



Risk Measurement at PIMCO

In June of 1998, we wrote "Measuring Risk in Bond Portfolios – A Primer" to describe the important portfolio level risk metrics that PIMCO had developed to measure and control risk in client portfolios. In that paper we advocated separate measurement of the many risk factors impacting bond portfolios, rather than the increasingly popular single measure approaches such as VAR or tracking error. The ensuing months proved turbulent as Russia defaulted and triggered extreme dislocation in global bond markets. Correlations of most spread product soared, and players who invested on the assumption that history would eventually repeat itself experienced trouble, Long Term Capital being the most notorious. The robustness of PIMCO's risk metrics enabled us to endure that and subsequent volatile periods relatively unscathed. Since risk measurement is a continually evolving field, we would like to take this opportunity to update you on our efforts.

Vineer Bhansali is the new head of domestic analytics at PIMCO. He joined us early in 2000 to assume many of Pasi Hamalainen's responsibilities, in anticipation of Pasi's move to Munich to head up portfolio management there. Vineer is an Executive Vice President of PIMCO and a senior member of PIMCO's portfolio management group. He was previously associated with Credit Suisse First Boston, where he was Vice President of proprietary fixed-income trading. Prior to that, he was a proprietary trader for the Salomon Brothers arbitrage desk in New York and worked in the global derivatives group at Citibank. He is the author of numerous scientific and financial papers, and is the author of the book *Pricing and Managing Exotic and Hybrid Options* published by McGraw-Hill in 1998. He currently serves as an associate editor for the *International Journal of Theoretical and Applied Finance*. Vineer has ten years of investment experience, and holds a bachelor's and master's degree in physics from the California Institute of Technology, and a Ph.D. in theoretical particle physics from Harvard University.

Inserts include:

Current Strategy

Composite Performance

(continued inside)

Individual Security Level Valuation and Risk Measurement Models

All portfolio level risk measures are simply an aggregation of the risks of each individual security held in a portfolio. Therefore, accurate portfolio level risk measurement depends on accurate individual security risk measurement. PIMCO has developed a library of proprietary models to value and measure risks in virtually every fixed income security type including:

- Government Bonds (both domestic and international)
- Corporate Bonds (including callable and floating rate)
- MBS pass-throughs and CMOs (includes our own proprietary mortgage prepayment models)
- ARMs
- FHA loans
- Danish Mortgages
- Futures
- Options/Options on Futures
- Municipal Bonds
- Convertible Bonds
- Interest Rate Swaps and Options
- Default Swaps and Asset Swaps
- High Yield
- Emerging markets
- TIPS
- Foreign Currency forwards and Options
- Short term futures and options (Fed Funds, Eurodollars)
- Equity Index Futures and Options

These relative value and risk models are designed to permit stress testing of all embedded assumptions in order to provide portfolio managers with the widest spectrum of outcomes, from very likely to most unlikely. Our models are unbiased by PIMCO's market views, and where possible, we allow for calibration of important variables such as volatility and future interest rates using traded security prices. We embed a common interest rate or term structure model in all our analytics, so that all our risk measures are comparable across sectors and can be legitimately aggregated. The Financial Engineering Group, led by Vineer, continually upgrades PIMCO models to reflect the latest advances in theoretical finance and

responds to innovation on Wall Street by creating new risk measurement models for newly developed fixed income instruments.

Measuring Benchmark Risk

PIMCO computes the risk characteristics of all the major benchmarks used by our clients. In practice, this entails using the models listed above to analyze each and every bond in large indices such as the Lehman Aggregate or the Lehman Global Aggregate (6000+ securities), on a daily basis. The proprietary portfolio level risk measures that we describe below are then computed for each benchmark, so that portfolio managers have targets against which they can manage portfolios. Frequently our proprietary systems identify risks (such as effective durations for mortgages) that are different from the index provider's own values, and we can use those insights to enhance performance and lower the tracking error of our portfolios. On any given day, we are re-computing the risk measures using our own analytics for more than 500 primary and secondary benchmarks.

Interest Rate Risk

Until 15 or 20 years ago, average maturity was used to gauge a portfolio's price sensitivity to changes in interest rates. Maturity's major shortcoming – only considering a bond's final due date, and not the dates of the intervening cashflows – is now well understood. Effective duration, which does consider all cashflows, is now the standard way to measure interest rate risk. However, duration, while useful, has its shortcomings too, and must be augmented with other measures of interest rate risk:

Effective Duration – Effective duration is a weighted average maturity calculation that incorporates all of a bond's expected cashflows, and weights them according to the present value of each cashflow. It is used to measure a bond's price sensitivity to changes in interest rates. However, it is only an accurate predictor of price for small, parallel shifts in the yield curve. For a small parallel interest rate fluctuation, the percentage change in a bond's price is approximately equal to its duration multiplied by the size of the shift. For example, a portfolio with a duration of 2 years would be expected to go up in price by 2 basis points for every 1 basis point drop in interest rates.

Effective Convexity – When moderate to large changes in interest rates occur, effective duration cannot accurately predict the change in value of a bond because its duration

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will change. The duration of an option free bond, such as a treasury, will increase as rates fall and decrease as rates rise because the discount rate used in the duration calculation falls and rises, respectively. Convexity captures the price effect resulting from the duration change. Positive convexity is always favorable to bond investors, however, one can rarely get it for free – investors generally pay for positive convexity by accepting lower yields.

