Dec 1998

The Global Convertible Recommended Portfolio and Strategy

MORGAN STANLEY DEAN WITTER

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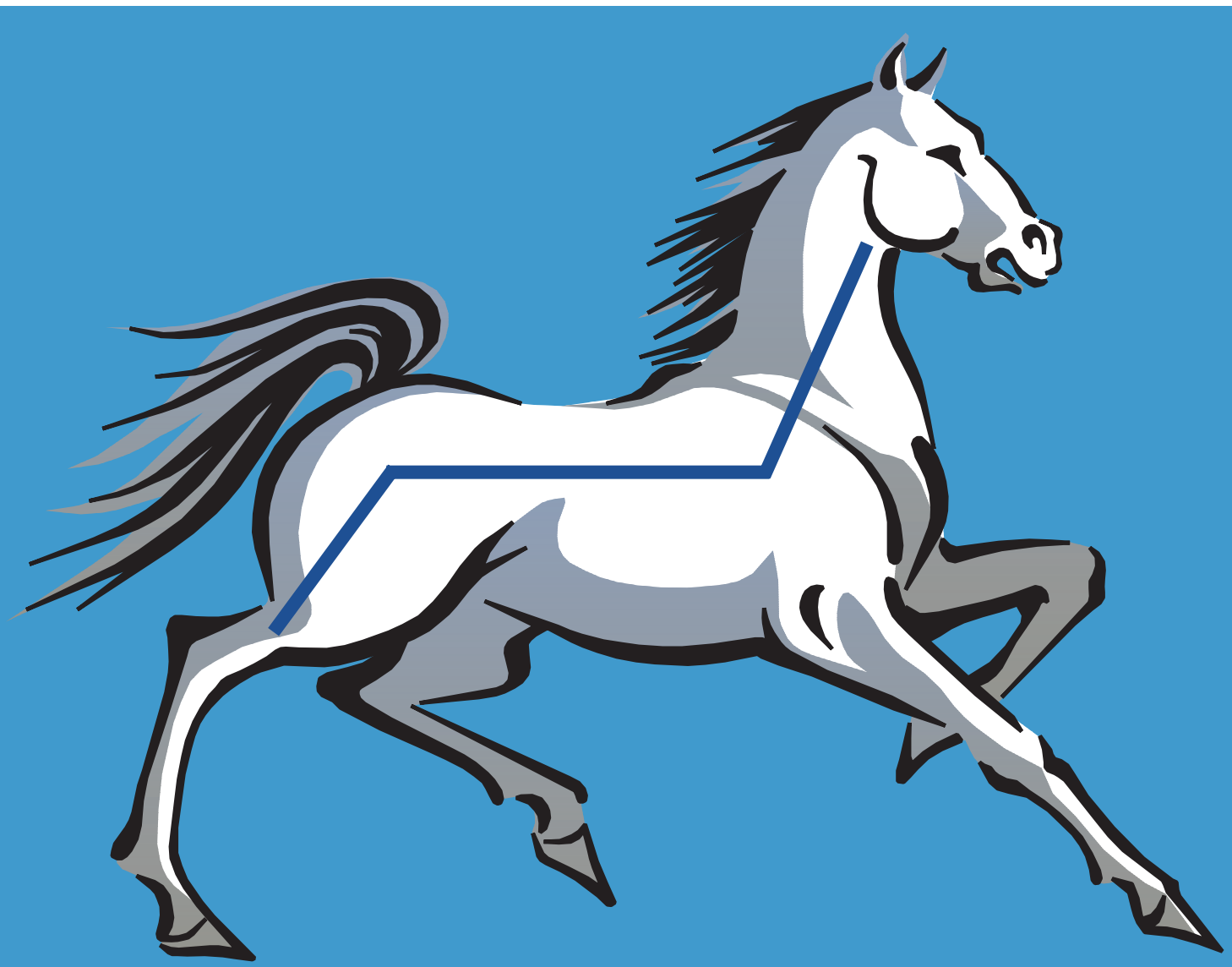
Global Convertible Research

Dec 1998

Guide to PEPS

Premium Exchangeable Participating Securities



PEPS: A Convertible Structure Designed to Gallop

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December 1998

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We wish to acknowledge the valuable contributions of Ravi Arcot, Claudette Bell, David Ballard, Diane Cavarretta, Kevin Donovan, Brooks Harris, Giovanna Marcone, David Pilgrim, Mariella Talleyrand, Joyce Yurman and Jill Woodworth in producing this report.

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Executive Summary

PEPS can truly be considered among the most successful structures found in the modern convertible market. Since the first PEPS appeared in 1993, a total of $25 billion PEPS have been issued. The size of the currently outstanding PEPS market is $18.9 billion, representing 12% of the convertible market, and we expect that proportion to grow. Indeed, after a three-month lull in convertible new issue activity, three of the ten companies that issued convertible securities since November have raised $1.5 billion via PEPS, representing 40.1% of the total amount raised. We expect the vigorous growth in the PEPS market that occurred over the last five years to continue in the U.S., as well as throughout the world. In fact, we think the growth rate will gain momentum as long as investors continue to require high income and significant capital appreciation from their investments and issuers continue to rationalize their operations by monetizing non-strategic assets, de-lever their balance sheets, and raise tax-advantaged capital.

In this publication, the *Guide to PEPS*, we describe the pros, cons, and valuation techniques of the PEPS security. From the investor's perspective, PEPS are a high income, highly-equity-sensitive convertible security. PEPS allow investors confident in the fundamental prospects of the stock underlying the PEPS a way to balance their income and capital appreciation expectations. On the other hand, from the issuer's perspective, PEPS in their various forms provide a high-equity content security that offer a means to efficiently restructure and de-leverage the balance sheet, minimize the after-tax cost of issuance, optimize dilution, and enhance credit rating.

PEPS and other similarly structured convertibles allow an issuer to capitalize on an already segmented investor base, while potentially enhancing its capital structure. For example, fixed income securities are appropriate for investors seeking income while preserving capital. Common stock, on the other hand, appeals to investors looking for high returns primarily through capital appreciation with an often minimal income component, albeit with higher risk. PEPS effectively blend these two types of investment profiles, providing investors with an opportunity to achieve a mix of high current income and capital appreciation.

A PEPS issuer can thus target those investors seeking high yield with growth opportunities while maintaining its current investor base. With a high-yielding PEPS outstanding, an issuer can moderate, or in some cases eliminate, its tax inefficient common dividend, thus providing income and capital appreciation-oriented investors an alternative investment choice. Therefore, PEPS should be considered an integral part of a company's capital structure in an increasingly segmented investor environment.

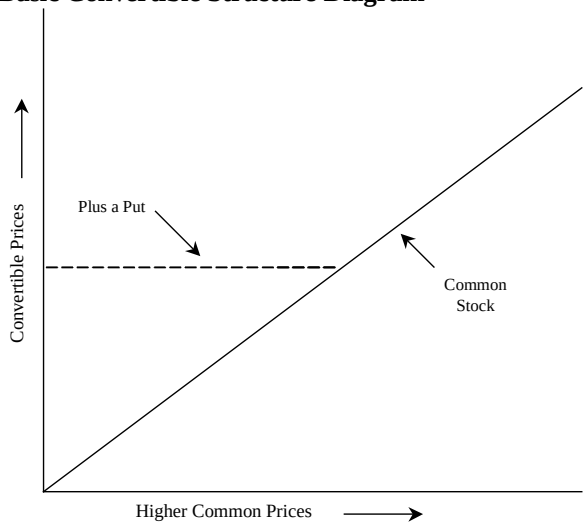
Various forms of PEPS provide high income and upside participation in companies that would typically not provide such high income. Unlike traditional convertibles, these short-dated securities allow investors to take advantage of their stock picking ability rather than both their credit evaluation and stock selection skills. This is due to the fact that PEPS are high-equity content securities, and so require stock selection abilities more than the credit evaluation skills that are implicitly required of a convertible security investor.

PEPS: A High Income, Equity Sensitive Convertible

In Figure 1 we present a diagram of a basic convertible structure. Traditionally, a convertible security's return

Figure 1:

Basic Convertible Structure Diagram



Source: Morgan Stanley Dean Witter Convertible Research

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profile is expressed as either a bond plus an out of the money call option, or as a common stock plus a put. In Figure 1 on Page 3, we have used the latter method of profiling a traditional convertible security, i.e., a combination of a common stock with an embedded put.

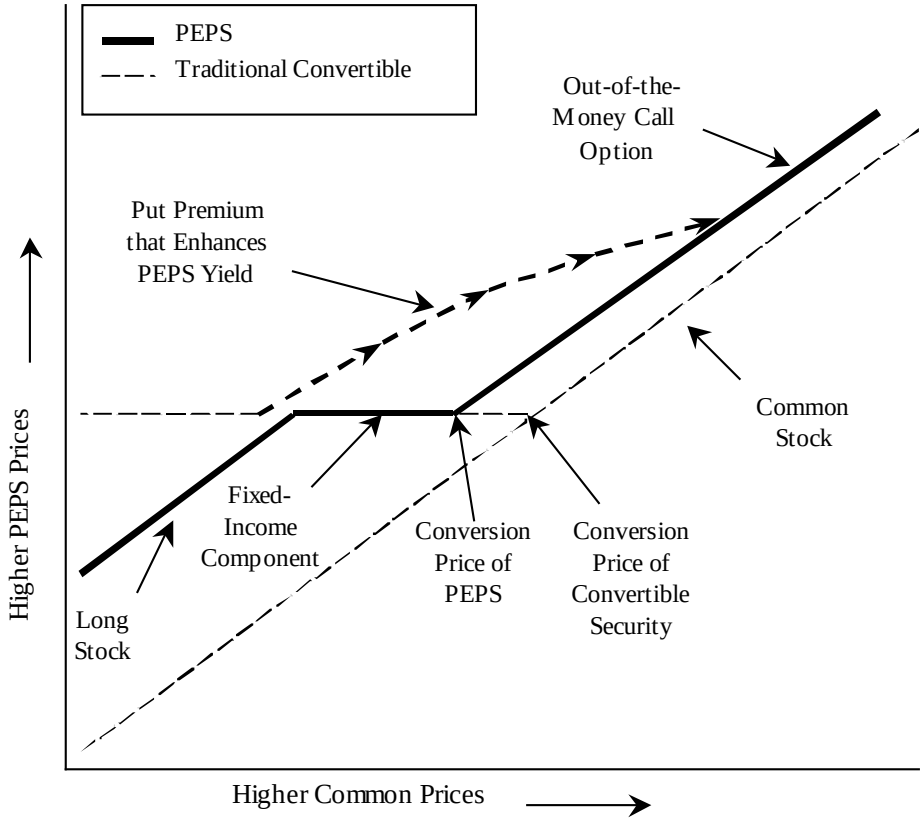
Investors are attracted to traditional convertible bonds and preferred stocks because of the upside potential these securities provide, expressed by the "Common Stock" line in Figure 1, as well as the downside protection shown by the "Plus a Put" line in the diagram. The downside protection can be considered as insurance against a drop in the common stock. When investors purchase a convertible, whether at original issue or in the secondary market, they are also paying for this insurance premium in order to obtain the downside protection.

As we will show on the pages that follow, PEPS provide investors with most of the upside in the common stock's performance. They typically also carry break-even periods that are often in line with, or less than, the time remaining to call or maturity. This is because it is not uncommon for PEPS to trade with a premium that in dollar terms is less than its accumulated coupon payments, net of common dividend payments, to expiration. Since most PEPS are call protected through maturity, this suggests that buyers of PEPS will recover any premium over conversion value they paid before call protection expires.

In Figure 2, we show the relationship between the profiles of PEPS and a traditional convertible security. As shown in the Figure, the return profile of a PEPS is similar to that of a traditional convertible on the upside, represented by the "Out-of-the-Money Call Option" line in the diagram. However, as also shown in the Figure, the conversion price of the PEPS is lower than the conversion price of a traditional convertible.

Figure 2:

Profile of PEPS and Traditional Convertible Security



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PEPS can be viewed as a security that converts the embedded put of a short-dated convertible note into a much higher than normal coupon than could be found in a traditional convertible bond or convertible preferred stock.

Having converted the downside protection into higher current income and stock upside, a PEPS investor is subjected to the underlying stock's performance on the downside, as well. In other words, just as PEPS provide significant upside participation in the underlying stock, after a portion of the fixed-income like performance, investors are, however, exposed to the underlying stock's downside, as shown in Figure 2.

The PEPS return profile, diagrammed in Figure 2 with a bold line, suggests that PEPS investors only pay for a portion of the protection, the "Fixed-Income Component" line, but not for insurance they may not need. Instead, that part of the embedded put characteristic of the traditional convertible, shown by the dotted line, is converted into current income.

In other words, PEPS allow investors confident about the prospects of the issuer to convert a portion of the theoretical bond floor typical of a traditional convertible security into high current income. Meanwhile, PEPS tend to have higher equity sensitivity because they are issued at a lower conversion premium than a traditional convertible bond or a preferred stock. Thus, PEPS provide higher upside participation in the underlying common. As a result, the payoff pattern of a PEPS resembles a "Galloping Horse," shown on the cover of this report.

In Table 1, we show the weighted-average current yield and premium for PEPS issued in 1998. The same information is presented for both cash-pay convertible bonds and preferred stocks issued this year, and as a combined group.

Table 1

PEPS Yield and Premium Comparison

Convertible Type	Weighted Average	
	Current Yield	**Premium**
PEPS:	**7.2%**	**23.1%**
Convertible Bonds:	4.4%	26.6%
Convertible Preferreds:	6.1%	24.7%
Cash Pay Cv Securities:	5.2%	25.8%

Source: Morgan Stanley Dean Witter Convertible Research

As can be seen in the Table, PEPS investors on average receive approximately 200 basis points (100 basis points = 1%) more in current yield, and realize a 270 basis point savings in premium as a result of the elimination of the embedded put. The lower premium by definition contributes to the PEPS greater upside participation in the underlying stock. These factors combine to provide investors with higher income and equity sensitivity. Hence, equity-oriented convertible investors and growth and income funds find PEPS to be attractive investment choices.

Also, since PEPS are generally issued by mid-to large-cap companies, in contrast to the typical convertible issuer, which tends to be a small to mid-cap company, PEPS investors are able to benefit from the added liquidity. This is particularly relevant given the current market environment characterized by out-performance by the large-cap stocks relative to small-cap stocks.

Convertible investors might consider another point that relates to the issue of downside protection. While there is no question PEPS by design provide only a modicum of downside protection, traditional convertible securities, particularly those with sub-investment grade ratings, have demonstrated weak records of downside protection. This was clearly evident during the 1998 market decline caused by widening credit spreads and the 1994 market decline caused by rising interest rates. These two scenarios, characterized by rising rates and a credit crunch, have been behind some of the more pronounced equity market declines during the decade of the 90s.

The expectation of the downside protection of traditional convertible securities, especially in the case of non-investment grade convertible bonds and preferred stocks, has not materialized for investors, at least in the short run. The record of downside protection has been suspect for long duration convertible securities such as zero-coupon bonds, trust preferreds, and preferred stocks, especially when they are sub-investment grade rated and unregistered.

There is no question that in most cases, investors in convertible securities recover their principal investment, but in

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the short run, their performance relative to traditional PEPS, brings into focus the theoretical expectations of downside protection vs. reality. This is because PEPS are relatively insensitive to changes in interest rates, credit spreads, etc., but are most sensitive to its underlying common stock. We discuss these sensitivities later in this report.

The previous discussion is not meant to suggest that the PEPS of any issuer should be summarily purchased, vis-à-vis traditional convertible securities. Instead, investors should consider the PEPS when they are comfortable with the fundamental prospects of the company. For convertible investors, a more efficient way to invest in PEPS would be to include them in a portfolio of other, more balanced and/or defensive types of convertible structures. Investors would thus create a portfolio that in its entirety offers a good balance of upside potential and downside protection.

For recommended PEPS securities, please refer to the MSDW Recommended Convertible Portfolio.

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Introduction

PEPS, which are either **P**articipating **E**quity **P**referred **S**hares or **P**remium **E**xchangeable **P**articipating **S**ecurities[1], are convertible securities designed to provide investors with high current income along with high equity-like participation in the underlying stock. These features have allowed this convertible structure to gain broad acceptance among convertible, growth and income, equity and income, and individual investors. International and domestic companies have also embraced PEPS because the flexibility and various features of the security enable issuers to de-leverage their balance sheets and monetize non-strategic assets in an orderly fashion.

