

Stocks, Bonds, Bills, and Inflation<sup>®</sup>

2015 Ibbotson<sup>®</sup> SBBI<sup>®</sup>

Market Report

Data as of December 2014

**MORNINGSTAR<sup>®</sup>**

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Published by:

Morningstar, Inc.  
22 W. Washington Street  
Chicago, Illinois 60602

Main +1 312 696-6000  
Product Sales +1 888 298-3647  
Fax +1 312 696-6010  
[global.morningstar.com/DataPublications](http://global.morningstar.com/DataPublications)

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# Results for 2014 Capital Markets

## Large-Cap Stocks

The market for U.S. large-capitalization stocks is represented here by the total return on the S&P 500 Index (the total return includes reinvestment of dividends). Large-cap stocks for the year posted a total return of 13.69%, down from 32.39% in 2013. Eight months of 2014 produced positive returns; February delivered the highest return at 4.57%, while January's -3.46% was the lowest.

An index of large-cap stock total returns, started at \$1.00 on Dec. 31, 1925, increased to \$5,316.85 by the end of 2014. That was up from \$4,676.88 a year earlier.

## Small-Cap Stocks

Small-cap stocks delivered a total return of 2.92% in 2014, down from 45.07% the prior year. Seven months of 2014 produced positive returns; October posted the highest return at 6.52%, while September and July saw losses of 5.69% and 5.84%, respectively.

The cumulative wealth index grew to \$27,419.32 from \$1.00 at the end of 1925 and \$26,641.17 at the end of 2013.

## Long-Term Corporate Bonds

Long-term corporate bonds (with maturity near 20 years) returned 17.28% in 2014, well ahead of the 7.07% loss the previous year. Total returns were positive in 11 months of 2014, with August having the highest return of 3.56%, and September, at -2.71%, the lowest.

The bond default premium, or net return from investing in long-term corporate bonds rather than long-term government bonds of equal maturity, was negative at -5.32% in 2014, compared with 4.84% in 2013.

One dollar invested in long-term corporate bonds at year-end 1925 grew to \$189.76 at the end of 2014, up from \$161.80 a year earlier.

## Long-Term Government Bonds

Long-term government bonds (with maturity near 20 years) returned 23.87% in 2014. This return was significantly higher than the -11.36% return in 2013 and more than four times the long-term average return (1926–2014) of 5.7%. Ten months produced positive returns, with January's the highest at 4.99%, and the -1.72% in September the lowest.

A wealth index of long-term government bonds grew to \$135.18 at year-end 2014 from \$1.00 at year-end 1925. The capital appreciation index of long-term government bond returns closed at \$1.44 at year's end, up from \$1.19 in 2013. December's close hit an all-time high, finally eclipsing the previous high set in February 1946.

# Results for 2014 Capital Markets

## Intermediate-Term Government Bonds

The total return on intermediate-term government bonds (with maturity near five years) in 2014 was 3.12%, above the -1.07% in 2013, but below the long-term (1926–2014) average return of 5.3%. Five months had positive returns, with October posting the highest return of 2.26% while June had the lowest return at -1.03%.

The wealth index of intermediate-term government bonds grew to \$95.88 as of year-end 2014 after starting at \$1.00 at year-end 1925. The index dipped in 2013 to \$92.98.

## Treasury Bills

An investment in bills with approximately 30 days to maturity returned 0.02% in 2014, repeating the return of 2013 and trailing the long-term average (1926–2014) of 3.5%. The cumulative index of Treasury bill total returns ended the year at \$20.58, unchanged from a year earlier. Because monthly Treasury bill returns are nearly always positive, each monthly index value typically sets a new all-time high.

## Inflation

Inflation decreased to 0.76% in 2014, compared to 1.50% in 2013. The result is lower than the long-term historical average (1926–2014) of 2.9%. Inflation has remained below 5% for 32 of the last 33 years (the exception was the 6.11% rate in 1990).

A cumulative inflation index, beginning at \$1.00 at year-end 1925, finished 2014 at \$13.10, up from \$13.00 at year-end 2013. That is, a “basket” of consumer goods and services that cost \$1.00 in 1925 would cost \$13.10 today. The two baskets are not identical, but are intended to be comparable.

Graph 1  
**Wealth Indexes of Investments in the U.S. Capital Markets**  
 Index (Dec. 31, 1925 = \$1.00)

