Exhibit No. (DCP-4) Docket UE-152253 Witness: David C. Parcell

# BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

**DOCKET UE-152253** 

Complainant,

v.

PACIFIC POWER & LIGHT COMPANY,

Respondent.

EXHIBIT TO TESTIMONY OF

DAVID C. PARCELL

ON BEHALF STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Economic Indicators** 

March 17, 2016

## **ECONOMIC INDICATORS**

Year	Real GDP* Growth	Industrial Production Growth	Unemploy- ment Rate	Consumer Price Index
		1975 - 1982	Cycle	
1975	-1.1%	-8.9%	8.5%	7.0%
1976	5.4%	10.8%	7.7%	4.8%
1977	5.5%	5.9%	7.0%	6.8%
1978	5.0%	5.7%	6.0%	9.0%
1979	2.8%	4.4%	5.8%	13.3%
1980	-0.2%	-1.9%	7.0%	12.4%
1981	1.8%	1.9%	7.5%	8.9%
1982	-2.1%	-4.4%	9.5%	3.8%
		1983 - 1991	Cycle	
1983	4.0%	3.7%	9.5%	3.8%
1984	6.8%	9.3%	7.5%	3.9%
1985	3.7%	. 1.7%	7.2%	3.8%
1986	3.1%	0.9%	7.0%	1.1%
1987	2.9%	4.9%	6.2%	4.4%
1988	3.8%	4.5%	5.5%	4.4%
1989	3.5%	1.8%	5.3%	4.6%
1990	1.8%	-0.2%	5.6%	6.1%
1991	-0.5%	-2.0%	6.8%	3.1%
		1992 - 2001	Cycle	
1992	3.0%	3.1%	7.5%	2.9%
1993	2.7%	3.4%	6.9%	2.7%
1994	4.0%	5.5%	6.1%	2.7%
1995	3.7%	4.8%	5.6%	2.5%
1996	4.5%	4.3%	5.4%	3.3%
1997	4.5%	7.3%	4.9%	1.7%
1998	4.2%	5.8%	4.5%	1.6%
1999	3.7%	4.5%	4.2%	2.7%
2000	4.1%	4.0%	4.0%	3.4%
2001	1.1%	-3.4%	4.7%	1.6%
		2002 - 2009	-	
2002	1.8%	0.2%	5.8%	2.4%
2003	2.8%	1.2%	6.0%	1.9%
2004	3.8%	2.3%	5.5%	3.3%
2005	3.3%	3.2%	5.1%	3.4% 2.5%
2006	2.7%	2.2%	4.6%	4.1%
2007	1.8%	2.5%	4.6% 5.8%	0.1%
2008	-0.3%	-3.4%	9.3%	2.7%
2009	-2.8%	-11.3%	9.5%	2.1 /0
	0 -01	Current C		4 50/
2010	2.5%	5.6%	9.6%	1.5%
2011	1.6%	3.0%	8.9%	3.0% 1.7%
2012	2.3%	2.8%	8.1%	1.7%
2013	2.2%	1.9% 3.7%	7.4% 6.2%	0.8%
2014	2.4%	3.7% 1.3%	5.3%	0.6%

<sup>\*</sup>GDP=Gross Domestic Product

### **ECONOMIC INDICATORS**

Year	Real GDP* Growth	Industrial Production Growth	Unemploy- ment Rate	Consumer Price Index
2004				5.00/
1st Qtr.	3.0%	2.8%	5.6%	5.2%
2nd Qtr.	3.5%	4.9%	5.6%	4.4%
3rd Qtr.	3.6%	4.6%	5.4%	0.8%
4th Qtr.	2.5%	4.3%	5.4%	3.6%
2005				
1st Qtr.	4.1%	3.8%	5.3%	4.4%
2nd Qtr.	1.7%	3.0%	5.1%	1.6%
3rd Qtr.	3.1%	2.7%	5.0%	8.8%
4th Qtr.	2.1%	2.9%	4.9%	-2.0%
2006				
1st Qtr.	5.4%	3.4%	4.7%	4.8%
2nd Qtr.	1.4%	4.5%	4.6%	4.8%
3rd Qtr.	0.1%	5.2%	4.7%	0.4%
4th Qtr.	3.0%	3.5%	4.5%	0.0%
2007				
1st Qtr.	0.9%	2.5%	4.5%	4.8%
2nd Qtr.	3.2%	1.6%	4.5%	5.2%
3rd Qtr.	2.3%	1.8%	4.6%	1.2%
4th Qtr.	2.9%	1.7%	4.8%	6.4%
2008				
1st Qtr.	-1.8%	1.9%	4.9%	2.8%
2nd Qtr.	1.3%	0.2%	5.3%	7.6%
3rd Qtr.	-3.7%	-3.0%	6.0%	2.8%
4th Qtr.	-8.9%	6.0%	6.9%	-13.2%
2009				
1st Qtr.	-5.3%	-11.6%	8.1%	2.4%
2nd Qtr.	-0.3%	-12.9%	9.3%	3.2%
3rd Qtr.	1.4%	-9.3%	9.6%	2.0%
4th Qtr.	4.0%	-4.5%	10.0%	2.5%
2010				
1st Qtr.	1.6%	2.7%	9.7%	0.9%
2nd Qtr.	3.9%	6.5%	9.7%	-1.2%
3rd Qtr.	2.8%	6.9%	9.6%	2.8%
4th Qtr.	2.8%	6.2%	9.6%	2.8%
2011				
1st Qtr.	-1.5%	5.4%	9.0%	4.8%
2nd Qtr.	2.9%	3.6%	9.0%	3,2%
3rd Qtr.	0.8%	3.3%	9.1%	2.4%
4th Qtr.	4.6%	4.0%	8.7%	0.4%
2012				
1st Qtr.	2.3%	4.5%	8.3%	3.2%
2nd Qtr.	1.6%	4.7%	8.2%	0.0%
3rd Qtr.	2.5%	3.4%	8.1%	4.0%
4th Qtr.	0.1%	2.8%	7.8%	0.0%
2013				
1st Qtr.	1.9%	2.5%	7.7%	2.0%
2nd Qtr.	1.1%	2.0%	7.6%	1.2%
3rd Qtr.	3.0%	2.6%	7.3%	1.6%
4th Qtr.	3.9%	3.3%	7.0%	1.2%
2014				
1st Qtr.	-0.9%	3.2%	6.6%	1.6%
2nd Qtr.	4.6%	4.2%	6.2%	3.6%
3rd Qtr.	4.3%	4.7%	6.1%	0.0%
4th Qtr.	2.1%	4.5%	5.7%	-2.8%
2015				
1st Qtr.	0.6%	3.5%	5.6%	-1.2%
2nd Qtr.	3.9%	1.4%	5.4%	3.2%
3rd Qtr.	2.0%	1.1%	5.2%	-0.1%
4th Qtr.	1.0%	-0.8%	5.0%	0.0%
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\*GDP=Gross Domestic Product