In this report we examine the basic structure of PEPS, its typical terms as well as those features unique to the security. We review the variables that should be considered when determining fair value, and discuss how these securities have performed. We also discuss how issuers have tailored the basic structure of the security to meet a variety of needs, as well as some of the more involved structures and the advantages they provide. A review of accounting and tax treatment rounds out our comprehensive look at this very innovative structure.

Market Growth

Since June of 1993, 86 issuers have raised $25 billion by issuing PEPS and PEPS-like securities. In fact, the PEPS' new issue market has posted compound annual growth of 81.1%, rising from just $1.2 billion at the end of 1993. The number of issues per year has also grown from just three in 1993 to 22 in 1998. PEPS new issuance as a percentage of all convertible new issue volume has also expanded from 4.9% in 1993, to 19.6% in 1998. Figure 3 illustrates the dramatic annual and cumulative growth in the size of the PEPS new issue market since 1993.

PEPS' Investors

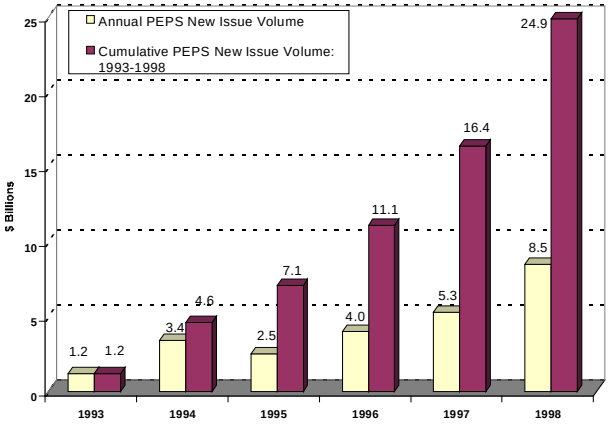
PEPS investors include income and growth-oriented investors like mutual funds, pension plans, endowments, insurance companies and individual investors. These investors all find that the characteristics of PEPS fall within their respective investment parameters. We believe that the key to investor acceptance has been the continued solid performance of the security.

In Figure 4 on Page 8, we evaluated the performance of the 21 PEPS that have matured so far. The first two columns reflect the performance of PEPS relative to their underlying stocks assuming the reinvestment of PEPS' coupon and the respective common dividends. The second two columns reflect the same comparison, but based on simple total return only. PEPS' performance as a percentage of the underlying common performance is also noted.

We chose matured PEPS because of the stable frame of reference they provide. Of the 21 PEPS represented in Figure 4, only three showed losses. The returns and the

Figure 3

Annual and Cumulative PEPS New Issue Volume



Source: Morgan Stanley Dean Witter Convertible Research

[1] *The Participating Equity Preferred Share version of the security, also known as Equity PEPS, is issued by companies for the benefit of their own balance sheets. The Premium Exchangeable Participating Security, also known as Debt PEPS, is used as a conduit to distribute stock in an orderly fashion. Consequently, in this structure the issuer and the distributed shares can be from two different companies.*

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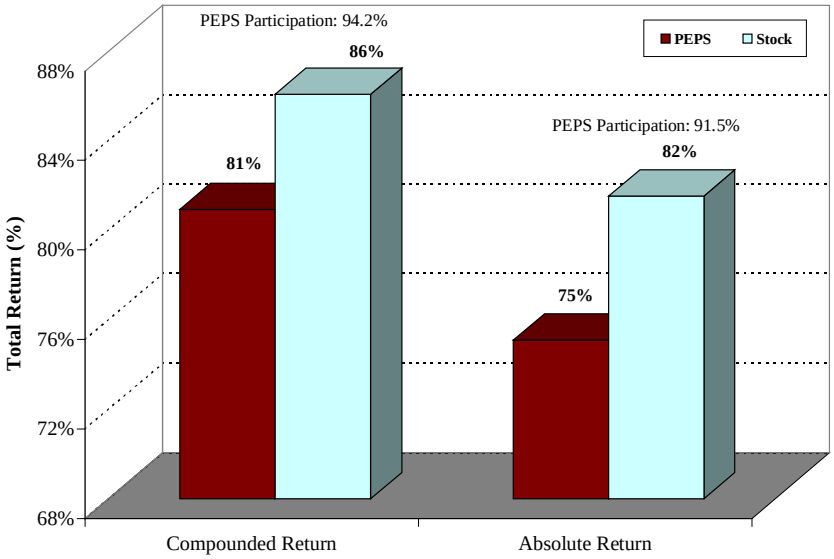
Figure 4
Performance of Matured PEPS



Source: Morgan Stanley Dean Witter Convertible Research

percentage by which the PEPS participated in the gains posted by the respective underlying common stocks suggests that the security does deliver performance in practice as well as in theory.

As measured by the respective volatilities, the matured PEPS posted these returns at a lower level of risk than the underlying common. The weighted average volatilities of the PEPS and the underlying common was 26.1% and 31.4%, respectively. This suggests that PEPS are about 17% less risky than the underlying common stocks, although as shown in Figure 4, they participated in over 90% of the returns.

PEPS are particularly attractive in a low interest rate and rapidly rising equity market environment. Consequently, these securities are best suited for investors who have a bullish view of the underlying equity and would like to aggressively participate in the potential rise in the market while earning high current income.

In a broader sense, PEPS are generally most attractive in cases where:

a) The underlying stock is of a *moderately* growing company where the aggressive PEPS' structure and high coupon allows for high total returns while maintaining upside participation; or

b) In the case of an Exchangeable PEPS an attractive PEPS is one where the underlying stock is of a *high-growth* company that does not pay a dividend but the issuer is one with a strong balance sheet assuring investors the payment of the high coupon.

PEPS' Issuers Embrace a Flexible Financing Tool

Investor demand notwithstanding, the growth in this market is primarily attributable to its viability as a financing alternative. PEPS have become a financing option for a variety of companies ranging from mega-cap to small cap, representing a range of sectors, including industrial, energy, and service groups. Also, international issuers like Trizec Hahn (formerly Horsham), Royal Group Technologies, Daimler-Benz, and BNDESPAR/Eletrobras have all issued PEPS.

Over the years, PEPS have been used to accommodate a number of issuer needs. Table 2 demonstrates the various purposes for which the structure was issued, and the companies/entities that issued them.

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Table 2
PEPS Design Allows Issuers to Meet Various Objectives

Purpose	Issuers
A. De-leveraging Balance Sheet.	Westinghouse, Mascotech and Cendant
B. Monetizing Non-Strategic Assets.	MediaOne/Airtouch, American Express/ First Data Corp, Houston Industries/Time Warner
C. Merger Consideration.	Aetna, AirTouch Communications
D. Orderly Distribution of Stock held by non-registered Holders:	
I. Institutional	Salomon-Smith Barney/Cincinnati Bell
II. Corporate Insiders (e.g. Estate Planning)	Dole Foods, DIMON
III. Employees	Royal Group Technologies
E. Non-U.S. Companies	- Canada: Trizec Hahn/American Barrick - Germany: Dailmer Benz - Brazil: BNDESPAR/Eletrobras

Source: Morgan Stanley Dean Witter Convertible Research

Issuers have also embraced a product that can provide a number of advantages, including enabling tax-advantaged coupon payments, monetization of non-strategic assets, and a strengthening of their balance sheets.

PEPS Pros and Cons for Issuers and Investors

PEPS investors generally require high income and a high yield advantage over the common stock, a performance-based conversion premium, and a significant degree of stock participation. At the same time, the many advantages PEPS structures offer issuers will continue to make them very reasonable financing alternatives.

Table 3 summarizes these advantages and disadvantages of PEPS for both investor and issuer.

Still, the advantages for both issuer and investor do not come without a cost. Though investors benefit from the significant yield advantage these securities provide, which also gives them a degree of out performance if the stock trends below the original issue price, PEPS do not provide the downside support typical of a traditional convertible bond or convertible preferred stock. While PEPS are less interest rate and credit spread sensitive, factors which will directly influence the bond value of a traditional convertible bond, they are also much more equity sensitive than convertible bonds and preferred stock, causing them to outperform the traditional convertible security.

Meanwhile, for issuers, even though the PEPS coupon is tax advantaged, it is still higher than its comparable maturity debt or common dividend yield. The high coupon of the PEPS, however, ensures distribution of the underlying common stock through the PEPS issuance.

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Table 3

PEPS: Advantages and Disadvantages for Investors and Issuers

Investor Advantages	Issuer Advantages
Income Advantage: Appropriate for investors with a favorable view of the common stock and in need of high current income.	*Strategic Financial Restructuring*: Provides issuers with an orderly and efficient way of disposing of non-strategic assets. Also allows issuer to infuse equity into the balance sheet at a potentially higher price than the current stock price.
High Current Income: The average yield of all PEPS issued since 1993 is 7.36%, providing a yield advantage of almost 640 basis points over the underlying common stock.	*Tax Advantaged Coupon*: The PEPS' coupon payments are typically tax advantaged, deductible or deferred to the issuer.
Performance-based Conversion Premium: Relative to the common stock, investors incur the conversion premium only if the stock rises above the issue price. If at mandatory maturity: (i) the stock price is above the Conversion Price, holders incur the conversion premium and receive stock at a minimum ratio, usually .8000 to .8500 of a share; (ii) the stock is below the issue price at maturity, holders get one share; (iii) the stock is between the Issue Price and Conversion Price, holders receive the value of the original investment in stock. *Investors receive coupon payments regardless of where the stock price closes at maturity*.	*Issuer Equity Participation*: Exchangeable PEPS allow issuer to lock in sale price while maintaining upside participation in the common. The fact that issuers gain from stock appreciation somewhat aligns issuer and investor interests. *Favorable Rating Agency Treatment*: Because of the mandatory nature of the PEPS, rating agencies view these issues as having greater equity content than a convertible bond or preferred stock.
Visibility: PEPS are generally listed on a stock exchange.	*Broaden Investor Base*: PEPS appeal to growth and income, equity and income, convertible, and individual investors. As a result, the issuer can offer security to widest possible range of investors.
Investor Disadvantages	**Issuer Disadvantages**
Weak Downside Protection: Although the significant yield advantage gives PEPS a degree of out performance if the stock trends lower, PEPS lack the downside protection of a typical convertible bond or preferred stock. Still, PEPS tend to be significantly less interest rate and credit spread sensitive than convertible bonds or preferred stocks, although they are also much more equity sensitive than convertible bonds and preferred stock.	*High Coupon of Security*. Issuer typically has to provide higher coupon than its comparable maturity debt or common dividend yield in order to ensure the distribution of the underlying common stock via the PEPS while still maintaining the upside in it. However, the coupon payments are generally tax-advantaged. This reduces the net effective cost while postponing an immediate capital gains tax payment.

Source: Morgan Stanley Dean Witter Convertible Research

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Typical Issue Terms

PEPS are typically issued at a price that is equal to the price of the stock into which it converts and have conversion premiums that typically range from 18% to 23%. The resulting conversion price means the minimum conversion ratio at maturity is a fraction of a share. The maximum number of shares PEPS' holders will typically receive at maturity is one. All ratios are adjusted for stock splits, stock dividends and any other distribution that affects the number of shares outstanding. The security typically is priced with a current yield that is anywhere from 500 to 700 basis points higher than the underlying common stock dividend yield. The PEPS annual coupon is usually paid quarterly, although some PEPS variations pay semi-annually. Typically, these securities mandatorily convert into common stock or mature in 3 to 5 years. They are usually call protected for most of their life.

Finally, some PEPS, particularly the exchangeable kind, cannot be converted but are exchanged into common stock at the issuer's option at maturity, while others can be converted at any time at the holder's option at the minimum conversion ratio.

The recently issued KN Energy 8.25% PEPS is a good example of a typical structure. The terms are detailed in the following table.

Table 4

KN Energy 8.25% due 11/30/2001

PEPS' Issue Price:	$43.00
Underlying Common Price:	$43.00
Conversion Premium:	20.00%
Conversion Price:	$51.60
Minimum Conversion Ratio:	0.8333
Maximum Conversion Ratio:	1.0000
PEPS Yield:	8.25%
Common Yield:	2.60%
Yield Advantage:	5.65%
Annual Coupon Payment	$3.54
Quarterly Coupon Payment:	$0.887
Expiration Date:	11/30/01
Call Protection:	Life

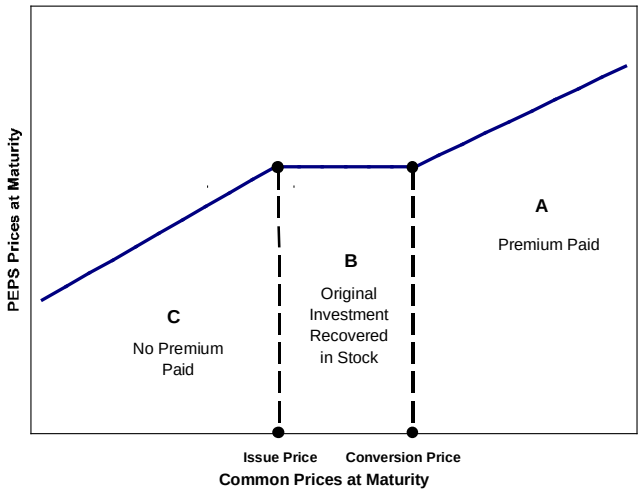
Source: Morgan Stanley Dean Witter Convertible Research

The defining feature of PEPS is its conversion feature. At its maturity, the number of common shares a PEPS' holder will be entitled to will depend on where the common stock price is at the time.

In Figure 5, the simple return profile of the average PEPS at expiration is presented. As shown in the Figure, regardless of the structure, a PEPS return at maturity mirrors the illustration.

Figure 5

PEPS Payoff Scenario



Source: Morgan Stanley Dean Witter Convertible Research

As shown in the Figure, if the stock price is above the Conversion Price, represented by the "A" range, investors receive a preset number of shares while participating in the stock price appreciation. Referring to the KN Energy example, if the stock closed above the $51.60 Conversion Price, holders would be entitled to receive 0.8333 shares of common stock (the ratio is equal to the Issue Price/Conversion Price).

The "B" Range represents the return if the underlying stock closes between the Issue Price and the Conversion Price. In this area, investors will receive common shares based on a range between the maximum ratio, which is 1, and the minimum ratio, which is 0.8333. The value of the stock equals the price of the PEPS at issue. In the KN Energy example, this would cover the range of prices between $43.00 and $51.60. To illustrate, if the average price of

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KNE stock is $48.00 on the expiration date, holders would be entitled to a fraction of stock worth $43.00. The fraction is simply the issue price divided by the stock price at expiration, or 0.8958 ($43.00/$48.00) shares. The value of which is 0.8958 x $48.00 = $43.00, or the issue price.

If the stock price is below the issue price at expiration, represented by range "C," investors receive one share. This would occur if KNE stock closed below $43.00.

Performance Based Conversion Premium

Another characteristic unique to PEPS is that investors do not actually pay a premium at the time of issue. This is because the security is typically issued at the same price as the stock into which it is mandatorily convertible. Investors in traditional convertibles pay the premium at issue.

Consider a PEPS priced at $20 with a conversion price of $25. The maximum conversion ratio is 1, and the minimum conversion ratio is 0.80 ($20/$25). As the stock rises from $20 to $25, the effective ratio will decline from 1 to 0.80. The declining ratio, and subsequent decline in the conversion value, represents the conversion premium PEPS holders pay.

From the issuer's perspective, the PEPS premium can be viewed as performance based. If the stock performs well and rises above the conversion price by maturity, the issuer in our example will have to deliver 0.8000 shares. The 0.20 share difference will represent the premium the issuer earns, or that the investor pays. In this way, both the issuer and investor benefit if the stock performs, thus aligning their interests.

The conversion ratio is only variable between the issue price and the conversion price. If the stock rises above the conversion price, or trades below the issue price, the conversion ratio will be fixed.

The concept of a performance based conversion premium is particularly relevant for PEPS structures that can only be converted at maturity. However, even for PEPS structures that can convert at any time, we think it only makes sense to do so at maturity, when the relationship of stock price to the issue price and conversion price will dictate the best course of action.

The Past and the Future

While PEPS have certainly become a useful financing solution, the structure was not the first mandatory. In terms of product evolution, PEPS succeeded PERCS on the convertible product continuum. The main difference between the structures is that PEPS offer uncapped upside participation in its underlying common, while the upside of PERCS was capped. The other major difference is that PERCS investors do not give up any upside unless the underlying stock moves above the cap price. Consequently, if an investor believes that the stock is likely to be a moderate performer over the life of the security, the high coupon of a PERCS, relative to a PEPS, would contribute to a higher total return for the PERCS investor.

