



GORDON S. BROWN
Co-Head of Global Portfolios

The Importance of Macro Investing

Executive Summary

- Having successfully dampened volatility across all asset classes through the multi-year implementation of near zero interest rates, liquidity injections and QE of various forms, the major global central banks now appear to be diverging in their policy stances.
- The major central banks are approaching a crossroads, with policy set to diverge for the first time since the global financial crisis. The scale and pace of this policy divergence is likely to have an impact on the level and shapes of global yield curves, the major currency exchange rates and the level of market volatility.
- The volatility of corporate bond spreads may approach their pre-crisis trends while government bond volatility could increase; investment-grade corporates' risk premium should more closely reflect underlying fundamentals in the future, and the uncertainty of exiting unconventional monetary easing and divergent policies could result in higher levels of volatility for bond investors.
- Against this backdrop, we believe that a manager's ability to deploy macro strategies in bond portfolios (alongside a fundamental value-driven allocation to selected risk assets and rigorous research-based bottom-up issue selection) will be the key to navigating this volatility, generating alpha and controlling overall portfolio risk.

The Name of the Game

As we approach a potentially significant crossroads where the divergence in monetary policy paths between the Federal Reserve (Fed) and other major developed market central banks—specifically the European Central Bank (ECB) and Bank of Japan (BoJ)—looks set to increase further over the coming years, we are revisiting the importance of macro investing as a key driver of future returns and risk management within fixed-income portfolios.

In a market commentary paper from early 2013, Western Asset's CIO Ken Leech made reference to the importance of macro investing during the volatile interest rate cycles of the 1970s.¹ While this decade will be best remembered (not always fondly) for giving us disco music, flared trousers and permed hair, it also heralded a development that was probably not on the radar of most ABBA fans: active bond management.

In contrast to the music and clothing of that decade, US core bond mandates were not as flamboyant, and typically restricted managers to take a limited amount of duration risk. A constraint of one year on either side of a benchmark's duration was quite common and tight active duration limits remained a feature up until the recent global financial crisis. The reason for this was that if an investor was caught on the wrong side of a large swing in bond yields—changes of 400 basis points (bps) were common in the 1970s and 1980s—then long-term performance could be destroyed very quickly. Consequently, this volatile period was characterized by interest-rate, yield curve and convexity strategies as the main drivers of risk and return. It was therefore no coincidence that most large fixed-income firms employed investors with the requisite macro skills at senior levels.

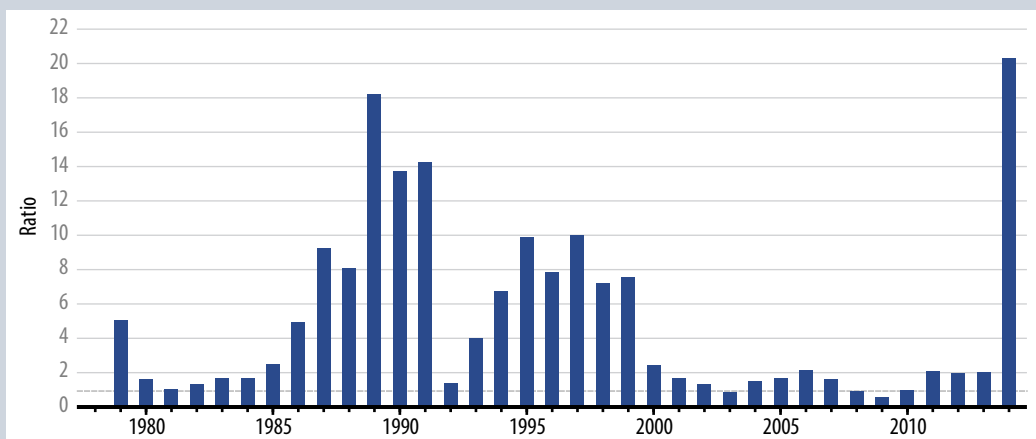
By comparison, restrictions around exposure to corporate bonds in fixed-income mandates were very wide (or in many cases non-existent), reflecting the extremely low volatility in investment-grade corporate bond returns, which traded within very tight spread ranges over a long period.² With spread volatility typically not having a meaningful impact on risk and return, the focus within corporate allocations centered around taking issue-specific risk and adding value through bottom-up credit analysis rather than by managing spread volatility risk.