### **INTEREST RATES**

Year	Prime Rate	US Treasury T Bills 3 Month	US Treasury T Bonds 10 Year	Utility Bonds Aaa	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
			1975 - 1982	Cycle			
1975	7.86%	5.84%	7.99%	9.03%	9.44%	10.09%	10.969
1976	6.84%	4.99%	7.61%	8.63%	8.92%	9.29%	9.82%
1977	6.83%	5.27%	7.42%	8.19%	8.43%	8.61%	9.06%
1978	9.06%	7.22%	8.41%	8.87%	9.10%	9.29%	9.62%
1979	12.67%	10.04%	9.44%	9.86%	10.22%	10.49%	10.96
1980	15.27%	11.51%	11.46%	12.30%	13.00%	13.34%	13.95
1981	18.89%	14.03%	13.93%	14.64%	15.30%	15.95%	16.60
1982	14.86%	10.69%	13.00%	14.22%	14.79%	15.86%	16.45
			1983 - 1991	Cycle			
1983	10.79%	8.63%	11.10%	12.52%	12.83%	13.66%	14.20
1984	12.04%	9.58%	12.44%	12.72%	13.66%	14.03%	14.53
1985	9.93%	7.48%	10.62%	11.68%	12.06%	12.47%	12.96
1986	8.33%	5.98%	7.68%	8.92%	9.30%	9.58%	10.00
1987	8.21%	5.82%	8.39%	9.52%	9.77%	10.10%	10.53
1988	9.32%	6.69%	8.85%	10.05%	10.26%	10.49%	11.00
1989	10.87%	8.12%	8.49%	9.32%	9.56%	9.77%	9.97
1990	10.01%	7.51%	8.55%	9.45%	9.65%	9.86%	10.06
1991	8.46%	5.42%	7.86%	8.85%	9.09%	9.36%	9.55
		•	1992 - 2001	Cvcle			
1992	6.25%	3,45%	7.01%	8.19%	8.55%	8.69%	8.86
1993	6.00%	3.02%	5.87%	7.29%	7.44%	7.59%	7.91
1994	7.15%	4.29%	7.09%	8.07%	8.21%	8.31%	8.63
1995	8.83%	5.51%	6.57%	7.68%	7.77%	7.89%	8.29
1996	8.27%	5.02%	6.44%	7.48%	7.57%	7.75%	8.16
1997	8.44%	5.07%	6.35%	7.43%	7.54%	7.60%	7.95
1998	8.35%	4.81%	5.26%	6.77%	6.91%	7.04%	7.26
1999	8.00%	4.66%	5.65%	7.21%	7.51%	7.62%	7.88
2000	9.23%	5.85%	6.03%	7.88%	8.06%	8.24%	8.36
2001	6.91%	3.44%	5.02%	7.47%	7.59%	7.78%	8.02
			2002 - 2009	Cycle			
2002	4.67%	1.62%	4.61%	•	[1] 7.19%	7.37%	8.02
2003	4.12%	1.01%	4.01%		6.40%	6.58%	6.84
2004	4.34%	1.38%	4.27%		6.04%	6.16%	6.40
2005	6.19%	3.16%	4.29%		5.44%	5.65%	5.93
2006	7.96%	4.73%	4.80%		5.84%	6.07%	6.32
2007	8.05%	4.41%	4.63%		5.94%	6.07%	6.33
2008	5.09%	1.48%	3.66%		6.18%	6.53%	7.25
2009	3.25%	0.16%	3.26%		5.75%	6.04%	7.06
			Current C	ycle			
2010	3.25%	0.14%	3.22%	-	5.24%	5.46%	5.96
2011	3.25%	0.06%	2.78%		4.78%	5.04%	5.57
2012	3.25%	0.09%	1.80%		3.83%	4.13%	4.86
2013	3.25%	0.06%	2.35%		4.24%	4.47%	4.98
2014	3.25%	0.03%	2.54%		4.19%	4.28%	4.80
2015	3.26%	0.60%	2.14%		4.00%	4.12%	5.03

<sup>[1]</sup> Note: Moody's has not published Aaa utility bond yields since 2001.

Sources: Council of Economic Advisors, Economic Indicators; Moody's Bond Record; Federal Reserve Bulletin; various issues.