If over the next several years equity market performance were to slow to high single digit to low double digit returns, rather than the 20% to 30% returns enjoyed by investors during the past few years, issuance of PERCS may be rekindled. This possibility should not be ignored, and could be appealing to value and income-oriented investors.

One drawback that PERCS have had is the decline in their equity sensitivity, or delta, as the underlying stock rises and approaches the cap price. We think the next generation of popular PERCS may be the multi-step/cap PERCS, which is a structure Morgan Stanley pioneered, as it did the original PERCS structure.

In a subsequent publication we intend to discuss the multi step/cap PERCS. But for now, in Appendix F on Page 49, we have presented a table that briefly describes the differences between PEPS, the topic of this report, and PERCS, the original mandatory security.

PEPS Name Variations

PEPS go by a number of acronyms, including DECS, ACES, PRIDES, PIES and SAILS. (A complete list of these acronyms appears in Appendix E on Page 48). For the purpose of our report, we will use the term PEPS to describe all these types of structures.

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PEPS Structure and Evaluation

In this section we discuss the fundamental dynamics of the PEPS structure at maturity. We also address the ways that PEPS are evaluated in the secondary market. The sensitivity of PEPS prices to changes in the price and volatility of its underlying stock, as well as changes in interest rates will also be discussed. We round out this section with a look at some of the theoretical characteristics unique to PEPS.

Consider the terms of a hypothetical PEPS issue:

Issue Price:	$20.00
Coupon:	6.75%
Dividend:	$1.35
Stock Dividend:	$0.00
Conversion Premium:	25%
Conversion Ratio:	0.8000
Call Protection:	3.00 Yrs
Break-even:	2.96 Yrs

Source: Morgan Stanley Dean Witter Convertible Research

PEPS provide investors with most of the upside in the common stock's performance. They typically also carry break-even periods that are often in line with, or less than, the time remaining to call or maturity. This is because it is not uncommon for PEPS to trade with a premium that in dollar terms is less than its accumulated coupon payments, net of common dividend payments, to expiration. Since most PEPS are call protected through expiration, this suggests that buyers of PEPS recover any premium over conversion value they paid before call protection expires.

Using the hypothetical PEPS terms we review the payoff scenarios at maturity. If the price of the common rises to $50.00 at expiration, the value of the PEPS will be $40.00 ($50.00 x 0.8000). The difference between the stock price at issue and the value of the PEPS at expiration will reflect the "postponed" premium, that is now paid, relative to where the stock traded over the security's life.

If the stock trades between the issue price and the Conversion Price of the PEPS, holders receive an amount of stock equal in value to the $20.00 issue price.

If the stock drops to $10.00 by expiration, the value of the PEPS will be $10.00. In these last two cases, as we discussed earlier, the holder pays no premium.

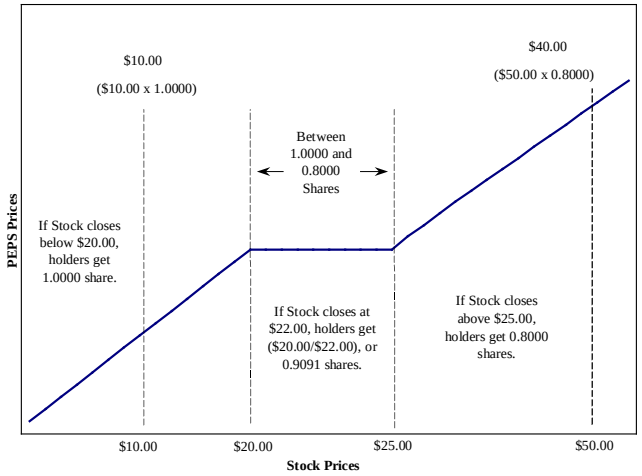
To illustrate these three possible outcomes, we have reproduced the familiar "galloping horse" diagram in Figure 6.

Though not figured into the discussion of the PEPS' expiration possibilities, but important nonetheless, is the fact that the PEPS in our example was offered with a significant yield advantage over its underlying stock. So, the stock's drop at expiration would be somewhat mitigated by the quarterly coupon payments the holder would have received over the life of the security. Meanwhile, the return of the PEPS given a rise in the stock would be similarly increased when the income is added to the price appreciation.

In Figure 7, we illustrate the return profile of the typical PEPS. As shown, on a total return basis, the yield advantage of the PEPS will give investors a sizable cushion if the stock trends lower. It is also clear on this graph how the PEPS will share in a significant degree of its underlying common stock's rise as well.

Figure 6

PEPS Payoff Scenarios



Source: Morgan Stanley Dean Witter Convertible Research

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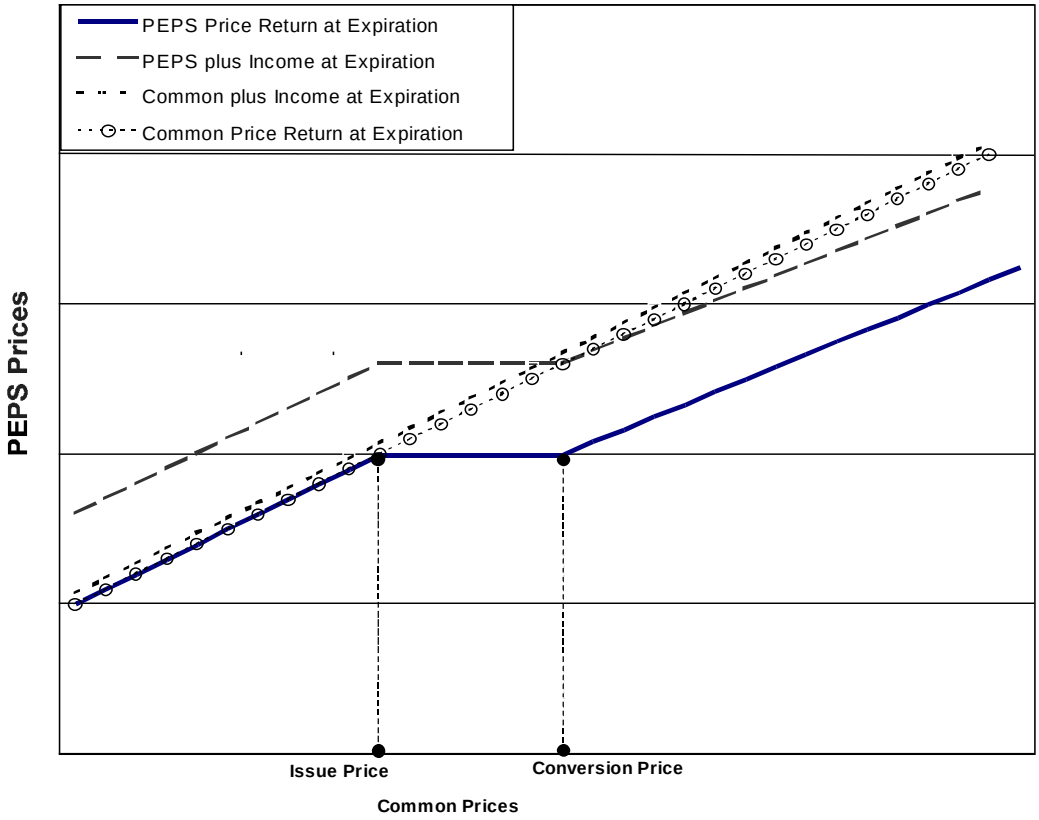
Figure 7

PEPS/Common Total Return at Expiration



Source: Morgan Stanley Dean Witter Convertible Research

Valuing a PEPS

The pay-off profile of PEPS at expiration certainly helps illustrate the dynamics of the security. However, investors should not view "expiration pay-off analysis" as the only way to determine the richness or cheapness of PEPS. It is also important to consider the fair value of the outstanding security. With this in mind, we review the various ways the fair value of outstanding PEPS can be determined.

Take another look at Figure 6 on Page 14. It is easy to see how PEPS can be separated into three components: upside, downside, and flat participation profiles. These profiles correspond to the parts of a call spread, and a convertible security with a put.

The Call Spread

Consider the following information**:**

Table 5

"Call Spread" Components

PEPS	=	Underlying Common Stock	**(1)**
		+ (Out-of-the Money Call Option on the Underlying Common struck at the Conversion Price) x Conversion Ratio	**(2)**
		- At-the-Money Call Option on the Underlying Common Stock	**(3)**
		+ Present value of the Incremental Income over the Common Dividend	**(4)**

Source: Morgan Stanley Dean Witter Convertible Research

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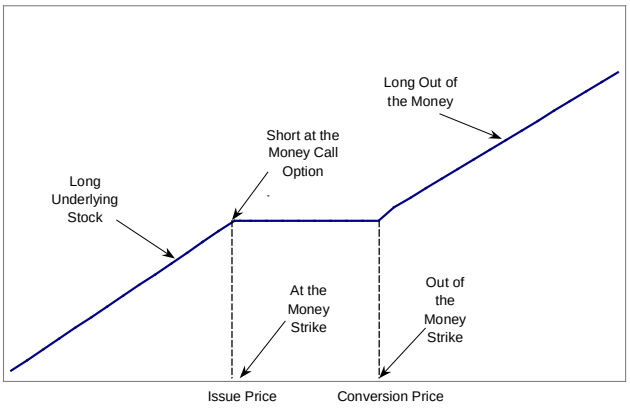
As shown in the table, PEPS can be viewed as a common stock with extra income. The income is the compensation for the net premium incurred from the long and short call options (Line 2 - Line 3 in Table 5). The short call is struck at the issue price, so it is at-the-money, while the long call is struck at the Conversion Price, so it is out-of-the money. The long call provides the upside participation in the common stock. The net premium received from writing the call, and purchasing a partial call, is effectively the present value of the income differential between the PEPS and the common stock (Line 4). This net premium is what is received by the investor as a quarterly coupon payment or paid by the issuer as coupon.

In Figure 8 we reproduced the PEPS-at-expiration chart from Figure 6. The various components of the call-spread example have been labeled to match the diagram.

Figure 8

PEPS/Call Spread Diagram



Source: Morgan Stanley Dean Witter Convertible Research

Convertible Security with a Put

Table 6 describes an alternative method of calculating the fair value of a PEPS:

This method is essentially the same as the call spread, with only a few differences. *However, because the call spread is easier to model, we think it is the preferred valuation method.* In this case, the PEPS can be viewed as a short maturity convertible note (Line 1 in the Table 6) plus the excess premium received from the short at the money put option.

Table 6

"Convertible with a Put" Components

PEPS =	Short-Maturity Note	**(1)**
+	(Out-of-the-money Call Option on the Underlying Common Stock Struck at the Conversion Price) x Conversion Ratio	**(2)**
-	At-the-Money Put Option struck at the Issue Price on the Underlying Common Stock	**(3)**

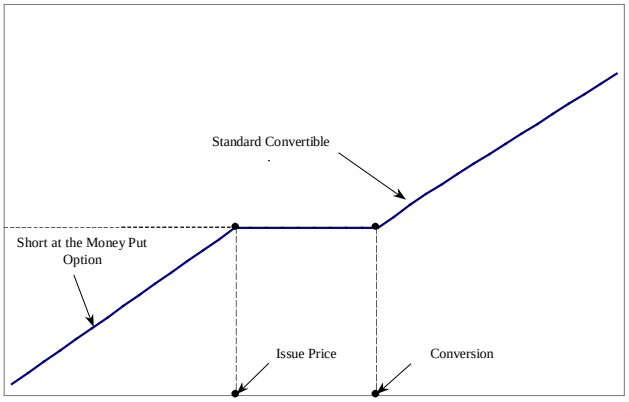
Source: Morgan Stanley Dean Witter Convertible Research

Convertible investors will realize that the combination of the short-maturity note and the long out-of-the money call option (Line 2 in the Table) is actually the equivalent of a short-dated convertible note. PEPS typically provide a higher level of income than the average convertible, so we must value the excess income of the PEPS over and above the coupon of the traditional security. This excess income can be viewed as compensating the investor for taking the risk of a short at-the-money put option.

Figure 9 illustrates how the various components of the convertible security/put evaluation method fit the PEPS graph.

Figure 9

PEPS/Convertible with a Put Diagram



Source: Morgan Stanley Dean Witter Convertible Research

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PEPS Sensitivity Profiles

In the sections that follow, we will discuss the sensitivity of a PEPS theoretical value to changes in specific evaluation variables, (while all other factors are held constant). We have used the KN Energy 8.25% PEPS cited earlier to illustrate these changes.

Stock Prices

The price of PEPS will be most sensitive to changes in the price of its underlying equity. Figure 10 shows the sensitivity of the KN Energy 8.25% PEPS to movements in its underlying common stock. As illustrated, common price moves up or down are accompanied quite closely by the theoretical PEPS prices. A $10.00 move up or down in KN Energy common stock, for example, will result in moves of $7.60 and $7.70, respectively, in the theoretical value of the PEPS.

Sensitivity of PEPS to Underlying Stock Volatility

As one would expect, the value of the options embedded in PEPS are sensitive to changes in the level of stock volatility. However, because the two options' positions are offsetting, the theoretical value of the PEPS itself is fairly insensitive to the changes in the level of volatility. Nevertheless, both volatility and *vega*, which is the change in the option's value due to a change in volatility, play a significant role in cases where the stock price is close to either the issue price or the conversion price at mandatory conversion.

For example, up or down moves in the volatility of the underlying stock by 10 basis points will change the theoretical price of the PEPS by $0.08 and $0.09, respectively. Even though the changes to the theoretical price of the PEPS are negligible, the fact that its price will drop more than rise for an equal move up or down in volatility suggests the security is slightly short volatility. A traditional convertible note, on the other hand, is long volatility. This short volatility favors PEPS in a declining volatility market. Since declining volatility would impact the value of most convertible bonds or preferred stocks, the addition of PEPS to a convertible portfolio would reduce its overall volatility sensitivity.

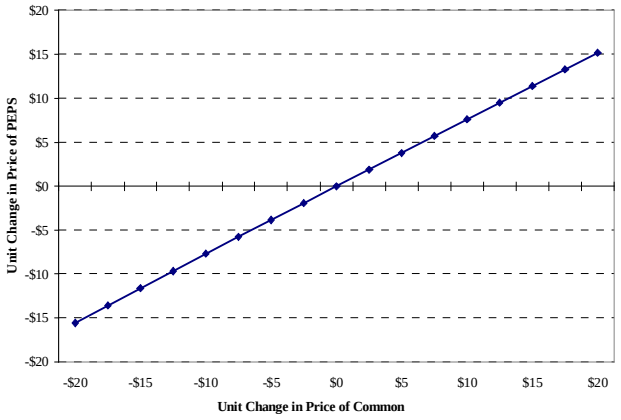
Figure 11 illustrates the relationship between stock volatility and changes in PEPS' theoretical prices quite clearly.

Sensitivity of PEPS to Skew and Volatility Spread

As we have just seen, PEPS are typically less sensitive to underlying stock volatility. However, the skew of the individual volatilities between the option strikes and the volatility spread, or difference between the bid volatility

Figure 10

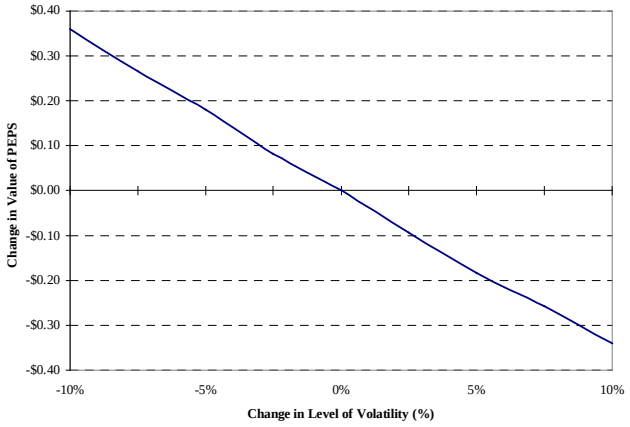
Sensitivity of PEPS to Changes in the Underlying Stock Price



Source: Morgan Stanley Dean Witter Convertible Research

Figure 11

Sensitivity of PEPS to changes in Underlying Stock Volatility



Source: Morgan Stanley Dean Witter Convertible Research

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and the offered volatility, are two important variables to consider when evaluating the fair-value of PEPS.

