic demand.

Potential Risks for the JGB Market

The start of the war on terrorism has made it necessary to revise our main JGB market scenario, which was based on assumptions made prior to recent events. We recognize that things previously considered certain have been thrown into doubt and that there is now a need to consider certain risks to the JGB market. Both monetary and fiscal policies are expected to be tailored to emergency conditions, while the government's structural reform agenda is also likely to be modified to some extent. This means that policy options previously rejected for not toeing the reform line could be considered—during emergency conditions—as no longer risking damage of policy credibility. That is, we believe the timing is ripe for a reworking of policy.

Regarding monetary policy, there is now an increased likelihood that the BOJ will use various tools to keep short-term interest rates from soaring and further reinforce quantitative easing measures to lend further credence to its supply of liquidity. While recognizing that quantitative easing under current conditions will not immediately spark increased lending activity or have any sort of impact on the real economy, considering the emergency conditions that now exist, the BOJ is likely to more aggressively supply liquidity and seek ways to hold down long-term interest rates, such as by increasing the amount of *rinban* (outright JGB purchase) operations. An increase in *rinban* operations has been rejected in the past, given the thinking that it would damage fiscal discipline and lead to increased JGB issuance. In an emergency situation, however, there is a need to secure a source of funds for government outlays, and the BOJ is likely to conclude that it has no choice but to cooperate with the government. Also a factor is that this is clearly different from using the BOJ to underwrite wartime bonds to finance imperialistic and militaristic expansionism, and the current environment is conducive to gaining the support of public opinion.

On the other hand, the momentum in fiscal policy has turned, and the government now appears willing to allow the JPY30 trillion cap on new JGB issuance, which also applied to this fiscal year, to be exceeded. The government is taking preventative measures to give itself more policy flexibility and allow it to respond to global flare-ups in a timely fashion. Although it is difficult to project how much emergency spending will be needed, at the very least an increase in spending for emergency response is unlikely to foment criticism of the government for its lapse in fiscal discipline. Based on this outlook, we have outlined the potential risks to the JGB market; in other words, we have explored the possibility of a rise in long-term interest rates.

1. With overwhelming popular support, the Koizumi government is likely to alter the mix of its monetary and fiscal policies and tolerate an expansion of government spending. This will not take the form of a conventional economic stimulus package and increased public works, but rather an expansion of spending in response to the current crisis. Accordingly, there is virtually no chance that such spending will have a stimulatory affect on the domestic economy.

2. The government could possibly consider some form of assistance for those companies destined for sacrifice by structural reform, as well as for the airlines and service sector directly affected by the September 11 assault. Growth in government spending triggered by such uncontrollable events is not in itself contrary to the fiscal reform agenda, but it has the same effect of increasing JGB issuance and growing the fiscal deficit. For that reason, it will worsen JGB supply-demand and inevitably drive up long-term interest rates unless the level of *rinban* operations is increased substantially. At this point, increased selling of JGBs appears much more likely than a higher level of *rinban* operations.

3. Furthermore, assuming the Koizumi government sticks to its structural fiscal reform agenda, it is very likely to rein in future growth in fiscal deficits, and this makes any substantial decline in the credit rating of JGBs unlikely. Nevertheless, if policies that unavoidably drive up the government deficit are pursued while the economy remains weak and deflation persists, there will be a heightened risk of the credit rating agencies further downgrading JGBs.

4. The U.S. economy deteriorates more than expected, while inventory adjustments in the tech sector deal a blow to economic activity in the service industry and elsewhere.

Although confidence in a future economic recovery over the short term has been lost, we foresee the risk that a share price rally on expectations of demand for reconstruction will drive up JGB yields. That is, that there will be greater prospects for an economic recovery in reflection of the short-term business cycle. Such a short-term business recovery does present the risk of rising long-term interest rates.

5. It is clear that the phase of monetary loosening that has prevailed in the U.S. and Europe is finally nearing an end. In fact, governments are likely to shift focus toward fiscal policies aimed at economic stimulus, and this risks an increase in long-term interest rates in the bond markets of the leading economies. In fact, this could also run the risk of putting upward pressure on Japan's long-term interest rates through exchange rate movements (a weaker yen).

6. In such an adjustment phase with increasing economic volatility, there is unlikely to be any major change in monetary flows. During rising uncertainty over the global situation and the economy, there is not going to be an increase in the flow of capital overseas, but rather a buildup of funds within a country's borders. Nevertheless, given Japan's situation, there is no hope for a future rise in the expected return on yen assets, and capital is likely to be repatriated to Japan and build up. This in itself will serve to increase domestic liquidity and have a positive effect on the bond market, although in actuality, we believe investors will take steps to avoid risk, making long-term rates susceptible to upward pressure.

7. Although primary commodity prices currently appear stable, if the retaliatory strikes are expanded into a global conflict encompassing numerous oil producing nations and other exporters of natural resources, a dramatic increase in the price of primary commodities and a heightening of inflationary pressures is inevitable. Although Japan's current economic situation has drawn only speculation of a worsening of deflation, the possibility of import inflation brought by rapidly rising commodity prices cannot be entirely discounted. It could also be possible that the government will pressure the BOJ into adopting inflation targeting. Even if this does not actually result in inflation, if the market senses the potential for inflation in the future and sells long-term bonds, long-term interest rates will rise. This is therefore one conceivable scenario for a rise in long-term rates.

What Other Risks Must Be Considered?

Considering the above, there will be a need to assume a risk in long-term interest rates rising, in contrast to the previous most likely scenario, which was based on long-term rates not rising. Another potential risk that should probably be taken into account is the possibility that deterioration in the economy is worse than expected, thereby rattling the Koizumi government's base of support and derailing its reform agenda. This would cause a plunge in share prices, further complicate the bank's efforts to clean up bad loans, and require a massive infusion of public funds. Such a scenario would lead to a major increase in JGB selling, including special BOJ financing, and inevitably result in a loss of control over the government deficit. If deflation worsens and overall economic activity shrinks at a greater rate than expected, pushing Japan into a deflationary spiral and financial crisis as occurred in 1997-1998, support for the Koizumi government is likely to evaporate. This would be a step backward to the worst case scenario of wanton, ineffective economic packages combined with continuous growth in the government deficit, reminiscent of previous reform failures played out so often in the 1990s. Of course, this would probably cause a substantial worsening of supply-demand in the bond market, lead investors to demand a major liquidity risk premium for government debt, and result in a surge in long-term interest rates.

Are High Interest Rates Possible in a Recession?

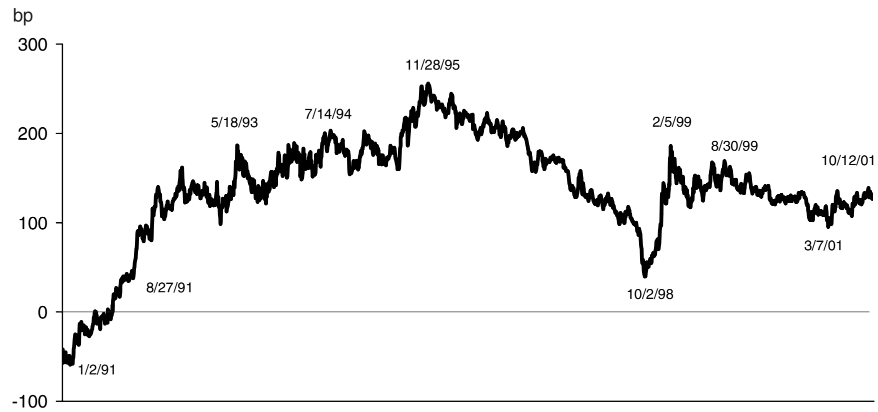
At this juncture, the probability that such a risk scenario will become the main scenario remains low. Nevertheless, that probability is greater than before, given the September 11 assault and the launch of retaliatory strikes. At this point, however, that probability is unlikely to be greater than 50%, and more likely in the neighborhood of 30%. Depending on how events unfold, there is a real danger that the probability of this scenario will grow further to surpass 50%, making it the most likely scenario. This would be the worst possible scenario for the Japanese economy. A rise in long-term interest rates during a recession and steepening deflation would further depress already falling demand for money and deal a decisive blow to demand for capital spending. Accordingly, this is a scenario that the government wants to avoid, and it should try to do so by pursuing structural reform and fiscal reconstruction.

If this scenario does become a reality, yields on ten-year bonds are likely to rise from the current level of 1.4% to 1.6% or higher. Even if investors hold a wealth of funds that could be invested in bonds, they are unlikely to be attracted to long-term bonds, which come with substantial downside price risk. For this reason, the yield curve should steepen dramatically, with the spread between ten-year and two-year JGB yields likely to widen from the current 130 bp to 165-170 bp, the level recorded in February and August 1999. In those cases, the ten-year JGB yield climbed to about 2%. This time, we are not expecting, but can't totally rule out the possibility of, such a high level within a short period. Given that the BOJ's quantitative easing measures are expected to continue for at least the next two years and that two-year JGB yields are sure to stay below 0.1%, widening the spread between ten-year and two-year yields will be almost solely due to a rise in ten-year JGB yields. The yield curve will take on a bear-steepening.

What Are Realistic Options for Investors?

A consideration of such risk scenarios is possible under any type conditions, and there is always a need to envision some sort of risk scenario to counter the most likely scenario. The current situation defies rational estimates and makes it difficult to accurately assign probabilities to the main and risk scenarios. Accordingly, it is critical for investors to be cautious and keep a close watch on how things develop. Adhering to only one specific scenario is not a wise move when emergency conditions prevail. Consider the following as a checklist for investing in JGBs.

Figure 1. **Spread between 10-Year and 2-Year JGB Yields**



- Is Prime Minister Koizumi reacting to the current crisis not only with an emergency spending package but reversing his previous stance and breaking fiscal discipline?
- Are opposition forces within the LDP gaining strength and sidelining structural reform?
- Even if temporary spending pushes JGB issuance above the JPY30 trillion cap this fiscal year, to what extent does the FY2002 budget promote reform of state-run corporations and revisions to government spending?
- Are rating agencies downgrading JGBs and keeping negative outlook? As a result, do investors expect JGBs will be rated to single A status soon?
- Are write-offs of nonperforming loans not moving forward and large amounts of public funds being injected ahead of time, leading to a large increase in JGB issuance?
- Are retaliatory strikes dragging on and spreading to neighboring countries, sparking a rapid rise in primary commodity prices?
- Has an extended economic downturn caused the Koizumi administration's popularity to plunge below 50%? If this occurs, the Koizumi government would suffer a substantial drop in its leadership.
- Will there be a rapid recovery in the U.S. economy driven by accelerating demand for reconstruction, causing a substantial strengthening of the dollar and weakening of the yen, spurring increased expectations for an export-led economic recovery in Japan and raising expectations of inflation caused by imports? One measure of this could be whether the yen weakens to JPY130 against the dollar or beyond.
- Assuming the BOJ adopts inflation targeting and sets the target inflation rate at 1% or higher, does such a move foment future inflationary expectations in the market?

- Share prices continue to fall, making shares appear undervalued and bonds overvalued, even in terms of yield spread, causing funds to flow back into the stock market and drive up share prices. In this scenario, criteria could be set at whether the Nikkei average falls to JPY8,000 or stages a rally to JPY13,000.

If a large number of items on the above checklist are checked off, the risk scenario will need to become the most likely scenario. This would result in a further steepening of the yield curve and ten-year JGB yields climbing way above 1.6%. The probability is still low, but there is a need to be wary of any shift away from policies totally dedicated to structural reform.

If not, Koizumi's program of structural reform can move forward, the potential for a somewhat hard landing of the bad loan problem becomes realistic, and it is likely that crisis-oriented actions will not be taken beforehand, even if dealt with after the fact. Accordingly, the most likely scenario is for Koizumi's reforms to make headway. The Koizumi cabinet continues to chalk up popularity above 70%, while still enjoying broad public support for its determination to press ahead with reform despite the clamoring for an economic package. Although the government will somewhat modify priorities in response to opposition within the LDP and calls from the private sector, it is unlikely to abandon its basic reform agenda. As long as it has the support of the people, the administration should carry the reform banner as long as it is possible. Currently, we estimate the probability of reforms proceeding as planned as 70% and rank the risk of reforms losing out at 30%. Our conclusion, based on this higher probability of the risk scenario occurring, is that ten-year JGB yields are unlikely to fall much below 1.3% under this environment.

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STRESS AND RESPONSE

New economic data keep reinforcing the picture of a deep economic downswing developing in the U.S. before the WTC atrocity. But a wide range of nations have since taken emergency countermeasures to stop a global recession. Galvanized to action, policymakers undertook strong action to deprive terrorists of the satisfaction of creating a recession on top of all the other harm that was done. So now we find U.S. and global markets struggling between some very strong forces—a shock to consumer sentiment and a broad international reflationary effort.

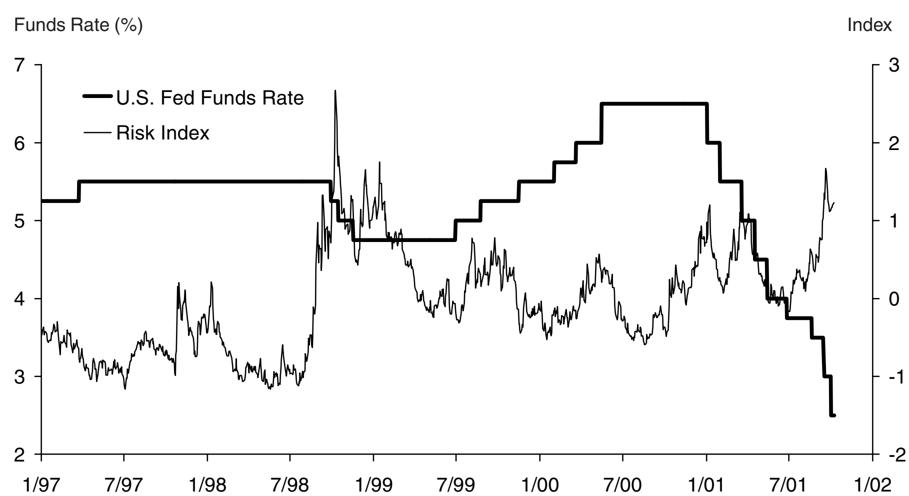
A Disruption Index

Today's financial situation is dominated by uncertainty and risk. So the obvious question is what do we know about the level of risk in the market? We have been using an index of derivative prices as a proxy for risk in the system and to analyze the stress in the U.S. financial system. We believe the chief character of complex market risk can be captured in key prices used by traders and that these prices reflect today's assessment of future risk. We combine these prices into a simple index. It tells an interesting story. A sharp disruption emerged in early 2001, followed by another spike after September 11. According to our index, this has been the most stressful period for U.S. markets since 1998.

U.S. Rates Heal the Harm

As it did in 1998, the Federal Reserve responded to the heightened risk by cutting rates. At the start of the year, the Fed started a rate cutting cycle of about 300 basis points. After the shocks of September 11, the Fed started on a whole new emergency cycle that has already gone 100 basis points so far.

Figure 1. **U.S. Fed Funds and Risk Index**



What is worth noting is the deeper and faster response of the Fed this time around. Presumably the political, financial, and military risk is leading to a more determined response than ever before. The obvious example to avoid is Japan, in which an equity correction started a profound credit collapse. These emergency actions are a preemptive move to such a collapse before it starts. Besides the Fed rate cuts, we also have Congress's spending increases and tax cuts. Whatever the outcome, the obvious thing to say is that U.S. policy is reacting with extreme vigor.

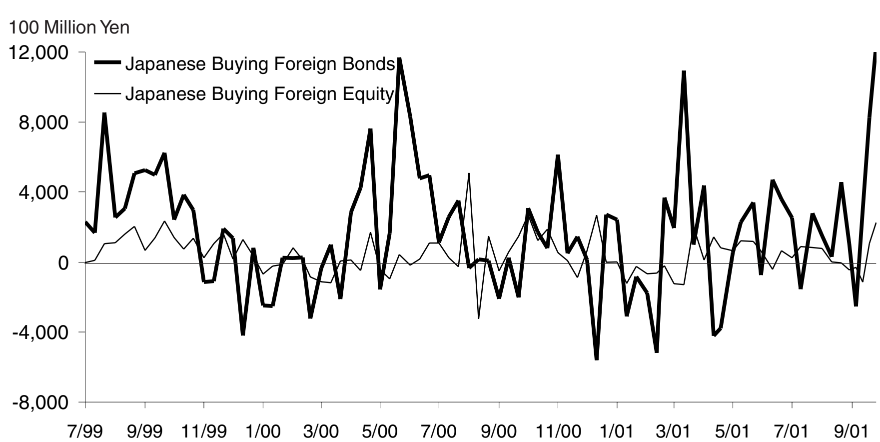
In addition, a broad coalition of developed countries is also pushing policy toward expansion. OPEC has not made a major effort to stop lower oil prices. In Japan, official balance sheets have been used to backstop the flow of capital into the U.S. The latest observation along this line is a jump in Japanese fixed income investment abroad (presumably into the U.S.) during the week of October 1-5.

The Role of Leverage

Our risk index is only one of many used in the markets. A recent IMF Working Paper ("Pure Contagion and Investors' Shifting Risk Appetite," M. Kumar and A. Persaud) looks at the systematic element of risk through an index that involves total return in foreign exchange markets. What we would add is that a long period of risk-taking is *also a period of credit extension*. Some credit goes to real investment, and some goes to new borrowers speculating on rising asset prices. In any case, the deep fundamental drivers of disruption are always reflected in the credit world. That is why an analysis of backward-looking total returns will not be complete as a method for assessing risk.

Consider the great risk blow-ups of the past few years: every one corresponds to an identifiable and instrument-specific withdrawal of credit. In late 1998, U.S.-based deleveraging came with the explosion of relative value trades in emerging markets and core markets related

Figure 2. **Japanese Buying Foreign Bonds and Equity**



to the demise of Long Term Capital Management. In early 2001, it was the deleveraging of corporate balance sheets that was the key vector of risk.

Credit Crunch

Now the issue is whether or not the American *consumer* will be forced into deleveraging. It has not happened yet, but the chance that this could take place is the great policy fear. Right now, American demand is holding up the world economy in the face of sustained U.S. corporate deleveraging. Our corporate retreat from credit has meant a fall in capital goods orders and in employment. Eventually, consumers could react with higher savings rates. Once that starts, a very deep recession is easy to imagine. That fear is exactly why the Fed is so aggressive.

For our style of analysis, the critical thing is the credit cycle. So far there is no real evidence that consumers think money is *not available at any price*, the definition of a credit crunch (that is the situation that some corporate treasurers faced at the end of 2000). Some stress is visible in subprime lending, but much of this credit is passed through into securities in which the risk is mitigated in various ways. So far, the equity or high-risk portions of these structures have suffered market losses, but not to the point at which credit is restricted—yet.

At the same time, credit backed by residential real estate is a fine and reliable currency for mortgage lending, and this has helped offset a subprime contraction. The proof is in an explosion of home refinancing. Because of this, it is hard to see the footprints of a rapidly deteriorating credit crunch facing U.S. consumers.

The Fed and the Cycle

Finding the balance among all these influences is going to be particularly hard from here to year-end. But we can find reasons for optimism in our suspicion that the Fed's overnight rate has an ever greater effect across the global financial system. We think this is because the dollar is increasingly becoming the key currency for global markets, so that a sharply lower interest rate in the U.S. could have surprisingly large systemic effects.

Lower rates should draw out borrowers somewhere in this broader global system. As the cost of credit comes down, some credits somewhere will eventually become attractive. The raw probabilities of profit will become more biased toward investors with even a limited risk appetite. As they succeed, others will follow, and so on. Rock-bottom interest rates will create a risk-friendly environment in time. The only question is how much time is needed.

Market Conclusion

A look at this crisis compared with earlier ones shows the urgent character of the Fed's response. There are good reasons for extremism, most notably the vulnerability of American consumer credit positions. But it is also true that a full credit crunch is not facing consumers. Therefore, we are looking at a broad range of possible outcomes.

Our first conclusion is that this is increasingly a trading environment subject to very wide investor mood swings. That implies counter-trading any short-term trend. But we generally are looking for trades for a six- to twelve-month period. Since policy responses have been and will continue to be radically supportive, they should work in the end. The real trick will be to stick to a disciplined approach to putting on risk when the fears of the moment have gone too far.

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BONDS:

An inside week in the 30-Year Bond (continuation) highlights an important resistance level at 107.08/11. This remains a key hurdle for the bulls, as bears begin to gain ground here. Weekly sentiment remains neutral, now 60% bullish (8-week average of Market Vane) and bearish RSI divergence is a growing concern. Further failure to break through this trend proxy will continue to attract new selling. Key support remains at the 40-day simple moving average and channel low—103.13/102.00. New buying is expected to build down there, trend remains bullish above. A close under 102.00 is required to suggest that a bearish trend shift is underway, setting the stage for a new bear trend.

Closes above 107.08/11 are needed to regain confidence in the long side, triggering a new breakout. Initial targets would be at 108.28. Final targets would be at the 1998 chart high (record) and top of the January 2000 channel—112.07/113.00.

Figure 1. **Weekly Bond Futures (Continuation) with 40-Week SMA and RSI (14)**

5-YEAR

The 5-Year Note (Continuation) continues to consolidate under the yearly chart high—108.27.Bearish momentum divergence continues to build and is a growing concern for the bulls. Market looks a bit overextended, favoring a small correction before resuming the uptrend. Look for setbacks into Oct 19998 chart high—107.03 to find new buying. Key support remains at the 40-week simple moving average—105.02. Bulls remain in control over here.

A close through 108.27 should attract new buying, triggering a new breakout. Initial target, 110.16. Final targets remain at channel high—112.30.

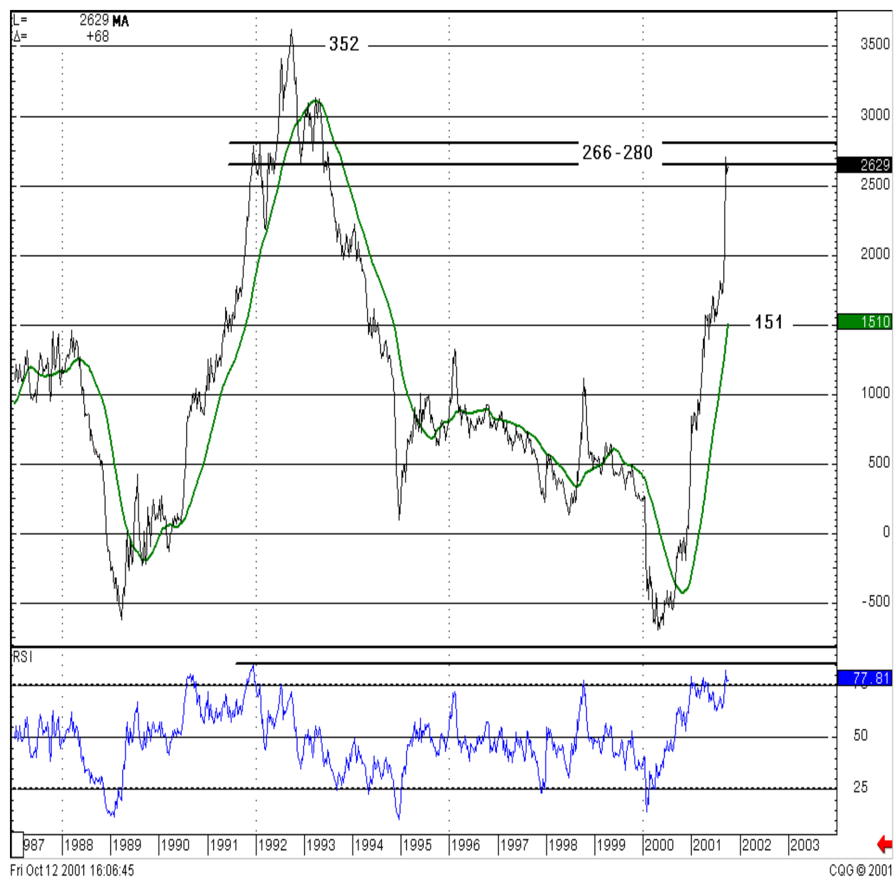
Figure 2. **Weekly 5-Year Futures (Continuation) with 40-week SMA and RSI (14)**

2-30 CURVE

The 2-30 curve is trading just below chart resistance, 266-280, coming off of record levels in recent weeks. The weekly momentum measures, RSI (14) remains in overbought territory at 76% favoring an end to the vertical steepening trend that has been in place since May 2000. Better flattening pressure is expected into 266/280. The 1993 high is 352.

Key near term support is at 203-197. Expect initial steepening interest here. Key weekly trend support remains at the 40-week simple moving average, 151. The intermediate trend stays bullish above.

Figure 3. **Weekly 2-30 Curve with 40-week SMA and RSI (14).**



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PORTFOLIO STRATEGIES IN TIMES OF UNCERTAINTY: BENCHMARK REPLICATION

The potential for continuing dramatic movements in short-term interest rates and credit spreads in the U.S. and global bond markets makes close index tracking a reasonable tactic even for those fixed-income managers who normally pursue active strategies. An additional argument for switching to passive benchmarking at least for the rest of 2001 is that many managers, who correctly anticipated a series of Fed tightenings as well as spread product performance, may wish to preserve the healthy year-to-date outperformance they had produced by the end of September.

Over the last decade we have developed a number of strategies and tools for replicating most of the widely used Lehman indices. The two main categories in which all strategies fall are replication with cash securities (proxy portfolios), and replication with derivative instruments (futures and swaps). The variety of replication strategies makes it possible to reflect objectives and constraints of different investors. In markets with considerable idiosyncratic risk, bond portfolios may better match issuer distribution of the replicated benchmark. On the other hand, derivatives strategies help maintain index tracking in portfolios with dynamic cash inflows and outflows. Currently, when many mutual funds experience higher-than-usual activity, derivatives replication strategies may prove very useful. In the brief review that follows, we revisit our major index replication techniques and present their historically simulated performance.

Replication with Proxy Portfolios

We have consistently demonstrated that relatively small proxy portfolios of liquid securities can replicate broad indices quite successfully. The replication portfolios can be built using one of two approaches – by an optimized sampling process, or via tracking error minimization using Lehman multi-factor risk models.[1]

Optimized Sampling Replication Techniques

Sampling techniques represent the "common sense" approach. To replicate an index one breaks down the set of index securities into cells along one or more important risk dimensions. Then, all major cells are represented by a few, preferably liquid, securities. The total weight of securities in a particular cell is usually computed to match that cell's contribution to overall index duration. The drawback of this approach is that a mismatch to the benchmark in any cell appears to be equally important. In reality, matching some cells is more critical than matching others because return (or spread) volatility associated with them is higher. Sampling techniques also ignore correlations among cells. On the other hand, sampling strategies are usually straightforward, intuitive, and model-independent.

Most recently, we have applied optimized sampling to replicate the Lehman High Yield and Global Aggregate indices.

[1] For the U.S. risk model see *The Lehman Brothers Multi-Factor Risk Model*, Lehman Brothers, July 1999. A multi-factor risk model for euro-denominated assets was introduced earlier this year.

We developed three strategies to replicate the High Yield Index.[2] The first ("issuer strategy") invests only in the largest issuers in the index and does not explicitly control for Treasury duration, thus assuming that idiosyncratic risk is a key component of returns volatility in the high-yield market. The second ("structure strategy") matches market weights and contributions to spread duration within each sector/quality bucket of the index, matching the overall index spread duration. In addition, this strategy also matches both Treasury duration and convexity of the index. Finally, the third strategy ("structured-issuer strategy") is similar to the second one but further reduces the list of eligible bonds to one (largest) security from every issuer in the index. This strategy combines the emphasis on issuer diversification of the first strategy with the index structure matching of the second. As a result, the tracking error it produced was the lowest of all three strategies. Figure 1 shows performance results of all three strategies.

