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**DeNederlandscheBank**

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\* Views expressed are those of the authors and do not necessarily reflect official positions of De Nederlandsche Bank.

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De Nederlandsche Bank NV  
P.O. Box 98  
1000 AB AMSTERDAM  
The Netherlands

# Does the Fed's unconventional monetary policy weaken the link between the financial and the real sector? \*

Yimin Xu <sup>a</sup> and Jakob de Haan <sup>b</sup>

<sup>a</sup> *University of Groningen, The Netherlands*

<sup>b</sup> *De Nederlandsche Bank, Amsterdam, the Netherlands, University of Groningen, the Netherlands and CESifo, Munich, Germany*

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## Abstract

After the global financial crisis, several central banks introduced unconventional monetary policies, such as QE. If QE increases asset prices, but does not boost the real economy to the same extent, the relationship between the financial and the real sector will weaken. This study investigates this issue for the US using the predictive power of the credit spread for future employment growth as measure for the strength of the real-financial link in a moving-window framework. Our results suggest that the real-financial link is lower during bubbles and recessions. We also find that the relationship weakened after the Fed introduced QE.

**Keywords:** Financial-real Linkages, unconventional monetary policies, QE, Federal Reserve.

**JEL Classifications:** E22, G31, G32, D92.

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# 1 Introduction

Since the global financial crisis (GFC) central banks in several advanced economies have introduced large-scale asset purchases (LSAPs), also referred to as quantitative easing (QE). As pointed out by Borio and Disyatat (2010), the distinguishing feature of these measures is that the central bank actively uses its balance sheet to affect market prices and conditions beyond a short-term interest rate. LSAPs became important after monetary policy rates had reached a very low level. For instance, after the Federal Open Market Committee (FOMC) of the Federal Reserve had lowered the target for the federal funds rate to a range of 0 to 25 basis points in December 2008, it faced the challenge of how to further ease the stance of monetary policy in view of the deteriorating economic outlook. The FOMC decided to purchase substantial quantities of assets with medium and long maturities in an effort to drive down long-term borrowing rates.

By now, an extensive literature has examined the impact of QE. Initially, studies focused on the direct effects of QE on financial markets, especially on interest rates. Most papers report evidence for declining yields in response to (announcements of) purchase programs.<sup>1</sup> But the evidence on the impact of QE on output and inflation is more mixed (see de Haan and Sturm, 2016, Blinder et al., 2016 and Borio and Zabai, 2016 for further discussion).<sup>2</sup>

At the same time, worries have been raised about the unintended consequences of QE and other unconventional monetary policies. For instance, Rajan (2013) argues that financial risk-taking in response to QE and low interest rates may stay just that, without translating into real investment. In other words, the willingness to take financial risk does not translate in willingness to take economic risk. There are several reasons for that: banks, households, and companies are still adjusting their balance sheets, while growth prospects are subdued. As a consequence, financial market developments are out of sync with real economic developments.

We investigate whether the Fed's QE has weakened the relationship between the financial and the real sector. We focus on the US, as the Federal Reserve was among the first central banks in advanced economies to introduce LSAPs so that there is a sufficiently large number of observations

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<sup>1</sup>Altavilla et al. (2015) summarize the literature on the impact of asset purchase programs of central banks as follows: First, the impact of programs carried out in the aftermath of the collapse of Lehman is generally found to be stronger than the one exerted by subsequent programs. Second, narrow channels of transmission are generally more important than broad channels, where channels are defined as narrow when the impact is concentrated on the assets targeted by the program, with little spill-overs to other market segments. Third, the bulk of the impact of purchase program is found to arise at announcement.

<sup>2</sup>For instance, based on a DSGE model with segmented markets, Chen et al. (2012) report that asset purchase programs in the US had a very small impact on inflation (a rise of 0.03 percentage points). In contrast, Chung et al. (2012), using simulations of the Federal Reserve's FRBUS model, report that these programs raised inflation by 0.4-1.0 percentage points. Weale and Wieladek (2016) find that an asset purchase announcement of 1% of GDP leads to a statistically significant rise of 0.58% and 0.62% rise in US real GDP and CPI, respectively.

available to estimate a meaningful model.

Previous studies report that several financial variables provide information on future real economic developments (Stock and Watson, 2003). Especially a specific type of credit spread index that is composed of individual bond prices is found to have a very good predictive power for real variables (Gilchrist, Yankov and Zakrajšek, 2009; Gilchrist and Zakrajšek, 2012; Faust, Gilchrist, Wright and Zakrajšek, 2013). We therefore construct a credit spread index following the method introduced in Gilchrist and Zakrajšek (2012) to predict 3-month-ahead future employment growth, and to use the predictive power of this credit spread as indicator of the strength of the relationship between the real and the financial sector.

We proceed as follows. First, we replicate and extend the credit spread index constructed by Gilchrist and Zakrajšek (2012) to 2016. Price information of over 5,000 individual bonds of US non-financial companies has been collected to calculate this index. Second, the index is then used to predict 3-month-ahead future employment growth. We use a moving window approach in which the predictions are carried out repeatedly; windows of various widths (12, 24, 36 or 48 months) are used. The predictive power of each model, based on the  $R^2$  of the regression model, is used as indicator of the strength of the real-financial link. This process generates a sequence of  $R^2$ 's from January 1973 to April 2016, showing the variation over time of the strength of the real-financial link during the past 40 years. Third, simple regression analysis is employed to explore changes in the relationship between the real and financial sector. In this model a dummy variable is included to examine the strength of the relationship between the real and financial sector before and after the introduction of the Federal Reserve's QE policies. Our results suggest that the real-financial link is lower during bubbles and recessions. We also find indications that the link weakened after the introduction of QE.

The paper is structured as follows. Section 2 briefly reviews the literature about the predictive power of financial variables for developments in the real sector. Section 3 presents our credit spread index following the method of Gilchrist and Zakrajšek (2012). Section 4 examines the strength of the real-financial link in a moving-window framework. Section 5 offers a model explaining the variation in the predictive power of the credit spread for employment growth generated in Section 4. Section 6 compares the strength of the real-financial link before and after the introduction of QE. Section 7 concludes.

## 2 Literature Review

Several studies have examined the predictive power of financial variables for future real economic variables, such as output and inflation. Stock and Watson (2003) provide a comprehensive review of this literature.

According to the discounted future earnings model, stock prices reflect future earnings of individual firms. Likewise, consumption-based asset pricing models emphasize the theoretical link between asset returns and economic fundamentals, such as consumption growth. However, most empirical studies suggest that the link between stock prices and future activities is weak. Fama (1981) and Harvey (1989) report that the predictive power of stock prices for output is rather low in bivariate regressions. Stock and Watson (1989, 1999) and Estrella and Mishkin (1998) try linear and probit models but do not find a significant improvement in the predictive power of stock prices. Goodhart and Hofmann (2000) attempt to predict inflation with stock prices but do not find strong evidence for the predictive power of the latter.<sup>3</sup>

Short-term interest rates have also been used to predict future output and inflation. Sims (1980) and Bernanke and Blinder (1992) report that interest rates are a better predictor for output than monetary aggregates. However, most studies find that once spreads, such as term spreads and default spreads, are included the marginal predictive content of interest rates usually becomes insignificant (see, for instance, Stock and Watson, 2003). Several studies report that an inverted yield curve usually signals a recession. For instance, Estrella and Hardouvelis (1991) find that in both binary and probit models term spreads have a large in-sample predictive power for output. However, later studies report less support for the predictive power of term spreads. Haubrich and Dombrosky (1996) and Dotsey (1998), for instance, find that term spreads lose their predictive power after 1985 in linear models. But other studies using binary models are able to successfully predict the 1990 recession *ex post* (see, for instance, Estrella and Mishkin, 1998). Bernanke (1983) finds that “Baa-Treasury” spreads predict industrial production growth during the interwar period. Stock and Watson (1989) and Friedman and Kuttner (1992) use the “paper-bill” spread to predict output growth and report good results. However, also the predictive power of default spreads seems not to be stable over time. Bernanke (1990) predicts output using the paper-bill spread for two subsamples and finds that the predictive content weakened during the 1980s. This finding has been confirmed by other studies (cf. Hafer and Kutan, 1992; Emery, 1996).

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<sup>3</sup>However, Albuquerque et al. (2015) find that there is a high correlation between stock returns and fundamentals across bull and bear episodes. These authors use a modified version of the Bry-Boschan algorithm to identify long-run swings in the stock market, which they call long-run bull and bear episodes.

Some more recent studies report that credit spreads constructed using micro-level bond price information have significant predictive power for real economic variables.<sup>4</sup> Gilchrist, Yankov and Zakrajšek (2009) use price information of over 5,000 individual US non-financial corporate bonds, sorted into five groups using expected default risk, to construct five indices of credit spreads. They use these credit spreads to predict 3-month-ahead and 12-month-ahead industrial production and employment in a bivariate VAR model over the 1990-2008 period. Their results suggest that the inclusion of such credit spreads significantly improved the predictive power of the model. Gilchrist and Zakrajšek (2012) also construct a “high-information-content” credit spread index using US micro-level bond price data, but instead of sorting individual bonds into different groups based on their default risks, the authors calculate a credit spread for each individual bond by subtracting the yield of a synthetic risk-free bond from the yield of the bond, and combine all these individual spreads into one credit spread index. Next, they use this index to predict future real economic variables such as industrial production and US non-farm payroll employment, and find a high marginal predictive power of the credit spread index. Gilchrist and Mojon (2014) report similar results for several countries in the euro area. In addition, Faust, Gilchrist, Wright and Zakrajšek (2013), who forecast real-time economic activities using a Bayesian model-averaging (BMA) approach, conclude that compared with an autoregressive benchmark the predictive content of the BMA approach is significantly better and that this is mostly due to the inclusion of credit spreads.

### 3 Extending the G&Z Credit Spread Index

We construct a high-information-content credit spread following the method introduced in Gilchrist and Zakrajšek (2012), G&Z from now on, and extend this credit spread index up to 2016.

The “credit spread” is the difference between the rates of return of two investments, usually a risky bond and a risk-free bond. This credit spread is the compensation for the riskiness of the bond. In practice, however, simply deducting the risk-free Treasury yields from corporate bond yields will bring about a “duration mismatch” problem. Since the term to maturity of a Treasury bond does not always match with that of a corporate bond, the premium of the corporate bond yield over the risk-free Treasury yield is also influenced by the term-to-maturity difference between the two bonds. G&Z solve this problem by calculating for each corporate bond a synthetic risk-free security that mimics the cash flows of the corresponding corporate bond. Then, since the synthetic security is

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<sup>4</sup>Philippon (2009) develops a model that can explain why credit spreads can predict future economic activities. In this model, Philippon shows that Tobin’s  $q$  can be approximated by a linear function of corporate bond spreads (the difference between corporate bond yield and the risk-free government bond yield).

designed to be “risk-free”, its price should be calculated by discounting the cash flows with risk-free zero-coupon Treasury yields (as shown in Gilchrist and Zakrajšek, 2012):

$$P_{it}^f[k] = \sum_{s=1}^S C(s)D^f(t_s)$$

, and

$$D^f(t) = e^{-r_t^f t}$$

Here,  $P_{it}^f[k]$  is the price at time  $t$  of the synthetic risk-free security corresponding to corporate bond  $k$  issued by firm  $i$ .  $\{C(s): s=1,2,\dots,S\}$  is the sequence of cash flows of bond  $k$ , and thus of the synthetic security as well.  $D^f(t)$  is the discount factor for the cash flow at time  $t$ , with  $r_t^f$  being the risk-free zero-coupon Treasury yield over period  $t$ , obtained from the US Treasury yield curve of Gürkaynak et al. (2007). Out of  $P_{it}^f[k]$  the yield to maturity  $y_t^f[k]$  is calculated; this is the risk-free yield of a synthetic Treasury security, whose duration matches with the corresponding corporate bond.

The G&Z credit spread is then the difference between the yield of the corporate bond and the yield of the matching synthetic risk-free security:

$$S_{it}[k] = y_{it}[k] - y_t^f[k]$$

, where  $y_{it}[k]$  is the yield to maturity of the corporate bond.

Price information of 5,659 outstanding U.S. non-financial corporate bonds has been collected from Datastream. Following the method described above, the credit spread for each of these bonds has been calculated. However, not all the credit spreads have been used in the construction of the final credit spread index. Following Gilchrist and Zakrajšek (2012), we apply the following criteria to eliminate extreme observations. First, observations beyond the range of 5 to 3500 basis points are eliminated. Second, bonds with an issued value of smaller than \$1 million are dropped from the sample as well. Finally, the remaining terms to maturity are limited between 1 year and 30 years.<sup>5</sup> After cleaning the data, 4,737 out of the 5,659 bonds remain. Table 1 provides descriptive statistics for these remaining bonds. Most firms only have a small number of bond issues, but some have many more. Our sample distribution is more skewed than the sample of Gilchrist and Zakrajšek

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<sup>5</sup>The third requirement on remaining terms to maturity introduced described here is the same as that imposed in Gilchrist and Zakrajšek (2012). This requirement, however, is changed later in this study into an even stricter one: bonds in the sample should have a remaining term to maturity of no shorter than 10 years. The reasons for focusing on bonds with longer terms will be discussed in Section 4.2.



(2012), with the largest firm having as many as 358 bonds issued. In addition, the mean values are much higher than those in the sample of Gilchrist and Zakrajšek (2012), while the minimum and median values of issue are similar.

Table 1: Descriptive Statistics of US Non-financial Corporate Bonds

Variable	Mean	Std. Dev.	Min	Median	Max
Number of Bonds per Firm	3.384	11.283	1	2	358
Value of Issue (\$ mil.)	1043.302	24879.54	1	250	1250000
Maturity at Issue (yrs)	23.303	13.63	10	27	100
Term to Maturity	19.319	5.85	10	19	30
Coupon Rate (pct.)	6.1	2.05	0.97	6.13	15.5
Credit Spread (bps.)	234	193	5	181	3497

Next, the credit spreads calculated from individual bond prices are combined into a G&Z type credit spread index following the formula:

$$S_t^{GZ} = \frac{1}{N_t} \sum_i \sum_k S_{it}[k]$$

$N_t$  is the number of observations of bonds at time  $t$ . Figure 1 compares our credit spread index with the index of Gilchrist and Zakrajšek (2012). Our index starts in January 1990 and runs to April 2016, while Gilchrist and Zakrajšek’s credit spread index runs to September 2010. It can be seen that between January 1990 and September 2010, both indices have similar shapes, although the peaks in our index are usually much lower. These lower peaks reflect that our sample only includes bonds that are still outstanding by April 2016. As a result, bonds issued by firms which failed during the global financial crisis are automatically filtered out of our sample. Therefore, firms in our sample are generally less risky, and thus the credit spreads of the bonds issued by these firms are relatively lower.

Section 4 will show that our index generally does an equally good job as the Gilchrist and Zakrajšek (2012) index in predicting employment growth.

## 4 Measuring the Link between the Financial and the Real Sector

### 4.1 Data and method

Gilchrist and Zakrajšek (2012) have shown that their credit spread index performs quite well in predicting 3-month-ahead employment growth. We therefore use employment growth as indicator

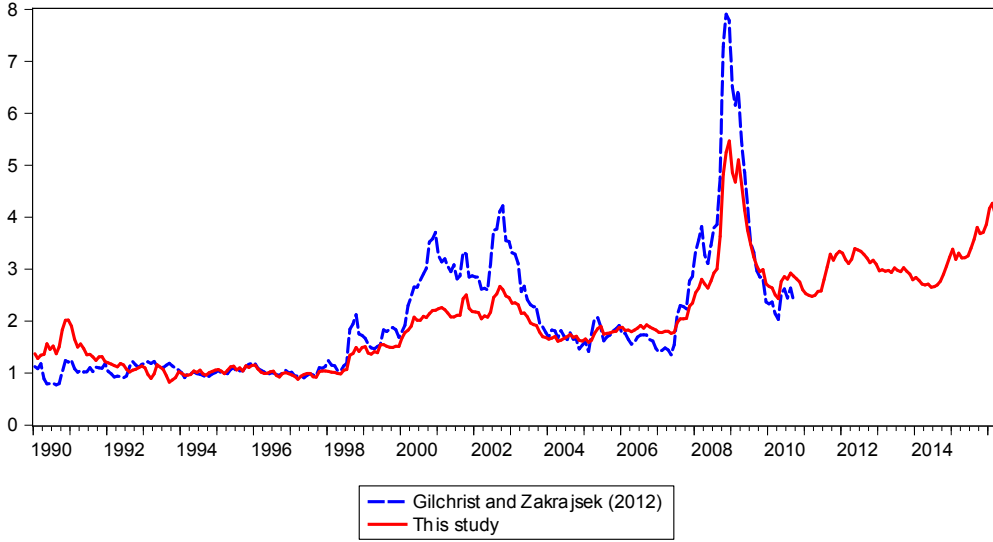


Figure 1: Credit Spread Indices, January 1990 to April 2016

of the real economy. Data on the US non-farm payroll employment index is taken from the website of Federal Reserve Economic Data of Federal Reserve Bank at St. Louis<sup>6</sup>. This monthly index, provided by the US Bureau of Labor Statistics, measures “the number of U.S. workers in the economy that excludes proprietors, private household employees, unpaid volunteers, farm employees, and the unincorporated self-employed”. A simple ordinary least squares model is adopted to predict future employment growth:

$$\nabla^h EMP_{t+h} = \beta_0 + \beta_1 GZ_t + \epsilon_{t+h}$$

Here,  $GZ_t$  is our G&Z type credit spread index and  $\nabla^h EMP_{t+h}$  is the annualized growth rate of US employment between month  $t$  and  $t + h$ :

$$\nabla^h EMP_{t+h} \equiv \frac{12 \times 100}{h + 1} \ln\left(\frac{EMP_{t+h}}{EMP_{t-1}}\right)$$

Like in Gilchrist and Zakrajšek (2012),  $h = 3$ . Following previous studies (Stock and Watson, 2003; Gilchrist, Yankov and Zakrajšek, 2009; Gilchrist and Zakrajšek, 2012), the  $R^2$  of this regression model is used to measure the predictive power of the credit spread index in predicting employment growth and considered as indicator of the strength of the real-financial link.

A moving-window approach is adopted in order to generate a sequence of  $R^2$ 's depicting the

<sup>6</sup><https://fred.stlouisfed.org/series/PAYEMS>, retrieved on 15th July, 2016.

strength of the real-financial link for every month so that we can analyze the variation in the strength of this link over time. For instance, for month  $t$  in the sample, the regression model is estimated over a window period  $(t - \frac{w}{2}, t + \frac{w}{2})$ , with  $w$  (which can be 12, 24, 36 or 48 months) being the width of the window. The  $R^2$  is estimated and is assigned to month  $t$ , representing the strength of the real-financial link around month  $t$ . The window then moves from month  $t$  to month  $t + 1$ , and the same procedure is carried out once again over the window period  $(t + 1 - \frac{w}{2}, t + 1 + \frac{w}{2})$ . As the  $w$ -month wide window moves over every month from month 1 to month  $T - h$ , a sequence of  $R^2$  can be generated over the period  $(\frac{w}{2}, T - h - \frac{w}{2})$ .

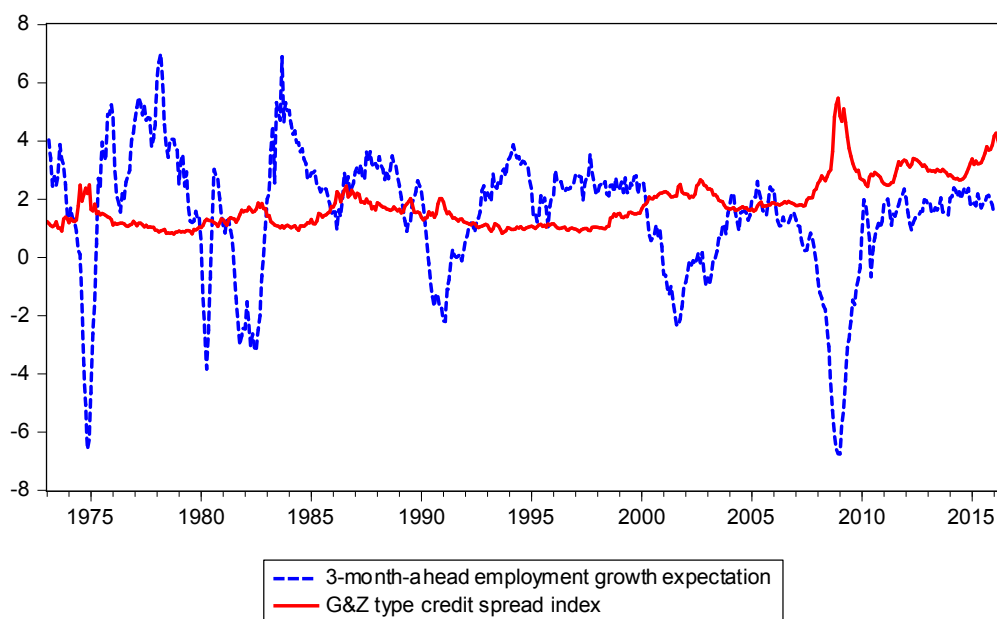


Figure 2:  $\nabla^3 EMP_{t+3}$  and G&Z Credit Spread Index

The time period considered is January 1973 to April 2016. Due to the lack of accessibility to data before January 1990, we cannot extend our spread index backward to earlier years.<sup>7</sup> Therefore, we use the credit spread index constructed by Gilchrist and Zakrajšek (2012) for the period from January 1973 to December 1989. In a robustness check we examine whether combining both credit spreads affects our main conclusions (it does not).

In order to connect the Gilchrist and Zakrajšek (2012) index with our index, we proceed as follows. First, the monthly growth rates of the Gilchrist and Zakrajšek (2012) credit spreads from

<sup>7</sup>Gilchrist and Zakrajšek (2012) rely on the Lehman/Warga database for bond price information of earlier years. The Lehman/Warga database, however, is no longer accessible through the internet. Bond prices before 1990 provided by Datastream are also relatively rare.

January 1973 to January 1990 is calculated. Then, the credit spreads for the months between January 1973 and December 1989 is backwardly projected using our credit spread for January 1990 and these growth rates. For example, using our January 1990 credit spread and the growth rate of Gilchrist and Zakrajšek’s credit spread of December 1989, the credit spread for December 1989 can be calculated, etc.

Figure 2 shows our G&Z type credit spread index and the 3-month-ahead employment growth ( $\nabla^3 EMP_{t+3}$ ). The figure shows that generally the spread index rises when 3-month-ahead employment growth decreases, while it drops when employment growth increases, suggesting that the credit spread has predictive power for future developments in the real economy.

## 4.2 Using bonds with longer remaining term to maturity

As mentioned in Section 3, Gilchrist and Zakrajšek (2012) impose a restriction that only bonds with remaining terms to maturity between 1 year and 30 years can enter their sample. We use bonds with longer remaining terms to maturity, because the G&Z spread indexes composed of relatively longer-term bonds perform better in predicting employment growth.

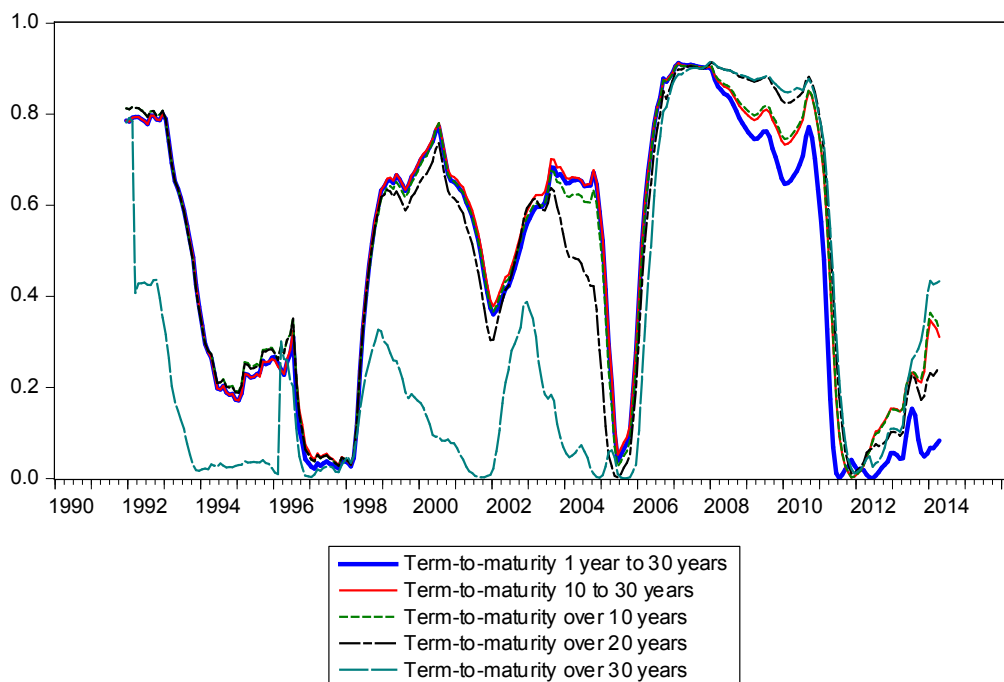


Figure 3: Sequences of Predictive Powers (window width = 48 months): Different Term-to-Maturity Requirements

Figure 3 plots  $R^2$  sequences estimated from credit spread indexes for different remaining terms to maturity. The dark blue line shows the index using the 1 to 30 years requirement suggested by Gilchrist and Zakrajšek (2012). It can be seen that most other lines (with longer term bonds) have higher predictive power for most of the period after 2007.<sup>8</sup> We therefore chose the 10-to-30-years requirement. 2,452 bonds survive this requirement and are ultimately used to compose the credit spread index used in this study. These bonds are listed in Appendix 1.

Although we construct the G&Z spread index using different data than Gilchrist and Zakrajšek (2012) and apply a different term-to-maturity requirement, the predictive power of our index is generally not worse than the Gilchrist and Zakrajšek (2012) index. Figure 4 plots two  $R^2$  sequences generated using our index and the Gilchrist and Zakrajšek (2012) index, respectively. It is clear that our index almost always yields  $R^2$ 's which are not lower than those generated using the Gilchrist and Zakrajšek (2012) index. In particular, the  $R^2$ 's generated using our index are especially high between late 1991 and early 1994. This period coincides with the peak that appears in our index but not in the Gilchrist and Zakrajšek (2012) index, suggesting that our index better captures 3-month-ahead employment growth in the early 1990s.

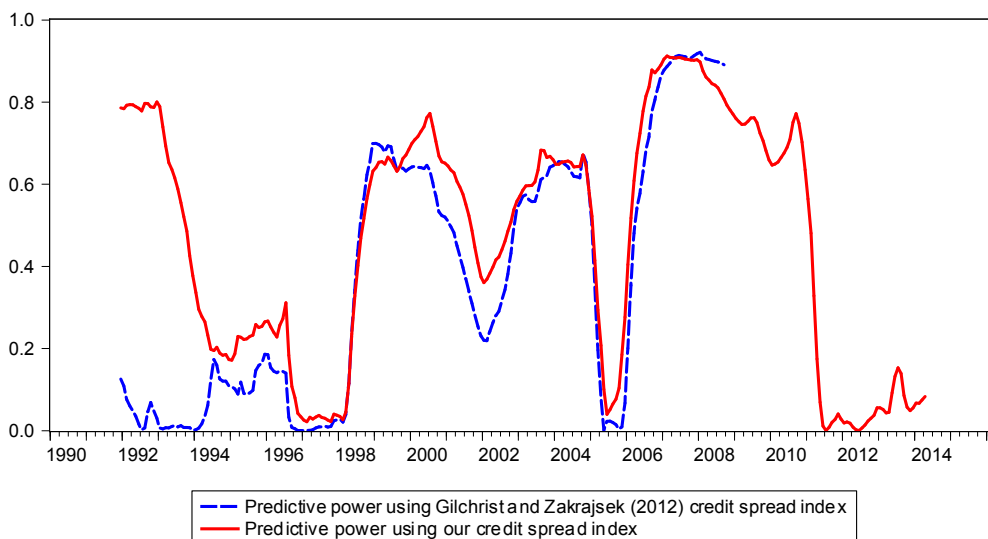


Figure 4: Sequences of Predictive Powers (window width = 48 months): our Credit Spread Index versus the Gilchrist and Zakrajšek (2012) Index

<sup>8</sup>In contrast, the differences are small for the earlier years. Since the bonds collected for this study are only those still outstanding by April 2016, the G&Z index for early years is automatically constructed using long-term bonds.