The riskiness of adding one year of outright duration relative to adding one year of investment-grade credit spread duration is shown in Exhibit 1. In the 30 years leading up to the financial crisis, interest-rate risk dominated spread duration risk (over certain periods) by well over 10 times; this environment lent itself to an investment approach that combined a strong focus on macro strategies with rigorous company-specific research. Put differently, the ability to navigate the macro environment successfully was the key determinant of generating returns, while additional carry could be earned through credit research.

1 [Ken Leech Market Commentary January 2013](#)

2 Between 1984 and 1999, the average of the absolute (positive or negative) quarterly excess return of US investment-grade corporates was approximately 60 bps. Over the same period, the average quarterly return of USTs was approximately 300 bps.

Exhibit 1
Interest Rate Duration Versus Spread Duration

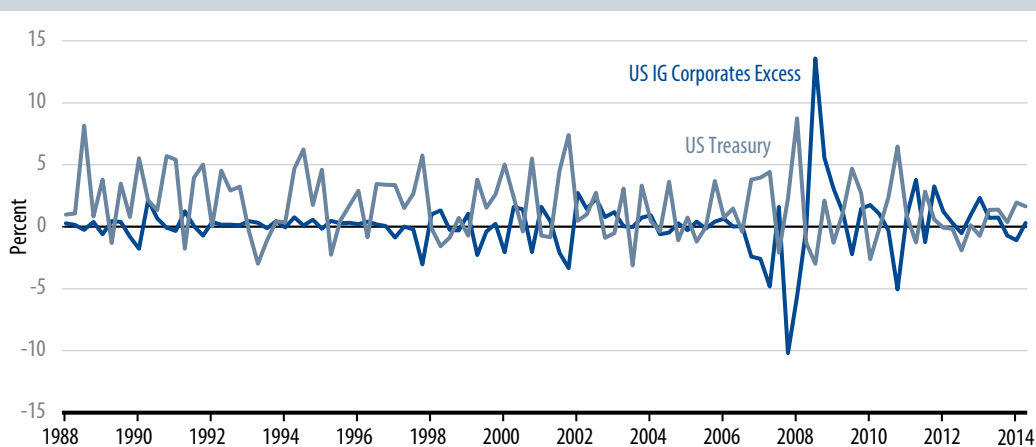


Source: Barclays, Western Asset. As of 31 Dec 14. Tracking error against Barclays Aggregate induced by an extra year of duration as a multiple of the tracking error to the Aggregate from an extra year of spread duration. 3-year moving average of ratio.

The Winner Takes It All

In the wake of the global financial crisis, the regime of macro volatility dominating credit spread volatility reversed spectacularly. What had been a rather dull asset class for several decades suddenly began to price in significant default risk as markets struggled to deal with a severe global recession and enormous systemic risks that threatened the entire global financial infrastructure. The scale of this reversal can be seen in Exhibit 2, which shows just how consistently low the volatility of excess returns in corporates was against the sharp swings in US Treasury (UST) returns.

Exhibit 2
US Investment-Grade Corporate Excess Returns Versus US Treasury Returns



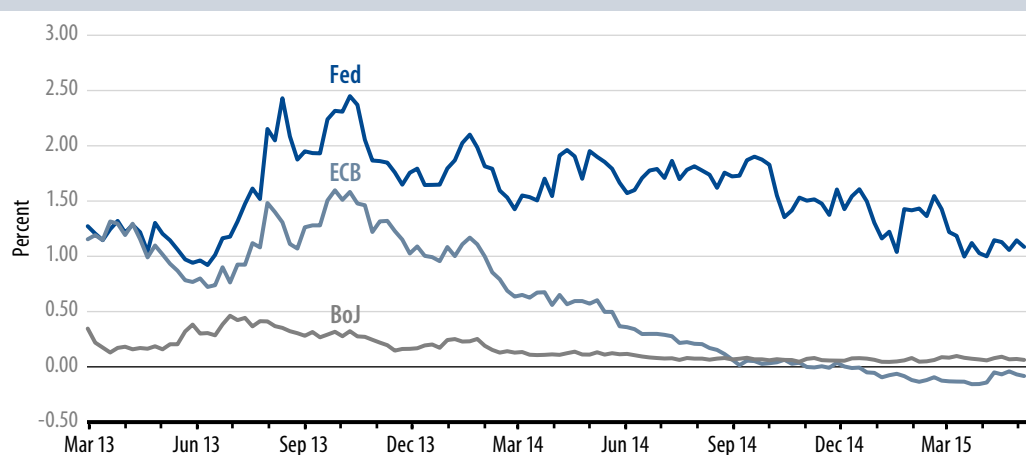
Source: Barclays. As of 31 Mar 15.