Skew describes the characteristic of an option to trade at different volatilities at different strike prices. For example, the strike prices of Aetna calls expiring in January 1999 range from 60 to 100. The two options that correspond most closely to the issue price and the conversion price of the Aetna PEPS are those struck at 75 and 95. The bid/ask volatility of the option with a 75 strike is 31.9% and 34.3%, respectively. The bid/ask volatility of the option struck at 95 is 39.3% and 43.5%, respectively. Please note that the differences between the bid volatilities of these two options at the different strike prices is 7.4, while the difference between the offered volatility at the different strikes is 9.2 points. Skew is not a measure of volatility spread; it simply describes the fact that the options with different strikes will have different volatilities.

In spite of our attention to skew and volatility spreads, it is still fairly common that one static volatility is used to derive the valuation of PEPS rather than skew and volatility spread. However, not considering the skew and volatility spread could cause a particular PEPS to appear significantly undervalued when that simply might not be the case. So, in order to correctly determine the fair value of a PEPS, the skew and volatility spread must be considered.

As discussed earlier, the long partial out-of-the-money call and short at-the-money call are embedded in PEPS. Therefore, in order to arrive at the fair value investors deconstruct the option components of the PEPS by valuing its parts. The next step involves a volatility assumption, and here is where the static volatility will be used, rather than a volatility spread, which we recommend.

The use of static volatility does not factor in the effective cost of the option components. In our view, using the volatility spread allows for that cost to be considered in determining the fair value of the PEPS.

As a result, in our analysis we use the lower, bid side, volatility when evaluating the long partial call struck at the conversion price, and the higher, offered side, volatility when evaluating the short call struck at the issue price. *This method results in a conservative lower value for the PEPS than what might be commonly accepted.* Existing pricing of the securities in the market place seems to confirm our conservative methodology.

Sensitivity of PEPS to Interest Rates

Since PEPS are mandatory by design they are less sensitive to fluctuations of interest rates and credit spreads. This characteristic of PEPS differs from traditional convertible bonds and preferred stocks, which conversely are sensitive to both interest rate and credit spread movements.

Although insensitive to interest rate moves, PEPS are not immune from them. Changes in the level of interest rates will affect the value of the "excess" coupon stream of the PEPS. To a lesser extent, changes in the level of interest rates will affect the value of the two embedded options.

A traditional convertible bond or preferred stock trades like a fixed-income security if the embedded call is far out-of-the-money. These convertibles are considered "hung." Hung convertibles typically trade like fixed-income instruments, with a substantial part of their value based on interest rate direction and credit spread dynamics. This aspect of traditional convertible bonds and convertible preferreds caused concern among rating agencies.

In response to these concerns, PEPS were designed with a mandatory conversion feature that prevents them from ever being hung. As a result, PEPS will be significantly less sensitive to interest rate and credit spread movements than traditional convertible securities.

In Figure 12, we show the interest rate sensitivity of the KN Energy PEPS. As shown, a fairly significant move of 150 basis points in either direction does not significantly change the theoretical value of the PEPS.

Favorable Credit Ratings

As mentioned, the mandatory conversion feature means these securities are typically awarded very favorable treatment by the credit agencies. Among other reasons, this is because the issues do not have a face amount that the issuing company would be obligated to

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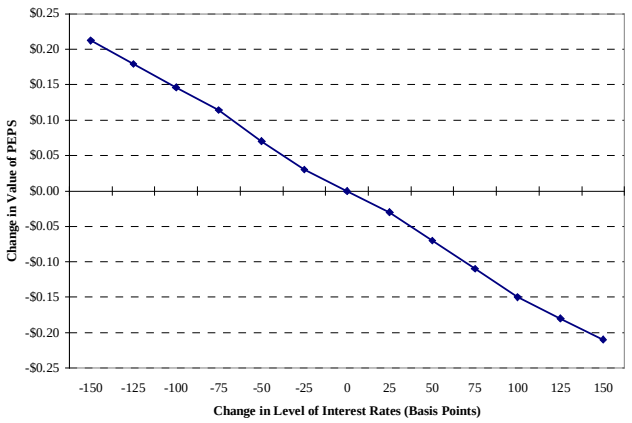
Figure 12

Sensitivity of PEPS to changes in Interest Rates



Source: Morgan Stanley Dean Witter Convertible Research

pay when the securities mature or expire. Issuing stock would satisfy the obligation the issuer has to holders. The relative ease with which an issuer can retire the obligation, among other factors, usually translates into very favorable ratings by Moody's and Standard & Poor's.

PEPS and Gamma

Gamma is defined as the rate of change in delta. Delta is defined as the rate of change in the price of a derivative given a one-unit change in the underlying equity.

A common stock has a delta of 1 and a gamma of 0. A deep in-the-money option, or a way out-of-the-money option, also has a gamma that approaches 0. In the former case the delta approaches 1 and the gamma approaches 0 because at that point, the option is simply a stock surrogate. In the latter case, the gamma of the option approaches 0 because of the lack of any equity sensitivity. Needless to say, the delta of the way out-of-the-money option also approaches 0, reflecting the lack of any stock sensitivity.

Recall that the long call provides the upside participation in the common stock and is struck at the Conversion Price. However, because the conversion ratio is less than one, the number of long calls would be equal to a number less than one.

The remainder of the position, the short call and the long common stock position, provides the source of income but also gives the position its downside equity exposure. As we have pointed out, the mandatory conversion feature means the PEPS' conversion value will reflect the drop in the common below the issue price, while holders can expect a significant portion of one share should the stock trend higher.

In theory, the fact that holders participate in a portion of the upside, while sharing in all the downside of the underlying stock is why a PEPS' position is generally viewed as being short gamma, or having negative gamma. Still, the relationship of the underlying stock price to the issue price and conversion price, which as we have seen determines much of a PEPS value, also affects whether the PEPS is actually short or long gamma.

A PEPS gamma profile is most dynamic at common price levels between the issue price and the conversion price. At common prices well beyond the issue price the gamma trends toward zero. Over the range of common prices clustered between the conversion price and the issue price, gamma is generally negative.

However, the amount of negative gamma in the overall scheme of things is relatively small, particularly when the stock price is well above PEPS' conversion price, or well below its issue price. The role of gamma gains significance if the underlying common is close to either the issue price or conversion price while the PEPS is outstanding. At maturity, gamma will be irrelevant. Nonetheless, the most important factor contributing to a PEPS performance is the fundamentals of the underlying common stock.

A PEPS gamma profile, while theoretical in nature, does have practical implications in the market place. Similar to other convertible securities, it is not uncommon for arbitrageurs, or hedgers, to create trading positions consisting of long positions in PEPS and short positions in the underlying stock. The purpose of the hedge is to take advantage of the PEPS' significant positive cash flow, relative to the common stock. The cash flow of a hedge would consist of the income from the PEPS plus any rebate received on the shorted shares, less any dividend that would have to be paid by the seller of the stock and the cost of the borrow. A PEPS with a significant yield advantage might be a candidate for this strategy. The number of shares shorted against the long PEPS position is based on the delta of the PEPS.

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The fact that PEPS have negative gamma is noteworthy when we consider the dynamics of a hedge with positive gamma, like the typical convertible security. Ordinarily, as the stock price rises, the delta will increase as well. As delta increases, the hedger who is long a convertible, would have to *sell* more stock short in order to maintain the proper mix of long convertible and short stock that will result in the optimum cash flow. Given the same set of circumstances, an arbitrageur that is long PEPS and wants to stay in hedge would have to *buy* more stock to partially cover the short position as the stock rises. This would likely cause both the common and the PEPS' prices to marginally rise.

Unfortunately, the flip side of gamma is also true. If the stock trended lower, hedgers would likely be required to sell more stock short (up to 100% of the common stock represented by the PEPS' position) as the stock declines.

The significant yield advantage PEPS provide compensates investors for this seeming disparity. Furthermore, the yield has proven to provide holders with a reasonable degree of out performance at lower stock prices.

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Performance of PEPS

Understanding theoretical concepts regarding PEPS and how they will likely perform is an important exercise. However, the pool of matured PEPS has provided a reasonably large enough sample to review just how these issues have actually performed.

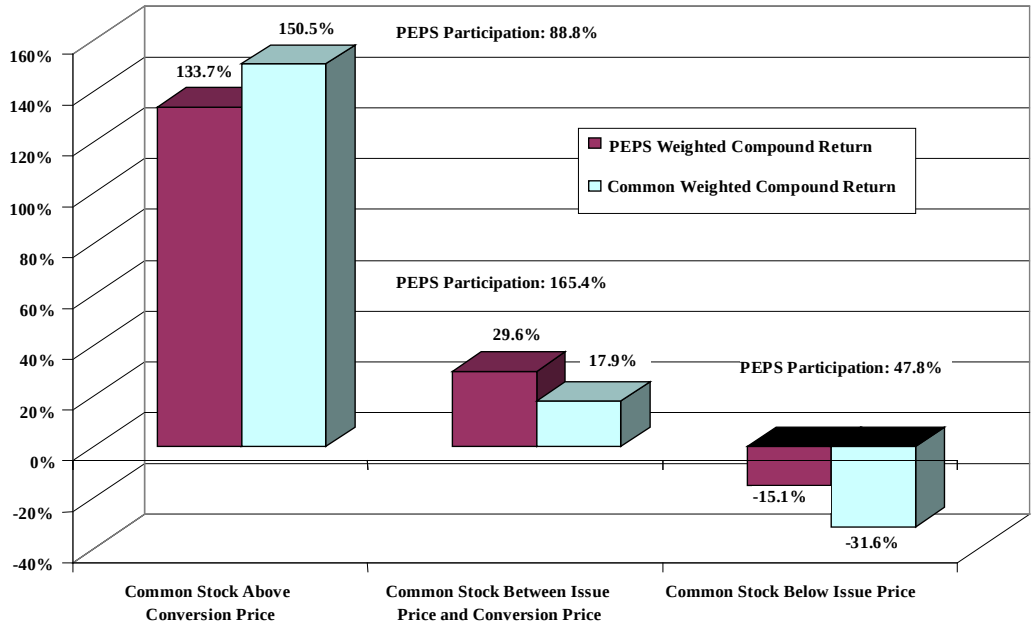
As mentioned, 21 PEPS have matured by our count. We sorted the 21 based on where they fell on the PEPS' "expiration continuum," and charted the performance of both the PEPS and its underlying stock, assuming reinvestment of dividends at the respective PEPS and stock dividend rates. The complete list of these performance numbers appears on Page 47 in Appendix C. In Figure 13, the performance of the three maturity groups of PEPS relative to their underlying stocks is shown.

When Mascotech issued the first PEPS on July 1, 1993, the Dow Jones Industrial Average and the S&P 500 stood at 3,516.08 and 450.53, respectively. So it should come as little surprise that during the most robust bull market in history 13 of the 21 issues expired with stock prices well beyond the conversion prices of the respective PEPS. Of the remaining eight issues, four ended up with stock prices between the issue price and the conversion price, and four expired with underlying common stocks below the issue prices of the PEPS. Only three of the 21 PEPS that matured posted losses.

As we observed earlier, the significant yield advantages PEPS offer should provide a level of downside support, and the 21 expiring PEPS bore this out. The average weighted yield of the group at issue was 7.62%, while the average weighted dividend yield was 1.46%, giving the PEPS a 616 basis point yield pick-up over their respective underlying stocks. This yield advantage significantly buffered the losses recorded by the four issues that expired with stock prices below the issue price.

Figure 13

Performance of Matured PEPS by Maturity Group Relative to Underlying Stock



Source: Morgan Stanley Dean Witter Convertible Research

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Stock Price Above Conversion Price

Just over 70% of the issues that matured during the last five years have been well in-the-money. As we discussed, PEPS will share in a significant proportion of the upside of the common, as the performance of these 13 securities show. As a group, these PEPS participated in 88.8% of the upside of the respective underlying common stocks. The PEPS recorded a compound total return of 133.7%, while the stocks that they converted into recorded a compound total return of 150.5%.

Not surprisingly, the issues that showed the most significant common stock participation were those with the greatest yield advantage over stocks that typically did not pay a dividend. For example, the WorldCom PEPS posted a compound total return of 393.6%, sharing in 95.3% of its underlying stock's 412.9% compound return. The Westinghouse PEPS gained 60.8% after the compounding of price and income, sharing in 99.7% of the 61% compound return recorded by its underlying common. The Santa Fe Energy PEPS actually outperformed its underlying common stock, rising 77.8% on a compound basis, while its underlying common stock rose 72.8%. Conversely, those issues with the lowest participation numbers typically had the lowest yield advantages.

Common Price Between Issue Price and Conversion Price

The group of PEPS with underlying stocks that closed between the issue price and conversion price at expiration performed exceptionally well. The weighted-average performance of the four securities was up just about 30%, while the underlying stocks gained just under 18%. Interestingly, this significant out performance of the PEPS vis-à-vis the underlying common came in spite of the showing of the Reynolds Metals PEPS. The PEPS compound total return was 21.8%, while its underlying common showed a return of 27.8%. A closer look reveals that Reynolds Metals paid one of the highest common dividend yields, resulting in a yield advantage of 488 basis points, well under the average 650 basis point yield pick-up.

Common Price Below Issue Price

The three PEPS whose underlying stocks closed below the respective issue prices as a group lost 15.1%, while the underlying stocks dropped just under 32%. Admittedly, these numbers where impacted by the dismal performance of the defaulted Kenetech. But consider the performance of the Browning-Ferris 7.25% PEPS. At maturity, the stock closed 3/8 of a point below the issue price of the PEPS, and recorded a total compound return of 4.74%. The PEPS, on the other hand, recorded a compound return of 25.4%, due to its yield advantage.

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PEPS' Performance vs. Conventional Convertibles

The next natural step would be to address how PEPS perform relative to convertibles.

Of the 21 PEPS that matured, only Mascotech and James River had convertibles outstanding concurrently with its PEPS.

The Mascotech 4.50% due 12/15/2003 was issued on January 13, 1994, just over six months after the issuer's PEPS was priced on July 2, 1993.

From January 1994, through the June 1997, maturity date of the PEPS, when both securities were outstanding, Mascotech's common lost 22.4%. Meanwhile, the PEPS gained 7.05% and the convertible bond gained 8.75%. The S & P 500 returned 22.5%. These figures all assume the regular compounding of dividends and interest.

James River, now known as Fort James, had a $3.375 Series K and $3.50 Series L convertible preferreds outstanding at the same time as its 9.00% PEPS. Each of these particular issues has since been called for redemption.

The James River 9.00% PEPS was issued in June 1994, and was exchanged in September 1997. Over that period, the $3.375 Series K posted a compounded return of 93.1%. The James River $3.50 Series L recorded a compounded return of 103.2%. The James River common and PEPS recorded compounded returns of 178.7% and 167.6%, respectively.

We do not think any conclusions drawn from a three-observation sample are particularly meaningful. However, these few examples do help illustrate a number of notions regarding PEPS/convertible pricing dynamics that are worth mentioning.

Clearly, the equity-like returns PEPS provide are favorably evident in the James River examples. The convertibles posted respectable annualized returns of 29.1% and 34.4% for the $3.375 K and $3.50 L, respectively. The PEPS, however, shared in just about 94% of the gain posted by the common over the same period, returning 52.4% on a compound annual basis, and 55.8%, respectively. The S & P 500 returned 27.9% on a compound annual basis over the same period.

Meanwhile the performance of the Mascotech PEPS illustrates how the yield advantage of the security provides a reasonable level of protection from a sliding stock price, in spite of the absence of the "floor" value, which gives traditional convertibles their downside support.

Comparison of PEPS and Traditional Convertibles

In the absence of any significant actual examples, we can, however, make very reasonable assumptions based on what we know of standard convertible and PEPS price dynamics.

In the following table we depict what we think the standard pricing of a convertible would be, a PEPS with the same pricing terms as the convertible (PEPSCV), and a PEPS with terms at which we think it would actually be priced. We will use the hypothetical PEPS pricing detailed on Page 14 in the "Structure and Valuation" section.