### 4.3 Sequences of real-financial link

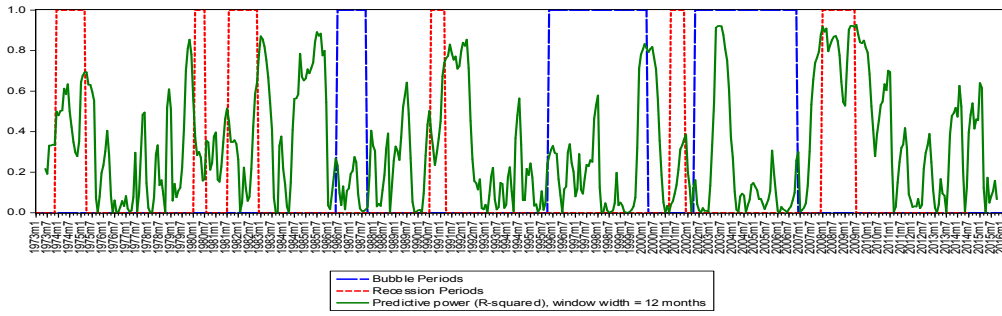
Figure 5 displays the  $R^2$  sequences that represent the strength of the real-financial link from January 1973 to April 2016, generated with different widths of the moving window. Recession and bubble periods are also marked. The recessions are taken from the NBER and the bubble periods are determined following Phillips and Yu (2011); Phillips, Wu and Yu (2011); and Phillips, Shi and Yu (2015).<sup>9</sup> The descriptive statistics of the  $R^2$  sequences are summarized in Table 2.

Table 2: Descriptive Statistics of  $R^2$  Sequences

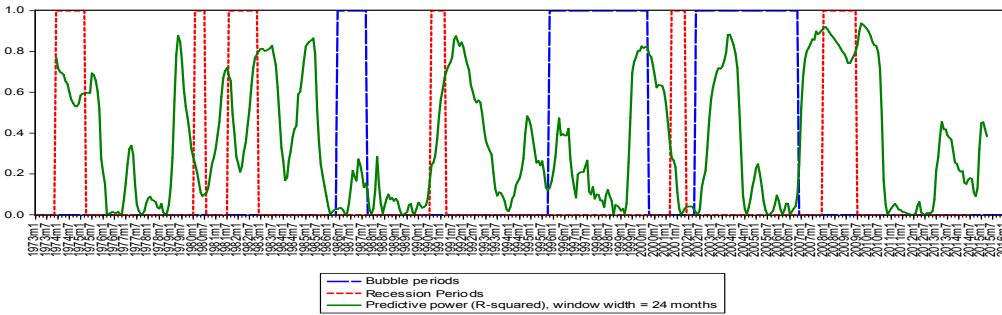
	Obs.	Mean	Median	Maximum	Minimum	Std. Dev.
$R^2$ (Win.wid.=12mon)	509	0.327	0.276	0.930	2.94E-05	0.278
$R^2$ (Win.wid.=24mon)	497	0.366	0.302	0.940	4.76E-06	0.300
$R^2$ (Win.wid.=36mon)	485	0.405	0.422	0.932	5.64E-06	0.291
$R^2$ (Win.wid.=48mon)	473	0.443	0.458	0.912	9.70E-07	0.278

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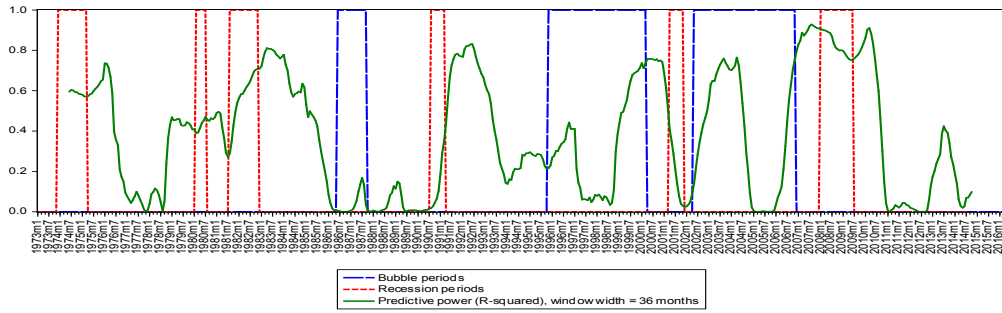
<sup>9</sup>However, some adjustments are made which will be discussed in more detail in Section 5.



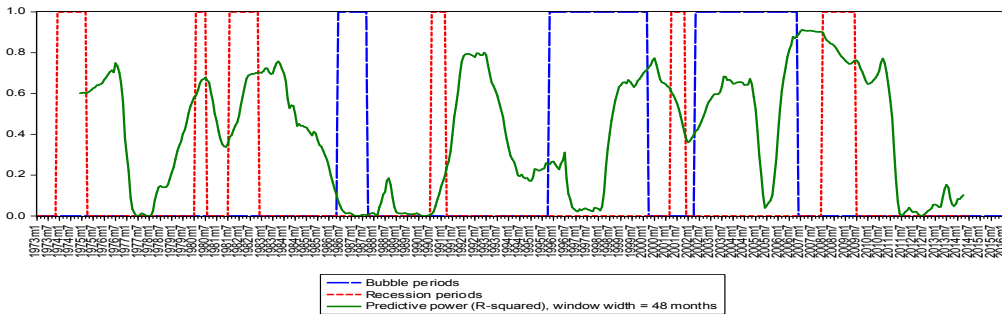
(a) Window width = 12 months



(b) Window width = 24 months



(c) Window width = 36 months



(d) Window width = 48 months

Figure 5: Predictive Power Sequences with Different Window Widths

On average the credit spread index can capture 32% to 44% of the total variance of 3-month-ahead employment growth. Considering the fact that the model is a simple bivariate OLS regression, this suggests that the G&Z type credit spread is indeed a high-information-content predictor for employment. However, the predictive power of the index varies a lot as can be observed from Figure 5 and Table 2. All four  $R^2$  sequences displayed in Figure 5 frequently fall to levels that are close to zero. This suggests that the relationship between the financial and the real sector is sometimes very weak. But they also frequently reach levels of over 0.8, suggesting that the real-financial link at times is very strong.

Figure 5 suggests that the real-financial link generally tends to be weaker during bubble and recession periods; the  $R^2$  tends to be especially low during bubble periods, when over-optimistic expectations drive investments in bond markets. Irrationally high demands for investment opportunities will push up bond prices and thus decrease credit spreads to a very low level. Investors care less about the bond issuers' ability to repay, so credit spreads will no longer reflect the riskiness and future profitability of investments. Similarly, pessimism during recession periods can also weaken the link between financial markets and the real economy.

## 5 Exploring Variations in the Strength of the Real-Financial Link

Section 4.3 has shown that the real-financial linkage is highly volatile. Figure 5 suggests this link to be weaker during bubble and recession periods, so bubbles and recessions are obvious variables to be included in our explorative analysis. Two other factors, namely the state of the economy (proxied by trend employment growth) and economic volatility (proxied by the variability of employment growth), are also considered.

It has been found in previous studies that financial market indicators generally better predict future economic slowdowns than future booms.<sup>10</sup> Financial markets tend to be more cautious about investment opportunities during bad times than good times, and will put more efforts in investigating a firm's future profitability before investing in securities issued by this firm. To check whether the predictive power of the spread index is depending on the state of the economy, we include the trend of monthly US employment growth. The annualized monthly US employment growth is calculated

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<sup>10</sup>See Marcucci and Quagliariello (2009) and Estrella and Mishkin (1998).



according to the formula

$$\nabla EMP_t \equiv 12 \times 100 \ln\left(\frac{EMP_t}{EMP_{t-1}}\right)$$

, and short-term fluctuations in the US employment growth series are filtered out using the Hodrick-Prescott trend filter. The remaining trend variable of employment growth is denoted as  $Trend[\nabla EMP_t]$ .

Economic volatility may also matter. When the market expects economic conditions to be stable over a certain period of time, the influence of news about economic conditions on investors' behavior will fade. In contrast, when the market expects a sharp change in the near future in the economy (a fall or rise of economic growth), investors' attentions will be drawn firmly to news about the real economy, and financial market indicators such as credit spread will better reflect investors' expectations on future real economy. Economic volatility at time  $t$  is measured by the absolute change in the 3-month-ahead employment growth between months  $t - 3$  and  $t + 3$ :

$$|\Delta(\nabla^3 EMP)|_t \equiv |\nabla^3 EMP_{(t+3)+3} - \nabla^3 EMP_{(t+3)-3}|$$

The bubble and recession periods are represented by two dummy variables. Recession periods are marked following the NBER recession indicators, and the bubble periods are determined based on Phillips and Yu (2011); Phillips, Wu and Yu(2011); and Phillips, Shi and Yu (2015). Phillips et al. date the beginning and the end of asset bubbles using rolling-window unit root test techniques. However, a problem of Phillips et al.'s bubble periods is that they are incredibly long. Therefore in this study, the starting dates of bubbles defined by Phillips et al. are used while the ending dates of bubbles are set at the points when the underlying asset prices start to fall.

Three bubbles occur between January 1973 and April 2016: the bubble before Black Monday in October 1987 (1986M06-1987M09), the dot-com bubble (1995M11-2000M03) and the US housing bubble (2002M05-2006M11). Phillips and Yu (2013) identify no bubble periods after the 2008-2009 crisis.

The descriptive statistics of the four variables are summarized in Table 3.

Table 3: Descriptive Statistics of the Four Variables

	Mean	Median	Max.	Min.	Std.Dev.	Obs
Emp.Grwth.Trend	1.487	1.663	4.172	-2.071	1.330	519
Abs.Chng.Emp.Grwth.Expct.	1.235	0.748	9.307	4.43E-04	1.406	510
Bubble	0.238	0.000	1.000	0.000	0.427	520
Recession	0.144	0.000	1.000	0.000	0.352	499

Table 4 reports the pairwise correlations between dependent variables. The highest correlations

are between *Recession* and employment growth trend, and between *Recession* and absolute change in 3-month-ahead employment growth: both of them are over 0.4. But the variance inflation factors (VIFs) reported in Table 5 show that none of the four variables has a VIF greater than 5, suggesting that multicollinearity problems do not plague the estimates of our simple models.

Table 4: Correlation Table

	(1)	(2)	(3)	(4)
(1)Emp.Grwth.Trend	1			
(2)Abs.Chng.Emp.Grwth.Expct.	-0.298	1		
(3)Bubble	0.129	-0.300	1	
(4)Recession	-0.481	0.422	-0.239	1

Table 5: Variance Inflation Factors

Variable	Coefficient variance	Uncentered VIF	Centerd VIF
Constant	5.93E-04	5.087	NA
Emp.Grwth.Trend	8.38E-05	2.852	1.320
Abs.Chng.Emp.Grwth.Expct.	7.57E-05	2.346	1.301
Bubble	6.93E-04	1.494	1.119
Recession	1.391E-03	1.739	1.486

The regression model is formulated as

$$R_t^2 = \beta_0 + \beta_1 Trend[\nabla EMP_t] + \beta_2 |\Delta(\nabla^3 EMP)|_t + \beta_3 Bubble + \beta_4 Recession + \epsilon_t$$

The regression results are reported in Table 6. The adjusted  $R^2$ 's of the four regression models range from 0.248 to 0.303. It can be seen that in all four cases with different moving window widths, the coefficients of both the trend of employment growth and the absolute changes in the employment growth are statistically and economically significant. The coefficients of *Recession* are negative and significant in three of the four regressions, except when the moving window is set at 24 months. The coefficients of *Bubble* are significantly negative when the moving window is narrow (12 or 24 months wide), but are insignificant when the moving window is wide (36 or 48 months) and even become positive when the window is 48 months wide.

A potential shortcoming of our analysis is that the data and methods applied to construct our credit spread index are different before and after January 1990. The index before 1990 is taken from Gilchrist and Zakrajšek (2012) and the index after 1990 is calculated by us using different bonds and a stricter requirement on remaining terms to maturity than used by Gilchrist and Zakrajšek (2012). In order to check whether the difference in methodology applied before and after 1990 will greatly influence our outcomes, we estimate the same regressions as in Table 6, but only using data

Table 6: Regression Outputs Explaining the Variations in the Strength of the Real-Financial Link

	Width of moving windows			
	12 months	24 months	36 months	48 months
Emp. Grwth. Trend	-0.071*** (0.009)	-0.101*** (0.010)	-0.109*** (0.010)	-0.114*** (0.009)
Abs.Chng.3-mon Emp.Grwth.Expct.	0.055*** (0.009)	0.038*** (0.010)	0.036*** (0.009)	0.035*** (0.009)
Bubble	-0.088*** (0.027)	-0.051* (0.029)	-0.036 (0.028)	0.020 (0.027)
Recession	-0.071* (0.038)	-0.057 (0.041)	-0.114*** (0.041)	-0.085** (0.041)
Constant	0.381*** (0.025)	0.469*** (0.027)	0.519*** (0.026)	0.539*** (0.026)
Adjusted $R^2$	0.248	0.260	0.272	0.303

after 1990.

Table 7: Robustness Check: Regression Outputs Explaining the Variations in the Strength of the Real-Financial Link, January 1990-April 2016

	Width of moving windows			
	12 months	24 months	36 months	48 months
Emp. Grwth. Trend	-0.093*** (0.015)	-0.137*** (0.017)	-0.164*** (0.017)	-0.178*** (0.015)
Abs.Chng.3-mon Emp.Grwth.Expct.	0.089*** (0.019)	0.040* (0.021)	0.005 (0.021)	-0.028 (0.019)
Bubble	-0.027 (0.032)	-0.003 (0.034)	0.034 (0.034)	0.099*** (0.032)
Recession	-0.039 (0.054)	(-0.127** (0.059)	-0.221*** (0.058)	-0.165*** (0.054)
Constant	0.339*** (0.035)	0.483*** (0.038)	0.576*** (0.038)	0.633*** (0.035)
Adjusted $R^2$	0.360	0.318	0.315	0.356

As Table 7 shows, the goodness of fit is much better in Table 7 than in Table 6. In most cases the coefficients in Table 7 have the same signs as those in Table 6. However, the coefficients of *Bubble*, are never significant in Table 7, and have even unexpected signs when the moving window is wide, but this finding disappears in the models presented in the next subsection.

## 6 The Strength of US Real-Financial Link before and after QE

To compare the strength of the real-financial link before and after the introduction of QE, a dummy variable called *QE1*, is added to the regression model. *QE1* is defined as 0 before March 2009

and as 1 after that date. The first round of quantitative easing started on March 18, 2009, when the Federal Open Market Committee announced un-sterilized purchases of \$750 billion of agency mortgage-backed securities and \$300 billion of Treasury securities. The regression results are shown in Table 8. The coefficients of *QE1* are significantly negative at the 1% significance level, except for the case of 12-months moving windows. Other variables held constant, the  $R^2$ 's indicating the strength of the real-financial link are on average lowered by 0.156 to 0.272 since the implementation of QE. In addition, it is worth pointing out that in Table 8 the results for the other four variables improve: the signs are consistent with our expectations and are almost always significant (the exception being the result for *Bubble* when the window width is set at 48 months). The coefficients of *Bubble* is always negative and mostly significant this time, and the coefficients of *Recession* is always significant.

Table 8: Regression Outputs with the *QE1* Dummy Included

	Width of moving windows			
	12 months	24 months	36 months	48 months
Emp. Grwth. Trend	-0.072*** (0.010)	-0.115*** (0.010)	-0.130*** (0.010)	-0.138*** (0.009)
Abs.Chng.3-mon Emp.Grwth.Expct.	0.055*** (0.009)	0.032*** (0.010)	0.027*** (0.009)	0.024*** (0.009)
Bubble	-0.089*** (0.028)	-0.087*** (0.030)	-0.091*** (0.028)	-0.041 (0.027)
Recession	-0.072* (0.039)	-0.099** (0.042)	-0.178*** (0.041)	-0.162*** (0.040)
<b>QE1</b>	-0.004 (0.036)	-0.156*** (0.039)	-0.236*** (0.036)	-0.272*** (0.035)
Constant	0.383*** (0.029)	0.532*** (0.031)	0.614*** (0.029)	0.649*** (0.028)
Adjusted $R^2$	0.247	0.283	0.330	0.382

The regression results reported in Table 8 suggest that the relationship between the real and the financial sector has become weaker after the introduction of quantitative easing. This finding is in line with Rajan's (2013) worry about the unintended consequences of QE.

Again, in order to check whether combining the two credit spread indexes influence our outcomes, a robustness check is carried out by estimating the same regressions as in Table 8 only using data after 1990.

Table 9 shows that consistent with the results in Table 8, the coefficients of the *QE1* dummy are significantly negative except when the dependent variable is the  $R^2$  sequence generated with a 12-month-wide moving window. Other variables are mostly significant, except for the absolute change of employment growth, which has unexpected signs when the moving window is set wide (36

Table 9: Robustness Check: Regression Outputs with  $QE1$ , January 1990-April 2016

	Width of moving windows			
	12 months	24 months	36 months	48 months
Emp. Grwth. Trend	-0.091*** (0.016)	-0.146*** (0.017)	-0.178*** (0.016)	-0.196*** (0.014)
Abs.Chng.3-mon Emp.Grwth.Expct.	0.091*** (0.020)	0.033 (0.021)	-0.007 (0.020)	-0.040** (0.018)
Bubble	-0.013 (0.035)	-0.064* (0.037)	-0.061* (0.035)	-0.007 (0.031)
Recession	-0.025 (0.056)	-0.186*** (0.059)	-0.312*** (0.056)	-0.271*** (0.050)
QE1	0.037 (0.039)	-0.161*** (0.041)	-0.247*** (0.039)	-0.289*** (0.036)
Constant	0.321*** (0.040)	0.563*** (0.043)	0.700*** (0.041)	0.775*** (0.036)
Adjusted $R^2$	0.359	0.350	0.395	0.475

or 48 months).

## 7 Conclusion

This study examines the real-financial linkage and addresses whether unconventional monetary policy measures introduced by the Federal Reserve have weakened this link. Unconventional monetary policy may have failed to boost real economic conditions as much as it boosted financial activities (Borio and Zabai, 2016). If so, the relationship between the financial and the real sector will be weakened due to these policies.

In order to measure the strength of the real-financial link over time, we construct a Gilchrist and Zakrajšek (2012) type of credit spread index which is used to predict 3-month-ahead future employment growth. The  $R^2$  of the regression model is used as indicator of the strength of the link between financial markets and real economy. A moving-window approach is adopted in order to generate a sequence of  $R^2$ 's, showing the variations in the real-financial link over time.

The  $R^2$  sequences are quite volatile. In all the sequences generated with different widths of moving-windows, the  $R^2$  sometimes is close to zero, and sometimes is higher than 0.8. A feature that can be observed is that during recession or bubble periods, the predictive power of credit spreads generally falls. In addition, we find indications that the real-financial link is generally stronger under weak economic conditions, while also the volatility of economic conditions seems to matter.

A dummy variable is added to the explorative regression model which marks the beginning of quantitative easing by the Federal Reserve. In most cases, this dummy variable has a significantly

negative coefficient, suggesting that the link between financial and real sectors became weaker after the implementation of QE. This finding is confirmed by a robustness check in which only observations after January 1990 are considered.

A major limitation of our study is that selecting a proper window width is rather difficult. On the one hand, to estimate informative  $R^2$  requires that the window cannot be too narrow. On the other hand, a too wide window will involve too much irrelevant information to calculate the predictive content at a specific point in time. We dealt with this problem by using different window widths. And most of our findings are not highly sensitive to the choice of a particular window width.

## 8 References

Albuquerque, R., Eichenbaum, M., Papanikolaou, D., & Rebelo, S. (2015) Long-run bulls and bears? *Journal of Monetary Economics*, 76, S21-S36.

Altavilla, C., Carboni, G., & Motto, R. (2015). Asset purchase programmes and financial markets: Lessons from the euro area. *European Central Bank Working Paper* 1864.

Blinder, A., Ehrmann, M., de Haan, J., & Jansen, D. (2016). Necessity as the mother of invention: Monetary policy after the crisis. *NBER Working Paper* 22735.

Borio, C., & Disyatat, P. (2010). Unconventional Monetary Policies: An Appraisal. *The Manchester School*, 78(s1), 53-89.

Borio, C. E., & Zabai, A. (2016). Unconventional monetary policies: a re-appraisal. *Bank for International Settlements Working Paper* 570.

Chen, H., Cúrdia, V., & Ferrero, A. (2012). The macroeconomic effects of largescale asset purchase programmes. *The Economic Journal*, 122(564), F289-F315.

Chung, H, Laforte, J., Reifschneider, D. & Williams, J.C. (2012). Have we underestimated the likelihood and severity of Zero Lower Bound events? *Journal of Money, Credit and Banking*, 44(Supplement), 47-82.

de Haan, J., Hoeberichts, M., Maas, R., & Teppa, F. (2016). Inflation in the euro area and why it matters. De Nederlandsche Bank Occasional Study.

de Haan, J., & Sturm, J-E. (2016). Central bank communication: How to manage expectations? In: Mayes, D., P. Siklos and J-E. Sturm (eds.), Handbook on the Economics of Central Banking, Oxford: Oxford University Press, forthcoming.

Dotsey, M. (1998). The predictive content of the interest rate term spread for future economic growth. Federal Reserve Bank Richmond Economic Quarterly, 84(3), 31-51.

Emery, K. M. (1996). The information content of the paper-bill spread. Journal of Economics and Business, 48(1), 1-10.

Estrella, A., & Hardouvelis, G. A. (1991). The term structure as a predictor of real economic activity. The Journal of Finance, 46(2), 555-576.

Estrella, A., & Mishkin, F. S. (1998). Predicting US recessions: Financial variables as leading indicators. Review of Economics and Statistics, 80(1), 45-61.

Fama, E. F. (1981). Stock returns, real activity, inflation, and money. American Economic Review, 71(4), 545-565.

Faust, J., Gilchrist, S., Wright, J. H., & Zakrajšek, E. (2013). Credit spreads as predictors of real-time economic activity: a Bayesian model-averaging approach. Review of Economics and Statistics, 95(5), 1501-1519.

Federal Reserve Bank of St. Louis, NBER based Recession Indicators for the United States from the Period following the Peak through the Trough [USREC], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/USREC>, August 13, 2016.

Friedman, B. M., & Kuttner, K. N. (1992). Money, income, prices, and interest rates. American Economic Review, 82(3), 472-492.

- Gilchrist, S., & Mojon, B. (2014). Credit risk in the euro area. NBER Working Paper 20041.
- Gilchrist, S., Yankov, V., & Zakrajšek, E. (2009). Credit market shocks and economic fluctuations: Evidence from corporate bond and stock markets. *Journal of Monetary Economics*, 56(4), 471-493.
- Gilchrist, S., & Zakrajšek, E. (2012). Credit spreads and business cycle fluctuations. *American Economic Review*, 102(4), 1692-1720.
- Goodhart, C., & Hofmann, B. (2000). Asset prices and the conduct of monetary policy. In Sveriges Riksbank and Stockholm School of Economics conference on Asset Markets and Monetary Policy, Stockholm, June.
- Gürkaynak, R. S., Sack, B., & Wright, J. H. (2007). The US Treasury yield curve: 1961 to the present. *Journal of Monetary Economics*, 54(8), 2291-2304.
- Hafer, R. W., & Kutan, A. M. (1992). On the money-income results of Friedman and Kuttner. Southern Illinois University at Edwardsville Working Paper 92-0303.
- Harvey, C. R. (1989). Forecasts of economic growth from the bond and stock markets. *Financial Analysts Journal*, 45(5), 38-45.
- Haubrich, J. G., & Dombrosky, A. M. (1996). Predicting real growth using the yield curve. *Economic Review-Federal Reserve Bank of Cleveland*, 32(1), 26-34.
- Mody, A., & Taylor, M. P. (2003). The high-yield spread as a predictor of real economic activity: evidence of a financial accelerator for the United States. *IMF Economic Review*, 50(3), 373-402.
- Philippon, T. (2009). The bond market's q. *Quarterly Journal of Economics*, 124, 1011-1056.
- Phillips, P. C., Shi, S., & Yu, J. (2015). Testing for multiple bubbles: Historical episodes of exuberance and collapse in the S&P 500. *International Economic Review*, 56(4), 1043-1078.
- Phillips, P. C., Wu, Y., & Yu, J. (2011). Explosive behavior in the 1990s Nasdaq: When did exu-



berance escalate asset values? *International Economic Review*, 52(1), 201-226.

Phillips, P. C., & Yu, J. (2011). Dating the timeline of financial bubbles during the subprime crisis. *Quantitative Economics*, 2(3), 455-491.

Phillips, P. C., & Yu, J. (2013). Bubble or roller coaster in world stock markets? *The Business Times*, 28 June 2013.

Rajan, R. (2013). A step in the dark: unconventional monetary policy after the crisis. Andrew Crockett Memorial Lecture, BIS.

Sims, C. A. (1980). A comparison of interwar and postwar cycles: Monetarism reconsidered, *American Economic Review* 70 (May), 250-257.

Stock, J. H., & Watson, M. W. (1989). New indexes of coincident and leading economic indicators. In *NBER Macroeconomics Annual 1989*, 4, 351-409. MIT Press.

Stock, J. H., & Watson, M. W. (1999). Business cycle fluctuations in U.S. macroeconomic time series. In: Taylor, J.B. and M. Woodford (eds.), *Handbook of Macroeconomics*, 1, 3-64.

Stock, J. H., & Watson, M. W. (2003). Forecasting output and inflation: The role of asset prices. *Journal of Economic Literature*, 41(3), 788-829.

Weale, M., & Wieladek, T. (2016). What are the macroeconomic effects of asset purchases? *Journal of Monetary Economics*, 79, 81-93.