It was only following unprecedented policy easing from the major global central banks combined with large scale balance sheet expansion through quantitative easing (QE) that normality returned to credit spreads and they started to again resemble previous benign periods. Having successfully dampened volatility across all asset classes through the multi-year implementation of near zero interest rates, liquidity injections and QE of various forms, the major global central banks now appear to be diverging in their policy stances. As Exhibit 3 shows, since the start of 2014, markets' expectations for short-term rates by the end of 2016 have diverged significantly. In the US, the Fed has been clear that, with the US economy recovering, it now con-

siders it appropriate to start gradually increasing interest rates and has signalled that this process is likely to start in the second half of this year.

By contrast, the balance sheet of the BoJ is still expanding at a rapid pace and is projected to double in size (since the start of the asset purchase program) by the end of 2015. Similarly, the ECB has pledged to keep policy very accommodative for the foreseeable future and is targeting expanding the size of its balance sheet back to 2012 levels. Thus, the major central banks are approaching something of a crossroads, with policy set to diverge meaningfully for the first time since the global financial crisis. The scale and pace of this policy divergence is likely to have a meaningful impact on the level and shapes of global yield curves, the major currency exchange rates as well as the overall level of market volatility. The current geopolitical landscape and continued concerns around downside risks to global growth will also likely add to uncertainty.

Exhibit 3
December 2016 Expected Policy Rates

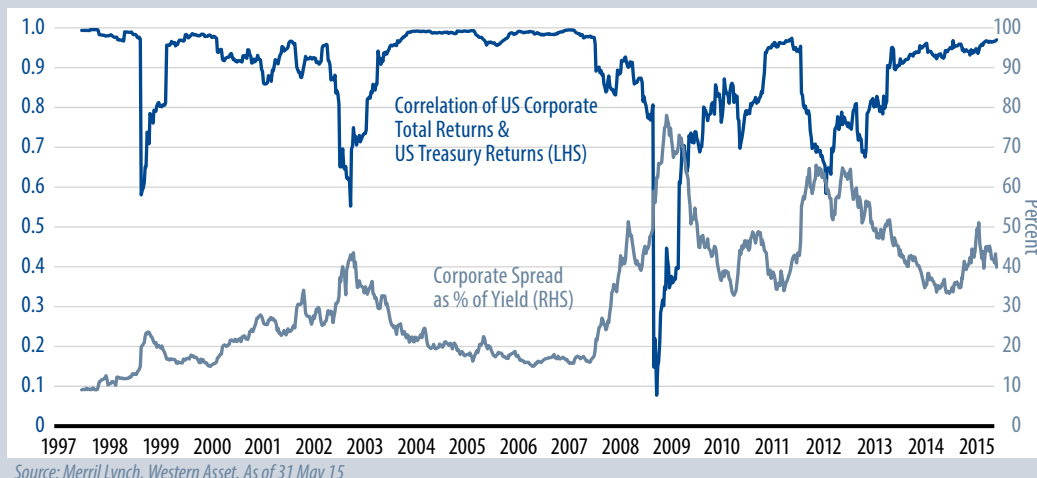


Source: Bloomberg. As of 31 May 15. Note: Data are one-month forward rates from overnight index swap quotes.

It is not unreasonable to conclude from the above analysis that the volatility of corporate bond spreads may approach their pre-crisis trends while government bond volatility could increase. Investment-grade corporates' risk premium should more closely reflect underlying fundamentals in the future, since a combination of conservative balance sheet management and regulatory pressure reduces the scope for increasing leverage in corporate balance sheets. At the same time, divergent policies by the world's central banks could result in higher levels of volatility for bond investors. As can be observed in the final bar in Exhibit 1, macro volatility relative to credit spread volatility has already started to increase.