From December 1925 to December 2014

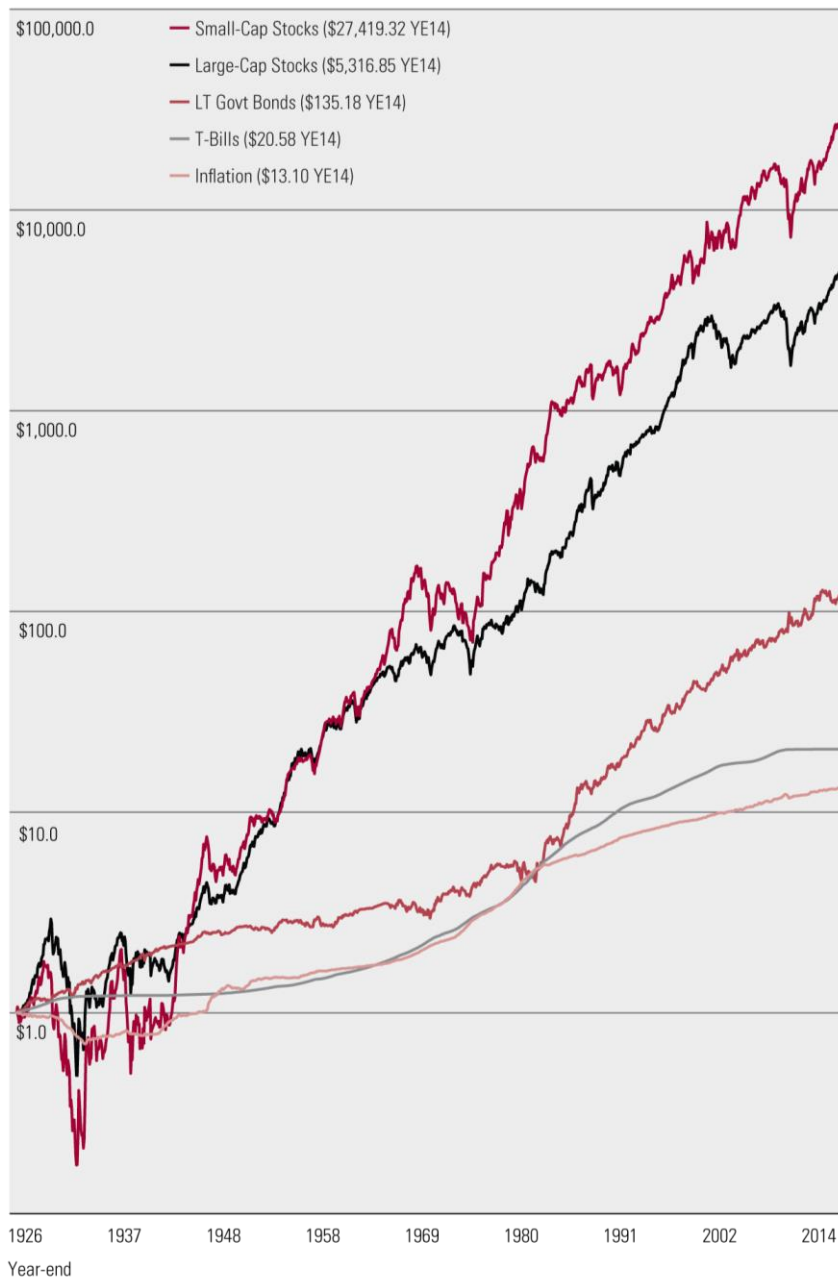


Table 1  
**Basic Series: Annual Total Returns in Percent**

| Year | Large-Cap Stocks | Small-Cap Stocks | Long-Term Corporate Bonds | Long-Term Government Bonds | Intermediate-Term Government Bonds | U.S. Treasury Bills | Inflation |
|------|------------------|------------------|---------------------------|----------------------------|------------------------------------|---------------------|-----------|
| 2005 | 4.91             | 5.69             | 5.87                      | 7.81                       | 1.36                               | 2.98                | 3.42      |
| 2006 | 15.79            | 16.17            | 3.24                      | 1.19                       | 3.14                               | 4.80                | 2.54      |
| 2007 | 5.49             | -5.22            | 2.60                      | 9.88                       | 10.05                              | 4.66                | 4.08      |
| 2008 | -37.00           | -36.72           | 8.78                      | 25.87                      | 13.11                              | 1.60                | 0.09      |
| 2009 | 26.46            | 28.09            | 3.02                      | -14.90                     | -2.40                              | 0.10                | 2.72      |
| 2010 | 15.06            | 31.26            | 12.44                     | 10.14                      | 7.12                               | 0.12                | 1.50      |
| 2011 | 2.11             | -3.26            | 17.95                     | 28.23                      | 9.46                               | 0.04                | 2.96      |
| 2012 | 16.00            | 18.24            | 10.68                     | 3.31                       | 2.07                               | 0.06                | 1.74      |
| 2013 | 32.39            | 45.07            | -7.07                     | -11.36                     | -1.07                              | 0.02                | 1.50      |
| 2014 | 13.69            | 2.92             | 17.28                     | 23.87                      | 3.12                               | 0.02                | 0.76      |

Table 2  
**Portfolios: Annual Total Returns in Percent**

| Year        | 100% Large-Cap Stocks | 90% Stocks<br>10% Bonds | 70% Stocks<br>30% Bonds | 50% Stocks<br>50% Bonds | 30% Stocks<br>70% Bonds | 10% Stocks<br>90% Bonds | 100% Long-Term<br>Govt. Bonds |
|-------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|
| <b>2004</b> | 10.88                 | 10.70                   | 10.29                   | 9.84                    | 9.34                    | 8.80                    | 8.51                          |
| <b>2005</b> | 4.91                  | 5.28                    | 5.96                    | 6.58                    | 7.12                    | 7.60                    | 7.81                          |
| <b>2006</b> | 15.79                 | 14.30                   | 11.33                   | 8.40                    | 5.49                    | 2.61                    | 1.19                          |
| <b>2007</b> | 5.49                  | 6.03                    | 7.03                    | 7.95                    | 8.79                    | 9.54                    | 9.88                          |
| <b>2008</b> | -37.00                | -32.14                  | -21.55                  | -9.72                   | 3.43                    | 18.02                   | 25.87                         |
| <b>2009</b> | 26.46                 | 21.86                   | 12.97                   | 4.49                    | -3.58                   | -11.23                  | -14.90                        |
| <b>2010</b> | 15.06                 | 14.97                   | 14.52                   | 13.70                   | 12.53                   | 11.02                   | 10.14                         |
| <b>2011</b> | 2.11                  | 4.77                    | 10.07                   | 15.34                   | 20.56                   | 25.70                   | 28.23                         |
| <b>2012</b> | 16.00                 | 14.83                   | 12.42                   | 9.91                    | 7.32                    | 4.66                    | 3.31                          |
| <b>2013</b> | 32.39                 | 27.33                   | 17.70                   | 8.69                    | 0.26                    | -7.62                   | -11.36                        |
| <b>2014</b> | 13.69                 | 14.73                   | 16.80                   | 18.84                   | 20.87                   | 22.87                   | 23.87                         |