## 9 Appendix

### 9.1 Appendix 1 List of bonds used to construct the credit spread index

21ST CEN.FOX AM. 1998 7 5/8% 30/11/28 144A  
21ST CEN.FOX AM. 2007 6.65% 15/11/37 144A  
21ST CEN.FOX AM. 2009 5.65% 15/08/20 S  
21ST CEN.FOX AM. 2014 4 3/4% 15/09/44 144A  
21ST CEN.FOX AM. 2015 6.4% 15/12/35 144A  
21ST CEN.FOX AM. 2015 7 5/8% 30/11/28 C  
21ST CEN.FOX AM. 2015 7.43% 01/10/26 S  
21ST CEN.FOX AM. 2015 7.7% 30/10/25 B  
21ST CEN.FOX AM. 2015 8.15% 17/10/36 B  
3M COMPANY 1998 6 3/8% 15/02/28 S  
ABBVIE INCO. 2012 4.4% 06/11/42 144A  
ABC INCO. 1991 8 3/4% 15/08/21 S  
ABENGOA TRANSMISION 2014 6 7/8% 30/04/43 144A  
ABU DHABI NAT.EN. 2006 6 1/2% 27/10/36 144A  
ABU DHABI NAT.EN. 2012 3 5/8% 12/01/23 144A  
ADT CORP. 2012 4 7/8% 15/07/42 144A  
AECOM GLOBAL II LLC 2012 G/R 01/04/22 S  
AES CORP. 1993 7.8% 09/02/23 S  
AES CORP. 1998 8 7/8% 01/11/27 S  
AES EASTERN ENERGY 2000 9.67% 02/01/29 DEFAULT  
AES EL SALVADOR 2013 6 3/4% 28/03/23 144A  
AETNA INCO. 2006 6 5/8% 15/06/36 S  
AGRIUM INCO. 1997 7.7% 01/02/17 S  
AGRIUM INCO. 1997 7.8% 01/02/27 S  
AGRIUM INCO. 2006 7 1/8% 23/05/36 S  
AIG LIFE HLDINC. 1995 7 1/2% 15/07/25 S  
AIG LIFE HLDINC. 1999 6 5/8% 15/02/29 S  
AIG LIFE HLDINC. 2013 7.57% 01/12/45 144A  
AIR CANADA 2015 3 3/4% 15/06/29 144A  
AIR CANADA 2015 4 1/8% 15/06/29 144A  
AIR JAMAICA LTD. 2007 8 1/8% 14/06/27 144A  
AIR PRODUCTS 1991 8 3/4% 15/04/21 S  
AIR PRODUCTS 1996 7.34% 15/06/26 E  
AIR PRODUCTS 1996 7.56% 29/05/26 S-E  
AIR PRODUCTS 1996 7.8% 15/06/26 E  
AIR PRODUCTS 1996 7.8% 15/06/26 S-E  
ALABAMA GAS CORP. 1995 7.58% 27/06/25 S  
ALABAMA GAS CORP. 1995 7.7% 20/06/25 S  
ALABAMA GAS CORP. 1996 7.97% 23/09/26 S  
ALABAMA GAS CORP. 2005 5.2% 15/01/20 S  
ALABAMA GAS CORP. 2007 5.9% 15/01/37 S  
ALABAMA POWER 2002 5 1/2% 15/10/17 Q  
ALABAMA POWER 2002 5 7/8% 01/12/22 S  
ALABAMA POWER 2003 5.6% 15/03/33 V  
ALABAMA POWER 2003 5.7% 15/02/33 T  
ALABAMA POWER 2004 5 1/8% 15/02/19 Z  
ALABAMA POWER 2008 6 1/8% 15/05/38 2008A  
ALABAMA POWER 2011 5 1/2% 15/03/41 S  
ALABAMA POWER 2011 5.2% 01/06/41 2011C  
ALABAMA POWER 2012 3.85% 01/12/42 2012C  
ALABAMA POWER 2012 4.1% 15/01/42 2012A  
ALCATEL LCT.USA INC 1998 6 1/2% 15/01/28 S  
ALCOA INCO. 1998 6 3/4% 15/01/28 S  
ALCOA INCO. 2007 5.72% 23/02/19 144A  
ALFA SAB DE CV 2014 6 7/8% 25/03/44 144A  
ALIBABA GP.HLD. 2014 3.6% 28/11/24 144A  
ALIBABA GP.HLD. 2014 4 1/2% 28/11/34 144A  
ALLEGHENY EN.SUPP. 2009 6 3/4% 15/10/39 144A  
ALLEGHENY TECHS. 1995 6.95% 15/12/25 S  
ALLIANCE PIPE.LP US 2001 6.996% 31/12/19 144A  
ALLIANCE PIPE.LP US 2001 7.877% 31/12/25 144A  
ALLIANCE PIPE.LP US 2003 4.591% 31/12/25 144A  
ALLIED WASTE INDS. 1991 9 1/4% 01/05/21 S  
ALLIED WASTE INDS. 1995 7.4% 15/09/35 S  
ALLINA HEALTH SYSTE 2015 4.805% 15/11/45 S  
ALTA WIND HOLDINGS 2010 7% 30/06/35 144A  
ALTICE FINCO SA 2013 8 1/8% 15/01/24 144A  
ALTRIA GROUP 1997 7 3/4% 15/01/27 S  
AMAL LTD. 2009 3.465% 21/08/21 Q  
AMER.GREETINGS CORP 1998 6.1% 01/08/28 P1 /g  
AMEREN ILL.CO. 1998 6 1/8% 15/12/28 S  
AMEREN ILL.CO. 2006 6.7% 15/06/36 S  
AMERICAN STORES 1996 8% 01/06/26 S  
AMERICAN STORES 1997 7.9% 01/05/17 S  
AMERICAN STORES 1998 7.1% 20/03/28 S-B  
AMERICAN TNSM. 2009 5 1/4% 15/01/22 S  
AMERICAN TNSM. 2014 5% 01/09/44 144A  
ANADARKO PTL.CORP. 1995 7 1/4% 15/03/25 S  
ANADARKO PTL.CORP. 1996 7 1/2% 15/10/26 S  
ANADARKO PTL.CORP. 1997 7% 15/11/27 S  
ANADARKO PTL.CORP. 1998 6 5/8% 15/01/28 S  
ANADARKO PTL.CORP. 1998 7.05% 15/05/18 S  
ANADARKO PTL.CORP. 1998 7.15% 15/05/28 S  
ANADARKO PTL.CORP. 1999 7.2% 15/03/29 S  
ANADARKO PTL.CORP. 1999 7.95% 15/04/29 S  
ANADARKO PTL.CORP. 2016 6.6% 15/03/46 S  
ANHEUSER BUSCH 2009 5 3/8% 15/01/20 144A  
ANHEUSER BUSCH 2009 8.2% 15/01/39 144A  
ANHEUSER BUSCH COS. 1997 6 3/4% 15/12/27 S  
ANHEUSER BUSCH COS. 1998 6 1/2% 01/01/28 S  
ANHEUSER BUSCH COS. 2000 6.8% 15/01/31 S  
ANHEUSER BUSCH COS. 2000 7.55% 01/10/30 S  
ANHEUSER BUSCH COS. 2001 6% 01/11/41 S  
ANHEUSER BUSCH COS. 2001 6.8% 20/08/32 S  
ANHEUSER BUSCH COS. 2002 5.95% 15/01/33 S  
ANHEUSER BUSCH COS. 2002 6 1/2% 01/02/43 S  
ANHEUSER BUSCH COS. 2002 6 1/2% 01/05/42 S  
ANHEUSER BUSCH COS. 2003 4 1/2% 01/04/18 S  
ANHEUSER BUSCH COS. 2003 5.05% 15/10/16 S  
ANHEUSER BUSCH COS. 2004 5% 01/03/19 S

ANHEUSER BUSCH COS. 2006 5 3/4% 01/04/36 S  
 ANHEUSER BUSCH COS. 2007 6.45% 01/09/37 S  
 ANR PIPELINE CO. 1991 9 5/8% 01/11/21 S  
 ANR PIPELINE CO. 1994 7 3/8% 15/02/24 S  
 ANR PIPELINE CO. 1995 7% 01/06/25 P1 /n  
 AP MOELLER MAERSK 2015 3 7/8% 28/09/25 144A  
 APACHE CORP. 1996 7.7% 15/03/26 S  
 APACHE CORP. 1996 7.95% 15/04/26 S  
 APACHE CORP. 1998 7% 01/02/18 S  
 APACHE CORP. 1999 7 5/8% 01/07/19 S  
 APL LTD. 1994 8% 15/01/24 S  
 APPALACHIAN POWER 2003 5.95% 15/05/33 H  
 APPALACHIAN POWER 2005 5% 01/06/17 K  
 APPALACHIAN POWER 2005 5.8% 01/10/35 L  
 APPALACHIAN POWER 2006 6 3/8% 01/04/36 N  
 APPALACHIAN POWER 2006 6 3/8% 01/04/36 N AMBAC  
 APPALACHIAN POWER 2007 6.7% 15/08/37 P  
 APPALACHIAN POWER 2008 7% 01/04/38 Q  
 APPALACHIAN POWER 2011 4.6% 30/03/21 T  
 APPALACHIAN POWER 2015 4.45% 01/06/45 S  
 APT PIPELINES 2015 5% 23/03/35 144A  
 AQUA PENNSYLVANIA I 1995 7.72% 15/05/25 144A  
 AQUA PENNSYLVANIA I 2004 5.17% 10/05/17 144A  
 AQUA PENNSYLVANIA I 2004 5.751% 15/05/19 144A  
 AQUA PENNSYLVANIA I 2004 5.751% 15/05/19 144A  
 AQUA PENNSYLVANIA I 2004 5.98% 15/05/28 144A  
 AQUA PENNSYLVANIA I 2004 6.06% 10/05/27 144A  
 AQUA PENNSYLVANIA I 2004 6.06% 15/05/27 144A  
 ARCHER DANIELS 1992 8 3/8% 15/04/17 S  
 ARCHER DANIELS 1997 6 3/4% 15/12/27 S  
 ARCHER DANIELS 1997 7 1/2% 15/03/27 S  
 ARCHER DANIELS 1999 6 5/8% 01/05/29 S  
 ARCHER DANIELS 2001 7% 01/02/31 S  
 ARCHER DANIELS 2002 5.935% 01/10/32 S  
 ARCHER DANIELS 2005 5 3/8% 15/09/35 S  
 ARCHER DANIELS 2011 4.535% 26/03/42 144A  
 ARIZONA PUB.SER. 2003 5 5/8% 15/05/33 S  
 ARIZONA PUB.SER. 2005 5 1/2% 01/09/35 S  
 ARIZONA PUB.SER. 2006 6 7/8% 01/08/36 S  
 ARROW ELECTRONICS 1998 6 7/8% 01/06/18 S  
 ASHLAND INCO. 1990 9.35% 24/01/19 B  
 ASHLAND INCO. 2013 6 7/8% 15/05/43 S  
 AT&T CORP. 1995 8% 15/05/25 S  
 AT&T CORP. 2002 G/R 05/25 S  
 AT&T CORP. 2002 G/R 05/25 S  
 AT&T INCO. 2010 5.35% 01/09/40 144A  
 AT&T INCO. 2012 4.3% 15/12/42 144A  
 AT&T INCO. 2012 4.35% 15/06/45 144A  
 ATHABASCA OIL CORP. 1997 8.2% 01/04/27 144A  
 ATLANTA GAS LT.CO. 1991 9.1% 01/02/21 A  
 ATLANTA GAS LT.CO. 1992 8.55% 01/04/22 B  
 ATLANTA GAS LT.CO. 1992 8.55% 13/05/22 B  
 ATLANTA GAS LT.CO. 1992 8.55% 15/04/22 S  
 ATLANTA GAS LT.CO. 1992 8.7% 01/04/22 B  
 ATLANTA GAS LT.CO. 1996 6.55% 20/11/26 C  
 ATLANTA GAS LT.CO. 1997 7.2% 17/07/17 C  
 ATLANTA GAS LT.CO. 1997 7.3% 15/07/27 C  
 ATLANTIC CITY ELEC. 1995 7.68% 23/08/16 C  
 ATLANTIC CITY ELEC. 2004 5.8% 15/05/34 S  
 ATLANTIC RICHFIELD 1991 9 1/8% 01/08/31 S  
 ATLANTIC RICHFIELD 1991 9% 01/04/21 S  
 ATLANTIC RICHFIELD 1991 9% 01/05/31 S  
 ATLANTIC RICHFIELD 1992 8 1/4% 01/02/22 S  
 ATLANTIC RICHFIELD 1992 8 3/4% 01/03/32 S  
 ATLAS AIR WWD.HDG. 1998 7.38% 02/07/19 1998-1A  
 ATLAS AIR WWD.HDG. 1999 7.2% 02/07/20 1999-1  
 ATLAS AIR WWD.HDG. 1999 7.63% 02/07/16 1999-1  
 ATLAS COPCO 1999 8 1/4% 01/09/19 144A  
 ATMOS ENERGY CORP. 1995 6.67% 15/12/25 S-A  
 ATMOS ENERGY CORP. 1998 6 3/4% 15/07/28 S  
 AUSNET ELTY.SVS. 1996 7 1/4% 01/12/16 144A  
 AVERY DENNISON CORP 1995 7.49% 16/06/25 C  
 AVERY DENNISON CORP 1995 7.52% 15/07/25 C  
 AVERY DENNISON CORP 1995 7.54% 26/05/25 C  
 AVERY DENNISON CORP 1995 7.56% 01/06/20 C  
 AVERY DENNISON CORP 1995 7.56% 23/05/25 C  
 AVERY DENNISON CORP 2003 6% 15/01/33 S  
 AVISTA CORP. 1992 8.23% 29/12/22 S  
 AVISTA CORP. 1993 7.18% 11/08/23 A  
 AVISTA CORP. 1993 7.39% 11/05/18 A  
 AVISTA CORP. 1993 7.45% 11/06/18 A  
 AVISTA CORP. 1993 7.53% 05/05/23 S-A  
 AVISTA CORP. 1993 7.54% 05/05/23 S  
 AVISTA CORP. 1998 6.37% 19/06/28 S-C  
 AVISTA CORP. 1998 6.37% 19/06/28 S-C  
 AVISTA CORP. 2005 6 1/4% 01/12/35 AMBAC  
 AVISTA CORP. 2005 6 1/4% 01/12/35 S  
 AVISTA CORP. 2006 5.7% 01/07/37 DUE 203  
 AVISTA CORP. 2009 5 1/8% 01/04/22 S  
 AVON PRODUCTS INCO. 2003 4.2% 15/07/18 S  
 B & D HOLDINGS LLC 1998 7.05% 01/07/28 144A  
 BAE SYS.HDG.INCO. 2014 4 3/4% 07/10/44 144A  
 BAE SYSTEMS 2011 5.8% 11/10/41 144A  
 BALT.GAS & ELEC.CO. 2003 5.2% 15/06/33 S  
 BALT.GAS & ELEC.CO. 2006 6.35% 01/10/36 144A  
 BARRICK GOLD CORP. 1995 7.7% 17/10/25 S  
 BARRICK GOLD CORP. 1995 7.73% 16/10/25 S  
 BARRICK GOLD CORP. 1996 7.31% 26/01/21 S  
 BARRICK GOLD CORP. 1996 7.37% 03/06/26 P2 /n  
 BARRICK GOLD CORP. 1996 8.05% 03/06/26 S

BARRICK INTL.BRBDS. 2009 6.35% 15/10/36 144A  
 BASF CATALYSTS 1998 6.95% 01/06/28 S  
 BASIN ELEC.PWR.COOP.2006 6.127% 01/06/41 144A S  
 BAUSCH & LOMB INCO. 1996 6.56% 12/08/26 S-B  
 BAUSCH & LOMB INCO. 1998 7 1/8% 01/08/28 S  
 BAXALTA INCO. 2015 5 1/4% 23/06/45 144A  
 BAXTER INTL.INCO. 1997 7.65% 01/02/27 S  
 BAXTER INTL.INCO. 1998 6 5/8% 15/02/28 S  
 BAY STATE GAS CO. 1991 9.28% 12/08/21 S  
 BAY STATE GAS CO. 1992 8.15% 26/08/22 S  
 BAY STATE GAS CO. 1995 6.43% 15/12/25 P12/05  
 BAY STATE GAS CO. 1998 6.26% 15/02/28 P02/08  
 BAYER CORP. 1998 6.2% 15/02/28 144A S  
 BAYER CORP. 1998 6.65% 15/02/28 144A  
 BAYLOR SCOTT & 2015 4.185% 15/11/45 S  
 BBALL.PROPS.LTD. 1998 6.65% 01/03/25 144A  
 BBALL.PROPS.LTD. 1998 6.65% 01/03/25 144A  
 BBALL.PROPS.LTD. 1998 6.8% 01/03/25 144A  
 BEAM SUNTORY INCO. 1991 8 5/8% 15/11/21 S  
 BEAM SUNTORY INCO. 1993 7 7/8% 15/01/23 S  
 BEAM SUNTORY INCO. 1998 6 5/8% 15/07/28 S  
 BEAM SUNTORY INCO. 2006 5 7/8% 15/01/36 S  
 BEAM SUNTORY INCO. 2011 7 7/8% 15/01/23 S  
 BECTON DICKINSON 1997 7% 01/08/27 S  
 BECTON DICKINSON 1998 6.7% 01/08/28 S  
 BELLSOUTH CORP. 1996 6.04% 15/11/26 P5 /v  
 BELLSOUTH CORP. 2000 7 7/8% 15/02/30 S  
 BELLSOUTH CORP. 2001 G/R 26/04/21 144A  
 BELLSOUTH TELECOM. 1995 5.85% 15/11/45 P5 /v  
 BELLSOUTH TELECOM. 1995 7% 01/10/25 MBIA  
 BELLSOUTH TELECOM. 1995 7% 01/10/25 S  
 BELO CORPORATION 1997 7 1/4% 15/09/27 S  
 BELO CORPORATION 1997 7 3/4% 01/06/27 S  
 BERKSHIRE HATHAWAY 1998 8.48% 15/09/28 S  
 BERKSHIRE HATHAWAY 2006 6 1/8% 01/04/36 144A  
 BEST FOODS INCO. 1996 7 1/4% 15/12/26 S-E  
 BEST FOODS INCO. 1997 7% 15/10/17 S-F  
 BLACK HILLS PWR. 2002 7.23% 15/08/32 AE  
 BLACK HILLS PWR. 2009 6 1/8% 01/11/39 AF  
 BNSF RAILWAY CO. 1990 3.2% 01/01/45 S-M  
 BNSF RAILWAY CO. 1990 3.8% 01/01/20 S-L  
 BNSF RAILWAY CO. 1990 6.55% 01/01/20 S-K  
 BNSF RAILWAY CO. 1991 6.55% 01/01/20 S-O  
 BNSF RAILWAY CO. 1992 8 3/4% 25/02/22 S  
 BNSF RAILWAY CO. 2006 5.629% 01/04/24 2006-2  
 BNSF RAILWAY CO. 2006 5.72% 15/01/24 S  
 BOEING COMPANY 1991 8 3/4% 15/08/21 S  
 BOEING COMPANY 1991 8 3/4% 15/09/31 S  
 BOEING COMPANY 1991 8 5/8% 15/11/31 S  
 BOEING COMPANY 1992 7.95% 15/08/24 P5 /g  
 BOEING COMPANY 1993 6 7/8% 15/10/43 S  
 BOEING COMPANY 1993 7 1/4% 15/06/25 S  
 BOEING COMPANY 1993 7 7/8% 15/04/43 S  
 BOEING COMPANY 1994 7 1/2% 15/08/42 S  
 BOMBARDIER INCO. 2004 7.45% 01/05/34 144A  
 BORGLWARNER 1999 7 1/8% 15/02/29 S  
 BORGLWARNER 1999 8% 01/10/19 S  
 BOSTON GAS CO. 1989 8.97% 15/12/19 A  
 BOSTON GAS CO. 1990 9 3/4% 01/12/20 A  
 BOSTON GAS CO. 1991 9.05% 01/09/21 A  
 BOSTON GAS CO. 1992 8.33% 05/07/22 A  
 BOSTON GAS CO. 1992 8.33% 10/07/17 A  
 BOSTON GAS CO. 1992 8.33% 10/07/18 A  
 BOSTON GAS CO. 1994 6.93% 15/01/19 B  
 BOSTON GAS CO. 1994 6.98% 15/01/24 B  
 BOSTON GAS CO. 1995 6.95% 01/12/23 C  
 BOSTON GAS CO. 1995 6.95% 01/12/24 C  
 BOSTON GAS CO. 1995 7 1/4% 01/10/25 C  
 BOSTON GAS CO. 1995 7 1/4% 01/10/25 C  
 BOSTON GAS CO. 2012 4.487% 15/02/42 S  
 BRISTOL MYERS 1993 7.15% 15/06/23 S  
 BRISTOL MYERS 1996 6.8% 15/11/26 S  
 BRISTOL MYERS 2006 5 7/8% 15/11/36 S  
 BRITISH AIRWAYS 2013 4 5/8% 20/12/25 144A  
 BROOKLYN NAVY YARD 1997 7.42% 01/10/20 S  
 BROWN FORMAN CORP. 2012 3 3/4% 15/01/43 S  
 BROWN FORMAN CORP. 2015 4 1/2% 15/07/45 S  
 BRUNSWICK CORP. 1993 7 3/8% 01/09/23 S  
 BRUNSWICK CORP. 1997 7 1/8% 01/08/27 S  
 BUCKEYE PARTNERS LP 2005 5 1/8% 01/07/17 S  
 BURL.RES.INCO. 1991 9 1/8% 01/10/21 S  
 BURL.RES.INCO. 1995 8.2% 15/03/25 S  
 BURL.RES.INCO. 1996 6 7/8% 15/02/26 S  
 BURL.RES.INCO. 1999 7 3/8% 01/03/29 S  
 BURLINGTON NTHN. 1995 7% 15/12/25 S  
 BURLINGTON NTHN. 1996 7.29% 01/06/36 P1 /n  
 BURLINGTON NTHN. 1997 6 7/8% 01/12/27 S  
 BURLINGTON NTHN. 1997 6.53% 15/07/37 S-A  
 BURLINGTON NTHN. 1998 6.7% 01/08/28 S  
 BURLINGTON NTHN. 1998 7.082% 13/05/29 P05/99  
 BURLINGTON NTHN. 1999 6 3/4% 15/03/29 S  
 BURLINGTON NTHN. 2000 7.95% 15/08/30 S  
 BURLINGTON NTHN. 2000 8 1/8% 15/04/20 S  
 BURLINGTON NTHN. 2006 6.2% 15/08/36 S  
 BURLINGTON NTHN. 2015 4.7% 01/09/45 S  
 BW GROUP LTD 2007 6 5/8% 28/06/17 144A  
 C R BARD INCO. 1996 6.7% 01/12/26 P1 /c  
 CABOT CORP. 1992 8.34% 05/08/22 A  
 CABOT CORP. 1992 8.36% 17/08/22 S  
 CABOT CORP. 1992 8.47% 14/08/22 A

CABOT CORP. 1997 6.57% 21/10/27 S-A  
 CABOT CORP. 1997 7.28% 21/10/27 S-A  
 CABOT CORP. 1998 7.42% 11/12/18 S-B  
 CAL.INST.OF TECH. 2015 4.321% 01/08/45 S  
 CALPINE CORP. 2011 7 7/8% 15/01/23 144A  
 CALPINE CORP. 2013 5 7/8% 15/01/24 144A  
 CAMP PENDLETON & 2003 5.937% 01/10/43 144A  
 CAMP PENDLETON & 2003 5.937% 01/10/43 144A  
 CAMPBELL SOUP CO. 1991 8 7/8% 01/05/21 S  
 CANADIAN NAT.RY. 1993 7 5/8% 15/05/23 S  
 CANADIAN NAT.RY. 1998 6.8% 15/07/18 S  
 CANADIAN NAT.RY. 1998 6.9% 15/07/28 S  
 CANADIAN NAT.RY. 2004 6 1/4% 01/08/34 S  
 CANADIAN NAT.RY. 2006 6.2% 01/06/36 S  
 CANADIAN NAT.RY. 2006 6.712% 15/07/36 S  
 CANADIAN NAT.RY. 2007 6 3/8% 15/11/37 S  
 CANADIAN PAC.RY. 1991 9.45% 01/08/21 S  
 CANADIAN PAC.RY.CO. 2001 7 1/8% 15/10/31 S  
 CANADIAN PAC.RY.CO. 2003 5 3/4% 15/03/33 S  
 CANADIAN PAC.RY.CO. 2015 3.7% 01/02/26 S  
 CANADIAN PAC.RY.CO. 2015 4.8% 01/08/45 S  
 CANADIAN PAC.RY.CO. 2015 4.8% 15/09/35 S  
 CAP SA 2006 7 3/8% 15/09/36 144A  
 CARDINAL HLTH.INCO. 1996 7% 15/10/26 P5 /t  
 CARDINAL HLTH.INCO. 1996 7.8% 15/10/16 S  
 CARDINAL HLTH.INCO. 2015 4.9% 15/09/45 S  
 CARGILL INCO. 1995 7 3/8% 01/10/25 144A  
 CARGILL INCO. 1996 6 7/8% 01/02/36 144A  
 CARGILL INCO. 1996 7 1/2% 01/09/26 144A  
 CARGILL INCO. 1996 7 1/4% 01/11/36 144A  
 CARGILL INCO. 1997 7.1% 29/07/27 S  
 CARGILL INCO. 1997 7.3% 10/09/27 144A  
 CARGILL INCO. 1997 7.41% 18/06/27 144A  
 CARGILL INCO. 1998 6 7/8% 01/05/28 144A  
 CARGILL INCO. 1998 7.03% 30/10/28 144A  
 CARGILL INCO. 1998 7.07% 10/11/28 144A  
 CARGILL INCO. 1998 7.12% 10/11/28 144A  
 CARGILL INCO. 2004 6 1/8% 19/04/34 144A  
 CARGILL INCO. 2006 6 1/8% 15/09/36 144A  
 CARGILL INCO. 2007 6 5/8% 15/09/37 144A  
 CARGILL INCO. 2007 6% 27/11/17 144A  
 CARGILL INCO. 2012 4.1% 01/11/42 144A  
 CARNIVAL CORP. 1993 7.2% 01/10/23 S  
 CARNIVAL CORP. 1998 6.65% 15/01/28 S  
 CARPENTER TECH.CORP 1998 6.97% 23/04/18 B  
 CARPENTER TECH.CORP 1998 6.99% 20/04/18 B  
 CARPENTER TECH.CORP 1998 7.01% 17/04/18 B  
 CARPENTER TECH.CORP 1998 7.03% 18/05/18 B  
 CARPENTER TECH.CORP 1998 7.03% 22/05/18 B  
 CARPENTER TECH.CORP 1998 7.04% 09/04/18 B  
 CARPENTER TECH.CORP 1998 7.06% 21/05/18 B  
 CARPENTER TECH.CORP 1998 7.08% 07/05/18 B  
 CARPENTER TECH.CORP 1998 7.1% 30/04/18 B  
 CARTER HOLT HARVEY 1994 9 1/2% 01/12/24 S  
 CASCADE NTRL.GAS 1997 7.48% 15/09/27 B  
 CASCADE NTRL.GAS 1999 7.098% 16/03/29 S-B  
 CASCADE NTRL.GAS 2005 5 1/4% 01/02/35 MBIA  
 CASCADE NTRL.GAS 2005 5.21% 01/09/20 S  
 CATERPILLAR INCO. 1991 9 3/8% 15/03/21 S  
 CATERPILLAR INCO. 1993 8% 15/02/23 S  
 CATERPILLAR INCO. 1998 6 5/8% 15/07/28 S  
 CATERPILLAR INCO. 2002 6.95% 01/05/42 S  
 CATERPILLAR INCO. 2005 5.3% 15/09/35 S  
 CATERPILLAR INCO. 2006 6.05% 15/08/36 S  
 CATERPILLAR INCO. 2012 3.803% 15/08/42 144A  
 CBS BROADCASTING 1993 7 1/8% 01/11/23 S  
 CBS CORP. 1993 7 7/8% 01/09/23 S  
 CCO HOLDINGS LLC 2015 5 7/8% 01/05/27 144A  
 CCO SAFARI II LLC 2015 6.484% 23/10/45 144A  
 CCOH SAFARI LLC 2015 5 3/4% 15/02/26 EARLY  
 CDN.NTRL.RES.LTD. 2002 6.45% 30/06/33 S  
 CDN.NTRL.RES.LTD. 2002 7.2% 15/01/32 S  
 CDN.NTRL.RES.LTD. 2004 5.85% 01/02/35 S  
 CDN.NTRL.RES.LTD. 2006 6 1/2% 15/02/37 S  
 CELULOSA ARAUCO 1997 7 1/2% 15/09/17 S  
 CELULOSA ARAUCO 2009 7 1/4% 29/07/19 144A  
 CELULOSA ARAUCO 2010 5% 21/01/21 144A  
 CEMEX 2014 5.7% 11/01/25 144A  
 CEMEX MATERIALS LLC 2003 7.7% 21/07/25 144A  
 CENCOSUD SA 2012 4 7/8% 20/01/23 144A  
 CENCOSUD SA 2015 6 5/8% 12/02/45 144A  
 CENEL.BRASLS.SA 2009 6 7/8% 30/07/19 144A  
 CENTERPOINT EN.RES. 2007 6 1/4% 01/02/37 S  
 CENTERPOINT EN.RES. 2007 6 5/8% 01/11/37 S  
 CENTERPOINT ENERGY 1991 9.15% 15/03/21 MBIA  
 CENTERPOINT ENERGY 1991 9.15% 15/03/21 S  
 CENTERPOINT ENERGY 2014 4 1/2% 01/04/44 X  
 CENTRAL ILL.LT.CO. 1995 7.73% 19/05/25 S  
 CENTRAL ME.PWR.CO. 2005 5 3/8% 10/06/35 144A  
 CENTRAL ME.PWR.CO. 2005 5 7/8% 25/10/35 144A  
 CENTRAL ME.PWR.CO. 2005 5.43% 18/07/35 144A  
 CENTRAL ME.PWR.CO. 2005 5.7% 01/11/25 144A  
 CENTRAL ME.PWR.CO. 2005 5.78% 11/04/35 144A  
 CENTRAL ME.PWR.CO. 2007 6.4% 15/09/37 144A  
 CENTRICA 2013 5 3/8% 16/10/43 144A  
 CENTURYLINK INCO. 1995 7.2% 01/12/25 D  
 CENTURYLINK INCO. 1998 6 7/8% 15/01/28 G  
 CEZ AS 2012 5 5/8% 03/04/42 144A  
 CHESAPEAKE ENERGY 2005 6 7/8% 15/11/20 144A  
 CHOCTAW RST.DEV. 2004 7 1/4% 15/11/19 144A