Moreover, as corporate risk premium declines, corporate bond returns are likely to become increasingly correlated to those of governments, further raising the asymmetric risks facing bond investors (Exhibit 4).

Exhibit 4
US Corporations Versus Treasuries Study



Against this backdrop, we believe that a manager's ability to deploy macro strategies in bond portfolios (alongside a fundamental value-driven allocation to selected risk assets and rigorous research-based bottom-up issue selection) will be the key in seeking to navigate this volatility, generate alpha and control overall portfolio risk.

Knowing Me, Knowing You

At Western Asset we have had success employing macro strategies within dedicated sovereign, aggregate, multi-sector and absolute return strategies. Exhibit 5 below shows the three-year and five-year attribution history of benchmark relative returns within Western Asset's global aggregate strategy and how these compare with our targeted attributions.

Exhibit 5
Attribution Analysis

Global Core Full Discretion Composite	3 Years	5 Years	
Duration	37	20	Strategic Decisions Adding Value
Yield Curve	87	141	
Country	60	38	
Currency	23	7	
Sector Allocation	58	61	Bottom Up Research Process Adding Value
Security Selection / Residual	-3	-9	
Total	262	258	

Sources of Excess Returns Have Been Diversified

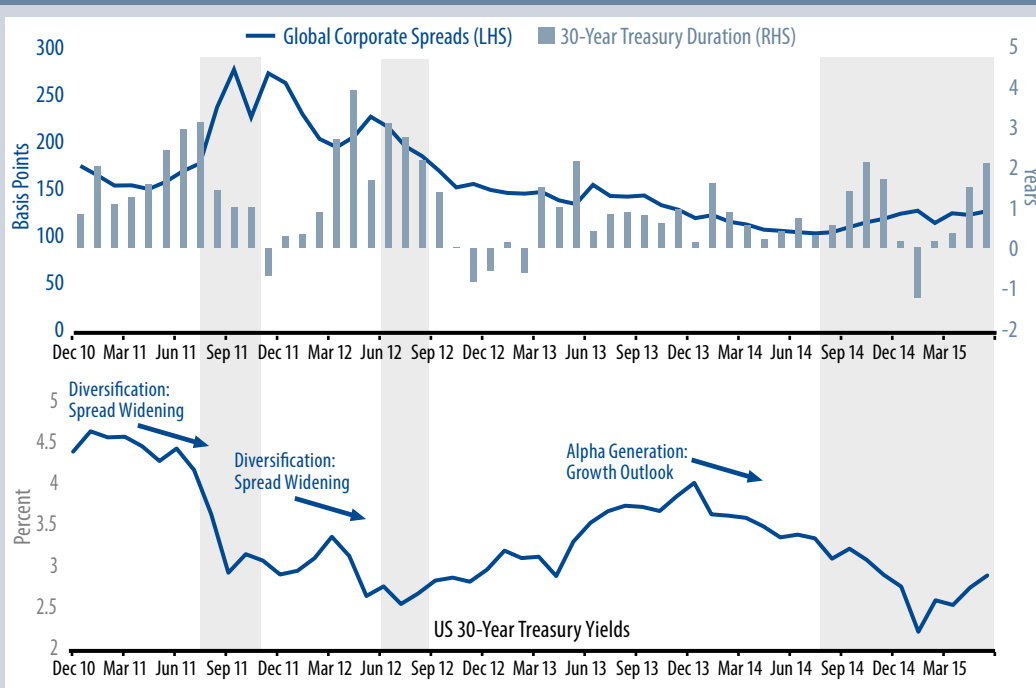
Global Core Full Discretion Composite		Target Alpha Sources		Results Achieved (3 Year)		Results Achieved (5 Year)	
70%	Duration / Yield Curve		35%		47%		62%
	Country	70%	15%	79%	23%	79%	15%
	Currency		20%		9%		2%
30%	Sector Allocation	30%	20%	21%	22%	21%	24%
	Security Selection		10%		-1%		-3%

As of 31 Mar 15. Performance attribution results depend on the calculation methodology and models used; different calculation methodologies and models will deliver different results. Different calculation methodologies and models may be employed in order to better reflect both the nature of the sectors invested in and the investor's decision-making process, style or approach. Western Asset uses a top-down decomposition approach in which security selection is not separated from sector beta effects, benchmark pricing differences and unaccounted systematic factors. Sector and strategy contributions to performance will vary. Data may not sum due to rounding. This information is supplemental to the Global Core Full Discretion Composite. Please see appendix.