The Lehman Brothers Global Aggregate Index offers comprehensive coverage of global investment-grade bond markets and is fast becoming an attractive benchmark for investors interested in global spread products. We propose methodologies for constructing relatively compact proxy portfolios of liquid securities, which reliably replicate this very diverse multi-currency index. The replication portfolios are built using an optimized sampling process that maximizes portfolio liquidity subject to a number of constraints. The techniques we propose do not pursue very close tracking, and make the same compromises that investors are likely to make in real life. The holdings are limited to the most liquid bonds in the four major currencies – USD, EUR, JPY, and GBP – that together account for over 95% of the index market value. All the other currencies are mapped onto one of these four.

[2] *High Yield Index Replication*, Lehman Brothers, in *Global Relative Value*, March 2001.

Figure 1. **Replication of the Lehman High Yield Index with Proxy Portfolios**
January 1993 – December 2000

Number of Issues	**Mean Outperform. Error** (bp/month)	**Tracking** (bp/month)	**% Of Variance Explained**
Issuer Strategy			
20	18.8	90.4	63.4
40	11.4	68.6	78.9
60	8.3	58.0	84.9
80	8.5	50.9	88.4
100	8.1	46.2	90.4
Structure Strategy			
46	4.6	67.4	79.6
78	2.3	52.6	87.6
Structured-Issuer Strategy			
46	4.7	46.1	90.5
78	0.8	37.9	93.6

We developed three strategies that differ in the breadth of the investable universe.[3] The simplest (Treasury-only) is limited to treasury securities of the four currencies and replicates index allocations across currencies and term structure. The second strategy (Treasury-plus) begins to address spread exposure by including agency and collateralized securities. Finally, the third strategy (All-sectors) includes replication of all major credit sectors in the index.

All strategies match two index cell attributes: market value and contribution to duration. The sampling is done along five dimensions: term structure, quality rating, sector, currency bloc, and country bloc. Constraints are also applied to combinations of these dimensions, such as sector by country, and quality rating by country. Figure 2 presents a performance summary for the three replication strategies.

Tracking Error Minimization Techniques

Multi-factor risk models use historical variances and correlations of risk factors (covariance matrix) to translate structural differences between the proxy portfolio and benchmark into an expected tracking error. While sampling techniques attempt to match the index risk parameters explicitly, optimization capabilities of risk models can be employed to create *minimum tracking error* portfolios without requiring any explicit decisions about relative importance of various risk dimensions. Such optimizers may ignore a significant structural mismatch that historically did not result in large return volatility and instead deploy more securities where achieving a good match matters the most from the historical risk perspective.

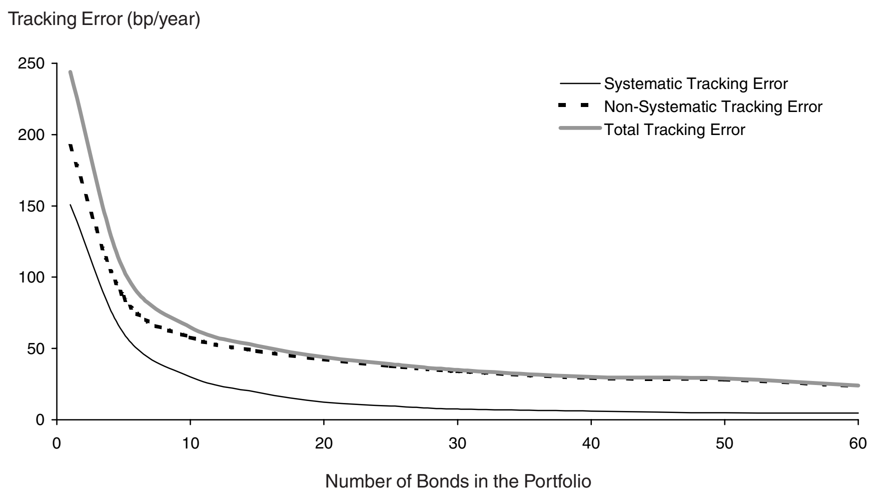
The U.S. multi-factor risk model has been extensively used over many years to construct replicating portfolios for investment-grade credit portfolios. A graph in Figure 3 shows the dynamics of tracking error decline as the number of bonds in the proxy portfolio grows. It is evident from this graph that it takes only 25-30 securities to essentially eliminate systematic risk, leaving only the special or idiosyncratic component.

[3] *The Replication of the Lehman Global Aggregate Index with Cash Instruments*, in *Global Relative Value*, September 2001.

Figure 2. **Replication of the Global Aggregate Index with Proxy Portfolios**
February 1999–May 2001

	Treasury-Only	Treasury-Plus	All-Sectors
Average Number of Bonds in the Replicating Portfolio	22	28	51
USD Tracking Error (bp/month):			
Hedged	11.7	6.3	4.2
Unhedged	13.3	7.7	5.9
USD Average Monthly Return Difference (bp):			
Hedged	-2.7	-0.8	0.0
Unhedged	-2.4	-0.4	0.5

Figure 3. **Portfolio Tracking Error as a Function of Number of Bonds**



The tracking error minimization approach has also been successfully applied to replicate the Lehman MBS Index.[4] Unlike most bond indices, the MBS index contains only non-traded "generic" securities. As a result, the replication process has to start with forming the tracking proxy portfolio out of these generics and then proceed to select actual mortgage pools for each generic. The added layer of decision-making has a potential for additional tracking error.

The replication of the MBS Index by stratified sampling techniques described above would direct investors to buy certain amounts of seasoned product at the outset of the portfolio. The obvious benefit is the close replication of the benchmark from the very beginning. However, seasoned pools may be difficult to obtain. More importantly, investors buying seasoned products might be delivered small pools that create a real possibility for the added tracking error. Ensuring that all seasoned holdings are implemented with large pools is difficult, if not impossible, in practice. Finally, MBS replication by sampling requires the investor to have full back-office capabilities for MBS transaction processing from day one. To address this problem we developed two practical strategies that rely on the Lehman risk model and let the investor build MBS transaction processing capabilities gradually while being fully invested in the market. Both strategies create an optimized mortgage proxy portfolio at the end of each calendar quarter. The two strategies differ in terms of their definition of the investable set. The first strategy (TBA-only) uses only TBA contracts on

[4] *Tradable Proxy Portfolios for the Lehman Brothers MBS Index*, Lehman Brothers, July 2001.

actively traded, recently originated mortgage coupons. As the composition of the new-issue mortgage market changes over time, this strategy adjusts its holdings of TBA contracts so as to always reflect the most recent and active portion of the mortgage market. The second strategy (Large Pools-only) buys large MBS pools of current production but allows some holdings to remain in the portfolio and season over time. In both cases, the resulting proxy portfolio is rebalanced quarterly. The results for both strategies are summarized in Figure 4.

Replication with Derivatives

Derivatives can effectively reduce the number of dimensions in the portfolio management problem. Their use also simplifies asset allocation shifts and deployment of cash inflows. Managing cash with derivatives that replicate the benchmark risk parameters can be especially useful in the startup phase, when diversified cash investments in tradable sizes are not feasible. Over the last years we conducted a number of studies on the replication of bond indices with derivatives.

The earliest and simplest technique developed was a variation of the cell-matching approach applied to the replication of the term structure exposure of any fixed-income index with Treasury futures[5] . We have developed and tested a methodology, implemented by a number of investors, that employs a proper mix of four Treasury futures contracts (2-, 5-, 10-, and 30-year) to replicate the curve allocation of an index. The index is divided into four duration cells, and market value allocations and dollar duration of each are matched with a combination of cash and an appropriate futures contract. The cash can be invested in Treasury bills or other, higher-yielding, short-term alternatives such as commercial paper or short-term asset-backed securities.

While term structure exposure can be hedged effectively with Treasury futures, spread risk needs to be hedged separately. The next step in the development of derivatives replication techniques was to introduce Eurodollar futures and swaps in a similar methodology to

[5] *Replicating Index Returns with Treasury Futures*, Lehman Brothers, November 1997

Figure 4. **Performance Summary (bp) for the MBS Index Replication Strategies**
January 1994–May 2001

Monthly Return Difference (Portfolio vs. the Index)	TBAs-Only	Large Pools-Only
Average	-1.2	0.2
Minimum	-18.7	-9.2
Maximum	17.6	23.6
Standard Deviation (Realized Tracking Error)	6.0	4.4
Annualized Realized Tracking Error	20.9	15.2

replicate spread indices.[6] Credit spreads are positively correlated with the TED spread and swap spreads, so replication strategies based on these instruments are better suited to such spread benchmarks as the Lehman Credit and Mortgage indices.

The replication of the Global Aggregate Index extended our derivatives replication capabilities to cover essentially all global fixed-income markets.[7] The Global Aggregate Index presents investors with a portfolio management problem involving multiple yield curves, exchange rates, as well as credit quality and sector components. The currency hedging issue adds another decision making dimension. This diversity of exposures makes the Global Aggregate a particularly good candidate for replication with derivatives.

The replication technique handles index components separately and then combines the resulting portfolios. We showed that the replication of the four largest markets (USD, EUR, JPY, and GBP) is sufficient for a close overall index tracking. All the decisions involved in single currency index replication must be made for each index component. Each local market is replicated when both the term structure and spread exposures are matched.

The multi-currency aspect of this index complicates the issue of cash investing. One alternative is to invest proportional amounts of cash in 1-month deposits in the respective local currencies. This approach matches the currency exposures of the local index components and is a practical strategy for replicating the unhedged index. Another option is to put all cash in the base currency. This is a realistic strategy for managers who replicate the hedged index returns.

Figure 5 presents the replication results for both unhedged and hedged Global Aggregate Index. Two distinct replication strategies are shown: one uses all-Treasury futures portfolio; the other adds swaps. In the all-Treasury portfolio, the U.S. Aggregate portion of the index is replicated with a portfolio of four Treasury futures contracts. The Euro-Aggregate replication uses a portfolio of 2-, 5-, and 10-year German Treasury futures contracts. The replications of the Japanese Yen and Sterling components both use a single 10-year Treasury futures contract.

Conclusion

We have developed and tested a number of techniques that can be used to replicate most of the widely used Lehman indices, from the single-currency single-exposure Treasury Index to the High Yield Index to the extremely diverse multi-currency multi-sector Global Aggregate Index. The methods we studied and tested historically allow index replication with either liquid proxy portfolios or with derivative instruments such as futures and swaps in various currencies.

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[6] *Replication of Index Returns with Treasury Futures, Eurodollar (Euribor) Futures and Swaps,* Lehman Brothers, March 2000.

[7] *Replication with Derivatives: The Global Aggregate Index and the Japanese Aggregate Index*, Lehman Brothers, March 2001.

Figure 5. **Replication of the Global Aggregate Index with Derivatives**
February 1999–May 2001

					Unhedged Index		Hedged Index	
	U.S. Aggregate	**Euro Aggregate**	**Yen Aggregate**	**Sterling Aggregate**	**Tracking Error**	**Mean Outperform**	**Tracking Error**	**Mean Outperform**
All-Treasury Strategy	Treasury Futures	Treasury Futures	10-year Treasury Futures	10-year Treasury Futures	20.8	4.2	20.5	1.5
Treasuries and Swaps Strategy	Treasury Futures and Swaps	Swaps	Swaps	Swaps	10.9	2.0	11.5	-0.8

We demonstrated that with either approach we can replicate the broadest market indices with tracking errors that are acceptable to the majority of investors. All strategies are flexible and can be easily customized along multiple dimensions to suit particular needs of individual portfolios.

In the weeks and months after the disaster that sent the global financial markets into turmoil, we expect that passive benchmark replication may prove to be the strategy chosen by many managers to control their risks until the markets stabilize.

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EQUITY VALUATIONS: LESS UNCERTAIN THAN THE ECONOMY

We have been emphasizing over the past several weeks that, following September 11, the economic outlook suddenly became much more than usually uncertain.[1] And we have sought to quantify the range of uncertainty by showing both a plausible "good outcome" and a plausible "bad outcome." Currently, we assess the probabilities of the two at 65:35, respectively.

But this extreme uncertainty does not necessarily extend into all financial markets. For equities are now, by our calculations, showing clear signs of real value, almost regardless of the economic outlook. Consider.

By our calculations, global equity markets are currently priced both for a 16% decline in earnings next year and for no recovery in 2003. Given that earnings are likely to have fallen by some 9%-odd this year, a further fall of 16% for next year is conceivable, if unlikely—our "bad outcome" scenario, were it to eventuate, might just about deliver that. But no recovery in earnings in 2003? That really does seem unlikely.

True, part of the current attraction of equities lies with the lack of investment alternatives: long rates both in nominal and in real terms are low, while U.S. real short rates are negative. But equally there is clear evidence that sentiment towards equities has soured considerably over the past six months. Our flow-based sentiment indicators, for example, have collectively reached the cyclical extremes seen in September 1992, March 1995, and, most recently, October 1998. These were periods of investor capitulation, when the economic backdrop was so ugly that equities were deemed not worth owning, irrespective of the price: and they coincided with equity valuations that looked as cheap as they do today. In the 12 months following these three periods, global equities delivered an average return of 26%.

Now, it could be that the past will be no guide and that investors will henceforth demand a significantly higher risk premium. Maybe; but we see no evidence of that, so far at least. Certainly, the realized volatility of equities, relative to that of bonds, gives no hint that investors consider that the current levels of economic and political uncertainty will be sustained over the coming years. Rather, the relative volatilities suggest that the overriding concern for equities has been the "New Economy" bubble and its impact on the risk profile of equities, which looks to have been on a diminishing trend since the bubble has been deflated.

None of this is to say that equity markets have necessarily reached a bottom; that they are now good value does not necessarily prevent them from falling further. And neither does any

[1] See "Risks Still Underestimated," *Global Weekly Economic Monitor*, September 21.

of this mean that equity markets are set for a secular bull market. More likely is that corporations will spend the coming years clearing out the excesses built up over the second half of the 1990s, which would imply a focus on balance sheet improvement and a lowering of the cost of capital at the expense of earnings growth. But this very process will make equities look less risky and should allow for multiples to be sustained in their high teens.

We judge that against such a backdrop, equities are likely to remain range-bound for a number of years. But within this framework, there can be many good buying opportunities: and we judge that, with equity markets now probably near the bottom of that range, they offer just such an opportunity.

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DARKEST BEFORE DAWN?

Evidence of economic damage from the terrorist attack continues to accumulate. Despite $40 billion in rebate checks, retail sales plunged 2.4% in September (-1.6% excluding autos). The risk is that sales remain depressed in October as consumers continue to worry about the job market, the war, and terrorist threats. On a more positive note, initial jobless claims dipped from 535,000 in the last week of September to 468,000 in the first week of October. However, this is still a recessionary level and points to a dismal October employment report—with a likely 300,000 payroll drop and a 0.3% rise in the unemployment rate. In the week ahead, look for more bad news for September, with large drops in both industrial production and retail sales. While the September data are clearly distorted and do not necessarily tell us much about the longer-term outlook, they do suggest a very weak 3Q and 4Q GDP. We have not officially lowered our -1% forecast for 3Q, but the risks are on the downside. We have lowered our "weighted average" GDP forecast for 4Q from -1.4% to -2.5%, and, at a minimum, we expect the Fed to cut rates by 25 bp at both the November and December meetings, with more cuts to come if the economy continues to slide.

Below, we take a closer look at the prospects for fiscal stimulus and the impact on the budget deficit. In addition, we also take a look at recent anecdotal reports that suggest the economy is actually a bit stronger than the official data suggest.

The Outlook at a Glance

	2001				2002				
	1Q	2Q	3Q	4Q	1Q	2Q	2000	2001	2002
Real GDP	1.3	0.3	-1.0	-2.5	-0.2	1.7	4.1	1.0	0.3
Domestic final sales	3.3	0.8	-1.4	-2.8	-1.1	0.9	5.2	1.9	-0.2
Inventories	-2.6	-0.4	-0.2	-0.4	0.9	0.9	-0.1	-1.0	0.4
Net trade	0.6	-0.1	0.5	0.7	0.0	-0.1	-0.7	0.1	0.2
Unemployment rate	4.2	4.5	4.9	5.5	5.8	6.1	4.0	4.8	6.1
Consumer prices	3.5	3.3	2.6	2.7	2.6	2.6	3.4	2.7	2.6
Core CPI	2.7	2.6	2.6	2.6	2.3	2.2	2.4	2.6	1.8
Fed funds	5.00	3.75	3.00	1.91	1.90	2.14	6.50	1.91	3.29
TSY 2-year note	4.55	4.20	2.90	2.60	2.71	3.00	5.71	2.60	4.04
TSY 5- year note	4.80	4.90	3.90	3.68	3.72	3.94	5.55	3.68	4.72
TSY 10-year note	5.04	5.30	4.60	4.43	4.46	4.68	5.56	4.43	5.12
TSY 30-year bond	5.45	5.65	5.35	5.20	5.09	5.22	5.69	5.20	5.52

Notes: Real GDP and its contributions are seasonally-adjusted annual rates. Unemployment is measured as a percentage of the labor force. Inflation and employment costs are year-on-year percentage changes. Interest rate forecasts are end-of-period. Table last revised Oct 9.The figures in this table reflect a weighted average of a realistically optimistic and pessimistic outturn. We assumed the optimistc will occur with about a 65% probability.

Fiscal Fade?

Prospects for the budget surplus have bounced up and down in recent weeks, but have taken a bond-market unfriendly turn most recently. A week ago, it appeared that a balanced package was taking form, equivalent to 1% of GDP and focused on programs that provide immediate stimulus to the economy but do not prevent a surplus from recovering with the economy. It appeared that the surplus would drop toward zero in FY02, but would rebound back toward $100 billion in subsequent years. In the last week, however, the budget process has shifted in two ways that bode ill for the surplus:

- **Loss of central control by the Bush administration:** With the social security constraint temporarily removed, Congress has returned to its modus operandi of using up any surplus funds it can find. The Democratic-controlled Senate is pushing for spending increases and help for low-income workers; the Republican House is pushing for broad-based tax cuts. This leaves it to the Administration to impose priorities and discipline on the process. In the last week, the Administration appears to have backed away from that role.
- **Increased influence of conservative Republicans:** Chastened by the conservative Republicans, the Bush Administration seems to be allowing a broader range of tax cuts to be put back on the table. Unlike the Eisenhower-type conservatives of the past, the current Reagan era conservatives believe tax cuts are a much higher priority than budget balance.

The budget outlook remains very much up in the air, but as Figure 1 illustrates, we have downshifted the range of possibilities. Changes in budget expectations have already been driving the markets—in the past week, optimism about tax cuts buoyed the stock market, while concern about the surplus hurt the bond market.

Lies, Damn Lies, and Anecdotal Evidence

The fluid economic situation is causing a renewed focus on anecdotal and second-tier economic indicators. The bad news is that air traffic is still about 30% below the pre-attack peak, mortgage applications for home purchases are down about 12% from

Figure 1. **Budget Balance Scenarios for FY02**

	Unemployment (2002 average)	Size of package $100 billion	$150 billlion
"Bad"	**5.5**	$40	($10)
"Average"	**6.0**	$20	($30)
"Ugly"	7.0	($20)	($70)

Note: The package in the table covers all legislation since the attack ($40 billion emergency package, $5 billion cash for airlines and other proposed programs) but does not include the previously enacted tax cut.

pre-crisis levels, and apparel sales remain very weak. The good news is that Broadway ticket sales have come roaring back; Las Vegas bookings are recovering; Wal-Mart, the nation's largest retailer, reported sales up 6% y-o-y in September and early October; and auto sales are running at a very strong 17.5 million annualized pace. Meanwhile, consumers seem to be in a manic-depressive mood: the Michigan consumer sentiment index plunged to recessionary levels in late September, but consumer comfort has been inching up since the crisis.

What does all this tell us? Probably not much. Almost all of the near-term data are distorted by powerful cross-currents. Surveys of confidence and buying intentions are being buffeted by the powerful emotions unleashed by the attack—patriotism and faith in America at one end and fear of the future at the other end. The attack has also caused some shifting of spending both across time and across sectors. The sharp recovery in some activities is influenced both by a catch-up from delayed plans and very aggressive advertising and discount offers. Clearly, the September data are distorted by the immediate disruptions from the attack, and October data are distorted by the recovery from the attack. Uncovering the true underlying trend will be difficult.

We continue to be concerned that recent labor market trends will pull down the rest of the economy over the next several months. Recent jobless claims data point to an October job drop of 300,000 and a rise in the unemployment rate from 4.9% to 5.2%. Recall that the 0.4% jump in the unemployment rate in August caused consumer confidence to tumble in early September. This apparently offset any benefit from the $40 billion in tax rebates in August and September. The risk is that the October labor market data cause a replay of this negative feedback to the consumer.

Darkest Before the Dawn

While the near-term data are heavily distorted, one thing that is clear is how weak the economy was going into the crisis. Given this weak starting-off point for 4Q, we are revising down our near-term GDP forecast. The two most important indicators of supply and demand for the economy—hours worked and consumption—both point to a sharp drop in 4Q GDP. Aggregate hours fell 0.3% in September—before the attack—and given the surge in layoffs since the attack, we expect them to fall almost 1% in October. Even if hours stabilize for the rest of the quarter, they will fall at a 4% annual rate for the quarter. A similar argument holds for consumer spending. Lower spending in September and October virtually assure a decline in consumer spending for the quarter. As a result, we have lowered our forecast range for 4Q from -1.0 to -2.3, to -1.5 to -4.0%.

Given this weakness, we have added another rate cut to our forecast. The Fed has cut rates 100 bp in less than a month, so some slowing in the pace of easing seems likely. On the other hand, it will be hard for the Fed to go on hold given the dismal flow of economic data. Even in our optimistic scenario, 25 bp rate cuts at the November and December meetings seem likely. Under the pessimistic scenario, one of the near-term easings will probably be a 50 bp move, and another 100 bp of cuts are likely next year. The funds future market currently expects the funds rate to fall to about 2.1% by year-end and then stay there for several months. The balance of risks is clearly for more than expected rate cuts.

Economic Indicators and Treasury

This week brings "damage" assessment for the housing and manufacturing sectors. A trend-like CPI report is likely, but the markets will likely look beyond the data to October's expected soft report.

Monday, October 15: We look for **business inventories** to slump 0.4% in August, dragged lower by a similarly steep retrenchment in manufacturing stockpiles. As demand has continued to weaken, businesses have been quick to trim inventories, especially in the automotive sector, where retailers hope to avoid the sizable overhang that cropped up earlier this year.

Tuesday, October 16: The **industrial production index** will likely contract sharply in September. We anticipate production will shrink 0.7% in September, following a similarly dismal 0.8% drop-off in August. This expected decline in production will likely sink the capacity utilization rate to only 75.5% and its lowest level since the deep 1982 recession.

Most of the weakness this month will come from the manufacturing sector, which accounts for nearly 90% of industrial output. Despite the surprising lack of visible damage to the factory workweek from the attacks, the manufacturing aggregate hours index, which reflects both hours *and* employment, shrank 1.2% in the month. Moreover, there were numerous anecdotal reports of plant shutdowns in the immediate aftermath of September 11, which reflected, among other things shipping delays. As a result, we expect manufacturing output will contract almost 1% in the month.

An increase in utility output, will only offset a small portion of the decline in manufacturing output.

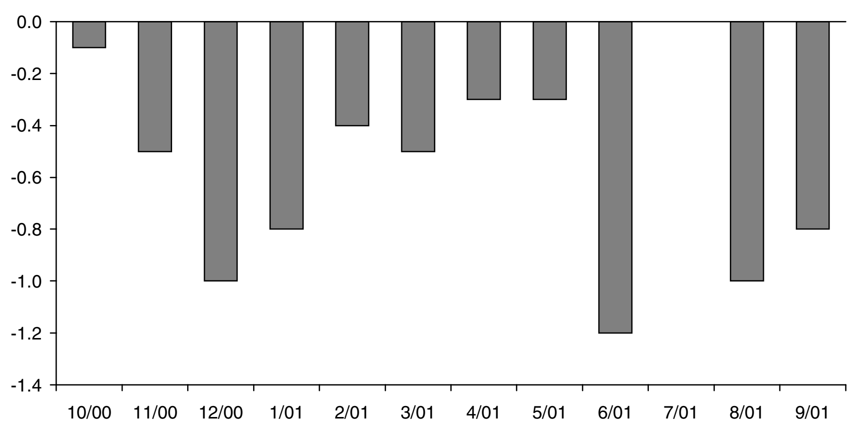
Figure 2. **New Forecast Ranges**

	2001		2002			
	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP						
Good outcome	-1.0	-1.5	2.0	4.0	4.2	4.2
Weighted mean*	-1.0	-2.5	-0.2	1.7	2.5	3.9
Bad outcome	-1.0	-4.2	-4.3	-2.5	-0.7	3.5
Fed funds rate						
Good outcome	3.00	2.00	2.25	2.75	3.50	4.25
Weighted mean*	3.00	1.91	1.90	2.14	2.54	3.29
Bad outcome	3.00	1.75	1.25	1.00	0.75	1.50

* Weights are 65% for the good outcome and 35% for the bad outcome.

Figure 3. **Capacity Utilization,** %

Figure 4. **Industrial Production, Manufacturing,** % month-over-month



Looking ahead, we expect industrial production to weaken further in the coming months, with the capacity utilization rate slipping close to 73% by mid-2002. Against this backdrop, the Fed will continue to pull the interest rate lever.

The **National Association of Home Builder's** home building activity index is likely to fall in October to 50, from 55 last month. As recently as last year, the index was approaching 80. Home-builders are growing increasingly nervous about the near-term outlook for home construction.

Wednesday, October 17: Housing starts probably fell 4.4% in September to 1.460 million units—their lowest level since August 1997. New construction probably tapered off in September, as construction workers were diverted to other activities and cleanup. At the same time, some builders may have decided to delay new projects because of uncertainty about the economy.

Similarly, the mounting uncertainty about financial and labor markets is expected to translate into reduced demand for new homes. We expect **building permits** will fall off in the month, slipping 2.2%, to 1.537 million units, although a much bigger decline is possible if many regional offices were shuttered during the week after the attack, preventing filings.

In the long run, however, the outlook for residential construction will depend heavily on the interplay between consumer confidence and interest rates. While the lowest mortgage rates in decades are likely to stimulate demand, they probably will not be sufficient to offset consumer anxiety about labor and financial markets. Ultimately, we expect housing demand, which until September 11 had been one of the economy's sole remaining pillars, will stabilize around these levels, before rebounding late next year.

Thursday, October 18: Initial jobless claims are expected to rise a few thousand to 475,000 in the October 13 week.

The **Philadelphia Fed survey** is expected to retreat in October to -15.0 from -7.3 in September. The September survey did not incorporate the impacts of the September 11 attack, which we anticipate will show up in the October report.

Although we expect these effects will ultimately drag the Philadelphia Fed survey lower in October, the forecast is very murky. On the one hand, the economy was already quite weak before September 11 and nearly 100,000 factory workers were laid off in September. But, on the other hand, the Chicago area index and the national index, both of which captured some of the post-attack effects, were unexpectedly strong, revealing the presence of a "patriotic rally" effect. Our guess is that any patriotic rally, should it show up in the October Philadelphia Fed index, will prove short-lived, as a number of businesses have already begun cutting back production and orders.

Friday, October 19: An energy-related kick to gasoline prices is expected to push the overall **CPI** up 0.3% in September, or 2.6% year-over-year. Outside of energy prices, however, the **non-food, non-energy index** is expected to be up 0.2%, or 2.6% year-over-year. Although the Fed's primary focus right now is on stimulating economic growth, the moderation in consumer prices is probably a relief to some of the hawks on the FOMC, who earlier this year were concerned about inflation.