#### INTEREST RATES

2010  Jan 3.25% 0.10% Mar 3.25% 0.15% Apr 3.25% 0.15% May 3.25% 0.15% June 3.25% 0.15% Sept 3.25% 0.15% Oct 3.25% 0.05% Arg 3.25% 0.06% May 3.25% 0.06% May 3.25% 0.06% May 3.25% 0.05% Sept 3.25% 0.09% June 3.25% 0.09% Aug 3.25% 0.09% Aug 3.25% 0.09% Sept 3.25% 0.09% Sept 3.25% 0.09% Sept 3.25% 0.09% Mar 3.25% 0.09% June 3.25% 0.09% June 3.25% 0.09% June 3.25% 0.09% June 3.25% 0.09% Apr 3.25% 0.09% June 3.25% 0.00% Oct 3.25% 0.10% Oct 3.25% 0.10% Oct 3.25% 0.09% June 3.25% 0.09% June 3.25% 0.09% June 3.25% 0.00% Aug 3.25% 0.00% Apr 3.25% 0	US Treasury T Bonds 10 Year	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
Jan 3.25% 0.06% Feb 3.25% 0.10% Mar 3.25% 0.15% Apr 3.25% 0.15% May 3.25% 0.15% June 3.25% 0.15% June 3.25% 0.15% Sept 3.25% 0.15% Sept 3.25% 0.15% Feb 3.25% 0.15%  Dan 3.25% 0.06%  May 3.25% 0.06%  May 3.25% 0.06%  Dan 3.25% 0.05%  Sept 3.25% 0.02%  Dan 3.25% 0.08%  Dan 3.25% 0.08%  Dan 3.25% 0.09%  Dan 3.25% 0.00%  Dan 3.25%				
Mar 3.25% 0.15% Apr 3.25% 0.15% May 3.25% 0.16% June 3.25% 0.16% Aug 3.25% 0.16% Aug 3.25% 0.15% Septl 3.25% 0.15% Oct 3.25% 0.15% Septl 3.25% 0.15% Dec 3.25% 0.13% Nov 3.25% 0.15%  2011  Jan 3.25% 0.15% Feb 3.25% 0.16% Apr 3.25% 0.16% Apr 3.25% 0.04% July 3.25% 0.04% Apr 3.25% 0.05% Apr 3.25% 0.09% Apr 3.25% 0.00% A	3.73%	5.55%	5.77%	6.16%
Apr 3.25% 0.15% 0.15% 0.12% 0.12% 0.12% 0.12% 0.15% 0.12% 0.15% 0.12% 0.15% 0.15% 0.12% 0.15% 0.05% 0.15% 0.05% 0.	3.69%	5.69%	5.87%	6.25%
Mey         3.25%         0.16%           June         3.25%         0.12%           July         3.25%         0.15%           Sept         3.25%         0.15%           Sept         3.25%         0.15%           Sept         3.25%         0.13%           Nov         3.25%         0.13%           Dec         3.25%         0.15%           2011           Jan         3.25%         0.14%           Mar         3.25%         0.06%           Apr         3.25%         0.04%           July         3.25%         0.04%           July         3.25%         0.05%           May         3.25%         0.05%           Apr         3.25%         0.05%           Sept         3.25%         0.05%           Sept         3.25%         0.02%           Oct         3.25%         0.02%           Oct         3.25%         0.02%           Feb         3.25%         0.08%           Mar         3.25%         0.08%           Mar         3.25%         0.08%           Mar         3.25%         0.08%	3.73%	5.64%	5.84%	6.22%
June 3.25% 0.12% Aug 3.25% 0.15% Sept 3.25% 0.15% Oct 3.25% 0.15% Nov 3.25% 0.15% Dec 3.25% 0.15%  2011 Jan 3.25% 0.15% Feb 3.25% 0.14% Mar 3.25% 0.14% Mar 3.25% 0.06% May 3.25% 0.06% Aug 3.25% 0.06% May 3.25% 0.08% May 3.25% 0.09% Dec 3.25% 0.00% Dec 3.	3.85%	5.62%	5.81%	6.19%
July 3.25% 0.16%   Sept 3.25% 0.15%   Sept 3.25% 0.15%   Oct 3.25% 0.13%   Nov 3.25% 0.13%   Dec 3.25% 0.15%    2011  Jan 3.25% 0.15%    2013  Jan 3.25% 0.15%    Mar 3.25% 0.14%   Mar 3.25% 0.06%   May 3.25% 0.04%   July 3.25% 0.04%   July 3.25% 0.05%   Sept 3.25% 0.02%   Cot 3.25% 0.02%   Oct 3.25% 0.09%   Aug 3.25% 0.09%   Aug 3.25% 0.08%   Mar 3.25% 0.09%   July 3.25% 0.09%   July 3.25% 0.09%   Oct 3.25% 0.09%   Oct 3.25% 0.11%   Oct 3.25% 0.10%   Oct 3.25% 0.10%   Oct 3.25% 0.09%   Aug 3.25% 0.09%   Oct 3.25% 0.00%   Oct 3.25% 0.00%   Oct 3.25% 0.00%   Oct 3.25% 0.00%   Oct 3.25% 0.05%   Oct 3.25% 0.03%   Aug 3.25% 0.05%   Oct 3.25% 0.03%   Oct 3.2	3.42%	5.29%	5.50%	5.97%
Aug 3.25% 0.15% Oct 3.25% 0.15% Oct 3.25% 0.13% Oct 3.25% 0.15% Oct 3.25% 0.04% Oct 3.25% 0.06% Oct 3.25% 0.02% Oct 3.25% 0.09% Oct 3.25% 0.10% Oct 3.25% 0.08% Oct 3.25% 0.08% Oct 3.25% 0.09% Oct 3.25% 0.00% Oct 3.25% 0.00	3.20%	5.22%	5.46%	6.189
Sept         3.25%         0.15%           Oct         3.25%         0.13%           Nov         3.25%         0.13%           Dec         3.25%         0.13%           Dec         3.25%         0.15%           2011           Jan         3.25%         0.14%           Mar         3.25%         0.04%           May         3.25%         0.04%           June         3.25%         0.04%           June         3.25%         0.04%           July         3.25%         0.03%           Aug         3.25%         0.02%           Oct         3.25%         0.02%           Oct         3.25%         0.02%           Dec         3.25%         0.02%           Sept         3.25%         0.02%           Feb         3.25%         0.08%           Mar         3.25%         0.08%           Mar         3.25%         0.09%           June         3.25%         0.09%           June         3.25%         0.09%           Apr         3.25%         0.09%           Aug         3.25%         0.10%	3.01%	4.99%	5.26%	5.98%
Oct         3.25%         0.13%           Dec         3.25%         0.13%           Dec         3.25%         0.15%           2011         Jan         3.25%         0.15%           Feb         3.25%         0.14%           Mar         3.25%         0.04%           Apr         3.25%         0.04%           June         3.25%         0.05%           May         3.25%         0.05%           July         3.25%         0.05%           Sept         3.25%         0.02%           Oct         3.25%         0.02%           Oct         3.25%         0.02%           Peb         3.25%         0.02%           Oct         3.25%         0.02%           Peb         3.25%         0.02%           Peb         3.25%         0.02%           Peb         3.25%         0.09%           Apr         3.25%         0.09%           Apr <td< td=""><td>2.70%</td><td>4.75%</td><td>5.01%</td><td>5.55%</td></td<>	2.70%	4.75%	5.01%	5.55%
Nov 3.25% 0.13% Dec 3.25% 0.15%  2011  Jan 3.25% 0.15%  Feb 3.25% 0.14% Mar 3.25% 0.06% May 3.25% 0.04% June 3.25% 0.04% June 3.25% 0.05% Sept 3.25% 0.02% Oct 3.25% 0.02% Oct 3.25% 0.02%  Poc 3.25% 0.02%  Poc 3.25% 0.02%  Dec 3.25% 0.02%  Dec 3.25% 0.09%  May 3.25% 0.09%  May 3.25% 0.09%  May 3.25% 0.09%  May 3.25% 0.09%  June 3.25% 0.09%  May 3.25% 0.09%  May 3.25% 0.09%  June 3.25% 0.09%  June 3.25% 0.09%  Apr 3.25% 0.09%  June 3.25% 0.09%  Apr 3.25% 0.09%  May 3.25% 0.09%  June 3.25% 0.09%  Dec 3.25% 0.00%  Dec 3.25% 0.05%  Dune 3.25% 0.05%  Dec 3.25% 0.03%  Aug 3.25% 0.03%  Au	2.65%	4.74%	5.01%	5.539
Dec 3.25% 0.15%  2011  Jan 3.25% 0.15% Feb 3.25% 0.14% Mar 3.25% 0.04% Apr 3.25% 0.04% June 3.25% 0.04% June 3.25% 0.05% Sept 3.25% 0.02% Nov 3.25% 0.02% The state of the sta	2.54%	4.89%	5.10%	5.629
Jan 3,25% 0,15% Feb 3,25% 0,14% Mar 3,25% 0,14% Mar 3,25% 0,06% May 3,25% 0,06% June 3,25% 0,05% June 3,25% 0,05% Sept 3,25% 0,02% Oct 3,25% 0,02% Oct 3,25% 0,02% Oct 3,25% 0,02% Dec 3,25% 0,02% June 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,09% Apr 3,25% 0,09% June 3,25% 0,09% June 3,25% 0,10% Oct 3,25% 0,10% Nov 3,25% 0,00% June 3,25% 0,06% Mar 3,25% 0,03% Aug 3,25% 0,06% Aug 3,2	2.76% 3.29%	5.12% 5.32%	5.37% 5.56%	5.85% 6.04%
Jan 3,25% 0,15% Feb 3,25% 0,14% Mar 3,25% 0,14% Mar 3,25% 0,06% May 3,25% 0,06% June 3,25% 0,05% June 3,25% 0,05% Sept 3,25% 0,02% Oct 3,25% 0,02% Oct 3,25% 0,02% Oct 3,25% 0,02% Dec 3,25% 0,02% June 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,09% Apr 3,25% 0,09% June 3,25% 0,09% June 3,25% 0,10% Oct 3,25% 0,10% Nov 3,25% 0,00% June 3,25% 0,06% Mar 3,25% 0,03% Aug 3,25% 0,06% Aug 3,2				