The duration of a mortgage security will increase as rates rise because prepayments will be slower than originally assumed, swamping the favorable impact of the change in the discount rate. Conversely, in a bull market, when interest rates fall, a mortgage will generally become shorter in duration because prepayments will speed up. This perverse characteristic of becoming longer in bear markets and shorter in bull markets is referred to as negative convexity, and is the main reason why mortgage investors are paid higher yields than treasuries, which have similar credit quality.

For non-optionable securities, the calculation of convexity includes the simple discounting of known, fixed cashflows. However, for mortgages and other optionable bonds, the calculation of convexity is not so simple because it involves behavioral assumptions (e.g. future prepayment patterns). Moreover, convexity assumes that duration extension or contraction in response to interest rate changes is symmetrical. In other words, the change in duration induced by a rise in rates, will be identical in magnitude (though opposite in direction) to the change induced by a similar fall in rates. In the real world, optionable bonds rarely exhibit symmetry.

Bull and Bear Market Durations – Because of the shortcomings of effective convexity, PIMCO’s risk management process does not rely on the common approach of using a combination of effective duration and effective convexity to predict the response of our portfolios to a large parallel shift in interest rates. Instead, we have developed proprietary measures known as bull and bear market durations. To calculate these durations, we shock the portfolio with a 50 basis point rise and 50 basis point drop in rates. Each security in our portfolios is then individually re-analyzed using the appropriate security valuation tool (e.g. our adjustable rate mortgage model, our mortgage pass-through model or our callable corporate bond model), to calculate the expected duration under the “shock” scenarios. Those durations are then averaged to arrive at the portfolio bull and bear durations. Each of

PIMCO’s security specific models is designed to reflect real world behavior, and are therefore not exposed to the erroneous assumptions of the standard convexity calculation.

While PIMCO typically uses shock scenarios of plus or minus 50 basis points, we have the ability to run scenarios of different magnitudes. A portfolio with a +50 Bear Duration of 5 years, versus an effective duration of 4.5 years, tells the portfolio manager the portfolio is exposed to extension risk. An effective portfolio convexity calculation would not usually measure that risk accurately.

Yield Curve Risk Measures

Yield curve risk gauges price exposure to non-parallel shifts in the yield curve. It is critical to evaluate yield curve exposure because two portfolios with identical effective durations can perform very differently. For example, a 5 year duration portfolio that contains only 5 year duration bonds (called a bullet structure) can perform very differently from a 5 year duration portfolio that contains 50% cash and 50% 10 year duration bonds (called a barbell). Barbelled portfolios will typically outperform bulleted portfolios if the yield curve flattens (spreads of long rates narrow relative to short rates), and vice-versa. PIMCO measures and monitors yield curve exposure with the following tools:

Curve Durations – Empirical evidence suggests that more than 95% of the fluctuations of the yield curve can be described in terms of parallel shifts and twists. PIMCO tries to capture the effect of these two factors with our curve duration risk measures. We assume the 10 year point of the curve as the pivot point, and then our **2-10 Duration** measures the price sensitivity of a portfolio to a steepening or flattening in the 2 to 10 year part of the curve, while our **10-30 Duration** measures the impact of changes to the slope of the 10 to 30 year part of the curve.

However, since no single measure can accurately capture all the curve exposure in our portfolios, we also decompose our exposures along the yield curve into multiple duration classification matrices.

Duration Classification Matrices – Each holding within a PIMCO portfolio is individually analyzed daily in order to populate a variety of duration classification matrices. We can also create a similar matrix for any client benchmarks, as shown for the Lehman Aggregate Index on the next page. The matrix sorts the portfolio or benchmark into “duration buckets” that can be customized by the user.

Duration Weighted Exposure (Years) – Lehman Aggregate Index as of 12/31/00

	<0	0 to 1	1 to 3	3 to 5	5 to 7	7 to 8	8 to 11	11+	Total
Treasury/Tsy Future	0.00	0.00	0.12	0.28	0.25	0.05	0.37	0.46	1.54
Agencies/Swaps	0.00	0.01	0.09	0.17	0.03	0.00	0.18	0.17	0.65
GNMA Mtg/CMOs	0.00	0.01	0.11	0.11	0.00	0.00	0.00	0.00	0.23
Conventional Mtges/CMOs	0.00	0.01	0.25	0.53	0.00	0.00	0.00	0.00	0.79
NonAgency Mtges/CMOs	0.00	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.07
Corporates	0.00	0.01	0.13	0.09	0.36	0.06	0.34	0.25	1.24
High Yield	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Emerging Markets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.03	0.70	1.21	0.70	0.11	0.92	0.88	4.54

The matrix can be run on a market value weighted basis, a duration weighted basis or using one of our sector risk measures, enabling portfolio managers greater insight into the nature of their exposure along the yield curve. To drill deeper, portfolio managers can click on any cell in the matrix and identify all the individual securities that contribute to that cell.

Sector Exposure

Sector Classification Matrix – Just as the classification matrix is used to depict portfolio exposure along the yield curve, it also shows portfolio exposure to each sector. The sample matrix above shows eight different sector buckets, but portfolio managers have unlimited ability to customize them. This enables PIMCO’s mortgage specialist, for example, to drill deeper into our mortgage holdings by defining finer slices. A sample matrix with more sector detail is shown on the following page.

While the matrix provides in-depth insight into the distribution of our sector allocations, there is still a need for summary risk measures that gauge a portfolio’s sensitivity to the important sector related performance variables.

