Sailing a boat requires a wide range of skills. One important skill is reading the direction of the wind. Changes in wind direction, even subtle ones, may require the skipper to adjust. Large wind shifts are easier to spot yet are often accompanied by violent storms which can severely test the skipper and crew. Unnerved by the storm, a skipper may fail to appreciate the new environment. Of course there may be a mix of subtle and major shifts mixed together. Or the trees on the nearby shoreline may be causing a temporary shift.

There is an unrecognized component to reading wind shifts. The boat must be sailed well. If a boat is sailed poorly or the crew is disorganized and unruly, the skipper’s ability to see the wind shifts is sharply reduced.

I have long believed the financial markets are subject to similar shifts, both large and small. They can change the landscape for both relative and absolute investment results. Those investors who have a solid, tested investment process will put themselves in the best position to deal with a shift. But a solid process is not enough. Investors should be alert for shifts in the investment environment and be prepared to adjust their focus from the myriad of day-to-day tasks in order to pay attention to these shifts. Two key questions must be addressed with every shift: what has changed and how durable is that change?

In the early 1980’s, the investment environment experienced a massive and sustained shift. Under the leadership of (Carter-appointed and Reagan-supported) Paul Volcker, the Federal Open Market Committee (FOMC) raised interest rates, set off a stiff recession and effectively reduced inflation to manageable levels. The markets began a 26-year financial boom. Bonds were the favored asset class. Fannie Mae and Citigroup were star stocks.

In 2008, the financial boom ended, violently. The list of casualties boggled the mind. Lehman Brothers, a 150 year-old investment bank, failed. Fannie Mae and Freddie Mac failed. AIG, the largest insurer in the world, essentially failed. Citigroup’s stock was trashed. U.S. Treasury Bills traded briefly at a negative yield; that is, the lender was paying the borrower!

The U.S. (and the rest of the world’s) financial system came within a hair’s breadth of collapsing. By the end of 2008, most investors knew that there had been few places to hide. The U.S. stock market plunged a uniform 40.0%. At least one money fund temporarily refused to allow withdrawals. Many bonds and derivative instruments defaulted.

The systemic threat posed by the crisis threatened to obscure the nature and characteristics of the shift. One of the chief obstacles to seeing clearly was a bone-deep and pervasive fear.

There is an unrecognized component to reading wind shifts. The boat must be sailed well. If a boat is sailed poorly or the crew is disorganized and unruly, the skipper’s ability to see the wind shifts is sharply reduced.

I can assure you that every one of us at DGI felt the same intense fear. Fear was only part of the equation. Nearly all portfolios were hit very hard in calendar year 2008. The destruction was so widespread that it was difficult to measure statistically how effectively your own investment team was performing. During the crisis, you could only rely on past habits and disciplines. If your discipline was sound (i.e., you were sailing the boat well), then you created for yourself the opportunity to observe the characteristics of the shift.
By the middle of 2009, when the crisis had passed, it was possible to begin to sort through the events of 2008. If you found that your investment discipline was lacking, then you needed to engage in some serious soul-searching. If you determined that your approach was sound, you could move on to look for the changes that the events of 2008 portended for the future investment environment.

During the darkest moments in 2008 we were helped enormously by an investment process that we had developed over many years, a process we believed was sound. Because we had sailed the boat well in 2008, we were in a position to begin to evaluate the massive shift that the financial crisis signaled.

1. INDIVIDUAL AND INSTITUTIONAL INVESTORS

Individual and institutional investors are generally considered to have a long-term investment horizon. Most of these investors utilize three asset classes: stocks, bonds, and money market funds. From 1982 until 2008 bonds enjoyed a tailwind and were the preferred asset class. After 2008, the investment environment inverted, with stocks enjoying a tailwind. The performance history of our balanced accounts since our inception reflects this inversion. From 2/28/1997 (our inception) until 12/31/2008 the DGI Balanced Tax-Exempt Composite* posted a gross annualized return of 6.5% per year. Our stocks returned 5.5% per year, bonds returned 7.2% per year and money funds returned 3.9% per year. From 2008 until the end of 2016 the DGI Balanced Tax-Exempt Composite returned 17.1% per year on an annualized basis. Stocks returned 21.4% per year, bonds 5.0% and money funds 0.1%.