Figure 5. **Philadelphia Fed Survey**

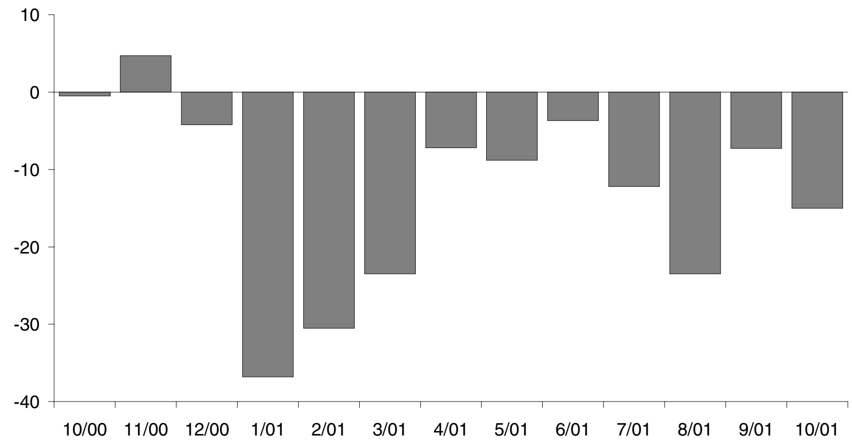
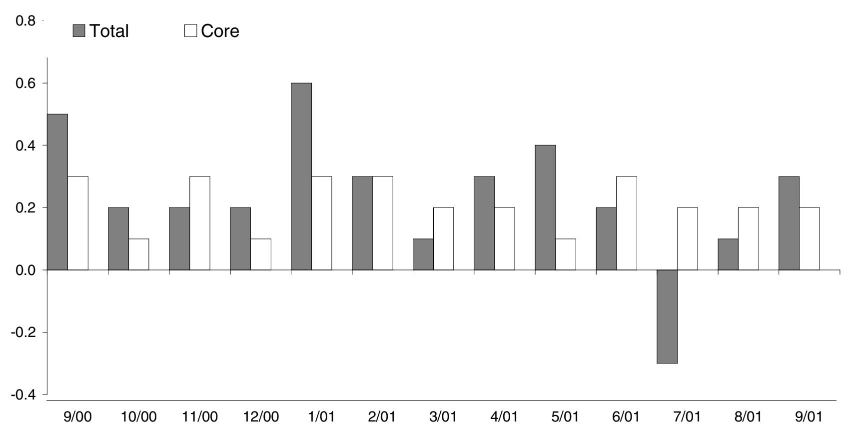


Figure 6. **CPI,** % month-over-month



Gasoline prices probably rose almost 2% in September, reflecting sharp increases early in the month in the aftermath of September 11. Almost immediately, however, gasoline prices started to fall with price declines extending into October. Still, the early strength in gasoline prices is likely to push CPI energy up 2% in September. Next, month, however, the data will be decidedly more friendly, with the headline index rising only a tenth or so. Elsewhere, we expect food prices to post a trend-like 0.2% gain.

Meanwhile, core prices are expected to be well behaved this month. Differences in the accounting of new vehicles and quality improvements mean the CPI does not suffer from the same kind of volatility that often crops up in the PPI. With no surprises from autos or tobacco prices, the September core figures should be quite dull.

Among the components, we look for steep apparel discounting to largely offset stronger medical costs, as both sub-indexes have roughly the same weighting in the CPI. Moreover, shelter costs are expected to rise a trend-like 0.3%, although we expect to see this index soon decelerate as hotel vacancy rates rise and travel slows to a halt.

We look for the **trade deficit** to widen a notch, to $29.0 billion in August, compared with last month's gap of $28.8 billion. Exports likely decreased 2.2%, to $81.9 billion, after falling in July by 2.5%. A combination of the weakening global economy with a surprisingly robust dollar will combine to push down the world's appetite for U.S. goods. Imports likely fell 1.5% to $110.9 billion, following a 2.1% July decline. American demand for imports probably slipped, although not enough to offset the expected decline in exports and resultant widening in the trade deficit.

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POLICYMAKERS STILL ASSESSING THE SCALE OF THE DAMAGE?

How We first Reacted To 11 September…

A month on from the terrorist attacks and perhaps it is worth stepping back and asking if our first reaction to the events was the right one? At the time, we gauged that growth prospects had been dented; that the outlook for inflation was rather less affected; and that, consequently, central banks would respond to the situation by cutting rates. How much the outlook had changed, however, was to us a question that we felt we should be humble about trying to answer.

Most important of all, in our view, was the unknown scale of the impact of the terrorist attacks on confidence—given, for example, how difficult it is to know how the political situation in the Middle East will pan out. All that we could say with confidence was that there had been a *huge* increase in uncertainty concerning the growth and inflation outlook. Hence, we decided to drop "point" or "best-guess" forecasts and instead offer readers a range of outcomes, based initially on sketching out two reasonably likely ("good" and "bad") scenarios. In one of them, Europe would flirt with, but avoid, recession and grow at a reasonable rate next year. In the other, it would enter a recession that would likely be on a similar scale to that experienced in the early 1990s.[1] Of the two, we thought the "good" scenario about twice as likely as the first.

Since then, we have tried to fill out the range of possible outcomes in a little more detail, by examining the historical record regarding the variability of growth and inflation.[2] However, we have left our assessment of the probabilities of the two outcomes unchanged. This week, we take the analysis a step further, by considering what increased uncertainty might mean for official interest rates. In our judgement, markets have so far underestimated how much uncertainty has risen: the tails of the implied probability density functions for short-term interest rates look too thin to us.

Is It Time to Change Our "First Thoughts" Forecast?

In retrospect, we judge that our first reaction to the crisis was a sensible one. For, a month on—and with the west's response only now beginning to take material form—it is still hard to say with any great confidence that one of our two scenarios is not going to happen. Certainly, the fact that a broad coalition has been built behind the military response augurs well for a "good" scenario developing. But, now that guns are being fired and bombs being dropped, it is also clear that there are high, and rising, tensions within some countries critical to (and of) the U.S. administration's approach.

A natural question to ask at this juncture is "what about the probabilities?" Is the chances of a "good" scenario really about two in three? Or have they risen significantly of late? Last week, we pointed out that there has been some favourable news—such as additional fiscal

[1] Real GDP for the European Union fell 0.4% in 1993. That for the euro area contracted 0.8% that year. The UK experienced a drop in real GDP of 1.5% in 1991.
[2] See, in particular, the Technical Annexes in the 21 September and 28 September editions of the Global Weekly Economic Monitor.

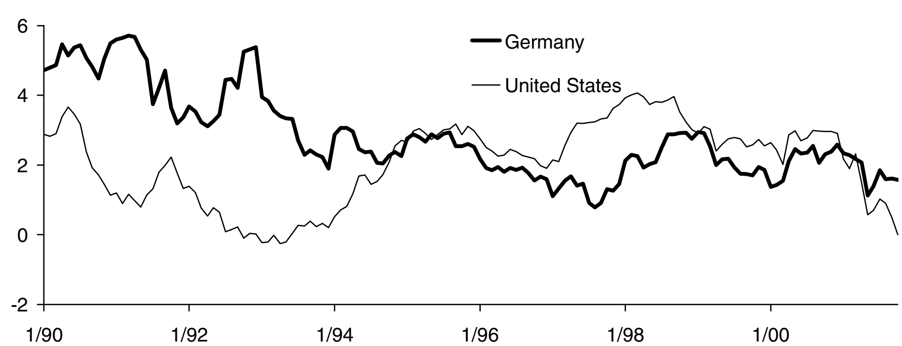
easing in the United States. In our judgement, however, it is still a little too early to change our numbers. Why? Because the political unknowns are still so great: tension is building, but it is difficult to know if a limen is near, that might trigger a reaction. Certainly, the chances of a further terrorist attack remains high. And the Middle East looks far from quiescent.

Policymakers Now In Wait-And-See Mode?

As regards news from Europe itself, our first thoughts regarding how policymakers would react to the situation proved to be broadly accurate. Both the Bank of England and ECB cut rates, following the Fed's example. But both were clearly reluctant to go as far or as fast. Hence the Bank took two bites at the cherry in order to deliver its 50bp. And, having initially followed the Fed one-for-one with a 50bp cut "for psychological reasons", the ECB demonstrated yesterday a reluctance to move further until it is clear what the impact of the 11 September attacks has been on the macro-economy.

A second reason why European central banks are growing reluctant to make further cuts is that they feel that growth prospects look much healthier in Europe than they do in the United States. (The consensus is forecasting that Europe will avoid recession, but that the United States will enter one.) Consequently, they deem that rates a little south of neutral is appropriate, whereas the Fed reckons that a much more aggressive stance is needed to avoid disinflationary pressures. Using consensus expectations of inflation for next year, for example, real interest rates are a little under 2% in the euro area, but close to zero in the United States. An *ex post* measure of real rates gives a very similar impression: U.S. rates are clearly low and European ones merely moderately so (Figure 1). Moreover, the fact that the euro has failed to gain momentum means that, from the ECB's perspective, overall monetary conditions remain supportive of activity. Dollar strength, by contrast, provides a brake on a U.S. recovery.

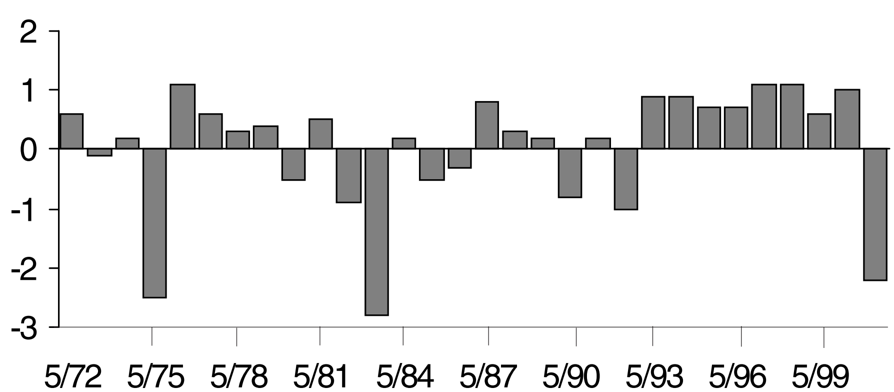
Figure 1. **Real Official Interest Rates in the United States and Germany**
%, Based on Official Rates and Actual Inflation



As regards fiscal policy, European developments also stand in marked contrast to what has happened in the United States. Partly that no doubt stems from the fact that, going into this, European public finances were in less good shape – offering governments less scope to "raid the cookie jar", even if they wanted to. In addition, it reflects the perception that Europe was in less need of stimulatory actions from policymakers. Consequently, apart from policy shifts set in place well before 11 September, no new substantive initiatives have been announced. Rather, policymakers have decided to let automatic stabilisers work – in the sense that the will accept that budget balances will turn out worse than they predicted earlier this year, simply because activity will turn out softer than expected. The consequent hit to public finances will gradually be worked off, as growth returns. (For further details, see *Euro-Area Budgets Take Shape*.)[3] All in all, that means that whereas the US administration looks set to ease the fiscal stance by around two percentage points of GDP next year, in the euro area the equivalent change will be around one tenth that magnitude (Figures 2 and 3).

We certainly share European policymakers' judgement that Europe is in better shape than is the United States, and hence that a less stimulatory policy response is required. Nevertheless, we judge that, in the short term, more policy easing is likely. (Despite having left rates on hold this week, we expect the ECB to return to rate-cutting mode within the next month or so.) Moreover, with risks skewed to the downside in the short term, we assess that current market expectations may prove to be too hawkish. Longer term – looking out, say, to a year from now – we have precisely the opposite view: markets are, in our judgement, too dovish regarding the mode and, more significantly, the skew of the implied probability density function for short-term rates. (For further details regarding the outlook for both United Kingdom and euro-area interest rates, see this week's *Technical Annex*.) More hard to understand, in our opinion, is just how well markets have taken events in their

Figure 2. **Fiscal Thrust in the United States,*** % of GDP

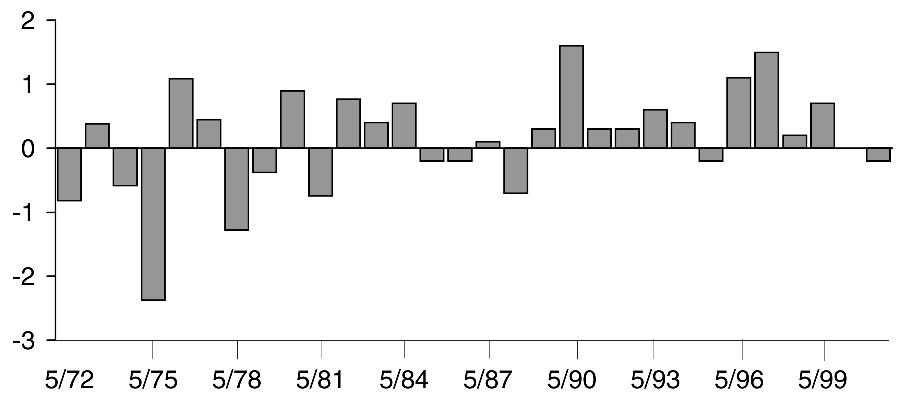


* OECD estimates of changes in the structural budget balance, with Lehman Brothers Global Economics forecasts for 2002

stride. For example, both the EUROSTOXX50 and FTSE100 are now significantly above their month-ago levels. And implied interest rate and equity volatility is lower than on 10 September. Surely, the world cannot be in as good a shape as a month ago? And surely it is a more uncertain one? If so, perhaps markets are currently overly complacent?

[3] The main question mark concerns Italy, where the new government was elected, in part, on a policy stance of cutting taxes. Increasingly, it is looking that those hopes will be scaled down markedly, at least in the short term, in order to restore the budget to balance by 2003.

Figure 3. **Fiscal Thrust in the Euro Area,*** % of GDP



* OECD estimates of changes in the structural budget balance, with Lehman Brothers Global Economics forecasts for 2002.

EUROPE AT A GLANCE

The Euro Area

%		1Q01	2Q01	3Q01	4Q01	1Q02	2Q02	2000	2001	2002
Real GDP:	good	2.0	0.7	0.8	2.7	4.3	3.8	3.4	1.7	3.0
	bad	2.0	0.7	-0.4	-1.5	-1.3	-0.5	3.4	1.3	-0.5
CPI inflation:	good	2.5	3.1	2.7	2.4	2.3	1.8	2.3	2.7	2.1
	bad	2.5	3.1	2.7	2.4	2.6	2.0	2.3	2.7	1.9
Unemployment:	good	8.4	8.4	8.3	8.3	7.8	7.6	8.8	8.3	7.5
	bad	8.4	8.4	8.3	8.5	9.0	9.3	8.8	8.4	9.3
ECB refi. rate:	good	4.75	4.50	3.75	3.50	4.00	4.50	4.84	3.50	4.50
	bad	4.75	4.50	3.75	3.00	2.50	2.00	4.84	3.00	2.50
10-year yields:	good	4.90	5.20	4.98	5.00	5.20	5.50	5.09	5.00	5.50
	bad	4.90	5.20	4.98	4.50	4.20	4.00	5.09	4.50	3.50

Notes: Real GDP growth is at a seasonally adjusted annual rate. Consumer prices are % y-o-y. Unemployment rate is % of labour force. Interest rates are end of period. 10-year yields are GDP weighted. Table last revised 11 October 2001.

The United Kingdom

%		1Q01	2Q01	3Q01	4Q01	1Q02	2Q02	2000	2001	2002
Real GDP:	good	2.6	1.8	1.5	1.9	3.4	4.5	2.9	2.2	3.1
	bad	2.6	1.8	1.5	-1.4	-3.1	-1.8	2.9	2.1	-0.4
RPIX inflation:	good	1.9	2.3	2.4	2.4	2.5	2.5	2.1	2.2	2.6
	bad	1.9	2.3	2.4	1.8	1.7	1.5	2.1	2.1	1.6
Unemployment:	good	3.3	3.2	3.2	3.3	3.4	3.4	3.6	3.3	3.3
	bad	3.3	3.3	3.2	3.6	4.4	5.3	3.6	3.4	5.5
BoE repo rate:	good	5.75	5.25	4.75	4.50	5.00	5.50	6.00	4.25	6.00
	bad	5.75	5.25	4.75	4.00	3.75	3.25	6.00	4.00	3.25
10-year yields:	good	4.77	5.17	4.84	4.85	5.15	5.50	4.90	4.85	5.55
	bad	4.77	5.17	4.84	4.35	4.00	3.80	4.90	4.35	3.60

Notes: Real GDP growth is at a seasonally adjusted annual rate. Consumer prices are % y-o-y. Unemployment rate is % of labour force. Interest rates are end of period. Table last revised 12 October 2001.

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TREASURIES/SWAPS

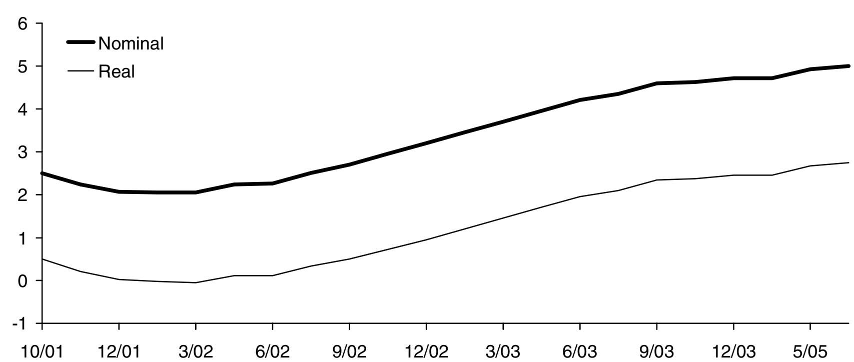
Doug Johnston

The liquid yield curves were fairly stable on the week, with yields rising about 10 bp across the curve. That is not to say the market wasn't bouncing around. In fact, with more concerns about the new war on terrorism and possible retaliation, yields couldn't decide which way to go. The market continues to look for another two eases by the Fed (Figure 1), with the funds rate bottoming out at 2% by the end of the year. After which, the market is looking for the now all-too-familiar recovery and the funds rate is expected to mean-revert to about 5% in due time.

Using inflation expectations from the Philadelphia Fed survey, for the implicit GNP deflator, we converted the Fed expectations from nominal to real rates and show them in Figure 1 also. As short-term interest rates should reflect economic growth, sans a risk-premium, this gives us an idea of what the market expects for the real economy. Real rates are expected to decline to 0%, a rather stimulative level, and then eventually revert back to about 2.75%. The exact level of the appropriate risk premium is debatable (we assume it is between 25 and 50 bp), but it appears that the market expects that the long-term average growth of the real economy is about 3%, still a rather new-paradigmish level.

In our view, there is more risk in a yield curve flattener at the current moment, even though the forward curve is pricing in a fairly aggressive flattening. As the short forwards, which are pricing in the low funds rate, roll off the curve, shorter maturity yields rise the most, as they will proportionally average up higher short rates. Shown in Figure 2 is our estimate of Fed funds expectations, again, but from the vantage point of April of next year (six months from now). Also shown in the figure are two scenarios that we feel are likely, depending on the path of economic growth.

Figure 1. **Estimated Market Expectations of the Fed***



* Derived from Fed funds and eurodollar contracts, as of 10/10/01

Scenario 1 is the shape of the forward curve if economic growth is stronger than currently expected. We would anticipate that if the economy does pick-up by mid-next year, the market will quickly expect a rise in the funds rate to a restrictive level sooner than is currently priced in. In that scenario, we also would expect the market to continue to price the ultimate level of the funds rate near 5%, which shows up in the inversion of expectations beyond the tightening cycle. This is much like what occurred earlier this year. When the market sensed that the Fed was imminently going to ease, it not only priced in the lower rates but also the commensurate tightening risk on the other side of the cycle. Note that the actual forwards would still have an embedded risk premium negating the inversion.

We also show in Figure 2 another scenario, which we believe would occur if the market expects the Fed to remain on hold (at the market's expectation of 2%) until well into 2002 and then revert back to a lower-equilibrium level. This could be a result of investors attempting to extract risk premium out of the yield curve and/or a belief that the longer-term growth potential of the U.S. economy is below the widely expected 3% level. It is important to note that these scenarios are not exact and that the distribution of feasible yield curve scenarios is much richer than these two examples. Rather, these are two modes of our distribution, and our goal is to provide justification for our yield curve flattening view.

Shown in Figure 3 is the resulting "Fed funds" zero-yield curves derived from the expectation scenarios shown in the previous chart. Since Treasuries are rich to Fed funds and LIBOR is cheap, this yield curve would be adjusted for the different asset classes. Each point on the curves is for the original maturity so that, for example, the 2-year point on the forward curve is where the 1 ½ maturity yield is priced to be in six months' time; the hurdle for short positions, if you will. For our analysis, the relative curve shapes, compared with the forwards, are the most important observation. The forward curve is still rather steep, which is due to the elongated rise in the funds rate (tightening risk premium) that is priced into the forward curve. The two scenarios that we examined affect the yield curve in an expected fashion.

Figure 2. **Fed Funds Expectation Scenarios**

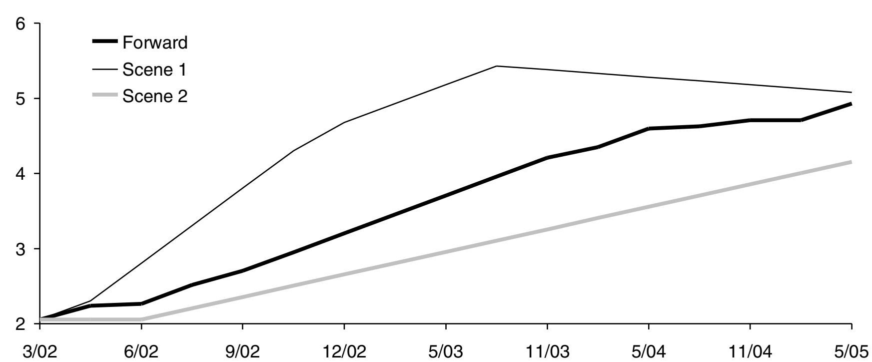
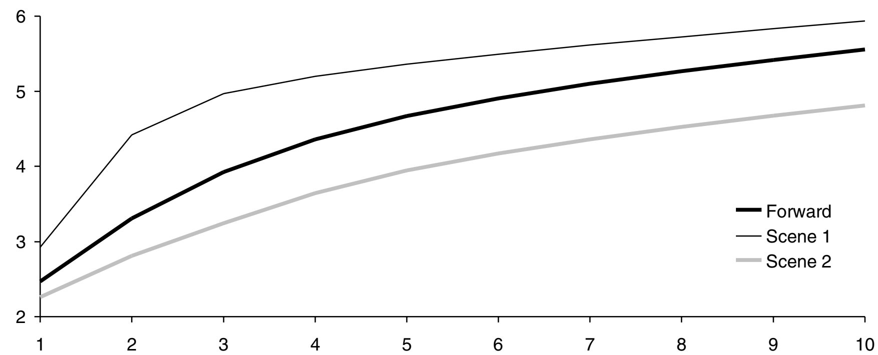


Figure 3. **Resulting Yield Curve Scenarios**



Scenario 1 results in a much flatter yield curve, with the short end selling off better than 100 bp while the long-end suffers much less of a drubbing. In scenario 2, the front end rallies, but in a fairly muted fashion. This reflects our view that there is more risk in short-end rates selling off than vice-versa. In the long end, the situation is reversed, as we don't expect a significant sell-off, due to mean-reversion effects. However, a significant rally-flattener is feasible if the market revises its longer-term average growth assumptions. In this bipolar view of the world, curve flattener positions beat the forwards and look attractive. We continue to advocate the use of the options market for defensive yield curve strategies (See *Interest Rate Strategy–Trade Ideas*, 10/9/01)

AGENCIES

Mukul Chadda
Judy Goldfarb

Overview

The wings of the agency curve outperformed the belly over the week. While we are sanguine about one of the wings–the long-end–continuing its stellar performance, we are not so optimistic about the other. The front end continued its tightening, outperforming Treasuries by 2 bp and swaps by 3 bp over the week. Likewise, the 30-year sector cheapened by 1 bp to Treasuries while richening to swaps by 5 bp. On the other hand, the 5- and 10-year sectors of the curve cheapened by 4 bp to Treasuries while remaining near unchanged to swaps.

The Front End Is Still Too Rich

Agency spreads have been tracking rates across the curve this past year, and while the effect in the back-end has been from convexity-related hedging, the front-end effect has been due to overseas purchases. As expectations of Fed cuts have continually lowered rates, foreign money has been attracted into the short end of the U.S. market. These investments have typically been in agencies, as foreign investors have looked for better yielding assets and diversification of their U.S. asset base. Figure 4 illustrates this by comparing the net increase in foreign holdings of agencies and Treasuries.

This has caused agency spreads to tighten as rates have fallen (Figure 5). 2-year bullets currently trade 20 bp cheap to Treasuries, a level that is the tightest since 1998. Even if the effect of increased Treasury supply were to be factored into determining a new level for short agency spreads, it is hard to argue for levels tighter than the current. In addition, as the yield curve has begun to sell off and flatten, the front end could experience further selling pressure, which would bode ill for short agency spreads.

Figure 4. **Cumulative Net Foreign Purchases,** $bn

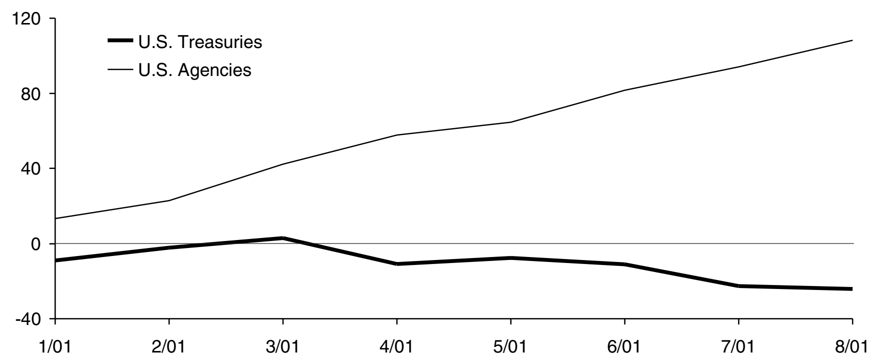


Figure 5. **2-Year Rates and Spreads**

Finally, agency supply is likely to stay focused in the 2- to 3-year sector of the curve as issuers juggle their liabilities up front. A steep yield curve and the steepness of agencies to swaps both conspire to bias issuance in the front end, whether the issue is swapped or not. This, too, would add pressure to front-end spreads.

And the Belly Cheap

Figure 6 best demonstrates the state of the agency curve over the past few weeks–too steep. While versus Treasuries, it is best to move out the agency curve from 2- to 5-years, versus swaps, it is the 5s-10s rolldown trade that has become attractive once again. The long end of the agency curve is beginning to tighten versus swaps, as the absence of panic receiving in the swap market has brought in investors looking for value. With 5-year agencies close to their tights at 15 bp through swaps, the 5s-10s agency versus swaps trade offers a lot of room to tighten (Figure 7). The risk to the trade is a further dramatic rally, which could–but might not–tighten 10-year swap spreads to 5-year swap spreads.

Figure 6. **Spread of Agencies to Treauries and Swaps,** bp

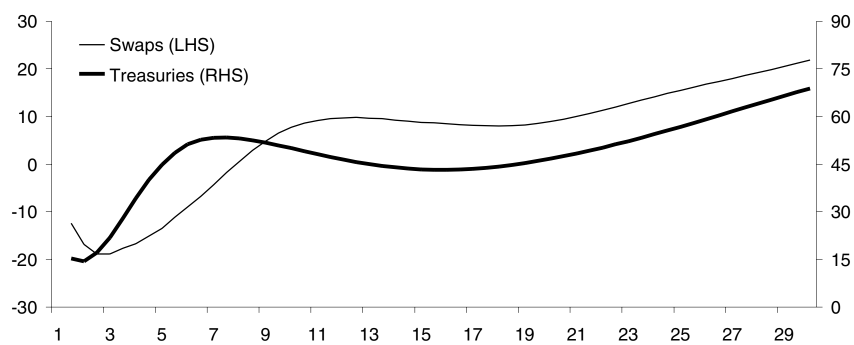
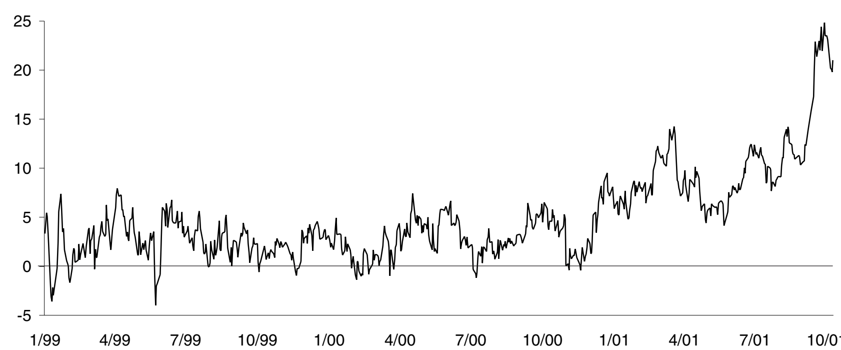


Figure 7. **Spread of 10-Year versus 5-Year Agency LIBOR OAS,** bp



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INTEREST RATE MARKETS SHOW A HIGH DEGREE OF COMPLACENCY

A month has passed since the events in New York and Washington, and as far as our markets are concerned, the shock came and went. A brief spike in risk premium has dissipated, with stocks rebounding and swap spreads tightening. The path of short rates priced into the euro and U.K. yield curves is now identical to what it was on September 10 for horizons beyond the next year or two (Figure 1). This implies a dip in growth followed by an expedient return to normality. At the same time, the FBI is warning of the possibility of additional attacks, and estimates of the impact of last month's events on global growth are fraught with a high degree of uncertainty. This return to normality looks premature. While hoping for the best, risk premium may flare up again, and economic uncertainty will remain high for months to come. The investment stance implied by this is one of caution. Risk-averse carry strategies feature prominently in our recommendations. Other than that, it makes sense to keep the power dry.