Volatility Duration – Fixed income securities that contain embedded options, including all mortgages and most corporates, are exposed to interest rate volatility risk. That is, a rise or fall in interest rate volatility will impact the price of a bond with embedded options. Volatility duration is computed by shocking the implied volatility in the common underlying term structure model embedded in all our analytics by 1%, thus arriving at a risk measure that is comparable across sectors. We cumulate the results from analyzing individual securities in a portfolio to arrive at a portfolio level sensitivity measure that predicts the price impact resulting from changes in volatility. For example,

all else being equal, a portfolio with a volatility duration of 0.1 would be expected to decline 10 basis points for every 1% (or 100 basis point) rise in interest rate volatility.

Mortgage Spread Duration – Option adjusted spread (OAS) is the net spread over the Treasury curve that optionable securities offer, in addition to compensating for the embedded option. For example, a current coupon GNMA may have a nominal yield spread of 150 basis points over similar duration Treasuries, but analysis of the prepayment option embedded in the GNMA values it at 50 basis points, so the OAS would be 100 (150-50). When interest rate volatility rises, the value of the option will increase, pushing spreads wider, but the OAS may stay the same. The OAS demanded by investors tends to be more stable than the nominal spread, but it does vary with market conditions. PIMCO’s mortgage spread duration gauges the price sensitivity of a portfolio to changes in the OAS for mortgages, all other things being equal. If OAS across all mortgage sectors increased by 1 basis point, a portfolio with a mortgage spread duration of 1 would be expected to lose 1 basis point, all other things being equal.

Prepayment Duration – When analyzing mortgage securities, calculation of the volatility duration and spread duration involve forecasting future prepayment patterns for each type of mortgage security. Prepayment forecasting has evolved into a very complex science, and we have developed our own proprietary prepayment models that capture short term fluctuations and long term trends of prepayments based on our macroeconomic forecasts. To know the impact on our portfolios of an unforeseen change in prepayments, we shock the parameters of our models to gauge the effect of faster or slower prepayments.

Corporate Spread Duration – PIMCO’s corporate spread duration, similar to our mortgage spread duration,

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measures a portfolio's overall price sensitivity to changes in corporate OAS. Corporate and mortgage spread durations need to be calculated separately because different factors impact spreads in those sectors, and therefore, they can behave differently from one and other. Similarly, spreads of differently rated bonds do not move in perfect synch, so our corporate spread duration model adjusts for this by refreshing the rating "betas" embedded in our model on a quarterly basis to reflect current market conditions.

Other Sector Spread Durations – As our participation in the universe of fixed income securities grows, we have stuck to our desire to develop rigorous models for each market we invest in. To achieve this, we have developed new models for valuation and risk management of emerging markets, inflation protected securities (TIPS), municipal bonds and convertible bonds. To capture the risks due to the specific factors that affect the relative value of these bonds, we have added EM, TIPS, muni and convertible spread durations to our risk management arsenal.

Credit Risk

Measuring credit risk is more art than science, but PIMCO is equally rigorous in this area. We rely on in-house research, rather than the rating agencies, for assessing credit risk. Our staff of seasoned credit analysts rate every credit held in our portfolios. Our analysts specialize by industry, and in many cases, have covered particular industries and issuers for a decade or more.

For non-corporate issues that have an element of credit risk, we marshal the resources of other departments within

PIMCO. For example, commercial mortgage backed security (CMBS) analysis involves both the credit team and the mortgage team, who undertake the structural cashflow analysis. In assessing sovereign credit risk, our international group plays a leading role.

Credit risk at the portfolio level is tracked in two ways:

Duration Weighted Average Credit Quality – Investors often look to an average credit quality statistic, calculated using market value weights, to give them a snapshot of their portfolio's quality profile. However, a market value weighted approach fails to recognize that the credit risk imparted by short duration securities is less than for identical quality long duration ones. This is because one can predict an issuer's financial performance over shorter horizons with greater confidence. Moreover, if an issuer's credit quality does deteriorate and its yield spread widens, the detrimental price impact on shorter bonds is more muted than on longer bonds. By calculating average quality on a duration weighted basis, PIMCO is able to get a much truer picture of a portfolio's overall exposure to credit risk.

Quality Matrices – An average quality statistic, whether duration weighted or not, does not impart any information about quality distribution within a portfolio. For example, a portfolio comprised 50% of BB rated bonds and 50% AAA rated bonds would have the same average quality rating, single A, as a portfolio comprised of only A rated bonds. To get a clearer picture of quality distribution, we have created matrices that show quality distribution across sector, industry and yield curve buckets.

Duration Weighted Exposure (Years) – Lehman Aggregate Index 12/31/00

sector_desc	<0	0<1	1<3	3<5	5<7	7<8	8<11	11+	Total
ABS	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
AGCY	0.00	0.01	0.09	0.17	0.03	0.00	0.18	0.17	0.65
CORP-A	0.00	0.00	0.04	0.06	0.22	0.01	0.14	0.11	0.59
CORP-AA	0.00	0.00	0.04	0.02	0.05	0.00	0.04	0.02	0.18
CORP-AAA	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.00	0.06
CORP-B	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03
CORP-BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CORP-BBB	0.00	0.00	0.05	0.01	0.07	0.04	0.14	0.11	0.41
EmMkt-A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FHLMC-PT	0.00	0.00	0.12	0.23	0.00	0.00	0.00	0.00	0.35
FNMA-PT	0.00	0.00	0.13	0.30	0.00	0.00	0.00	0.00	0.44
GNMA-PT	0.00	0.01	0.11	0.11	0.00	0.00	0.00	0.00	0.23
NONAGY-CMO	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.06
TSY	0.00	0.00	0.12	0.28	0.25	0.05	0.37	0.46	1.54
	0.00	0.03	0.70	1.21	0.70	0.11	0.92	0.88	4.54

Total PIMCO Exposure Report – Credit exposure at the firm level is also monitored closely because of liquidity considerations. While we adhere to prudent diversification standards within each portfolio, a high level of exposure to a particular issuer across all PIMCO portfolios could present trouble in the event of illiquid market conditions.