Did individual and institutional investors recognize this inversion and respond accordingly? If so, it could have been appropriate for them to increase their stock exposure and reduce their bond exposure after 2008. Stock prices were severely depressed in late 2008 and early 2009 and U.S. Treasury bond yields were historically low. What did these investors actually do?

Net purchases of stock and bond mutual funds is a good proxy for the behavioral decisions of investors. Figure 1 shows the net purchases of stock and bond mutual funds for the years before and after 2008.

From 2008 until 2013, individual and institutional investors sold equity funds and purchased bond funds. They bought equity funds in 2013 and then were net sellers in 2014-15.

How wise was the decision to shift from stock funds to bond funds? Let’s say you began investing in 1989 and purchased an S&P 500 index fund. You were a patient and disciplined investor; you never sold a share. Over the 27 years you would have earned about 9.6% per year. Let’s say you exercised near-perfect patience and held your index fund position through the Asian contagion, Y2K, the major bear market from 2000 until 2002, the 9/11 terrorist attack and the subsequent invasion of Iraq. In 2008 your patience was exhausted. You sold your index fund and bought bonds. Assuming you earned 5.0% on your bonds from the end of 2008 until now, you would have earned 6.6% per year for the 27 years, instead of 9.6%. That single decision to exit stocks in 2008 would have cost you 50.0% of your assets over the 27 years!

Why would individual and institutional investors sell a high-return asset class and buy a low-return asset class? We think these investors shifted to a fear-based investment process in 2008. Eight years later they still seem to be in a fear-based mode. They have not yet accepted that the 2008 crisis inverted the markets.

2. HEDGE FUNDS

Hedge funds have been around for decades; their early purpose was to hedge against various risks. Until the late 1990's they were not a mainstream investment option. From the late 1990's until 2005, while the stock market plunges provided significant losses, hedge funds actually generated positive results. This startling performance dramatically increased the popularity of hedge funds. Many hedge fund investors bought into the idea that hedging could actually provide superior results. By 2007 there were nearly as many hedge funds as Starbucks coffee shops!

The wheels began to come off the hedge funds’ gravy train beginning in 2008. According to the Hedge Fund Research Institute, which keeps arguably the most reliable performance on hedge funds, aggregate hedge fund performance in 2008 was better than the stock market but still fell sharply, about -20.0%. That was understandable given the events in the financial markets...
MUTUAL FUND FLOWS 2000-2015

Source: Investment Company Institute, FactSet, Disciplined Growth Investors

Alpha is the amount (percentage) by which an active investment manager's portfolio outperforms its designated benchmark index. Past performance is no guarantee of future results.
that year. What is less understandable is the sluggish performance of the hedge funds since 2008. For the last five years ending 11/30/2016, aggregate hedge fund performance was 4.4% per year after fees. In comparison the S&P 500 increased by 14.5% per year.

Why would hedge funds perform so well during the 2000-2002 bear market and so poorly after 2008? These results tend to validate a general assessment of ours that most hedge funds were bond investors on steroids, i.e. bond portfolios or derivatives with massive amounts of leverage. High (and declining) interest rates were a perfect backdrop for hedge funds to seemingly produce competitive returns with low volatility.

To return to our sailing metaphor, in 2008 the winds for hedge funds shifted from a tailwind to a headwind. Headwinds are no fun. You cannot go directly to your goal but must tack back and forth. The wind is in your face and your vessel pounds into the waves. Sailing downwind is a whole lot more enjoyable.

The list of casualties among the 10,000+ hedge funds is growing.

3. ACTIVE INVESTMENT MANAGERS

The year 2008 was a watershed for investment managers. Those “value” managers who escaped heavy damage in 2000-2002 were brutally treated in 2008. The most visible casualty was Bill Miller

---

**FIGURE 2**

**ALPHA GENERATION, EQUITY FUNDS**

**RANGE OF PERFORMANCE BY STYLE CATEGORY**

12/31/98 – 12/31/16

---

Source: FactSet, Lipper Analytical Services, Russell Investment Group, Jefferies, Disciplined Growth Investors

Equity Funds represented are all U.S. Equity Funds within the nine Morningstar style boxes. For each market cap range of small cap, mid cap, and large cap there are three styles of funds represented: value, core, and growth.