Table 3  
**Basic Series: Monthly and Quarterly Returns in Percent**

| Month         | Large-Cap Stocks |               |          | Small-Cap Stocks | Long-Term Corporate Bonds | Long-Term Government Bonds |               |          |       | Intermediate-Term Government Bonds |               |          |       | Treasury Bills | Inflation |
|---------------|------------------|---------------|----------|------------------|---------------------------|----------------------------|---------------|----------|-------|------------------------------------|---------------|----------|-------|----------------|-----------|
|               | Total Return     | Income Return | Cap Appr |                  |                           | Total Return               | Income Return | Cap Appr | Yield | Total Return                       | Income Return | Cap Appr | Yield |                |           |
| <b>12/13</b>  | 2.53             | 0.18          | 2.36     | 1.89             | 0.02                      | -1.64                      | 0.31          | -2.81    | 3.67  | -0.19                              | 0.09          | -0.29    | 1.13  | 0.00           | -0.01     |
| <b>1/14</b>   | -3.46            | 0.10          | -3.56    | -4.43            | 3.31                      | 4.99                       | 0.31          | 4.68     | 3.35  | 1.56                               | 0.14          | 1.42     | 1.33  | 0.00           | 0.37      |
| <b>2/14</b>   | 4.57             | 0.26          | 4.31     | 4.21             | 1.68                      | -0.10                      | 0.25          | -0.35    | 3.38  | 0.26                               | 0.10          | 0.16     | 1.29  | 0.00           | 0.37      |
| <b>3/14</b>   | 0.84             | 0.15          | 0.69     | 0.97             | 0.62                      | 1.26                       | 0.29          | 0.98     | 3.31  | -0.69                              | 0.11          | -0.80    | 1.46  | 0.00           | 0.64      |
| <b>4/14</b>   | 0.74             | 0.12          | 0.62     | -3.41            | 1.60                      | 1.38                       | 0.27          | 1.11     | 3.24  | 0.97                               | 0.12          | 0.85     | 1.28  | 0.00           | 0.33      |
| <b>5/14</b>   | 2.35             | 0.24          | 2.10     | 0.10             | 1.88                      | 2.71                       | 0.28          | 2.43     | 3.07  | 0.46                               | 0.11          | 0.35     | 1.20  | 0.00           | 0.35      |
| <b>6/14</b>   | 2.07             | 0.16          | 1.91     | 4.34             | 0.20                      | 0.28                       | 0.25          | 0.03     | 3.07  | -1.03                              | 0.10          | -1.13    | 1.45  | 0.00           | 0.19      |
| <b>7/14</b>   | -1.38            | 0.13          | -1.51    | -5.84            | 0.24                      | 1.10                       | 0.26          | 0.84     | 3.01  | -0.02                              | 0.12          | -0.14    | 1.48  | 0.00           | -0.04     |
| <b>8/14</b>   | 4.00             | 0.23          | 3.77     | 4.54             | 3.56                      | 3.11                       | 0.25          | 2.86     | 2.81  | -0.13                              | 0.12          | -0.25    | 1.54  | 0.00           | -0.17     |
| <b>9/14</b>   | -1.40            | 0.15          | -1.55    | -5.69            | -2.71                     | -1.72                      | 0.23          | -1.94    | 2.95  | -0.09                              | 0.13          | -0.22    | 1.59  | 0.00           | 0.08      |
| <b>10/14</b>  | 2.44             | 0.12          | 2.32     | 6.52             | 2.25                      | 3.54                       | 0.25          | 3.30     | 2.73  | 2.26                               | 0.13          | 2.12     | 1.09  | 0.00           | -0.25     |
| <b>11/14</b>  | 2.69             | 0.24          | 2.45     | -0.75            | 1.73                      | 1.64                       | 0.22          | 1.42     | 2.63  | -0.01                              | 0.09          | -0.10    | 1.12  | 0.00           | -0.54     |
| <b>12/14</b>  | -0.25            | 0.17          | -0.42    | 3.37             | 1.83                      | 3.59                       | 0.22          | 3.37     | 2.40  | -0.43                              | 0.10          | -0.52    | 1.24  | 0.00           | -0.57     |
| <b>2014</b>   | 13.69            | 2.16          | 11.39    | 2.92             | 17.28                     | 23.87                      | 3.33          | 20.17    | 2.40  | 3.12                               | 1.39          | 1.72     | 1.24  | 0.02           | 0.76      |
| Quarter       |                  |               |          |                  |                           |                            |               |          |       |                                    |               |          |       |                |           |
| <b>I-12</b>   | 12.59            | 0.57          | 12.00    | 12.25            | -0.59                     | -4.75                      | 0.62          | -5.36    | 2.90  | -0.75                              | 0.20          | -0.94    | 0.97  | 0.01           | 1.65      |
| <b>II-12</b>  | -2.75            | 0.53          | -3.29    | -3.60            | 6.72                      | 9.52                       | 0.67          | 8.84     | 2.25  | 2.74                               | 0.19          | 2.55     | 0.44  | 0.01           | 0.04      |
| <b>III-12</b> | 6.35             | 0.58          | 5.76     | 6.46             | 3.81                      | 0.46                       | 0.54          | -0.08    | 2.26  | -0.23                              | 0.11          | -0.34    | 0.51  | 0.02           | 0.84      |
| <b>IV-12</b>  | -0.38            | 0.62          | -1.01    | 2.63             | 0.49                      | -1.42                      | 0.58          | -1.99    | 2.41  | 0.32                               | 0.09          | 0.24     | 0.46  | 0.02           | -0.78     |
| <b>I-13</b>   | 10.61            | 0.56          | 10.03    | 12.05            | -2.40                     | -2.28                      | 0.64          | -2.92    | 2.84  | -0.17                              | 0.15          | -0.33    | 0.77  | 0.01           | 1.38      |
| <b>II-13</b>  | 2.91             | 0.55          | 2.36     | 4.83             | -5.69                     | -5.82                      | 0.71          | -6.50    | 3.29  | -0.91                              | 0.17          | -1.08    | 1.01  | 0.01           | 0.31      |
| <b>III-13</b> | 5.24             | 0.55          | 4.69     | 10.98            | -0.29                     | -0.97                      | 0.85          | -1.83    | 3.42  | 0.03                               | 0.26          | -0.23    | 1.06  | 0.00           | 0.28      |
| <b>IV-13</b>  | 10.52            | 0.58          | 9.92     | 11.29            | 1.25                      | -2.74                      | 0.85          | -4.43    | 3.67  | -0.02                              | 0.26          | -0.29    | 1.13  | 0.01           | -0.47     |
| <b>I-14</b>   | 1.81             | 0.50          | 1.30     | 0.56             | 5.71                      | 6.21                       | 0.87          | 5.33     | 3.31  | 1.12                               | 0.35          | 0.77     | 1.46  | 0.01           | 1.39      |
| <b>II-14</b>  | 5.23             | 0.53          | 4.69     | 0.88             | 3.71                      | 4.42                       | 0.81          | 3.60     | 3.07  | 0.40                               | 0.33          | 0.07     | 1.45  | 0.00           | 0.87      |
| <b>III-14</b> | 1.13             | 0.51          | 0.62     | -7.17            | 1.01                      | 2.45                       | 0.75          | 1.70     | 2.95  | -0.24                              | 0.37          | -0.61    | 1.59  | 0.00           | -0.13     |
| <b>IV-14</b>  | 4.93             | 0.54          | 4.39     | 9.28             | 5.91                      | 9.02                       | 0.71          | 8.29     | 2.40  | 1.81                               | 0.32          | 1.49     | 1.24  | 0.00           | -1.35     |