Mar         3.25%         0.11%           Apr         3.25%         0.06%           May         3.25%         0.04%           Jule         3.25%         0.04%           July         3.25%         0.03%           Aug         3.25%         0.02%           Cot         3.25%         0.02%           Nov         3.25%         0.02%           Dec         3.25%         0.02%           2012         Jan         3.25%         0.08%           Mar         3.25%         0.09%           Mar         3.25%         0.09%           Apr         3.25%         0.09%           June         3.25%         0.09%           July         3.25%         0.09%           July         3.25%         0.10%           Aug         3.25%         0.10%           Nov         3.25%         0.10%           Oct         3.25%         0.10%           Apr         3.25%         0.10%           Nov         3.25%         0.10%           Mar         3.25%         0.10%           Apr         3.25%         0.06%           Mar         <	3.39%	5.29%	5.57%	6,069
Mar         3.25%         0.11%           Apr         3.25%         0.06%           May         3.25%         0.04%           Jule         3.25%         0.04%           July         3.25%         0.03%           Aug         3.25%         0.02%           Cot         3.25%         0.02%           Nov         3.25%         0.02%           Dec         3.25%         0.02%           2012         Jan         3.25%         0.08%           Mar         3.25%         0.09%           Mar         3.25%         0.09%           Apr         3.25%         0.09%           June         3.25%         0.09%           July         3.25%         0.09%           July         3.25%         0.10%           Aug         3.25%         0.10%           Nov         3.25%         0.10%           Oct         3.25%         0.10%           Apr         3.25%         0.10%           Nov         3.25%         0.10%           Mar         3.25%         0.10%           Apr         3.25%         0.06%           Mar         <	3.58%	5.42%	5.68%	6,109
Apr 3.25% 0.06%  Aug 3.25% 0.04%  July 3.25% 0.04%  July 3.25% 0.03%  Aug 3.25% 0.05%  Sept 3.25% 0.02%  Nov 3.25% 0.02%  2012  Jan 3.25% 0.02%  Peb 3.25% 0.08%  Mar 3.25% 0.08%  Mar 3.25% 0.09%  Apr 3.25% 0.09%  Aug 3.25% 0.10%  Nov 3.25% 0.10%  Nov 3.25% 0.10%  Nov 3.25% 0.08%  Apr 3.25% 0.08%  Apr 3.25% 0.08%  Apr 3.25% 0.09%  Apr 3.25% 0.09%  Apr 3.25% 0.09%  Dec 3.25% 0.10%  Oct 3.25% 0.00%  Apr 3.25% 0.08%  Apr 3.25% 0.08%  Apr 3.25% 0.08%  2013  Jan 3.25% 0.08%  Apr 3.25% 0.09%  Apr 3.25% 0.06%  Mar 3.25% 0.05%  July 3.25% 0.05%  July 3.25% 0.04%  Sept 3.25% 0.06%  Aug 3.25% 0.06%  Aug 3.25% 0.06%  Aug 3.25% 0.00%  Dec 3.25% 0.00%  Dec 3.25% 0.00%  Apr 3	3.41%	5.33%	5.56%	5.979
May         3.25%         0.04%           June         3.25%         0.04%           July         3.25%         0.03%           Aug         3.25%         0.05%           Sept         3.25%         0.02%           Oct         3.25%         0.02%           Dec         3.25%         0.02%           Zot2         2012         2012           Jan         3.25%         0.08%           Mar         3.25%         0.09%           Apr         3.25%         0.09%           June         3.25%         0.09%           June         3.25%         0.09%           June         3.25%         0.10%           Aug         3.25%         0.10%           Nov         3.25%         0.10%           Nov         3.25%         0.10%           Nov         3.25%         0.10%           Nov         3.25%         0.00%           2013         Jan         3.25%         0.07%           Feb         3.25%         0.07%           Feb         3.25%         0.06%           Mar         3.25%         0.06%           Mar         <	3.46%	5.32%	5.55%	5.989
June 3,25% 0,04%  July 3,25% 0,03%  Aug 3,25% 0,05%  Sept 3,25% 0,02%  Oct 3,25% 0,02%  Oct 3,25% 0,02%  Dec 3,25% 0,02%  Z012  Jan 3,25% 0,02%  Feb 3,25% 0,08%  Mar 3,25% 0,09%  Apr 3,25% 0,09%  Apr 3,25% 0,09%  July 3,25% 0,10%  Aug 3,25% 0,10%  Nov 3,25% 0,11%  Sept 3,25% 0,10%  Nov 3,25% 0,11%  Dec 3,25% 0,08%  Z013  Jan 3,25% 0,10%  Nov 3,25% 0,10%  Aug 3,25% 0,10%  Nov 3,25% 0,09%  July 3,25% 0,09%  July 3,25% 0,09%  Z013  Jan 3,25% 0,00%  Dec 3,25% 0,00%  Apr 3,25% 0,00%  Dec 3,25% 0,00%  Apr 3,25% 0,05%  July 3,25% 0,05%  June 3,25% 0,05%  June 3,25% 0,05%  June 3,25% 0,05%  June 3,25% 0,05%  Aug 3,25% 0,06%  Nov 3,25% 0,07%  Dec 3,25% 0,00%  Aug 3,25% 0,03%  Aug 3,25%	3.17%	5.08%	5.32%	5.749
July 3,25% 0,03% Aug 3,25% 0,05% Sept 3,25% 0,02% Oct 3,25% 0,02% Nov 3,25% 0,02%  2012 Jan 3,25% 0,08% Mar 3,25% 0,09% Apr 3,25% 0,09% June 3,25% 0,09% June 3,25% 0,10% Aug 3,25% 0,09%  2013 Jan 3,25% 0,08%  2013 Jan 3,25% 0,09% Apr 3,25% 0,06% Apr 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,06% Aug 3,25% 0,03% Aug 3	3.00%	5.04%	5.26%	5.679
Aug 3,25% 0,05% Sept 3,25% 0,02% Oct 3,25% 0,02% Nov 3,25% 0,01% Dec 3,25% 0,02%  2012  Jan 3,25% 0,08% Mar 3,25% 0,08% May 3,25% 0,09% Apr 3,25% 0,09% Apr 3,25% 0,09% Apr 3,25% 0,10% Aug 3,25% 0,10% Oct 3,25% 0,10% Nov 3,25% 0,10% Dec 3,25% 0,10% Nov 3,25% 0,08%  2013  Jan 3,25% 0,08%  Mar 3,25% 0,08%  2013  Jan 3,25% 0,08%  2013  Jan 3,25% 0,08%  Apr 3,25% 0,08%  Apr 3,25% 0,06% Mar 3,25% 0,06% Apr 3,25% 0,06% Mar 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,05%  Apr 3,25% 0,06%  Nov 3,25% 0,06%  Nov 3,25% 0,06%  Apr 3,25% 0,06%  Apr 3,25% 0,06%  Apr 3,25% 0,06%  Apr 3,25% 0,03%  Aug 3,25% 0,09%  Aug 3,25% 0,09%	3.00%	5.05%	5.27%	5.709
Sept         3,25%         0,02%           Oct         3,25%         0,02%           Nov         3,25%         0,02%           Dec         3,25%         0,02%           2012         Jan         3,25%         0,08%           Feb         3,25%         0,08%           Mar         3,25%         0,09%           Apr         3,25%         0,09%           May         3,25%         0,09%           July         3,25%         0,10%           Aug         3,25%         0,10%           Oct         3,25%         0,10%           Oct         3,25%         0,10%           Oct         3,25%         0,10%           Oct         3,25%         0,10%           Nov         3,25%         0,10%           Mar         3,25%         0,10%           Mar         3,25%         0,09%           Apr         3,25%         0,09%           Apr         3,25%         0,05%           June         3,25%         0,09%           Apr         3,25%         0,05%           June         3,25%         0,05%           June         <	2.30%	4.44%	4.69%	5.229
Nov 3.25% 0.01% Dec 3.25% 0.02%  2012  Jan 3.25% 0.02%  Feb 3.25% 0.08%  Mar 3.25% 0.08%  May 3.25% 0.09%  July 3.25% 0.10%  Nov 3.25% 0.10%  Nov 3.25% 0.10%  Peb 3.25% 0.10%  Nov 3.25% 0.10%  2013  Jan 3.25% 0.08%  Dec 3.25% 0.07%  Feb 3.25% 0.00%  July 3.25% 0.00%  Aug 3.25% 0.00%  Nov 3.25% 0.00%  Dec 3.25% 0.00%  Dec 3.25% 0.00%  July 3.25% 0.00%  Apr 3.25% 0.00%  Apr 3.25% 0.00%  Apr 3.25% 0.05%  July 3.25% 0.05%  June 3.25% 0.05%  Aug 3.25% 0.06%  Nov 3.25% 0.07%  Dec 3.25% 0.00%  Nov 3.25% 0.00%  Aug 3.25% 0.00%  Nov 3.25% 0.00%  Aug 3.25% 0.03%  Sept 3.25% 0.03%  Aug 3.25% 0.09%  Sep 3.25% 0.09%  Aug 3.25% 0.0	1.98%	4.24%	4.48%	5.119