Counterparty Risk Report – Given our frequent use of swaps and forward settled trades to generate excess returns and minimize risk, it becomes important that we manage our exposures to specific counterparties. A counterparty risk management system that provides detailed exposures to counterparties, broken down by the different types of outstanding trades, is used for actively monitoring counterparty exposure.

Global Risk Measures

The portfolio risk measures described above are available for both U.S. and non-U.S. portfolios. In the case of most non-U.S. securities, the models embedded in our risk measures, such as term structure and prepayment models, have had to be adapted to the nuances of specific countries.

Global Exposures Matrices – The risk of a non-U.S. bond can be separated into two related components – the country or region risk (exposure to changes in foreign interest rates) and the currency risk. As with yield curve, sector, and credit risk, it is difficult to quantify these risks with just one measure. Therefore, PIMCO's customizable global exposures matrix aggregates all holdings by country and currency, sector and yield curve, etc. We also enable portfolio managers to create groupings of regions and countries to identify correlated concentrations of risk.

Liquidity Risk

The degree of liquidity in a portfolio is managed carefully by PIMCO Portfolio Managers, subject to client investment guidelines and liquidity needs. Most PIMCO clients are long-term investors, so they typically do not have significant liquidity needs. Therefore, the purchase of relatively less liquid securities may be warranted due to the higher yield (often called liquidity premium) that less liquid issues offer. PIMCO monitors near term liquidity needs and manages cash optimally using a proprietary model that incorporates exposure to unsettled trades, as well as futures and swaps. The risk of having exposure to sectors that have the potential to lose significant value due

to deteriorating liquidity is controlled largely by adhering to relatively conservative diversification and maximum exposure guidelines.

Tracking Error

Expected tracking error ventures to predict how well a portfolio will track its benchmark. It is the annualized expected standard deviation of the monthly return difference between the portfolio and the benchmark. For example, if the expected tracking error is 1.2, then the yearly portfolio return is expected to be within 120 basis points of the expected return two thirds of the time, and within 240 basis points 19 out of 20 times. As mentioned earlier, PIMCO does not advocate the use of a single risk metric as an alternative to our more robust approach of separately tracking multiple metrics that measure the many sources of risk in a bond portfolio. However, we do use an expected tracking error model to supplement our insight into portfolio allocations versus benchmark, both domestically and globally. Our tracking error model overcomes the obvious shortcomings of most VAR or tracking error models in two ways. First, it can be run with both historical and forecast variance-covariance matrices. Second and most important, it is run against the comprehensive menu of proprietary portfolio risk metrics described above (duration, curve durations, spread durations, etc.) instead of against individual portfolio holdings. Because our risk metrics are aggregated at the portfolio level, they are much smoother over time, making the validity of results from our tracking error model more robust.

Conclusion

Measurement and management of overall portfolio risk is a major effort at PIMCO. It involves all portfolio managers, who interact with our Financial Engineering Group to ensure that the models they develop are not only theoretically sound, but also reflect market realities. It involves a “technology workbench” of seasoned programmers who help to upgrade existing models and implement new ones. And it involves many other technologists who work to integrate our risk measurement tools with our other PIMCO systems, including accounting, compliance and client reporting. The scope and cost of this effort is huge, but it has helped enable PIMCO to avoid inadvertently introducing unwanted risks into our clients' portfolios.

Assets Under Management

<i>DOMESTIC</i>			Assets Managed	Account Minimum	
<i>FIXED INCOME</i>	Benchmark	Average Duration	(mm)	Pooled	Separate
Total Return*	Lehman Aggregate	3 to 6 years	\$116,932	\$5 mm	\$75 mm
Low Duration*	Merrill Lynch 1-3 Yr. U.S. Tsy.	1 to 3 years	7,634	5 mm	75 mm
Moderate Duration*	Lehman Inter. Gov't. / Credit	2.5 to 4.5 years	4,194	5 mm	75 mm
Short-Term*	Salomon 1 Year Tsy.	1 year maximum	4,723	5 mm	75 mm
Long Duration*	LB Long Gov't./Credit	Client Specific	17,957	5 mm	75 mm
Mortgage*	Salomon Mortgage	Index Duration	7,735	5 mm	75 mm
High Yield*	LB Inter.BB U.S. High Yield	Index Duration	9,900	5 mm	75 mm
Stable Value*	Various GIC Indices	Client Specific	7,873	5 mm	75 mm
Real Return*	Lehman Inflation-Linked	1 to 5 years	1,730	5 mm	75 mm
Municipal Bonds*	Lehman General Municipal	0 to 10 years	374	5 mm	25 mm
Convertible Bonds*	Convertible	First Boston Convertible	316	5 mm	25 mm

<i>INTERNATIONAL</i>			Assets Managed	Account Minimum	
<i>FIXED INCOME</i>	Benchmark		(mm)	Pooled	Separate
Global Unhedged*	Sal. World or J.P. Morgan Global Gov't. - Unhedged		\$ 2,266	\$5 mm	\$75 mm
Global Hedged*	Sal. World or J.P. Morgan Global Gov't. - Hedged		4,881	5 mm	75 mm
Non-U.S. Unhedged	Sal. World or J.P. Morgan Gov't Bond, Non-U.S.- Unhedged		756	n.a.	75 mm
Non-U.S. Hedged*	Sal. World or J.P. Morgan Non-U.S. Gov't.- Hedged		3,465	5 mm	75 mm
Global Short-Term	3-Month LIBOR		24	n.a.	75 mm
European Hedged	Sal. Euro Broad Investment Grade		4	2 mm	75 mm
Canadian	RBC DS Canadian		215	n.a.	75 mm
Australian	Warburg Dillion Read AUD Composite		366	n.a.	75 mm
Emerging Markets*	J.P. Morgan Emerging Markets Brady Plus		341	5 mm	50 mm