The 30-year sector in Euroland has gone from being expensive in August (when we suggested selling it) to fair and back to expensive again, as the simple model in Figure 2

Figure 1. **No Change in Outlook Beyond the Short Term**

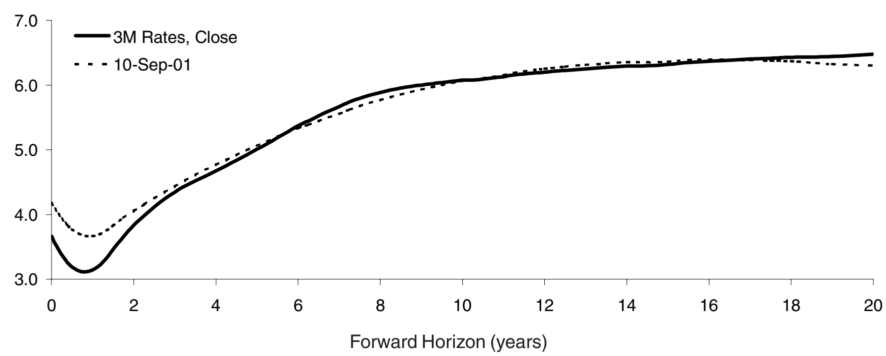
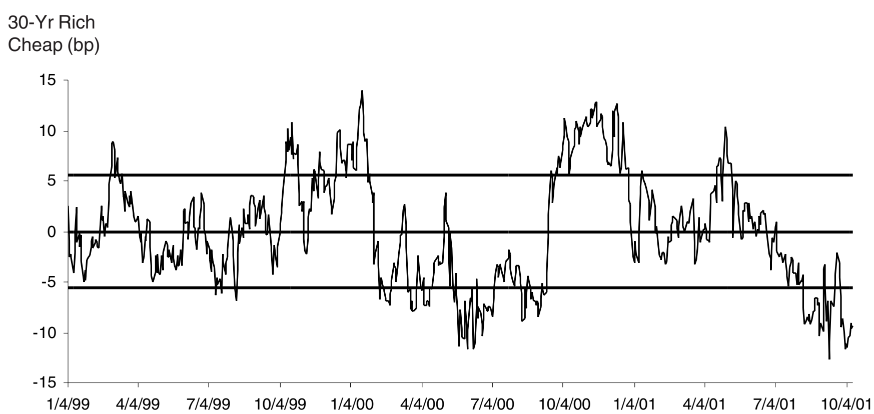


Figure 2. **10-30 Spread versus 2-Year Yield**



shows. A number of technical factors and flows are the main drivers of the sector's richness. The main cheapening catalysts, the 2002 supply announcements, are still some time off. In the meantime, the sector is vulnerable to increases in risk premium, but supported by technical factors. There has been good buying in the sector recently, and the Street has had some difficulty covering these positions. Interestingly, some of the money coming into the sector came from U.K. pension funds, a new source of demand for long-duration EUR assets. 30-year supply is light in 4Q, which will keep the pressure on for the time being. In 2002, the picture is likely to change. Funding needs are increasing in France and Germany in particular (see our 2001-2002 Supply Outlook, published October 1), and current-year issuance is running below required levels. Sticking with 2001 funding calendars that were conceived when the economic outlook was much rosier is causing governments to run up short-term borrowing with the banks. We think it likely that at least some of this borrowing will return to the bond markets in the 2002 calendars.

Also, efforts to reduce the duration of liabilities by euro-area governments have been cited as reasons that 30-year issuance will be muted. We think this is unlikely to be the case. The dual goal of institutions such as Agence France Tresor is to reduce duration, but maintain liquid benchmarks. The second point should not be overlooked. Remember the performance of the 30-year sector last year when the 4Q German issuance calendar was announced and included the Jan 31 Bund? It is clearly visible in Figure 2 and caused the sector valuation to move from UMTS expensive to cheap in the space of an afternoon. 30-year supply in France and Germany is often skewed toward the first quarter. Year-end liquidity concerns have added to cheapening pressures on the 30-year in the past, and we think this year will be no different. The sector may hang on to its expensive valuation for a while yet, but avoid it over the holidays at least.

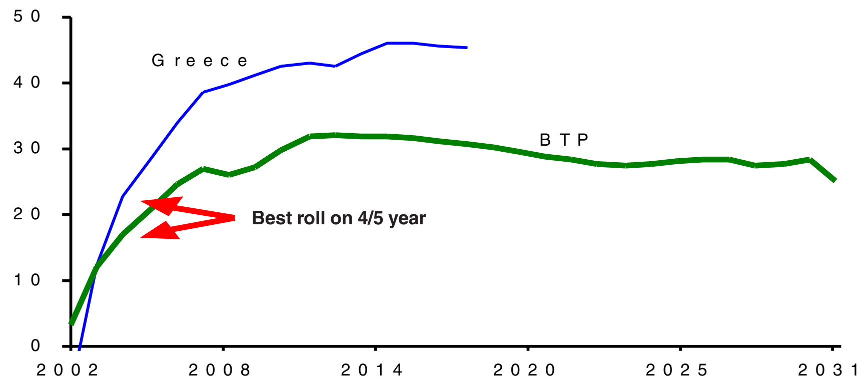
Continue to Look for Better Carry as the Yield Curve Stays Uncertain

- Sell Schatz 3.75 Sep 2003 (or sell Dec Schatz contract) @ 100.505, 100.42 forward to Dec or 3.485%
- Buy Greece 5.95% 2005 @ 29.5bp over OBL135 or buy Italy 4.75% July 2005 @ 5 bp under swap

Our objective in putting on this trade is to earn carry in a stable curve and credit spread environment.

The rationale is three-fold. First, we expect to earn **carry.** Our recent research says it is attractive to sell bonds around 2-years to buy 4-years and out. Despite the flattening move of late in Europe, we do not still believe this is the start of a big move in that direction just yet. This will come, but only when the Fed and ECB look as if they are on hold. In the meantime, cautiously extend along the curve to look for better carry. See our recent reports, *Carry Analysis* and *Yield Curve Analysis.* Moreover, this part of the curve has not flattened much in the past two weeks. As a result, the protection against further steepening is good. The Schatz into Italy trade gives protection of 9 bp against steepening of the curve over three months in a duration-weighted extension (with cash invested in three months @ 3.60%). Just over half of this is accounted for by roll down the yield and spread curves (Figure 3).

Figure 3. **Roll Down the Spread Curve, BTPs and GGBs,** bp



Second, we expect to earn from the switch to lower grade **credit**. Our recent research shows that swaps spreads clearly narrow during periods of high government issuance (*Yield Curve Analysis*). Our indices also show us that AAA and AA credits tend to perform well before we come out of recession.

Third, in terms of **relative value**, both bonds are still close to their average asset swap levels. This actually makes them quite attractive, as some other BTPs and GGBs are dearer.

Some investors might be worried in selling the Schatz contract, but we see little squeeze risk just now. The Schatz contract has been in a -17 to -22 bp range versus TEDs recently. Currently, it is -18.5 bp dear to TED. As the contract approaches maturity, it should settle down around -15 bp. The contract—or the underlying bond—is interesting to sell if investors believe there is not too much squeeze risk.

Other AAA Spreads in Euros

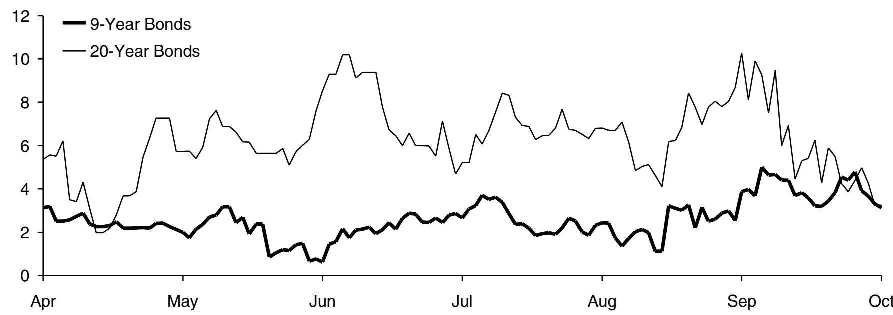
The Bank of England 2004 will be auctioned this week. It currently trades at about 18 bp over Ob1 130, or around 6 bp under swap. The spread is very stable, increasing the attraction of the pick-up. Note that the bond came around -6.5 bp at the last tap, but it did cheapen a little going to the auction. It is worth keeping an eye on this again. Auction time is also the moment to buy in size.

Sell the Bonds in the Upcoming French Buyback

The French Treasury will buy back, this Thursday 15.00 Paris time, EUR2.6 billion of OAT through a reverse auction. Investors can offer the 4% October 2009, the 5.5% April 2010, the 8.5% October 2019, and the 8.5% April 2023.

How have these bonds performed? One way of assessing relative value is to look at these buy-back bonds against surrounding issues. Figure 4 shows two spreads:

Figure 4. **The 9- and 20-year Bonds in the Buybacks versus Surrounding Issues,** bp



- the Oct 2009 and April 2010 less the April 2009 and Oct 2010 (the latter two are not in the buy-back)
- the 2019 and 2023 less the 2016 and 2025 (not in the buy-back).

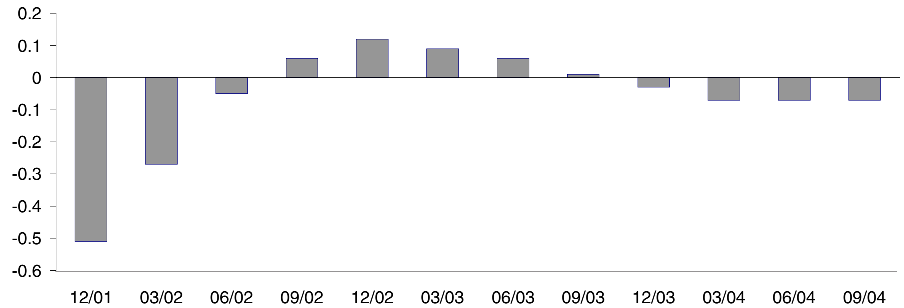
These spreads are expressed in basis points (the change is similar whether we use simple yields or OAS): a lower spread means the buybacks have outperformed the surrounding issues.

Using this measure, the 20-year "buyback" bonds are close to their dearest levels. Moreover, they have richened 6 bp since their highs. The 9-year "buyback" bonds have not done so well, richening just over 1 bp in the past week. One reason for this difference is that it has been much easier to anticipate the buyback in the 2019s and 2023s. The other more important reason is that the whole 2009 and 2010 sector has been richening versus Bund; for example, the Oct 2009 has richened 2 bp versus the Bund July 2009. However, what would really encourage us to sell these bonds this week is our experience from last year. The same sectors were offered in the buyback; they richened ahead of the event and then cheapened afterward. That is perhaps understandable. More surprising was the cheapening of OATs relative to Bunds after the buyback. We had thought the buyback would take some of the supply out of the market, but it had no lasting effect. We have no reason to expect prices will react any differently this year.

STERLING MARKETS

The remarkable story is one of resilience to the events of September 11. After an initial surge in risk premium, yield curves have normalized. The only persisting effect is to be found in the front short sterling contracts, reflecting the impact of the MPC rate cuts delivered in two separate 25 bp installments. The reds have lost ground to both the whites and the greens. Part of the reason is the global scale on monetary easing and the U.S. fiscal package now approaching 2% of GDP. Participants are beginning to look past the downturn and forward to the next economic upswing. If neutral rates in the U.K. are 5.50% and a reasonable spread to base rates is 15-25 bp, the strip does not mean revert until 2004.

Figure 5. **Strip Yield Changes Since September 10, 2001**



If the focus were to shift away from the international sector back to the strong domestic fundamentals, the red contracts could be the big losers.

At present, the terminal base rate in approaching 4.30%, pricing in just less than a single cut. While over the medium term, we believe there is little value in the front end, the near term could well be an entirely different story. Further rate cuts can not be ruled out. A feeling of complacency is dominating thinking at present. News on the war front seems to be good. Equities have rallied. It is hard to believe that all the event risk can so easily be purged from the system. Any surprises will be categorically good news for the front end, especially the first three short-sterling contracts. Because of this, we see little scope for the strip to flatten.

The key observation about the yield curve is the remarkable lack of convexity in the 2-5-10 butterfly. Since last week, this has risen a few basis points, but is still 18 bp low according to our models. As the short-sterling strip continues to steepen, the 5-year will suffer. We are targeting 50 bp on the 2-5-10-swap butterfly.

As for the longer maturities, the 30-year is again starting to look expensive on the models. Regressed against the 2-year swap, the 10-30 is 19 bp too inverted. Furthermore, the long swap forwards such as the 15-year 15-year spread to the Euribor is closing in on 160 bp. Not surprisingly, some of the U.K. real money community is buying core European 30-year bonds instead of the expensive Gilts. An obvious risk is in an eventual pickup in risk premium. In the past, when equities have fallen sharply, risk aversion has risen, supporting the long end of the market. However, this was not the case after the September 11 attack. Instead, the 30-year actually underperformed as the greater uncertainty increased the extra yield demanded by investors to extend down the curve. So, the risk of long-end outperformance in times of crisis does not appear to be what it once was. Therefore, we recommend the following strategy—a 10-30 steepener hedged by receiving 2-years.

Pay GBP 30-year 100k/bp
Rec GBP 10-year 100k/bp
Rec GBP 2-year 31k/bp

Figure 6. **Model Residuals for the GBP 10-30 Spread**

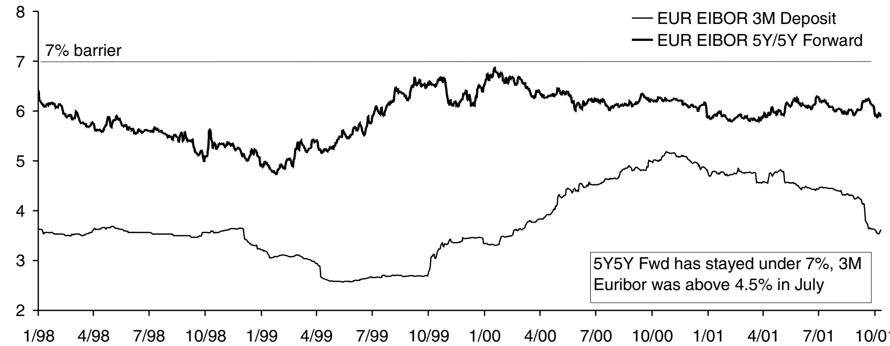
Derivatives

For those who concur with our view that eventually the level of global monetary and fiscal stimulus has a reasonable chance of working, consider a conditional bear flattening strategy. Any sniff of economic recovery should wreak havoc on the red contracts of the Euribor strip. If 2.5% trend growth + 2.0% inflation, or 4.5%, is a reasonable approximation of neutral ECB rates, then the Euribor strip takes a slow path of mean reversion. Not until mid 2004 do implied 3-month rates touch this level. In the short term, there are certainly risks to further monetary easing, so an outright position is far too risky. However, sentiment does change, the Euribor strip will steepen, the reds will suffer, and the yield curve will flatten. If that happens, receiving the 5Y5Y forward against paying the reds has potential to work well. For this reason, we recommend the following option strategy.

Buy 1 billion 1x2 4.50% Euribor caps @ 0.145
Sell 250M 5Y5Y 7.0 payers @ 90

If curves remain unchanged for 2-years, the caps obviously expire worthless, but the 5Y5Y 7.0% payer is then only worth 37, losing 58% of its value. If that happens, the gains on the short payer will almost compensate for the losses on the worthless cap. From a valuation standpoint, 5Y5Y volatility is expensive with ATM straddles trading at 430. The reason for increase is related to sizeable demand for CMS floors. However, we expect this demand to lessen over time, and it will be offset to some extent by callable issuance if the longer-term forwards rise. Since 1998, whenever the straddle exceeded 430 in price, it was always lower a year later. Normal time decay explains only part of this. A drop in this volatility will increase the odds of profit. Cap/floor volatility on the 1x2 is nearly flat to 1Y1Y swaption vol, a historically cheap level. Finally, Figure 7 shows that the 5Y5Y forward has not been over 7% in recent years, but 3-month Euribor was trading 4.5% last July and, at the peak of the last hiking cycle, reached 5.13%

Figure 7. **History of EUR 5Y/5Y and 3M Rates**



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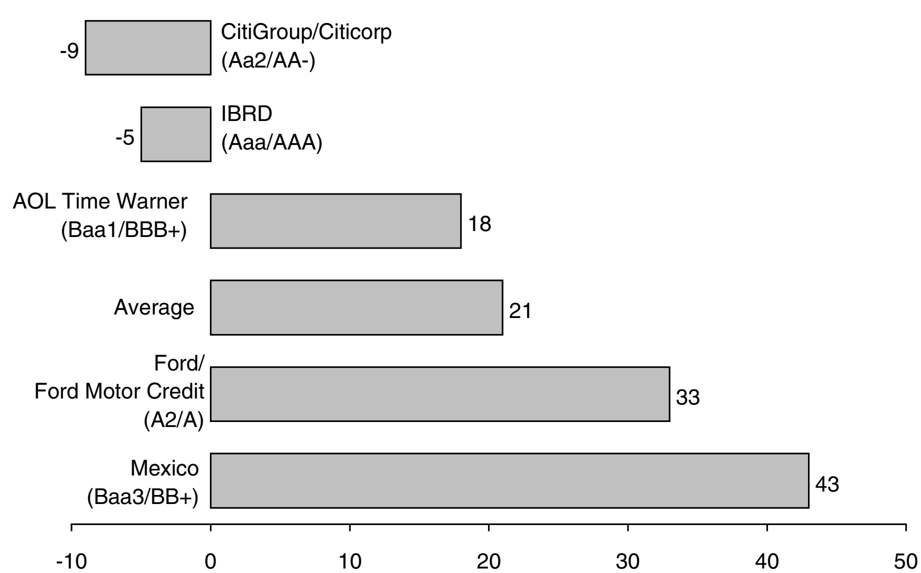
ON EDGE

High Grade spreads moved range-bound over a short week in the U.S., besting swaps and agencies, both of which cheapened a bit. Bank and finance paper saw the most activity following the prior week's unsettling news from US Bancorp, but the sector recovered most, if not all of its losses as the rating agencies' reactions were relatively benign. The week's star performer was the international crossover bucket, which tightened approximately 13 bp on an OAS basis, led by big Mexico paper improving 25 bp on the week. News on Argentina was plentiful, including ratings downgrades, bond swap proposals and election headlines, preparing EMG investors for the important week ahead.

As expected, the week's economic indicators showed weakness as closely-watched retail sales and PPI numbers supported economists' decisions to tweak projections again (Lehman's team lowered 4Q GDP to –2.5% from –1.4%). While the Treasury curve backed up about 10 bp, it maintained its shape. While the low-rate environment continues to bring new borrowers to the market, new issue totaled just \$6.5 billion, the slowest week on hand since the Sept 11th attacks.

Interestingly, Equities have regained most of their lost ground since the Terrorist attacks, while credit spreads have yet to rebound. Below, we present a limited x-section of leading names' spread performance since. Generally speaking, higher quality bonds are flat or tighter while lower quality borrowers remain wide of early September levels. As discussed

Figure 1. **10-Yr Corporate Benchmark Spread Changes since September 10, 2001,** bp



below, some of this relative performance may be attributed to asset allocation trades that have taken place post 3Q closure for major money managers.

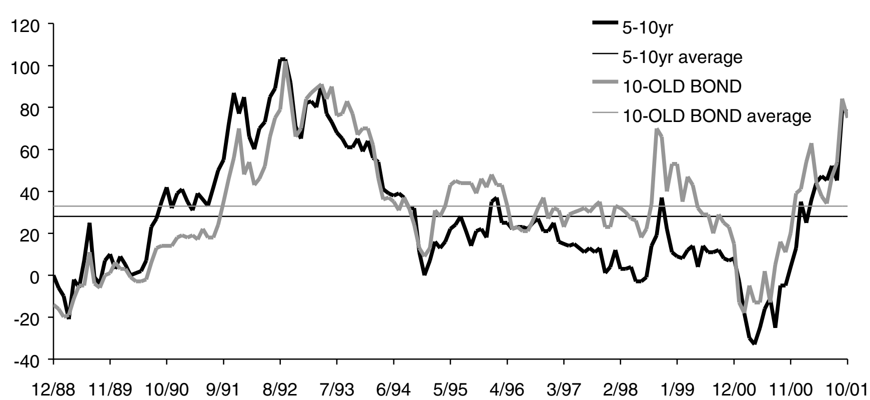
Looking ahead, we remain on the sidelines and lean toward more risk-averse investments over the near-term. Next week's earnings schedule is extremely busy with some of the largest credit issuers reporting on the 3Q and, more importantly, adjusting and/or warning about 4Q and next year's forecasts. Although U.S. equities overcame intense selling pressure following Friday's news of an anthrax case in New York, the temporary downward price action served as another reminder that, like most of the world, the financial markets are still on edge. For the week, high-grade credit product cheapened slightly while equities improved despite Friday's slump.

CREDIT EXTENSION TRADES MAKE SENSE

An analysis of the current attractiveness of extension trades in the credit markets begins with a look at Treasury curves since 1989. Over this time period, the average 5 year, 10 year, and old bond Treasury yield has been 6.37%, 6.65%, and 6.98%, respectively. This translates to an average 5s -10's spread of 28 bp and average 10s - old bond spread of 33 bp. With the 5s -10's and 10s - old bond spread at approximately 78 bp and 75 bp today, these spreads are 1.7 and 1.6 standard deviations cheap to their long term mean.

Compared to the last 13 years, interest rates are very low and the Treasury curve is unusually steep. As measured by the slope of the curve, only the 1992-93 period is comparable to today's curve environment. While rates are much lower now versus '92-93, the curve is almost as steep. At its steepest point in September 1992, the 5-year was trading at 5.33%, 10's at 6.36% and the bond at 7.38%. Thus, the 5-10's curve was 103 bp and 10-30's was 102 bp, not that much steeper than today (Figure 2).

Figure 2. **The Treasury Curve: 1989 - Present**



In contrast, however, corporate spreads are almost double 1992-93 levels. For example, the Credit Index OAS was in the low 90's bp during the fall of 1992, only half today's valuation. As we wrote in the November 2, 1992 Relative Value Report, IBM printed new issue 5 and 10 years only 5 bp apart in spread, single-A finance 5-10 year spread curves were only about 10 bp, and 10-30 year BBB utilities were trading only 15 bp apart in spread. The average single-A industrial 10's–30's spread over the past 13 years has been about 15 bp, just 5 bp more than today. Accordingly, **the combination of today's unusually steep Treasury curve combined with still relatively generous credit spread curves provides the backdrop for some very interesting extension trades.**

To take advantage of the present environment, we recommend extension trades in some of our top picks in the credit markets. Within the telecom sector, we recommend extending in **France Telecom** (Baa1/BBB+). Investors can swap out of FRTEL 2006 into 2011 paper for a spread pick-up of +30 bp (110 bp in yield) compared to the 5s-10s telecom credit curve average of about 20 bp. Within the international crossover bucket, we suggest that managers trade out of **Mexico** (Baa3/BB+) 2007 paper into the 2011 securities for an absolute yield gain of 73 bp, for only a 1.2 year duration extension.

For those managers eager to maintain above average liquidity, while also gaining exposure to some of the safer, more defensive sectors, we recommend extension trades within the industrial bucket. For example, investors can trade out of **AOL Time Warner** (Baa1/BBB+) 2011 paper into 2031 bonds for a credit spread gain of 20-bp. In addition, managers can do a similar trade in **Conoco** (Baa1/BBB+) and **Kellogg** (Baa2/BBB) for a spread pick-up of about +10 bp. And for investors who are in search of owning higher-quality credits, we recommend extending from AIG (Aaa/AAA) 2006 into 2011 paper for a spread gain of about +25 bp.

Amongst capital securities, we recommend extending in the Yankee banks, since these credits tend to be more isolated from the problems stemming from recent events. In particular, managers can swap out of **UBS** (A1/AA-) and **Barclays** (Aa3/A+) 10-years into **Standard Chartered** (A3/A-) 30-years for a spread gain of 55-60 bp, or a total yield pick up of 130-135 bp for the extension. STAN, a strategic pick on *our Recommended Credits List*, has performed well fundamentally, even during the 1998 credit crunch, an environment that we expect to be tougher for Yankee banks than the current crisis. Investors can also move into **HSBC** (A2/A-) for a spread pick-up of about 30 bp; this translates into a total yield pick of about 105 bp.

MONITORING DEMAND - THE PENSION FACTOR

Pension funds defined benefit plans are an important part of the capital markets. Any change in asset allocation between fixed income and equities can have a significant impact on this estimated $2 trillion market. As the equity markets have declined while fixed income markets have rallied this year, many defined benefit plans have had to consider the reallocation of holdings to keep their asset allocation in line. This asset allocation trade is important to monitor, given the size of the pension market. To illustrate, the S+P 500 has declined approximately 14% in 2001 year-to-date, while the Aggregate index is up about 9% for the year. In a scenario that assumes market returns and target allocations of 40 % in fixed income (Lehman Aggregate Index) and 60 % in equities (S+P 500 Index), each $10 billion fund that reallocates would result in a net outflow of $143 million in investment grade credit. This is calculated as follows:

Hypothetical Defined Benefit Pension Plan (40% fixed / 60% equity)

	Fixed Income	Equities
Target allocation ($10 billion)	$ 4 bb	$ 6 bb
Approx. Return year-to-date	+ 9 %	- 14 %
Current value	$ 4.36 bb	$ 5.16 bb
Rebalancing amount	- $ 550 mm	+ $ 550 mm
Credit amount (26%)	- $ 143 mm	

This example illustrates the importance of a change in asset allocation among pension funds. If even 10 % of the defined benefit plans rebalance to initial weighting, this would have an estimated effect of a $3 billion exodus from the credit markets. Given liquidity considerations at this time of year, a trade of this magnitude could put some pressure on spreads in the near term.

ATTENTION U.S. INVESTORS: BEWARE PROBLEM EURO CREDITS

Given the well publicized fallout of European companies such as Marconi, KPN, Railtrack, and, most recently, British Airways, we believe U.S. investors need to recognize the effects that deteriorating European names can have on U.S. market technicals, particularly if the troubled company issues debt in U.S. dollars. This is in stark contrast to prior periods and the higher quality part of the market where the Euro market has proven a stabilizing factor.

As a backdrop, the high yield/crossover bid has waned in Europe over the last twelve months, largely a result of the increased number of distressed Euro telecom and technology names seen this year and the absence on natural "cross-under" buyers. Unlike the U.S., which benefits from better liquidity and a stable CDO bid, Europe's credit market does not supply a 'floor' for faltering credit stories. As a result, problematic investment grade credits have often been quoted in the distressed market without first being considered and traded among European high yield investors. This Euro-denominated 'air pocket' can have a debilitating influence on $ bond valuations.