Dec 3.25% 0.02%  2012  Jan 3.25% 0.08%  Mar 3.25% 0.08%  Mar 3.25% 0.08%  Mar 3.25% 0.09%  Apr 3.25% 0.09%  June 3.25% 0.10%  Aug 3.25% 0.11%  Sept 3.25% 0.11%  Dec 3.25% 0.11%  Dec 3.25% 0.10%  Aug 3.25% 0.11%  Dec 3.25% 0.10%  Aug 3.25% 0.08%  2013  Jan 3.25% 0.08%  2014  Jan 3.25% 0.06%  May 3.25% 0.06%  Aug 3.25% 0.06%  Aug 3.25% 0.06%  May 3.25% 0.06%  Dec 3.25% 0.06%  Aug 3.25% 0.06%  May 3.25% 0.03%  June 3.25% 0.03%  June 3.25% 0.03%  June 3.25% 0.03%  June 3.25% 0.03%  Aug 3.25% 0.03%  Aug 3.25% 0.03%  Aug 3.25% 0.03%  Aug 3.25% 0.03%  May 3.25% 0.03%  Aug 3.25% 0.02%  Nov 3.25% 0.02%  May 3.25% 0.03%  Aug 3.25% 0.03%  Aug 3.25% 0.03%  Aug 3.25% 0.06%  Oct 3.25% 0.06%  Oct 3.25% 0.06%  Aug 3.25% 0.09%  Sep 3.25% 0.06%  Aug 3.25% 0.09%  Sep 3.25% 0.06%  Nov 3.25% 0.09%  Sep 3.25% 0.06%  Aug 3.25% 0.09%  Sep 3.25% 0.06%  Aug 3.25% 0.09%  Sep 3.25% 0.06%  Aug 3.25% 0.09%  Sep 3.25% 0.00%  Sep 3.25% 0.00%  Sep 3.25% 0.00%	2.15%	4.21%	4.52%	5.249
2012  Jan 3.25% 0.02% Feb 3.25% 0.08% Mar 3.25% 0.08% May 3.25% 0.09% June 3.25% 0.09% July 3.25% 0.10% Aug 3.25% 0.10% Aug 3.25% 0.11% Sept 3.25% 0.10% Oct 3.25% 0.10% Dec 3.25% 0.06% Mar 3.25% 0.06% Mar 3.25% 0.06% Mar 3.25% 0.06% Mar 3.25% 0.05% June 3.25% 0.05% Dec 3.25% 0.06% Nov 3.25% 0.06% Nov 3.25% 0.06% Mar 3.25% 0.06% Mar 3.25% 0.06% Mar 3.25% 0.05% June 3.25% 0.03% Aug 3.25% 0.03% Mar 3.25% 0.03% Aug 3.25% 0.03% Mar 3.25% 0.03% Aug 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.06% Aug 3.25% 0.09% Sep 3.25% 0.06% Aug 3.25% 0.09% Sep 3.25% 0.06% Nov 3.25% 0.09%	2.01%	3.92%	4.25%	4.939
Jan 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,09% June 3,25% 0,10% 0,11% Sept 3,25% 0,11% Sept 3,25% 0,11% Dec 3,25% 0,10% Nov 3,25% 0,11% Dec 3,25% 0,08% Mar 3,25% 0,08% Mar 3,25% 0,00% June 3,25% 0,00% Mar 3,25% 0,05% 0,00% Mar 3,25% 0,00	1.98%	4.00%	4.33%	5.079
Feb 3,25% 0,08% Mar 3,25% 0,09% Apr 3,25% 0,09% Apr 3,25% 0,09% June 3,25% 0,10% Aug 3,25% 0,10% Cot 3,25% 0,10% Nov 3,25% 0,10% Nov 3,25% 0,10% Teb 3,25% 0,10%  2013 Jan 3,25% 0,07% Feb 3,25% 0,00% Apr 3,25% 0,06% Apr 3,25% 0,06% Apr 3,25% 0,05% June 3,25% 0,05% Apr 3,25% 0,05% Apr 3,25% 0,06% Nov 3,25% 0,07% Dec 3,25% 0,06% Nov 3,25% 0,03% Sept 3,25% 0,03% June 3,25% 0,03% June 3,25% 0,03% Apr 3,25%	1.97%	4.03%	4.34%	5,069
Mar         3,25%         0,09%           Apr         3,25%         0,08%           May         3,25%         0,09%           June         3,25%         0,09%           July         3,25%         0,10%           Cot         3,25%         0,11%           Sept         3,25%         0,11%           Dec         3,25%         0,11%           Dec         3,25%         0,07%           Feb         3,25%         0,07%           Feb         3,25%         0,09%           Apr         3,25%         0,05%           Apr         3,25%         0,05%           Apr         3,25%         0,05%           June         3,25%         0,05%           June         3,25%         0,05%           June         3,25%         0,05%           Sept         0,05%         0,05%           June         3,25%         0,05%           Nov         3,25%         0,07%           Dec         3,25%         0,05%           Dec         3,25%         0,07%           Dec         3,25%         0,07%           Dec         3,25%	1.97%	4.02%	4.36%	5.029
Apr 3,25% 0,08%   May 3,25% 0,09%   June 3,25% 0,09%   June 3,25% 0,10%   Aug 3,25% 0,10%   Sept 3,25% 0,10%   Oct 3,25% 0,10%   Dec 3,25% 0,08%    2013    Jan 3,25% 0,08%    2013   Jan 3,25% 0,08%    Apr 3,25% 0,06%   Apr 3,25% 0,06%   May 3,25% 0,05%   June 3,25% 0,05%   Apr 3,25% 0,05%   June 3,25% 0,05%   Aug 3,25% 0,05%    Sept 3,25% 0,07%    2014    2014    2014    2014    Jan 3,25% 0,05%   Apr 3,25% 0,05%   Apr 3,25% 0,05%   Apr 3,25% 0,06%   May 3,25% 0,06%   Apr 3,25% 0,06%   Apr 3,25% 0,06%   Apr 3,25% 0,06%   Apr 3,25% 0,03%   Apr 3,25	2.17%	4.16%	4.48%	5.139
May         3.25%         0.09%           June         3.25%         0.09%           July         3.25%         0.10%           Aug         3.25%         0.11%           Sept         3.25%         0.10%           Oct         3.25%         0.10%           Nov         3.25%         0.00%           2013         3.25%         0.00%           Jan         3.25%         0.09%           Apr         3.25%         0.09%           Apr         3.25%         0.05%           June         3.25%         0.05%           June         3.25%         0.05%           June         3.25%         0.05%           June         3.25%         0.04%           Aug         3.25%         0.04%           Nov         3.25%         0.06%           Mar         3.25%         0.06%           Mar         3.25%         0.05%           Feb         3.25%	2.05%	4.10%	4.40%	5,119
June 3,25% 0,09% July 3,25% 0,10% Aug 3,25% 0,11% Sept 3,25% 0,11% Nov 3,25% 0,11% Dec 3,25% 0,10% Aug 3,25% 0,10% Nov 3,25% 0,10%  Jan 3,25% 0,08%  Jan 3,25% 0,09% Apr 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,06% Aug 3,25% 0,06% Nov 3,25% 0,07% Dec 3,25% 0,06% Aug 3,25% 0,06% Aug 3,25% 0,06% Nov 3,25% 0,07% Dec 3,25% 0,06% Aug 3,25% 0,06% Aug 3,25% 0,06% Nov 3,25% 0,06% Aug 3,25% 0,03% July 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,03% July 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,09% Sep 3,25% 0,06% Aug 3,25% 0,09% Sep 3,25% 0,06% Aug 3,25% 0,09% Sep 3,25% 0,06% Aug 3,25% 0,09% Sep 3,25% 0,09% Se	1.80%	3.92%	4.20%	4.979
July 3,25% 0,10% Aug 3,25% 0,10% Sept 3,25% 0,10% Oct 3,25% 0,10% Nov 3,25% 0,10% Pec 3,25% 0,08%  2013 Jan 3,25% 0,09% Apr 3,25% 0,09% Apr 3,25% 0,09% Apr 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,05% Nov 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,05% Dec 3,25% 0,06% Mar 3,25% 0,06% Nov 3,25% 0,07% 2014 2014 Jan 3,25% 0,05% Mar 3,25% 0,03% Sept 3,25% 0,03% Aug 3,25% 0,09% Sep 3,25% 0,09% Sep 3,25% 0,09% Sep 3,25% 0,09% Aug 3,25% 0,09% Sep 3,25% 0,09%	1.62%	3.79%	4.08%	4.919
Aug 3.25% 0.11%  Sept 3.25% 0.10%  Oct 3.25% 0.10%  Nov 3.25% 0.11%  Dec 3.25% 0.08%   2013  Jan 3.25% 0.07%  Feb 3.25% 0.09%  Apr 3.25% 0.05%  June 3.25% 0.05%  June 3.25% 0.05%  Sept 3.25% 0.06%  Dec 3.25% 0.06%  Aug 3.25% 0.07%  Dec 3.25% 0.07%  Dec 3.25% 0.07%  2014  Jan 3.25% 0.05%  Apr 3.25% 0.06%  Mar 3.25% 0.06%  Nov 3.25% 0.07%  Dec 3.25% 0.07%  2014  Jan 3.25% 0.06%  Apr 3.25% 0.03%	1.53%	3.58%	3.93%	4.85
Sepit         3.25%         0.10%           Oct         3.25%         0.10%           Nov         3.25%         0.11%           Dec         3.25%         0.11%           Dec         3.25%         0.08%           2013           Jan         3.25%         0.07%           Feb         3.25%         0.09%           Apr         3.25%         0.05%           June         3.25%         0.05%           July         3.25%         0.05%           July         3.25%         0.06%           Aug         3.25%         0.06%           Not         3.25%         0.07%           Dec         3.25%         0.07%           2014         3.25%         0.05%           Jan         3.25%         0.05%           Feb         3.25%         0.05%           Mar         3.25%         0.05%           Feb         3.25%         0.05%           Mar         3.25%         0.05%           Feb         3.25%         0.05%           Mar         3.25%         0.05%           Feb         3.25%         0.03% <tr< td=""><td>1.68%</td><td>3.65%</td><td>4.00%</td><td>4.889</td></tr<>	1.68%	3.65%	4.00%	4.889