<i>EQUITY/BALANCED</i>			Assets Managed	Account Minimum	
	Style	Benchmark	(mm)	Pooled	Separate
StocksPLUS*	Enhanced Index	S&P 500	\$18,761	\$5 mm	\$100 mm
Strategic Balanced*	Balanced	Lipper Balanced	69	5 mm	100 mm

* Product available through PIMCO Funds, a family of open-end mutual funds. Total Return, Money Market, High Yield, Global, European, and StocksPLUS products also available through off-shore mutual funds.

CURRENT STAFF AT PIMCO:

- 6 Executive Management
- 44 Portfolio Management
- 74 Account Management and Marketing
- 230 Technical and Administrative

Total 354

TOTAL PIMCO ASSETS: \$216 BILLION

PIMCO SPECIALTY MARKETS: \$23 BILLION

Recent Developments

- Bill Gross and his team were named **"Fixed Income Manager of the Year"** for 2000 by Morningstar, making PIMCO the only two-time winner in Morningstar history. PIMCO last won the award in 1998. Morningstar noted "PIMCO's strong performance doesn't just reflect good calls, it reflects the team's success with risk controls that keep portfolios from making dangerous bets."
- PIMCO's marketing group announced the creation of a dedicated **Consultant Relations Group**. The new structure recognizes the importance of consultants to PIMCO's business. It will be headed by Managing Director Margaret Isberg and include Michael Dow, Ray Hayes, Tom Kelleher, Marcy Rappaport, and Mark Romano.
- PIMCO has officially opened its **New York Office**. Account Managers Teri Frisch, Scott Millimet, Tom Otterbein and Seth Ruthen are now based there, as is convertible portfolio manager Sandra Durn.
- Portfolio Manager Paul McCulley was named Managing Director in December. Paul, a Federal Reserve specialist and key member of PIMCO's investment committee, is a frequent public spokesperson for PIMCO's investment outlook.
- Jeff Ludwig recently joined the firm as Vice President and portfolio manager, with responsibilities in the areas of equity derivatives, hedged products, and domestic analytics. He previously served as Vice President for Credit Suisse First Boston in New York as a proprietary equity derivatives trader, specializing in quantitative arbitrage strategies in the U.S. and Europe.
- Phil Hart, Yiannis Repoulis, and Ramon Maronilla joined the Account Management Group during the quarter. They will be working in our Australian, London, and Singapore offices, respectively.
- Lee Thomas has focused his responsibilities as Head Non-U.S. Strategist, delegating his day-to-day portfolio management responsibilities to other members of PIMCO's 11-person global team. This shift will enable Lee more time for research and client contact.
- Kendall Miller recently became a member of PIMCO's Non-U.S. Portfolio Management team. He joined the firm four years ago as a quantitative/research analyst developing risk management applications and models as well as mortgage-backed trading applications.
- David Hinman transferred to the Portfolio Management group as a corporate credit specialist. Previously, David had served both as an Account Manager and as Product Manager for PIMCO's credit-related products including High Yield and CDOs.
- Executive Vice President Ben Ehlert, a senior credit analyst and 30-year veteran of PIMCO and Pacific Life, relocated to his Colorado home and will now be a part-time consultant to PIMCO's credit team.
- PIMCO is sponsoring a global investing essay contest with a grand prize of \$5,000. We will invite university students, faculty members, professionals and practitioners to submit essays of up to 2,000 words. Please see back page for more details.

(please see back page for brief biographies of all new professionals)

Global Economic Growth To Slow Sharply, Led By U.S.

Global growth will decelerate sharply as a U.S. slow-down spills over into other developed and emerging economies. The landing will be hardest in the U.S., where previously exuberant investment and consumer spending will slow substantially. Tentative recovery in Japan will evaporate in the face of reduced demand for Japanese exports from the rest of Asia and the U.S. Europe will land more softly, cushioned by more limited export ties to the U.S. and the absence of investment and consumption bubbles.

- The investment spending boom that fueled the rapidly growing New Economy has been self-justifying until recently. Investment in productivity-enhancing information technology boosted profitability and returns, begetting higher asset values and lower capital costs, prompting still more investment.
 - This virtuous circle is now reversing itself. Reduced earnings growth and concern about high levels of corporate debt produced a dramatic repricing of risk in stock, corporate bond and bank loan markets in 2000. Heightened risk aversion among suppliers of capital, combined with lower profits and returns as the economy cools, point to a sharp slowdown in investment spending.
 - The U.S. consumption binge will slow along with investment as confidence erodes further. Softer equity markets mean that consumers can no longer count on capital gains to supplement disposable income. Slowing corporate profits translate into more insecurity about future income and employment.
 - Stability in the housing sector will partially offset weaker investment and consumer spending. Lower mortgage rates will stimulate housing starts, boosting sectors of the economy related to housing, such as consumer durables.
- We expect protracted Fed easing as the economy slows, while Federal budget surpluses also provide room for fiscal stimulus. These effects will, however, arrive with a lag over the next 12 to 18 months.
 - A cyclical drag created by microeconomic restructuring makes Japan especially vulnerable to spillover from the U.S. Still, reforms such as allowing more bankruptcies will provide macroeconomic benefits for Japan in the long run.
 - A terms of trade shock from last year's surge in oil prices will help curtail growth in Euroland. Exacerbated by a weak euro, this shock is producing a decline in real wages that will depress aggregate demand.
 - Inflation in the U.S. and Euroland will decline over the next several quarters as oil prices move lower. Slower worldwide growth and the end of cold winter weather will reduce price pressure in the oil market.