Upon reviewing the list of European issuers in the U.S. credit index – a bucket representing almost $165 billion or 9.3% of the overall index, we thought it appropriate to share a list of the largest, lower-rated investment grade names (A3 to Baa3). While we are not forecasting the next 'credit scud' by any means, we are only highlighting the added potential these issuers have to negatively affect trading levels under an unforeseen event. Given heightened risk-aversion and liquidity considerations, $ investors need to be prepared for "negative gravity" as Euro paper can (as we've seen recently) drag down related company dollar bonds.

Figure 3. **Top 20 European Issuers in the Credit Index**

Issuer	Issues	Mkt Value	% of Index	Outstandings	MDY's
DEUTSCHE TELEKOM INT FIN-GLOBA	3	10,355,206	0.58	9,500,000	A3
BRITISH TELECOM PLC-GLOBAL	3	10,015,920	0.56	8,900,000	BAA1
FRANCE TELECOM	3	8,362,138	0.47	8,000,000	BAA1
ROYAL KPN NV	3	2,578,947	0.15	3,399,726	BAA3
PHILIPS ELECTRONICS N.V.	7	1,892,725	0.11	1,800,000	A3
AHOLD FIN USA	3	1,787,202	0.10	1,700,000	BAA1
HANSON OVERSEAS FIN BV	2	1,582,298	0.09	1,500,000	BAA1
REPSOL INTL FINANCE-GLOBAL	1	1,363,276	0.08	1,250,000	A3
PETROLEUM GEO-SERVICES	5	1,330,328	0.07	1,460,000	BAA3
UNITED UTILITES PLC	3	1,225,470	0.07	1,250,000	A3
TXU EASTERN FUNDING	2	1,201,334	0.07	1,150,000	BAA1
HUNGARY REPUBLIC OF - GLOBAL	1	820,595	0.05	750,000	A3
STORA ENSO OYJ-GLOBAL	1	819,214	0.05	750,000	BAA1
HANSON PLC-GLOBAL	1	816,057	0.05	750,000	BAA1
NATL BANK HUNGARY	3	685,274	0.04	600,000	A3
IMPERIAL TOBACCO O/S BV-GLOBAL	1	612,206	0.03	600,000	BAA2
SMURFIT CAPITAL FUNDING	2	578,155	0.03	600,000	BAA2

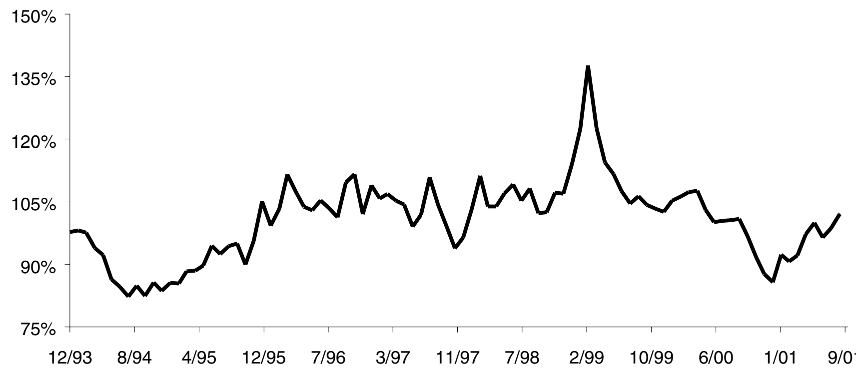
* This excludes 144A issues without regulation rights.

ENERGY SECTOR UPDATE: DISCIPLINED SECURITY SELECTION IS KEY TO OUTPERFORMANCE

We advise investors to adopt a prudent posture toward the energy sector to limit the downside from deteriorating fundamentals due the weakening economy and declining commodity prices. At the same time, through proper bond selection, we believe investors can outperform the energy index. We believe investors should assume that oil and gas prices will remain weak for the next several months given the supply and demand imbalances. Against this backdrop, we expect companies to cut domestic capital expenditure budgets by 10%-20%, while increasing international budgets by 5%-10%. We also think that companies may be inclined to make leveraged acquisitions or stock buybacks, which could add pressure on secondary valuations as these issuers are forced to access the term markets. However, we believe that the sector's overall credit quality will not be hurt materially by lower prices and that longer-term energy bond valuations will recover. Importantly, the industry is much better positioned than in the last recession, with increased company business diversity and healthier balance sheets.

Given these factors, we believe investors should seek value in companies that have the potential for positive differentiation during any downturn. Among our top picks are **Conoco** (Baa1/BBB+), **Anadarko Petroleum** (Baa1/BBB+), **Kerr McGee** (Baa2/BBB), **Alberta Energy** (Baa1/BBB+) and **ENI/Lasmo** (A1/AA). For a complete review of the sector, please reference our October 10th piece entitled *Disciplined Security Selection Key to Outperformance*. (Ted Izatt/Sean Shannon)

Figure 4. **Energy Sector OAS as % of Credit Index OAS**



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CREDIT BLOW-UPS CONTINUE

A fortnight ago it was Swissair; last week it was Railtrack's turn. There is a common transportation theme here, and the extent of the change in implied support in both cases was a surprise. Railtrack, the owner and manager of the U.K.'s rail network, had been in financial difficulties for some time, but the withholding of funds by the government had not been anticipated. Following the initial proposals by the government, expectations had been for a reasonably smooth transfer of Railtrack's debt (all sterling-denominated) from the old corporate entity to a new, not-for-profit company. However, Standard & Poor's took a more technical view of the situation, downgrading the company's bonds from single-A to CC but placing the rating on creditwatch developing. S&P has focused on the risks to creditors, who do not sign any standstill agreements, and the extent to which they may impair the likelihood of being paid in full or on a timely basis. Moody's, which downgraded Railtrack from A2 to Baa1 following the announcement, has kept its rating on review for possible downgrade.

We have seen ratings moves of similar magnitude in the past, of course. Market veterans from the latter half of the 1980s and early 1990s will recall names such as Texaco and Development Finance Corp. of New Zealand, in addition to a clutch of insurance companies. But at least for European corporates, Railtrack is the first shock event for some time. The company's sterling bonds widened by 40-100 bp depending on maturity, signalling that most market participants believe they will receive their payment on time. Levels also reflect challenges of trading the ultimate split-rated bond. Railtrack is a special situation, related more to U.K. transport policy and company management issues than to the broader economy. But it nonetheless highlights the rising level of issuer-specific risk that we discussed in last week's edition of *Global Relative Value*. We see this as the main issue for investors over the near term.

Last week, credit spreads were largely unchanged in euros and slightly tighter in sterling. To make our market review both more concise and more accurate, we have introduced a table of spread changes over the week of key sectors (Figure 1). The sector weights reflect those in our Euro and Sterling Corporate indices, adjusted for the amounts of upper Tier 2 and Tier 1 debt outstanding. The results do not necessarily reflect the composition of investors' portfolios, of course. In particular, most non-bank investors are likely to be very underweight senior bank paper. Also, the frequently traded issues are more volatile than the market generally. But even with these limitations, we think the data provide investors with a useful snapshot of the market.

Figure 1 underlines the different behavior within the asset classes in the euro market. During the week, the volume of cash going into the market seems to have increased compared with the weeks after the September 11 crisis. In general, we have seen stronger demand for higher quality, short-dated, assets, rather than a focus on a particular sector.

Figure 1. **Euro and Sterling Markets Weekly Spread Deltas**

Sector	**Est. Spread Chg.Oct. 5-12 (bp)**	**Percent of the Index**	**Contribution to Market Delta**
Euros			
Senior banks	3	34%	1.0
Lower Tier 2	-5	8%	-0.4
Upper Tier 2	-2	1%	0.0
Tier 1	-7	1%	-0.1
Telecoms	-1	15%	-0.2
Autos and auto finance	0	8%	0.0
Utilities	-5	8%	-0.4
Other Industrials	0	15%	0.0
Other Financials	0	10%	0.0
Total Estimated Change		*100%*	*0.0*
Euro Swap Spreads			
5 years	-2		
10 years	-1		
Sterling			
Senior banks	-5	20%	-1.0
Lower Tier 2	-4	8%	-0.3
Upper Tier 2	-11	1%	-0.1
Tier 1	-11	1%	-0.1
Telecoms	-10	10%	-1.0
Autos and auto finance		13%	0.0
Utilities	-5	8%	-0.4
Other Industrials	0	27%	0.0
Other Financials	0	12%	0.0
Total Estimated Change		*100%*	*-3.0*
Sterling Swap Spreads			
5 years	-1		
10 years	-2		
30 years	-8		

Around the front end, the main factors we have been highlighting in the past couple of weeks have not changed significantly. Short-maturity paper remains well bid, and investors are still focused on breakeven spread levels. The credit curves for many big issuers remain relatively flat. The most significant corporate deal of last week was the Ford EUR1.25 billion issue due 2004, which came to market at a fixed spread of 190 bp. This was around 25 bp wider than the company's outstanding 3-year deal. With this new issue the Ford credit curve has flattened even more. Currently, the spread differential between three- and seven-year paper is 18 bp, whereas it used to be 25 bp. At this level, the Ford credit curve is flatter than discussed in the September 29 edition of *Global Relative Value*. By comparison, the average spread differential between 3- and 10-years in the auto sector is around 30 bp.

Banks have rallied significantly during the week, reaching pre-September 11 levels. In capital securities, the flight-to-quality trade is more evident in most other sectors. This means high-quality Tier 1 credits have outperformed lower-quality assets.

The pattern has been similar in telecoms. The companies perceived as better credits, such as DT or Vodafone, have tightened during the week on good customer demand. We are also seeing interest in paper further out the yield curve. Last week, credit spreads on lower-quality issuers generally widened.

The credit derivatives area had a somewhat stronger performance last week than its cash counterpart. The market reacted well to equities' good performance, as well as an increased level of activity by end investors.

Last week, new issuance of euro-denominated fixed-rate spread product amounted to EUR8.7 billion. However, a large part of the total was made up of sovereigns and supranational deals, such as KFW. On the corporate side, beside the Ford deal mentioned above, there were two additional issues: a 15 years deal for RWE, which had no significant effect on spreads, and a Dow Chemical issue for EUR500 million.

STRATEGY UPDATE—
MARKET RESILIENCY ONE MONTH AFTER THE ATTACKS ON AMERICA

One month after the tragic events in the U.S., the European corporate markets have proved to be remarkably resilient. Market spreads on average are around 15 bp wider, if we eliminate a few of the worst underperforming issuers in telecoms, technology, and transportation. All this has taken place in the fourth quarter, a time at which corporate performance (at least judging from U.S. data) should be at its weakest. Sector and issuer performance has varied considerably, of course. The more liquid telecom and auto benchmarks are out by 25-40 bp and 50 bp, respectively. But many banks and non-cyclical issuers are back close to their pre-attack levels.

What's holding in the corporate market against a backdrop of deteriorating economic fundamentals and a higher level of risk in the world generally? It's easy to identify the main exogenous reasons of the recovery of the equity markets (roughly back to September 10 levels) and tighter swap spreads. The higher levels of liquidity following central bank rate cuts are another factor, particularly in the U.S. There are also considerations specific to corporates. Many dealer desks have net short positions as the result of issuing arbitrage collateralized debt obligations. The market's lower liquidity is also a contributor. Here, we refer to corporates generally compared with equities, derivatives, and government bonds—and not just the present situation. Even if they wanted to reduce risk in their portfolios, investors would face major difficulties in executing major shifts in their holdings. Another consideration is that many European investors do not have to mark their positions to market, and this further dampens spread volatility.

We have been encouraged by the market's performance since September 11. Assuming swap spreads and the equities remain range-bound, we think the broad corporate market should do so as well. The obvious new issue candidates have a lot of news already priced into spreads, as we note above in our discussion of Ford. Taking these situations into account, new issues are coming 15-20 bp back of pre-announcement secondary market levels. But we continue to see a greater probability of spreads widening, rather than tightening, at least over the near term. It seems clear that we are heading for a recession in the U.S. The Lehman Brothers Global Economics Group has reduced its central forecast of fourth quarter U.S. GDP growth to -2.5%. Signs of a slowdown in Europe continue to accumulate. Other landmines in the form of further terrorist attacks or a broader conflict have not gone away. Beyond this, we continue to focus on issuer-specific risks, as highlighted in our introduction of the 250 Club in last week's edition of *Global Relative Value.*

SHORT TERM CAUTIOUS, LONG TERM MORE POSITIVE

So what should investors do over the short term (i.e., the next six weeks or so) and the long term? Given the poor economic outlook, we reiterate our view that investors should reduce their positions of selected weaker issuers, even at what seem like depressed levels. Most of these are trading at prices well above where they would end up should they be downgraded to high yield. So their upside is limited, and the downside substantial. Investors should also reduce weightings to sectors that have held in well in spread terms, but that could be vulnerable to a continued downturn. The third point is that new issuance is generally a good place to put cash to work, given the new issue concession we have seen so far. The deals are coming at a consistent 15-20 bp behind pre-launch secondary market levels. And in many cases, pre-launch levels already included at least some effect of the new deal. For example, even before last week's 3-year issue Ford had a flatter credit curve than the other auto finance companies. The final point is where to be on the curve. We've had considerable success with the front-end trade and think that will continue for a little while longer. But bondholders can't live at the front end only. As liquidity returns, they will need to extend out the curve to pick up spread duration.

On a somewhat longer-term view, we think bondholders should look to increase risk as we draw closer to year-end. In forming this view, we are mindful of seasonal factors, namely the tendency of corporates to underperform in the fourth quarter and outperform in the first. Also, the passage of time has increased our confidence that the provision of liquidity and other government stimulus in the U.S. increases the likelihood that the coming recession will tend toward the much hoped-for V shape. But given the risks of some very big credit scuds, we recommend that investors place most emphasis on the single-A asset class rather than Baa.

NEW ASSET SELECTION METHODOLOGY FOR EURO CORPORATES

In the October edition of *European Credit Strategies,* we launched a new asset selection model for the euro corporate market. It is based on a double filter system involving both quantitative tools and input from our credit analysts. The first filter is our ESPRI model, which uses the prior month's issuer equity returns to forecast corporate bond performance in the following month (see the *European Credit Strategies* monthly for a description of the model). We have back-tested portfolios based on the ESPRI model, and they have produced superior returns to those selected on a naïve basis. The second screen is the views of our credit analysts. For example, Outperformance candidates in Figure 2 needed positive results according to the ESPRI model and Overweight or Neutral weightings on our Impact Issuer list. The bonds are further ranked according to their breakeven spreads. Finally, we screened the bonds for liquidity. That is, we excluded issues that have exhibited very low levels of trading.

We have also tried to reflect our sector allocation in our bond selection. The events of September 11 have caused us to adopt a more defensive stance for the time being. Therefore, we are overweight the non-cyclical sectors such as consumer products and retailers, as well as telecoms and utilities. The rationale behind overweighing telecoms is based in technical factors, as well as credit fundamentals. Telecom revenues are not that cyclical, offering protection during a recession. Moreover, the cheap levels of spreads within the sector increases its attractiveness, despite the high level of volatility we saw in the weeks leading up to September 11.

Figure 2. **Outperformance List**

Issuer	**Coupon**	**Maturity**	**Ratings**	**Spread**	**Breakeven Spread** (bp)	**Roll Down** (bp)	**Analyst Recommendation**
Aaa- Aa Model Outputs Positive							
AIG	4.75%	8-Dec-04	Aaa/AAA	47	16	66	Overweight
Procter & Gamble	5.75%	26-Sep-05	Aa2*/AA*	51	14	87	Overweight
RWE	5.38%	18-Apr-08	Aa3*/AA-*	71	13	96	Neutral
AIG	5.75%	26-Sep-05	Aaa/AAA	46	13	87	Overweight
EDP	6.40%	29-Oct-09	Aa3/AA-	79	13	87	Neutral
EDP	5.88%	28-Mar-11	Aa3/AA-	86	12	78	Neutral
RWE	6.25%	20-Apr-16	Aa3*/AA-*	79	8	54	Neutral
A Model Outputs Positive							
Deutsche Telekom	4.63%	28-Aug-03	A3/A-	92	51	20	Neutral
BAT	4.25%	14-Apr-04	A2/A	96	41	45	Overweight
Vodafone	4.88%	8-Sep-04	A2/A	97	35	60	Neutral
Vodafone	5.75%	27-Oct-06	A2/A	122	29	89	Neutral
Philip Morris	4.50%	6-Apr-06	A2/A-	101	25	91	Overweight
BAT	4.88%	25-Feb-09	A2/A	127	21	92	Overweight
North West Water	6.63%	8-Nov-07	A3/BBB+	95	20	94	Overweight
North West Water	4.88%	18-Mar-09	A3/BBB+	115	19	92	Overweight
Powergen	5.00%	8-Jul-09	A3/BBB+	92	14	94	Neutral
Deutsche Telekom	6.13%	6-Jul-05	A3/A-	152	46	82	Neutral
Deutsche Telekom	5.88%	11-Jul-06	A3/A-	170	41	90	Neutral
Tele Danmark	5.88%	24-Apr-06	A2/A	135	34	89	Neutral
Deutsche Telekom	6.63%	11-Jul-11	A3/A-	188	26	74	Neutral
Household	5.88%	31-Mar-08	A3/A	134	25	95	Neutral
Household	5.13%	24-Jun-09	A3/A	148	24	93	Neutral
Vodafone	4.75%	27-May-09	A2/A	144	23	93	Neutral
Baa Model Outputs Positive							
France Telecom	5.58%	14-Mar-04	Baa1/BBB+	158	71	40	Neutral
France Telecom	6.13%	10-Nov-05	Baa1/BBB+	208	60	83	Neutral
Worldcom	6.75%	15-May-08	BAA1	221	42	91	
France Telecom	6.75%	14-Mar-08	Baa1/BBB+	178	35	92	Neutral
Telecom Italia	7.00%	20-Apr-11	Baa1*/BBB+	222	33	73	Overweight

In Figure 2 the majority of the lower investment grade bonds belong to the telecom, utility, and consumer non-cyclical sectors. This asset selection also reflects the value in the short end of the curve we have discussed. It comes out in this ranking by virtue of our use of breakeven spreads as a value measurement tool.

The Underperformance List, Figure 3, also reflects the fact that we are underweight in sectors such as autos and telecom equipment. Banks are also predominant on our Underperformance List, reflecting the fact that they are exposed to higher risks than before September 11. Also, in euros, banks are trading at much tighter levels than other credits. This is evident from the lower breakeven spreads.

Figure 3. **Underperformance List**

Issuer	Coupon	Maturity	Ratings	Spread	Breakeven Spread (bp)	Roll Down (bp)	Analyst Recommendation
Aaa- Aa Model Outputs Negative							
Deutsche Bank	3.50%	28-Apr-04	Aa3/AA	36	15	47	Neutral
ING Bank	4.63%	23-Feb-09	Aa3/A+	94	16	93	Neutral
Siemens	5.75%	4-Jul-11	Aa3/AA-	97	13	77	Underweight
INA/ Generali	4.50%	28-May-09	Aa3/AA-	76	12	95	Underweight
ING Bank	6.50%	15-Jun-10	Aa3/A+	79	12	86	Neutral
Generali	6.15%	20-Jul-10	Aa3/AA-	78	11	86	Underweight
ING Bank	5.88%	23-Feb-11	Aa3/A+	75	11	78	Neutral
Generali	4.75%	12-May-14	Aa3/AA-	78	9	68	Underweight
A Model Outputs Negative							
Schneider	3.75%	14-Apr-04	NR / A+	57	24	46	Neutral
BMW	5.25%	1-Sep-06	A1/ NR	76	17	93	Neutral
Commerzbank	6.13%	25-Oct-10	A1/A+	56	8	80	Neutral
Commerzbank	5.50%	25-Oct-11	A1/A+	58	8	74	Neutral
SAS	6.00%	20-Jun-08	A3AA-	544	104	89	Underweight
DCX	6.00%	19-Jan-04	A3/A-	170	81	33	Underweight
DCX	3.50%	16-Mar-04	A3/A-	164	72	42	Underweight
DCX	6.13%	21-Mar-06	A3/A-	175	46	88	Underweight
DCX	5.58%	23-Jun-05	A3/A-	148	45	81	Underweight
Rolls-Royce	6.38%	14-Jun-07	A3/A-	157	33	97	Underweight
Repsol	3.75%	23-Feb-04	A3/A-	72	32	39	Underweight
Philips	5.75%	16-May-08	A3/A-	161	30	94	Underweight
Philips	6.13%	16-May-11	A3/A-	197	28	75	Underweight
DCX	7.00%	21-Mar-11	A3/A-	186	27	74	Underweight
Baa Model Outputs Negative							
Fiat	3.75%	31-Mar-04	Baa2/ NR	94	40	44	Neutral
Renault	5.13%	21-Jul-06	Baa2/ BBB	115	27	92	Underweight
Invensys	5.50%	1-Apr-05	Baa2/BBB	411	134	74	Underweight
Rhodia	6.25%	31-May-05	Baa2/BBB-	334	104	78	Underweight

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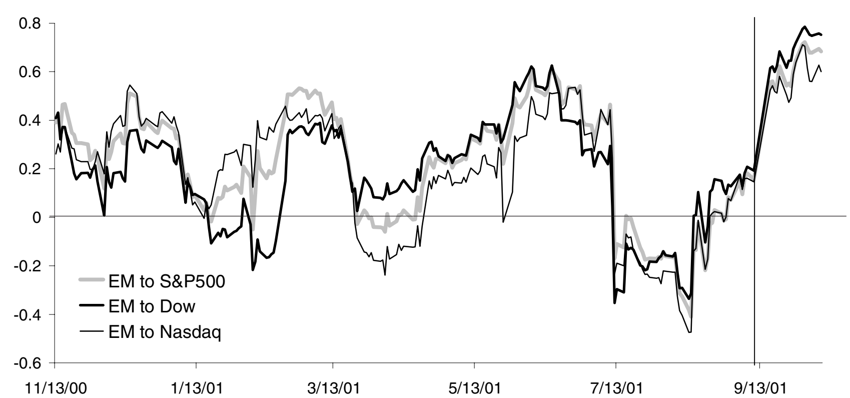
SLAVE TO THE RHYTHM

- U.S. and British military action in Afghanistan marks the start of a potentially prolonged campaign against terrorism.
- There is considerable uncertainty, still, about the impact of this campaign on the world economy and on financial markets.
- In this environment, sovereign spreads have once again taken to dancing to the tune of the US equity markets. Country-specific credit fundamentals have, to a certain degree, taken a back seat to broader geo-political considerations.
- We continue to advise investors to play it close to home for now. EM investors should focus on defensive credits like Mexico and Korea, or credits with strong balance sheets and minimal financing needs like Russia.

The start of military operations in Afghanistan by U.S. and British forces comes as no surprise in the aftermath of the September 11 terrorist attacks. Nonetheless, it creates a number of uncertainties for all economic agents: on the length of such military activities, on their ultimate geographical reach, and on the timing and severity of any terrorist responses. While these uncertainties persist, it is probably fair to say that consumers and investors in the U.S. and elsewhere will continue to adopt a cautious stance, and will place on hold a rapid recovery in economic activity. Consequently, the uncertainties currently facing financial markets globally may also remain in place for some time to come.

These are big issues for financial markets to ponder, and emerging market sovereign debt is in no position to set a tone that is any different from that of the broader markets—particularly in view of the fact that the asset class is facing these exogenous developments while simultaneously dealing with ponderous endogenous events (to wit, the Argentine problem). Indeed, it appears that the asset class has thrown in the towel in terms of finding its own direction. Since September 11, in fact, emerging markets debt has once again begun to take its lead from the U.S. equity markets—as it typically does when investors in the asset class lack conviction. Figure 1 highlights how the 1-month daily correlation of returns between emerging market debt and various U.S. equity indices has picked up meaningfully since September 11.

Figure 1. **EM 1-Month Rolling Correlations with U.S. Equity Markets**



This phenomenon points to the observation that investors are paying less attention to developments in individual sovereign credits, and more attention to the broader global picture. In this environment we continue to recommend that emerging markets investors play it close to home. Specifically, we make the following recommendations:

- Stick to the defensive credits with reasonably attractive investment themes attached to them, like **Mexico** and **Korea.**
- Stick to sovereign credits with adequately strong balance sheets and limited financing needs, like **Russia**. Brave investors—and we do not include ourselves as part of that crowd—may include **Venezuela** in that category.
- Establish curve flattening trades, particularly in the credits listed above.

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AGENCY MBS

Summary

- We remain neutral on the mortgage basis.
- In the collateral market, our favorite coupons are 30-year conventional 6.5s, 15-year 6s (especially versus 5-year debentures) and 30-year GN 7s.
- Add premium exposure in the structured market.
- Our synthetic premium trades using IOs have done very well and still look good.

Market Overview

Things came together for the mortgage market this week—a decline in implied volatility, higher mortgage rates and an uptick in dollar rolls. Through Thursday's close, 30-year conventionals tightened by 4-6 bp in the current coupons. For once, 15 years kept pace and tightened by a similar amount. We caution that the recent OAS tightening is a tad misleading. After adjusting for the level of mortgage rates (that have increased by 13 bp over the week) as well as special dollar rolls, the OAS tightening has been quite modest.

We remain neutral on the mortgage basis. On the one hand, the sector should continue to benefit from strong bank sponsorship. A combination of portfolio runoff and slowing loan demand has kept banks very active in the securities market. Issuance in the CMO market is running at record levels and mortgages should benefit further from a strong dollar roll market. On the flip side, we are reluctant to ignore greater prepayment risk in the market, especially considering that we are about to launch into the biggest refinancing wave ever. The expected surge in supply also makes us nervous overweighting mortgages.

Figure 1. **Summary of Trade Recommendations**

Mortgage Basis	• Stay neutral to mortgages, especially versus swaps.
GN-Conv Basis	• While neutral to GNs . . . • . . . add exposure through GN 7s.
Coupon Selection	• Overweight 30-year 6.5s. • Take profits in 30-year 7s.
30-/15-year	• Overweight to 15-years through 5.5s and 6s. • Favor TBA 15-year 6s versus 5-year debentures.
Structured Products	• Favor synthetic premiums (6.5s + 7% IOs) over conventional 7.5s. • Opportunities in short premium PAC/sequentials.

Figure 2. **Tracking Recent Trade Recommendations**

Date	**Recommendation**	**Comments**
10/5/01	Neutral to mortgages, especially versus swaps	Index underperforms the Treasuries by 7 bp and swaps by 3 bp on curve-adjusted basis at 85% of model OAD.
7/13/01	Overweight 30-year 6.5s	Curve-adjusted excess returns vs. swaps for 6.5s have been -73 since the recommendation; for 6s and 8s they are -124 and -94 bp. The excess returns are computed using 85% OAD and accounting for the rolls.
9/21/01	Overweight GN 7s	While the GN/FN 7 swap has lost 8/32nds, the GN 7s butterfly has gained 20 bp since the recommendation. Still favor taking GN exposure in 7s.
8/15/01	Overweight 15-years through 6s	15-year 6s have lost 4 bp vs. 30-year 6.5s since 8/15. We continue to favor 15-year conventionals due to historically high spreads, lower prepayment/volatility risk and greater exposure to the belly of the spread curve.
9/21/01	Favor 15-years over Debentures	15-year 6s have gained 5 bp versus 5-year debentures this week and 7 bp since the recommendation. Maintain this trade.

The Story So Far . . .

Before we elaborate our relative value recommendations, a brief discussion on recent performance. Following a strong 2Q, the MBS Index outperformed Treasuries by 29 bp on curve-adjusted basis in the 3Q, bringing YTD excess returns to 51 bp[1] (Figure 3). This is quite a remarkable performance considering the recent spike in implied volatility as well as high realized volatility. Most of the outperformance can be attributed to the secular spread tightening as the market priced out the supply premium in Treasuries. It has been quite a different story versus swaps. The MBS Index lost 49 bp in the third quarter and 96 bp for the year. The worse performance was on account of the *negative convexity* trade that caused swaps to richen versus other spread sectors.