Table 4  
**Portfolios: Monthly and Quarterly Returns in Percent**

| Month         | 100% Large-Cap Stocks | 90% Stocks<br>10% Bonds | 70% Stocks<br>30% Bonds | 50% Stocks<br>50% Bonds | 30% Stocks<br>70% Bonds | 10% Stocks<br>90% Bonds | 100% Long-Term<br>Govt. Bonds |
|---------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|
| <b>12/13</b>  | 2.53                  | 2.11                    | 1.28                    | 0.45                    | -0.39                   | -1.22                   | -1.64                         |
| <b>1/14</b>   | -3.46                 | -2.61                   | -0.92                   | 0.77                    | 2.46                    | 4.15                    | 4.99                          |
| <b>2/14</b>   | 4.57                  | 4.11                    | 3.17                    | 2.24                    | 1.30                    | 0.37                    | -0.10                         |
| <b>3/14</b>   | 0.84                  | 0.88                    | 0.97                    | 1.05                    | 1.14                    | 1.22                    | 1.26                          |
| <b>4/14</b>   | 0.74                  | 0.80                    | 0.93                    | 1.06                    | 1.19                    | 1.32                    | 1.38                          |
| <b>5/14</b>   | 2.35                  | 2.38                    | 2.46                    | 2.53                    | 2.60                    | 2.67                    | 2.71                          |
| <b>6/14</b>   | 2.07                  | 1.89                    | 1.53                    | 1.17                    | 0.82                    | 0.46                    | 0.28                          |
| <b>7/14</b>   | -1.38                 | -1.13                   | -0.64                   | -0.14                   | 0.35                    | 0.85                    | 1.10                          |
| <b>8/14</b>   | 4.00                  | 3.91                    | 3.73                    | 3.56                    | 3.38                    | 3.20                    | 3.11                          |
| <b>9/14</b>   | -1.40                 | -1.43                   | -1.50                   | -1.56                   | -1.62                   | -1.68                   | -1.72                         |
| <b>10/14</b>  | 2.44                  | 2.55                    | 2.77                    | 2.99                    | 3.21                    | 3.43                    | 3.54                          |
| <b>11/14</b>  | 2.69                  | 2.58                    | 2.37                    | 2.16                    | 1.95                    | 1.74                    | 1.64                          |
| <b>12/14</b>  | -0.25                 | 0.13                    | 0.90                    | 1.67                    | 2.44                    | 3.20                    | 3.59                          |
| <b>2014</b>   | 13.69                 | 14.73                   | 16.80                   | 18.84                   | 20.87                   | 22.87                   | 23.87                         |
| Quarter       |                       |                         |                         |                         |                         |                         |                               |
| <b>I-12</b>   | 12.59                 | 10.77                   | 7.19                    | 3.68                    | 0.25                    | -3.10                   | -4.75                         |
| <b>II-12</b>  | -2.75                 | -1.51                   | 0.97                    | 3.44                    | 5.88                    | 8.31                    | 9.52                          |
| <b>III-12</b> | 6.35                  | 5.76                    | 4.58                    | 3.40                    | 2.22                    | 1.04                    | 0.46                          |
| <b>IV-12</b>  | -0.38                 | -0.47                   | -0.67                   | -0.88                   | -1.09                   | -1.31                   | -1.42                         |
| <b>I-13</b>   | 10.61                 | 9.28                    | 6.66                    | 4.07                    | 1.51                    | -1.02                   | -2.28                         |
| <b>II-13</b>  | 2.91                  | 2.04                    | 0.30                    | -1.45                   | -3.20                   | -4.95                   | -5.82                         |
| <b>III-13</b> | 5.24                  | 4.62                    | 3.38                    | 2.14                    | 0.89                    | -0.35                   | -0.97                         |
| <b>IV-13</b>  | 10.51                 | 9.14                    | 6.42                    | 3.75                    | 1.12                    | -1.46                   | -2.74                         |
| <b>I-14</b>   | 1.81                  | 2.28                    | 3.21                    | 4.10                    | 4.97                    | 5.80                    | 6.21                          |
| <b>II-14</b>  | 5.23                  | 5.15                    | 4.99                    | 4.83                    | 4.67                    | 4.50                    | 4.42                          |
| <b>III-14</b> | 1.13                  | 1.26                    | 1.53                    | 1.80                    | 2.06                    | 2.32                    | 2.45                          |
| <b>IV-14</b>  | 4.93                  | 5.34                    | 6.16                    | 6.98                    | 7.79                    | 8.61                    | 9.02                          |