Managing Credit and Refinancing Risk Will Be Critical

Emphasis on high quality assets will continue to be rewarded as the economy slows and credit quality comes under increasing pressure. Top-tier agency and corporate issues with short maturities are reasonable alternatives in this environment. While longer dated corporates and emerging market bonds offer higher yield premiums, they are also more vulnerable to adverse price performance as global growth slows. Mortgages are another high quality alternative, but mortgage investors will face greater refinancing risk as decelerating growth puts a ceiling on interest rates. Increasing the portfolio's overall interest rate sensitivity, or duration is one way to offset heightened refinancing risk.

Global Strategy

Global Economic Growth to Decelerate Sharply

The pace of global growth will decelerate sharply, led by the U.S. economy. Global inflation will also decline as slower worldwide growth reduces price pressure, particularly in commodities. The U.S. slowdown will be hardest, as investment and consumer spending slow substantially. The European landing will be softer, cushioned by 2001 tax cuts. Prospects for economic recovery in Japan will be hampered by low consumer confidence, banking system weakness and an expected reduction in investment spending.

Europe

We continue to see a good environment for bonds in core Europe. Headline inflation has peaked and core inflation will remain stable, below two percent. High grade European bonds should outperform, given weak equity markets and continued deterioration in credit quality. In Europe we will:

- Overweight core Europe, as slowing global growth will cause bond prices to rally.
- Hold shorter maturity bonds in core Europe as the slowdown in global growth will allow the European Central Bank to begin lowering short-term rates.
- Underweight the U.K. We believe market expectations for U.K. yields trading below German yields are incorrect, given prospects for tighter labor markets and rising inflation in the U.K.
- Take positions that will benefit from widening of corporate yield premiums due to increased corporate issuance and reduced government bond supply.
- Overweight the euro versus the U.S. dollar. Relatively slower U.S. growth, worries over the U.S. current account deficit and further European structural reforms will bolster the euro.

Japan

Weak bank balance sheets, ongoing corporate restructuring and the global economic slowdown will limit Japanese growth. The deteriorating fiscal situation will weigh heavily on this market as government bond issuance continues to increase. Credit fundamentals will deteriorate as Japan remains the most heavily

indebted developed nation, with debt as a percentage of GDP over 120 percent. For this reason, we will continue to underweight Japan.

Dollar-Bloc

In the U.S., we expect bonds to continue to rally as the Fed cuts rates amid a slowing economy. Heightened risk aversion among suppliers of capital, combined with lower profits and returns as the economy cools, point to a sharp slowdown in investment spending. Consumption will slow as confidence falls further. Softer equity markets mean that consumers can no longer count on capital gains to supplement disposable income. Reduced corporate profits will result in more insecurity about future income and employment.

Elsewhere in the dollar-bloc, we expect the Canadian economy to follow the U.S., but with a lag. Domestic demand will be supported by new spending initiatives of the recently re-elected Liberal Party. Canada's low bond yields relative to the U.S. continue to make this market unattractive. Australian growth will slow amid eroding business and consumer confidence, but growth in exports fueled by a weak currency will cushion this impact. New Zealand's economic recovery will continue, but weaker global growth will cause the Reserve Bank to begin reducing rates from 6.5 percent during the first quarter. In the dollar-bloc, we will:

- Underweight Canada due to unattractive yields and risks that new spending measures will turn the fiscal surplus into a deficit.
- Focus on U.S. mortgages, where credit risk is minimal and attractive yield premiums provide a cushion against adverse price performance.
- Hold select top-quality corporate issues, focusing on short maturities, given our concern about eroding credit quality amid slower growth.
- Emphasize real return bonds as weaker growth will put continued downward pressure on real yields.

Emerging Markets

Where permitted, we will maintain a small emerging market position, favoring higher-quality credits such as Mexico, Hungary, Poland and South Korea. Our focus will continue to be on highly liquid, shorter-maturity instruments.

New Professionals

Portfolio Management

Jeffrey Ludwig

Mr. Ludwig is a Vice President and portfolio manager, with responsibilities in the areas of equity derivatives, hedged products, and domestic analytics. Mr. Ludwig recently joined the firm, having previously served as Vice President for Credit Suisse First Boston in New York as a proprietary equity derivatives trader, specializing in quantitative arbitrage strategies in the U.S. and Europe. He has four years of investment experience, and holds a bachelor's degree in Aeronautics and Astronautics and a master's degree and Ph.D. in electrical engineering and computer science, all from the Massachusetts Institute of Technology.

Global Investing Essay Contest

PIMCO will sponsor an essay contest on global investing with a grand prize of \$5,000. This contest will allow us to tap into new investment ideas and raise awareness about the global transformation of fixed income investing. We are inviting university students, faculty members, professionals and practitioners to submit essays of up to 2,000 words on topics such as global investment economics, multi-currency asset allocation and crisis dynamics/management. Besides the grand prize, winners in each of four categories – undergraduate, masters and doctoral level plus faculty members/practitioners – will receive \$1,000 prizes. Bill Gross will chair the essay contest selection committee. The panel of judges will also include Alberto Giovanni, Deputy General Manager of Banca di Roma and former Ministry Chairman of the Italian Treasury; and Peter L. Bernstein, President of Peter L. Bernstein Inc. Essays must be received by PIMCO on or before June 1, 2001. Please visit our site at www.pimco.com/contest to submit your essays.