In terms of supply, this has been the biggest year for the mortgage market. Through the end of September, gross issuance for the mortgage market was in excess of $750 billion, with net issuance of $245 billion (Figure 4). Interestingly, most of the supply has come from conventionals. The share of GNMAs in net issuance has been barely 3%! It is true that the share of GNMAs does decline in a typical refinancing wave due to the greater share of purchase borrowers underlying GNMA pools and cannibalization by the conventional mortgage market. However, this year, relative GNMA issuance has been the lowest ever. As a point of reference, during 1998, GNMAs contributed 13% of net fixed rate issuance.

[1] Excess returns computed using our suggested hedge ratios that are shorter than model OADs

Figure 3. **Excess Returns for the MBS Index,** bp

	versus Treasuries				versus Swaps			
	Index	**Conv 30**	**GN 30**	**Conv 15**	**Index**	**Conv 30**	**GN 30**	**Conv 15**
IH	27	21	61	4	-46	-53	-11	-62
3Q*	29	16	31	37	-49	-53	-52	-33
4Q*	-5	-5	-5	-5	-1	-2	1	-1
YTD	51	32	87	36	-96	-108	-62	-96

* Using adjusted model duration.

Figure 4: **MBS Issuance,** 2001, $ Billion

	Conventionals*	**GNMAs***	**All MBS**
Total Issuance	545.9	119.4	756.3
Net Issuance	233.4	8.1	244.7

* Fixed-rate MBS alone.

Themes within the Passthrough Market

MBS/Debenture Basis—Buy 15-Year 6s, Sell 5-Year Agency Debentures

Mortgage performance versus agency debentures has been dismal during the third quarter, especially in the lower coupons that have lost as much as 75-100 bp in terms of curve adjusted excess returns. On an OAS basis, 30-year conventionals are wider by 5-7 bp versus agencies compared to their recent averages (Figure 5). While this widening does appear dramatic, part of it can be explained by the market rally. As discussed on numerous occasions, mortgages trade very directionally in a premium environment. We are neutral on debentures versus 30-year current coupons. Increased prepayment risks as well as greater costs of hedging argue for wider mortgage spreads. While the spread widening could be a tad excessive, it is not attractive enough to take a view on the basis. In the prevailing environment, there are too many moving parts—prepayments, curve exposure, volatility, etc.

The bigger opportunity to play the basis is in the 15-year sector. For one, the above-mentioned risks are less significant. At the same time, spread widening in 15 years has more pronounced and they are 10-11 bp wider versus recent averages. Our favorite trade is to buy 15-year 6s and sell 5-year debentures. The spread relationship between these securities is at its all time wide. The relative cheapness of 15-year 6s is largely due to the steeper yield curve that is not reflected in their prices. The best way to take advantage of that is by selling shorter maturity debentures. Even if the market refuses to give the 15-year sector any benefit for the steeper curve, investors can capture that through 5-year debentures. Essentially, this is the same as lower costs of hedging 15-year passthroughs.

Figure 5 . **Recent Mortgage Performance versus Agency Debentures,** bp

	30-Year			15-Year		
	6.0	**6.5**	**7.0**	**5.5**	**6.0**	**6.5**
Agency OAS	21	26	22	34	39	45
vs. 30-day average	+3	+2	-2	+4	+4	+5
vs. 60-day average	+7	+5	-2	+10	+10	+11
2H Excess Returns	-86	-63	4	-72	-58	-42

GN/FN Basis—Pick Your Spots in Unseasoned GN 7s

The biggest negative for the GN sector over the near term is a further unwind of the Treasury substitute premium, especially in the lower coupons. However, we view further cheapening of the sector as a buying opportunity. There are several factors working in the favor of GNs. First, supply in dwindling. As mentioned before, YTD net issuance of GNs has been a paltry $8 billion. Second, we think it likely to see an increased demand from banks for GN securities. Given growing pressure to meet ROE targets, the zero risk capital weighting for GNs should be appealing. Finally, the lower callability of GNs are not currently reflected in GN prices, especially in the cusp coupons. Due to their lower loan balances and WACs, GNs will offer significant prepayment protection versus their conventional counterparts.

We are currently neutral on the GN-FN basis but recommend investors take their GN exposure in TBA 7s where the lower callability of GNs has the greatest advantage. The trade is very obvious for investors who do not dollar roll. Even those investors who do roll their securities should note that, due to lower prepayments, GN 7s have only marginally lower carry than FN 7s. The big difference is that while the carry on FN 7s is contingent on market technicals in the dollar roll market, for GNs it is based on prepayment fundamentals. Another coupon that we like in GNs is moderately seasoned 6.5s that are currently trading at minimal pay-ups to TBAs.

Structured Products

Our main theme in the structured land is *premium substitutes*. In the collateral market, premiums have had a great run recently, outperforming the lower coupons by more than 50 bp in curve-adjusted excess returns. The landscape for the structured market has remained the same—premium tranches trade at a *concession* to par priced tranches. This creates attractive opportunities and investors can add premium substitutes at a spread *and* convexity advantage. We summarize some of our top choices below.

Short Premium PACs/Sequentials

We especially like the short premium tranches off of 6.5s. One needs to bear in mind that the premium on these securities is due to the steep curve and may not represent significant prepayment risk. On an OAS basis, these securities are priced in the L+30–40 range, significantly wider than collateral. Further, for a 6-month holding period, returns on these securities are about 100 bp higher than those on premiums, with similar duration exposure. This more than offsets any liquidity disadvantage and we recommend investors take profits in premium collateral in favor of short PACs/ sequentials.

Synthetic Premiums Stand out

For most of 2001, we found prepayment risk overpriced in IOs compared to the passthrough market and favored synthetic premiums over collateral. Figure 6 summarizes the performance of the various trades that we have recommended during the year. We happily note that all of our trades have posted positive returns (Figure 6). Our recent recommendations- creating synthetic 7.5s off 7s and 6.5s have performed exceedingly well, thanks to the strong dollar roll on current coupons.

We recently took profits in 7.5s x 7s, which had gained 16+ ticks over TBA 7.5s. The other trade—synthetic 7.5s off of 6.5s continues to be our favorite trade. While the trade has worked in our favor in the recent past, there appears to be further upside. Based on a simple relationship between the prices of the synthetic premium and collateral, the synthetic appears 10 ticks cheaper than its fair value (Figure 7). Investors concerned about the negative carry on premium IOs need to bear in mind that there is a similar loss in carry when moving up in coupon. The synthetic actually offers a pickup in carry of 2 ticks per month over 7.5s collateral. All in all, synthetic premiums look compelling as substitutes for premium collateral.

Figure 5. **Performance of Recommended Synthetic Premium Trades in 2001**

Recommendation	Start Date	End Date	Total Returns
6.5s + 7% IO over 8.0s	1/29/01	7/16/01	6/32nds
7.0s + 7% IO over 7.5s	7/16/01	10/4/01	16+
6.5s + 7% IO over 7.5s	7/16/01	Still on	11+

Figure 7. **Synthetic Premiums Continue to Look Cheap**

		versus Premium*					Price Performance	
Coupon	**Trust**	**Price**	**OAS**	**OAD**	**Rich/Cheap**	**Z-Score****	**1-Week**	**30-Day**
6.5 x 6.0	FNT 302	-8/32nds	9 bp	0.6 yr	-10/32nds	-1.5	-2/32nds	-5/32nds
7.0 x 6.5	FNT 301	-5	17	0.7	-12	-2.8	4	-3
7.5 x 7.0	FHT 207	10	5	0.3	2	0.8	-1	7
8.0 x 7.5	FHT 206	2	16	0.2	-7	-2.0	-1	-4

* We compare the synthetic premium to collateral of the same coupon.
** Rich /Cheap is defined as the residual of the regression between prices of the synthetic premium and collateral.

Carry Trades in lower Coupon IOs

Lower coupon IOs look attractive from a carry perspective. Our favorite trade is to create a zero duration combination of 6.5s with 6/6.5% IOs. A combination of 6.5s with 6.5% IOs, for instance, offers a monthly carry in excess of 26 ticks (per $ 100 notional of the IO), thanks to the steep yield curve. We admit that the combination has exposures to the curve, implied volatility and prepayments—risks that cannot be ignored in the current environment. However, the expected returns on the combination more than justify the risks taken. There have been few months when lower coupon IOs have underperformed collateral by 26/32nds.

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UK MORTGAGES

Investors who are pessimistic about the prospects for the US economy should consider diversifying into non-US products. Of these, one of the largest structured sectors is prime UK mortgages. We believe that these offer value for a number of reasons:

1. UK prime mortgage products are of extremely high quality, and performed well in previous recessions. The UK economy, while clearly correlated to the US economy, is less likely to be affected by the WTC disaster induced slowdown.
2. The transactions are structured so that investors assume minimal prepayment risk. The level of credit enhancement is very high given the historical performance.
3. UK mortgages have traditionally traded back of US credit cards, and have widened out recently. We believe they offer excellent value.

Historical Performance

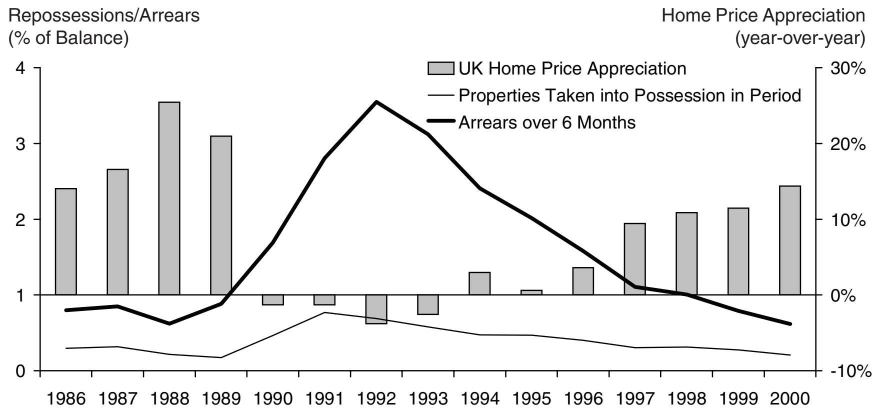
The historical performance of prime UK mortgages has been very strong. Figure 1 shows the aggregate repossession rate and the total delinquencies (referred to as arrears in the UK) over the past 15 years. Over this entire period, the performance has been very good, comparable to agency and jumbo mortgages in the U.S. The repossession rate over the past few months has been at about 0.21%/year in 2000, and they have been well below 1%/year for each of the past 15 years. This compares favorably with the performance of the U.S. prime mortgage market, including both agencies and non-agency jumbos. In addition, many prime mortgages also have mortgage insurance guarantee, which covers loans with loan-to-value ratio above 75%. Combined with a strong system of government-licensed appraisers, this ensures that recovery rates are quite high, leading to an estimated loss rate of about 0.05% for the past year.

Of course, recent performance has been helped by the very high rates of home price appreciation over the past few years, particularly in the Greater London and South East regions of the country, where most of the portfolios are concentrated. Home prices appreciated nationally at over 10%/year over the past 4 years. As Figure 1 shows, repossession and delinquency have a strong negative correlation to home price appreciation. During the 1991-1993 period, when home prices declined, arrears and repossessions were significantly higher. The data shown is for the entire UK mortgage market, but most issuers have sufficiently large portfolios that their performance may be expected to be very similar. Subordination levels on UK prime mortgage transactions are more than adequate to protect against the performance we saw in the early 1990s.

Solid Structure

Recent issuance from all the three active issuers in the prime UK mortgage market has been through master trusts, using structures similar to U.S. credit cards. This means that all securities from each issuer share the same collateral and differ only in maturity and spread. The transactions use a senior-subordinate structure, and all subordinates that are outstanding are available to support each senior bond.

Figure 1. **Historical Performance of UK Prime Mortgages**



The sizing and maturity of each series are determined using relatively conservative assumptions of prepayments. There is typically an accumulation period of several months during which all principal and interest payments are accumulated to ensure that sufficient funds are available at maturity date. If prepayments come in faster than expected, the issuer adds more loans to the trust to maintain the balance. If prepayments were to be much faster than expected, then the issuer may not have sufficient assets to add to the trust. However, as shown in Figure 2, each of the issuers has mortgage assets far greater than the issuance to date, making this risk very small. If prepayments are much slower than expected, liquidity facilities are generally available to ensure that there are sufficient funds available to pay the bondholders as necessary—however, prepayments have to be much slower than historically for this to be necessary. For example, in the Abbey National transactions, prepayments would have to slow to about 8% CPR before the liquidity facility is used—recent prepayments have been in excess of 30% CPR. Hence, issuers effectively absorb almost all the prepayment risk in the collateral.

Given the historical performance of the asset class, credit enhancement is more than adequate. AAA subordination is about 8%, and there may also be a reserve account of 1.5% in addition. For comparison, US jumbo mortgages have similar historical credit performance with lifetime losses of about 15 bp, but much lower subordination. For example, the AAA class of typical jumbo transactions have about 4 to 4.5% of subordination, with no excess spread and no reserve account.

Spread Performance

Issuance in the prime UK mortgage market has been in several currencies, including dollars, sterling and euros. However, the largest share of this has been dollar denominated.

The spreads shown below refer to dollar denominated issuance. UK mortgages have traditionally traded in relation to US credit cards, mainly because, like cards, they are bullets issued off master trusts. Figure 3 shows a spread comparison. UK mortgages are priced to 3M$L, while US credit cards are priced to 1M$L. Since this swap is worth about 2 bp, UK mortgages are even wider than the graph shows. For a specific example, in the week following the disaster, the 3-year controlled amortization bond from Granite srecently priced at 3M$L+23—a bullet with the same average life would probably trade 3 bp tighter, while the MBNA transaction that came to market the same week priced at 1M$L+13.

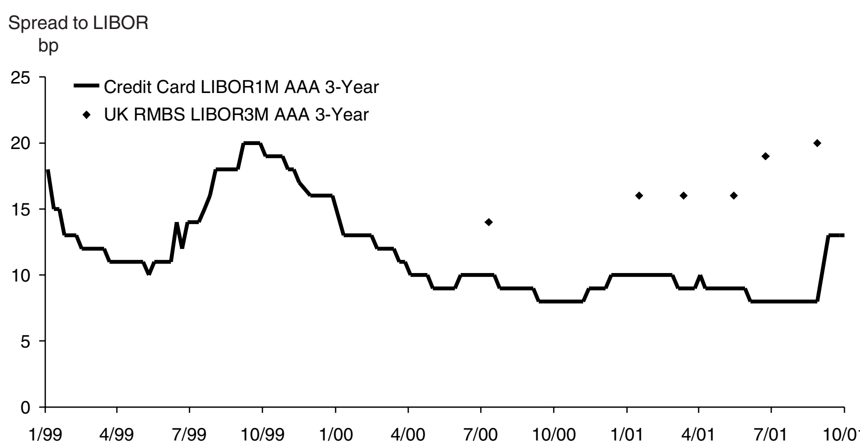
From a technical point of view, demand for UK mortgages has historically been very strong, particularly from the special investment vehicles of banks. The recent spread widening and the desire to diversify away from US based assets is likely to attract more interest. We believe that UK mortgage spreads are likely to hold in fairly well over the foreseeable future.

Figure 2. **UK Prime Mortgage Trusts,** $ Billion

Trust	**Sponsor**	**Mortgage Portfolio**	**Bonds Issued****
Holmes	Abbey National	94	14
Granite	Northern Rock	23	7.2
Mound	Bank of Scotland	155*	2.3

* Includes assets of Halifax, with which Bank of Scotland recently merged.
** Includes issuance in sterling, euros and dollars, converted at prevailing rates.

Figure 3. **Spread Performance compared to U.S. Credit Cards**



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CMBS MARKET OVERVIEW

The commercial mortgage market experienced light trading flows again this week. Primary investor interest remains in AAAs, particularly 5- to 7-year ***second-pay*** classes. We have also seen increased interest in first-pay AAAs from financial institutions, seeking higher yield in the front-end. However, traditional CMBS investors continue to express concern over first-pay AAAs, which have greater exposure to a steeper yield curve and are expected to bear the brunt of heightened default concerns. We believe investors need to differentiate first-pay AAAs based on relative exposure to the yield curve—**all first-payers are not created equal**. As an example, LBUBS 00-C3 A1 experiences only a 1 bp drop when switching from average life based pricing to cash flow based pricing (ZV drop).[1] In contrast, NASC 98-D6 A-1A has a ZV drop of almost 21 bp. The explanation: Despite having a wide principal window, LBUBS 00-C3 A1 receives a large bullet payment and its principal payments are concentrated on a flatter part of the yield curve. Overall, spreads in AAA markets seem to have achieved a bit more stabilization this week. In fact, we would suggest that AAA CMBS sectors actually tightened 1 bp to LIBOR relative to last week (5-year L+61 bp, 10-year L+66 bp). This week's tightening marks a watershed event for CMBS—the first time since 9/11 that spreads have not widened.

Since the end of August, CMBS spreads have widened between 23-38 bp, on average, with the biggest impact being felt in single-A sectors (Figure 1). Based on average spreads measured by the Lehman Brothers CMBS index, single-As are wider by 38 bp, steepening the credit curve. In contrast, BBB and BB spreads have not experienced the same distress. While A/AA credit spreads widened 10 bp, BBB/A spreads **tightened** 5 bp and BB/BBB

[1] For a more detailed discussion of ZV drop, please refer to the *MBS & ABS Outlook*, July 23, 2001.

Figure 1. **Comparison of Spread Changes and Spread Curve in CMBS and Corporates,** bp over LIBOR

	8/31/01		10/11/01		Changes	
Rating Category	**CMBS**	**Interm. Corp.**	**CMBS**	**Interm. Corp.**	**CMBS**	**Interm. Corp.**
AAA	50	-36	73	-4	23	32
AA	74	-8	102	38	28	46
A	92	34	130	100	38	66
BBB	168	116	201	202	33	86
BB	571	325	601	523	30	198
Spread Curve						
AA/AAA	24	28	29	42	5	14
A/AA	18	42	28	62	10	20
BBB/A	76	82	71	102	-5	20
BB/BBB	403	209	400	321	-3	112

Sources: Lehman Brothers CMBS, U.S. Credit, and High Yield Indices.

spreads **tightened** 3 bp. Admittedly, there has been minimal price discovery in lower rated CMBS sectors. On the other hand, traditional CMBS credit investors with considerable real estate expertise seem to be implying that they are not overly concerned about a deteriorating real estate market. We agree with their assessment. Despite the myriad of concerns, we do not anticipate another 1991 style commercial real estate recession.

The changes in the spread curve are inconsistent with recent developments in corporate markets, where the credit curve has steepened in a much more predictable fashion. On average, corporate quality sectors have priced in greater risk of credit deterioration, with BB/BBB spreads widening 112 bp.

Not Yet Time to Overweight CMBS

Despite the recent spread stabilization, we are reluctant to a recommend an overweight to the sector at this point. Valuations are indeed compelling, and there are some attractive opportunities out there for investors who would like to add exposure to the sector. But, we believe the risk-reward is asymmetric. There is still enough uncertainty that could drive spreads wider over the near-term. **This week, we will maintain our No. 3 recommendation for CMBS**. Until we work through some of the issues outstanding, we do not expect to see spreads snap back in too soon. There are four key factors that concern us:

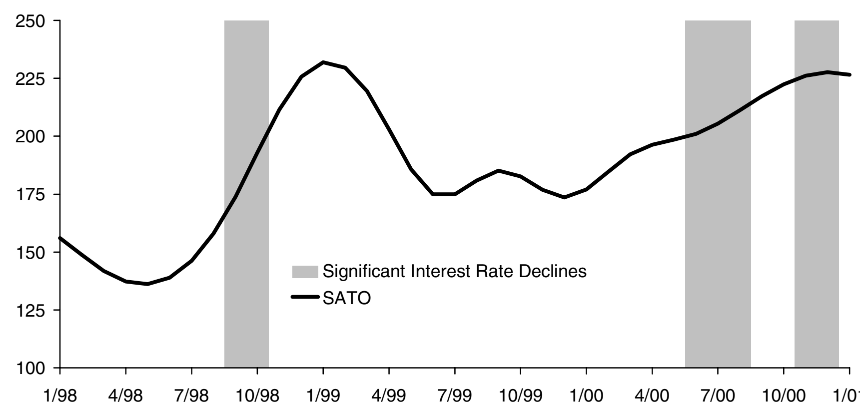
1. **Buyers are limited.** Spreads are wider, and buyers are returning to the CMBS market. But, sellers still outnumber buyers. It may seem simplistic, but the CMBS market needs to escape the recent paralysis before spreads can tighten. The good news: we're seeing a much-improved balance.
2. **The pipeline is building up.** Given the uncertainty, it is difficult to make meaningful projections about supply through year-end. However, two things are certain: a) financing rates of 6 ¾ to 7 ½ % are highly attractive to commercial borrowers from an historical perspective, and b) prepayments on pre-1999 transactions will increase as loans reach the end of mandatory lockout periods. As a result, conduit operations are heating up, and we anticipate healthy supply through the next quarter. We would not be surprised to see $15 billion in domestic CMBS come to market over the remaining quarter.
3. **Lending spreads are wider**. As rates have moved lower, commercial borrowers have become more focused on the absolute level of rates, rather than on the financing spread over Treasuries or LIBOR. In mortgage research parlance, we refer to this spread as SATO, or **spread at origination**. SATO is commonly used as a measure of relative credit risk across borrowers. During previous periods of rapidly declining interest rates (i.e., 8/98-10/98 and 11/00-1/01), the average SATO on commercial mortgage loans has increased rapidly (Figure 2). We attribute this response in part to commercial lenders imposing floors on borrowing rates as rates fall. As borrowing spreads (or SATO) widen, securitized CMBS spreads are likely to follow. Commercial lenders that are able to impose wider spreads on borrowers will be less reluctant to widen spreads on new issue transactions.
4. **General uncertainty**. In general, the economic and social environment has taken on greater uncertainty over the past month. It has become considerably harder to predict

the impact of specific events on the economy, on real estate and on market sentiment. Specifically, real estate markets are faced with a litmus test of the securitization model. In the next few months, we will be facing a defining moment in which the structure of insurance, advancing and special servicing will be put to the test. At the moment, there are more questions than answers. How quickly will insurance companies pay out claims on damaged or collapsed buildings? Who will insure against terrorism? And, at what cost? In a calamitous event, how well defined is the servicer's standard of "recoverability"? These questions will soon be answered. Until then, it is difficult to imagine a significant tightening in spreads.

Are We Headed For Another 1991?

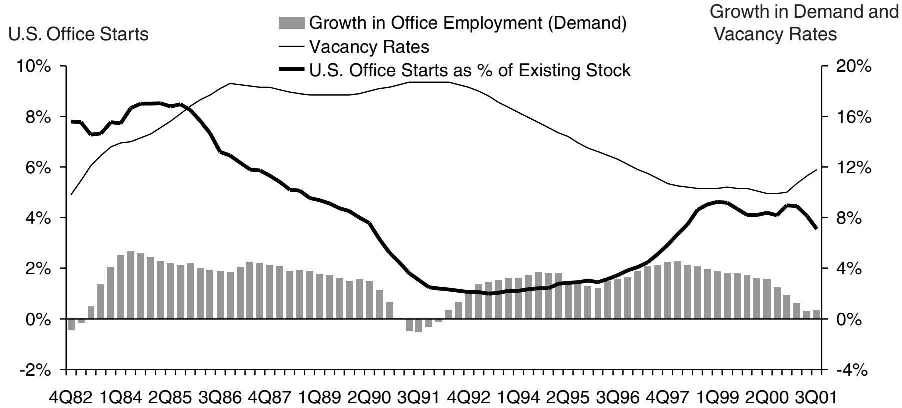
As the economy heads downward, the obvious question concerns whether or not we are headed for a repeat of 1991. We believe the clear evidence so far suggests not. Though a recession would clearly impact property sectors, the commercial real estate markets are in a better position today than in 1991. Most important, a decidedly improved balance exists between supply and demand. On the demand side, job growth has reversed course in 2001—growth in office employment has plummeted for the past 5 quarters. But the supply side has responded quickly: new office starts have slowed, reducing the risk of over capacity. Compared to the late 1980s, new construction starts are a much lower percentage of existing office stock, registering about one-half the level of that recorded in 1Q86 (Figure 3). Such restraint is evidence of discipline imposed by the involvement of the

Figure 2. **SATO Typically Rises As Rates Fall***



*SATO stands for *spread at origination.* The SATO in Figure 2 is relative to Treasuries and is normalized for a $3 million commercial mortgage loan.

Figure 3. **This Time Around, The Office Sector Is Better Balanced**



Sources: Property & Portfolio Research and Lehman Brothers.

capital markets in risk-based pricing. So far, commercial MBS investors have experienced few problems with office properties. While delinquency rates crept higher by 0.08% in 2Q01, they remained quite low at 0.21%.

If new supply is indeed constrained, national office vacancy rates should not approach the lofty 19% level achieved in 1991-92. According to Torto Wheaton, there is about 337 million square feet of vacant office space today with about 75 million square feet of new supply anticipated by year-end. New supply is currently pre-leased at about 38% occupancy. Assuming there is no net absorption for the remainder of 2001, sublet activity halts, and new space enters the market at 40% leased, the vacancy rate would only rise by 140 basis points by year-end to about 12.7%—about the same rate of increase witnessed in the first half of 2001. By historical contrast, this impact on the office leasing market will be tame compared to 1991.

If vacancy rates do rise faster, office borrowers will be aided by the length of the initial lease terms. A considerable portion of the commercial debt backing domestic CMBS markets was attained between 1997-1999. In contrast to 1991-92, average rents on office space have risen dramatically in the previous five years leading up to the economic downturn. Since most office buildings have 5- to 10-year lease terms, many tenants face higher markets rents upon rollover than required under the terms of their existing leases. For example, as shown in Figure 4, a typical tenant rolling out of a 5-year office lease 3Q90—the first quarter of negative GDP growth in the last recession—had accumulated rent **declines** of 2.5% over the previous 5 years. That is far from the case today. In 3Q01, a tenant rolling out of a 5-year office lease would still be expected to pay an average of 25% **higher** in rent.

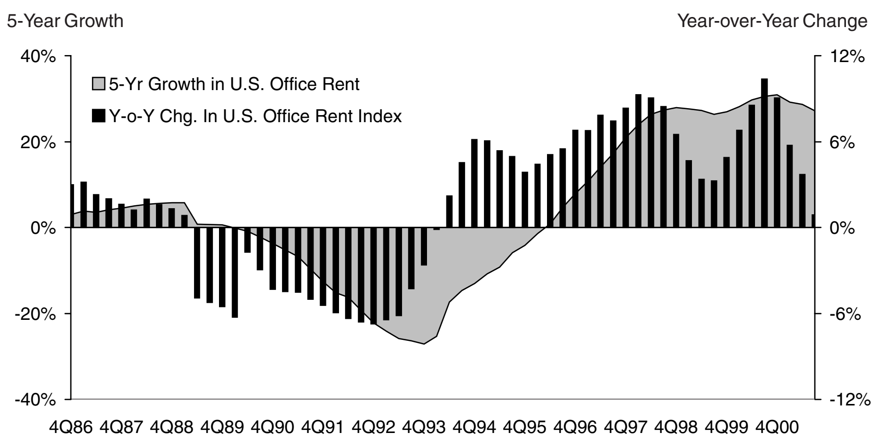
New York was one of the markets with large negative absorption in 1H01. Office vacancy rates in NY climbed close to 100 bp from 3Q00 to 3Q01. While NY vacancy rates stood at 8.3% at the end of 3Q, it is estimated that the WTC attack may have removed as much as 6% of the entire NY office space.[2] As NY-based businesses search for contiguous blocks of office space in surrounding metropolitan areas, previously rising vacancy rates in those areas will be somewhat constrained.

Retail: The Consumer is King

The retail sector contributes the largest volume of loans to commercial mortgage transactions—29%. Despite a declining economic environment, retail problems have not proven to be the dominant issue in CMBS transactions; in fact, retail properties are performing better than would be expected given their relative exposure. Over the next few months, commercial MBS investors should follow the consumer closely. In the aftermath of the terrorist attacks, retailers have suffered immediate damage from consumer uncertainty. If the retreat continues over an extended period, the retail sector will likely suffer further damage. If the consumer recovers, the retail sector is reasonably positioned to weather the economic downturn. Following the advent of securitization for commercial properties, the retail overcapacity problem has been largely held in check. The supply

[2] Sources: Property & Portfolio Research and Lehman Brothers.