Alpha is the amount (percentage) by which an active investment manager’s portfolio outperforms its designated benchmark index.

Past performance is no guarantee of future results.
of Legg Mason, who’s mutual fund had outperformed the S&P 500 for 16 years in a row prior to 2008. He entered that year in what he thought was a somewhat defensive position by concentrating his mutual fund in big-name financial stocks paying a dividend. Oops.

The early struggles of Bill Miller have expanded to nearly all investment managers.

Figure 2 shows how investment managers have been faring relative to their designated benchmarks each year since 1999. We have included the range of performance, as shown by the dotted line. When the average performance has exceeded the benchmark, we gave the investment management industry an orange dot, when performance lags, a gray dot. As is readily apparent, post-2008 investment managers have been losing to their benchmarks every year and their returns have been bunched around the indexes.

This sustained period of underperformance threatens the fee structures and business models of active money managers. During this period index funds have offered a far better value, as measured by the return achieved versus the fees charged. The entire distribution system for investment management is also under severe collateral threat.

We have speculated on the cause of the investment manager performance woes. In 2009 we published a paper, titled “The Old (New) Era of Risk Management”. In that paper we asserted that volatility was an important factor when investing but not an appropriate measure of risk. We hypothesized that 2008 exposed the dangers from flawed risk management models and that investment managers would be forced to change their models or they would suffer performance issues.

This flawed model did not allow them to sail the boat well during the crisis in 2008 and is a likely culprit of their performance woes since then.

4. FIXED INCOME INVESTMENT MANAGERS

From 1982 until 2008, fixed income managers were the stars of the investment management industry. The undisputed king (aka “The Bond Daddy”) was Bill Gross, who co-founded PIMCO in 1971. It is fair to say that Gross uniquely capitalized on the great financial asset boom. Under his focused leadership, PIMCO became the largest asset manager in the world, with nearly $2 trillion in assets. Virtually all of the assets were in fixed income.

The flagship fund for PIMCO is the Total Return Fund. Since its founding in 1987, the fund has returned a respectable 7.4% per year through 12/31/2016. Over the near term the performance numbers have been significantly lower. For the last year the fund has earned 2.9%, for the last three years 2.6% and for the last five years 3.1%. The annual expenses of the Total Return Fund are 0.5%, which means for the last three years the fund return is only 5x the fees. We do not think this ratio is sustainable. And with interest rates at today's levels, we do not see how the fund performance can improve enough to justify the fees.

The strains at PIMCO are evident. In 2012 Bill Gross and his number two guy engaged in a messy public dispute; shortly thereafter the number two guy left. In 2014 Bill Gross left the firm he founded 43 years ago to join another mutual fund firm. He has since filed a major lawsuit against PIMCO to claim back pay.

Fixed income investors, like the hedge funds, are facing headwinds.
THE UNEXPECTED ELECTION OF PRESIDENT TRUMP

In late 2016 Donald Trump was unexpectedly elected president of the United States. Many market commentators have declared Trump’s election to be a “game changer”. We disagree. We think Trump’s election is not nearly as significant as the 2008 crisis or the long-running innovation revolution, in part because presidents have a minor effect on capital markets, especially stocks. We also do not yet know if President Trump will be able to implement many of his proposed policies.

For investors, especially those who invest in small and medium-sized companies, the most likely and important policy changes will come in the corporate tax code.

Since 1990 the U.S. has allowed its business tax code to become uncompetitive with the rest of the world. Figure 3 shows the federal...
and state tax rate on business profits for the U.S. versus a basket of other countries.

For many U.S. corporations this tax rate gap has more than offset the numerous other advantages of doing business as a U.S. company. Corporate inversions are the most visible example. An inversion occurs when a U.S. company buys a foreign-based company and then moves its domicile to the foreign country. While we understand why corporate management might want to move to a lower tax rate environment, we have found inversions to be bad for our clients. The IRS treats inversions as a sale of the domestic company, which triggers a capital gain even though we have not sold the stock.