Account Management

Phillip P. Hart

Mr. Hart is a Vice President and account manager. He recently joined the firm to manage existing client relationships in Australia and New Zealand. Previously, he represented Global Cash Management for State Street Bank & Trust in Asia where he was responsible for fund manager and pension fund clients in interest rate products and banking e-commerce systems. Prior to that, he held a sales and structuring role at one of Australia's leading banks Westpac, specializing in fixed income and foreign exchange products for institutional clients. He has eleven years of investment experience. He served thirteen years in the Royal Australian Navy and holds a Bachelor of Science degree from the University of New South Wales and an MBA from the University of Adelaide.

Ramon F. Maronilla

Mr. Maronilla is an account manager for the PIMCO Asia Pte. Ltd office in Singapore. He is responsible for servicing PIMCO's client relationships in the Asia ex-Japan region. Mr. Maronilla joined the firm in 2000, having been previously associated with Goldstein Capital Corp, a hedge fund in New York City, and Citibank in Manila. He has over three years of investment experience, and holds a bachelor's degree in Economics from the University of the Philippines and an MBA in Finance from Columbia University Graduate School of Business.

Yiannis D. Repoulis

Mr. Repoulis is an account manager. He joined the firm in 1998, and focuses on building PIMCO's client servicing efforts in Europe. Prior to joining PIMCO Europe Ltd's London office, Mr. Repoulis was associated with EFG Private Bank. He holds a bachelor's degree in economics and a master's degree in international political economy from the London School of Economics, and an MBA from the J.L. Kellogg Graduate School of Management.

This information is intended solely to report on investment strategies and opportunities identified by PIMCO. Opinions and estimates offered constitute our judgment and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. Please note that investments in non-U.S. securities and markets pose different and possibly greater risk than those customarily associated with domestic securities, including currency fluctuations, non-U.S. taxes and political and economic instability. The views and strategies described may not be suitable for all investors. This material has been prepared for informational purposes only, and is not intended to provide, and should not be relied on for, accounting, legal or tax advice. You should consult your tax or legal advisor regarding such matters. Please contact your account manager for further information.

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QTREVIEW4000

Composite Performance

	Periods Ended 12/31/00					4Q2000
	10 Yrs.*	7 Yrs.*	5 Yrs.*	3 Yrs.*	1 Yr.	
Total Return Fixed Income - Full Authority (%)¹	9.51	7.78	7.61	7.07	12.16	4.48
- Net of Fees	9.21	7.50	7.34	6.81	11.89	4.42
Total Return Fixed Income - Medium Authority (%)²	9.23	7.47	7.22	6.97	12.29	4.63
- Net of Fees	8.98	7.23	6.99	6.74	12.06	4.58
Total Return Fixed Income - Limited Authority (%)³	8.83	7.36	7.06	6.93	12.63	4.59
- Net of Fees	8.57	7.12	6.83	6.72	12.39	4.54
Lehman Brothers Aggregate Bond Index	7.96	6.68	6.46	6.36	11.63	4.21
Moderate Duration Fixed Income - Full Authority (%)¹	8.50	7.30	6.98	6.46	9.82	3.34
- Net of Fees	8.20	7.03	6.70	6.18	9.52	3.27
Moderate Duration Fixed Income - Medium Authority (%)²	-	-	7.22	6.94	11.28	4.25
- Net of Fees	-	-	6.91	6.63	10.93	4.16
Moderate Duration Fixed Income - Limited Authority (%)³	-	-	6.82	6.65	10.85	3.74
- Net of Fees	-	-	6.55	6.39	10.57	3.68
Lehman Brothers Intermediate Gov't/Credit Index	7.35	6.17	6.11	6.22	10.10	3.70
Low Duration Fixed Income - Full Authority (%)¹	7.82	6.91	7.02	6.39	8.14	2.22
- Net of Fees	7.38	6.50	6.68	6.09	7.85	2.14
Low Duration Fixed Income - Medium Authority (%)²	-	6.43	6.40	6.15	7.87	2.27
- Net of Fees	-	6.16	6.13	5.87	7.59	2.21
Low Duration Fixed Income - Limited Authority (%)³	7.07	6.48	6.44	6.44	9.01	2.82
- Net of Fees	6.84	6.27	6.26	6.28	8.86	2.78
Merrill Lynch 1-3 Yr. Treasury Index	6.42	5.85	5.92	6.00	7.99	2.70
StocksPLUS Enhanced Equity - Full Authority (%)⁴	18.80	19.05	19.12	12.67	(8.35)	(7.65)
- Net of Fees	18.40	18.75	18.87	12.50	(8.46)	(7.70)
StocksPLUS Enhanced Equity - Medium Authority (%)⁵	-	18.66	18.69	12.51	(8.83)	(8.16)
- Net of Fees	-	18.44	18.51	12.37	(8.89)	(8.19)
StocksPLUS Enhanced Equity - Limited Authority (%)⁶	18.38	18.65	18.75	12.56	(8.49)	(7.66)
- Net of Fees	18.12	18.48	18.58	12.44	(8.57)	(7.71)
S&P 500 Index	17.46	18.25	18.33	12.26	(9.11)	(7.83)
Short-Term Fixed Income - Full Authority (%)⁷	6.35	6.41	6.55	6.35	7.27	2.08
- Net of Fees	6.00	6.05	6.19	6.01	6.99	2.02
Short-Term Fixed Income - Limited Authority (%)⁸	-	-	6.40	6.06	7.37	1.91
- Net of Fees	-	-	6.17	5.86	7.21	1.85
Salomon 1 Year Treasury Index	5.70	5.66	5.80	5.74	7.11	2.17

¹ Full Authority includes accounts that allow each of the discretion types: futures or options, below investment grade and Int'l.