Figure 4. **Longer Office Leases Could Help Mitigate Impact of Declining Average Rents**



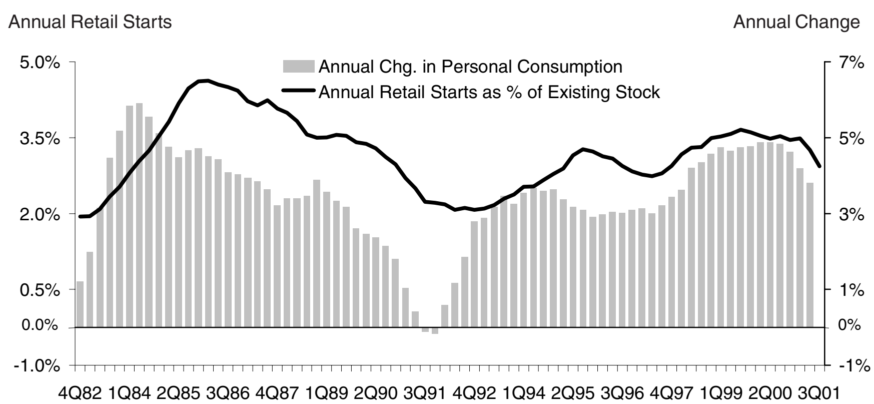
Sources: Property & Portfolio Research and Lehman Brothers.

pipeline is relatively light, so a downturn should not be exacerbated by excess supply. Under the closer inspection of capital markets, new construction of retail properties closely tracks changing consumer confidence and personal consumption habits. To illustrate the improved correlation between construction activity and consumer habits, we compare two series:

- For new retail construction activity, we measure the volume of new retail space (measured in square feet) added over four consecutive quarters as a percentage of the existing stock at the onset of the period,
- To measure consumer consumption trends, we chart the annualized (year-over-year) change in personal consumption.

It is evident from Figure 5 that new retail construction has been much more responsive to changing consumer consumption habits since 1996, when securitization of commercial mortgages exploded. Prior to 1996, the retail construction industry responded with greater lag to changing consumer trends. That does not imply that retail vacancy rates will not rise—they will. However, the extent of the rise will be limited by rapid restraint on new supply. National retail vacancy rates are unlikely to approach the most recent peak recession rate of 19% achieved in 1Q92. In short, we are not looking at a replay of the early 1990s recession.

Figure 5. **Post Securitization, Retail Starts Track Consumer More Closely**



Sources: PPR and Lehman Brothers.

Global Fixed-Income Market Data

LEHMAN BROTHERS BOND INDEX RETURNS, October 11, 2001, %

MACRO INDICES

Returns	Price	Coup.	Curr.	WTD	MTD	YTD
Global Aggregate	-0.34	0.10	-0.53	-0.77	-0.48	3.52
U.S. Agg: 300 mn	-0.57	0.12	0.00	-0.45	0.06	8.37
Pan-Euro: 300 mn	-0.24	0.11	-1.33	-1.47	-0.54	1.30
Asn-Pac Agg: 300 mn	-0.02	0.04	-0.57	-0.55	-1.52	-2.43
Eurodollar: 300 mn	-0.44	0.11	0.00	-0.33	-0.04	9.45
144A: 300 mn	-0.69	0.14	0.00	-0.55	0.26	11.19
Canada TSY: 300 mn	-0.60	0.12	0.09	-0.39	0.86	1.44
Euro-Yen: 300 mn	-0.07	0.05	-0.63	-0.64	-1.71	-3.06
Global High Yield	0.36	0.21	-0.06	0.51	-0.25	-1.26
U.S. Corp High Yield	-0.18	0.20	0.00	0.02	0.31	-0.16
Pan-Euro High Yield	0.00	0.27	-0.33	-0.06	-0.15	-17.30
EMG High Yield	1.51	0.22	0.00	1.72	-1.19	-1.47

Returns	Price	Coup.	WTD	MTD	YTD
U.S. Universal	-0.50	0.13	-0.38	0.06	7.93
U.S. Aggregate	-0.56	0.12	-0.44	0.08	8.48
U.S. Corp High Yield	-0.18	0.20	0.02	0.31	-0.16
Eurodollar (ex-Agg.)	-0.43	0.11	-0.32	-0.04	9.43
EMG (ex-Agg.)	1.44	0.21	1.65	-1.03	-1.29
144A Invest. Grade	-0.87	0.14	-0.73	0.34	10.88
CMBS Other	-1.00	0.17	-0.83	-0.41	9.58
Emerged Bonds	-0.04	0.11	0.07	0.18	11.83

U.S. AGGREGATE INDEX

Returns	Price	Coup.	WTD	MTD	YTD
Aggregate	-0.56	0.12	-0.44	0.08	8.48
Intermediate	-0.45	0.12	-0.33	0.02	8.64
Govt./Credit	-0.67	0.12	-0.55	0.12	8.57
Intermediate	-0.50	0.12	-0.39	0.04	8.91
Long	-1.13	0.13	-1.00	0.35	7.74
Government	-0.68	0.11	-0.57	-0.01	7.86
Intermediate	-0.43	0.11	-0.33	-0.02	8.55
Long	-1.27	0.12	-1.16	0.01	6.33
1-3 year	-0.17	0.10	-0.07	0.13	7.84
Treasury	-0.75	0.11	-0.64	-0.03	7.52
Intermediate	-0.44	0.11	-0.33	-0.04	8.24
Long	-1.27	0.12	-1.16	-0.01	6.28
1-3 year	-0.20	0.10	-0.10	0.08	7.67
3-5 year	-0.47	0.11	-0.35	-0.08	8.91
5-7 year	-0.65	0.11	-0.55	-0.16	8.97
7-10 year	-0.88	0.11	-0.77	-0.25	8.30
10-20 year	-1.20	0.12	-1.07	-0.15	6.89
20+ year	-1.35	0.11	-1.25	0.13	5.70
Agency	-0.53	0.11	-0.43	0.03	8.67
Intermediate	-0.42	0.10	-0.32	0.02	9.06
Long	-1.26	0.11	-1.15	0.13	6.66
Noncallable	-0.61	0.11	-0.50	0.03	9.01
Callable	-0.12	0.10	-0.02	0.05	6.84
ABS	-0.43	0.12	-0.32	-0.06	9.77
Credit Card	-0.41	0.11	-0.30	-0.04	9.77
Auto	-0.13	0.11	-0.02	0.19	8.69
Home Equity	-0.29	0.13	-0.16	0.08	9.43
Utility	-0.73	0.12	-0.61	-0.31	10.66
Manuf. Housing	-0.71	0.13	-0.57	-0.29	10.55
MBS Fixed Rate	-0.37	0.12	-0.24	0.04	8.19
GNMA 30-year	-0.28	0.13	-0.15	0.06	8.09
Conv. 30-year	-0.39	0.13	-0.26	0.04	8.23
GNMA 15-year	-0.32	0.12	-0.20	0.02	7.94
Conv. 15-year	-0.39	0.12	-0.27	0.03	8.21
Balloon	-0.17	0.11	-0.06	0.07	7.77

Returns	Price	Coup.	WTD	MTD	YTD
Inv.-Grade CMBS	-0.98	0.13	-0.85	-0.54	9.51
ERISA-eligible	-0.96	0.12	-0.84	-0.53	9.49
Aaa	-0.93	0.12	-0.81	-0.50	9.52
Aa	-1.14	0.13	-1.01	-0.68	9.31
A	-1.28	0.13	-1.15	-0.82	8.93
Baa	-1.11	0.14	-0.97	-0.61	10.15
U.S. Credit	-0.67	0.13	-0.54	0.29	9.74
Intermediate	-0.59	0.13	-0.46	0.10	9.50
Long	-0.90	0.14	-0.76	0.88	10.28
Corporate	-0.70	0.13	-0.57	0.29	9.69
Intermediate	-0.62	0.13	-0.49	0.11	9.41
Long	-0.93	0.14	-0.78	0.86	10.33
Industrial	-0.78	0.13	-0.65	0.40	9.37
Utility	-0.57	0.14	-0.43	0.29	9.06
Financial Inst.	-0.61	0.13	-0.48	0.14	10.28
Non-Corporate	-0.47	0.12	-0.34	0.28	10.07
Intermediate	-0.41	0.12	-0.29	0.09	10.07
Long	-0.70	0.14	-0.56	1.00	10.04
Sovereign	-0.26	0.14	-0.12	0.56	9.92
Supranationals	-0.46	0.11	-0.36	0.10	9.59
Foreign Agency	-0.49	0.12	-0.37	0.02	11.01
Foreign Local Govt.	-0.83	0.12	-0.70	0.20	10.45
Aaa	-0.47	0.11	-0.36	0.16	9.40
Aa	-0.60	0.12	-0.48	0.22	9.86
A	-0.72	0.13	-0.59	0.22	9.96
Baa	-0.68	0.14	-0.54	0.45	9.51

EURODOLLAR INDEX

Returns	Price	Coup.	WTD	MTD	YTD
Eurodollar Composite	-0.57	0.11	-0.45	0.07	9.56
Corporate	-0.69	0.12	-0.57	0.09	9.70
Sovereign	-0.50	0.11	-0.39	0.10	9.37
Supranational	-0.48	0.10	-0.37	-0.05	9.59

CMBS INDICES

Returns	Price	Coup.	WTD	MTD	YTD
Inv.-Grade CMBS	-0.98	0.13	-0.85	-0.54	9.51
Non ERISA-eligible	-1.17	0.13	-1.03	-0.69	9.48
CMBS High Yield	-0.83	0.20	-0.63	-0.14	10.23
BB	-0.90	0.17	-0.73	-0.26	9.48

U.S. HIGH-YIELD CORPORATE INDEX

Returns	Price	Coup.	WTD	MTD	YTD
High Yield	-0.18	0.20	0.02	0.31	-0.16
BB	-0.43	0.17	-0.26	-0.01	6.05
B	0.29	0.20	0.48	0.63	-3.13
CCC	-1.12	0.30	-0.82	0.25	-5.91

EMERGING-MARKETS INDEX

Returns	Price	Coup.	WTD	MTD	YTD
Emerging Markets	1.34	0.20	1.54	-0.57	0.87
Brady	1.06	0.15	1.21	-0.24	-1.11
Int'l Issue	1.46	0.22	1.68	-0.52	1.75
Americas	1.39	0.21	1.60	-1.37	-5.93
Europe	1.86	0.19	2.05	1.49	31.56
Asia	0.34	0.19	0.53	0.40	6.23
Africa	-0.11	0.15	0.04	1.81	16.58
Middle East	0.00	0.20	0.20	0.31	-1.03

GLOBAL BOND INDEX

	Price	Coupon	Unhedged Returns Currency	WTD	MTD	YTD	Currency-hedged Returns Currency	WTD	MTD	YTD
Global Treasury	-0.28	0.09	-0.76	-0.95	-0.71	1.50	0.00	-0.20	0.27	6.17
Global (ex US)	-0.14	0.08	-0.99	-1.05	-0.91	-0.50	0.00	-0.06	0.37	5.76
G7	-0.29	0.08	-0.71	-0.91	-0.79	1.55	0.01	-0.21	0.23	6.26
G6 (G7 ex US)	-0.12	0.07	-0.97	-1.02	-1.07	-0.88	0.01	-0.04	0.33	5.79
Lehman Majors*	-0.29	0.09	-0.74	-0.94	-0.72	1.43	0.00	-0.20	0.26	6.18
Lehman Majors (ex US)	-0.14	0.08	-0.98	-1.04	-0.95	-0.69	0.00	-0.06	0.36	5.74
US Treasury	-0.75	0.11	0.00	-0.64	-0.03	7.52	0.00	-0.64	-0.03	7.52
Canada	-0.60	0.12	0.09	-0.39	0.86	1.44	-0.02	-0.50	-0.03	5.59
France	-0.25	0.11	-1.25	-1.39	-0.46	1.21	-0.03	-0.18	0.47	5.38
Germany	-0.23	0.10	-1.25	-1.38	-0.52	0.95	-0.03	-0.16	0.41	5.11
Italy	-0.20	0.11	-1.26	-1.35	-0.40	1.87	-0.03	-0.13	0.54	6.07
Japan	0.02	0.04	-0.63	-0.57	-1.64	-2.73	0.05	0.10	0.27	6.92
United Kingdom	-0.26	0.13	-2.28	-2.41	-1.51	-0.56	-0.04	-0.18	0.22	2.35

* Lehman Majors includes US Treasury, Canada, France, Germany, Italy, Japan, United Kingdom, Australia, Belgium, Denmark, Netherlands, Spain, and Sweden.
MTD=month to date. YTD=year to date.

PAN-EUROPEAN AGGREGATE INDEX (Currency-hedged)

	Pan-Euro Aggregate Price	Cpn.	Currency	WTD	MTD	YTD	Pan-Euro Aggregate (EUR500 mn Outstanding) Price	Cpn.	Currency	WTD	MTD	YTD
Pan-Euro Agg. Index	-0.24	0.10	0.00	-0.14	0.47	5.49	-0.24	0.10	0.00	-0.14	0.48	5.40
Government	-0.24	0.10	0.00	-0.14	0.49	5.30	-0.24	0.10	0.00	-0.14	0.49	5.26
Treasury	-0.24	0.10	0.00	-0.14	0.49	5.18	-0.24	0.10	0.00	-0.14	0.49	5.18
Non-Corporate	-0.17	0.10	-0.01	-0.07	0.55	5.37	-0.15	0.10	-0.01	-0.06	0.61	5.21
Corporate	-0.28	0.10	0.00	-0.18	0.40	5.63	-0.30	0.10	0.00	-0.21	0.41	5.68
Collateralised	-0.24	0.09	0.00	-0.14	0.44	6.41	-0.26	0.09	0.00	-0.17	0.42	6.47

PAN-EUROPEAN HIGH YIELD INDEX

	Returns Price	Coup.	Curr.	WTD	MTD	YTD
Pan-Euro High Yield	0.00	0.28	0.00	0.27	0.11	-17.62
High Yield (Euro)	0.00	0.31	0.00	0.31	0.52	-23.38
High Yield (non-Euro)	0.00	0.20	-0.01	0.20	-0.73	-2.98

EURO-AGGREGATE INDEX, all returns in euros

	Euro-Aggregate Price	Cpn.	WTD	MTD	YTD	Euro-Aggregate (EUR500 mn Outstanding) Price	Cpn.	WTD	MTD	YTD
Euro-Aggregate Index	-0.25	0.10	-0.15	0.48	5.90	-0.25	0.10	-0.15	0.49	5.83
Government	-0.23	0.10	-0.13	0.51	5.76	-0.23	0.10	-0.13	0.52	5.73
Non-Corporate	-0.27	0.10	-0.17	0.43	6.55	-0.28	0.09	-0.19	0.45	6.60
Corporate	-0.34	0.10	-0.24	0.36	5.90	-0.35	0.10	-0.26	0.39	5.74
Collateralised	-0.23	0.09	-0.14	0.46	6.53	-0.26	0.09	-0.17	0.44	6.63

ASIAN-PACIFIC AGGREGATE INDEX, all returns in yen

	Price	Coup.	Curr.	WTD	MTD	YTD
Asian-Pacific Agg.	-0.03	0.04	0.06	0.08	0.32	3.71
Government	-0.02	0.04	0.06	0.08	0.33	3.84
Treasury	-0.02	0.04	0.06	0.08	0.33	3.81
Agency	-0.03	0.04	0.10	0.11	0.37	4.90
Local Authority	0.02	0.05	0.07	0.15	0.48	3.15
Credit	-0.07	0.04	0.09	0.06	0.26	2.97
Corporate	-0.08	0.04	0.09	0.05	0.25	2.93
Financial Inst.	-0.15	0.03	0.14	0.03	0.21	2.46
Industrial	0.00	0.04	0.05	0.09	0.31	3.32
Utility	0.00	0.06	0.01	0.07	0.28	3.40
Non-Corporate	0.03	0.06	0.07	0.17	0.50	3.65
Sovereign	-0.01	0.07	0.00	0.05	0.21	3.93
Supranational	0.32	0.07	0.61	1.00	2.36	2.37
Foreign Agency	0.03	0.04	0.00	0.07	0.31	4.61
Foreign Local Auth.	0.04	0.05	0.10	0.19	0.66	3.88

CAPITAL MARKETS VOLATILITY, October 12, 2001

	Current	5-day Chng.	20-day Avg.	Last 3 Months (7/16/01-10/12/01) High	Low	Avg.	Last 12 Months (10/10/00-10/12/01) High	Low	Avg.
U.S. Treasury Implied Volatility									
2-yr	42.41	-1.11	44.30	48.00	24.37	33.08	48.00	13.02	26.01
5-yr	31.71	-0.85	33.83	37.16	21.05	27.09	37.16	13.56	23.47
10-yr	24.69	-0.31	24.75	26.66	16.87	21.42	26.66	13.14	19.86
30-yr	14.34	0.06	13.71	14.99	12.00	13.36	16.02	11.51	13.48
U.S. Treasury Yield Volatility, annualized rolling 20-day volatility									
2-yr	30.31	-35.25	65.33	71.16	19.72	39.09	71.16	8.32	25.17
5-yr	20.15	-20.01	40.93	44.40	14.87	26.83	44.40	6.88	21.63
10-yr	17.35	-7.14	26.32	28.88	12.70	20.59	29.56	8.08	18.23
30-yr	14.87	-0.99	17.09	18.57	8.40	12.51	18.57	7.54	12.61
Japan Govt. Yield Volatility, annualized rolling 20-day volatility									
2-yr	189.08	-29.73	198.82	218.81	57.26	151.55	273.27	23.18	119.62
5-yr	91.59	-4.20	92.75	97.90	55.99	85.93	121.46	16.36	67.40
10-yr	28.94	-2.78	31.39	52.25	20.57	35.00	74.05	10.55	35.50
30-yr	17.04	-1.12	18.40	38.99	13.93	23.75	70.79	12.58	28.60
German Govt. Yield Volatility, annualized rolling 20-day volatility									
2-yr	17.62	-13.02	32.29	35.01	8.34	20.35	35.01	5.99	17.11
5-yr	13.79	-8.89	23.52	25.72	7.65	16.65	25.72	5.31	14.10
10-yr	10.35	-2.27	13.70	14.79	6.41	11.09	14.79	5.25	10.12
30-yr	10.41	-2.67	12.89	14.40	5.97	9.72	14.40	5.11	8.94
U.K. Govt. Yield Volatility, annualized rolling 20-day volatility									
2-yr	16.73	-6.92	24.44	28.40	12.15	19.44	28.40	5.21	13.03
5-yr	12.87	-2.42	17.19	20.42	8.93	15.03	20.42	4.50	11.94
10-yr	12.53	-1.38	17.21	20.35	9.49	15.23	20.35	5.13	12.36
30-yr	13.52	-2.24	18.07	20.40	10.66	15.92	20.40	7.71	12.76
LIBOR Volatility, annualized rolling 20-day volatility									
1-mo	51.68	0.05	48.83	52.25	2.43	19.52	52.25	0.00	14.61
3-mo	36.66	-4.62	38.82	41.33	4.57	18.11	41.33	0.54	13.78
6-mo	35.94	-6.25	39.81	42.40	6.92	21.09	42.40	1.90	16.11
12-mo	35.75	-10.05	42.95	46.15	13.32	26.48	46.15	3.42	19.28
Swap Spread Volatility, annualized rolling 20-day volatility									
2-yr	28.53	-50.60	76.39	80.33	13.10	39.62	80.33	13.10	28.93
5-yr	31.13	-35.24	64.24	67.72	12.53	35.08	67.72	11.53	27.87
10-yr	31.52	-1.65	34.35	38.25	18.67	29.34	50.64	14.58	30.18
30-yr	35.50	-0.06	35.97	40.52	13.02	26.53	69.28	12.76	33.24

GLOBAL CURRENCY RATES, October 12, 2001, bp

	Spot (per USD)		Appreciation of USD Relative to Currency (%)			Realized Exchange-Rate Volatility		
per USD	**9/7/01**	**8/31/01**	**1-week**	**MTD**	**YTD**	**1-mo.**	**2-mo.**	**3-mo.**
Japanese Yen	121.36	118.76	2.19	0.95	6.27	2.57	4.15	3.34
Euro	1.11	1.10	0.50	0.17	4.10	3.39	5.27	5.40
United Kingdom Pound	0.69	0.69	0.60	1.28	3.49	2.32	2.76	2.52
Canadian $	1.57	1.55	0.94	0.12	4.27	2.12	1.42	1.65
Australian $	2.01	1.90	5.61	4.05	11.43	5.68	4.65	3.47
New Zealand $	2.41	2.29	5.33	5.16	6.78	5.12	7.08	5.87
Danish Krone	8.25	8.21	0.39	0.09	3.73	3.32	5.28	5.43
Swedish Krona	10.54	10.50	0.38	-0.10	11.72	5.36	4.32	4.25
Norwegian Krone	8.81	8.86	-0.56	-0.39	-0.09	1.87	4.18	4.04
Brazilian Real	2.78	2.56	8.70	7.61	42.51	7.95	6.07	6.97
Mexican Peso	9.34	9.20	1.50	0.18	-2.83	2.86	1.88	1.77
Thai Baht	44.75	44.03	1.64	0.38	3.16	2.38	3.29	2.27
South Korean Won	1302.15	1279.50	1.77	0.93	2.94	1.42	2.12	1.54

per Euro	Spot (per Euro)		Appreciation of Euro Relative to Currency (%)			Realized Exchange-Rate Volatility		
Yen	109.45	107.64	1.68	0.78	2.08	3.57	2.45	3.05
Danish Krone	7.44	7.45	-0.11	-0.07	-0.36	0.12	0.08	0.11
Swedish Krona	9.51	9.52	-0.12	-0.27	7.31	3.64	3.07	2.53
Norwegian Krone	7.95	8.03	-1.05	-0.55	-4.03	2.84	1.78	1.78

per GBP	Spot (per GBP)		Appreciation of GBP Relative to Currency (%)			Realized Exchange-Rate Volatility		
Euro	1.60	1.60	-0.10	-1.10	0.59	3.79	3.24	3.33
Yen	175.16	172.43	1.58	-0.33	2.68	2.17	2.26	1.97

GLOBAL SWAP SPREADS, October 12, 2001, bp

		Change			2001		
U.S.	**Current**	**1-week**	**MTD**	**YTD**	**Hi**	**Low**	**Avg**
2-year	51	3	-2	-22	76	47	59
5-year	77	3	3	-23	98	71	81
10-year	72	5	7	-31	99	65	84
30-year	55	6	9	-31	91	46	73
Germany							
2-year	8	-17	-16	-18	41	8	22
5-year	29	-8	-8	-23	54	24	37
10-year	31	-3	-6	-33	62	31	46
30-year	15	-5	-9	-36	49	15	35

		Change			2001		
Japan	**Current**	**1-week**	**MTD**	**YTD**	**Hi**	**Low**	**Avg**
2-year	4	1	1	-3	10	2	5
5-year	1	0	-1	-4	12	0	5
10-year	1	0	1	-13	20	-2	7
20-year	14	-1	2	-11	95	0	20
U.K.							
2-year	30	-10	-8	-12	50	19	34
5-year	43	2	1	-25	69	33	49
10-year	59	-6	-6	-33	93	59	70
30-year	44	-3	-11	-52	98	44	72

U.S. TED (TREASURY-EURODOLLAR) SPREADS, October 12, 2001, bp

		Change			2001 YTD		
	Current	**1-week**	**MTD**	**YTD**	**Hi**	**Low**	**Avg**
2-year	49	3	-4	-24	82	45	57
5-year	69	3	0	-33	113	65	82
10-year	91	4	7	-28	118	84	101

MONETARY POLICY WATCH: SELECTED 2001 WORLDWIDE CENTRAL BANK MEETINGS

	Oct	Nov	Dec
U.S. Fed Reserve Board	-	6	11
European Central Bank	25	8, 22	6, 20
Bank of Japan	29	15, 16, 29	18, 19
Bank of England	-	7, 8	4, 5
The Riksbank (Sweden)	15	-	4
Bank of Canada	23	27	-
Reserve Bank of Australia	-	12	-

* Not all monetary policy meetings for 2001 have been released.

2001 CENTRAL BANK MOVES

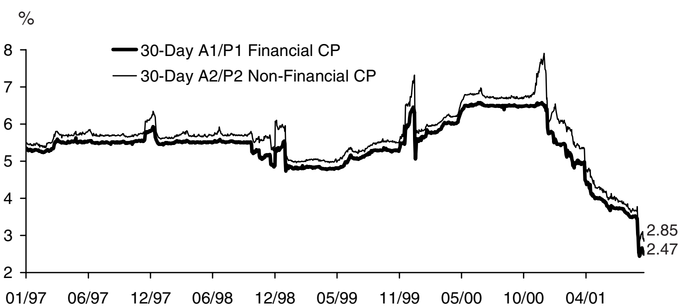
				Rate Change (bp)			YTD	
G7	**Local Rate**	**12/31/00**	**10/12/01**	**WTD**	**MTD**	**YTD**	**Easings**	**Tightenings**
U.S.								
Japan	Official Discount Rate	0.50%	0.10%	0	0	-40	4	0
EMU	Repo*	4.75%	3.75%	0	0	-100	3	0
UK	Base Rate	6.00%	4.50%	0	-25	-150	6	0
Canada	Discount Rate	6.00%	3.75%	0	0	-225	7	0
G7 Average		**4.75%**	**2.92%**	**0**	**-15**	**-183**		
Possible Round-2 EMU Candidates								
Denmark	Repo Rate	5.40%	4.10%	0	0	-130	5	0
Sweden	Repo Rate	4.00%	3.75%	0	0	-25	1	1
Norway	Deposit Rate	7.00%	7.00%	0	0	0	0	0
Switzerland	3-Month LIBOR	3.0-4.0%	1.75-2.75%	0	0	-125	2	0
		3.50%	3.25%					
Round-2 EMU Average		**4.98%**	**4.53%**	**0**	**0**	**-70**		
Other Major Central Banks								
Brazil	Meta SELIC	15.75%	19.00%	0	0	325	1	5
Chile	Target Rate**	8.00%	6.50%	0	0	-150	5	0
Czech Republic	2-wk Repo Rate	5.25%	5.25%	0	0	0	1	1
Hungary	Central Base Rate	11.00%	11.00%	0	0	0	0	0
Poland	Repo Rate	19.00%	14.50%	0	0	-450	4	0
Australia	RBA Cash Rate	6.25%	4.50%	0	-25	-175	5	0
New Zealand	Cash Rate	6.50%	5.25%	0	0	-125	4	0
Hong Kong	Savings Rate	4.75%	2.25%	0	0	-250	5	0
South Korea	Overnight Call Target	5.25%	4.00%	0	0	-125	4	0
Philippines	PPCBON (Overnight)	13.50%	8.75%	0	-25	-475	10	0
Average of Other Major Central Banks			**9.53%**	**8.10%**	**0**	**-5**	**-143**	
Total Average		**7.31%**	**5.98%**				**Total 76**	**7**

* For the purpose of signalling monetary policy, the minimum bid rate plays the same role previously performed by the rate in fixed-rate tenders.
** On August 9, 2001, Chile changed its monetary policy from targeting a real interest rate to targeting a nominal interest rate. All Chilean interest rates have been restated to reflect this change.

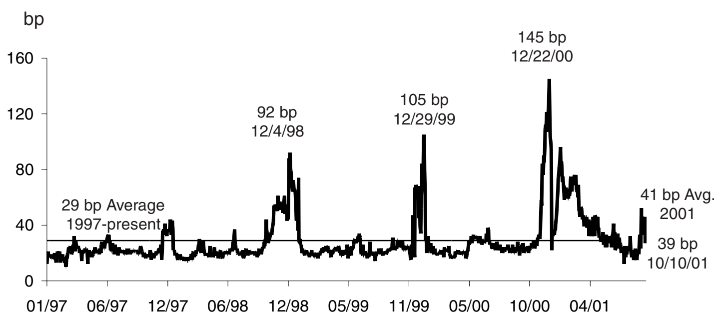
U.S. COMMERCIAL PAPER

	Outstanding ($ bn) 12/31/00	10/10/01	YTD Change (%)
Total U.S. Commercial Paper Outstanding (Seasonally Adjusted)	1,615.3	1,448.9	-10.30
Non-Financial	343.4	223.0	-35.06
Financial	1,271.9	1,226.0	-3.61

30-Day A1/P1 Financial and 30-Day Non-Financial A2/P2 Discount Rates, January 1997-October 10, 2001



A2/P2 Non-Financial Spread over A1/P1 Non-Financial CP, January 1997-October 10, 2001



Source: Federal Reserve Board of Governors.