At Issue:	Convertible	PEPSCV	PEPS
Stock Price:	$20.00	$20.00	$20.00
Coupon:	5.00%	5.00%	6.75%
Premium:	25.00%	25.00%	20.00%
Conversion Price:	$25.00	$25.00	$24.00
Conversion Ratio:	40.0000	0.8000	0.8333

Source: Morgan Stanley Dean Witter Convertible Research

The next table shows the value of the respective securities if the stock moves to $100.00 in three years. As shown in the

Three Years Later:	Convertible	PEPS/CV	PEPS
Conversion Ratio:	40.0000	0.8000	0.8333
Parity:	400.00%	$80.00	$83.33
Income:	15.00%	$3.00	$4.05
Total:	415.00%	$83.00	$87.33
Issue Price:	100.00%	$20.00	$20.00
Total Return:	**315.00%**	**315.00%**	**336.65%**

Source: Morgan Stanley Dean Witter Convertible Research

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table, based on fundamental convertible and PEPS pricing conventions, the PEPS actually would outperform a traditionally priced convertible security if the stock trended higher. In our example, the 6.75% PEPS would have posted a total return of 336.65%, while the 5.00% PEPS and 5.00% convertible note would have posted total returns of 315% each.

PEPS: More Like Equity than Convertible

As we have seen, the relationship of PEPS' prices to the underlying stock is practically identical to a traditional convertible if the stock trends higher. Similarly, the usually substantial dividend PEPS' provide will often help cushion any drop in the common. But while the general return profile of PEPS is very similar to traditional convertible securities, i.e., sharing in significant, if not all, the upside should the common trend higher, and outperforming if the stock stays flat or drops, PEPS and traditional convertibles have a significant difference.

The fact that PEPS will typically share in such a significant part of both the upside and downside of its underlying stock makes these securities the most equity-like convertible currently available to investors.

If the stock trades below the issue price of the PEPS, holders will be in the same position as common stock investors. This is because PEPS do not have par values and at maturity will convert into one share of stock if the stock price happens to be below the issue price. So as the stock slips, the PEPS will fall, too.

PEPS' Structures

It should be clear by now that an investor considering a stock that also happens to underlie PEPS should consider the latter choice for the portfolio. As we have seen, investors benefit from the meaningful yield advantage, which among other factors provides a measure of downside protection. As we have mentioned, like any convertible, PEPS will outperform the common in two of three possible outcomes. If the stock drops or trades at a level between the issue price and the conversion price, PEPS holders will do better than stockholders. If the stock moves considerably higher, then holders of the PEPS will share in a significant percentage of the upside of the common further bolstered by the yield advantage over the life of the security.

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PEPS for All Reasons – Issuer Considerations

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Alternative PEPS Structures

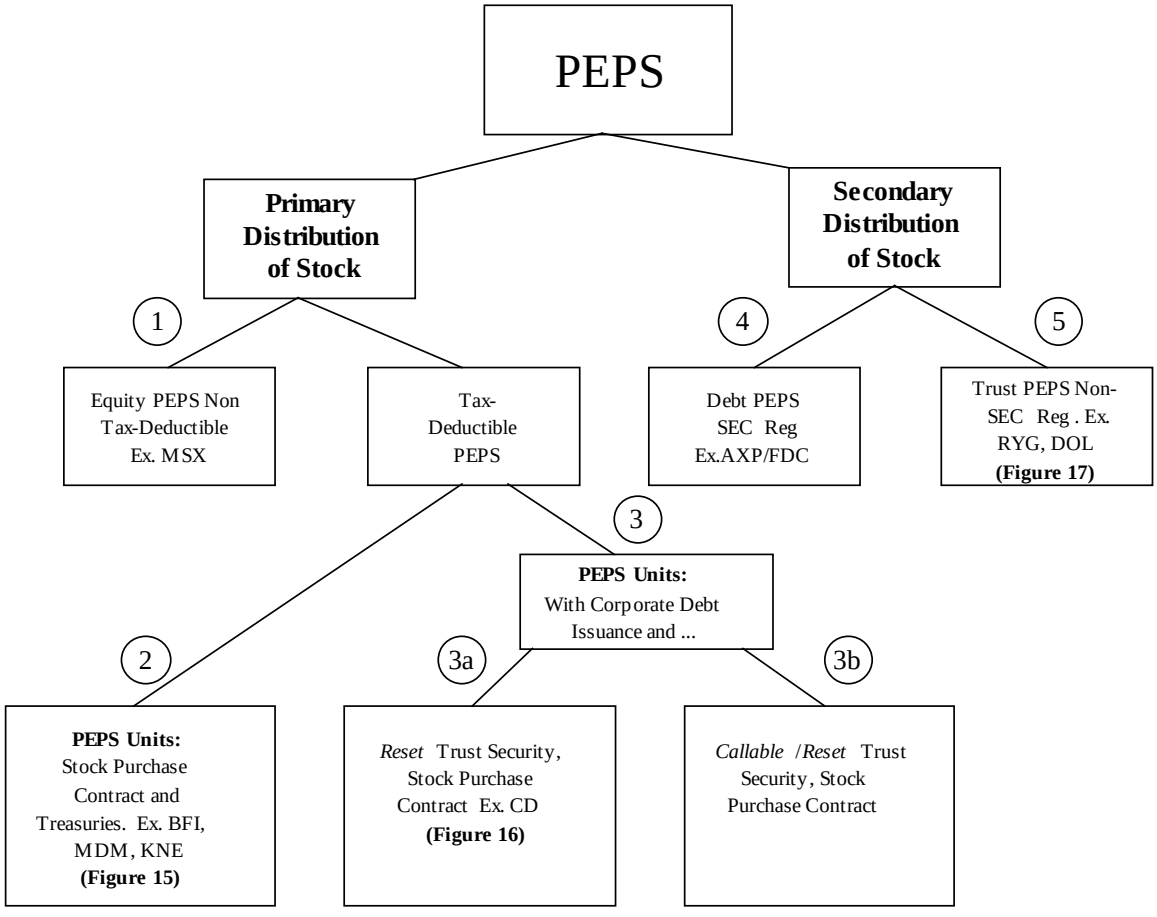
In this "Issuer Consideration" section, we discuss the evolution of the various PEPS structures broadly from their use as a primary issuance and secondary stock distribution conduit. In addition, a detailed discussion of the varieties of the structures that fall under these two broad categories such as Equity PEPS, PEPS Units, PEPS Units with corporate obligations, Debt PEPS, and Trust PEPS are presented. These basic structures and how they are issued are illustrated in Figure 14.

As shown in Figure 14, we discuss the PEPS structures marked 1, 2, and 3 that result in the primary issuance of stock.

We then discuss those structures marked 4 and 5 of the same Figure, which are those that result in a secondary distribution of stock.

Also, in this section we discuss how the PEPS structure can address various issuer specific needs with some structural

Figure 14
PEPS Basic Structures



Source: Morgan Stanley Dean Witter Convertible Research

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modifications, along with some salient accounting and tax treatments, as it pertains to the PEPS structure.

PEPS Product Evolution

At its inception, PEPS were designed to de-lever a balance sheet by infusing equity capital at a price higher than the existing common stock price, but without a lasting dividend liability. In other words, from the issuer's perspective, initial PEPS structures involved raising equity capital by forward selling equity at a higher price but without the embedded put typical of traditional convertible securities. In Figure 14, we use the term "Primary Distribution," since the principle purpose is to raise equity-like capital for the primary issuer.

This structure, which we call an Equity PEPS, had characteristics similar to those of a traditional convertible preferred stock, including a dividend payment, the right to convert into the issuer's common stock, and voting rights upon conversion, for example. Unlike a traditional convertible preferred, this structure had a mandatory conversion feature, which eliminated the need for a par value, but did mean the security's coupon was higher. Also, since the coupon was a preferred dividend it was not tax deductible for the issuer. The first such PEPS was the Mascotech PEPS.

Subsequent innovations addressed the original lack of tax deductibility of the issuer's coupon, increasing the efficiency of the PEPS security.

Unlike the original (equity) PEPS, which was structured as a primary convertible preferred stock offering of the issuer, the next iteration of PEPS served as a secondary distribution of the underlying stock, whereby the PEPS structure allowed issuers to monetize their non-strategic equity assets.

In this case, the issuer of the PEPS exchanged its holding of common stock of a subsidiary or a non-strategic marketable equity security. This structure was first used by American Express to monetize its investment in First Data Corporation. We call this usage of the PEPS structure a "Secondary Distribution" PEPS.

All other derivatives of the primary and secondary distribution PEPS are only minor modifications of the simple original structure. In the following pages we describe the various nuances of the evolving PEPS product. Keeping in mind that the return profile of all variations are the same except that some of them are issued as either debt or preferred stock or are issued via the usage of a trust. Later versions of PEPS provided issuers with varying degrees of tax deductible coupon payments, while the minority of these are non-tax deductible dividend payments.

Primary Distribution:

1. Equity PEPS

The Equity PEPS structure just discussed was the initial PEPS structure that resulted in the primary issuance of the issuer's common stock. While PEPS were truly innovative, the main drawback of the product was the non-tax deductible nature of the dividend to the issuer. This caused the structure to be expensive from the issuer's perspective. The non-tax deductibility of the coupon to the issuer was addressed in a subsequent structural innovation: the PEPS Unit. This structure is now far more popular than Equity PEPS.

2. PEPS Units

The PEPS Unit structure is far more tax efficient for the issuer while preserving all the other beneficial aspects of the security for investors. This in a nutshell is accomplished by incorporating a stock purchase contract to the PEPS structure and issuing a concurrent debt security. The proceeds of the PEPS are invested in U.S. Treasuries. The additional step of issuing separate corporate debt allows the issuer to raise capital at a much lower cost than would ordinarily be possible.

As just mentioned, all the proceeds of the PEPS offering are used to purchase U.S. Treasuries with maturities corresponding with the maturity of the PEPS. The yield from the Treasuries is supplemented with an additional adjustment fee to the stock purchase contract to arrive at the stated high yield of the PEPS. The supplemental adjustment fee, also known as the contract fee, is non-tax deductible for the issuer.

While all this may sound involved, please note that from the investor's perspective, structurally all these securities are similar in that their pay-off pattern as any PEPS structure.

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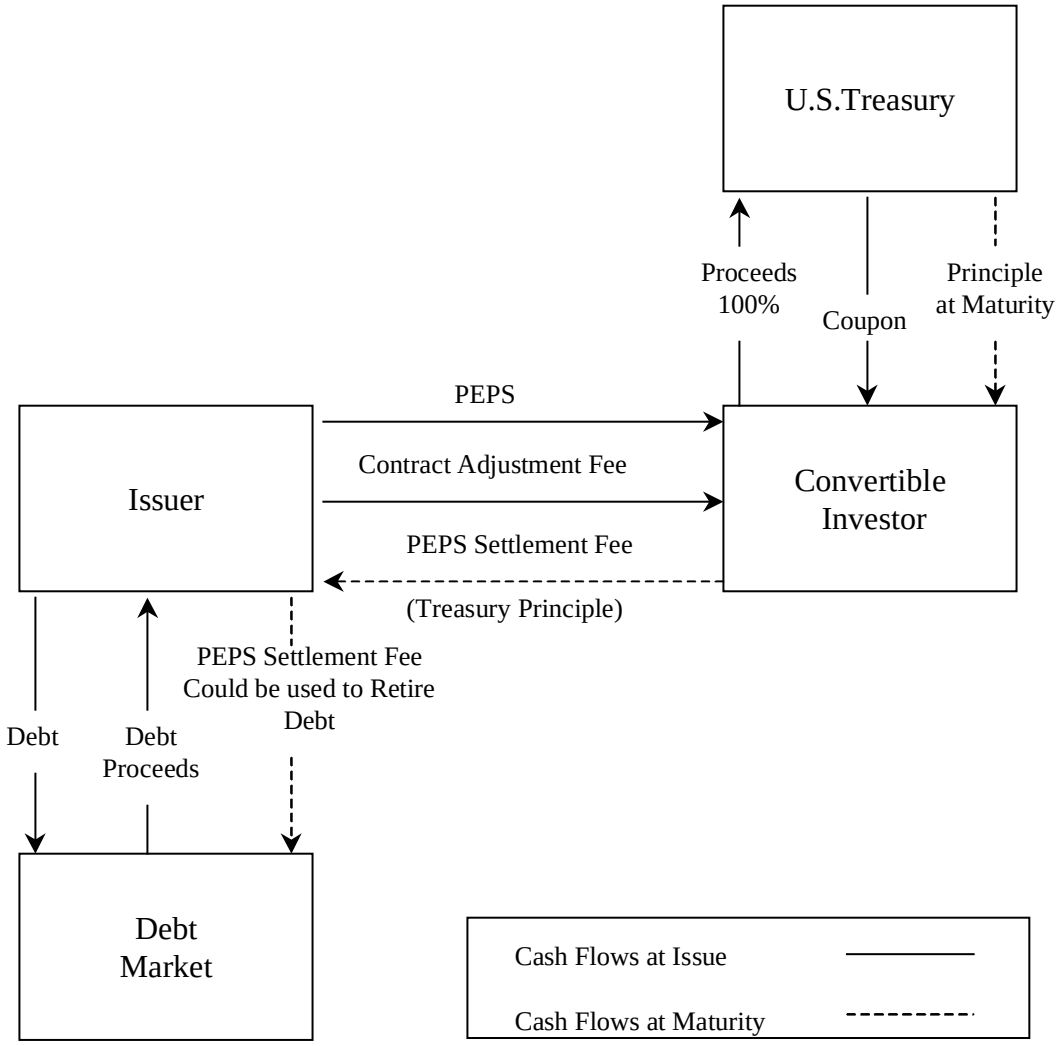
Figure 15
PEPS Units



Source: Morgan Stanley Dean Witter Convertible Research

Furthermore, the terms of the stock purchase contract provide for the three possible conversion outcomes at maturity similar to traditional PEPS. However, the contract also calls for investors to pay for the purchase of the stock when the PEPS mature. This purchase price is equal to the price of the PEPS at issue.

The issuer then typically enters the public debt markets to issue an interest-bearing note with a maturity and face amount similar to the respective terms of the PEPS issue. However, the two offerings are completely independent, and not in any way contingent on each other. This independence is essential because if the debt were issued with the express purpose of supporting the PEPS, the IRS would likely treat the note as equity, thus eliminating the tax deductibility of the interest payment.

The components of the typical PEPS Unit structure are shown in Figure 15.

When the PEPS mature, holders deliver cash or the maturing Treasury to satisfy the terms of the purchase contract. Please note that the obligation of investors to purchase the issuer's shares under the stock purchase contract is collater-

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alized by pledging the Treasury notes with a collateral agent. The collateral agent typically applies the proceeds of the maturing Treasury notes to purchase the issuer's shares at maturity. This process ensures that the issuer receives the initial proceeds at maturity of the forward contract. In other words, the PEPS issuer is not dependent upon the PEPS investor's actions. The issuer receives either the maturity value of the Treasuries or the settlement fee from the purchase contract at maturity. The issuer can use these proceeds to retire the maturing corporate debt that was issued when the PEPS were initially placed, or it may use the proceeds to add to its cash balances.

In spite of the use of a collateral agent to ensure that investors satisfy the conditions of the forward contract, it is important to note that in this structure, PEPS investors own the Treasuries. The issuing company does not typically purchase the Treasuries, so it never owns them. Therefore, in the event of a bankruptcy by the issuer, PEPS holders will be entitled to the Treasury securities, not the issuer, subject, of course, to the bankruptcy court's determination.

Once again, the tax deductibility of the parallel debt helps lower the overall cost of capital to the issuer in this structure. Furthermore, this structure is tax advantaged to the investor since the Treasury coupon payments are excluded from state and local income taxes.

Browning-Ferris, MedPartners, and, most recently, KN Energy have issued PEPS using this structure.

3. PEPS Units with Corporate Obligation (and an Auction Agent)

It became clear that if the company used its own debt as opposed to Treasuries, it could lower its non-tax deductible purchase contract adjustment fee. Recall that the contract adjustment fee paid to holders in the PEPS Unit structure just discussed is simply the difference between the stated yield of the PEPS and the Treasury yield. By using its own debt, an issuing company can effectively capture the credit spread, or the difference between the corporate debt yield and the corresponding Treasury yield, and lower its non-tax deductible purchase contract adjustment fee. This results in an even lower cost of coupon for the issuer.

But in order to stay within IRS guidelines regarding the contingency of the debt vis-à-vis the PEPS, growth and income unit features were added to the PEPS and a remarketing or auction agent was employed. The growth unit typically consists of a stock purchase contract calling for the payment of an adjustment fee. The income unit usually consists of a trust preferred stock, along with the stock purchase contract and adjustment payment. The yield on the growth unit comes from the contract adjustment payment, while the yield on the income unit is provided by the coupon on the trust preferred and the contract adjustment payment.