Table 5  
**Basic Series: Monthly Index Values**

Dec. 31, 1925 = \$1.00

| Month        | Large-Cap Stocks |                      | Small-Cap Stocks | Long-Term Corporate Bonds | Long-Term Government Bonds |                      | Intermediate-Term Government Bonds |                      | Treasury Bills | Inflation |
|--------------|------------------|----------------------|------------------|---------------------------|----------------------------|----------------------|------------------------------------|----------------------|----------------|-----------|
|              | Total Return     | Capital Appreciation | Total Return     | Total Return              | Total Return               | Capital Appreciation | Total Return                       | Capital Appreciation | Total Return   |           |
| <b>12/13</b> | 4,676.682        | 144.853              | 26,641.173       | 161.802                   | 109.138                    | 1.195                | 92.977                             | 1.714                | 20.579         | 13.001    |
| <b>1/14</b>  | 4,514.990        | 139.699              | 25,460.969       | 167.162                   | 114.584                    | 1.251                | 94.424                             | 1.738                | 20.580         | 13.049    |
| <b>2/14</b>  | 4,721.522        | 145.722              | 26,532.876       | 169.977                   | 114.470                    | 1.247                | 94.674                             | 1.741                | 20.581         | 13.097    |
| <b>3/14</b>  | 4,761.210        | 146.732              | 26,790.245       | 171.035                   | 115.916                    | 1.259                | 94.023                             | 1.727                | 20.581         | 13.182    |
| <b>4/14</b>  | 4,796.405        | 147.642              | 25,876.698       | 173.771                   | 117.515                    | 1.273                | 94.939                             | 1.742                | 20.581         | 13.225    |
| <b>5/14</b>  | 4,908.996        | 150.747              | 25,902.574       | 177.034                   | 120.695                    | 1.304                | 95.376                             | 1.748                | 20.582         | 13.271    |
| <b>6/14</b>  | 5,010.404        | 153.620              | 27,026.746       | 177.389                   | 121.036                    | 1.305                | 94.395                             | 1.729                | 20.582         | 13.296    |
| <b>7/14</b>  | 4,941.306        | 151.303              | 25,448.384       | 177.820                   | 122.363                    | 1.315                | 94.381                             | 1.726                | 20.582         | 13.291    |
| <b>8/14</b>  | 5,138.983        | 157.001              | 26,603.741       | 184.154                   | 126.169                    | 1.353                | 94.254                             | 1.722                | 20.582         | 13.269    |
| <b>9/14</b>  | 5,066.916        | 154.565              | 25,089.988       | 179.172                   | 124.005                    | 1.327                | 94.172                             | 1.718                | 20.582         | 13.279    |
| <b>10/14</b> | 5,190.676        | 158.151              | 26,725.855       | 183.199                   | 128.398                    | 1.370                | 96.297                             | 1.755                | 20.583         | 13.245    |
| <b>11/14</b> | 5,330.277        | 162.031              | 26,525.411       | 186.359                   | 130.501                    | 1.390                | 96.286                             | 1.753                | 20.582         | 13.174    |
| <b>12/14</b> | 5,316.850        | 161.353              | 27,419.317       | 189.762                   | 135.185                    | 1.437                | 95.875                             | 1.744                | 20.583         | 13.099    |