CHOICE HOTELS INTL. 2010 5.7% 28/08/20 S  
 CINCINNATI BE.TEL. 1998 6.3% 01/12/28 S  
 CINCINNATI BELL 1993 7 1/4% 15/06/23 S  
 CINCINNATI CHILDREN 2014 4.268% 15/05/44 2014 T  
 CLARK EQU.CO. 1993 8% 01/05/23 A  
 CLARK EQU.CO. 1993 8.15% 15/05/23 S  
 CLARK EQU.CO. 1993 8.35% 15/05/23 S  
 CLECO PWR.LLC 2005 6 1/2% 01/12/35 S  
 CLECO PWR.LLC 2010 6% 01/12/40 S  
 CLEVELAND ELEC. 2006 5.95% 15/12/36 S  
 CLEVELAND ELEC. 2009 5 1/2% 15/08/24 S  
 CLRWT.PAPR.CORP. 2014 5 3/8% 01/02/25 144A  
 CMPBRA.ALUMINIO 2010 6 3/4% 05/04/21 144A  
 CMS.FED.DE ELCTDAD. 2012 5 3/4% 14/02/42 144A  
 CMS.FED.DE ELCTDAD. 2013 4 7/8% 15/01/24 144A  
 CMS.FED.DE ELCTDAD. 2015 6 1/8% 16/06/45 144A  
 COCA COLA BOTTLINGEXCHD. 5% 15/06/16 144A S  
 COCA-COLA RFRS.USA 1992 8 1/2% 01/02/22 S  
 COCA-COLA RFRS.USA 1992 8% 15/09/22 S  
 COCA-COLA RFRS.USA 1993 6 3/4% 15/09/23 S  
 COCA-COLA RFRS.USA 1995 ZERO 20/06/20 P0 /n  
 COCA-COLA RFRS.USA 1996 6.7% 15/10/36 P5 /t  
 COCA-COLA RFRS.USA 1996 6.95% 15/11/26 S  
 COCA-COLA RFRS.USA 1996 7% 01/10/26 P1 /t  
 COCA-COLA RFRS.USA 1997 5.71% 18/03/37 P8 /r  
 COCA-COLA RFRS.USA 1997 7 1/8% 01/08/17 S  
 COCA-COLA RFRS.USA 1998 6 3/4% 15/01/38 S  
 COCA-COLA RFRS.USA 1998 6 3/4% 15/09/28 S  
 COLGATE-PALMOLIVE 1995 7.6% 19/05/25 B  
 COLGATE-PALMOLIVE 1998 6.45% 16/06/28 C  
 COLGATE-PALMOLIVE 2002 F/R 08/42 E  
 COLGATE-PALMOLIVE 2015 4% 15/08/45 H  
 COLOMBIA TC.SA ESP 2012 5 3/8% 27/09/22 144A  
 COLONIAL GAS CO. 1995 G/R 14/10/25 S-A  
 COLONIAL GAS CO. 1996 6.94% 05/02/26 S-A  
 COLONIAL GAS CO. 1997 6.81% 19/05/27 S-A  
 COLONIAL PIPELINE 2000 8 3/8% 01/11/30 144A  
 COLONIAL PIPELINE 2002 6.58% 28/08/32 144A  
 COLONIAL PIPELINE 2002 7.63% 15/04/32 S  
 COLONIAL PIPELINE 2007 6 3/8% 01/08/37 144A  
 COLONIAL PIPELINE 2013 4.2% 15/04/43 S  
 COLORADO INTERSTATE 1997 6.85% 15/06/37 P5 /n  
 COLUMBIA PIPELINE 2015 5.8% 01/06/45 EARLY  
 COLUMBUS STHN.PWR. 1992 8.4% 01/08/22 S  
 COLUMBUS STHN.PWR. 1994 7.45% 01/03/24 S  
 COMCAST CORP. 1997 8 1/2% 01/05/27 P1 /y  
 COMCAST CORP. 2003 7.05% 15/03/33 S  
 COMCAST MO GROUP 1997 7.9% 01/02/27 S  
 COMMONWEALTH EDISON 1998 6.95% 15/07/18 S  
 COMMONWEALTH EDISON 2003 5 7/8% 01/02/33 100  
 COMMONWEALTH EDISON 2006 5.9% 15/03/36 103 (AM  
 COMMONWEALTH EDISON 2008 6.45% 15/01/38 107  
 COMMUNITY HLTH.NET. 2015 5.433% 01/05/45 S  
 COMPANIA MNA.MILPO 2013 4 5/8% 28/03/23 144A  
 CONAGRA FOODS INCO. 1991 9 3/4% 01/03/21 S  
 CONAGRA FOODS INCO. 1997 6.7% 01/08/27 P1 /g  
 CONAGRA FOODS INCO. 1998 7% 01/10/28 S  
 CONAGRA FOODS INCO. 2000 8 1/4% 15/09/30 S  
 CONAGRA FOODS INCO. 2006 5.819% 15/06/17 144A  
 CONN.LT.& PWR. 1994 7 7/8% 01/10/24 1994 D  
 CONN.LT.& PWR. 1994 7 7/8% 01/10/24 D (MBIA  
 CONN.LT.& PWR. 2004 5 3/4% 15/09/34 S-B  
 CONN.LT.& PWR. 2005 5 5/8% 01/04/35 S-B  
 CONN.LT.& PWR. 2006 6.35% 01/06/36 S-A  
 CONN.LT.& PWR. 2007 5 3/4% 01/03/37 B(AMBAC  
 CONN.LT.& PWR. 2007 5 3/4% 01/03/37 S-B  
 CONN.LT.& PWR. 2007 6 3/8% 01/09/37 D (AMBA  
 CONN.LT.& PWR. 2014 4.3% 15/04/44 A  
 CONNECTICUT NATGS. 2005 5.63% 15/09/35 144A  
 CONNECTICUT NATGS. 2005 5.84% 28/10/35 144A  
 CONNECTICUT NATGS. 2007 6.66% 15/10/37 144A  
 CONOCOPHILLIPS 2002 5.9% 15/10/32 144A  
 CONOCOPHILLIPS CO. 1997 8 1/4% 15/03/17 S  
 CONOCOPHILLIPS CO. 1998 6.65% 15/07/18 S  
 CONOCOPHILLIPS CO. 1999 7% 30/03/29 S  
 CONOCOPHILLIPS CO. 1999 7.87% 18/10/21 144A  
 CONOCOPHILLIPS CO. 2000 8 1/8% 15/02/30 S  
 CONS.EDISON CO.NY. 2003 5 7/8% 01/04/33 2003 A  
 CONS.EDISON CO.NY. 2003 5.1% 15/06/33 S  
 CONS.EDISON CO.NY. 2004 5.7% 01/02/34 2004 B  
 CONS.EDISON CO.NY. 2005 5 1/4% 01/07/35 2005 B  
 CONS.EDISON CO.NY. 2006 5.7% 01/12/36 2006 E  
 CONS.EDISON CO.NY. 2006 5.7% 01/12/36 2006 E  
 CONS.EDISON CO.NY. 2006 5.85% 15/03/36 2006 A  
 CONS.EDISON CO.NY. 2006 6.2% 15/06/36 2006 B  
 CONS.EDISON CO.NY. 2008 6 3/4% 01/04/38 2008 B  
 CONS.EDISON CO.NY. 2009 5 1/2% 01/12/39 2009 C  
 CONS.EDISON CO.NY. 2010 5.7% 15/06/40 2010 B  
 CONS.EDISON CO.NY. 2012 4.2% 15/03/42 2012 A  
 CONS.EDISON CO.NY. 2014 4.45% 15/03/44 2014 A  
 CONS.RAIL CORP. 1990 9 3/4% 15/06/20 S  
 CONS.RAIL CORP. 1993 7 7/8% 15/05/43 S  
 CONSUMERS ENERGY CO 1998 6 7/8% 01/03/18 B  
 CONSUMERS ENERGY CO 2005 5.65% 15/04/20 S  
 CONSUMERS ENERGY CO 2005 5.8% 15/09/35 S  
 CONSUMERS ENERGY CO 2008 6 1/8% 15/03/19 S  
 CONSUMERS ENERGY CO 2015 4.1% 15/11/45 S  
 CONTINENTAL WIND 2013 6% 28/02/33 144A  
 CONTROLADORA MABE 2009 7 7/8% 28/10/19 144A  
 CON-WAY INCO. 2004 6.7% 01/05/34 144A

COOPER TI.& RUB.CO. 1997 7 5/8% 15/03/27 S  
 CORELOGIC INCO. 1998 7.55% 01/04/28 S  
 CORNING INCO. 1991 8 7/8% 15/08/21 S  
 CORNING INCO. 1993 7.53% 01/03/23 S  
 CORNING INCO. 1993 7.53% 01/03/23 S  
 CORNING INCO. 1993 7.92% 03/02/23 S  
 CORNING INCO. 1993 7.93% 03/02/23 S  
 CORNING INCO. 1994 7 5/8% 01/08/24 P1 /g  
 CORNING INCO. 1999 6.85% 01/03/29 S  
 CORNING INCO. 2006 7 1/4% 15/08/36 S  
 CORPORACION GEO 2010 9 1/4% 30/06/20 DEFAULT  
 COSO GEOTHERMAL POW 2007 7% 15/07/26 144A  
 COX COMMS.INCO. 1993 7 3/8% 01/07/23 S  
 COX COMMS.INCO. 1995 7 5/8% 15/06/25 S  
 COX COMMS.INCO. 1998 6.8% 01/08/28 S  
 COX COMMS.INCO. 1998 6.85% 15/01/18 S  
 COX COMMS.INCO. 1998 6.95% 15/01/28 S  
 COX COMMS.INCO. 2006 6.45% 01/12/36 144A  
 COX COMMS.INCO. 2008 6.95% 01/06/38 144A  
 COX COMMS.INCO. 2008 9 3/8% 15/01/19 144A  
 COX COMMS.INCO. 2009 8 3/8% 01/03/39 144A  
 COX COMMS.INCO. 2012 4.7% 15/12/42 S  
 COX COMMS.INCO. 2013 4 1/2% 30/06/43 S  
 COX COMMS.INCO. 2014 3.85% 01/02/25 144A  
 COX COMMS.INCO. 2014 4.8% 01/02/35 144A  
 COX ENTS.INCO. 1997 7 3/8% 15/07/27 144A  
 CRANE CO. 2006 6.55% 15/11/36 S  
 CRH AMERICA INCO. 2015 5 1/8% 18/05/45 144A  
 CROCKETT COGEN.CAL. 2005 5.869% 30/03/25 144A  
 CROWN HDG.INCO. 1996 7 3/8% 15/12/26 S  
 CSC HDG.LLC 1998 7 5/8% 15/07/18 S  
 CSC HDG.LLC 1998 7 7/8% 15/02/18 S  
 CSX CORP. 1991 9.87% 12/02/21 A  
 CSX CORP. 1992 8 5/8% 15/05/22 S  
 CSX CORP. 1992 8.1% 15/09/22 S  
 CSX CORP. 1998 6.8% 01/12/28 S-C  
 CTL.HUD.GAS & ELEC. 2004 5.05% 04/11/19 S-E  
 CTL.HUD.GAS & ELEC. 2005 5.84% 05/12/35 E  
 CTL.HUD.GAS & ELEC. 2006 5.764% 17/11/31 S-E  
 CTL.HUD.GAS & ELEC. 2007 5.804% 23/03/37 S-F  
 CTL.HUD.GAS & ELEC. 2009 5.8% 01/11/39 S-F  
 CTL.HUD.GAS & ELEC. 2010 4.15% 01/04/21 S-G  
 CTL.HUD.GAS & ELEC. 2010 5.716% 01/04/41 S-G  
 CTL.HUD.GAS & ELEC. 2011 4.707% 01/04/42 S-G  
 CTL.HUD.GAS & ELEC. 2012 4.065% 01/10/42 S-G  
 CTL.HUD.GAS & ELEC. 2012 4.776% 01/04/42 S-G  
 CTL.JAPAN RY.CO. 2015 4 1/4% 24/11/45 144A  
 CUMMINS INCO. 1997 6 3/4% 15/02/27 P5 /b  
 CUMMINS INCO. 1998 7 1/8% 01/03/28 S  
 CVS HEALTH CORP. 2003 5.789% 10/01/26 144A  
 CVS HEALTH CORP. 2003 6.204% 10/10/25 144A  
 CVS HEALTH CORP. 2009 7.507% 10/01/32 144A  
 CVS HEALTH CORP. 2010 5.773% 10/01/33 144A  
 CVS HEALTH CORP. 2011 5.926% 10/01/34 M  
 CVS HEALTH CORP. 2013 4.704% 10/01/36 144A  
 DANA CORP. 1998 7% 15/03/28 S  
 DANA CORP. 1999 7% 01/03/29  
 DARDEN RESTAURANTS 2005 6% 15/08/35 S  
 DCP MIDSTREAM LLC 2000 8 1/8% 16/08/30 S  
 DCP MIDSTREAM LLC 2006 6.45% 03/11/36 S  
 DCP MIDSTREAM LLC 2007 6 3/4% 15/09/37 S  
 DCP MIDSTREAM LLC 2011 4 3/4% 30/09/21 S  
 DCP MIDSTREAM LLC 2013 5.85%(F/R) 05/43 S  
 DEAN HOLDING CO. 1997 6.9% 15/10/17 S  
 DEERE & CO. 1992 8 1/2% 09/01/22 S  
 DEERE & CO. 1998 6.55% 01/10/28 S  
 DEERE & CO. 2000 8.1% 15/05/30 S  
 DEERE & CO. 2001 7 1/8% 03/03/31 S  
 DEERE & CO. 2012 3.9% 09/06/42 S  
 DELHAIZE AMERICA 1997 8.05% 15/04/27 S  
 DELHAIZE AMERICA 2001 9% 15/04/31 144A  
 DELHAIZE GROUP SA 2010 5.7% 01/10/40 144A  
 DELMARVA POWER 1990 9 7/8% 01/12/20 S  
 DELMARVA POWER 1997 7.54% 01/02/17 C  
 DELMARVA POWER 1997 7.55% 01/02/17 C  
 DELMARVA POWER 1997 7.56% 01/02/17 C  
 DELMARVA POWER 1997 7.58% 01/02/17 C  
 DELMARVA POWER 1997 7.61% 02/12/19 C  
 DELMARVA POWER 1997 7.61% 02/12/19 C  
 DELMARVA POWER 1997 7.62% 01/02/17 C  
 DELMARVA POWER 1997 7.62% 01/02/17 C  
 DELMARVA POWER 1997 7.72% 01/02/27 S-C  
 DELMARVA POWER 1998 6.81% 09/01/18 C  
 DELMARVA POWER 2015 4.15% 15/05/45 S  
 DELTA AIR LINES 1991 9 3/4% 15/05/21 S  
 DELTA AIR LINES 1992 10 3/8% 15/12/22 S  
 DELTA AIR LINES 1992 9 1/4% 15/03/22 S  
 DELTA AIR LINES 1999 7.575% 01/09/20 1999-2A  
 DELTA AIR LINES 2000 8.3% 15/12/29 S  
 DELTA AIR LINES 2009 7 3/4% 17/06/21 2009-1A  
 DELTA AIR LINES 2015 3 5/8% 30/01/29 AA  
 DELTA AIR LINES 2015 3 7/8% 30/01/29 2015-1  
 DESARROLLADORA HMX. 2005 7 1/2% 28/09/15 DEFAULT  
 DEVON ENERGY 2002 7.95% 15/04/32 S  
 DEVON OEI OPERATING 1997 7 1/2% 15/09/27 S  
 DIAMOND OFFSHORE 2009 5.7% 15/10/39 S  
 DILLARDS INCO. 1993 7 7/8% 01/01/23 S  
 DILLARDS INCO. 1996 7 3/4% 15/07/26 S  
 DILLARDS INCO. 1997 7 3/4% 15/05/27 S  
 DILLARDS INCO. 1998 6 5/8% 15/01/18 S

DILLARDS INCO. 1998 7% 01/12/28 S  
DILLARDS INCO. 1998 7.13% 01/08/18 S  
DIRECTV HOLDINGS 2010 4.6% 15/02/21 S  
DIRECTV HOLDINGS 2010 6% 15/08/40 S  
DIRECTV HOLDINGS 2012 5.15% 15/03/42 144A  
DOBIE CENTER PROPS. 1998 6 3/4% 01/05/28 144A  
DOBIE CENTER PROPS. 1998 6 3/4% 01/06/23 144A  
DOMINION RES.INCO. 1996 6 7/8% 15/10/26 P5 /t  
DOMINION RES.INCO. 1997 6.8% 15/12/27 S  
DOMINION RES.INCO. 2002 6 3/4% 15/12/32 E  
DOMINION RES.INCO. 2003 6.3% 15/03/33 2003 E  
DOMINION RES.INCO. 2005 5.95% 15/06/35 B  
DOMINION RES.INCO. 2008 7% 15/06/38 2008 B  
DOMTAR INCORPORATED 1996 9 1/2% 01/08/16 S  
DONNELLEY & SONS 1991 8 7/8% 15/04/21 S  
DONNELLEY & SONS 1991 8 7/8% 15/04/21 S  
DONNELLEY & SONS 1998 8.82% 15/04/31 S  
DONNELLEY & SONS 1998 8.82% 15/04/31 S  
DOVER CORP. 1998 6.65% 01/06/28 S  
DOVER CORP. 2005 5 3/8% 15/10/35 S  
DOW CHM.CO. 1991 8.85% 15/09/21 S  
DOW CHM.CO. 1991 9% 01/04/21 S  
DOW CHM.CO. 1993 7 3/4% 15/09/20 S  
DOW CHM.CO. 1993 7 3/8% 01/03/23 S  
DOW CHM.CO. 1999 7 3/8% 01/11/29 S  
DP WORLD LTD. 2007 6.85% 02/07/37 144A  
DP WORLD LTD. 2007 6.85% 02/07/37 144A  
DTE ELECTRIC CO. 1989 7 1/2% 01/09/19 S  
DTE ELECTRIC CO. 1989 7 1/2% 01/12/19 BP  
DTE ELECTRIC CO. 1992 6 7/8% 01/09/22 KKP  
DTE ELECTRIC CO. 1992 6.55% 01/06/24 BP  
DTE ELECTRIC CO. 1992 6.55% 01/09/24 S  
DTE ELECTRIC CO. 1992 8 1/4% 01/08/22 D  
DTE ELECTRIC CO. 1992 8.27% 01/08/22 D  
DTE ELECTRIC CO. 1992 8.29% 01/08/22 D  
DTE ELECTRIC CO. 1992 8.31% 01/08/22 D  
DTE ELECTRIC CO. 1993 7 3/4% 15/03/23 E  
DTE ELECTRIC CO. 1993 7.77% 15/03/23 1993-E  
DTE ELECTRIC CO. 1993 8.24% 13/01/23 C (MBIA  
DTE ELECTRIC CO. 1993 8.27% 13/01/23 C  
DTE ELECTRIC CO. 1993 8.3% 13/01/23 1993-C  
DTE ELECTRIC CO. 1994 7.3% 15/08/34 S  
DTE ELECTRIC CO. 2002 6.35% 15/10/32 S  
DTE ELECTRIC CO. 2005 5.45% 15/02/35 144A  
DTE ELECTRIC CO. 2005 5.7% 01/10/37 2005 E  
DTE ELECTRIC CO. 2006 6 5/8% 01/06/36 A  
DTE ELECTRIC CO. 2011 4 1/2% 01/09/41 H  
DTE ELECTRIC CO. 2012 3.95% 15/06/42 B  
DTE ENERGY CO. 2003 6 3/8% 15/04/33 S  
DTE GAS CO. 1998 6.2% 30/06/38 P06/03  
DTE GAS CO. 2003 5.7% 15/03/33 A  
DTE GAS CO. 2004 5% 01/10/19 E (MBIA  
DUKE EN.CAROLINAS 1998 6% 01/12/28 A  
DUKE EN.CAROLINAS 2002 6.45% 15/10/32 S  
DUKE EN.INDNA.INCO. 1992 8 3/4% 19/05/22 A  
DUKE EN.INDNA.INCO. 1992 8.18% 15/08/22 B  
DUKE EN.INDNA.INCO. 1992 8.2% 12/08/22 B  
DUKE EN.INDNA.INCO. 1992 8.23% 11/08/22 B  
DUKE EN.INDNA.INCO. 1992 8.24% 22/08/22 B  
DUKE EN.INDNA.INCO. 1998 7 1/4% 15/03/28 S  
DUKE EN.INDNA.INCO. 1999 8.31% 01/09/32 AMBAC  
DUKE EN.INDNA.INCO. 1999 8.31% 01/09/32 DDD  
DUKE EN.INDNA.INCO. 1999 8.85% 15/01/22 CCC (MB  
DUKE EN.INDNA.INCO. 2005 6.12% 15/10/35 S  
DUKE EN.KEN.INCO. 2006 6.2% 10/03/36 144A  
DUKE ENERGY CORP. 2012 3.05% 15/12/24 INTERNO  
DUKE ENERGY CORP. 2012 3.1% 15/12/26 INTERNO  
DUKE ENERGY CORP. 2013 3 1/4% 15/03/27 INTERNO  
DUKE ENERGY CORP. 2013 3 1/4% 15/06/27 INTERNO  
DUKE ENERGY CORP. 2013 3% 15/06/25 INTERNO  
DUKE ENERGY CORP. 2013 3.1% 15/03/25 INTERNO  
DUKE ENERGY CORP. 2013 3.1% 15/06/25 INTERNO  
DUKE ENERGY CORP. 2013 3.15% 15/03/27 INTERNO  
DUKE ENERGY CORP. 2013 3.2% 15/06/25 INTERNO  
DUKE ENERGY CORP. 2013 3.35% 15/03/27 INTERNO  
DUKE ENERGY FLORIDA 1998 6 3/4% 01/02/28 B  
DUKE ENERGY FLORIDA 1998 6 3/4% 01/02/28 MBIA-IB  
DUKE ENERGY FLORIDA 1998 6 3/4% 01/02/28 MBIA-IB  
DUKE ENERGY FLORIDA 2003 5.9% 01/03/33 S  
DUKE ENERGY OH.INCO 1995 6.9% 01/06/25 P1 /n  
DUKE ENERGY OH.INCO 1998 6.35% 15/06/38 P5 /n  
DUKE ENERGY OH.INCO 2003 5 3/8% 15/06/33 B  
DUKE ENERGY OH.INCO 2003 5.4% 15/06/33 A  
DUKE ENERGY PRG.LLC 1991 8 5/8% 15/09/21 S  
DUKE ENERGY PRG.LLC 2003 6 1/8% 15/09/33 S  
DUKE ENERGY PRG.LLC 2005 5.7% 01/04/35 S  
DUQUESNE LT.HDG. 2005 6 1/4% 15/08/35 S  
E I DU PONT NEMOURS 1998 6 1/2% 15/01/28 S  
E I DU PONT NEMOURS 1998 F/R 02/38 G  
E I DU PONT NEMOURS 1999 F/R 05/39 G  
E I DU PONT NEMOURS 2001 F/R 02/41 G  
EASTMAN CHM.CO. 1994 7 5/8% 15/06/24 P5 /n  
EASTMAN CHM.CO. 1997 7.6% 01/02/27 S  
EASTMAN CHM.CO. 2003 6.3% 15/11/18 S  
EATON CORP. 1989 8 7/8% 15/06/19 P5 /n  
EATON CORP. 1992 8.1% 15/08/22 S  
EATON CORP. 1994 7 5/8% 01/04/24 S  
EATON CORP. 1995 6 1/2% 01/06/25 P06/05  
EATON CORP. 1996 7 7/8% 01/06/26 S  
EATON CORP. 1998 6 7/8% 09/04/18 S



EATON CORP. 1998 6.89% 15/01/18 S  
 EATON CORP. 1998 7.07% 23/02/18 S  
 EATON CORP. 1998 7.09% 05/01/18 S  
 EATON CORP. 1999 7.65% 15/11/29 S  
 EATON CORP. 2004 5.45% 15/10/34 S  
 EATON CORP. 2012 4.15% 02/11/42 S  
 ECL SA 2010 5 5/8% 15/01/21 S  
 ECL SA 2014 4 1/2% 29/01/25 S  
 EL PASO ELEC.CO. 2005 6% 15/05/35 S  
 EL PASO ELEC.CO. 2008 7 1/2% 15/03/38 S  
 EL PASO ELEC.CO. 2014 5% 01/12/44 S  
 EL PASO LLC 1995 7 3/4% 15/10/35 S  
 EL PASO LLC 1997 7.42% 15/02/37 S  
 EL PASO LLC 1998 6.95% 01/06/28 S  
 EL PASO LLC 1998 7% 01/02/18 S  
 EL PASO LLC 2000 8.05% 15/10/30 S  
 EL PASO LLC 2005 6.7% 15/02/27 144A  
 EL PASO LLC 2005 7 3/4% 15/10/35 144A  
 EL PASO NTRL.GAS 1992 8 5/8% 15/01/22 S  
 EL PASO NTRL.GAS 1996 7 1/2% 15/11/26 S  
 EL PASO NTRL.GAS 2002 G/R 15/06/32 144A  
 EL PASO TEN.PIPE. 1995 7 1/4% 15/12/25 S  
 ELECTRICITE FRANCE 2009 6.95% 26/01/39 144A  
 ELECTRICITE FRANCE 2010 5.6% 27/01/40 144A  
 ELECTRICITE FRANCE 2014 4 7/8% 22/01/44 144A  
 ELECTRICITE FRANCE 2015 4 3/4% 13/10/35 144A  
 ELECTRICITE FRANCE 2015 4.95% 13/10/45 144A  
 ELEKTRA NORESTE SA 2006 7.6% 12/07/21 144A  
 ELEMENTIA SAB DE CV 2014 5 1/2% 15/01/25 144A  
 ELI LILLY 1995 7 1/8% 01/06/25 S  
 ELI LILLY 1996 6.77% 01/01/36 S  
 EMBARQ FLA.INCO. 1993 7 1/8% 15/07/23 GG  
 EMBARQ FLA.INCO. 1995 8 3/8% 15/01/25 HH  
 EMERSON ELEC.CO. 2000 F/R 03/40 P7 /r  
 EMERSON ELEC.CO. 2000 F/R 11/40 P7 /v  
 EMERSON ELEC.CO. 2002 6% 15/08/32 S  
 EMERSON ELEC.CO. 2009 4 1/4% 15/11/20 S  
 EMERSON ELEC.CO. 2009 5 1/4% 15/11/39 S  
 EMERSON ELEC.CO. 2009 6 1/8% 15/04/39 S  
 EMIRATES AIRLINE 2013 4 1/2% 06/02/25 144A  
 EMPA.PUBLICAS MDLL. 2009 7 5/8% 29/07/19 144A  
 EMPIRE DST.ELEC.CO. 2003 6.7% 15/11/33 S  
 EMPIRE DST.ELEC.CO. 2005 5.8% 01/07/35 S  
 EMPIRE DST.ELEC.CO. 2007 5 7/8% 01/04/37 S  
 EMPIRE DST.ELEC.CO. 2010 5.2% 01/09/40 S  
 EMPRESA DISB.COMLZ. 2010 9 3/4% 25/10/22 144A  
 EMPRESA ELECTRICA A 2014 4 7/8% 25/05/29 144A  
 EMPRESA NAC.DE TC. 2013 4 7/8% 30/10/24 144A  
 EMPRESA NAC.DE TC. 2014 4 3/4% 01/08/26 144A  
 EMPRESAS ICA SAB DE 2014 8 7/8% 29/05/24 144A  
 EMSA.EL.GUACOLDA 2015 4.56% 30/04/25 144A  
 EMSA.NAC.DE ELCTDAD 1997 7.325% 01/02/37 P02/09  
 ENABLE OK.ITRST. 2009 6 1/4% 15/03/20 144A  
 ENBRIDGE EN.PTNS.LP 1998 7 1/8% 01/10/28 S  
 ENBRIDGE EN.PTNS.LP 1998 7% 01/10/18 S  
 ENBRIDGE EN.PTNS.LP 2008 9 7/8% 01/03/19 P03/12  
 ENCANA CORPORATION 2000 8 1/8% 15/09/30 S  
 ENCANA CORPORATION 2001 7 3/8% 01/11/31 S  
 ENCANA CORPORATION 2001 7.2% 01/11/31 S  
 ENCANA CORPORATION 2007 6 5/8% 15/08/37 S  
 ENERGEN CORPORATION 1997 7.23% 28/07/17 A  
 ENERGEN CORPORATION 1997 7.32% 28/07/22 A  
 ENERGEN CORPORATION 1997 7.35% 28/07/27 A  
 ENERGEN CORPORATION 1997 7.36% 24/07/17 A  
 ENERGEN CORPORATION 1997 7.4% 24/07/17 A  
 ENERGEN CORPORATION 1997 7.6% 26/07/27 A  
 ENERGEN CORPORATION 1998 7 1/8% 15/02/28 B  
 ENERGY FTE.COMPET. 1993 7.46% 01/01/15 DEFAULT  
 ENERGY FTE.COMPET. 2001 8.175% 30/01/37 DEFAULT  
 ENERGY TFER.PTNS.LP 2008 9.7% 15/03/19 P5 /r  
 ENERGY TFER.PTNS.LP 2013 7.6% 01/02/24 144A  
 ENERGY TFER.PTNS.LP 2015 4 3/4% 15/01/26 S  
 ENERGY TFER.PTNS.LP 2015 4.9% 15/03/35 S  
 ENERGY TFER.PTNS.LP 2015 6 1/8% 15/12/45 S  
 ENERSIS 1996 7.4% 01/12/16 S  
 ENI 2010 5.7% 01/10/40 144A  
 ENI 2010 5.7% 01/10/40 144A  
 ENTER.PRDS.OPG. 2008 6 1/2% 31/01/19 S  
 ENTER.PRDS.OPG. 2016 3.95% 15/02/27 S  
 ENTERGY ARKANSAS 2003 5.9% 01/06/33 S  
 ENTERGY ARKANSAS 2004 6.38% 01/11/34 S  
 ENTERGY ARKANSAS 2010 3 3/4% 15/02/21 S  
 ENTERGY ARKANSAS 2010 5 3/4% 01/11/40 Q  
 ENTERGY ARKANSAS 2014 4.95% 15/12/44 S  
 ENTERGY MISSISSIPPI 2004 6 1/4% 01/04/34 S  
 ENTERGY MISSISSIPPI 2010 6.2% 15/04/40 Q  
 ENTERGY MISSISSIPPI 2012 3.1% 01/07/23 S  
 ENTERPRISE SUB B 2008 7.55% 15/04/38 S  
 ENTGY.GULF STS.LNA. 2003 6.2% 01/07/33 144A  
 ENTGY.GULF STS.LNA. 2005 6.18% 01/03/35 S  
 ENTGY.GULF STS.LNA. 2009 5.59% 01/10/24 S  
 ENTGY.GULF STS.LNA. 2014 3.78% 01/04/25 S  
 ENTGY.NEW ORLEANS 2004 5.6% 01/09/24 FGIC  
 ENTGY.NEW ORLEANS 2004 5.65% 01/09/29 FGIC  
 EOG RESOURCES 1998 6.65% 01/04/28 S  
 EOG RESOURCES 2010 4.1% 01/02/21 S  
 EQT CORP. 1991 8.81% 01/10/20 A  
 EQT CORP. 1991 8.88% 01/10/20 A  
 EQT CORP. 1991 8.93% 01/10/21 A  
 EQT CORP. 1991 8.98% 01/09/21 A