This structure does not employ Treasuries, so this structure does not have collateral to hold against payment of the purchase price. In this structure, the auction agent would ensure that all unexercised PEPS are sold and that the issuer receives the proceeds of the sale. This satisfies the IRS condition requiring the issuer's debt to be independent of the PEPS.

There is a trust in this structure that is created to issue the PEPS and then use the proceeds to purchase deeply subordinated debentures from the issuer. The issuer pays the interest on the debenture to the trust, and the trust pays the coupon on the PEPS. At issue, the forward purchase contract is included in the PEPS, but because the yield on the debenture issued to the trust is higher than the U.S. Treasury coupon payment, the non tax-deductible adjustment fee will be much lower, resulting in higher tax-deductibility for the issuer.

As mentioned, for the structure to achieve tax deductibility, the debt and PEPS pieces of the structure cannot be contingent on each other. One way of doing this is for the issuer to establish that there will be a reasonable possibility that the trust preferred will remain outstanding after the maturity of the stock purchase contract. This is why the trust preferred usually has a five-year life, while the stock purchase contract is typically set to expire in three years.

Reset and Callable/Putable Features of PEPS Units

As shown in Figure 14, on Page 25, these structures generally include the same components that create and allow the tax deductibility of the coupon to the issuer. However, to further ensure that the structure maintains its tax deductibility, the trust preferred component is given either a *reset* feature, or a *callable/putable* provision.

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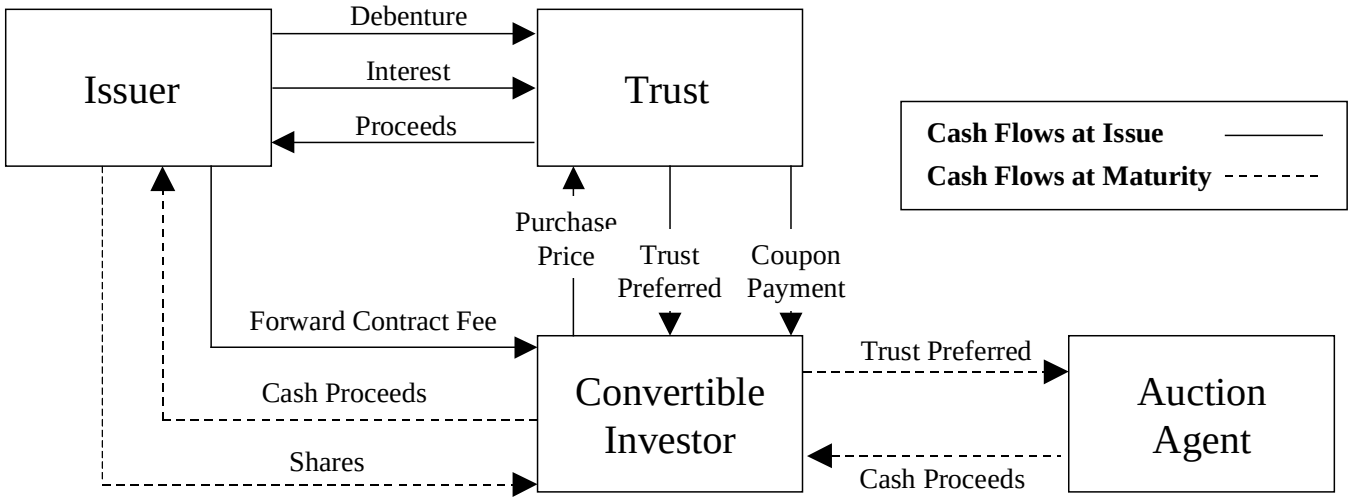
The *reset* feature calls for the dividend rate on all trust preferred outstanding after the stock purchase contract expires to be reset to a market rate. This rate is usually tied to the yield on a Treasury note with the same time to maturity as the trust preferred. Any trust preferred that is given up by the holder will be re-marketed, based on this new rate, and remain outstanding until maturity.

The callable/putable provision gives the underwriter a call on the trust preferred which expires 90 days before the stock purchase contract expires. Holders of the trust preferred are given two puts. The first put is at par on the expiration of the stock purchase contract. The second put is at a price above par 90 days after the expiration of the stock purchase contract. Once again, this structure is designed to increase the possibility that the trust preferred will be separated from the stock purchase contract, and subsequently, the parallel debt.

This structure was used by Cendant, and is illustrated in Figure 16.

Figure 16

PEPS Units with Corporate Obligation



Source: Morgan Stanley Dean Witter Convertible Research

Secondary Distribution:

4. Debt PEPS

Unlike the Mascotech (equity) PEPS, which was structured as a primary offering convertible into the stock of the issuer, the American Express (debt) PEPS was a secondary distribution convertible into the company's First Data Corp. stake, as shown in Figure 14. While the return profile of the American Express security was identical to the Mascotech PEPS, the difference was that this PEPS was designed as debt, as opposed to preferred stock after which equity PEPS were patterned.

American Express' debt shelf was tapped to issue this note, which paid a coupon, not a dividend, had a stated maturity date, and was not convertible at any time, but exchangeable only at maturity. In later versions, the maturity date of the debt PEPS could be extended. The company could also pay the maturity amount in cash or stock, which was why the coupon was treated as an interest payment, allowing it to be deducted from taxes.

The PEPS allowed the company to effectively monetize its stake in First Data Corp. while receiving a capital gains tax deferral. American Express also got to keep the voting rights of the monetized stake, while setting a floor price to its stake in First Data Corp.

Since American Express used the PEPS structure to monetize its stake in a non-strategic asset, almost 20 other companies have done the same.

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5. Trust PEPS

As mentioned, debt PEPS provide tax deductibility to the issuer. However, insiders and investors who are non-SEC registrants with large positions in a company's stock are also able to use debt PEPS as a secondary distribution of stock to their advantage, with some modifications to the structure.

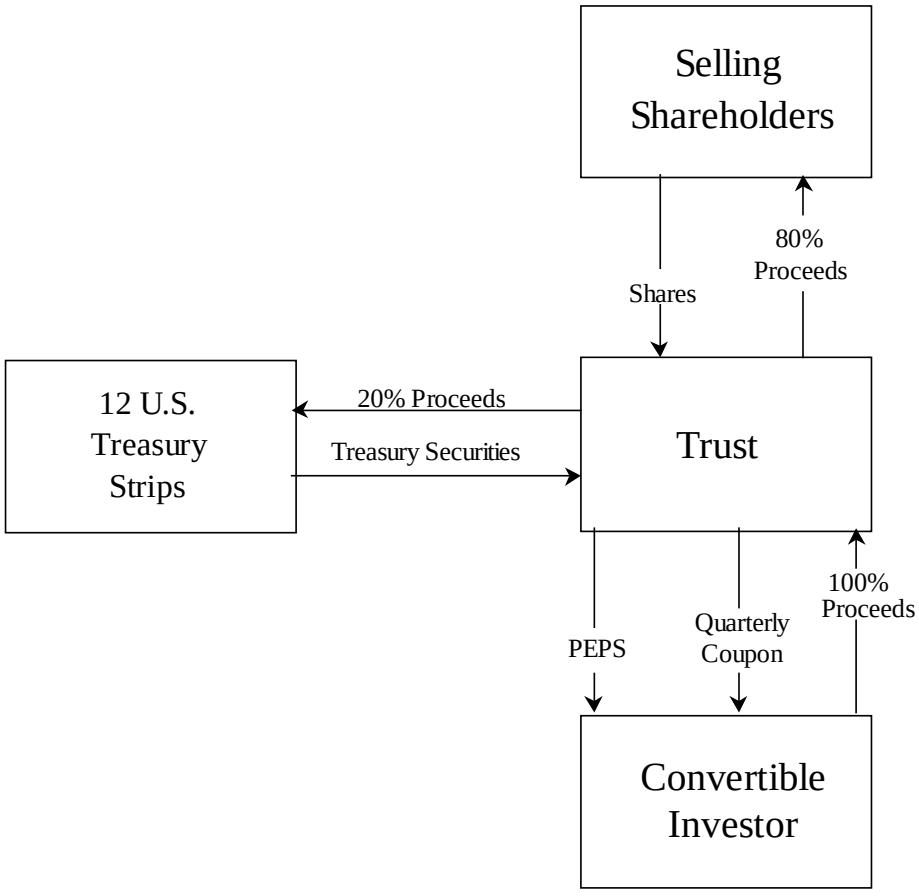
Shareholders at a number of companies including Estee Lauder, Dimon, Dole Foods, Herbalife, Nextel, and Royal Group Technologies used trust PEPS to forward sell their holdings. A diagram of this structure appears in Figure 17.

In this case, a trust was established as a conduit. Selling shareholders would enter into a pre-paid forward contract. The trust would issue PEPS to investors and distribute a portion of the proceeds, usually about 80%, to the selling shareholders. The remaining 20% of the proceeds would be used to purchase 12 U.S. Treasury strips with maturities that correspond to the quarterly payment dates of the PEPS. (Assuming a three-year life, 3 x 4 = 12). The maturity value of the Strips would pay the coupon due on the trust PEPS.

The company whose stock was effectively being sold would have little to do with the transaction, except perhaps to register the stock. The selling shareholders, would receive their portion of the proceeds of the sale of the PEPS at issue, and at maturity, through the trust, would deliver between a full share and the fraction of a share representing the minimum conversion ratio of the trust PEPS.

Figure 17

Trust PEPS Cash Flow Diagram



Source: Morgan Stanley Dean Witter Convertible Research

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If the stock performs well, and ends up higher than the conversion price at maturity, selling shareholders will deliver the fraction of a share, and the original owners would continue to hold the remaining shares. Any capital gain due on the sale of the shares would be due at that time, three to five years after the original issue of the trust PEPS to investors.

Investor's Perspective

It is important to note that as far as the investor is concerned, the return profile and conversion feature of equity, debt or trust PEPS is identical. Also, the conversion features are the same from version to version. Differences lie in the way the security is treated for tax and accounting purposes, and in the payment schedule of the Treasuries, which is detailed in the following table.

PEPS Type	**Payment Schedule**
Equity PEPS	Quarterly
PEPS Units	Quarterly
Trust PEPS	Quarterly
Debt PEPS	Quarterly/Semi-annually

Source: Morgan Stanley Dean Witter Convertible Research

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A Review of PEPS Accounting and Tax Treatment

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Accounting Treatment

Equity PEPS: As-if-Converted Method

Like any convertible security, Equity PEPS are accounted for using the "as-if-converted" method. As a result, pro forma diluted EPS is the lower of:

1)

$$\frac{\text{Net Income} + \text{Preferred Dividends}}{\text{Total Shares Outstanding} + \text{Common Shares into which PEPS would convert given current market price of common stock}}$$

Or:

2)

$$\frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Total Shares Outstanding}}$$

Under the "as-if-converted" method, conversion of the PEPS is assumed at the beginning of the reporting period only if dilutive. The appropriate number of shares used is based on the average stock price for the period. In Equation 1, the amount of shares into which the PEPS convert are added to the weighted average number of shares in the EPS denominator. *Since the PEPS is assumed to have been converted at the beginning of the period, the numerator is adjusted to add back any preferred dividends that were deducted from net income.*

The as-if-converted method is not used if the result of the formula is less dilutive than not assuming conversion at all. In that case, the preferred dividend remains in the numerator (and subtracted from net income) and there is no adjustment to the number of shares outstanding, as shown in Equation 2.

Tax Deductible PEPS

We think issuers will likely move toward the tax-advantaged structures, which are accounted for a bit differently. As mentioned, these structures include forward stock units and are accounted for as debt and forward contracts, in contrast to the "as-if-converted" method. Debt or interest expense is booked, and at maturity, the common shares that underlie the forward contract unit PEPS are added to the total shares outstanding.

- PEPS structures that include purchase contracts, debt issuance, and U.S. Treasuries are accounted for using the *treasury stock method* for computing basic and diluted earnings per share.

- Under this method, the common stock price is the most important factor to consider when determining whether the PEPS will be dilutive.

- The number of shares to be added to the total shares outstanding, and therefore the potential dilution, can be established at any time during the life of the PEPS, although it is typically at the beginning of the reporting period.

- At maturity, the full dilutive effect of the PEPS issue will be realized.

The number of shares to be added to the total shares outstanding under the treasury method is based on the following formula:

$$\text{Number of Shares Issued} * \text{Conversion Ratio} - \left[\frac{\text{Number of Shares Issued} * \text{Issue Price}}{\text{Current Market Price}}\right] = \text{Shares Added to Total Shares Outstanding}$$

In the formula, the "Number of Shares Issued" equals the original number of PEPS shares issued. The "Current Conversion Ratio" equals the number of common shares into which the PEPS exchange at the time of calculation. This ratio is initially 1, but the ratio will be based on where the common stock price is in relation to the PEPS' issue price and conversion price. The conversion ratio of a PEPS will typically range from a minimum of 0.80 to 0.85 to a maximum that is usually 1. In other words, the Number of Shares x Current Conversion Ratio equals the number of common shares underlying the purchase contracts.

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To illustrate, consider the following assumptions:

Table 7:

Treasury Method Variables

Issue Price:	$ 45
Conversion Premium:	20%
Conversion Price:	$ 54 ($45 x 1.20)
Issued Shares:	8 million shares
Shares Outstanding:	46 million
Conversion Ratio:	If Stock is Below $45 = 1.00;
	If Stock is Above $54 = 0.83;
	If Stock is>$45 and <$54 = 1.00 to 0.83.

Case I: If Stock Is Trading Below Issue Price

Assume the common stock was trading below the issue price at $40. As shown in the table, the conversion ratio would be 1.00. The following number of shares would be added to the total shares outstanding.

$$(8 \text{ million} \times 1.0) - \left(\frac{8 \text{ million} \times \$45}{\$40} \right) = \text{Shares Added to Total Shares Outstanding}$$

Or:

8 million – 9 million = (1 million)

Since the result is a negative number, which would be anti-dilutive, total shares outstanding would not change, and the PEPS would have no dilutive effect.

Therefore, if the common price is below the issue price of the PEPS, there will be no adjustment made to the total shares outstanding.

Case II: If Stock Is Trading Between Issue Price and Conversion Price

Assume the stock is at $50, which is between the issue price and the conversion price. At this common price level, each PEPS would be exchangeable into 0.90 ($45/$50) shares of stock. Using these values yields the following:

$$(8 \text{ million} \times 0.90) - \left(\frac{8 \text{ million} \times \$45}{\$50} \right) = \text{Shares Added to Total Shares Outstanding}$$

Or:

7.2 million – 7.2 million = 0

At all prices between the issue price and the conversion price, the result will be 0.

Hence, if the common price is between the issue price of the PEPS and the conversion price, again there will be no dilution.

Case III: If Stock Price Is Higher Than Conversion Price

A. Consider if the stock is at a level higher than the $54 conversion price. As shown in Table 7, at stock prices above the conversion price, the conversion ratio will be 0.83. Using $60, the number of shares to be added would be:

$$(8 \text{ million} \times 0.83) - \left(\frac{8 \text{ million} \times \$45}{\$60} \right) = \text{Shares Added to Total Shares Outstanding}$$

Or:

6.66million – 6.00 million = 0.66 million shares added to total shares outstanding

Using the 46 million shares outstanding shown in the table, the PEPS would be 1.4% dilutive, (666,400/ [46 million + 666,400]).

B. If the stock is at $100, the number of shares to be added to total shares outstanding would be:

$$(8 \text{ million} \times 0.83) - \left(\frac{8 \text{ million} \times \$45}{\$100} \right) = \text{Shares Added to Total Shares Outstanding}$$

Or:

6.66 million – 3.60 million = 3.07 million shares added to total shares outstanding, resulting in dilution of 6.3% (3.07 million/[46 million + 3.07 million]).

C. At $200, the number of shares to be added to total shares outstanding would be:

$$(8 \text{ million} \times 0.83) - \left(\frac{8 \text{ million} \times \$45}{\$200} \right) = \text{Shares Added to Total Shares Outstanding}$$

Or:

6.66 million – 1.80 million = 4.87 million added to total shares outstanding, or dilution of 9.6%, (4.87 million/ [46 million + 4.87 million]).

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Accounting Treatment Summary

- At maturity, the full dilutive effect of the PEPS will occur.

- During the life of the security, the dilutive effect of this PEPS structure is generally small, and is a function of the stock price in relation to the conversion price.

- During the life of the PEPS, and prior to maturity, if the stock is below the issue price, or trades between the issue price and the conversion price, no dilution will occur. There will be no adjustment to the total shares outstanding when calculating basic and diluted earnings per share.