Table 6  
**Portfolios: Monthly Index Values**  
 Dec. 31, 1925 = \$1.00

| Month        | 100% Large-Cap Stocks | 90% Stocks<br>10% Bonds | 70% Stocks<br>30% Bonds | 50% Stocks<br>50% Bonds | 30% Stocks<br>70% Bonds | 10% Stocks<br>90% Bonds | 100% Long-Term<br>Govt. Bonds |
|--------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|
| <b>12/13</b> | 4,676.682             | 3,765.535               | 2,192.132               | 1,107.822               | 486.743                 | 186.031                 | 109.138                       |
| <b>1/14</b>  | 4,514.990             | 3,667.155               | 2,171.897               | 1,116.313               | 498.698                 | 193.743                 | 114.584                       |
| <b>2/14</b>  | 4,721.522             | 3,817.763               | 2,240.791               | 1,141.287               | 505.192                 | 194.455                 | 114.470                       |
| <b>3/14</b>  | 4,761.210             | 3,851.469               | 2,262.470               | 1,153.294               | 510.935                 | 196.830                 | 115.916                       |
| <b>4/14</b>  | 4,796.405             | 3,882.404               | 2,283.538               | 1,165.510               | 517.001                 | 199.419                 | 117.515                       |
| <b>5/14</b>  | 4,908.996             | 3,974.933               | 2,339.601               | 1,194.961               | 530.435                 | 204.744                 | 120.695                       |
| <b>6/14</b>  | 5,010.404             | 4,049.956               | 2,375.413               | 1,208.989               | 534.771                 | 205.687                 | 121.036                       |
| <b>7/14</b>  | 4,941.306             | 4,004.130               | 2,360.296               | 1,207.282               | 536.663                 | 207.433                 | 122.363                       |
| <b>8/14</b>  | 5,138.983             | 4,160.752               | 2,448.419               | 1,250.208               | 554.790                 | 214.070                 | 126.169                       |
| <b>9/14</b>  | 5,066.916             | 4,101.102               | 2,411.785               | 1,230.720               | 545.794                 | 210.466                 | 124.005                       |
| <b>10/14</b> | 5,190.676             | 4,205.782               | 2,478.650               | 1,267.547               | 563.327                 | 217.689                 | 128.398                       |
| <b>11/14</b> | 5,330.277             | 4,314.474               | 2,537.497               | 1,294.976               | 574.333                 | 221.485                 | 130.501                       |
| <b>12/14</b> | 5,316.850             | 4,320.176               | 2,560.341               | 1,316.581               | 588.326                 | 228.582                 | 135.185                       |

Table 7  
**Basic Series and Portfolios: Summary Statistics of Annual Total Returns in Percent**

| Asset Class                               | From 1926 to 2014 |                 |                    |
|---|-------------------|-----------------|--------------------|
|   | Geometric Mean    | Arithmetic Mean | Standard Deviation |
| <b>Large-Cap Stocks</b>                   | 10.1              | 12.1            | 20.1               |
| <b>Small-Cap Stocks</b>                   | 12.2              | 16.7            | 32.1               |
| <b>Long-Term Corporate Bonds</b>          | 6.1               | 6.4             | 8.4                |
| <b>Long-Term Government Bonds</b>         | 5.7               | 6.1             | 10.0               |
| <b>Intermediate-Term Government Bonds</b> | 5.3               | 5.4             | 5.6                |
| <b>U.S. Treasury Bills</b>                | 3.5               | 3.5             | 3.1                |
| <b>Inflation</b>                          | 2.9               | 3.0             | 4.1                |
| <b>90% Stocks/10% Bonds</b>               | 9.9               | 11.4            | 18.1               |
| <b>70% Stocks/30% Bonds</b>               | 9.2               | 10.2            | 14.3               |
| <b>50% Stocks/50% Bonds</b>               | 8.4               | 9.0             | 11.2               |
| <b>30% Stocks/70% Bonds</b>               | 7.4               | 7.8             | 9.3                |
| <b>10% Stocks/90% Bonds</b>               | 6.3               | 6.7             | 9.2                |