As the table highlights, macro strategies employed within global portfolios have generated positive outperformance, contributing 50% or more of total excess returns using a diversified range of sources. In addition to alpha generation, macro strategies have also played an important role in dampening down the overall level of portfolio volatility, particularly during periods of significant credit spread widening.

To demonstrate this, Exhibit 6 shows our historical positioning across the UST curve in global aggregate strategies plotted against our historical active exposure to investment-grade credit. Western Asset has long held the view that, in addition to being consistent with our view on US economic fundamentals and expectations of Fed policy, an overweight to 30-year USTs can offer diversification and ballast to an investment-grade credit overweight during periods of corporate bonds stress. We relied heavily on this relationship in 2011 and again in 2012, and rather than sell less liquid credit holdings that we felt were mispriced below our assessment of fair value we instead increased 30-year UST duration meaningfully. As valuations have improved we have reduced our credit overweight accordingly, however, this has not deterred us from seeking alpha-generating strategies across the US yield curve. One such trade was to position our portfolios long 30-year UST bonds at the beginning of 2014 (a counter-consensus trade at the time) and this yield-curve-flattening trade has benefitted portfolios.

Exhibit 6
Global Corporate Spreads Versus US 30-Year Treasury Duration



Source: Bloomberg, Merrill Lynch, Western Asset. As of 31 May 15

Take a Chance on Me

Western Asset's management style emphasizes multiple strategies with macro positions combined with active sector rotation and issue selection achieved within a risk-controlled framework. Going forward we believe macro strategies will offer more opportunities to play an increasingly important role in generating alpha and in managing the volatility within portfolios. We believe that the macroeconomic research and idea generation from our investment teams around the world will allow our experienced Global Portfolios Team to identify many of these opportunities.

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Performance Disclosure

December 31, 2014

Global Core Full Discretion (USD Hedged) Composite

Composite Inception Date: 04/01/2001 | Composite Creation Date: 04/01/2001

	No. of	Gross Total	Net Total	Benchmark	Gross Total	Benchmark Total	Internal	Mkt. Value	Percentage of	Firm Assets
	Accts	Return	Return	Total Return	3-Yr St Dev	3-Yr St Dev	Dispersion	(US\$mil)	Firm Assets	(US\$mil)
2005	2	4.59%	4.18%	4.28%	3.72%	2.88%	-na-	\$407	0.16%	\$249,233
2006	3	4.79%	4.38%	3.64%	2.83%	2.40%	-na-	\$728	0.14%	\$510,172
2007	3	1.13%	0.73%	5.33%	2.59%	2.27%	-na-	\$841	0.14%	\$621,493
2008	4	-10.83%	-11.19%	5.58%	5.19%	3.07%	-na-	\$822	0.16%	\$505,660
2009	5	17.30%	16.84%	5.09%	6.73%	3.09%	-na-	\$1,580	0.33%	\$482,218
2010	5	10.35%	9.91%	4.61%	7.06%	3.17%	-na-	\$1,716	0.38%	\$453,909
2011	5	5.41%	4.99%	5.40%	5.17%	2.41%	-na-	\$1,701	0.38%	\$443,140
2012	5	12.39%	11.95%	5.72%	3.76%	2.16%	-na-	\$1,878	0.41%	\$461,891
2013	5	0.28%	-0.12%	-0.14%	4.10%	2.42%	-na-	\$2,174	0.48%	\$451,632
2014	5	9.60%	9.16%	7.59%	3.53%	2.29%	-na-	\$2,347	0.50%	\$466,036

Description: Western Asset's Global Core Full Discretion (USD Hedged) Composite includes portfolios that employ an active, team-managed investment approach around a long-term, value-oriented investment philosophy. These portfolios use diversified strategies and all sectors of the fixed-income market in seeking to add value while minimizing risk. The approach is to construct a portfolio using global fixed-income markets and currencies. Added value is sought through country and currency allocation, sector rotation, duration and yield curve management, as well as issue selection. Portfolio risk is managed through broad diversification across markets/sectors, duration management and active hedging of currency exposure.