EQT CORP. 1991 8.99% 01/09/21 A  
 EQT CORP. 1991 9% 01/09/21 A  
 EQT CORP. 1991 9% 01/09/21 A  
 EQT CORP. 1993 7.42% 02/03/23 B  
 EQT CORP. 1995 7.6% 15/01/18 C  
 EQT CORP. 1996 7 3/4% 15/07/26 S  
 ESTEE LAUDER COS. 2003 5 3/4% 15/10/33 S  
 ETP HOLDCO CORP 1994 7.6% 01/02/24 S  
 ETP HOLDCO CORP 1999 8 1/4% 15/11/29 S  
 EXELON CORP. 2002 7.6% 01/04/32 S  
 EXELON CORP. 2005 5 5/8% 15/06/35 S  
 EXELON CORP. 2015 4.95% 15/06/35 144A  
 EXELON CORP. 2015 5.1% 15/06/45 144A  
 EXELON GNRTN.CO.LLC 2009 6 1/4% 01/10/39 S  
 EXELON GNRTN.CO.LLC 2012 5.6% 15/06/42 144A  
 EXPEDIA INCO. 2006 7.456% 15/08/18 144A  
 EXPEDIA INCO. 2015 5% 15/02/26 144A  
 EXPRESS PIPE.LP. 1998 7.39% 31/12/19 144A  
 FEDEX CORP. 2015 4 3/4% 15/11/45 S  
 FEDEX CORP. 2016 4.55% 01/04/46 S  
 FELCOR LODGING LP. 2012 5 5/8% 01/03/23 144A  
 FERMACA ENTS.S DE 2014 6 3/8% 30/03/38 144A  
 FIRSTENERGY SLTN. 2009 6.05% 15/08/21 144A  
 FIRSTENERGY TNSM. 2014 4.35% 15/01/25 144A  
 FIRSTENERGY TNSM. 2014 5.45% 15/07/44 144A  
 FLA.PWR.& LT.CO. 2002 5.85% 01/02/33 S  
 FLA.PWR.& LT.CO. 2003 5.95% 01/10/33 S  
 FLA.PWR.& LT.CO. 2004 5.65% 01/02/35 S  
 FLA.PWR.& LT.CO. 2005 4.95% 01/06/35 S  
 FLA.PWR.& LT.CO. 2005 5.4% 01/09/35 S  
 FLA.PWR.& LT.CO. 2006 5.65% 01/02/37 S  
 FLA.PWR.& LT.CO. 2007 5.85% 01/05/37 S  
 FLA.PWR.& LT.CO. 2009 5.96% 01/04/39 S  
 FLA.PWR.& LT.CO. 2011 4 1/8% 01/02/42 S  
 FLA.PWR.& LT.CO. 2011 5 1/8% 01/06/41 S  
 FLA.PWR.& LT.CO. 2012 3.8% 15/12/42 S  
 FLORIDA GAS TNSM. 1994 9.19% 01/11/24 144A  
 FOOT LOCKER INCO. 1992 8 1/2% 15/01/22 S  
 FORD MOTOR COMPANY 1992 8 7/8% 15/01/22 S  
 FORD MOTOR COMPANY 1992 9.95% 15/02/32 P5 /b  
 FORD MOTOR COMPANY 1993 7 3/4% 15/06/43 S  
 FORD MOTOR COMPANY 1996 7 1/2% 01/08/26 S  
 FORD MOTOR COMPANY 1998 6 1/2% 01/08/18 S  
 FORD MOTOR COMPANY 1998 8.9% 15/01/32 S  
 FORD MOTOR COMPANY 1998 9.215% 15/09/21 S  
 FORD MOTOR COMPANY PRCL STRIP 15/01/22  
 FPL EN.AMER.WIND 2003 6.639% 20/06/23 144A  
 FPL EN.NAT.PRTF.LLC 2005 6 1/8% 25/03/19 144A  
 FPL EN.NAT.WIND LLC 2005 5.608% 10/03/24 144A  
 FREEPORT MCMOR.O&G. 2012 6 7/8% 15/02/23 S  
 FREEPORT MCMORAN 2013 5.45% 15/03/43 144A  
 FREEPORT MINERALS 1997 7 1/8% 01/11/27 S  
 FREEPORT MINERALS 2001 9 1/2% 01/06/31 S  
 FREEPORT MINERALS 2004 6 1/8% 15/03/34 S  
 FREEPORT TERM.MALTA 1998 7 1/4% 15/05/28 144A  
 FROEDTERT HEALTH 2015 4.686% 01/04/45 S  
 FRONTIER COMMS.CORP 1994 7.68% 01/10/34 P1 /t  
 FRONTIER COMMS.CORP 1995 7% 01/11/25 MBIA  
 FRONTIER COMMS.CORP 1995 7% 01/11/25 S  
 FRONTIER COMMS.CORP 1995 7.45% 01/07/35 S  
 FRONTIER COMMS.CORP 1996 6.8% 15/08/26 P5 /g  
 FRONTIER NTH.INCO. 1998 6.73% 15/02/28 G  
 FRONTIER NTH.INCO. 1998 6.73% 15/02/28 G (MBIA  
 FRONTIER NTH.INCO. 2003 5.604% 01/01/22 144A  
 FRONTIER WV.INCO. 1989 8.4% 15/10/29 P5 /t  
 FRUIT OF THE LOOM 1993 7 3/8% 15/11/23  
 GENERAL ELEC.CO. 1995 7 1/2% 21/08/35 S  
 GENERAL ELEC.CO. 2002 F/R 11/42 A  
 GENERAL ELEC.CO. 2003 F/R 12/43 A  
 GENERAL ELEC.CO. 2004 F/R 09/44 A  
 GENERAL ELEC.CO. 2004 F/R 10/44 A  
 GENERAL ELEC.CO. 2005 F/R 11/45 A  
 GENERAL ELEC.CO. 2007 6.15% 07/08/37 SERIES  
 GENERAL ELEC.CO. 2008 5 1/4% 15/03/20 INTERNO  
 GENERAL ELEC.CO. 2008 5 1/8% 15/04/19 INTERNO  
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 GENERAL ELEC.CO. 2014 4.15% 15/05/34 INTERNO  
 GENERAL ELEC.CO. 2014 4.15% 15/06/37 INTERNO  
 GENERAL MILLS 2003 6.733% 05/02/23 P02/08  
 GENERAL MILLS 2006 6.378% 15/10/22 S  
 GENERAL MOTORS CO. 2013 6 1/4% 02/10/43 144A  
 GEORGE WASHINGTON 2013 4.363% 15/09/43 S  
 GEORGE WASHINGTON 2014 4.3% 15/09/44 S  
 GEORGE WASHINGTON 2015 4.868% 15/09/45 S  
 GEORGIA PACIFIC LLC 1991 9 1/4% 15/11/21 S  
 GEORGIA PACIFIC LLC 1993 7 3/4% 15/11/23 S  
 GEORGIA PACIFIC LLC 1995 7 3/8% 01/12/25 S  
 GEORGIA PACIFIC LLC 1998 7 1/4% 01/06/28 S  
 GEORGIA PACIFIC LLC 1999 7 3/4% 15/11/29 S  
 GEORGIA PACIFIC LLC 2003 8% 15/01/24 144A  
 GEORGIA PACIFIC LLC 2014 3.6% 01/03/25 144A  
 GEORGIA POWER 2003 5 3/4% 15/04/23 N  
 GEORGIA POWER 2007 5.65% 01/03/37 2007A  
 GEORGIA POWER 2009 5.95% 01/02/39 2009A  
 GEORGIA POWER 2010 5.4% 01/06/40 2010B  
 GEORGIA POWER 2012 4.3% 15/03/42 2012A  
 GEORGIA POWER 2013 4.3% 15/03/43 2013A  
 GILLETTE CO. 2003 F/R 04/43 CORENOT  
 GLENCORE CANADA 2005 5 1/2% 15/06/17 S  
 GLENCORE CANADA 2005 6.2% 15/06/35 S  
 GLOBAL MARINE INCO. 1998 7% 01/06/28 S  
 GNL QUINTERO SA 2014 4.634% 31/07/29 144A  
 GOLDEN STATE WATER 1998 6.81% 23/03/28 B  
 GOLDEN STATE WATER 1999 6.59% 25/01/29 C  
 GOLDEN STATE WATER 2001 7 7/8% 01/12/30 S-C  
 GOLDEN STATE WATER 2001 7.23% 15/12/31 S  
 GOODRICH CORP. 1995 7 3/4% 19/05/25 A  
 GOODRICH CORP. 1995 7.28% 07/11/25 A  
 GOODRICH CORP. 1995 7.298% 20/10/25 A  
 GOODRICH CORP. 1995 8.61% 14/03/25 A  
 GOODRICH CORP. 1995 8.61% 15/04/25 A  
 GOODRICH CORP. 1995 8.62% 15/04/25 A  
 GOODRICH CORP. 1995 8.65% 14/03/25 A  
 GOODRICH CORP. 1995 8.65% 15/04/25 A  
 GOODRICH CORP. 1996 7 1/2% 01/04/26 A  
 GOODRICH CORP. 1997 7.1% 15/11/27 A  
 GOODRICH CORP. 1998 6.8% 01/02/18 A  
 GOODRICH CORP. 1998 7% 15/04/38 S  
 GOODRICH CORP. 2006 6.8% 01/07/36 144A  
 GREAT RVR.ENERGY 2007 6.254% 01/07/38 144A  
 GREAT RVR.ENERGY 2008 7.233% 01/07/38 2008A  
 GREAT RVR.ENERGY 2010 4.478% 01/07/30 S  
 GRUPO BIMBO 2010 4 7/8% 30/06/20 144A  
 GRUPO BIMBO 2014 3 7/8% 27/06/24 144A  
 GRUPO BIMBO 2014 4 7/8% 27/06/44 144A  
 GRUPO TELEVISA 2009 6 5/8% 15/01/40 S  
 GTE CORPORATION 1991 8 3/4% 01/11/21 S  
 GTE CORPORATION 1998 6.94% 15/04/28 S  
 GTE SOUTHWEST INCO. 1991 8 1/2% 15/11/31 S  
 GULF POWER CO. 2010 5.1% 01/10/40 2010B  
 GULFSTREAM NATGS. 2005 6.19% 01/11/25 S  
 GULFSTREAM NATGS. 2015 5.95% 15/10/45 144A  
 HALLIBURTON CO. 1991 8 3/4% 15/02/21 S  
 HALLIBURTON CO. 1997 6 3/4% 01/02/27 A  
 HALLIBURTON CO. 1997 7.53% 12/05/17 A  
 HARRIS CORP. 1996 7% 15/01/26 S  
 HARRIS CORP. 1998 6.35% 01/02/28 P02/08  
 HARRIS CORP. 2010 6.15% 15/12/40 S  
 HASBRO INCO. 1998 6.6% 15/07/28 S  
 HCA HEALTHCARE CO. 1995 6.63% 15/07/45 S  
 HCA HOLDINGS INCO. 2010 7 3/4% 15/05/21 144A  
 HCA INCORPORATED 1993 7 1/2% 15/12/23 S  
 HCA INCORPORATED 1994 8.36% 15/04/24 P5 /r  
 HCA INCORPORATED 1995 6.73% 15/07/45 P07/03  
 HCA INCORPORATED 1995 7.05% 01/12/27 S  
 HCA INCORPORATED 1995 7.58% 15/09/25 S  
 HCA INCORPORATED 1995 7.69% 15/06/25 S  
 HCA INCORPORATED 1996 7 3/4% 15/07/36 S  
 HEALTHSOUTH CORP. 2010 7 3/4% 15/09/22 S  
 HEARST TELEVISION 1997 7 1/2% 15/11/27 S  
 HEARST TELEVISION 1998 7% 15/01/18 S  
 HEINEKEN 2012 2 3/4% 01/04/23 144A  
 HEINEKEN 2012 4% 01/10/42 144A  
 HENLEY LP. 1998 6% 30/06/38  
 HERCULES INCO. 1997 6.6% 01/08/27 P1 /g  
 HERCULES INCO. 2004 6 1/2% 30/06/29 A  
 HERSHEY COMPANY 1991 8.8% 15/02/21 S  
 HERSHEY COMPANY 1997 7.2% 15/08/27 S  
 HERTZ CORP. 1998 7% 15/01/28 S  
 HERTZ CORP. 2010 7 3/8% 15/01/21 144A  
 HESS CORP. 2001 7.3% 15/08/31 S  
 HESS CORP. 2002 7 1/8% 15/03/33 S  
 HEWLETT PCKD.ENTER. 2015 6.2% 15/10/35 144A  
 HEWLETT PCKD.ENTER. 2015 6.35% 15/10/45 144A  
 HEXION INCO. 1991 9.2% 15/03/21 S  
 HEXION INCO. 1993 7 7/8% 15/02/23 S  
 HILCORP ENERGY I LP 2010 7 5/8% 15/04/21 144A  
 HILL ROM HLDINC. 1994 7% 15/02/24 S  
 HILL ROM HLDINC. 1997 6 3/4% 15/12/27 S  
 HILLSHIRE BNS.CO. 2002 6 1/8% 01/11/32 S  
 HILTON WWD.INCO. 1997 7 1/2% 15/12/17 S

HISTORIC TW INCO. 1993 9.15% 01/02/23 S  
 HISTORIC TW INCO. 1996 6.85% 15/01/26 P5 /n  
 HISTORIC TW INCO. 1997 7 1/4% 15/10/17 S  
 HISTORIC TW INCO. 1997 7.57% 01/02/24 S  
 HISTORIC TW INCO. 1998 6 5/8% 15/05/29 S  
 HISTORIC TW INCO. 1998 6 7/8% 15/06/18 S  
 HOMER CITY GNRTN.LP 2012 G/R 01/10/26 S  
 HONEYWELL INTL. 1986 9 1/2% 01/06/16 S  
 HONEYWELL INTL. 1998 6 5/8% 15/06/28 S  
 HONEYWELL INTL. 1998 9.065% 01/06/33 S  
 HP INCO. 1993 7 3/4% 01/04/23 S  
 HUSKY ENERGY INCO. 2004 6.15% 15/06/19 S  
 HUSKY OIL LTD. 1996 7.55% 15/11/16 S  
 HYDRO QUEBEC 1986 8 1/4% 15/04/26 GH  
 HYDRO QUEBEC 1986 8 1/4% 15/04/26 GH (FSA  
 HYDRO QUEBEC 1986 8 1/4% 15/04/26 GH (MBI  
 HYDRO QUEBEC 1986 8 7/8% 01/03/26 GF  
 HYDRO QUEBEC 1986 8 7/8% 01/03/26 GF (FSA  
 HYDRO QUEBEC 1986 8 7/8% 01/03/26 MBIA-GF  
 HYDRO QUEBEC 1987 8 1/4% 15/01/27 GQ  
 HYDRO QUEBEC 1987 8 1/4% 15/01/27 GQ (CIF  
 HYDRO QUEBEC 1987 8 1/4% 15/01/27 GQ (FSA  
 HYDRO QUEBEC 1987 8 1/4% 15/01/27 GQ (MBI  
 HYDRO QUEBEC 1989 8 1/2% 01/12/29 HH  
 HYDRO QUEBEC 1989 8 1/2% 01/12/29 HH (FSA  
 HYDRO QUEBEC 1989 8 1/2% 01/12/29 HH (MBI  
 HYDRO QUEBEC 1989 8 5/8% 15/06/29 HE  
 HYDRO QUEBEC 1989 8 5/8% 15/06/29 HE (FSA  
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 HYDRO QUEBEC 1990 9 1/2% 15/11/30 HQ (CIF  
 HYDRO QUEBEC 1990 9 1/2% 15/11/30 HQ (FSA  
 HYDRO QUEBEC 1990 9 1/2% 15/11/30 HQ (MBI  
 HYDRO QUEBEC 1990 9 1/2% 15/11/30 HQ (TNC  
 HYDRO QUEBEC 1990 9 3/8% 15/04/30 HK  
 HYDRO QUEBEC 1990 9 3/8% 15/04/30 HK (FSA  
 HYDRO QUEBEC 1990 9 3/8% 15/04/30 HK (MBI  
 HYDRO QUEBEC 1990 9 3/8% 15/04/30 HK (XLC  
 HYDRO QUEBEC 1991 9.4% 01/02/21 HS  
 HYDRO QUEBEC 1991 9.4% 01/02/21 HS (AMB  
 HYDRO QUEBEC 1991 9.4% 01/02/21 HS (CIF  
 HYDRO QUEBEC 1991 9.4% 01/02/21 HS (FSA  
 HYDRO QUEBEC 1991 9.4% 01/02/21 HS (MBI  
 HYDRO QUEBEC 1991 9.4% 01/02/21 HS (XLC  
 HYDRO QUEBEC 1992 8.4% 15/01/22 HY  
 HYDRO QUEBEC 1992 8.4% 15/01/22 HY (AMB  
 HYDRO QUEBEC 1992 8.4% 15/01/22 HY (FSA  
 HYDRO QUEBEC 1992 8.4% 15/01/22 HY (MBI  
 HYDRO QUEBEC 1992 8.4% 15/01/22 HY (XLC  
 HYDRO QUEBEC 1992 9 1/2% 30/04/27 FSA  
 HYDRO QUEBEC 1992 9 3/4% 10/05/22 B  
 HYDRO QUEBEC 1992 9.8% 15/02/22 B  
 HYDRO QUEBEC 1994 8.05% 07/07/24 IO  
 HYDRO QUEBEC 1994 8.05% 07/07/24 IO (FSA  
 HYDRO QUEBEC 1994 8.05% 07/07/24 IO (MBI  
 HYDRO QUEBEC 1994 G/R 18/11/24 B  
 HYDRO QUEBEC 1994 G/R 18/11/24 B  
 HYDRO QUEBEC 1995 G/R 28/03/25 B  
 HYDRO QUEBEC 1996 6.27% 03/01/26 B  
 HYDRO QUEBEC 1998 6 5/8% 13/07/28 B  
 IBM CORP. 1989 8 3/8% 01/11/19 S  
 IBM CORP. 1997 6.22% 01/08/27 P1 /g  
 IBM CORP. 1998 6 1/2% 15/01/28 S  
 IDAHO POWER CO. 2002 6% 15/11/32 S-D  
 IDAHO POWER CO. 2003 5 1/2% 01/04/33 AMBAC  
 IDAHO POWER CO. 2003 5 1/2% 01/04/33 S-E  
 IDAHO POWER CO. 2004 5 1/2% 15/03/34 S-E  
 IDAHO POWER CO. 2004 5 7/8% 15/08/34 S-E  
 IDAHO POWER CO. 2005 5.3% 15/08/35 S-F  
 IDAHO POWER CO. 2007 6 1/4% 15/10/37 S-G  
 IDAHO POWER CO. 2007 6.3% 15/06/37 S-F  
 IDAHO POWER CO. 2009 4 1/2% 01/03/20 S-H  
 IDAHO POWER CO. 2010 4.85% 15/08/40 S-I  
 IDAHO POWER CO. 2012 4.3% 01/04/42 S-I  
 IDAHO POWER CO. 2013 4% 01/04/43 S-I  
 IDAHO POWER CO. 2015 3.65% 01/03/45 J  
 IDAHO POWER CO. 2016 4.05% 01/03/46 J  
 IHEARTCOMMS. 1998 6 7/8% 15/06/18 S  
 ILLINOIS POWER CO. 1993 7 1/2% 15/07/25 S  
 ILLINOIS TOOL WORKS 2011 4 7/8% 15/09/41 144A  
 INDIANA BELL TELCO. 1996 7.3% 15/08/26 MBIA  
 INDIANA BELL TELCO. 1996 7.3% 15/08/26 S  
 INDIANA GAS COIC. 1995 6.31% 10/06/25 S-E  
 INDIANA GAS COIC. 1995 6.53% 27/06/25 S-E  
 INDIANA GAS COIC. 1997 6.34% 10/12/27 F  
 INDIANA GAS COIC. 1997 6.42% 07/07/27 S-E  
 INDIANA GAS COIC. 1997 6.68% 07/07/27 E  
 INDIANA GAS COIC. 1998 6.36% 01/05/28 S-F  
 INDIANA GAS COIC. 1998 6.55% 30/06/28 S-F  
 INDIANA GAS COIC. 1999 7.08% 05/10/29 S-G  
 INDIANA MI.PWR.CO. 2006 6.05% 15/03/37 H  
 INDIANAPOLIS PWRLT. 2004 6.6% 01/01/34 144A  
 INDIANAPOLIS PWRLT. 2004 6.6% 01/01/34 144A  
 INDIANAPOLIS PWRLT. 2006 6.05% 01/10/36 144A  
 INDIANAPOLIS PWRLT. 2006 6.05% 01/10/36 144A  
 INDIANAPOLIS PWRLT. 2007 6.6% 01/06/37 144A  
 INDIANAPOLIS PWRLT. 2007 6.6% 01/06/37 144A  
 INDIANAPOLIS PWRLT. 2007 6.6% 01/06/37 144A  
 INDIANAPOLIS PWRLT. 2011 4 7/8% 01/11/41 144A  
 INDIANAPOLIS PWRLT. 2013 4.65% 01/06/43 144A  
 INDIANAPOLIS PWRLT. 2014 4 1/2% 01/06/44 144A

INDIANAPOLIS PWRLT. 2015 4.7% 01/09/45 144A  
 INDIANAPOLIS WT.CO. 1999 6.61% 01/02/19 144A  
 INDTN.COGEN.LP 1994 9.77% 15/12/20 A-10  
 INGERSOLL RAND CO. 1991 9% 15/08/21 S  
 INGERSOLL RAND CO. 1995 6.48% 01/06/25 P1 /n  
 INGERSOLL RAND CO. 1995 7.2% 01/06/25 S  
 INGERSOLL RAND CO. 1997 6.015% 15/02/28 B  
 INGERSOLL RAND CO. 1997 6.13% 18/11/27 B  
 INGERSOLL RAND CO. 1997 6.23% 19/11/27 S-B  
 INGERSOLL RAND CO. 1997 6.391% 15/11/27 P5 /v  
 INGERSOLL RAND CO. 1997 6.443% 15/11/27 P11/07  
 INTERNATIONAL TNSM. 2013 4 5/8% 15/08/43 S-E  
 INTERSTATE PW&LT. 2003 5 7/8% 15/09/18 S  
 INTERSTATE PW&LT. 2003 6.45% 15/10/33 S  
 INTERSTATE PW&LT. 2004 6.3% 01/05/34 S  
 INTERSTATE PW&LT. 2005 5 1/2% 15/07/25 S  
 INTERSTATE PW&LT. 2009 6 1/4% 15/07/39 S  
 INTL.PAPER CO. 1993 6 7/8% 01/11/23 S  
 INTL.PAPER CO. 1995 7 3/4% 01/09/25 S  
 INTL.PAPER CO. 1995 7.35% 01/11/25 S  
 INTL.PAPER CO. 1996 6.4% 15/02/26 P5 /b  
 INTL.PAPER CO. 1996 7.2% 01/11/26 P11/11  
 INTL.PAPER CO. 1997 7.15% 15/12/27 S  
 INTL.PAPER CO. 1999 6 7/8% 15/04/29 S  
 IROQUOIS GS.TNSM.SY 2002 6.1% 31/10/27 144A  
 ISA CAPITAL 2007 8.8% 30/01/17 144A  
 ISR.ELEC.CORP.LTD. 1996 7 7/8% 15/12/26 144A  
 ISR.ELEC.CORP.LTD. 1997 7 3/4% 15/12/27 144A  
 ISR.ELEC.CORP.LTD. 1998 7.7% 15/07/18 144A  
 ISR.ELEC.CORP.LTD. 2008 7 1/4% 15/01/19 144A  
 ISR.ELEC.CORP.LTD. 2009 9 3/8% 28/01/20 144A  
 ITC HDG.CORP. 2006 6 3/8% 30/09/36 144A  
 ITC HDG.CORP. 2008 6.05% 31/01/18 S  
 ITC HDG.CORP. 2009 5 1/2% 15/01/20 S  
 ITC MIDWEST LLC 2008 6.15% 31/01/38 144A  
 J C PENNEY COIC. 1993 7 1/8% 15/11/23 S  
 J C PENNEY COIC. 1996 6.9% 15/08/26 P5 /g  
 J C PENNEY COIC. 1996 7.65% 15/08/16 S  
 J C PENNEY COIC. 1997 7.4% 01/04/37 P1 /r  
 J C PENNEY COIC. 1997 7.95% 01/04/17 S  
 JC PENNEY CORP. 2007 5 3/4% 15/02/18 S  
 JC PENNEY CORP. 2007 6 3/8% 15/10/36 S  
 JEMENA LIMITED 1998 6.85% 15/04/18 144A  
 JERSEY CENTRAL 1991 9.2% 01/07/21 S  
 JERSEY CENTRAL 2003 4.8% 15/06/18 S  
 JERSEY CENTRAL 2007 6.15% 01/06/37 144A  
 JERSEY CENTRAL 2007 6.15% 01/06/37 144A  
 JERSEY CENTRAL 2007 6.15% 01/06/37 144A  
 JERSEY CENTRAL 2007 6.15% 01/06/37 S  
 JERSEY CENTRAL 2013 4.7% 01/04/24 S  
 JERSEY CENTRAL 2015 4.3% 15/01/26 S  
 JETBLUE AIRW.CORP. 2004 F/R 05/18 2004-2G  
 JOHN SVE.CCY.GNRN. 2012 4.626% 15/01/42 S  
 JOHNSON & JOHNSON 1993 6.73% 15/11/23 S  
 JOHNSON & JOHNSON 1999 6.95% 01/09/29 S  
 JOHNSON CONTROLS 1995 6.95% 01/12/45 S  
 JOHNSON CONTROLS 1997 7 1/8% 15/07/17 S  
 JOHNSON CONTROLS 2009 11 1/2% 31/03/42 Q  
 JOHNSON DIVERSEY HDG. 2009 10 1/2% 15/05/20 144A S  
 K HOVNIANIAN ENTS. 2006 8 5/8% 15/01/17 S  
 K MART CORP. 1993 7.95% 01/02/23 S  
 K MART CORP. 1993 7.95% 01/02/23 S  
 KAISER FOUNDATION H 2012 4 7/8% 01/04/42 S  
 KB HOME 2006 7 1/4% 15/06/18 S  
 KELLWOOD CO.LLC 1997 7 5/8% 15/10/17 S  
 KENTUCKY POWER CO. 2003 5 5/8% 01/12/32 S-D  
 KENTUCKY UTILS.CO. 2010 5 1/8% 01/11/40 144A  
 KENTUCKY UTILS.CO. 2013 4.65% 15/11/43 S  
 KENTUCKY UTILS.CO. 2015 4 3/8% 01/10/45 S  
 KERR MCGEE CORP. 1997 7 1/8% 15/10/27 S  
 KEYSpan CORP. 2000 8% 15/11/30 S  
 KEYSpan GS.ET.CORP. 2011 5.819% 01/04/41 144A  
 KILROY REALTY LP. 2014 4 1/4% 15/08/29 S  
 KIMBERLY CLARK CORP 1998 6 1/4% 15/07/18 S  
 KIMBERLY CLARK CORP 1998 6 3/8% 01/01/28 S  
 KIMBERLY CLARK CORP 2007 6 5/8% 01/08/37 S  
 KIMBERLY CLARK CORP 2011 5.3% 01/03/41 S  
 KINDER MORGAN EN. 2001 7.4% 15/03/31 S  
 KINDER MORGAN EN. 2002 7 3/4% 15/03/32 S  
 KINDER MORGAN EN. 2005 5.8% 15/03/35 S  
 KINDER MORGAN EN. 2007 6 1/2% 01/02/37 S  
 KINDER MORGAN EN. 2007 6.95% 15/01/38 S  
 KINDER MORGAN EN. 2008 9% 01/02/19 P1 /b  
 KINDER MORGAN EN. 2009 5.8% 01/03/21 S  
 KINDER MORGAN EN. 2009 6 1/2% 01/09/39 S  
 KINDER MORGAN EN. 2009 6.85% 15/02/20 S  
 KINDER MORGAN EN. 2010 6.55% 15/09/40 S  
 KINDER MORGAN EN. 2010 7 1/2% 15/11/40 S  
 KINDER MORGAN EN. EXCHD. 7.3% 15/08/33 144A S  
 KINDER MORGAN INCO. 1996 7.35% 01/08/26 S  
 KINDER MORGAN INCO. 1997 6.67% 01/11/27 P1 /v  
 KINDER MORGAN INCO. 1998 7 1/4% 01/03/28 S  
 KIOWA PWR.PTNS.LLC 2004 5.737% 30/03/21 144A  
 KOHLS CORP. 2002 6% 15/01/33 S  
 KONINKLIJKE KPN 2000 8 3/8% 01/10/30 144A  
 KONINKLIJKE PHIL. 1995 7 1/8% 15/05/25 A  
 KONINKLIJKE PHIL. 1995 7 3/4% 15/05/25 B  
 KOREA ELEC.POWER 1996 6% 01/12/26 P1 /c  
 KOREA ELEC.POWER 1997 6 3/4% 01/08/27 P1 /g  
 KOREA ELEC.POWER 1997 7% 01/02/27 P1 /b