Table 8  
**Derived Series: Monthly and Quarterly Returns in Percent**

| Month         | Equity Risk Premium* | Small-Cap Premium | Bond Default Premium | Bond Horizon Premium | Inflation Adjusted Total Returns (%) |                  |               |               |               |        |
|---------------|----------------------|-------------------|----------------------|----------------------|--------------------------------------|------------------|---------------|---------------|---------------|--------|
|               |                      |                   |                      |                      | Large-Cap Stocks                     | Small-Cap Stocks | LT-Corp Bonds | LT-Govt Bonds | IT-Govt Bonds | T-Bill |
| <b>12/13</b>  | 2.53                 | -0.63             | 1.69                 | -1.64                | 2.54                                 | 1.90             | 0.03          | -1.63         | -0.18         | 0.01   |
| <b>1/14</b>   | -3.46                | -1.01             | -1.60                | 4.99                 | -3.82                                | -4.78            | 2.93          | 4.60          | 1.18          | -0.37  |
| <b>2/14</b>   | 4.57                 | -0.35             | 1.79                 | -0.10                | 4.19                                 | 3.83             | 1.31          | -0.47         | -0.10         | -0.36  |
| <b>3/14</b>   | 0.84                 | 0.13              | -0.63                | 1.26                 | 0.20                                 | 0.32             | -0.02         | 0.62          | -1.32         | -0.64  |
| <b>4/14</b>   | 0.74                 | -4.12             | 0.22                 | 1.38                 | 0.41                                 | -3.73            | 1.27          | 1.05          | 0.64          | -0.33  |
| <b>5/14</b>   | 2.35                 | -2.20             | -0.81                | 2.71                 | 1.99                                 | -0.25            | 1.52          | 2.35          | 0.11          | -0.35  |
| <b>6/14</b>   | 2.06                 | 2.23              | -0.08                | 0.28                 | 1.88                                 | 4.15             | 0.01          | 0.10          | -1.21         | -0.18  |
| <b>7/14</b>   | -1.38                | -4.52             | -0.84                | 1.10                 | -1.34                                | -5.80            | 0.28          | 1.14          | 0.02          | 0.04   |
| <b>8/14</b>   | 4.00                 | 0.52              | 0.44                 | 3.11                 | 4.17                                 | 4.71             | 3.74          | 3.28          | 0.03          | 0.17   |
| <b>9/14</b>   | -1.40                | -4.35             | -1.01                | -1.72                | -1.48                                | -5.76            | -2.78         | -1.79         | -0.16         | -0.07  |
| <b>10/14</b>  | 2.44                 | 3.98              | -1.25                | 3.54                 | 2.70                                 | 6.79             | 2.51          | 3.80          | 2.51          | 0.25   |
| <b>11/14</b>  | 2.69                 | -3.35             | 0.09                 | 1.64                 | 3.25                                 | -0.21            | 2.28          | 2.19          | 0.53          | 0.54   |
| <b>12/14</b>  | -0.25                | 3.63              | -1.70                | 3.59                 | 0.32                                 | 3.96             | 2.41          | 4.18          | 0.14          | 0.57   |
| <b>2014</b>   | 13.67                | -9.47             | -5.32                | 23.85                | 12.83                                | 2.15             | 16.40         | 22.94         | 2.34          | -0.73  |
| Quarter       |                      |                   |                      |                      |                                      |                  |               |               |               |        |
| <b>I-12</b>   | 12.58                | -0.30             | 4.37                 | -4.75                | 10.76                                | 10.43            | -2.20         | -6.29         | -2.36         | -1.61  |
| <b>II-12</b>  | -2.76                | -0.87             | -2.56                | 9.51                 | -2.79                                | -3.63            | 6.68          | 9.48          | 2.71          | -0.03  |
| <b>III-12</b> | 6.34                 | 0.10              | 3.34                 | 0.44                 | 5.47                                 | 5.58             | 2.94          | -0.38         | -1.06         | -0.82  |
| <b>IV-12</b>  | -0.40                | 3.02              | 1.94                 | -1.44                | 0.41                                 | 3.44             | 1.28          | -0.64         | 1.11          | 0.81   |
| <b>I-13</b>   | 10.60                | 1.30              | -0.13                | -2.28                | 9.10                                 | 10.52            | -3.73         | -3.61         | -1.53         | -1.36  |
| <b>II-13</b>  | 2.90                 | 1.86              | 0.14                 | -5.83                | 2.59                                 | 4.50             | -5.98         | -6.12         | -1.22         | -0.31  |
| <b>III-13</b> | 5.25                 | 5.45              | 0.69                 | -0.98                | 4.96                                 | 10.68            | -0.56         | -1.25         | -0.24         | -0.27  |
| <b>IV-13</b>  | 10.51                | 0.70              | 4.11                 | -2.75                | 11.04                                | 11.81            | 1.73          | -2.28         | 0.45          | 0.48   |
| <b>I-14</b>   | 1.80                 | -1.23             | -0.48                | 6.20                 | 0.41                                 | -0.82            | 4.25          | 4.75          | -0.26         | -1.36  |
| <b>II-14</b>  | 5.23                 | -4.13             | -0.67                | 4.41                 | 4.33                                 | 0.02             | 2.82          | 3.52          | -0.47         | -0.86  |
| <b>III-14</b> | 1.13                 | -8.20             | -1.41                | 2.45                 | 1.26                                 | -7.04            | 1.14          | 2.59          | -0.11         | 0.13   |
| <b>IV-14</b>  | 4.93                 | 4.15              | -2.85                | 9.01                 | 6.37                                 | 10.78            | 7.36          | 10.51         | 3.20          | 1.37   |

\* In this table, equity risk premium is calculated as the geometric difference between large-cap stock total returns and U.S. Treasury bill total returns.