Objective: Exceed the benchmark return by 150 basis points annually over the course of a market cycle while approximating benchmark risk.

Benchmark Description: The current benchmark is the Barclays Global Aggregate Bond Index. The index provides a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the Barclays U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Bond Indices. The performance for this index is hedged against USD currency.

Base Currency: USD | **Composite Minimum:** US\$5 million. Prior to 6/1/14 \$25 million. Prior to 4/1/07 \$5 million.

Current Fee Schedule: .40 of 1% on first US\$100 million, .20 of 1% on amounts over US\$100 million.

Examination Period: The Composite has been examined for the period from April 1, 2001 to December 31, 2013.

Western Asset claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Western Asset has been independently verified for the periods from January 1, 1993 to December 31, 2013.

Verification assesses whether (1) the Firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the Firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The verification and performance examination reports are available upon request.

For GIPS® purposes, the Firm is defined as Western Asset, a primarily fixed-income investment manager comprised of Western Asset Management Company, Western Asset Management Company Limited, Western Asset Management Company Pte. Ltd., Western Asset Management Company Ltd, Western Asset Management Company Pty Ltd, and Western Asset Management Company Distribuidora de Títulos e Valores Mobiliários (DTVM) Limitada, with offices in Pasadena, New York, London, Singapore, Tokyo, Melbourne, São Paulo, Hong Kong, and Dubai. Each Western Asset company is a wholly owned subsidiary of Legg Mason, Inc. ("Legg Mason") but operates autonomously, and Western Asset, as a Firm, is held out to the public as a separate entity. Western Asset Management Company was founded in 1971.

The Firm is comprised of several entities as a result of various historical acquisitions made by Western Asset, and their respective performance has been integrated into the Firm in line with the portability requirements set forth by GIPS.

The Composite is valued monthly. The Composite returns are the asset-weighted average of the performance results of all the accounts in the Composite. Gross-of-fees returns are presented before management fees, but after all trading expenses. Net of fees results are calculated using a model approach whereby the current highest tier of the appropriate strategy's fee schedule is used. This model fee does not reflect the deduction of performance-based fees. The portfolios in the Composite are all actual, fee-paying and performance fee-paying, fully discretionary accounts managed by the Firm for at least one full month. Investment results shown are for taxable and tax-exempt accounts and include the reinvestment of all earnings. Any possible tax liabilities incurred by the taxable accounts have not been reflected in the net performance. Composite performance results are time-weighted net of trading commissions and other transaction costs including non-recoverable withholding taxes. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

The returns for the accounts in the Composite are calculated using a time-weighted rate of return adjusted for weighted cash flows. The returns for the commingled funds in the Composite are calculated daily using net asset values (NAV), adding back the funds' total expense ratio or equivalent. Trade date accounting is used since inception and market values include interest income accrued on securities held within the accounts. Performance is calculated using asset values denominated in a base currency. Composite market value at year-end presented in the schedule are translated to U.S. dollars using end of year exchange rates.

Composite returns are measured against a benchmark. The benchmark is unmanaged and provided to represent the investment environment in existence during the time periods shown. For comparison purposes, its performance has been linked in the same manner as the Composite. The benchmark presented was obtained from third party sources deemed reliable but not guaranteed for accuracy or completeness. Benchmark returns and benchmark three-year annualized ex-post standard deviation are not covered by the report of independent accountants.

Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were included in the Composite for the entire year. For each annual period, accounts with less than 12 months of returns are not represented in the dispersion calculation. Periods with five or fewer accounts are not statistically representative and are not presented. The three-year annualized ex-post standard deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period. Any gross total three-year annualized ex-post standard deviation measures prior to 2011, included within the "Examination Period" identified above, are not covered by the report of independent accountants.

Past investment results are not indicative of future investment results.

Western Asset's list of composite descriptions is available upon request. Please contact Jan Pieterse at 626-844-9977 or jan.pieterse@westernasset.com. All returns for strategies with inception prior to January 1, 2005 are available upon request.