KOREA ELEC.POWER 2004 5 1/8% 23/04/34 144A  
 KOREA GAS CORP. 2012 6 1/4% 20/01/42 144A  
 KOREA GAS CORP. 2014 3 1/2% 02/07/26 144A  
 KRAFT HEINZ FOODS 1998 6 3/8% 15/07/28 S  
 KRAFT HEINZ FOODS 2002 G/R 15/03/32 144A  
 KRAFT HEINZ FOODS 2009 7 1/8% 01/08/39 144A  
 KRAFT HEINZ FOODS 2012 5% 04/06/42 144A  
 KRAFT HEINZ FOODS 2012 6 1/2% 09/02/40 144A  
 KRAFT HEINZ FOODS 2012 6 7/8% 26/01/39 144A  
 KRAFT HEINZ FOODS 2015 5% 15/07/35 144A  
 KRAFT HEINZ FOODS 2015 5.2% 15/07/45 144A  
 KROGER 1998 6.8% 15/12/18 S  
 KROGER 1998 7% 01/05/18 S  
 KROGER 1999 8% 15/09/29 S  
 KS.CTY.STHN. 1995 7% 15/12/25 S  
 KS.CTY.STHN. 1995 7% 15/12/25 S  
 KS.CTY.STHN. 2015 4.3% 15/05/43 144A  
 KS.CTY.STHN. 2015 4.95% 15/08/45 144A  
 KS.GAS & ELEC.CO. 2007 6.53% 15/12/37 144A  
 KS.GAS & ELEC.CO. 2014 4.3% 15/07/44 144A  
 L BRANDS INCO. 2003 6.95% 01/03/33 144A  
 L BRANDS INCO. 2015 6 7/8% 01/11/35 144A  
 LACLEDE GAS CO. 1999 7% 01/06/29 S  
 LACLEDE GAS CO. 2000 7.9% 15/09/30 S  
 LACLEDE GAS CO. 2004 5 1/2% 01/05/19 2019  
 LACLEDE GAS CO. 2004 6% 01/05/34 2034  
 LACLEDE GAS CO. 2006 6.15% 01/06/36 S  
 LAIDLAW 1997 6.72% 01/10/27  
 LATAM AIRL.GP.SA 2015 4.2% 15/08/29 144A  
 LCOR ALEXANDRIA LLC 2001 6 5/8% 15/09/19 144A  
 LEA PWR.PTNS. 2007 6.595% 15/06/33 144A  
 LEGACY VULCAN CORP. 1991 8.85% 01/10/21 A  
 LEGGETT & PLATT 2003 4.4% 01/07/18 S  
 LEGRAND 1995 8 1/2% 15/02/25 S  
 LIBERTY INTERACTIVE 2000 8 1/4% 01/02/30 144A  
 LNA.LAND & EXP. 1993 7.65% 01/12/23 S  
 LOCKHEED MARTIN 1992 9 1/8% 01/02/22 S  
 LOCKHEED MARTIN 1992 9% 15/01/22 S  
 LOCKHEED MARTIN 1993 7% 15/09/23 S  
 LOCKHEED MARTIN 1993 8 3/8% 15/01/23 S  
 LOCKHEED MARTIN 1994 8 3/8% 15/06/24 S  
 LOCKHEED MARTIN 1995 7 5/8% 15/06/25 S  
 LOCKHEED MARTIN 1996 7 3/4% 01/05/26 S  
 LOCKHEED MARTIN 1996 7.2% 01/05/36 P1 /y  
 LOCKHEED MARTIN 1999 8 1/2% 01/12/29 S  
 LOCKHEED MARTIN 2009 5 1/2% 15/11/39 S  
 LOCKHEED MARTIN 2012 4.07% 15/12/42 144A  
 LOUISVILLE G&E.CO. 2013 4.65% 15/11/43 S  
 LOUISVILLE G&E.CO. 2015 4 3/8% 01/10/45 S  
 LOWES COS.INCO. 1992 8.19% 12/09/22 S-A  
 LOWES COS.INCO. 1992 8.2% 12/08/22 S-A  
 LOWES COS.INCO. 1993 7 5/8% 01/06/23 S  
 LOWES COS.INCO. 1993 8.2% 11/01/23 S-A  
 LOWES COS.INCO. 1997 7.11% 15/05/37 P5 /y  
 LOWES COS.INCO. 1997 7.2% 01/09/27 B  
 LOWES COS.INCO. 1997 7.58% 18/06/27 B  
 LOWES COS.INCO. 1997 7.59% 18/06/27 B  
 LOWES COS.INCO. 1997 7.61% 17/06/27 S-B  
 LOWES COS.INCO. 1998 6 7/8% 15/02/28 S  
 LOWES COS.INCO. 2005 5 1/2% 15/10/35 S  
 LOWES COS.INCO. 2007 6.65% 15/09/37 S  
 LOYOLA UVTY.OF CHI. 2012 4.626% 01/07/42 S  
 LUBRIZOL CORP. 1995 7 1/4% 15/06/25 S  
 LUBRIZOL CORP. 2004 6 1/2% 01/10/34 S  
 LYONDELLBASELL INDU 2012 5 3/4% 15/04/24 S  
 MACKINAW PWR.LLC 2007 6.296% 31/10/23 144A  
 MACYS INCO. 1999 6.9% 01/04/29 B  
 MACY'S RET.HDG.INCO.1997 7.45% 15/07/17 S  
 MACYS RETAIL HDG. 1991 10 1/4% 01/01/21 S  
 MACYS RETAIL HDG. 1991 9 1/2% 15/04/21 S  
 MACYS RETAIL HDG. 1991 9 3/4% 15/02/21 S  
 MACYS RETAIL HDG. 1995 7.6% 01/06/25 S  
 MACYS RETAIL HDG. 1996 7 7/8% 15/08/36 S  
 MACYS RETAIL HDG. 1996 7.45% 15/10/16 S  
 MACYS RETAIL HDG. 1997 6.79% 15/07/27 P5 /1  
 MACYS RETAIL HDG. 1998 6.7% 15/09/28 S  
 MACYS RETAIL HDG. 1998 7% 15/02/28 S  
 MACYS RETAIL HDG. 2000 7 7/8% 01/03/30 S  
 MACYS RETAIL HDG. 2000 8 1/2% 01/06/19 S  
 MACYS RETAIL HDG. 2000 8 3/4% 15/05/29 S  
 MACYS RETAIL HDG. 2002 6.9% 15/01/32 S  
 MADISON GAS & ELEC. 1993 7.7% 15/02/28 S  
 MADISON GAS & ELEC. 2002 7.12% 01/04/32 S  
 MADISON GAS & ELEC. 2003 6.12% 01/09/28 S  
 MADISON GAS & ELEC. 2007 6.247% 15/09/37 S  
 MAGELLAN MIDSTREAM 2004 5.65% 15/10/16 S  
 MAGELLAN MIDSTREAM 2007 6.4% 01/05/37 S  
 MAGELLAN MIDSTREAM 2010 4 1/4% 01/02/21 S  
 MANDALAY RST.GP. 1996 7% 15/11/36 P5 /v  
 MAPCO LLC 1992 8.72% 11/08/22 S  
 MAPCO LLC 1997 7.7% 01/03/27 S  
 MARATHON OIL CORP. 1992 8 3/4% 15/09/22 A  
 MARATHON OIL CORP. 1992 8 3/4% 16/09/22 A  
 MARATHON OIL CORP. 1992 9 3/8% 15/05/22 S  
 MARATHON OIL CORP. 1993 8 1/2% 01/03/23 S  
 MARATHON OIL CORP. 1993 8 1/8% 15/07/23 S  
 MARATHON OIL CORP. 2002 6.8% 15/03/32 S  
 MARATHON OIL CORP. 2007 6.6% 01/10/37 S  
 MARATHON OIL CORP. 2015 5.2% 01/06/45 S  
 MARATHON PTL.CORP. 2011 6 1/2% 01/03/41 144A



MARITIMES & NEAST. 1999 7.7% 30/11/19 144A  
MARKS & SPENCER 2007 7 1/8% 01/12/37 144A  
MART.MRTA.MATS.INCO 1995 7% 01/12/25 S  
MASCO CORP. 1999 7 3/4% 01/08/29 S  
MASCO CORP. 2002 6 1/2% 15/08/32 S  
MASSACHUSETTS ELEC. 1993 7 1/2% 23/06/23 S-T  
MASSACHUSETTS ELEC. 1993 7 1/2% 23/06/23 S-T  
MASSACHUSETTS ELEC. 2009 5.9% 15/11/39 S  
MCCLATCHY COMPANY 1997 7.15% 01/11/27 S  
MCCLATCHY COMPANY 1999 6 7/8% 15/03/29 S  
MCCLATCHY COMPANY 2005 5 3/4% 01/09/17 S  
MCCORMICK & COIC. 1994 7.63% 19/08/24 S-A  
MCCORMICK & COIC. 1994 7.95% 01/10/24 S-A  
MCCORMICK & COIC. 1994 8.03% 17/10/24 S-A  
MCCORMICK & COIC. 1994 8.12% 14/10/24 S-A  
MCDONALDS CORP. 1998 6 3/8% 08/01/28 S  
MCLAREN HEALTH CARE 2015 3.283% 15/05/26 2015C  
MCLAREN HEALTH CARE 2015 4.033% 15/05/30 2015C  
MDU RES.GROUP INCO. 2003 5.98% 15/12/33 S  
MEDTRONIC INCO. 2014 3 1/2% 15/03/25 144A  
MEDTRONIC INCO. 2014 4 3/8% 15/03/35 144A  
MEDTRONIC INCO. 2014 4 5/8% 15/03/45 144A  
MEG ENERGY CORP. 2012 6 3/8% 30/01/23 144A  
MEG ENERGY CORP. 2013 7% 31/03/24 144A  
MEMORIAL SLOAN-KETT 2011 5% 01/07/42 2011  
MERCANTILE STORES 1992 8.2% 15/09/22 S  
MERCK & CO INCO. 1996 6.3% 01/01/26 S  
MERCK & CO INCO. 1998 5.95% 01/12/28 S  
MERCK & CO INCO. 1998 6.4% 01/03/28 S  
MERCK & CO INCO. 2003 G/R 01/12/33 S  
MERCK SHARP & DOHME 1997 5.76% 03/05/37 B  
MERCK SHARP & DOHME 2000 F/R 11/40 D  
MERCK SHARP & DOHME 2001 F/R 02/41 D  
MERCK SHARP & DOHME 2002 F/R 08/42 E  
MERCK SHARP & DOHME 2003 F/R 02/43 E  
MERCK SHARP & DOHME 2004 F/R 02/44 E  
MEREY SWEENEY 1999 8.85% 18/12/19 144A  
MET.MUSEUM OF ART 2015 3.4% 01/07/45 S  
METROPOLITAN EDISON 2014 4% 15/04/25 144A  
METROPOLITAN OPERA 2012 3.728% 01/10/27 S  
METROPOLITAN OPERA 2012 4.349% 01/10/32 S  
METROPOLITAN OPERA 2012 4.524% 01/10/42 S  
MEX.GDRA.DENGA.S DE 2012 5 1/2% 06/12/32 144A  
MEXICHEM 2012 6 3/4% 19/09/42 144A  
MEXICHEM 2014 5 7/8% 17/09/44 144A  
MICHIGAN BE.TEL.CO. 1992 7.85% 15/01/22 S  
MICHIGAN CONS.GAS 1998 6.45% 30/06/38 S  
MICRON TECHNOLOGY 2015 5 5/8% 15/01/26 144A  
MIDAMERICAN ENERGY 1993 7.45% 15/03/23 MBIA  
MIDAMERICAN ENERGY 2002 6 3/4% 30/12/31 S  
MIDAMERICAN ENERGY 2005 5 3/4% 01/11/35 S  
MIDAMERICAN ENERGY 2006 5.8% 15/10/36 S  
MIDAMERICAN ENERGY 2013 4.8% 15/09/43 S  
MIDAMERICAN FDG. 2000 6.927% 01/03/29 B  
MIDLAND COGENERATIO 2011 6% 15/03/25 144A  
MIDLAND COGENERATIO 2013 5 1/4% 15/03/25 144A  
MISSISSIPPI PWR.CO. 2005 5.4% 01/07/35 G  
MISSISSIPPI PWR.CO. 2011 4 3/4% 15/10/41 2011B  
MOBIL CORPORATION 1991 8 5/8% 15/08/21 S  
MONONGAHELA PWR.CO. 2006 5.7% 15/03/17 144A  
MONONGAHELA PWR.CO. 2013 4.1% 15/04/24 S  
MONONGAHELA PWR.CO. 2013 5.4% 15/12/43 S  
MONSANTO CO. 1998 6.47% 26/02/18 D  
MONSANTO CO. 2005 5 1/2% 30/07/35 S  
MONSANTO CO. 2005 5 1/2% 30/07/35 S  
MONSANTO CO. 2008 5 7/8% 15/04/38 S  
MONTANA PWR.CO. 1994 7 1/4% 19/01/24 S  
MOSAIC GLB.HDG. 1998 7.3% 15/01/28 S  
MOTIVA ENTS.LLC 2010 6.85% 15/01/40 144A  
MOTOROLA SLTN.INC. 1995 6 1/2% 01/09/25 P1 /p  
MOTOROLA SLTN.INC. 1995 7 1/2% 15/05/25 S  
MOTOROLA SLTN.INC. 1998 6 1/2% 15/11/28 S  
MURPHY OIL CORP. 1999 7.05% 01/05/29 S  
MYLAN INCORPORATED 2012 3 1/8% 15/01/23 144A  
NAKILAT INCO. 2006 6.067% 31/12/33 144A  
NAKILAT INCO. 2006 6.267% 31/12/33 144A  
NARRA.ELEC.CO. 1995 7 1/2% 10/10/25 V  
NARRA.ELEC.CO. 1996 7.24% 19/01/26 S  
NARRA.ELEC.CO. 2010 5.638% 15/03/40 S  
NARRA.ELEC.CO. 2012 4.17% 10/12/42 144A  
NAT.FUEL GAS CO. 1993 7.395% 30/03/23 B  
NAT.FUEL GAS CO. 1995 7 3/8% 13/06/25 C  
NAT.FUEL GAS CO. 1995 7 3/8% 13/06/25 C  
NAT.FUEL GAS CO. 1997 6.214% 12/08/27 D  
NAT.GAS CO.TR&TOB. 2006 6.05% 15/01/36 144A  
NATIONAL ROAD OPG. 2011 9 3/8% 10/11/24 144A  
NBCUNIVERSAL MEDIA 2010 4 3/8% 01/04/21 144A  
NBCUNIVERSAL MEDIA 2010 5.15% 30/04/20 S  
NBCUNIVERSAL MEDIA 2010 6.4% 30/04/40 S  
NBCUNIVERSAL MEDIA 2012 2 7/8% 15/01/23 S  
NBCUNIVERSAL MEDIA 2012 4.45% 15/01/43 S  
NEIMAN MARCUS GP. 1998 7 1/8% 01/06/28 S  
NEMAK SAB DE CV 2013 5 1/2% 28/02/23 144A  
NESTLE PURINA 1991 9.3% 01/05/21 S  
NESTLE PURINA 1992 8 5/8% 15/02/22 S  
NESTLE PURINA 1993 8 1/8% 01/02/23 S  
NESTLE PURINA 1995 7 7/8% 15/06/25 S  
NEVADA POWER CO. 2006 6.65% 01/04/36 144A S  
NEW ALBERTSONS 1996 7 3/4% 15/06/26 S  
NEW ALBERTSONS 1997 6.56% 26/07/27 S-B

NEW ALBERTSONS 1997 6.96% 01/08/17 B  
 NEW ALBERTSONS 1997 7% 21/07/17 B  
 NEW ALBERTSONS 1997 7.02% 21/07/17 B  
 NEW ALBERTSONS 1997 7.11% 22/07/27 B  
 NEW ALBERTSONS 1997 7.15% 23/07/27 S-B  
 NEW ALBERTSONS 1998 6 5/8% 01/06/28 S-C  
 NEW ALBERTSONS 1998 6.1% 10/04/28 S-C  
 NEW ALBERTSONS 1998 6.47% 23/02/18 S-C  
 NEW ALBERTSONS 1998 6.52% 10/04/28 S-C  
 NEW ALBERTSONS 1998 6.53% 10/04/28 S-C  
 NEW ALBERTSONS 1998 6.57% 23/02/28 S-C  
 NEW ALBERTSONS 1998 6.63% 02/06/28 S-C  
 NEW YORK AND PBTY. 2015 4.024% 01/08/45 2015  
 NEW YORK PUB.LBRY. 2015 4.305% 01/07/45 S  
 NEW YORK STE.ELEC.& 2003 5 3/4% 01/05/23 S  
 NEWCREST FINANCE PT 2011 5 3/4% 15/11/41 144A  
 NEWELL RUBBERMAID 1998 6.11% 17/07/28 A  
 NEWELL RUBBERMAID 1998 6.35% 15/07/28 S  
 NEWMONT MNG.CORP. 2009 6 1/4% 01/10/39 S  
 NEXEN ENERGY ULC 1998 7.4% 01/05/28 S  
 NEXEN ENERGY ULC 2002 7 7/8% 15/03/32 S  
 NEXEN ENERGY ULC 2005 5 7/8% 10/03/35 S  
 NGPL PIPECO LLC 2007 7.768% 15/12/37 144A  
 NIAGARA MOHAWK PWR. 2012 2.721% 28/11/22 S  
 NIAGARA MOHAWK PWR. 2012 4.119% 28/11/42 S  
 NIAGARA MOHAWK PWR. 2014 4.278% 01/10/34 144A  
 NK KAZMUNAYGAZ 2013 4.4% 30/04/23 144A  
 NK KAZMUNAYGAZ 2013 5 3/4% 30/04/43 144A  
 NK KAZMUNAYGAZ 2014 4 7/8% 07/05/25 144A  
 NOBLE ENERGY INCO. 1993 7 1/4% 15/10/23 S  
 NOBLE ENERGY INCO. 1997 8% 01/04/27 S  
 NOBLE GROUP 2009 6 3/4% 29/01/20 144A  
 NOBLE HLDG.INTL. 2010 6.2% 01/08/40 S  
 NORDSTROM INCO. 1998 6.95% 15/03/28 S  
 NORFOLK STHN.CORP. 1991 9% 01/03/21 S  
 NORFOLK STHN.CORP. 2001 7 1/4% 15/02/31 S  
 NORFOLK STHN.CORP. 2011 4.837% 01/10/41 144A  
 NORFOLK STHN.CORP. 2012 2.903% 15/02/23 144A  
 NORS.SKOGINDUSTRIER 2003 7 1/8% 15/10/33 144A  
 NORSK HYDRO 1993 7 3/4% 15/06/23 S  
 NORSK HYDRO 1995 7.15% 15/11/25 S  
 NORSK HYDRO 1996 7 1/2% 01/10/16 S  
 NORSK HYDRO 1999 7.15% 15/01/29 S  
 NORSK HYDRO 2000 7 1/4% 23/09/27 B  
 NORTHERN ILL.GAS CO 1998 6.58% 15/02/28 AMBAC  
 NORTHERN ILL.GAS CO 1998 6.58% 15/02/28 S  
 NORTHERN ILL.GAS CO 2003 5.8% 01/12/23 S  
 NORTHERN ILL.GAS CO 2003 5.9% 01/12/32 S  
 NORTHERN ILL.GAS CO 2003 5.9% 01/12/33 S  
 NORTHERN ILL.GAS CO 2003 5.9% 01/12/33 S  
 NORTHERN NATGS.CO. 2007 5.8% 15/02/37 144A  
 NORTHERN NATGS.CO. 2012 4.1% 15/09/42 144A  
 NORTHERN STS.PWR. 1995 7 1/8% 01/07/25 MBIA  
 NORTHERN STS.PWR. 1995 7 1/8% 01/07/25 MBIA  
 NORTHERN STS.PWR. 1995 7 1/8% 01/07/25 S  
 NORTHERN STS.PWR. 1998 6 1/2% 01/03/28 MBIA  
 NORTHERN STS.PWR. 1998 6 1/2% 01/03/28 S  
 NORTHERN STS.PWR. 2005 5 1/4% 15/07/35 S  
 NORTHERN STS.PWR. 2006 6 1/4% 01/06/36 S  
 NORTHERN STS.PWR. 2007 6.2% 01/07/37 S  
 NORTHERN STS.PWR. 2010 4.85% 15/08/40 S  
 NORTHERN STS.PWR. 2015 4% 15/08/45 S  
 NORTHWEST NATGS. 1991 9.05% 13/08/21 A  
 NORTHWEST NATGS. 1994 8.31% 21/09/19 S-B  
 NORTHWEST NATGS. 1995 6.52% 01/12/25 S-B  
 NORTHWEST NATGS. 1996 7.05% 15/10/26 S-B  
 NORTHWEST NATGS. 1997 6.65% 10/11/27 S-B  
 NORTHWEST NATGS. 1997 7% 01/08/17 S-B  
 NORTHWEST NATGS. 1997 7% 21/05/27 S-B  
 NORTHWEST NATGS. 1998 6.6% 16/03/18 S-B  
 NORTHWEST NATGS. 1998 6.65% 01/06/28 S-B  
 NORTHWEST NATGS. 1999 7.63% 09/12/19 S-B  
 NORTHWEST NATGS. 2000 7.72% 01/09/25 S-B  
 NORTHWEST NATGS. 2000 7.74% 29/08/30 S-B  
 NORTHWEST NATGS. 2000 7.85% 01/09/30 S-B  
 NORTHWEST NATGS. 2002 5.82% 24/09/32 S-B  
 NORTHWEST NATGS. 2003 5.62% 21/11/23 S-B  
 NORTHWEST NATGS. 2003 5.66% 25/02/33 S-B  
 NORTHWEST NATGS. 2005 5 1/4% 21/06/35 S-B  
 NORTHWEST NATGS. 2009 5.37% 01/02/20 S-B  
 NORTHWEST PIPELINE 1995 7 1/8% 01/12/25 S  
 NORTHWESTERN CAP. 2001 8 1/4% 15/12/31 Q  
 NORTHWESTERN CORP. 1998 6.95% 15/11/28 S  
 NOVA CHEMS.CORP. 2014 5% 01/05/25 144A  
 NOVA CHEMS.LTD. 1996 7 1/4% 15/08/28 S  
 NOVA CHEMS.LTD. 1996 7% 15/08/26 S  
 NOVA GAS TNSM.LTD. 1993 7 7/8% 01/04/23 S  
 NOVA GAS TNSM.LTD. 1995 6.33% 17/10/25 P7 /t  
 NOVA GAS TNSM.LTD. 1995 G/R 17/10/25 P7 /t  
 NOVA GAS TNSM.LTD. 1996 7 1/2% 20/08/26 S  
 NOVA SCOTIA POWER 1991 9.4% 01/04/21 MBIA  
 NOVANT HEALTH INCO. 2013 4.371% 01/11/43 2013C  
 NRG EN.PSTHRTST. 2000 8.7%/ZERO 03/20 144A  
 NRG ENERGY INCO. 2001 8.6255% 01/04/31 S  
 NRTHRP GRUMMAN SYS. 1990 9 1/4% 12/01/20 S-A  
 NRTHRP GRUMMAN SYS. 1990 9.35% 04/06/20 A  
 NRTHRP GRUMMAN SYS. 1991 9 3/8% 15/04/21 A  
 NRTHRP GRUMMAN SYS. 1996 6.98% 15/03/36 P5 /r  
 NRTHRP GRUMMAN SYS. 1996 7 3/4% 15/03/26 S  
 NRTHRP GRUMMAN SYS. 1998 6 3/4% 15/04/18 S  
 NRTHRP GRUMMAN SYS. 1998 6.65% 15/01/28 S