Cet         3,25%         0,10%           Nov         3,25%         0,11%           Dec         3,25%         0,08%           2013         Jan         3,25%         0,09%           Feb         3,25%         0,09%           Apr         3,25%         0,05%           June         3,25%         0,05%           June         3,25%         0,05%           July         3,25%         0,04%           Sept         3,25%         0,04%           Sept         3,25%         0,06%           Nov         3,25%         0,06%           Nov         3,25%         0,07%           Dec         3,25%         0,07%           Dec         3,25%         0,05%           Feb         3,25%         0,05%           Feb         3,25%         0,05%           Mar         3,25%         0,03%           Aug         3,25%         0,03%           Aug         <	1.72%	3.69%	4.02%	4.819
Nov 3.25% 0.11% Dec 3.25% 0.08%  2013  Jan 3.25% 0.00%  Mar 3.25% 0.09%  Apr 3.25% 0.09%  May 3.25% 0.05%  June 3.25% 0.05%  July 3.25% 0.04%  Sept 3.25% 0.06%  Nov 3.25% 0.07%  2014  Jan 3.25% 0.05%  July 3.25% 0.06%  Nov 3.25% 0.07%  2014  Jan 3.25% 0.05%  July 3.25% 0.06%  Apr 3.25% 0.06%  Nov 3.25% 0.06%  Apr 3.25% 0.03%  July 3.25% 0.03%  Aug 3.25% 0.02%  Nov 3.25% 0.02%  Nov 3.25% 0.02%  Nov 3.25% 0.02%  Nov 3.25% 0.02%  Aug 3.25% 0.03%  July 3.25% 0.03%  Aug 3.25% 0.03%  Apr 3.25% 0.00%  Apr 3.25%	1.75%	3,68%	3,91%	4.54
Dec 3.25% 0.08%  2013  Jan 3.25% 0.07% Feb 3.25% 0.10% Mar 3.25% 0.09% Apr 3.25% 0.06% May 3.25% 0.05% June 3.25% 0.05% July 3.25% 0.05% July 3.25% 0.04% Aug 3.25% 0.06% Nov 3.25% 0.07%  2014  2014  Jan 3.25% 0.05% Mar 3.25% 0.03% June 3.25% 0.03% June 3.25% 0.03% June 3.25% 0.03%  Aug 3.25% 0.03%  Dec 3.25% 0.03%	1.65%	3.60%	3.84%	4.42
Jan 3,25% 0,07% Feb 3,25% 0,10% Mar 3,25% 0,09% Apr 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,04% Sept 3,25% 0,07% Dec 3,25% 0,07%  2014  Jan 3,25% 0,05% Mar 3,25% 0,03% May 3,25% 0,03% Aug 3,25% 0,03% Sept 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,03% Sept 3,25% 0,03% Dec 3,25% 0,03% Sept 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,03% Sept 3,25% 0,03% Aug 3,25% 0,09% Sep 3,25% 0,09%	1.72%	3.75%	4.00%	4.56
Feb 3,25% 0,10% Mar 3,25% 0,09% Apr 3,25% 0,09% Apr 3,25% 0,05% June 3,25% 0,05% July 3,25% 0,04% Aug 3,25% 0,04% Sept 3,25% 0,07% Oct 3,25% 0,07%  2014  Jan 3,25% 0,07%  2014  Jan 3,25% 0,05% Apr 3,25% 0,06% Apr 3,25% 0,03% Aug 3,25% 0,04%  2015 Jan 3,25% 0,03% Aug 3,25% 0,03% Apr 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,06% Oct 3,25% 0,06% Oct 3,25% 0,06% Oct 3,25% 0,06% Oct 3,25% 0,01% Nov 3,25% 0,05%	1.91%	3.90%	4.15%	4.66
Mar 3,25% 0,09% Apr 3,25% 0,06% May 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,05% June 3,25% 0,04% Aug 3,25% 0,04% Aug 3,25% 0,04% Aug 3,25% 0,06% Nov 3,25% 0,06% Nov 3,25% 0,06% Nov 3,25% 0,06% Apr 3,25% 0,05% Mar 3,25% 0,05% Mar 3,25% 0,05% Aug 3,25% 0,03% June 3,25% 0,03% June 3,25% 0,03% Oct 3,25% 0,03% Aug 3,25% 0,03% Oct 3,25% 0,02% Oct 3,25% 0,02% Nov 3,25% 0,03%  Jan 3,25% 0,03%  June 3,25% 0,03%  June 3,25% 0,03%  Aug 3,25% 0,09%  Sep 3,25% 0,01%  Nov 3,25% 0,01%	1.98%	3.95%	4.18%	4.74
Apr 3,25% 0,06% May 3,25% 0,05% Jule 3,25% 0,05% July 3,25% 0,04% Sept 3,25% 0,04% Nov 3,25% 0,07% Dec 3,25% 0,07%  2014  2014  Jan 3,25% 0,05% Feb 3,25% 0,06% Mar 3,25% 0,06% Mar 3,25% 0,03% June 3,25% 0,03% Sept 3,25% 0,09% Sept 3,25% 0,01% Nov 3,25% 0,01%	1.96%	3.90%	4.15%	4.66
May         3.25%         0.05%           June         3.25%         0.05%           July         3.25%         0.04%           Aug         3.25%         0.04%           Sept         3.25%         0.05%           Oct         3.25%         0.07%           Dec         3.25%         0.07%           Zo14         200         200           Jan         3.25%         0.05%           Feb         3.25%         0.05%           Apr         3.25%         0.05%           Apr         3.25%         0.03%           June         3.25%         0.03%           July         3.25%         0.03%           July         3.25%         0.03%           Sept         3.25%         0.02%           Oct         3.25%         0.02%           Dec         3.25%	1.76%	3.74%	4.00%	4.49
June 3,25% 0,05% July 3,25% 0,04% Aug 3,25% 0,04% Sept 3,25% 0,06% Nov 3,25% 0,07% Dec 3,25% 0,07%  2014  Jan 3,25% 0,05% Feb 3,25% 0,05% Mar 3,25% 0,05% Mar 3,25% 0,05% May 3,25% 0,03% Jule 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,03% Sept 3,25% 0,03% Oct 3,25% 0,03% Oct 3,25% 0,03% Sept 3,25% 0,03% Sept 3,25% 0,03% Sept 3,25% 0,03% Sept 3,25% 0,03% Aug 3,25% 0,03% Feb 3,25% 0,03% Nov 3,25% 0,03% Aug 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,03% June 3,25% 0,03% Aug 3,25% 0,09% Sep 3,25% 0,09%	1.93%	3.91%	4.17%	4.65
July 3,25% 0,04% Aug 3,25% 0,04% Sept 3,25% 0,06% Nov 3,25% 0,07% Dec 3,25% 0,07%  2014  Jan 3,25% 0,05% Feb 3,25% 0,05% Apr 3,25% 0,05% Apr 3,25% 0,05% Apr 3,25% 0,03% July 3,25% 0,03% July 3,25% 0,03% Sept 3,25% 0,03% Sept 3,25% 0,03% Sept 3,25% 0,03% Dec 3,25% 0,02% Dec 3,25% 0,02% Dec 3,25% 0,02% Dec 3,25% 0,02% Dec 3,25% 0,03% July 3,25% 0,03% Dec 3,25% 0,02% Dec 3,25% 0,03% Dec 3,25% 0,05%	2.30%	4.27%	4.53%	5.08
Aug 3,25% 0,04% Sept 3,25% 0,02% Oct 3,25% 0,05% Nov 3,25% 0,07% Dec 3,25% 0,07%  2014  Jan 3,25% 0,05% Apr 3,25% 0,05% Apr 3,25% 0,05% Apr 3,25% 0,03% July 3,25% 0,03% July 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,03% Oct 3,25% 0,02% Oct 3,25% 0,02% Dec 3,25% 0,02% Dec 3,25% 0,03%  2015  Jan 3,25% 0,03% Feb 3,25% 0,03% Aug 3,25% 0,02% Nov 3,25% 0,02% Nov 3,25% 0,03% Apr 3,25% 0,06% Oct 3,25% 0,06% Oct 3,25% 0,01% Nov 3,25% 0,01%	2,58%	4.44%	4.68%	5.21
Sept         3,25%         0,02%           Oct         3,25%         0,05%           Nov         3,25%         0,07%           Dec         3,25%         0,07%           2014           Jan         3,25%         0,05%           Feb         3,25%         0,05%           Mar         3,25%         0,05%           Apr         3,25%         0,03%           June         3,25%         0,03%           July         3,25%         0,03%           Aug         3,25%         0,03%           Sept         3,25%         0,02%           Oct         3,25%         0,02%           Dec         3,25%         0,02%           Dec         3,25%         0,03%           Feb         3,25%         0,03%           Apr         3,25%         0,02%           July         3,25%         0,02%	2.74%	4.53%	4.73%	. 5.28
Oct         3,25%         0,06%           Nov         3,25%         0,07%           Dec         3,25%         0,07%           2014           Jan         3,25%         0,05%           Feb         3,25%         0,06%           Mar         3,25%         0,03%           Apr         3,25%         0,03%           June         3,25%         0,03%           July         3,25%         0,03%           Aug         3,25%         0,03%           Sept         3,25%         0,02%           Oct         3,25%         0,02%           Dec         3,25%         0,02%           Dec         3,25%         0,02%           Dec         3,25%         0,03%           Feb         3,25%         0,03%           Apr         3,25%         0,03%           Apr         3,25%         0,02%           July         3,25%         0,02%           July         3,25%         0,03%           May         3,25%         0,02%           July         3,25%         0,04%           July         3,25%         0,0% <tr< td=""><td>2.81%</td><td>4.58%</td><td>4.80%</td><td>5.31</td></tr<>	2.81%	4.58%	4.80%	5.31
Nov 3,25% 0,07% Dec 3,25% 0,07%  2014  Jan 3,25% 0,05% Feb 3,25% 0,05% Mar 3,25% 0,05% May 3,25% 0,03% June 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,03% Oct 3,25% 0,02% Oct 3,25% 0,02% Dec 3,25% 0,02% Dec 3,25% 0,03%  Jan 3,25% 0,02% Dec 3,25% 0,03% Feb 3,25% 0,03% May 3,25% 0,06% Oct 3,25% 0,09% Sep 3,25% 0,06% Oct 3,25% 0,01%	2.62%	4.48%	4.70%	5.17