- If the stock rises above the conversion price before maturity, there will be an adjustment to total shares outstanding, and dilution will occur. However, the stock would have to rise significantly over the conversion price for the adjustment to total shares outstanding to be meaningful. In Case III, Example A, an 11% rise in the stock over the conversion price (33% above the issue price) would result in less than 2% dilution. On the other hand, in Case III, Example C, if the stock rose about 270% above the conversion price (344% above the issue price) at any point during the life of the PEPS, 4.87 million shares would be added to total shares outstanding, resulting in dilution of 9.6%.

The treasury stock method assumes that the forward-contract component of the unit is exercised once the stock price exceeds the issue price. It also assumes that cash proceeds will be used to purchase shares. If the current price is less than the issue price, no shares are added to the total shares outstanding.

Income Statement and Balance Sheet Treatment

Tax-deductible PEPS with Treasuries generally receive favorable income statement and balance sheet treatment. In the income statement, trust preferred payments are recorded as *minority interest expense.* The non-deductible stock purchase contract adjustment payments reduce the equity account without running through the income statement.

In the balance sheet, the trust preferred is accounted for as *minority interest*. The stock purchase contract is recorded in the footnotes of the financial statements.

From a "basic" earnings-per-share perspective minority interest reduces net income, and no shares from the stock purchase contract are added to the total amount of shares outstanding. From a "diluted" earnings basis minority interest will once again reduce net income, but depending where the common stock price is, the shares underlying the stock purchase contract may be added to the total amount of shares outstanding, consistent with the treasury stock method.

Tax Treatment

For tax purposes, equity PEPS are treated in similar fashion as preferred stock. Coupons received by investors are taxed as ordinary income. Corporate holders are generally eligible for the dividend-received deduction (DRD), which allows them to deduct 70% of the dividend, as long as the PEPS have been held at risk for 46 days during each dividend period. Tax deductible PEPS with U.S. Treasuries, corporate debt, or corporate trust preferred, however, are not eligible for DRD. Still, for PEPS with U.S. Treasuries a significant portion of the coupon investors receive represents tax-free returns of capital. In addition, income from U.S. Treasuries is free from state and local taxes.

Gains or losses will be recognized upon the sale of the security. If the PEPS is exchanged into the stock of the issuer, then no gain or loss will be recognized by the holder, although the cost basis of the common will reflect the cost basis of the PEPS, less any cost attributable to any fractional cash distribution. A gain will be recognized if the holder receives cash in lieu of common stock on conversion.

Debt PEPS are treated like notes and the interest income is taxed as ordinary income. Upon exchange, in contrast to equity PEPS, investors will have a capital transaction if they receive cash instead of stock. (Debt PEPS cannot usually be converted at the holder's option, and issuers have the option of issuing stock or cash.) If the debt PEPS are sold before maturity, a gain or loss is recognized, though the holder's tax basis will be adjusted by an amount of interest as if it had accrued during the holding period. This amount of interest will be treated as ordinary income.

Trust PEPS are considered forward purchase contracts to purchase the particular underlying stock for tax purposes. Coupon income received by holders is treated as ordinary income for tax purposes, although to the extent the coupon is funded with U.S. Treasuries it will be free from state and local taxes and a portion will represent a tax-free return of capital.

If the Trust PEPS is sold before maturity or expiration, a gain or loss will be recognized based on the

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holder's cost basis. No gain or loss will be recognized on the purchase of stock in accordance with the purchase contract, and any cash in lieu of fractional shares will be taxable. The cost basis of purchased shares, less the received cash, will be equal to the cost basis of the Trust PEPS, less the cost attributable to any cash in lieu of fractional shares.

Conclusion

The growth and innovation of PEPS attests to the broad appeal of the security to both investors and issuers. As we have seen, the structure of PEPS has evolved quite a bit since it first appeared in 1993.

Investors have benefited from very attractive yields and generally favorable dynamics relative to the underlying stock.

The flexibility of these various PEPS' forms has made them very popular financing vehicles among issuers who use them to provide varied financial solutions. For example, equity PEPS allow issuers to de-leverage their balance sheets; debt PEPS are a way to forward-sell common stock, and provide a way to monetize an equity stake. Trust structures provide a typically less expensive way to raise capital, owing to the tax deductibility of the coupon, and trust PEPS with stock purchase contracts allow issuers to defer earnings per share dilution.

All told, we continue to maintain that all types of investors, including growth and income, convertible, equity income, pension funds, and endowments should review the structures and opportunities in the PEPS market. As we have seen, PEPS allow investors to earn equity-like returns with lower risk relative to common stock, while providing a significant degree of current income.

On Pages 43 and 44 in Appendix A we have listed the terms and conditions of all the PEPS under our evaluation. We also suggest investors review our U.S.Recommended Portfolio for our recommended choices.

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Appendix:

A: Terms and Conditions of Outstanding PEPS at Issue

B: Current Prices

C: Performance of Matured PEPS

D: PEPS Name Variations

E: PEPS/PERCS Comparisons

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Appendix A:
Outstanding PEPS: Terms at Issue

PEPS Ticker	Stock Ticker	Issuer	Type	Coupon	Maturity	PEPS Price	Stock Price	Convrsn Price	Convrsn Premium	Issue Size(Mil$)
ADVNZ	ADVNB	Advanta Corp.	PEPS	6.75%	9/15/99	$37.00	$37.00	$45.14	22.00%	$92.5
AET C	AET	Aetna Class C	PEPS	6.25%	7/19/00	$76.13	$73.00	$92.87	22.00%	$887.2
ATI B	ATI	Airtouch Comm	PEPS	6.00%	8/16/99	$29.00	$29.00	$35.96	24.00%	$500.3
AJP	AJL	Amway Japan	Trust PEPS	7.52%	2/15/99	$19.16	$19.16	$19.16	18.00%	$300.0
AMCPF	AMCRY	Amcor	PEPS	7.25%	11/19/06	$50.00	$23.63	$26.81	13.48%	$200.0
AHL I	AHL	American Heritage	PEPS	8.50%	8/15/00	$50.00	$15.50	$18.91	22.00%	$103.5
AHB	AMH	Amerus Life	Trust PEPS	7.00%	7/27/01	$31.56	$31.56	$38.51	22.00%	$145.0
	ELE	BNDESPAR-Electrobras	Debt PEPS	7.25%	2/15/01	$3.39	$76.97	$52.72	19.00%	$3.4
CD I	CD	Cendant	Tax Adv PEPS	7.50%	2/16/01	$50.00	$37.00	$49.00	30.00%	$1,380.0
	CDE	Coeur D'Alene	PEPS	7.00%	3/15/99	$21.25	$21.25	$25.71	21.00%	$150.4
CNC F	CNC	Conseco Fin Trust	Trust PEPS	7.00%	2/16/01	$50.00	$44.38	$53.40	20.34%	$500.0
CNC E	CNC	Conseco Fin Trust	Trust PEPS	7.00%	2/1/00	$61.13	$15.28	$17.87	16.96%	$267.1
CXW	WYMN	Cooper-Wyman Gor	Debt PEPS	6.00%	1/1/99	$13.50	$13.50	$15.66	16.00%	$202.5
CTF	CVS	CVS Corp	Trust PEPS	6.00%	5/15/01	$70.50	$35.25	$43.00	22.00%	$256.4
	DAI	Daimler	PEPS	7.47%	6/14/02	$76.97	$76.97	$89.29	16.00%	$84.7
DET	DMN	Dimon Inc	FS PEPS	8.50%	8/15/00	$23.63	$23.63	$28.35	20.00%	$82.2
DLA	DOL	Dole Foods	FS PEPS	7.00%	8/15/99	$39.25	$39.25	$47.13	20.06%	$112.7
DGS	DG	Dollar Gen	Tax Adv PEPS	8.50%	5/15/01	$39.44	$31.55	$42.59	35.00%	$295.8
ECT	EL	Estee Lauder	FS PEPS	6.25%	6/1/01	$60.88	$60.88	$73.05	20.00%	$285.4
HERBL	HERBB	Herbalife Intl	FS PEPS	8.75%	2/15/01	$23.00	$23.00	$27.75	20.70%	$115.0
HLR P	HLR	Hollinger Intl.	PEPS	9.75%	8/1/00	$9.75	$9.75	$11.55	18.50%	$201.8
	INSO	Houghton Miff/Inso	Debt PEPS	6.00%	8/1/99	$68.00	$34.88	$39.44	13.08%	$130.9
HXT	TWX	Houston/Times Warn	Debt PEPS	7.00%	7/1/00	$45.94	$45.94	$55.58	21.00%	$1,052.4
IR I	IR	Ingersoll Rand Co	PEPS	6.75%	5/16/01	$25.00	$48.13	$58.38	20.99%	$315.0
NBX	BAC	Jefferson-Pilot	PEPS	7.25%	1/21/00	$72.50	$36.25	$43.50	20.00%	$131.6
KNP	KNE	KN Energy	PEPS Units	8.25%	11/30/01	$43.00	$43.00	$51.60	20.00%	$400.0
KBH I	KBH	Kaufman & Broad	PEPS	8.25%	8/16/01	$10.00	$31.75	$38.10	38.10%	$179.8
UXL	USF	Laidlaw/US Filter	Debt PEPS	5.75%	12/31/00	$21.25	$14.17	$17.28	22.00%	$63.0
LRN	LRE	Life Re Corp	Trust PEPS	6.00%	3/15/03	$66.00	$66.00	$80.52	22.00%	$136.6
LNC I	LNC	Lincoln National Corp	PEPS	7.75%	8/16/01	$25.00	$92.88	$111.45	20.00%	$205.0
MCN I	MCN	MCN Energy	PEPS	8.00%	5/16/00	$50.00	$29.00	$35.38	22.00%	$132.3
MCE	MCN	MCN Energy	PEPS	8.75%	4/30/99	$23.00	$23.00	$27.60	20.00%	$117.3
UMX	ATI	MediaOne/ATI	Debt PEPS	6.25%	8/15/01	$58.13	$58.13	$71.75	23.44%	$1,685.6
MDX	MDM	MedPartners	FS PEPS	6.50%	8/31/00	$22.19	$22.19	$27.07	22.00%	$481.5
BOB	CBR	Merrill Lynch/Ciber		7.87%	2/1/01	$54.13	$27.06	$35.18	30.00%	$94.7
MCO	COX	Merrill Lynch/Cox		6.00%	6/1/99	$22.88	$22.88	$27.91	22.00%	$223.6
IML	IGL	Merrill Lynch/IGL		6.25%	7/1/01	$38.25	$38.25	$46.28	21.00%	$216.5
MCT	MTC	Monsanto		6.50%	11/30/01	$40.00	$40.00	$48.80	22.00%	$696.0
MNX	NXTL	Nextel	FS PEPS	7.25%	5/15/00	$14.00	$14.00	$16.66	19.00%	$100.4
NRT	TEO	Nortel/Telecom Argentia	Debt PEPS	10.00%	12/31/00	$42.00	$21.00	$24.16	15.00%	$250.0
PTT	PEAKF	Peak Int'l	Trust PEPS	9.00%	5/15/01	$15.75	$15.75	$18.11	15.00%	$83.5
PHLYZ	PHLY	Philadelphia Consol	PEPS	7.00%	5/16/01	$10.00	$21.25	$25.92	21.98%	$93.5
PL P	PL	Protective Life	Trust PEPS	6.50%	2/16/01	$50.00	$26.66	$32.51	22.00%	$115.0
PKS A	PKS	Premier Parks	FS PEPS	7.50%	4/1/01	$54.00	$27.00	$32.50	20.37%	$310.0
	QWST	Qwest Comm	Trust PEPS	5.75%	11/17/03	$41.75	$41.75	$50.94	22.00%	$375.0

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Appendix A: *(Continued)*

Outstanding PEPS: Terms at Issue

PEPS Ticker	Stock Ticker	Issuer	Type	Coupon	Maturity	PEPS Price	Stock Price	Convrsn Price	Convrsn Premium	Issue Size (Mil $)
IBX	IBC	Ralston Purina/IBC	Debt PEPS	7.00%	8/1/00	$61.94	$30.97	$37.78	22.00%	$480.0
RDT	RDA	Readers Digest	Trust PEPS	8.25%	2/15/01	$23.44	$23.44	$26.95	15.00%	$277.8
	RII	Republic Industry	FS PEPS	6.50%	5/15/00	$23.88	$23.88	$28.65	20.00%	$237.2
	RYG	Royal Group Technology	Trust PEPS	6.88%	11/15/00	$26.38	$26.38	$32.44	23.00%	$83.1
CXB	CSN	Salomon SB/CSN		6.25%	2/1/01	$55.75	$27.88	$33.45	20.00%	$223.0
	FSA	Salomon/FSA	Debt PEPS	7.63%	5/15/99	$26.63	$26.63	$32.48	22.00%	$254.2
XTS	TMX	SBC Comm/Telemex	Debt PEPS	7.75%	3/15/01	$39.63	$39.63	$46.76	18.01%	$356.6
STX	SNC	Snyder Communications	Trust PEPS	6.50%	11/15/00	$25.81	$25.81	$30.98	20.00%	$133.6
FXN	SBC	Sprint/Southern N.E. Tel	Debt PEPS	8.25%	3/31/00	$31.88	$18.14	$36.75	15.29%	$138.4
	SGB	St George Bank	PEPS	9.00%	8/15/01	$50.00	$6.65	$6.78	1.88%	$125.0
TSO A	TSO	Tesoro Petroleum	FS PEPS	7.25%	7/1/01	$15.94	$15.94	$18.85	18.27%	$165.0
TXU I	TXU	Texas Utilities	PEPS	9.25%	8/16/02	$50.00	$41.69	$49.19	18.00%	$635.0
TME	NSCP	Times Mirror/Netsc	Debt PEPS	4.25%	3/15/01	$39.25	$43.25	$45.14	15.00%	$58.9
TBCOL	TBCOA	Triathlon Bcast	PEPS	9.00%	6/30/99	$10.50	$10.50	$12.60	20.00%	$54.6
TRD	TLC	Tribune/Learning Co	Debt PEPS	6.25%	8/15/01	$27.94	$27.94	$33.63	20.36%	$128.5
MAT C	MAT	TYCO/Mattel	PEPS	8.25%	7/1/00	$5.00	$10.23	$12.48	22.00%	$96.6
UC I	UC	United Cos Finl	PEPS	6.75%	6/16/00	$44.00	$22.00	$26.62	21.00%	$86.0
	RTI	USX/RMI Titanium	Debt PEPS	6.75%	2/1/00	$21.38	$21.38	$25.23	18.04%	$106.9
WPK	WBK	Westpac Banking	Trust PEPS	10.00%	11/15/00	$31.35	$31.35	$34.96	11.52%	$1,029.5
	ROU	Worthington/Rouge Steel	Debt PEPS	7.25%	3/1/00	$15.50	$15.50	$18.29	18.00%	$93.0

Source: Morgan Stanley Dean Witter Convertible Research

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Appendix B:

Outstanding PEPS: Recent Prices and Yields

PEPS Ticker	Stock Ticker	Issuer	Coupon	Maturity	Price	Current Yield	Com Price	PEPS Yld Adv	Min Ratio	Max Ratio	Moody's Ratings	S&P Ratings
ADVNZ	ADVNB	Advanta Corp.	6.75%	9/15/99	$10.69	23.4%	$8.06	19.6%	0.8197	1.0000	B2	B+
AET C	AET	Aetna Class C	6.25%	7/19/00	$75.06	6.3%	$79.19	5.3%	0.8197	1.0000	A3	A-
ATI B	ATI	Airtouch Comm	6.00%	8/16/99	$47.88	3.6%	$58.19	3.6%	0.8060	1.0000	BAA3	BBB
AJP	AJL	Amway Japan	7.52%	2/15/99	$6.00	24.0%	$4.88	24.0%	0.8475	1.2500	NR	NR
AMCPF	AMCRY	Amcor	7.25%	11/19/06	$46.13	7.9%	$16.63	7.9%	1.8650	2.1160	A3	A-
AHL I	AHL	American Heritage	8.50%	8/15/00	$70.75	6.0%	$24.50	4.3%	2.6440	3.2260	NR	A-
AHB	AMH	Amerus Life	7.00%	7/27/01	$24.94	8.9%	$23.00	8.0%	0.8197	1.0000	BAA3	BBB-
	ELE	BNDESPAR-Electrobras	7.25%	2/15/01	$30.06	24.1%	$15.00	24.1%	0.8403	1.0000	NR	NR
CD I	CD	Cendant	7.50%	2/16/01	$34.38	10.9%	$19.81	10.9%	1.0395	1.3514	BAA1	BBB-
CDE P	CDE	Coeur D'Alene	7.00%	3/15/99	$8.69	17.1%	$4.94	17.1%	0.8260	1.0000	B3	CCC+
CNC F	CNC	Conseco Fin Trust	7.00%	2/16/01	$40.50	8.6%	$32.13	5.9%	0.9363	1.1268	BA2	BBB-
CNC E	CNC	Conseco Fin Trust	7.00%	2/1/00	$110.88	3.9%	$32.13	2.2%	3.4200	4.0000	BA2	BBB-
CXW	WYMN	Cooper-Wyman Gor	6.00%	1/1/99	$11.38	7.1%	$11.94	7.1%	0.8621	1.0000	A2	BBB+
CTF	CVS	CVS Corp	6.00%	5/15/01	$94.06	4.5%	$52.75	4.1%	1.6394	2.0000	NR	NR
	DAI	Daimler	7.47%	6/14/02	$94.00	6.1%	$81.50	6.1%	0.8620	1.0000	NR	NR
DET	DMN	Dimon Inc	8.50%	8/15/00	$9.25	21.9%	$7.31	17.0%	0.8333	1.0000	NR	NR
DLA	DOL	Dole Foods	7.00%	8/15/99	$29.50	9.3%	$29.25	7.9%	0.8329	1.0000	NR	NR
DGS	DG	Dollar Gen	8.50%	5/15/01	$34.88	9.6%	$25.56	9.1%	0.9259	1.2500	NR	NR
ECT	EL	Estee Lauder	6.25%	6/1/01	$69.88	5.4%	$74.25	4.9%	0.8333	1.0000	NR	NR
HERBL	HERBB	Herbalife Intl	8.75%	2/15/01	$11.13	18.1%	$9.13	11.5%	0.8288	1.0000	NR	NR
HLR P	HLR	Hollinger Intl.	9.75%	8/1/00	$12.06	7.9%	$13.63	3.9%	0.8439	1.0000	B2	BB
	INSO	Houghton Miff/Inso	6.00%	8/1/99	$48.13	8.5%	$22.13	8.5%	1.7242	2.0000	A3	A
HXT	TWX	Houston/Times Warn	7.00%	7/1/00	$96.13	3.3%	$111.00	3.0%	0.8264	1.0000	NR	BBB+
IR I	IR	Ingersoll Rand Co	6.75%	5/16/01	$24.38	6.9%	$45.63	5.6%	0.4282	0.5181	A3	BBB+
NBX	BAC	Jefferson-Pilot	7.25%	1/21/00	$103.00	5.1%	$59.69	2.1%	1.6666	2.0000	A1	NR
KNP	KNE	KN Energy	8.25%	11/30/01	$40.13	8.8%	$38.63	3.0%	1.0000	0.8333	BB+	BB+
KBH I	KBH	Kaufman & Broad	8.25%	8/16/01	$9.63	8.6%	$29.13	7.6%	0.2625	0.3150	BA2	BB-
UXL	USF	Laidlaw/US Filter	5.75%	12/31/00	$30.56	4.0%	$23.13	4.0%	1.2296	1.5000	BAA2	BBB+
LRN	LRE	Life Re Corp	6.00%	3/15/03	$76.50	5.2%	$95.00	4.6%	0.8197	1.0000	NR	BBB
LNC I	LNC	Lincoln National Corp	7.75%	8/16/01	$25.38	7.6%	$82.31	4.9%	0.2243	0.2692	A2	BBB+
MCN I	MCN	MCN Energy	8.00%	5/16/00	$35.88	11.1%	$19.00	5.7%	1.4132	1.7241	BAA3	BBB+
MCE	MCN	MCN Energy	8.75%	4/30/99	$19.25	10.5%	$19.00	5.1%	0.8330	1.0000	BAA3	BBB
UMX	ATI	MediaOne/ATI	6.25%	8/15/01	$56.63	6.4%	$58.19	6.4%	0.8101	1.0000	BA1	BBB-
MDX	MDM	MedPartners	6.50%	8/31/00	$8.13	17.8%	$5.25	17.8%	0.8197	1.0000	BAA2	BB-
BOB	CBR	Merrill Lynch/Ciber	7.88%	2/1/01	$48.75	8.7%	$22.56	8.7%	1.5385	2.1050	NR	AA3
MCO	COX	Merrill Lynch/Cox	6.00%	6/1/99	$49.06	2.8%	$59.44	2.8%	0.8196	1.0000	AA3	A+
IML	IGL	Merrill Lynch/IGL	6.25%	7/1/01	$23.06	10.4%	$19.75	8.8%	0.8265	1.0000	AA3	A+
MCT	MTC	Monsanto	6.50%	11/30/01	$43.44	6.0%	$41.63	5.7%	0.8197	1.0000	A3	A-
MNX	NXTL	Nextel	7.25%	5/15/00	$19.56	5.2%	$21.44	5.2%	0.8403	1.0000	NR	NR
NRT	TEO	Nortel/Telecom Argentia	10.00%	12/31/00	$53.00	7.9%	$29.44	7.9%	1.7392	2.0000	NR	NR
PTT	PEAKF	Peak Int'l	9.00%	5/15/01	$11.13	12.7%	$9.25	12.7%	0.8696	1.0000	NR	NR
PHLYZ	PHLY	Philadelphia Consol	7.00%	5/16/01	$9.63	7.3%	$21.75	7.3%	0.3858	1.0000	NR	BB
PL P	PL	Protective Life Trust	6.50%	2/16/01	$61.88	5.3%	$36.06	4.1%	1.5380	1.8760	A3	A-
PKS A	PKS	Premier Parks	7.50%	4/1/01	$56.00	7.2%	$28.56	7.2%	1.6616	2.0000	CAA1	B-
	QWST	Qwest Comm	5.75%	11/17/03	$43.00	5.6%	$43.69	5.6%	0.8197	1.0000	NR	NR

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Appendix B: *(Continued)*

Outstanding PEPS: Recent Prices and Yields *(Continued)*

PEPS Ticker	Stock Ticker	Issuer	Coupon	Maturity	Price	Current Yield	Com Price	PEPS Yld Adv	Min Ratio	Max Ratio	Moody's Ratings	S&P Ratings
IBX	IBC	Ralston Purina/IBC	7.00%	8/1/00	$51.19	8.5%	$25.63	7.4%	1.6394	2.0000	BAA1	A-
RDT	RDA	Readers Digest	8.25%	2/15/01	$25.56	7.6%	$25.38	6.8%	0.8696	1.0000	NR	NR
	RII	Republic Industry	6.50%	5/15/00	$16.00	9.7%	$15.06	9.7%	0.8333	1.0000	NR	NR
	RYG	Royal Group Technology	6.88%	11/15/00	$22.63	8.0%	$22.63	8.0%	0.8130	1.0000	NR	NR
CXB	CSN	Salomon SB/CSN	6.25%	2/1/01	$61.56	5.7%	$33.38	4.5%	1.6666	2.0000	AA3	A
	FSA	Salomon/FSA	7.63%	5/15/99	$41.69	4.9%	$50.81	4.0%	0.8200	1.0000	AA3	NR
XTS	TMX	SBC Comm/Telemex	7.75%	3/15/01	$43.38	7.1%	$47.75	3.8%	0.8474	1.0000	A2	A+
STX	SNC	Snyder Communications	6.50%	11/15/00	$29.88	5.6%	$32.06	5.6%	0.8333	1.0000	NR	NR
FXN	SBC	Sprint/Southern N.E. Tel	8.25%	3/31/00	$76.31	3.4%	$49.63	1.5%	1.5238	1.7568	BAA1	A-
	SGB	St George Bank	9.00%	8/15/01	$47.75	9.4%	$6.33	9.4%	7.3760	7.5140	NR	NR
TSO A	TSO	Tesoro Petroleum	7.25%	7/1/01	$14.00	8.3%	$12.50	8.3%	0.8455	1.0000	B1	BB-
TXU I	TXU	Texas Utilities	9.25%	8/16/02	$57.63	8.0%	$46.75	3.1%	1.0164	1.1994	BAA3	BBB
TME	NSCP	Times Mirror/Netsc	4.25%	3/15/01	$38.75	4.5%	$38.25	4.5%	0.8696	1.0000	A1	A+
TBCOL	TBCOA	Triathlon Bcast	9.00%	6/30/99	$11.88	8.0%	$11.25	8.0%	0.8330	1.0000	NR	NR
TRD	TLC	Tribune/Learning Co	6.25%	8/15/01	$27.63	6.3%	$28.50	6.3%	0.8309	1.0000	A2	A
MAT C	MAT	TYCO/Mattel	8.25%	7/1/00	$12.19	3.4%	$29.81	2.3%	0.4006	1.0000	NR	NR
UC I	UC	United Cos Finl	6.75%	6/16/00	$6.94	SUSP	$3.94	SUSP	1.6528	2.0000	B2	B-
	RTI	USX/RMI Titanium	6.75%	2/1/00	$13.88	10.4%	$13.31	10.4%	0.8472	1.0000	BAA2	BB+
WPK	WBK	Westpac Banking	10.00%	11/15/00	$31.00	10.1%	$32.75	5.9%	0.8967	1.0000	NR	NR
	ROU	Worthington/Rouge Steel	7.25%	3/1/00	$9.13	12.3%	$8.50	12.3%	0.8475	1.0000	A3	A-

Source: Morgan Stanley Dean Witter Convertibles Research

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Appendix C:
Performance of Individual PEPS at Maturity

Issuer	Coupon	Maturity Date	PEPS Total Return	Com Total Return	Compound PEPS Participatn	Compound PEPS Return	Compound Com Return	Risk Adjusted PEPS Participatn	Risk Adjusted PEPS Total Ret	Risk Adjusted Com Total Ret	Risk Adjusted PEPS Comp Ret	Risk Adjusted Com Comp Ret
American Exp/First Data	6.25%	10/15/96	110.27%	131.59%	83.80%	110.66%	153.16%	72.25%	92.87%	109.47%	93.20%	127.41%
Reynolds Metals	7.00%	12/31/96	20.67%	26.93%	76.75%	21.80%	27.83%	78.33%	16.69%	17.84%	17.60%	18.43%
Bowater	7.00%	1/9/97	60.43%	79.66%	75.84%	64.10%	81.76%	78.40%	46.01%	55.86%	48.80%	57.32%
First Chicago/Nextel	5.50%	2/14/97	-41.18%	-58.48%	70.42%	-42.34%	-58.48%	72.40%	-24.28%	-29.81%	-24.96%	-29.81%
U.S. Surgical	9.75%	4/1/97	56.98%	59.82%	95.25%	58.12%	59.96%	96.93%	36.68%	35.86%	37.44%	35.95%
Santa Fe Energy	8.25%	5/15/97	68.72%	72.84%	94.34%	77.78%	72.84%	106.78%	57.26%	56.90%	64.81%	56.90%
First USA	6.25%	5/20/97	176.41%	213.44%	82.65%	194.39%	217.60%	89.33%	105.92%	128.36%	116.71%	130.86%
Westinghouse	9.00%	5/30/97	52.84%	59.24%	89.20%	60.83%	61.01%	99.70%	37.36%	38.54%	43.01%	39.69%
MascoTech	6.00%	6/27/97	24.00%	6.55%	366.41%	32.66%	7.92%	412.37%	17.49%	4.33%	23.81%	5.24%
Boise Casacade	7.50%	7/15/97	64.55%	81.18%	79.51%	69.47%	82.56%	84.14%	46.51%	54.37%	50.05%	55.30%
Kaiser Aluminum	8.25%	8/29/97	27.36%	19.69%	138.95%	32.17%	19.69%	163.38%	18.82%	12.01%	22.12%	12.01%
James River	9.00%	9/2/97	153.26%	171.35%	89.44%	167.64%	178.70%	93.81%	108.22%	118.44%	118.37%	123.52%
ARCO/Lyondell	9.00%	9/15/97	27.80%	15.51%	179.24%	32.39%	16.89%	191.77%	20.39%	10.37%	23.75%	11.29%
AK Steel	7.00%	10/16/97	39.85%	44.59%	89.37%	44.26%	45.40%	97.49%	31.18%	31.90%	34.63%	32.47%
Allstate/PMI Group	6.75%	4/15/98	122.69%	149.01%	82.34%	134.46%	150.09%	89.59%	97.78%	115.99%	107.16%	116.83%
Kenetech	8.25%	5/14/98	-71.11%	-99.14%	71.73%	-81.79%	-99.14%	82.50%	-18.29%	-17.54%	-21.04%	-17.54%
MFS/Worldcom	8.00%	5/31/98	365.65%	412.89%	88.56%	393.64%	412.89%	95.34%	223.49%	227.67%	240.59%	227.67%
Browning Ferris	7.25%	6/30/98	20.44%	3.83%	533.68%	25.36%	4.74%	535.02%	15.97%	2.65%	19.81%	3.28%
TJX Cos	$7.00	11/17/98	195.73%	195.87%	99.93%	201.64%	197.66%	102.01%	104.64%	103.60%	107.80%	104.54%
Enron/Enron Oil & Gas	6.25%	12/13/98	-18.91%	-33.22%	56.92%	-23.31%	-33.73%	69.11%	-13.51%	-21.14%	-16.65%	-21.47%
MediaOne/EFS	7.63%	12/15/98	116.45%	133.3%	87.39%	124.81%	135.02%	92.44%	83.87%	89.76%	89.89%	90.02%

Appendix D:
Performance of PEPS by Maturity Group:

	Issue #	Compound PEPS Wghted Total Ret	Compound Com Wghted Total Ret
Common Stock Above Conversion Price:	13	133.69%	150.53%
Common Stock Between Issue Price and Conversion Price:	4	29.56%	17.91%
Common Stock Below Issue Price	4	-15.06%	-31.62%

Source: Morgan Stanley Dean Witter Convertibles Research

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Appendix E:
PEPS Name Variations

Equity Participating Mandatory Convertibles

PEPS	:	Participating Equity Preferred Stock
NUPEPs	:	Note Unit with Prospective Equity Participations
ACES	:	Automatically Convertible Equity Securities
PRIDES	:	Preferred Redemption Increased Dividend Equity Securities
DECS	:	Dividend Enhanced Common Stock
SAILS	:	Stock Appreciation Income Linked Securities
MARCS	:	Mandatory Adjustible Redeemable Convertible Securities
TAPS	:	Threshold Appreciation Price Securities
	:	

Tax Deductible Mandatory Convertibles

FSU's	:	Forward Stock Units
ACES	:	Automatically Convertible Equity Securities
PRIDES	:	Preferred Redeemable Increased Dividend Equity Securities
FELINE PRIDES	:	Flexible Equity-Linked Exchangeable Preferred Redeemable Increased Dividend Equity Securities

Mandatory Exchangeables

PEPS	:	Premium Exchangeable Participating Securities
PERCS	:	Premium Exchangeable Redemption Cumulative Securities
Exchangeable PICS	:	Premium Income Convertible Stock
PRIDES	:	Provisionally Redeemable Income Debt Exchangeable for Stock
DECS	:	Debt Exchangeable for Common Stock
ACES	:	Automatic Common Exchangeable Securities
MEDS	:	Mandatory Exchangeable Debt Securities

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Appendix F:

PEPS and PERCS Comparison

	PEPS		PERCS	
Issue Price	Same as Common Stock Price at Issue.		Same as Common Stock Price at Issue	
Yield	500 to 600 basis point Current Yield Advantage.		700 to 900 basis point Current Yield Advantage.	
Conversion Feature at Maturity	If at Maturity Common is: Higher than Threshold Price:	PEPS Holders Get: Conversion Value Based on Conversion Ratio.	If at Maturity Common is: Higher than Threshold Price:	PERCS Holders Get: Fraction of a Share Equal to Cap Price/Stock Price. (As stock price rises, Holders get Fewer Shares.)
	Between Issue Price and Threshold Price:	Fraction of Share equal to Issue Price / Stock Price. (Holders will always get Value of Stock Equal to Issue Price.)	Between Issue Price and Threshold Price:	One Share of Stock.
	Lower than Issue Price:	One Share of Stock.	Lower than Issue Price:	One Share of Stock.
Call Protection	Usually Three Years From Issue Date.		No Call Protection.	
Maturity	Three to Five Years.		Three Years.	

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