² Medium Authority includes accounts that allow two of the three discretion types: futures or options, below investment grade or Int'l.

³ Limited Authority includes accounts that allow only one of the three discretion types: futures or options, below investment grade or Int'l.

⁴ Full Authority includes accounts that allow below investment grade.

⁵ Medium Authority includes accounts that allow Int'l.

⁶ Limited Authority includes accounts that do not allow below investment grade or Int'l.

⁷ Full Authority includes accounts that allow below investment grade.

⁸ Limited Authority includes accounts that do not allow below investment grade.

⁹ Full Authority includes accounts which allow at least 25% of the portfolio's market value in non-mortgage type securities and allow below investment grade and derivative type investments.

¹⁰ Limited Authority includes accounts which allow less than 25% of the portfolio's market value in non-mortgage type securities or do not allow below investment grade or derivative type investments.

¹¹ These composites are currently comprised of one account, a U.S. registered mutual fund.

¹² The Municipal Bond portfolio may be subject to state, local, and (if applicable) alternative minimum taxes.

Composite Performance

	Periods Ended 12/31/00					
	10 Yrs.*	7 Yrs.*	5 Yrs.*	3 Yrs.*	1 Yr.	4Q 2000
Mortgage Fixed Income - Full Authority (%)⁹	-	-	-	7.07	11.20	3.98
- Net of Fees	-	-	-	6.72	10.85	3.90
Mortgage Fixed Income - Limited Authority (%)¹⁰	8.20	7.15	7.25	7.06	11.95	3.92
- Net of Fees	8.08	7.04	7.13	6.95	11.85	3.89
Salomon Mortgage Index	7.88	7.01	6.90	6.63	11.29	3.87
Global Hedged Fixed Income (%)	-	-	9.42	7.59	11.15	4.21
- Net of Fees	-	-	9.07	7.24	10.79	4.12
J.P. Morgan Global - Hedged Index	8.66	7.84	8.44	7.59	10.96	4.17
Global Unhedged Fixed Income (%)	8.58	6.52	4.58	4.35	2.32	3.72
- Net of Fees	8.25	6.21	4.31	4.09	2.09	3.66
Salomon World Gov't. Bond Unhedged Index	6.99	5.13	3.10	3.89	1.60	4.30
Non-U.S. Hedged Fixed Income (%)	-	9.27	10.38	7.58	10.31	3.80
- Net of Fees	-	8.73	9.85	7.07	9.83	3.69
J.P. Morgan Gov't. Bond Non-U.S., Hedged Index	8.98	8.47	9.49	8.02	9.71	3.73
Non-U.S. Unhedged Fixed Income (%)	-	5.27	2.08	2.15	(2.46)	3.96
- Net of Fees	-	5.05	1.87	1.96	(2.70)	3.89
Salomon World Gov't., Non-U.S. Unhedged Index	6.78	4.65	1.64	2.87	(2.64)	4.00
High Yield Fixed Income (%)	-	8.47	7.14	3.46	0.05	(1.47)
- Net of Fees	-	7.93	6.64	3.01	(0.37)	(1.57)
Lehman Brothers Interm. BB U.S. High Yield Index	10.14	7.30	6.41	3.88	3.73	(0.06)
Long-Term U.S. Government (%)¹¹	-	9.07	8.33	8.44	20.98	8.10
- Net of Fees & Expenses	-	8.53	7.79	7.90	20.38	7.97
Lehman Long Term Treasury Index	9.91	8.02	7.28	7.61	20.28	7.23
Strategic Balanced (%)¹¹	-	-	-	10.18	(1.09)	(1.65)
- Net of Fees & Expenses	-	-	-	9.47	(1.73)	(1.81)
60% S&P500 / 40% LBAG Index	13.79	13.75	13.78	10.29	(0.99)	(3.07)
Real Return Full Authority (%)¹	-	-	-	8.61	14.05	3.66
- Net of Fees & Expenses	-	-	-	8.07	13.48	3.53
Lehman Inflation Linked Index	-	-	-	6.39	13.18	3.79
Convertible Fund (%)¹¹	-	-	-	-	(0.12)	(10.23)
- Net of Fees & Expenses	-	-	-	-	(0.77)	(10.38)
First Boston Convertible Index	14.72	11.87	13.21	11.80	(7.83)	(12.31)
Municipal Bond Fund (%)¹¹	-	-	-	4.56	10.84	3.16
- Net of Fees & Expenses ¹²	-	-	-	4.04	10.29	3.03
Lehman General Municipal Index	-	5.76	5.84	5.21	11.69	4.37
Emerging Markets Fund (%)	-	-	-	9.50	15.58	2.59
- Net of Fees	-	-	-	8.58	14.61	2.37
J.P. Morgan Emerging Markets + Index	-	10.56	14.47	7.67	15.66	1.72

* Annualized. Past performance is no guarantee of future results. All performance figures reflect commissions, other expenses (except custody), and reinvestment of earnings. The "net of fees" performance figures above also reflect the deduction of actual investment advisory fees.