Dec 3,25% 0.07%  2014  Jan 3,25% 0.05% Feb 3,25% 0.06% Mar 3,25% 0.05% Apr 3,25% 0.03% June 3,25% 0.03% June 3,25% 0.03% June 3,25% 0.03% Sept 3,25% 0.03% Sept 3,25% 0.02% Oct 3,25% 0.02%  2015  Jan 3,25% 0.02% Dec 3,25% 0.04%  2015  Jan 3,25% 0.03% Feb 3,25% 0.03% Feb 3,25% 0.03% Mar 3,25% 0.03% Apr 3,25% 0.03% Mar 3,25% 0.03% Apr 3,25% 0.03% Apr 3,25% 0.03% Apr 3,25% 0.03% Apr 3,25% 0.02% June 3,25% 0.02% June 3,25% 0.02% June 3,25% 0.02% Aug 3,25% 0.03% Apr 3,25% 0.03% Apr 3,25% 0.02% June 3,25% 0.03% Apr 3,25% 0.06% Aug 3,25% 0.06% Sep 3,25% 0.06% Oct 3,25% 0.01%	2.72%	4.56%	4.77%	5.24
Jan 3,25% 0,05% Feb 3,25% 0,06% Mar 3,25% 0,06% Apr 3,25% 0,04% May 3,25% 0,03% June 3,25% 0,03% July 3,25% 0,03% Sept 3,25% 0,03% Sept 3,25% 0,02% Oct 3,25% 0,02% Dec 3,25% 0,02% June 3,25% 0,03% Apr 3,25% 0,06% Oct 3,25% 0,01% Nov 3,25% 0,01%	2.90%	4.59%	4.81%	5.25
Feb 3.25% 0.06% Mar 3.25% 0.05% Apr 3.25% 0.05% Apr 3.25% 0.03% June 3.25% 0.03% July 3.25% 0.03% Aug 3.25% 0.03% Sept 3.25% 0.02% Oct 3.25% 0.02% Oct 3.25% 0.02%  Dec 3.25% 0.02%  2015  Jan 3.25% 0.03% Feb 3.25% 0.03% Apr 3.25% 0.03% Mar 3.25% 0.03% Apr 3.25% 0.09% Sep 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.01%			4.0004	F 00
Mar         3.25%         0.05%           Apr         3.25%         0.04%           May         3.25%         0.03%           June         3.25%         0.03%           July         3.25%         0.03%           Aug         3.25%         0.02%           Oct         3.25%         0.02%           Nov         3.25%         0.02%           Dec         3.25%         0.04%           2015         Jan         3.25%         0.03%           Feb         3.25%         0.03%         0.03%           Mar         3.25%         0.02%         0.02%           June         3.25%         0.02%         0.04%           June         3.25%         0.02%         0.04%           June         3.25%         0.04%         0.02%           June         3.25%         0.04%         0.03%           Apr         3.25%         0.04%         0.04%           July         3.25%         0.06%         0.06%           Oct         3.25%         0.06%         0.06%           Nov         3.25%         0.01%         0.13%	2.86%	4.44%	4.63% 4.53%	5.09 5.01
Apri 3,25% 0,04% May 3,25% 0,03% June 3,25% 0,03% July 3,25% 0,03% Aug 3,25% 0,03% Sept 3,25% 0,02% Oct 3,25% 0,02% Dec 3,25% 0,02%  2015 Jan 3,25% 0,03% Feb 3,25% 0,03% Mar 3,25% 0,03% Apr 3,25% 0,02% June 3,25% 0,02% June 3,25% 0,03% Aug 3,25% 0,03% Aug 3,25% 0,03% Sep 3,25% 0,06% Oct 3,25% 0,06% Oct 3,25% 0,01% Nov 3,25% 0,01%	2.71% 2.72%	4.38% 4.40%	4.53% 4.51%	5.00
May 3,25% 0,03% July 3,25% 0,03% July 3,25% 0,03% Sept 3,25% 0,02% 0,02% Oct 3,25% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,02% 0,03% Feb 3,25% 0,03% Apr 3,25% 0,03% Apr 3,25% 0,02% May 3,25% 0,02% May 3,25% 0,02% May 3,25% 0,02% May 3,25% 0,03% Apr 3,25% 0,09% Cot 3,25% 0,09% Cot 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% 0,03% Nov 3,25% 0,01% Nov 3,25% 0,03% Nov 3,25% Nov 3,25% 0,03% Nov 3,25%	2.72%	4.40%	4.41%	4.85
June 3.25% 0.03% July 3.25% 0.03% Aug 3.25% 0.03% Sept 3.25% 0.02% Oct 3.25% 0.02% Dec 3.25% 0.04%  2015 Jan 3.25% 0.03% Feb 3.25% 0.03% Mar 3.25% 0.03% Apr 3.25% 0.03% Apr 3.25% 0.02% June 3.25% 0.02% June 3.25% 0.02% Sep 3.25% 0.03% Aug 3.25% 0.03% Aug 3.25% 0.03% Sep 3.25% 0.03% Sep 3.25% 0.03% Sep 3.25% 0.03% Aug 3.25% 0.03% Sep 3.25% 0.06% Oct 3.25% 0.01% Nov 3.25% 0.01%	2.71%	4.16%	4.26%	4,69
July 3,25% 0,03% Aug 3,25% 0,03% Sept 3,25% 0,02% Oct 3,25% 0,02% Dec 3,25% 0,02%  2015 Jan 3,25% 0,03% Feb 3,25% 0,03% Apr 3,25% 0,03% Apr 3,25% 0,02% July 3,25% 0,02% July 3,25% 0,02% July 3,25% 0,03% Aug 3,25% 0,04% July 3,25% 0,03% Aug 3,25% 0,03% Sep 3,25% 0,06% Oct 3,25% 0,06% Oct 3,25% 0,01%	2.60%	4.23%	4.29%	4.73
Aug 3.25% 0.03% Sept 3.25% 0.02% Oct 3.25% 0.02% Doc 3.25% 0.02% Dec 3.25% 0.04%  2015 Feb 3.25% 0.03% Mar 3.25% 0.03% Apr 3.25% 0.03% Apr 3.25% 0.02% June 3.25% 0.02% June 3.25% 0.02% June 3.25% 0.04% July 3.25% 0.04% July 3.25% 0.06% Oct 3.25% 0.06% Oct 3.25% 0.01%	2.54%	4.16%	4.23%	4.66
Sept         3.25%         0.02%           Oct         3.25%         0.02%           Nov         3.25%         0.02%           Dec         3.25%         0.04%           2015           Jan         3.25%         0.03%           Feb         3.25%         0.03%           Apr         3.25%         0.02%           May         3.25%         0.02%           June         3.25%         0.04%           July         3.25%         0.03%           Aug         3.25%         0.03%           Sep         3.25%         0.06%           Oct         3.25%         0.01%           Nov         3.25%         0.01%           Nov         3.25%         0.01%	2.42%	4.07%	4.13%	4.65
Oct 3,25% 0,02% Nov 3,25% 0,02% Dec 3,25% 0,04%  2015  Jan 3,25% 0,03% Feb 3,25% 0,03% Apr 3,25% 0,03% Apr 3,25% 0,02% May 3,25% 0,02% June 3,25% 0,04% July 3,25% 0,03% Aug 3,25% 0,03% Sep 3,25% 0,06% Oct 3,25% 0,01% Nov 3,25% 0,01%	2.53%	4.18%	4.24%	4.79
Nov 3.25% 0.02%   Dec 3.25% 0.04%    2015   Jan 3.25% 0.03%   Feb 3.25% 0.03%   Apr 3.25% 0.02%   May 3.25% 0.02%   June 3.25% 0.02%   June 3.25% 0.04%   July 3.25% 0.04%   July 3.25% 0.09%   Aug 3.25% 0.09%   Sep 3.25% 0.06%   Oct 3.25% 0.01%   Nov 3.25% 0.13%	2.30%	3.96%	4.06%	4.67
Dec 3.25% 0.04%  2015  Jan 3.25% 0.03%  Feb 3.25% 0.03%  Apr 3.25% 0.02%  May 3.25% 0.02%  June 3.25% 0.04%  July 3.25% 0.03%  Apg 3.25% 0.04%  July 3.25% 0.03%  Sep 3.25% 0.06%  Oct 3.25% 0.01%  Nov 3.25% 0.01%	2.33%	4.03%	4.09%	4.75
Jan 3,25% 0,03% Feb 3,25% 0,03% Mar 3,25% 0,03% Apr 3,25% 0,02% May 3,25% 0,02% June 3,25% 0,04% July 3,25% 0,03% Aug 3,25% 0,09% Sep 3,25% 0,06% Oct 3,25% 0,01% Nov 3,25% 0,01%	2.21%	3.90%	3.95%	4.70
Feb '3.25% 0.03% Mar 3.25% 0.03% Apr 3.25% 0.02% May 3.25% 0.02% June 3.25% 0.04% July 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.01% Nov 3.25% 0.13%				
Mar 3.25% 0.03% Apr 3.25% 0.02% May 3.25% 0.02% June 3.25% 0.04% July 3.25% 0.03% Aug 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.01% Nov 3.25% 0.13%	1.88%	3.52%	3,58% 3.67%	4.39 4.44
Apr 3.25% 0.02% May 3.25% 0.02% June 3.25% 0.04% July 3.25% 0.03% Aug 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.01% Nov 3.25% 0.01%	1.98% 2.04%	3.62% 3.67%	3.74%	4.44
May 3.25% 0.02% June 3.25% 0.04% July 3.25% 0.03% Aug 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.01% Nov 3.25% 0.13%	1.94%	3,63%	3.75%	4,51
June 3.25% 0.04% July 3.25% 0.03% Aug 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.01% Nov 3.25% 0.13%	2.20%	4.05%	4.17%	4.91
July 3.25% 0.03% Aug 3.25% 0.09% Sep 3.25% 0.06% Oct 3.25% 0.01% Nov 3.25% 0.13%	2.36%	4.05%	4.39%	5.13
Aug         3.25%         0.09%           Sep         3.25%         0.06%           Oct         3.25%         0.01%           Nov         3.25%         0.13%	2.32%	4.27%	4.40%	5.22
Sep         3.25%         0.06%           Oct         3.25%         0.01%           Nov         3.25%         0.13%	2.17%	4.13%	4.25%	5.23
Oct 3.25% 0.01% Nov 3.25% 0.13%	2.17%	4.25%	4.39%	5.42
Nov 3.25% 0.13%	2.07%	4.13%	4.29%	5.47
	2.26%	4.22%	4.40%	5.57
	2.24%	4.16%	4.35%	5.55
2016				
Jan 3.50% 0.25% Feb 3.50% 0.32%	2.09% 1.78%	4.09% 3.94%	4.27% 4.11%	5.49 5.28