NSTAR ELECTRIC CO. 2006 5 3/4% 15/03/36 S  
 NSTAR ELECTRIC CO. 2010 5 1/2% 15/03/40 S  
 NTHN.INDNA.PUB.SER. 1993 7.47% 11/08/23 S-C  
 NTHN.INDNA.PUB.SER. 1997 7.02% 04/08/17 S-E  
 NTHN.INDNA.PUB.SER. 1997 7.02% 04/08/17 S-E  
 NTHN.INDNA.PUB.SER. 1997 7.16% 04/08/27 S-E  
 NTHN.INDNA.PUB.SER. 1997 7.4% 30/08/22 S-E  
 NTHN.INDNA.PUB.SER. 1997 7.59% 12/06/17 S-E  
 NTHN.INDNA.PUB.SER. 1997 7.69% 07/06/27 S-E  
 NTHN.STATES PWR.WI. 2008 6 3/8% 01/09/38 S  
 NTHN.STATES PWR.WI. 2012 3.7% 01/10/42 S  
 NUCOR CORP. 2007 6.4% 01/12/37 S  
 NYU HOSPITALS CENTE 2012 4.428% 01/07/42 2012A  
 NYU HOSPITALS CENTE 2013 5 3/4% 01/07/43 2013A  
 NYU HOSPITALS CENTE 2014 4.784% 01/07/44 2014 A  
 OCCIDENTAL PTL. 1989 9 1/4% 01/08/19 P1 /g  
 OCCIDENTAL PTL. 1993 8 3/4% 15/01/23 S  
 OCCIDENTAL PTL. 1998 7.2% 01/04/28 S  
 OCCIDENTAL PTL. 1999 8.45% 15/02/29 S  
 OCP SA 2014 6 7/8% 25/04/44 144A  
 OFFICEMAX INCO. 1930 5% 01/03/30 S  
 OFFICEMAX INCO. 1999 8 1/4% 15/03/19 A  
 OHIO EDISON COMPANY 1992 8 3/4% 15/06/22 S  
 OHIO EDISON COMPANY 2006 6 7/8% 15/07/36 S  
 OHIO EDISON COMPANY 2008 8 1/4% 15/10/38 2008  
 OHIO POWER CO. 1993 7.9% 01/05/23 AMBAC  
 OHIO POWER CO. 2005 5.85% 01/10/35 F  
 OKLAHOMA GS.&.ELEC. 1997 6 1/2% 15/07/17 P5 /1  
 OKLAHOMA GS.&.ELEC. 1997 6.65% 15/07/27 P5 /1  
 OKLAHOMA GS.&.ELEC. 1998 6 1/2% 15/04/28 S  
 OKLAHOMA GS.&.ELEC. 2011 5 1/4% 15/05/41 S  
 OLD DOMINION ELEC. 2002 6.21% 01/12/28 B  
 OLD DOMINION ELEC. 2003 5.676% 01/12/28 2003-A  
 ONCOR ELEC.DELVY. 2008 7 1/2% 01/09/38 144A  
 ONCOR ELEC.DELVY. 2010 5 1/4% 30/09/40 144A  
 ONCOR ELEC.DELVY. 2012 5.3% 01/06/42 144A  
 ONEOK INCO. 1998 6 1/2% 30/09/28 Q  
 ONEOK INCO. 1998 6 7/8% 30/09/28 S  
 ONEOK PARTNERS LP. 2007 6.85% 15/10/37 S  
 ORACLE CORPORATION 2010 5 3/8% 15/07/40 S  
 ORANGE SA 2001 G/R 01/03/31 144A  
 ORCAL GTHM.LLC 2005 6.21% 30/12/20 144A  
 ORE.&.ROCK.UTILS. 2010 5 1/2% 15/08/40 144A  
 ORE.&.ROCK.UTILS. 2015 4.95% 01/07/45 144A  
 OVERSEAS SHIPHLDG. 1993 8 3/4% 01/12/13 DEFAULT  
 OVERSEAS SHIPHLDG. 2004 7 1/2% 15/02/24 S  
 OWENS ILLINOIS 1998 7.8% 15/05/18 S  
 OWENS-BROCKWAY 2014 5 3/8% 15/01/25 144A  
 PACIFIC BE.TEL.CO. 1993 7 1/8% 15/03/26 S  
 PACIFIC EXP.&.PRDN. 2013 5 1/8% 28/03/23 144A  
 PACIFIC EXP.&.PRDN. 2014 5 5/8% 19/01/25 144A  
 PACIFIC GAS & ELEC. 1991 8 3/8% 01/05/25  
 PACIFIC GAS & ELEC. 1991 8.8% 01/05/24  
 PACIFIC GAS & ELEC. 1992 8 1/4% 01/11/22  
 PACIFIC GAS & ELEC. 1993 6 3/4% 01/10/23  
 PACIFIC GAS & ELEC. 1993 7 1/4% 01/03/26  
 PACIFIC GAS & ELEC. 1993 7 1/4% 01/08/26  
 PACIFIC GAS & ELEC. 2004 6.05% 01/03/34 AMBAC  
 PACIFIC GAS & ELEC. 2004 6.05% 01/03/34 S  
 PACIFIC GAS & ELEC. 2007 5.8% 01/03/37 AMBAC  
 PACIFIC GAS & ELEC. 2007 5.8% 01/03/37 S  
 PACIFIC GAS & ELEC. 2011 4 1/2% 15/12/41 S  
 PACIFICORP 1991 8 3/8% 31/12/21 C  
 PACIFICORP 1991 8.53% 16/12/21 C  
 PACIFICORP 1992 8.05% 01/09/22 E  
 PACIFICORP 1992 8.05% 01/09/22 E  
 PACIFICORP 1992 8.05% 14/09/22 E  
 PACIFICORP 1992 8.07% 09/09/22 AMBAC  
 PACIFICORP 1992 8.07% 09/09/22 E  
 PACIFICORP 1992 8.08% 14/10/22 E  
 PACIFICORP 1992 8.11% 09/09/22 E  
 PACIFICORP 1992 8.12% 09/09/22 E  
 PACIFICORP 1992 8.26% 07/01/22 C  
 PACIFICORP 1992 8.27% 10/01/22 C  
 PACIFICORP 1993 6 3/4% 14/09/23 F  
 PACIFICORP 1993 6 3/4% 26/10/23 F  
 PACIFICORP 1993 6 3/4% 26/10/23 O  
 PACIFICORP 1993 6 3/4% 26/10/23 O  
 PACIFICORP 1993 6.72% 14/09/23 F  
 PACIFICORP 1993 7.23% 16/08/23 F  
 PACIFICORP 1993 7.24% 16/08/23 F  
 PACIFICORP 1993 7.26% 21/07/23 F  
 PACIFICORP 1993 7.26% 21/07/23 O  
 PACIFICORP 1993 8.23% 20/01/23 E  
 PACIFICORP 1993 8.23% 20/01/23 E  
 PACIFICORP 1996 6.71% 15/01/26 G  
 PACIFICORP 1996 6.71% 15/01/26 G (MBIA  
 PACIFICORP 2001 7.7% 15/11/31 S  
 PACIFICORP 2004 5.9% 15/08/34 S  
 PACIFICORP 2004 5.9% 15/08/34 SERIES  
 PACIFICORP 2005 5 1/4% 15/06/35 S  
 PACIFICORP 2006 6.1% 01/08/36 144A  
 PACIFICORP 2007 5 3/4% 01/04/37 AMBAC  
 PACIFICORP 2007 5 3/4% 01/04/37 S  
 PACIFICORP 2007 6 1/4% 15/10/37 S  
 PACIFICORP 2008 6.35% 15/07/38 S  
 PACIFICORP 2009 6% 15/01/39 S  
 PACIFICORP 2012 4.1% 01/02/42 S  
 PARKER HANNIFIN 1998 6.55% 15/07/18 S  
 PARKER HANNIFIN 2008 6 1/4% 15/05/38 A

PARKER HANNIFIN 2010 3 1/2% 15/09/22 A  
 PARTNERS HLTHCR.SY. 2007 6.259% 01/07/37 S  
 PDRS.ELEC.COOP.INCO 2002 5.952% 15/11/22 144A  
 PDRS.ELEC.COOP.INCO 2002 6.202% 15/11/32 144A  
 PECO ENERGY CO. 2004 5.9% 01/05/34 S  
 PECO ENERGY CO. 2006 5.95% 01/10/36 S  
 PECO ENERGY CO. 2007 5.7% 15/03/37 5.70% (  
 PECO ENERGY CO. 2007 5.7% 15/03/37 S  
 PELABUHAN INDO.II 2015 5 3/8% 05/05/45 144A  
 PENN.ELECTRIC CO. 1999 6 5/8% 01/04/19 C (MBIA  
 PENN.ELECTRIC CO. 1999 6 5/8% 01/04/19 S-C  
 PENN.ELECTRIC CO. 2014 4.15% 15/04/25 144A  
 PENNSYLVANIA AMER. 1996 7.8% 01/09/26 144A  
 PEPSI-COLA MET.BT. 1996 7.29% 15/09/26 P5 /p  
 PEPSI-COLA MET.BT. 1996 7.44% 15/09/26 P5 /p  
 PEPSI-COLA MET.BT. 2005 5 1/2% 15/05/35 S  
 PEPSI-COLA MET.BT. 2005 5% 15/05/17 S  
 PERNOD-RICARD 2011 4.45% 15/01/22 144A  
 PERNOD-RICARD 2012 5 1/2% 15/01/42 144A  
 PERRIGO CO 2013 5.3% 15/11/43 144A  
 PERTAMINA PRO.PT 2011 6 1/2% 27/05/41 144A  
 PERTAMINA PRO.PT 2012 6% 03/05/42 144A  
 PERTAMINA PRO.PT 2013 5 5/8% 20/05/43 144A  
 PERTAMINA PRO.PT 2014 6.45% 30/05/44 144A  
 PERUSAHAAN LISTRIK 2012 5 1/4% 24/10/42 144A  
 PETROLEOS DE VENA. 2011 12 3/4% 17/02/22 144A  
 PETROLEOS DE VENA. 2012 9 3/4% 17/05/35 144A  
 PETROLEOS DE VENA. 2013 6% 15/11/26 144A  
 PETROLEOS MEXICANOS 1993 8 5/8% 01/12/23 144A  
 PETROLEOS MEXICANOS 1997 9 1/2% 15/09/27 144A  
 PETROLEOS MEXICANOS 1999 9 1/2% 15/09/27 144A  
 PETROLEOS MEXICANOS 1999 9 1/2% 15/09/27 POMES  
 PETROLEOS MEXICANOS 2002 G/R 01/02/22 144A  
 PETROLEOS MEXICANOS 2004 G/R 15/09/27 144A  
 PETROLEOS MEXICANOS 2004 G/R 30/03/18 144A  
 PETROLEOS MEXICANOS 2008 6 5/8% 15/06/38 144A  
 PETROLEOS MEXICANOS 2010 5 1/2% 21/01/21 144A  
 PETROLEOS MEXICANOS 2012 5 1/2% 27/06/44 144A  
 PETROLEOS MEXICANOS 2012 5 1/2% 27/06/44 TRANCHE  
 PETROLEOS MEXICANOS 2013 3 1/2% 30/01/23 144A  
 PETROLEOS MEXICANOS 2013 4 7/8% 18/01/24 144A  
 PETROLEOS MEXICANOS 2014 4 1/4% 15/01/25 144A  
 PETROLEOS MEXICANOS 2014 5 1/2% 27/06/44 TRANCHE  
 PETROLEOS MEXICANOS 2014 6 3/8% 23/01/45 144A  
 PETROLEOS MEXICANOS 2015 4 1/2% 23/01/26 144A  
 PETROLEOS MEXICANOS 2015 5 5/8% 23/01/46 144A  
 PETROLEUM TR&TOB. 2007 6% 08/05/22 144A  
 PETROLEUM TR&TOB. 2007 6% 08/05/22 144A  
 PHARMACIA LLC 1991 8.7% 15/10/21 S  
 PHARMACIA LLC 1997 6 3/4% 15/12/27 S  
 PHARMACIA LLC 1998 G/R 01/12/28 144A  
 PHARMACIA LLC 2000 6 1/2% 01/12/18 B  
 PHILLIPS 66 2012 5 7/8% 01/05/42 S  
 PIEDMONT NATGS.CO. 1993 6.87% 06/10/23 A  
 PIEDMONT NATGS.CO. 1994 8.45% 19/09/24 A  
 PIEDMONT NATGS.CO. 1995 7.4% 03/10/25 B  
 PIEDMONT NATGS.CO. 1996 7 1/2% 09/10/26 B  
 PIEDMONT NATGS.CO. 1999 7.95% 14/09/29 S-C  
 PIEDMONT NATGS.CO. 2003 6% 19/12/33 S  
 PION.NTRL.RES.CO. 1998 7.2% 15/01/28 S  
 PION.NTRL.RES.CO. 2004 5 7/8% 15/07/16 S  
 PION.NTRL.RES.CO. 2006 6 7/8% 01/05/18 S  
 PION.NTRL.RES.CO. 2009 7 1/2% 15/01/20 S  
 PION.NTRL.RES.CO. 2015 4.45% 15/01/26 S  
 PORTLAND GEN.ELEC. 1991 9.31% 11/08/21 S  
 PORTLAND GEN.ELEC. 2003 6 3/4% 01/08/23 144A  
 PORTLAND GEN.ELEC. 2003 6 3/4% 01/08/23 S  
 PORTLAND GEN.ELEC. 2003 6 7/8% 01/08/33 144A  
 PORTLAND GEN.ELEC. 2003 6 7/8% 01/08/33 S  
 PORTLAND GEN.ELEC. 2008 5.81% 01/10/37 144A  
 POSCO 2010 4 1/4% 28/10/20 144A  
 POTASH CORP.SASKAT. 2006 5 7/8% 01/12/36 S  
 POTLATCH CORP. 1991 8 7/8% 01/06/17 S  
 POTLATCH CORP. 1992 8 3/4% 14/01/22 S  
 POTLATCH CORP. 1992 8 7/8% 01/02/18 S  
 POTLATCH CORP. 1992 8 7/8% 01/02/18 S  
 POTLATCH CORP. 1992 8 7/8% 01/02/18 S  
 POTLATCH CORP. 1992 8 7/8% 05/02/18 S  
 POTLATCH CORP. 1992 8 7/8% 05/02/18 S  
 POTLATCH CORP. 1992 8.27% 01/08/22 S  
 POTLATCH CORP. 1992 8.89% 30/01/18 S  
 POTOMAC ELEC.PWR. 2004 5 3/4% 15/04/34 S  
 POTOMAC ELEC.PWR. 2005 5.4% 01/06/35 S  
 POTOMAC ELEC.PWR. 2007 6 1/2% 15/11/37 S  
 POTOMAC ELEC.PWR. 2008 7.9% 15/12/38 S  
 POTOMAC ELEC.PWR. 2013 4.15% 15/03/43 S  
 PPL ELEC.UTILS.CORP 2007 6.45% 15/08/37 AMBAC  
 PPL ELEC.UTILS.CORP 2007 6.45% 15/08/37 S  
 PPL ELEC.UTILS.CORP 2009 6 1/4% 15/05/39 S  
 PPL ELEC.UTILS.CORP 2011 5.2% 15/07/41 S  
 PPL ELEC.UTILS.CORP 2014 4 1/8% 15/06/44 S  
 PPL ELEC.UTILS.CORP 2015 4.15% 01/10/45 S  
 PRAXAIR INCO. 2015 3.2% 30/01/26 S  
 PROCTER & GAMBLE 1989 8% 26/10/29 P6 /t  
 PROCTER & GAMBLE 1994 8% 01/09/24 P1 /p  
 PROCTER & GAMBLE 1996 6.45% 15/01/26 S  
 PROCTER & GAMBLE 1997 8 3/4% 01/06/22 S  
 PROCTER & GAMBLE 1999 F/R 11/39 P5 /v  
 PTT PCL. 2005 5 7/8% 03/08/35 144A  
 PTT PCL. 2012 4 1/2% 25/10/42 144A  
 PUB.SER.CO.COLORADO 2007 6 1/4% 01/09/37 17

PUB.SER.CO.COLORADO 2012 3.6% 15/09/42 24  
 PUB.SER.CO.COLORADO 2014 4.3% 15/03/44 27  
 PUB.SER.ELEC.& GAS 1937 5% 01/07/37 S  
 PUB.SER.ELEC.& GAS 1937 8% 01/06/37 S  
 PUB.SER.ELEC.& GAS 1991 9 1/4% 01/06/21 CC  
 PUB.SER.ELEC.& GAS 1994 9 1/4% 01/06/21 CC(MBIA  
 PUB.SER.ELEC.& GAS 1997 7.04% 06/11/20 A  
 PUB.SER.ELEC.& GAS 2005 5 1/4% 01/07/35 D  
 PUB.SER.ELEC.& GAS 2006 5.7% 01/12/36 D  
 PUB.SER.ELEC.& GAS 2007 5.8% 01/05/37 E  
 PUB.SER.ELEC.& GAS 2009 5 3/8% 01/11/39 G  
 PUB.SER.ELEC.& GAS 2010 5 1/2% 01/03/40 G  
 PUB.SER.ELEC.& GAS 2012 3.65% 01/09/42 H  
 PUB.SER.ELEC.& GAS 2012 3.95% 01/05/42 H  
 PUB.SER.ELEC.& GAS 2015 4.15% 01/11/45 S  
 PUB.SER.ELEC.& GAS 2016 3.8% 01/03/46 S  
 PUB.SVS.CO.COLORADO 1994 7 1/4% 01/01/24 S  
 PUBLIC SER.OF NM. 1998 7 1/2% 01/08/18 B  
 PUBLIC SER.OF NWH. 2005 5.6% 05/10/35 S-M  
 PUBLIC SVCO.OF OK. 2007 6 5/8% 15/11/37 S-G  
 PUERTO RICO CVT.TST 2002 6 1/4% 01/05/22 DEFAULT  
 PUERTO RICO CVT.TST 2004 5.9% 15/04/34 M  
 PUERTO RICO CVT.TST 2004 6% 15/12/34 M  
 PUGET SND.ENERGY 1995 7.15% 19/12/25 S-C  
 PUGET SND.ENERGY 1995 7.2% 22/12/25 S-C  
 PUGET SND.ENERGY 1997 7.02% 01/12/27 A (AMBA  
 PUGET SND.ENERGY 1997 7.02% 01/12/27 A (MBIA  
 PUGET SND.ENERGY 1997 7.02% 01/12/27 S-A  
 PUGET SND.ENERGY 1998 6.74% 15/06/18 S-A  
 PUGET SND.ENERGY 1998 6.74% 15/06/18 S-A  
 PUGET SND.ENERGY 1999 7% 09/03/29 B (AMBA  
 PUGET SND.ENERGY 1999 7% 09/03/29 B (MBIA  
 PUGET SND.ENERGY 1999 7% 09/03/29 S-B  
 PULTEGROUP INCO. 1997 7 5/8% 15/10/17 S  
 PULTEGROUP INCO. 2003 6 3/8% 15/05/33 S  
 QUAKER OATS CO. 1989 9.34% 12/12/19 B  
 QUAKER OATS CO. 1989 9.34% 13/12/19 B  
 QUAKER OATS CO. 1989 9.34% 13/12/19 B  
 QUAKER OATS CO. 1993 6.79% 01/09/23 C  
 QUAKER OATS CO. 1993 6.8% 01/09/23 C  
 QUAKER OATS CO. 1993 6.81% 01/09/23 C  
 QUAKER OATS CO. 1994 6.89% 08/02/24 C  
 QUAKER OATS CO. 1994 6.96% 18/01/24 C  
 QUAKER OATS CO. 1994 7.47% 14/03/24 C  
 QUAKER OATS CO. 1995 7 3/4% 15/07/21 D  
 QUAKER OATS CO. 1995 7.49% 02/06/25 S  
 QUAKER OATS CO. 1995 7.77% 12/05/25 D  
 QUAKER OATS CO. 1995 7.77% 12/05/25 D  
 QUAKER OATS CO. 1996 7.44% 02/03/26 D  
 QUAKER OATS CO. 1996 7.45% 02/03/26 D  
 QUEBECOR MEDIA INCO 2012 5 3/4% 15/01/23 144A  
 QUESTAR GAS CO. 1992 8.43% 28/07/22 S  
 QUESTAR GAS CO. 1997 6.85% 10/10/17 C  
 QUESTAR GAS CO. 2003 5.31% 15/03/18 E  
 QUESTAR PIPELINE CO 1998 6.48% 11/12/18 A  
 QVC INCO. 2013 5.95% 15/03/43 S  
 QVC INCO. 2014 4.45% 15/02/25 144A  
 QVC INCO. 2014 5.45% 15/08/34 144A  
 QWEST CORP. 1990 7 3/8% 01/05/30 S  
 QWEST CORP. 1993 6 7/8% 15/09/33 MBIA  
 QWEST CORP. 1993 6 7/8% 15/09/33 MBIA-IB  
 QWEST CORP. 1993 6 7/8% 15/09/33 S  
 QWEST CORP. 1993 7 1/8% 15/11/43 S  
 QWEST CORP. 1995 7 1/4% 15/09/25 S  
 QWEST CORP. 1995 7 1/4% 15/10/35 MBIA  
 QWEST CORP. 1995 7 1/4% 15/10/35 S  
 RAS LAFFAN LNG II 2005 5.298% 30/09/20 144A  
 RAS LAFFAN LNG II 2005 5.838% 30/09/27 144A  
 RAS LAFFAN LQNTGS. 2005 5.838% 30/09/27 144A  
 RAS LAFFAN LQNTGS. 2006 6.332% 30/09/27 144A  
 RAS LAFFAN LQNTGS. 2009 6 3/4% 30/09/19 144A  
 RAYTHEON CO. 1997 7.2% 15/08/27 S  
 RAYTHEON CO. 1998 7% 01/11/28 S  
 REED ELSEVIER INCO. 1992 8 7/8% 01/06/22 S  
 REED ELSEVIER INCO. 1993 6 5/8% 15/10/23 144A  
 REED ELSEVIER INCO. 1997 7.2% 01/08/27 S  
 RELIANCE INDUSTRIES 1996 10 3/8% 24/06/16 144A  
 RELIANCE INDUSTRIES 1996 9 3/8% 24/06/26 144A  
 RELIANCE INDUSTRIES 1997 8 1/4% 15/01/27 144A  
 RELIANCE INDUSTRIES 2015 2.512% 15/01/26 2015-1  
 RELIANCE INDUSTRIES 2015 4 1/8% 28/01/25 144A  
 RELIANCE INDUSTRIES 2015 4 7/8% 10/02/45 144A  
 RELX CAPITAL INCO. 1995 7 1/2% 15/05/25 S  
 REPSOL O&G.CAN. 1997 7 1/4% 15/10/27 S  
 REPSOL O&G.CAN. 2005 5 3/4% 15/05/35 S  
 REPSOL O&G.CAN. 2006 5.85% 01/02/37 S  
 REYNOLDS AMER.INCO. 2015 7% 04/08/41 144A  
 REYNOLDS AMER.INCO. 2015 8 1/8% 01/05/40 144A  
 RICE UNIVERSITY 2015 3.574% 15/05/45 S  
 RICOH USA INCO. 1995 6 3/4% 01/12/25 S  
 RICOH USA INCO. 1997 7.3% 01/11/27 S  
 RIO TINTO ALCAN 1998 7 1/4% 01/11/28 S  
 RIO TINTO ALCAN 2001 7 1/4% 15/03/31 S  
 RITE AID CORP. 1996 7.7% 15/02/27 S  
 RITE AID CORP. 1998 G/R 15/12/28 144A  
 ROCHE HOLDINGS 2009 7% 01/03/39 144A  
 ROCHE HOLDINGS 2014 3.35% 30/09/24 144A  
 ROCHE HOLDINGS 2014 4% 28/11/44 144A  
 ROCHESTER GAS&ELEC. 2003 6 3/8% 01/09/33 AMBAC  
 ROCHESTER GAS&ELEC. 2003 6 3/8% 01/09/33 VV

ROCHESTER GAS&ELEC. 2007 6.47% 15/07/32 144A  
 ROCHESTER GAS&ELEC. 2008 8% 15/12/33 144A  
 ROCKIES EXPR.PIPE. 2008 7 1/2% 15/07/38 144A  
 ROCKIES EXPR.PIPE. 2010 6 7/8% 15/04/40 144A  
 ROCKWELL ATMTN.INCO 2007 6 1/4% 01/12/37 S  
 ROHM & HAAS CO. 1999 7.85% 15/07/29 144A  
 ROHM & HAAS CO. 1999 7.85% 15/07/29 B  
 RYDER SYSTEM INCO. 1991 5% 25/02/21 7  
 RYDER SYSTEM INCO. 1995 6.95% 01/12/25 13  
 S C JOHNSON & SON 1998 6 3/4% 15/02/28 144A  
 S C JOHNSON & SON 2003 5 3/4% 15/02/33 S  
 S C JOHNSON & SON 2010 4.8% 01/09/40 S  
 S C JOHNSON & SON 2013 4% 15/05/43 S  
 S C JOHNSON & SON 2014 4.35% 30/09/44 S  
 SABMILLER PLC 2003 6 5/8% 15/08/33 144A  
 SACI FALABELLA 2013 3 3/4% 30/04/23 144A  
 SACI FALABELLA 2014 4 3/8% 27/01/25 144A  
 SAFEWAY INCO. 1997 7.45% 15/09/27 S  
 SAFEWAY INCO. 2001 7 1/4% 01/02/31 S  
 SALVATION ARMY 2006 5.677% 01/09/31 2006  
 SAMSUNG ELTN.CO. 1997 7.7% 01/10/27 144A  
 SAN DIEGO G&E.CO. 2005 5.35% 15/05/35 BBB  
 SAN DIEGO G&E.CO. 2006 6% 01/06/26 DDD  
 SAN DIEGO G&E.CO. 2007 6 1/8% 15/09/37 FFF  
 SAN DIEGO G&E.CO. 2009 6% 01/06/39 GGG  
 SAN DIEGO G&E.CO. 2010 4 1/2% 15/08/40 III  
 SAN DIEGO G&E.CO. 2010 5.35% 15/05/40 HHH  
 SAN DIEGO G&E.CO. 2011 3.95% 15/11/41 LLL  
 SAN DIEGO G&E.CO. 2012 4.3% 01/04/42 MMM  
 SAPPI PAPIER HLDG. 2002 7 1/2% 15/06/32 144A  
 SCANA CORP. 1996 6.99% 15/01/26 S  
 SCANA CORP. 1996 7.45% 15/12/26 S  
 SCANA CORP. 2008 6 1/4% 01/04/20 S  
 SEAGATE HDD CAYMAN 2015 4 7/8% 01/06/27 144A  
 SEALED AIR CORP. 2003 6 7/8% 15/07/33 144A  
 SEMINOLE TRIBE OF 2005 6.535% 01/10/20 144A  
 SEN.HSG.PROPS.TST. 2012 5 5/8% 01/08/42 Q  
 SERVICE CORP.INTL. 2007 7 1/2% 01/04/27 144A  
 SERVICEMASTER CO. 1997 7.45% 15/08/27 S  
 SERVICEMASTER CO. 1998 7 1/4% 01/03/38 S  
 SERVICEMASTER CO. 1998 7.1% 01/03/18 S  
 SES GLOBAL AMRS. 2014 5.3% 25/03/44 144A  
 SES SA 2013 5.3% 04/04/43 144A  
 SHERWIN WILMS.CO. 1997 5 1/2% 15/10/27 A  
 SHERWIN WILMS.CO. 1997 7 3/8% 01/02/27 B  
 SIERRA PAC.PWR.CO. 1992 8.61% 01/06/22 S  
 SIERRA PAC.PWR.CO. 1993 6.95% 01/06/22 S  
 SIERRA PAC.PWR.CO. 1993 7 7/8% 01/06/22 S  
 SIERRA PAC.PWR.CO. 1993 7.1% 02/11/23 S  
 SIERRA PAC.PWR.CO. 1993 7.14% 06/11/23 S  
 SINP.GP.OS.DEV.2012 2012 4 7/8% 17/05/42 144A  
 SK TELECOM 2007 6 5/8% 20/07/27 144A  
 SOCIEDAD QUIMICA 2014 4 3/8% 28/01/25 144A  
 SOLAR STAR FUNDING 2013 5 3/8% 30/06/35 144A  
 SOLAR STAR FUNDING 2015 3.95% 30/06/35 144A  
 SOLARCITY CORP 2015 5.45% 01/10/30 2015/C1  
 SOLARCITY CORP 2015 5.45% 03/09/30 2015/C9  
 SOLARCITY CORP 2015 5.45% 06/08/30 2015/C7  
 SOLARCITY CORP 2015 5.45% 11/06/30 2015/C4  
 SOLARCITY CORP 2015 5.45% 13/08/30 2015/C7  
 SOLARCITY CORP 2015 5.45% 14/05/30 2015/C3  
 SOLARCITY CORP 2015 5.45% 16/07/30 2015/C6  
 SOLARCITY CORP 2015 5.45% 16/10/30 2015/C1  
 SOLARCITY CORP 2015 5.45% 18/06/30 C49-15  
 SOLARCITY CORP 2015 5.45% 23/04/30 C25-15  
 SOLARCITY CORP 2015 5.45% 23/07/30 2015/C6  
 SOLARCITY CORP 2015 5.45% 27/08/30 2015/C8  
 SOLARCITY CORP 2015 5.45% 29/05/30 2015/C3  
 SOLARCITY CORP 2015 5.45% 30/04/30 2015/C2  
 SOUTH JERSEY GAS CO 1998 7 1/8% 22/10/18 S-A  
 SOUTH JERSEY GAS CO 2000 7.97% 01/08/18 A (AMBA  
 SOUTH JERSEY GAS CO 2003 4.6% 15/07/16 B 2003-  
 SOUTH JERSEY GAS CO 2003 4.657% 15/07/17 B 2003-  
 SOUTH JERSEY GAS CO 2003 5.55% 15/07/33 B 2003-  
 SOUTH JERSEY GAS CO 2004 5.437% 01/08/16 B 2004-  
 SOUTH JERSEY GAS CO 2004 5.587% 01/08/19 B 2004-  
 SOUTH JERSEY GAS CO 2004 6.213% 01/08/34 B 2004-  
 SOUTH JERSEY GAS CO 2005 5.45% 14/09/35 C 2005-  
 SOUTHERN CAL.EDISON 1999 6.65% 01/04/29 S  
 SOUTHERN CAL.EDISON 2004 5 3/4% 01/04/35 2004G  
 SOUTHERN CAL.EDISON 2004 5 3/4% 01/04/35 S  
 SOUTHERN CAL.EDISON 2004 6% 15/01/34 2004B  
 SOUTHERN CAL.EDISON 2005 5.35% 15/07/35 2005E  
 SOUTHERN CAL.EDISON 2006 5 5/8% 01/02/36 2006A  
 SOUTHERN CAL.EDISON 2006 5 5/8% 01/02/36 2006A(A  
 SOUTHERN CAL.EDISON 2006 5.55% 15/01/37 2006E  
 SOUTHERN CAL.EDISON 2006 5.55% 15/01/37 2006E (   
 SOUTHERN CAL.EDISON 2006 5.95% 01/02/38 2008A  
 SOUTHERN CAL.EDISON 2009 6.05% 15/03/39 2009A  
 SOUTHERN CAL.EDISON 2010 5 1/2% 15/03/40 2010A  
 SOUTHERN CAL.EDISON 2011 3.9% 01/12/41 S  
 SOUTHERN CAL.EDISON 2012 4.05% 15/03/42 2012A  
 SOUTHERN CAL.EDISON 2013 3.9% 15/03/43 2013A  
 SOUTHERN INDNA.G&E. 1999 6.72% 01/08/29 P08/09  
 SOUTHERN NATGS.CO. 2001 7.35% 15/02/31 S  
 SOUTHERN NATGS.CO. 2002 8% 01/03/32 S  
 SOUTHWEST AIRLINES 1996 8% 02/01/21 1996-A2  
 SOUTHWEST AIRLINES 1997 7 3/8% 01/03/27 S  
 SOUTHWEST AIRLINES 2005 5 1/8% 01/03/17 S  
 SOUTHWEST GAS CORP. 1996 8% 01/08/26 MBIA