Table 9  
**Derived Series: Monthly Index Values**  
 Dec. 31, 1925 = \$1.00

| Month        | Inflation Adjusted Total Return (\$) |              |               |               |               |        |
|--------------|--------------------------------------|--------------|---------------|---------------|---------------|--------|
|              | Large Stocks                         | Small Stocks | LT-Corp Bonds | LT-Govt Bonds | IT-Govt Bonds | T-Bill |
| <b>12/13</b> | 359.728                              | 2,049.227    | 12.446        | 8.395         | 7.152         | 1.583  |
| <b>1/14</b>  | 346.004                              | 1,951.187    | 12.810        | 8.781         | 7.236         | 1.577  |
| <b>2/14</b>  | 360.498                              | 2,025.841    | 12.978        | 8.740         | 7.229         | 1.571  |
| <b>3/14</b>  | 361.202                              | 2,032.403    | 12.975        | 8.794         | 7.133         | 1.561  |
| <b>4/14</b>  | 362.677                              | 1,956.647    | 13.140        | 8.886         | 7.179         | 1.556  |
| <b>5/14</b>  | 369.898                              | 1,951.787    | 13.340        | 9.095         | 7.187         | 1.551  |
| <b>6/14</b>  | 376.838                              | 2,032.709    | 13.342        | 9.103         | 7.100         | 1.548  |
| <b>7/14</b>  | 371.786                              | 1,914.746    | 13.379        | 9.207         | 7.101         | 1.549  |
| <b>8/14</b>  | 387.306                              | 2,005.025    | 13.879        | 9.509         | 7.104         | 1.551  |
| <b>9/14</b>  | 381.587                              | 1,889.517    | 13.493        | 9.339         | 7.092         | 1.550  |
| <b>10/14</b> | 391.892                              | 2,017.783    | 13.831        | 9.694         | 7.270         | 1.554  |
| <b>11/14</b> | 404.617                              | 2,013.521    | 14.146        | 9.906         | 7.309         | 1.562  |
| <b>12/14</b> | 405.899                              | 2,093.246    | 14.487        | 10.320        | 7.319         | 1.571  |

Table 10

**Long-Horizon Expected Equity Risk Premium and Size Premium**

As of Dec. 31, 2014

**Equity Risk Premium**

*Long-horizon expected equity risk premium (historical):* large-cap stock total returns minus long-term government bond income returns <sup>1</sup> 7.00%

*Long-horizon expected equity risk premium (supply-side):* historical equity risk premium minus price-to-earnings ratio calculated using three-year average earnings 6.19%

**Size Premiums (market capitalization in millions) <sup>2</sup>**

| <b>Decile</b>    | <b>Smallest Company</b> |   | <b>Largest Company</b> | <b>Size Premium (Return in Excess of CAPM)</b> |
|------------------|-------------------------|---|------------------------|--|
| Mid-Cap (3-5)    | 2,552,441               | – | 10,105,622             | 1.10%  |
| Low-Cap (6-8)    | 549,056                 | – | 2,542,913              | 1.77   |
| Micro-Cap (9-10) | 3,037                   | – | 548,839                | 3.69   |

**Breakdown of Deciles 1-10**

|               |            |   |             |        |
|---------------|------------|---|-------------|--------|
| 1 – Largest   | 24,428,848 | – | 591,015,721 | -0.32% |
| 2             | 10,170,746 | – | 24,272,837  | 0.65   |
| 3             | 5,864,266  | – | 10,105,622  | 0.94   |
| 4             | 3,724,624  | – | 5,844,592   | 1.05   |
| 5             | 2,552,441  | – | 3,724,186   | 1.65   |
| 6             | 1,688,895  | – | 2,542,913   | 1.63   |
| 7             | 1,011,278  | – | 1,686,860   | 1.77   |
| 8             | 549,056    | – | 1,010,634   | 2.18   |
| 9             | 300,752    | – | 548,839     | 2.64   |
| 10 – Smallest | 3,037      | – | 300,725     | 5.72   |

<sup>1</sup> Expected equity risk premium is based on the difference of historical arithmetic mean returns for 1926-2014. Large-cap stocks are represented by the S&P 500 Index.

<sup>2</sup> Return in excess of CAPM estimation. Mid-Cap stocks are defined here as the aggregate of size-deciles 3–5 of the NYSE/AMEX/NASDAQ; Low-Cap stocks are defined here as the aggregate of size-deciles 6–8 of the NYSE/AMEX/NASDAQ; Micro-Cap stocks are defined here as the aggregate of size-deciles 9–10 of the NYSE/AMEX/NASDAQ. The betas used in CAPM estimation were estimated from CRSP NYSE/AMEX/NASDAQ decile portfolio monthly total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2014. Calculated (or derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2015 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.



# Glossary

**Bond Default Premium**

Calculated as the geometric difference between long-term corporate bond total returns and long-term government bond total returns.

**Bond Horizon Premium**

Calculated as the geometric difference between long-term government bond total returns and Treasury bill total returns.

**Equity Risk Premium**

Calculated as the geometric difference between large-capitalization stock total returns and U.S. Treasury bill total returns.

**Inflation**

Represented by Consumer Price Index for All Urban Consumer (CPI-U), not seasonally adjusted.

**Intermediate-Term Government Bonds**

Measured using a one-bond portfolio with a maturity near five years.

**Large Capitalization Stocks**

Represented by the Standard and Poor's 500 Stock Composite Index® (S&P 500) 1957–present; and the S&P 90, 1926–1956.

**Long-Term Corporate Bonds**

Represented by the Citigroup long-term, high-grade corporate bond total return index.

**Long-Term Government Bonds**

Measured using a one-bond portfolio with a maturity near 20 years.

**Small-Capitalization Stocks**

A portfolio of stocks represented by the fifth capitalization quintile of stocks on the NYSE for 1926–1981. For January 1982 to March 2001, the series is represented by the DFA U.S. 9–10 Small Company Portfolio and the DFA U.S. Micro Cap Portfolio thereafter.

**Small Stock Premium**

Calculated as the geometric difference between small-cap stock total returns and large-cap stock total returns.

**U.S. Treasury Bills**

Measured by rolling over each month a one-bill portfolio containing, at the beginning of each month, the bill having the shortest maturity not less than one month.