MBS

SPREADS AND YIELDS FOR SELECTED MBS, October 12, 2001, bp, October settlement

	WAM (mos)	Price	Projected % PSA	Yld. (%)	Static Sprd.	Zero Vol. Spread	OAS Curr.	1-wk. Chg.	90-day OAS High	Low	Avg.	OA Dur. (yrs)
30-yr GNMA												
6.5	357	102-01	224	6.13	226/5yr	130	80	-1	94	65	72	5.0
7.0	356	103-20	357	6.05	219/5yr	154	81	-2	97	69	79	3.4
7.5	349	104-13	631	5.46	128/3yr	175	90	-1	102	77	90	2.0
8.0	350	105-06	801	5.08	229/2yr	190	102	-1	118	90	103	1.5
9.0	348	106-17	751	5.40	260/2yr	224	157	-4	187	146	160	1.5
30-yr FHLMC Gold												
6.5	358	101-26	395	6.01	214/5yr	138	74	2	90	61	75	4.1
7.0	356	103-15	749	5.41	123/3yr	152	68	0	88	53	77	2.5
7.5	351	104-07	702	5.45	127/3yr	159	69	-1	87	54	77	1.5
8.0	350	105-01	954	4.70	190/2yr	159	67	2	91	51	76	0.8
9.0	348	106-10	1035	4.28	148/2yr	159	97	-6	120	85	99	1.1
15-yr FHLMC Gold												
6.0	175	101-27	321	5.47	160/5yr	113	82	0	98	69	79	3.5
6.5	175	103-06	568	5.19	101/3yr	129	88	1	103	73	83	2.8
7.0	169	104-04	766	4.61	181/2yr	124	66	2	91	47	71	1.4
7.5	166	104-21	878	4.23	144/2yr	136	73	1	99	60	77	0.9
8.0	162	105-27	746	4.27	147/2yr	135	77	4	117	65	82	0.8
7-yr FNMA Balloons												
6.0	339	102-26	341	4.88	70/3yr	118	92	-1	108	57	78	2.2
6.5	354	103-03	666	5.03	85/3yr	142	100	-1	119	67	88	1.8
7.0	353	103-12	955	4.82	203/2yr	149	101	1	131	88	101	1.0
7.5	352	103-31	1045	4.66	187/2yr	142	93	7	132	82	105	0.4

GENERIC ABS SPREADS, October 12, 2001

	Princ Paymnt Wind (mo)	(Bid) Static Sprd*	1-wk Chg	3-mo Range Wide	3-mo Range Tight	Off-the Runs
Credit Cards (Bullets)						
Fixed (AAA)						
2-year par	1	66	3	82	55	74
3-year par	1	82	3	89	64	82
5-year par	1	95	3	104	82	91
7-year par	1	94	2	101	82	94
10-year par	1	101	2	112	95	99
Floating (AAA) (spread to 1-mo. LIBOR)						
2-year	1	12	0	12	6	
3-year	1	13	0	13	8	
5-year	1	17	0	17	12	
7-year	1	25	-2	27	17	
10-year	1	33	0	33	25	
Bank CLOs (spread to 3-mo. LIBOR)						
Delinked (AAA)						
3-year	12	35	0	35	19	
5-year	12	45	0	45	26	
Linked (AA)						
5-year	12	55	0	55	35	
7-year	12	65	0	65	40	
Autos						
Fixed Retail (AAA)						
1-year	12	E+8	0	NA	NA	
2-year	12	82	2	86	61	
3-year	18	87	4	92	65	
Student Loans						
Floating (AAA)						
2.5 yr (3mo T-Bill)	60	70	0	80	70	
7.1 yr (3mo T-Bill)	60	100	0	108	100	

	Princ Paymnt Wind (mo)	(Bid) Static Sprd*	1-wk Chg	3-mo Range Wide	3-mo Range Tight
Home Equity Loans					
Fixed (AAA)					
1-year	23	104	14	113	81
2-year	1	126	4	141	108
3-year	26	133	4	143	115
5-year	21	163	4	169	139
7-year	27	187	4	194	165
11-year	79	186	4	201	175
Floating (AAA) (spread to 1-mo. LIBOR)					
3.5-year (LIBOR ARMs)	96	30	0	30	24
3.5-year (HELOC)	120	29	0	29	23
Manufactured Housing					
Fixed (AAA)					
1-year	22	103	14	111	82
2-year	3	123	4	139	108
3-year	22	131	4	144	115
5-year	26	156	4	169	137
7-year	22	185	4	197	168
10-year	53	194	4	205	184
(AA)					
11-year	255	260	5	260	240
(BBB)					
7-year	82	480	5	480	450
(BBB-/Baa3)					
16-year	229	1005	5	1005	895

*All spreads quoted to the off-the-runs below, except 2-, 5-, and 10-yr fixed rate credit cards, which are quoted to the on-the-runs.

	2-yr	3-yr	5-yr	7-yr	10-yr
Off-the-Run Tsy Benchmark	3 7/8 6/03	6 8/04	6 7/8 5/06	5 5/8 5/08	5 2/11
On-the-Run Swap Sprd (bp)	51	76	77	85	71
1-Week Change	4	4	3	4	4

SECONDARY MARKET BULLET BID SIDE SPREADS, October 12, 2001, bp

Maturity	AA Sprd/ 1-wk Chg	AA 90-day High	AA 90-day Low	AA 90-day Avg	A Sprd/ 1-wk Chg	A 90-day High	A 90-day Low	A 90-day Avg	BBB Sprd/ 1-wk Chg	BBB 90-day High	BBB 90-day Low	BBB 90-day Avg
Industrials 5	87/-3	95	75	79	135/+11	135	96	107	162/-3	170	141	149
10	102/-8	113	96	101	155/-3	161	124	140	180/-6	187	157	169
30	113/-3	125	108	114	166/-5	171	144	158	193/-5	199	174	185
Utilities 5	113/0	113	90	98	138/-5	143	125	131	187/-5	192	157	169
10	130/0	130	110	117	158/-5	163	140	147	210/-5	215	185	196
30	135/-3	138	120	127	177/-5	182	153	161	225/-5	230	205	216
Finance 3	93/-2	102	80	84	185/-2	187	97	121				
5	108/-4	112	91	99	202/0	202	122	147				
10	130/-3	136	118	127	226/0	226	149	178				
Banks 3	97/-3	115	70	75	113/0	120	80	87				
5	120/0	120	90	101	127/0	127	107	114				
10	138/0	138	119	128	152/0	152	140	147				

Maturity	BB Sprd/ 1-wk Chg	BB 90-day High	BB 90-day Low	BB 90-day Avg	B Sprd/ 1-wk Chg	B 90-day High	B 90-day Low	B 90-day Avg
High Yield 10	535/-20	555	338	399	928/-4	932	703	754

APPROXIMATE BENCHMARK BID SPREADS OF THE 20 LARGEST ISSUERS IN THE CREDIT INDEX, October 12, 2001

	2 yr.	5 yr.	10 yr.	30 yr.	Mkt. Val. ($ mn)	% Credit Index	MAD
Ford/Ford Motor Credit (A2/A)	205	220	235	235	64,358,272	3.63	4.95
CitiGroup /Citicorp (Aa2/AA-)	85	95	115	140	51,307,676	2.89	4.23
GM/GMAC (A2/A)	200	220	235	210	41,436,393	2.34	4.72
Worldcom Inc (A3/BBB+)	205	230	260	275	26,720,678	1.51	5.90
IBRD (Aaa/AAA)	55	50	60	70	26,563,522	1.50	3.93
BankAmerica Corp (Aa3/A)	110	115	150	165	25,136,736	1.42	5.20
GE (Aaa/AAA)	55	70	90	n/a	24,142,942	1.36	4.09
IADB (Aaa/AAA)	55	50	65	80	22,633,992	1.28	4.33
Verizon Communications (A1/A+)	105	130	160	170	22,588,014	1.27	6.78
Mexico (Baa3/BB+)	220	315	365	375	21,830,516	1.23	6.59
Household Finance (A2/A)	110	140	170	n/a	21,459,348	1.21	4.33
AT&T /TCI Comm (A2/A)	150	170	200	210	20,136,362	1.13	6.00
Tyco International (Baa1/A)	135	160	187	192	19,729,750	1.11	3.74
Qwest Communications Intl (A3/BBB+)	205	230	255	260	19,681,174	1.11	6.38
Morgan Stanley Dean Witter & Co (Aa3/AA-)	110	135	170	n/a	19,505,920	1.10	3.96
Wells Fargo (Aa3/A)	90	95	130	n/a	19,034,392	1.07	4.15
DaimlerChrysler (A3/A-)	210	240	240	255	18,054,788	1.02	5.35
Lehman Brothers (A2/A)	125	160	185	n/a	17,287,294	0.97	3.81
AOL Time Warner (Baa1/BBB+)	140	155	183	205	16,743,741	0.94	8.25
JP Morgan Chase & Co (A1/A)	110	105	140	n/a	16,444,302	0.93	5.30
Average 10/12/01	**134**	**154**	**180**	**203**	**514,795,812**	**29.02**	
Change vs.10/5/01	**-4**	**-5**	**-5**	**-5**			
Year-to-date change	**6**	**-16**	**-24**	**-27**			

REPRESENTATIVE INVESTMENT GRADE SPREADS

	Cpn.	Matur.	Rating	Approx. Bid 10/5/01	Approx. Bid 10/12/01	Chg.
Industrial						
Wal-Mart	5.450	8/1/06	AA2/AA	78	75	-3
CSX	6.750	3/15/11	Baa2/BBB	175	170	-5
Philip Morris	7.500	7/15/09	A2/A	165	160	-5
Qwest Comm	7.250	2/15/11	Baa1/BBB+	260	255	-5
Liberty Media	7.875	7/15/09	Baa3/BBB-	320	320	0
Daimler Chrysler	7.750	1/18/11	A3/A-	250	245	-5
Tyco Intl	6.750	2/15/11	Baa1/A-	170	170	0
Sprint	6.875	11/15/28	Baa1/BBB+	225	220	-5
Conoco Funding	7.250	10/15/31	Baa1/BBB+	190	185	-5
United Tech	7.500	9/15/29	A2/A+	168	165	-3
Average				200	197	-4
Finance						
Ford	6.875	2/1/06	A2/A	225	222	-3
Prudential	6.375	7/23/06	A2/A+	130	130	0
GMAC	7.250	3/2/11	A2/A	245	235	-10
BankAmerica	7.400	1/15/11	Aa3/A	150	150	0
Citigroup	6.500	1/18/11	Aa3/A+	120	114	-6
Merrill Lynch	6.875	11/15/18	Aa3/AA-	150	140	-10
Average				170	165	-5
Utility						
Natl Rural	7.375	2/10/03	Aa3/AA	100	85	-15
CP&L	5.950	3/1/09	A2/A	160	155	-5
Dynegy	8.125	3/15/05	Baa2/BBB+	195	190	-5
Enron Corp	7.375	5/15/19	Baa1/BBB+	235	240	5
Average				173	168	-5
Capital Securities & Pfd						
Riggs	8.625	12/31/26	Baa3/BB-	725	715	-10
Bankers Trust	7.900	1/15/27	A1/A	240	245	5
JP Morgan	7.540	1/15/27	Aa3/A+	210	215	5
Sumitomo	9.400	Perp	Baa2/BB+	550	550	0
Average				431	431	0

	Cpn.	Matur.	Rating	Approx. Bid 10/5/01	Approx. Bid 10/12/01	Chg.
Emerging Yankees						
KDB	7.375	9/17/04	Baa2/BBB	185	195	10
ROK	8.875	4/15/08	Baa2/BBB	145	130	-15
Endesa	7.750	7/15/08	Baa1/A-	350	355	5
Mexico	9.875	2/1/10	Baa3/BB+	408	375	-33
Average				272	264	-8
Yankee/Euro						
Hungary	6.500	4/19/06	Baa1/BBB	108	106	-2
Ontario Prov	5.500	10/1/08	Aa3/AA-	115	114	-1
Israel Electric	8.250	10/15/09	A3/A-	250	245	-5
Tex Util Eastern	6.750	5/15/09	Baa1/BBB+	205	190	-15
PQ	7.500	9/15/29	A2/A+	108	107	-1
Average				157	152	-5
Crossover						
Golden State	7.000	8/1/03	Ba1/BB+	310	300	-10
Tricon Global	7.450	5/15/05	Ba1/BB	305	315	10
Starwood	6.750	11/15/05	Ba1/BBB-	355	430	75
Columbia/HCA	7.000	7/1/07	Ba2/BB+	300	295	-5
TRW	7.125	6/1/09	Baa2/BBB	275	260	-15
Average				309	320	11

INVESTMENT GRADE CREDIT QUALITY RATINGS CHANGES

October 12, 2001

	Moody's Up	Moody's Down	Moody's Dwngd Ratio	S&P Up	S&P Down	S&P Dwngd Ratio
1997	67	89	1.33	89	129	1.45
1998	68	123	1.81	68	135	1.99
1999	30	48	1.60	28	55	1.96
2000	103	166	1.61	93	178	1.91
YTD 2001	56	150	2.68	44	128	2.91
Last Week	3	6	2.00	0	3	0.00

UPCOMING TREASURY ISSUANCE, $ billion

Issue	Auction	Settle	Size	Maturing	Net New Cash
Bills					
13 & 26 weeks	10/15	10/18	25.00	23.00	2.00
28-day (weekly)	10/16	10/18	8.00	12.00	-4.00
13 & 26 weeks	10/22	10/25	25.00	23.00	2.00
28-day (weekly)	10/23	10/25	8.00	10.00	-2.00
Coupons					
Buyback	10/18	10/22	1.75	n.a.	-21.75
2-year note	10/24	10/31	18.00	29.70	-11.70
Buyback	10/25	10/29	1.00	n.a.	-1.00

INVESTMENT-GRADE CORPORATE ISSUANCE BY MATURITY, Week ending October 12, 2001, $ million

	1-5 yr	6-12 yr	13 yr+	Total	%
By Sector					
Industrial	500	600	0	1,100	17
Utility	320	1,835	320	2,475	38
Finance	1,550	750	0	2,300	35
Non-Corporate	0	650	0	650	10
Total	2,370	3,835	320	6,525	
	36%	59%	5%		
By Structure					
Noncall	2,370	3,835	320	6,525	100
Callable	0	0	0	0	0
Putable	0	0	0	0	0
Total	2,370	3,835	320	6,525	
	36%	59%	5%		

	1-5 yr	6-12 yr	13 yr+	Total	%
By Credit Quality					
Aaa	0	0	0	0	0
Aa	500	0	0	500	8
A	1,550	750	0	2,300	35
Baa	320	3,085	320	3,725	57
Total	2,370	3,835	320	6,525	
	36%	59%	5%		
Total InvGrd	2,370	3,835	320	6,525	100
Other	0	0	0	0	0
FRN's	0	0	0	0	0
Pfd	0	0	0	0	0
Total USD	2,370	3,835	320	6,525	
	36%	59%	5%		

U.S. CORPORATE AND ABS ISSUANCE

Date	Size ($ mn)	Issuer	Cpn. (%)	Maturity and Callability	Ratings	Spread (bp)	Manager(s)
10/12/01	550.0	FNMA	2.550	11/5/02@2/02	Aaa/N/A	-	BEAR/CSFB/GCM/UBSW
10/12/01	350.0	FHLB	2.560	11/5/02@2/02	Aaa/N/A	-	FT/FUJI/GS/HSBC
10/12/01	175.0	FHLB	4.125	8/15/03	Aaa/N/A	-	WELLS
10/12/01	775.0	UBS AG STAMFORD CT	2.490	10/15/02	Aa2/AA+	-	BAS
10/12/01	200.0	UBS AG STAMFORD CT	2.520	10/15/02	Aa2/AA+	-	BAS
10/12/01	100.0	CAN IMPL BK NY	2.520	10/15/02	Aa3/AA-	-	BAS
10/12/01	100.0	CAN IMPL BK NY	2.500	10/15/02	Aa2/AA+	-	BAS
10/12/01	295.2	GMAC	3ML+145	10/16/03	A2/A	-	**BAS/JPM/LEH/SSB**
10/12/01	402.0	ELWOOD ENERGY	8.159	7/15/26	Baa3/BBB-	350	CSFB/ABN/WESTLB
10/12/01	300.0	NORTHERN ROCK	3ML	10/17/02	A2/A	-	**LEH**
10/12/01	325.0	NORTHERN ROCK	1ML+2	10/17/02	A2/A	-	**LEH**
10/12/01	50.0	LEHMAN BROTHERS HLDG	FF+35	4/16/03	A2/A+	-	**LEH**
10/12/01	140.0	NEVADA POWER	3ML+165	10/15/03	Baa1/A-	-	**LEH/ML**
10/12/01	150.0	INTL LEASE FINANCE	5.500	6/7/04	A1/AA-	190	**LEH/MS/SSB**
10/12/01	700.0	INTL LEASE FINANCE	5.750	10/15/06	A1/AA-	205	**LEH/MS/SSB**
10/12/01	150.0	INTL LEASE FINANCE	3ML+135	10/18/04	A1/AA-	-	**LEH/MS/SSB**
10/12/01	100.0	VECTREN UTIL HLD	7.250	10/15/31@06	A2/A-	-	AGE/ML/UBSW/USBPJ
10/11/01	500.0	FNMA	2.510	11/1/02@5/02	Aaa/N/A	-	ABN/HSBC
10/11/01	450.0	FNMA	2.550	11/5/02@2/02	Aaa/N/A	-	BS/CSFB/GCM
10/11/01	300.0	FNMA	3.170	10/28/03@02	Aaa/N/A	-	BEAR/CSFB/HSBC
10/11/01	350.0	FHLB	2.500	11/1/02@5/02	Aaa/N/A	-	HSBC/ADVEST/FUJI
10/11/01	150.0	FHLB	2.510	11/1/02@2/02	Aaa/N/A	-	FT/FUJI/GCM
10/11/01	1000.0	FNMA	5.500	10/18/11@04	Aaa/N/A	-	MS/SSB
10/11/01	1000.0	FNMA	4.500	10/17/06@03	Aaa/N/A	-	MS/SSB
10/11/01	500.0	WAL-MART STORES	3.250	9/29/03	Aa2/AA	47	MS
10/11/01	600.0	DOMTAR INC	7.875	10/15/11	Baa3/BBB-	340	DBAB/JPM
10/11/01	650.0	CHILE	7.125	1/11/12	Baa1/A-	256	JPM/SSB (JT BKS)/ML/UBSW
10/11/01	850.0	CALPINE CORP	8.500	2/15/11	Baa3/BB+	385	CSFB
10/11/01	530.0	CALPINE CANADA ENER FIN	8.500	5/1/08	Baa3/BB+	380	CSFB
10/11/01	200.0	SOUTH POINT ENERGY	9.825	5/30/19	Baa3/BB+	437.5	
10/11/01	454.5	SOUTH POINT ENERGY	8.400	5/30/12	Baa3/BB+	450	
10/11/01	170.0	ALARIS MEDICAL	11.625	12/1/06	B2/B+	774	UBSW/BSC
10/11/01	120.0	NORTHEAST GENERATION	8.812	10/15/26	Baa2/BBB-	337.5	SSB
10/11/01	320.0	NORTHEAST GENERATION	4.998	10/15/05	Baa2/BBB-	212.5	SSB
10/11/01	200.0	GMAC	3ML +145	10/16/03	A2/A	-	JPM/UBSW
10/11/01	300.0	SUNTRUST CAP IV	7.125	10/15/31	A2/A-	-	**LEH/SSB**
10/10/01	500.0	FNMA	3.600	10/29/04@03	Aaa/N/A	-	ML
10/10/01	150.0	FHLMC	2.415	11/1/02@5/02	Aaa/N/A	-	BEAR
10/10/01	160.0	FHLB	2.400	11/1/02@5/02	Aaa/N/A	-	ADVEST/HSBC
10/10/01	250.0	SLMA	3.200	10/24/03@02	Aaa/N/A	-	BEAR
10/10/01	5000.0	FHLMC	5.500	7/15/06	Aaa/N/A	-	
10/10/01	300.0	FNMA	3.770	10/29/04@02	Aaa/N/A	-	BEAR/CSFB/FT
10/10/01	750.0	GENERAL MOTORS	6.850	10/15/08	A2/A	252	JPM
10/10/01	700.0	POPULAR INC	6.125	10/15/06	A3/BBB+	240	JPM
10/10/01	450.0	POPULAR INC	3ML+165	10/15/03	A3/BBB+	-	JPM
10/10/01	700.0	HOUSEHOLD FINL CO	3ML +27	10/15/03	A2/A	-	ABN/ML/MIZUHO/MS/SSB/UBSW
10/10/01	400.0	GMAC	3ML+100	10/15/03	A2/A	-	ML
10/10/01	200.0	AMBAC FINANCIAL GRP	7.000	10/17/51@06	Aa2/AA	-	GS/ML (JT BKS)/AGE/MS/SSB/UBSW
10/9/01	400.0	FHLMC	3.180	10/24/03@02	Aaa/N/A	-	CSFB/JPM/UBSW
10/9/01	275.0	SLMA	3.150	10/24/03@02	Aaa/N/A	-	GS
10/9/01	300.0	FNMA	3.070	10/23/03@02	Aaa/N/A	-	HSBC/JPM/UBSW
10/9/01	45.0	REPUBLIC CAP TRUST I	8.600	12/31/31@06	N/A/N/A	-	STIF/AGE/DAIN

EUROPEAN CORPORATE AND ABS ISSUANCE, U.S. dollar only

Date	Size ($ mn)	Curr.	Issuer	Coupon	Maturity	Rating	Price/Spread	Manager(s)
10/9	70.0	USD	Swedish Export Credit	4.5	10/24/08	Aa2/AA+	N/A	TSUBAS-SOLE
10/9	200.0	USD	Mitsubishi Corp	3.6	10/27/05	x/A-	N/A	DAIWA-SOLE
10/11	200.0	USD	Korea Tabacco & Ginseng	0	10/31/06	Baa2/BBB	N/A	
10/11	300.0	USD	Bk Nederlandse Gemeenten	4.05	11/6/06	Aaa/AAA	N/A	MIZUHO
10/11	100.0	USD	AB Spintab	3M L FLAT	10/18/02	x/x	N/A	WESTLB-SOLE
10/11	1500.0	USD	Oesterreich Kontrollbank	3.625	10/18/04	Aaa/AAA	92	JPM,UBSW
10/11	50.0	USD	Austrian T-Bill	0	10/10/02	x/x	N/A	
10/11	650.0	USD	Republic of Chile	7.125	1/11/12	Baa1/A-	256	JPM,SSB
10/11	170.0	USD	Alaris Medical Inc	11.625	12/1/06	B2/B+	774	BEAR,UBSW
10/11	455.0	USD	South PT/broad Riv/Rockg	8.4	5/30/12	Baa3/BB+	450	CSFB
10/12	500.0	USD	Europaeische Hypobk Lux	4.25	10/24/05	x/AAA	52	BARCLY,ML,SG

UPCOMING DATA RELEASES

Monday • October 15

- Japan: Current Account Balance (Aug)
- Japan: Net Purchases of Overseas Bonds (Aug)
- Japan: Net Purchases of Overseas Equities (Aug)
- Japan: Debt Left by Bankruptcies (Sep)
- Japan: BOJ Monthly Economic Report (Oct)
- Italy: Industrial Production (Aug)
- Netherlands: Retail Sales Volumes (Aug)
- Poland: CPI (Sept)
- U.S.: Business Inventories (Aug)
- Canada: New Motor Vehicle Sales (Aug)

Tuesday • October 16

- Japan: Revised Industrial Production (Sep)
- China: Real GDP (Q3)
- Australia: National Australia Bank Business Survey (Q3)
- Singapore: Retail Sales (Aug)
- Hong Kong: Unemployment (Sep)
- Malaysia: Consumer Price Index (Sep)
- Euro Area: ECB Refinancing Operation (Average Rate)
- France: Industrial Production (Aug)
- France: Trade Balance (Aug)
- Italy: Final CPI (Sep)
- U.K.: Retail Prices Index (Sep)
- U.K.: Harmonised CPI (Sep)
- Sweden: Riksbank's Repo Rate Announcement
- Sweden: Inflation (Q3)
- Sweden: Retail Sales (Aug)
- Hungary: Real Wages (Aug)
- South Africa: Headline CPI (Sep)
- South Africa: Targeted CPIX (Sep)
- South Africa: Core CPI (Sep)
- U.S.: Industrial Production (Sep)
- U.S.: Capacity Utilization
- U.S.: NAHB Home Builder's Index (Oct)
- Mexico: Weekly Foreign-Reserve Levels

Wednesday • October 17

- APEC: APEC Summit in Shanghai (until Sunday 21 September)
- Singapore: Non-oil Domestic Exports (Sep)
- Euro Area: Labor Costs (2nd Release) (Q2)
- Euro Area: Industrial Production (Aug)
- Euro Area: HICP (Sep)
- Spain: Retail Sales Values (Aug)
- Netherlands: Unemployment (Sep)
- U.K.: Average Earnings (Aug)
- U.K.: Unit Wage Costs in Manuf. (Aug)
- U.K.: Claimant Unemployment (Sep)
- U.K.: LFS, Unemployment (Aug)
- U.K.: MPC Minutes (Regular Mtg 4-Oct)
- U.K.: MPC Minutes (Emergency Mtg 18-Sep)
- Turkey: Capacity Utilisation (Sep)
- Turkey: Private Sector Cap Utilisation (Sep)
- Poland: Industrial Output (Sept)
- Poland: PPI (Sept)
- U.S.: Housing Starts (Sep)
- U.S.: Building Permits
- U.S.: ABC/MM Consumer Comfort (14-Oct)
- Brazil: COPOM Meeting (Oct. 16-17)
- Mexico: Unemployment (Sep)
- Argentina: Prelim Industrial Output (Sep)
- Chile: Central Bank IMACEC Indicator (Aug)

Thursday • October 18

- Japan: Rev Leading Diffusion Index (Aug)
- Japan: Rev Coincident Diffusion Index (Aug)
- South Korea: Unemployment (Sep)
- Euro Area: ECB Monthly Bulletin
- Netherlands: GDP (2nd Release) (Q2)
- U.K.: Retail Sales Volumes (Sep)
- U.K.: Trade in Goods, Global Balance (Aug)
- U.K.: PSNCR (Sep)
- U.K.: Broad Money (M4) (Sep)
- Sweden: Unemployment (Sep)
- Czech Rep: Retail Sales (Aug)
- U.S.: Initial Jobless Claims (13-Oct)
- U.S.: Continuing Claims (6-Oct)
- U.S.: Philadelphia Fed Survey (Oct)
- Canada: Consumer Price Index (Sep)
- Canada: CPI Excluding Food and Energy
- Canada: Manufacturing Shipments (Aug)
- Canada: Inventories

Friday • October 19

- Philippines: Trade Balance (Aug)
- Germany: Ifo Business Climate Index (Sep)
- U.S.: Intn'l Trade Deficit (Aug)
- U.S.: CPI (Sep)
- U.S.: CPI, Excluding Food & Energy
- Canada: Int'l Merchandise Trade Bal (Aug)
- Canada: Wholesale Trade (Aug)
- Canada: Wholesale Inventories

Sometime in the Week

- China: Consumer Price Index (Sep)
- China: Industrial Production (Sep)
- China: Retail Sales (Sep)
- China: State Fixed Asset Investment (Sep)
- China: Trade Balance (Sep)
- China: Exports (Sep)

Fed Rate Move Expected:

- November 6: 25 bp cut

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