SOUTHWEST GAS CORP. 1996 8% 01/08/26 S  
 SOUTHWEST GAS CORP. 1997 6.76% 24/09/27 S-A  
 SOUTHWEST GAS CORP. 1997 7.59% 17/01/17 S-A  
 SOUTHWEST GAS CORP. 1997 7.78% 03/02/22 A  
 SOUTHWEST GAS CORP. 1997 7.92% 04/06/27 A  
 SPRINT COMMS.INCO. 1992 9 1/4% 15/04/22 S  
 STANFORD UNIVERSITY 1994 6 7/8% 01/02/24 S  
 STANFORD UNIVERSITY 1996 7.65% 15/06/26 A  
 STANFORD UNIVERSITY 2012 4.013% 01/05/42 S  
 STATOIL 1998 6 1/2% 01/12/28 144A  
 STATOIL 2005 6 1/2% 21/12/23 144A  
 STH.CAR.ELEC.& GAS 2002 6 5/8% 01/02/32 S  
 STH.CAR.ELEC.& GAS 2003 5 1/4% 01/11/18 S  
 STH.CAR.ELEC.& GAS 2003 5.3% 15/05/33 S  
 STH.CAR.ELEC.& GAS 2005 5 1/4% 01/03/35 S  
 STH.CAR.ELEC.& GAS 2006 6 1/4% 01/07/36 S  
 STH.CAR.ELEC.& GAS 2008 6.05% 15/01/38 S  
 STH.CAR.ELEC.& GAS 2009 5 1/2% 15/12/39 S  
 STH.CAR.ELEC.& GAS 2011 5.45% 01/02/41 S  
 STH.CAR.ELEC.& GAS 2012 4.35% 01/02/42 S  
 STHN.CALIFORNIA GAS 1998 5.67% 18/01/28 P5 /n  
 STHN.CALIFORNIA GAS 2003 5.45% 15/04/18 HH  
 STHN.CALIFORNIA GAS 2005 5 3/4% 15/11/35 KK  
 STHN.CALIFORNIA GAS 2010 5 1/8% 15/11/40 S  
 STHN.CALIFORNIA GAS 2012 3 3/4% 15/09/42 NN  
 STHN.CONN.GAS CO. 1998 6.88% 11/09/28 144A  
 STHN.CONN.GAS CO. 2005 5.772% 01/12/35 144A  
 STHN.CONN.GAS CO. 2005 5.778% 01/11/25 144A  
 STHN.CONN.GAS CO. 2007 6.38% 15/09/37 144A  
 STHN.POWER CO. 2006 6 3/8% 15/11/36 E  
 STHN.POWER CO. 2011 5.15% 15/09/41 2011A  
 STHWSTN.ELEC.PWR.CO 2010 6.2% 15/03/40 S-H  
 STHWSTN.ELEC.PWR.CO 2015 3.9% 01/04/45 J  
 STHWSTN.ENERGY CO. 1997 7 1/8% 10/10/17 S  
 STHWSTN.ENERGY CO. 1997 7.35% 02/10/17 S  
 STHWSTN.PUB.SER.CO. 2003 6% 01/10/33 144A  
 STORA ENSO 2006 7 1/4% 15/04/36 144A  
 STORA ENSO 2006 7 1/4% 15/04/36 144A  
 SUNCOR ENERGY INCO. 1986 8 1/4% 15/12/16 S  
 SUNCOR ENERGY INCO. 1991 9 1/4% 15/10/21 S  
 SUNCOR ENERGY INCO. 1996 7 7/8% 15/06/26 S  
 SUNCOR ENERGY INCO. 1998 7% 15/11/28 S  
 SUNCOR ENERGY INCO. 2002 7.15% 01/02/32 S  
 SUNCOR ENERGY INCO. 2003 5.95% 01/12/34 S  
 SUNCOR ENERGY INCO. 2007 6 1/2% 15/06/38 S  
 SUNCOR ENERGY INCO. 2008 6.85% 01/06/39 S  
 SUNOCO INCO. 1994 9% 01/11/24 S  
 SUNOCO INCO. 2006 5 3/4% 15/01/17 S  
 SUNOCO LOGISTICS 2010 6.85% 15/02/40 S  
 SUNOCO LOGISTICS 2011 4.65% 15/02/22 S  
 SUNOCO LOGISTICS 2011 6.1% 15/02/42 S  
 SUSA PARTNERSHIP LP 1997 7 1/2% 01/12/27 S  
 SUSA PARTNERSHIP LP 1997 8.2% 01/06/17 S  
 SUSA PARTNERSHIP LP 1998 7.45% 01/07/18 S  
 SYSCO CORP. 1997 7.16% 15/04/27 P5 /r  
 SYSCO CORP. 1998 6 1/2% 01/08/28 S  
 SYSCO CORP. 2005 5 3/8% 21/09/35 S  
 SYSCO CORP. 2009 6 5/8% 17/03/39 S  
 TALEN ENERGY SUPPLY 2005 5.7% 15/10/35 REPS  
 TALEN ENERGY SUPPLY 2006 6% 15/12/36 S  
 TAMPA ELEC.CO. 2006 6.55% 15/05/36 S  
 TAMPA ELEC.CO. 2007 6.15% 15/05/37 S  
 TAMPA ELEC.CO. 2015 4.2% 15/05/45 S  
 TARGET CORP. 1990 9 7/8% 01/07/20 S  
 TARGET CORP. 1990 9.35% 16/06/20 E  
 TARGET CORP. 1991 9% 01/10/21 S  
 TARGET CORP. 1991 9.7% 15/06/21 S  
 TARGET CORP. 1992 8 7/8% 01/04/22 S  
 TARGET CORP. 1992 8.6% 10/01/22 G  
 TARGET CORP. 1992 8.6% 15/12/21 G  
 TARGET CORP. 1992 8.8% 15/05/22 S  
 TARGET CORP. 1998 6 3/4% 01/01/28 S  
 TARGET CORP. 1998 6.65% 01/08/28 S  
 TARGET CORP. 2001 7% 15/07/31 S  
 TARGET CORP. 2002 6.35% 01/11/32 S  
 TARGET CORP. 2003 4 7/8% 15/05/18 S  
 TELECOM ITALIA 2014 5.303% 30/05/24 144A  
 TELEPHONE AND DTSY. 2005 6 5/8% 31/03/45 Q  
 TENAGA NASIONAL 1995 7 1/2% 01/11/25 144A  
 TENET HEALTHCARE 2001 6 7/8% 15/11/31 144A  
 TENNESSEE GAS PIPE. 1997 7 1/2% 01/04/17 S  
 TENNESSEE GAS PIPE. 1997 7 5/8% 01/04/37 S  
 TENNESSEE GAS PIPE. 1997 7% 15/03/27 P5 /r  
 TENNESSEE GAS PIPE. 1998 7% 15/10/28 S  
 TENNESSEE GAS PIPE. 2002 8 3/8% 15/06/32 S  
 TESCO 2007 6.15% 15/11/37 144A  
 TEXAS ETN.TNSM.LP. 2002 7% 15/07/32 S  
 TEXAS GAS TNSM.CORP 1997 7 1/4% 15/07/27 S  
 TEXAS NM.PWR.CO. 2013 6.95% 01/04/43 144A  
 THAI OIL PCL. 2013 4 7/8% 23/01/43 144A  
 THE BROOKLYN UNION 2016 4.504% 10/03/46 144A  
 TIMKEN COMPANY 1996 7.49% 08/08/16 A  
 TIMKEN COMPANY 1996 7.61% 13/10/26 A  
 TIMKEN COMPANY 1996 7.68% 05/07/16 S  
 TIMKEN COMPANY 1996 7.76% 06/07/26 S  
 TIMKEN COMPANY 1997 7.01% 06/11/17 A  
 TIMKEN COMPANY 1997 7.1% 17/11/27 A  
 TIMKEN COMPANY 1997 7.16% 03/11/27 A  
 TIMKEN COMPANY 1998 6 7/8% 08/05/28 A  
 TIMKEN COMPANY 1998 6.74% 13/01/28 A

TIMKEN COMPANY 1998 6.74% 13/01/28 A  
 T-MOBILE USA 2013 6 1/2% 15/01/24 S  
 TNSC.GAS PIPE LINE 1996 7 1/4% 01/12/26 S  
 TNSC.GAS PIPE LINE 1996 7.08% 15/07/26 P5 /1  
 TNSC.GAS PIPE LINE 2011 5.4% 15/08/41 144A  
 TOPAZ SLR.FARMS LLC 2012 5 3/4% 30/09/39 144A  
 TOPAZ SLR.FARMS LLC 2013 4 7/8% 30/09/39 144A  
 TORO COMPANY 1997 7.8% 15/06/27 S  
 TORO COMPANY 2007 6 5/8% 01/05/37 S  
 TOTEM OCE.TLR.EXPR. 2003 6.365% 15/04/28 2002-1  
 TOYS R US INCO. 1991 8 3/4% 01/09/21 S  
 TOYS R US INCO. 2003 7 3/8% 15/10/18 S  
 TRANSCANADA PPLNS. 1996 7.69% 30/06/16 S  
 TRANSCANADA PPLNS. 1997 7.06% 14/10/25 S  
 TRANSCANADA PPLNS. 1999 7.7% 15/06/29 S  
 TRANSCANADA PPLNS. 2004 5.6% 31/03/34 S  
 TRANSCANADA PPLNS. 2006 5.85% 15/03/36 S  
 TRANSELEC 2014 4 1/4% 14/01/25 144A  
 TRANSOCEAN INCO. 1997 7.45% 15/04/27 P5 /r  
 TRANSOCEAN INCO. 1997 8% 15/04/27 P5 /r  
 TRI STATE GNRTN.&. 2003 7.144% 31/07/33 144A  
 TRI STATE GNRTN.&. 2010 6% 15/06/40 144A  
 TRTS.OF DARTMOUTH 2012 3.76% 01/06/43 S  
 TRTS.OF DARTMOUTH 2012 4% 01/06/42 A  
 TRUSTEES OF AMHERST 2009 5 7/8% 01/11/39 S  
 TRUSTEES OF AMHERST 2012 3.016% 01/11/27 S  
 TRUSTEES OF AMHERST 2012 3.694% 01/11/32 S  
 TRUSTEES OF AMHERST 2012 3.794% 01/11/42 S  
 TRUSTEES OF PNUV. 2009 5.7% 01/03/39 S  
 TRUSTEES OF UNION 2013 5.45% 15/11/43 2013  
 TSPA.DE GAS 2013 4 1/4% 30/04/28 144A  
 TTX COMPANY 1997 5.96% 16/07/27 144A  
 TTX COMPANY 1997 6.14% 14/07/27 144A  
 TTX COMPANY 1999 7.07% 01/07/29 144A  
 TTX COMPANY 2005 5% 15/06/17 144A  
 TTX COMPANY 2010 5 7/8% 01/12/40 144A  
 TTX COMPANY 2013 4.15% 15/01/24 144A  
 TTX COMPANY 2014 3.6% 15/01/25 144A  
 TTX COMPANY 2014 4.65% 15/06/44 144A  
 TTX COMPANY 2015 3.9% 01/02/45 144A  
 TUCSON ELEC.PWR.CO. 2012 3.85% 15/03/23 S  
 TUFTS MEDICAL CZ. 2013 6.323% 01/01/28 S  
 TUFTS MEDICAL CZ. 2013 7% 01/01/38 S  
 TVCEN.OF AMERICA 2013 8 1/4% 15/01/28 Q  
 TVCEN.OF AMERICA 2014 8% 15/12/29 Q  
 TYCO INTL.US INCO. 1992 9 1/2% 01/05/22 S  
 TYCO INTL.US INCO. 1993 8% 01/03/23 S  
 TYSON FOODS INCO. 1998 7% 01/05/18 S  
 TYSON FOODS INCO. 1998 7% 15/01/28 S  
 UGI UTILS.INCO. 1997 7 1/4% 01/11/17 B  
 UGI UTILS.INCO. 2003 6 1/2% 15/08/33 C  
 UGI UTILS.INCO. 2004 6.133% 15/10/34 C  
 UNION CARBIDE CORP. 1993 7 7/8% 01/04/23 S  
 UNION CARBIDE CORP. 1995 6.79% 01/06/25 P1 /n  
 UNION CARBIDE CORP. 1995 7 1/2% 01/06/25 S  
 UNION ELECTRIC CO. 1993 7.15% 01/08/23 MBIA  
 UNION ELECTRIC CO. 2003 5.1% 01/08/18 S  
 UNION ELECTRIC CO. 2004 5.1% 01/10/19 S  
 UNION ELECTRIC CO. 2005 5% 01/02/20 S  
 UNION ELECTRIC CO. 2005 5.3% 01/08/37 S  
 UNION PAC.RAILROAD 1955 4 3/4% 01/01/20 A  
 UNION PAC.RAILROAD 1955 4 3/4% 01/01/30 B  
 UNION PAC.RAILROAD 1955 5% 01/01/45  
 UNION PAC.RAILROAD 2001 6.63% 27/01/22 S  
 UNION PAC.RAILROAD 2006 5.866% 02/07/30 S  
 UNION PACIFIC CORP. 1990 10% 10/04/20 C  
 UNION PACIFIC CORP. 1990 9.9% 15/05/18 C  
 UNION PACIFIC CORP. 1990 9.94% 01/04/20 C  
 UNION PACIFIC CORP. 1998 7 1/8% 01/02/28 S  
 UNION PACIFIC CORP. 1999 6 5/8% 01/02/29 S  
 UNION PACIFIC CORP. 2003 5 3/8% 01/06/33 S  
 UNION PACIFIC CORP. 2004 6 1/4% 01/05/34 S  
 UNION PACIFIC CORP. 2007 6.15% 01/05/37 S  
 UNION PACIFIC CORP. 2008 7 7/8% 15/01/19 S  
 UNION PACIFIC CORP. 2009 6 1/8% 15/02/20 S  
 UNION PACIFIC CORP. 2010 4% 01/02/21 S  
 UNION PACIFIC CORP. 2010 5.78% 15/07/40 144A  
 UNION PACIFIC CORP. 2013 4 3/4% 15/12/43 S  
 UNION PACIFIC CORP. 2013 4.821% 01/02/44 144A  
 UNION PACIFIC CORP. 2015 4.05% 15/11/45 S  
 UNION PACIFIC CORP. 2016 4.05% 01/03/46 S  
 UNITED AIRL.INCO. 1991 10.02% 22/03/14 DEFAULT  
 UNITED AIRL.INCO. 1997 6.9% 02/07/18 1997-4B  
 UNITED AIRL.INCO. 1998 6.648% 15/03/19 1A  
 UNITED AIRL.INCO. 1998 6.748% 15/09/18 1B  
 UNITED AIRL.INCO. 1998 6.82% 01/11/19 1998-3  
 UNITED AIRL.INCO. 1999 6.545% 02/08/20 1999-1  
 UNITED AIRL.INCO. 1999 6.795% 02/02/20 1999-1  
 UNITED AIRL.INCO. 1999 7.256% 15/09/21 1999-2  
 UNITED AIRL.INCO. 1999 7.566% 15/09/21 1999-2  
 UNITED AIRL.INCO. 2000 7.707% 02/10/22 2000-2  
 UNITED AIRL.INCO. 2000 8.048% 01/05/22 2000-1  
 UNITED AIRL.INCO. 2000 8.307% 02/10/19 2000-2  
 UNITED AIRL.INCO. 2000 8.388% 01/05/22 2000-1  
 UNITED AIRL.INCO. 2005 9.798% 01/10/22 2005-ER  
 UNITED AIRL.INCO. 2012 4.15% 11/10/25 2012-1A  
 UNITED AIRL.INCO. 2015 3.45% 01/06/29 AA-CLAS  
 UNITED STATES STEEL 2007 6.65% 01/06/37 S  
 UNITED STATES STEEL 2007 7% 01/02/18 S  
 UNITED TECHNOLOGIES 1989 8 7/8% 15/11/19 S



UNITED TECHNOLOGIES 1991 8 3/4% 01/03/21 S  
 UNITED TECHNOLOGIES 1991 9.32% 05/02/21 B  
 UNITED TECHNOLOGIES 1991 9.32% 05/02/21 S  
 UNITED TECHNOLOGIES 1998 6.7% 01/08/28 S  
 UNITED TECHNOLOGIES 1999 7 1/2% 15/09/29 S  
 UNITED TECHNOLOGIES 2005 9.32% 05/02/21 S  
 UNITED UTILS.GROUP 1998 6 7/8% 15/08/28 S  
 UNITED UTILS.GROUP 2004 5 3/8% 01/02/19 S  
 UNITED WTW.INCO. 1995 8.84% 03/02/25 144A  
 UNITED WTW.INCO. 1998 6.97% 03/02/23 144A  
 UNITYMEDIA GMBH 2014 6 1/8% 15/01/25 144A  
 UNITYMEDIA HESSEN & 2012 5 1/2% 15/01/23 144A  
 UNITYMEDIA HESSEN & 2014 5% 15/01/25 144A  
 UNIVERSAL HLTH.SVS. 2006 7 1/8% 30/06/16 S  
 UNIVERSITY OF LVLE. 2013 5.376% 01/03/33 S  
 UNIVISION COMMS. 2010 8 1/2% 15/05/21 S  
 UPM KYMMENE OYJ 1997 7.45% 26/11/27 144A  
 UPM KYMMENE OYJ 2003 5 1/2% 30/01/18 144A  
 US AIRWAYS INCO. 2011 7 1/8% 22/04/25 2011-1  
 US AIRWAYS INCO. 2012 4 5/8% 03/12/26 2012-2A  
 US CELLULAR CORP. 2003 6.7% 15/12/33 S  
 USG CORP. 2007 G/R 15/01/18 S  
 VA.ELEC.& POWER CO. 2006 6% 15/01/36 B  
 VA.ELEC.& POWER CO. 2007 6.35% 30/11/37 D  
 VA.ELEC.& POWER CO. 2008 5.4% 30/04/18 2008 A  
 VA.ELEC.& POWER CO. 2008 8 7/8% 15/11/38 B  
 VA.ELEC.& POWER CO. 2009 5% 30/06/19 A  
 VA.ELEC.& POWER CO. 2010 3.45% 01/09/22 2010 SE  
 VALEANT PHARMS.INTL 2011 7 1/4% 15/07/22 144A  
 VALERO ENERGY CORP. 1996 7.65% 01/07/26 P1 /I  
 VALERO ENERGY CORP. 1997 6 3/4% 15/10/37 P10/09  
 VALERO ENERGY CORP. 1997 7.2% 15/10/17 S  
 VALERO ENERGY CORP. 2000 8 3/4% 15/06/30 S  
 VALERO ENERGY CORP. 2002 7 1/2% 15/04/32 S  
 VECTREN UTL.HDG. 2003 5 3/4% 01/08/18 S  
 VECTREN UTL.HDG. 2005 6.1% 01/12/35 S  
 VEDANTA RESOURCES 2013 7 1/8% 31/05/23 144A  
 VERIZON CAL.INCO. 1998 6 3/4% 15/05/27 F  
 VERIZON CAL.INCO. 1998 6 3/4% 15/05/27 F (MBIA  
 VERIZON COMMS. 2000 7 3/4% 01/12/30 144A  
 VERIZON COMMS. 2015 4.272% 15/01/36 144A  
 VERIZON FLORIDA 1998 6.86% 01/02/28 E  
 VERIZON FLORIDA 1998 6.86% 01/02/28 E (MBIA  
 VERIZON NEW YORK 1998 6 1/2% 15/04/28 S  
 VERIZON NJ.INCO. 1989 7.85% 15/11/29 MBIA  
 VERIZON NJ.INCO. 1989 7.85% 15/11/29 P5 /V  
 VERIZON NJ.INCO. 1992 8% 01/06/22 S  
 VERIZON PENN.LLC 1990 8.35% 15/12/30 P5 /C  
 VERIZON PENN.LLC 1991 8 3/4% 15/08/31 S  
 VERIZON PENN.LLC 1998 6% 01/12/28 S  
 VERIZON VA.LLC 1989 8 3/8% 01/10/29 P1 /t  
 VERIZON VA.LLC 1992 7 7/8% 15/01/22 S  
 VESSEL MAN.SERVICES 2003 4.96% 15/11/27 S  
 VESSEL MAN.SERVICES 2009 5 1/8% 16/04/35 2009  
 VESSEL MAN.SERVICES 2012 3.477% 16/01/37 2012  
 VIMPELCOM HDG.BV 2011 7.5043% 01/03/22 144A  
 VIRGIN AUS.HLTD. 2013 5% 23/04/25 144A  
 VIVENDI EXG.INCO. 1992 8.35% 15/01/22 S  
 VIVENDI EXG.INCO. 1993 6 7/8% 01/09/23 S  
 VOTORANTIM CIMENTOS 2011 7 1/4% 05/04/41 144A  
 WAKE FOREST UVTY. 2012 2.604% 15/01/24 2012  
 WAKE FOREST UVTY. 2012 2.754% 15/01/25 2012  
 WAKE FOREST UVTY. 2012 2.954% 15/01/26 2012  
 WAKE FOREST UVTY. 2012 3.104% 15/01/27 2012  
 WAKE FOREST UVTY. 2012 3.451% 15/01/32 2012  
 WAKE FOREST UVTY. 2012 3.701% 15/01/42 2012  
 WAL MART STORES 1993 6 3/4% 15/10/23 S  
 WAL MART STORES 1998 G/R 01/06/18 PURS  
 WAL MART STORES 2000 7.55% 15/02/30 S  
 WAL MART STORES 2006 5.502% 15/07/26 144A  
 WASHINGTON GAS LT. 1996 6.15% 26/01/26 S  
 WASHINGTON GAS LT. 1996 6.62% 23/10/26 C  
 WASHINGTON GAS LT. 1996 6.63% 23/10/26 C  
 WASHINGTON GAS LT. 1996 6.82% 09/10/26 C  
 WASHINGTON GAS LT. 1997 6.4% 22/07/27 S-D  
 WASHINGTON GAS LT. 1997 6.46% 23/07/27 S-D  
 WASHINGTON GAS LT. 1997 6.49% 27/09/27 D  
 WASHINGTON GAS LT. 1997 6.57% 22/02/27 D  
 WASHINGTON GAS LT. 1998 6.57% 12/01/28 S-D  
 WASHINGTON GAS LT. 1998 6.65% 20/03/23 S-D  
 WASHINGTON GAS LT. 1998 6.72% 15/02/28 S-D  
 WASHINGTON GAS LT. 1998 6.81% 13/03/28 S-D  
 WASHINGTON GAS LT. 1998 6.85% 09/03/28 S-D  
 WASHINGTON GAS LT. 2000 7 1/2% 01/04/30 S-E  
 WASHINGTON GAS LT. 2005 5.44% 11/08/25 S-G  
 WASHINGTON GAS LT. 2006 5.7% 18/01/36 S-G  
 WASHINGTON GAS LT. 2006 5.781% 17/03/36 S  
 WASHINGTON GAS LT. 2010 5.211% 03/12/40 S-I  
 WASHINGTON GAS LT. 2013 5% 15/12/43 J  
 WASTE MAN.INCO. 1996 7.1% 01/08/26 P1 /g  
 WASTE MAN.INCO. 1998 7% 15/07/28 S  
 WASTE MAN.INCO. 1999 7 3/8% 15/05/29 144A  
 WEC ENERGY GPIN. 2003 6.2% 01/04/33 S  
 WESTAR ENERGY INCO. 2005 5.1% 15/07/20 AMBAC  
 WESTAR ENERGY INCO. 2005 5.1% 15/07/20 S  
 WESTAR ENERGY INCO. 2013 4.1% 01/04/43 S  
 WESTERN RES.INCO. 1992 8 1/2% 01/07/22 S  
 WESTROCK MWV LLC 1990 9 3/4% 15/06/20 S  
 WESTROCK MWV LLC 1990 9.83% 20/04/20 A  
 WESTROCK MWV LLC 1997 7 1/2% 15/06/27 S

WESTROCK MWV LLC 1997 7.35% 01/03/17 S  
 WESTROCK MWV LLC 1997 7.65% 15/03/27 S  
 WESTROCK MWV LLC 2000 8.2% 15/01/30 S  
 WESTROCK MWV LLC 2001 7.95% 15/02/31 S  
 WESTROCK MWV LLC 2002 6.8% 15/11/32 S  
 WEYERHAEUSER 1991 9% 01/10/21 S  
 WEYERHAEUSER 1993 7 1/8% 15/07/23 S  
 WEYERHAEUSER 1995 7.95% 15/03/25 S  
 WEYERHAEUSER 1995 8 1/2% 15/01/25 S  
 WEYERHAEUSER 1996 7.35% 01/07/26 P1 /1  
 WEYERHAEUSER 1996 7.85% 01/07/26 S  
 WEYERHAEUSER 1997 6.95% 01/08/17 S  
 WEYERHAEUSER 1997 6.95% 01/10/27 S  
 WEYERHAEUSER 1998 7% 01/02/18 S  
 WEYERHAEUSER 2002 6 7/8% 15/12/33 S  
 WHIRLPOOL CORP. 1996 7 3/4% 15/07/16 S  
 WHITE PINE 2007 6.96% 10/07/37 144A  
 WI.ELEC.PWR.CO. 1998 6 1/2% 01/06/28 S  
 WI.ELEC.PWR.CO. 2003 5 5/8% 15/05/33 S  
 WI.ELEC.PWR.CO. 2006 5.7% 01/12/36 S  
 WI.ELEC.PWR.CO. 2012 3.65% 15/12/42 S  
 WI.ELEC.PWR.CO. 2014 4 1/4% 01/06/44 S  
 WI.POWER & LIGHT CO 2004 6 1/4% 31/07/34 S  
 WI.POWER & LIGHT CO 2007 6 3/8% 15/08/37 S  
 WI.POWER & LIGHT CO 2008 7.6% 01/10/38 S  
 WILLIAMS COMPANIES 1991 9 3/8% 15/11/21 S  
 WILLIAMS COMPANIES 1999 7 5/8% 15/07/19 S  
 WILLIAMS COMPANIES 2001 7 3/4% 15/06/31 S  
 WILLIAMS COMPANIES 2009 8 3/4% 15/01/20 144A  
 WINDSTREAM SVS.LLC 2011 7 1/2% 01/06/22 144A  
 WISCONSIN PUB.SER. 1998 6.08% 01/12/28 S  
 WISCONSIN PUB.SER. 2006 5.55% 01/12/36 S  
 WISCONSIN PUB.SER. 2012 3.671% 01/12/42 S  
 WPX ENERGY INCO. 2011 6% 15/01/22 144A  
 WSTN.MASS.ELEC.CO. 2004 5.9% 15/09/34 S-B  
 WSTN.MASS.ELEC.CO. 2007 6.7% 15/08/37 S-D  
 WYETH LLC 1993 7 1/4% 01/03/23 S  
 WYETH LLC 2003 6 1/2% 01/02/34 S  
 WYETH LLC 2003 6.45% 01/02/24 S  
 WYNN LAS VEGAS 2013 4 1/4% 30/05/23 144A  
 XCEL ENERGY 2011 4.8% 15/09/41 S  
 XEROX CORP. 1996 6 1/4% 15/11/26 D  
 XEROX CORP. 1997 5 7/8% 15/06/37 P5 /n  
 XEROX CORP. 1997 5.545% 22/07/37 S  
 XEROX CORP. 1997 5.9% 05/05/37 S  
 XEROX CORP. 1997 5.91% 01/04/37 S  
 XEROX CORP. 1998 F/R 11/38 E  
 XEROX CORP. 2007 ZERO 30/07/22 144A  
 XTO ENERGY INCO. 2006 6.1% 01/04/36 S  
 XTO ENERGY INCO. 2007 6 3/4% 01/08/37 S  
 YPF SA 1998 10% 02/11/28 C  
 YPF SA 2015 8 1/2% 28/07/25 144A

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De Nederlandsche Bank N.V.  
Postbus 98, 1000 AB Amsterdam  
020 524 91 11  
dnb.nl