Sources: Council of Economic Advisors, Economic Indicators; Moody's Bond Record; Federal Reserve Bulletin; various issues.

### STOCK PRICE INDICATORS

	S&P NA Composite [1] Comp	SDAQ posite [1]	DJIA	S&P D/P	S&P E/P
	19	975 - 1982	Cycle		
1975			802.49	4.31%	9.15%
1976			974.92	3.77%	8.90%
1977			894.63	4.62%	10.79%
1978			820.23	5.28%	12.03%
1979			844.40	5.47%	13.46%
1980			891.41	5.26%	12.66%
1981			932.92	5.20%	11.96%
1982			884.36	5.81%	11.60%
	1:	983 - 1991	Cycle		
1983			1,190.34	4.40%	8.03%
1984			1,178.48	4.64%	10.029
1985			1,328.23	4.25%	8.12%
1986			1,792.76	3.49%	6.09%
1987			2,275.99	3.08%	5.48%
1988	[1]	[1]	2,060.82	3.64%	8.019
1989	322.84		2,508.91	3.45%	7.419
1990	334.59		2,678.94	3.61%	6.47%
1991	376.18 4	91.69	2,929.33	3.24%	4.79%
		992 - 2001	-	0.000/	4.000
1992		599.26	3,284.29	2.99%	4.22%
1993		15.16	3,522.06	2.78%	4.469
1994		51.65	3,793.77	2.82%	5.83%
1995		25.19	4,493.76	2.56%	6.09%
1996		164.96	5,742.89	2.19%	5.249
1997	,	469.49	7,441.15	1.77%	4.57%
1998		794.91	8,625.52	1.49%	3.469
1999		728.15	10,464.88	1.25%	3.179 3.639
2000 2001		783.67 035.00	10,734.90 10,189.13	1.15% 1.32%	2.95%
2001	,			1.0270	2.007
2002		<b>002 - 2009</b> 539.73	9,226.43	1.61%	2.929
2002 2003		647.17	8,993.59	1.77%	3.849
		986.53	10,317.39	1.72%	4.89
2004 2005		099.32	10,517.53	1.83%	5.369
2005		263.41	11,408.67	1.87%	5.789
2007		578.47	13,169.98	1.86%	5.299
2007	•	161.65	11,252.62	2.37%	3.54
2009		845.38	8,876.15	2.40%	1.869
		Current (	Cycle		
2010	1,139.97 2	349.89	10,662.80	1.98%	6.049
2011	,	677.44	11,966.36	2.05%	6.779
2012		965.56	12,967.08	2.24%	6.20
2013	·	537.69	14,999.67	2.14%	5.57
2014	1,930.67 4	,374.31	16,773.99	2.04%	5.25°
2015	2,061.20 4	,943.49	17,590.81	2.10%	4.599

<sup>[1]</sup> Note: this source did not publish the S&P Composite prior to 1988 and the NASDAQ Composite prior to 1991.

#### STOCK PRICE INDICATORS

	S&P Composite	NASDAQ Composite	DJIA	S&P D/P	S&P E/P
2005		- 17			
1st Qtr.	1,191.98	2,056.01	10,648.48	1.77%	5.11%
2nd Qtr.	1,181.65	2,012.24	10,382.35	1.85%	5.32%
3rd Qtr.	1,225.91	2,144.61	10,532.24	1.83%	5.42%
4th Qtr.	1,262.07	2,246.09	10,827.79	1.86%	5.60%
2006					
1st Qtr.	1,283.04	2,287.97	10,996.04	1.85%	5.61%
2nd Qtr.	1,281.77	2,240.46	11,188.84	1.90%	5.86%
3rd Qtr.	1,288.40	2,141.97	11,274.49	1.91%	5.88%
4th Qtr.	1,389.48	2,390.26	12,175.30	1.81%	5.75%
2007					
1st Qtr.	1,425.30	2,444.85	12,470.97	1.84%	5.85%
2nd Qtr.	1,496.43	2,552.37	. 13,214.26	1.82%	5.65%
3rd Qtr.	1,490.81	2,609.68	13,488.43	1.86%	5.15%
4th Qtr.	1,494.09	2,701.59	13,502.95	1.91%	4.51%
2008					
1st Qtr.	1,350.19	2,332.91	12,383.86	2.11%	4.55%
2nd Qtr.	1,371.65	2,426.26	12,508.59	2.10%	4.05%
3rd Qtr.	1,251.94	2,290.87	11,322.40	2.29%	3.94%
4th Qtr.	909.80	1,599.64	8,795.61	2.98%	1.65%
2009					
1st Qtr.	809.31	1,485.14	7,774.06	3.00%	0.86%
2nd Qtr.	892.23	1,731.41	8,327.83	2.45%	0.82%
	996.68	1,985.25	9,229.93	2.16%	1.19%
3rd Qtr.	1,088.70	2,162.33	10,172.78	1.99%	4.57%
4th Qtr.	1,000.70	2,102.33	10,172.70	1.5576	4.07 70
<b>2010</b> 1st Qtr.	1,121.60	2,274.88	10,454.42	1.94%	5.21%
2nd Qtr.	1,135.25	2,343.40	10,570.54	1.97%	6.51%
3rd Qtr.	1,096.39	2,237.97	10,390.24	2.09%	6.30%
4th Qtr.	1,204.00	2,534.62	11,236.02	1.95%	6.15%
2011					
1st Qtr.	1,302.74	2,741.01	12,024.62	1.85%	6.13%
2nd Qtr.	1,319.04	2,766.64	12,370.73	1.97%	6.35%
3rd Qtr.	1,237.12	2,613.11	11,671.47	2.15%	7.69%
4th Qtr.	1,225.65	2,600.91	11,798.65	2.25%	6.91%
2012					
1st Qtr.	1,347.44	2,902.90	12,839.80	2.12%	6.29%
2nd Qtr.	1,350.39	2,928.62	12,765.58	2.30%	6.45%
3rd Qtr.	1,402.21	3,029.86	13,118.72	2.27%	6.00%
4th Qtr.	1,418.21	3,001.69	13,142.91	2.28%	6.07%
2013					
1st Qtr.	1,514.41	3,177.10	14,000.30	2.21%	5.59%
2nd Qtr.	1,609.77	3,369.49	14,961.28	2.15%	5.66%
3rd Qtr.	1,675.31	3,643.63	15,255.25	2.14%	5.61%
4th Qtr.	1,770.45	3,960.54	15,751.96	2.06%	5.42%
2014					
1st Qtr.	1,834.30	4,210.06	16,170.26	2.04%	5.38%
2nd Qtr.	1,900.37	4,195.81	16,603.50	2.06%	5.26%
3rd Qtr.	1,975.95	4,483.51	16,953.85	2,02%	5.37%
4th Qtr.	2,012.04	4,607.88	17,368.36	2.03%	4.97%
2015					
	3 063 46	4,821.99	17,806.47	2.02%	4,80%
1st Qtr.	2,063.46 2,094.37	4,621.99 5,029.47	18,007.48	2.02 %	4.60%
2nd Qtr.		5,029.47 4,921.81	17,065.52	2.16%	4.72%
3rd Qtr. 4th Qtr.	2,026.14 2,053.17	5,000.70	18,482.97	2.16%	
401 QII.	∠,∪≎≎. 17	3,000.70	10,702.01	2.1070	