President Trump is proposing to reduce the corporate tax rate from 35.0% to 15.0%. Speaker of the House Paul Ryan is also proposing a similar rate. We have long believed that the most important tax is the rate on the next dollar of income. If the corporate tax rate were to be reduced about in line with Trump’s or Ryan’s proposals, our work shows that U.S. stocks should enjoy a material increase in expected returns.

The second part of corporate tax reform is to level the playing field between large and small companies. To explain this we have to dive briefly into corporate law. Most U.S. companies are organized as C corps or S corps. Nearly all publicly traded stocks are C corps. Most very large C corps hire lobbyists who ensure their clients are favored under any tax code change. Smaller publicly traded companies do not have the resources to hire lobbyists so they generally pay higher effective tax rates. If the corporate tax were to be reduced to 15.0% or so, smaller public companies would be less disadvantaged by the tax code.

Sub S corporations are generally private companies and smaller. DGI is organized as a sub S. Our marginal income tax rate is based on the individual U.S. tax code, about 43.0% today. Both Trump and Ryan are proposing to sharply reduce the tax rate for sub S corporations. We cannot speak for other sub S companies but we know a tax rate change of this magnitude would revolutionize the way we think about our business. We are already at work examining every one of our processes in the context of a reformed tax code for sub S companies.

Figure 4 shows the net new business formation in the U.S. since 1990.
We think a reduction in the marginal tax rates on smaller public companies and sub S companies is likely to increase the rate of net new business formations in the U.S.

**WHAT SHOULD AN INVESTOR DO?**

Part of the "art" of long-term investing is to identify and focus on sustainable trends. We see two major and durable factors worthy of investor attention – the 2008 financial crisis and the long-running innovation revolution. Both of these are far more important than the Trump election victory.

We hope we have shown you how the financial crisis has deeply affected at least four different types of investors. At this point we need to re-acquaint you with another wind shift, much more subtle than the 2008 shift. In 2012 we published a piece titled "You Gotta Know When to Hold 'Em", in which we began to address the profound changes caused by advancements in computer technology and the web. In contrast to the loud, clanging shift in 2008, this shift...
has occurred slowly and quietly. The beginning of this shift occurred in the late 1970’s with the development of the microchip. It gained momentum with the development of the microprocessor and the emergence of the web in the mid 1990’s. It took another step with the growth of social media around 2007.

We have a friend, Nick Van Brunt, who is a national class inventor. He has developed and brought to market three different products in different industries, a truly remarkable achievement. Nick has repeatedly advised us that “technological revolutions come in more slowly than expected and end up being much larger than expected.”

This series of innovative developments is as important as the financial crisis for investors, especially equity investors. These changes have kept the U.S. economy in a highly dynamic state even though the overall growth rate has been sluggish.

Here is a list of the top ten U.S. companies by stock market value as of 12/31/2016:

<table>
<thead>
<tr>
<th></th>
<th>Company</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apple</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Google</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Microsoft</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Berkshire Hathaway</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Amazon</td>
<td>10</td>
</tr>
</tbody>
</table>

There are four very new names on the list. Apple was considered an obsolete personal computer company by the late 1990’s. Google was founded in 1996 and became a public company in 2004. Amazon was founded in 1994 and went public in 1997. The Facebook website was launched in 2004 and the company went public in 2012.

While we might consider one or more of these stocks to be fully priced, their phenomenal business success is not to be questioned. And the speed of the companies’ success speaks to an economy which remains very dynamic.

There are two very important investment implications of this innovation revolution. The business models of corporate America are changing. In effect they are becoming more asset-light; operating margins are expanding. More and more companies can achieve superior growth and generate free cash flow, enabling them to pay a dividend.

Second, the innovation revolution is spreading beyond technology to areas like distribution networks and energy production.

Figure 5 shows U.S. corporate profits as a percentage of GDP since 1967.

It seems clear that corporate profitability has expanded meaningfully over the last fifty years. We think the improvement is sustainable and reflects better business models and superior intra-corporate communication and coordination. We also note the severe recessions in 2000-2002 and 2008 sharply contracted profit margins. These two sharp profit recessions have caused many investors to doubt the sustainability of the enhanced profitability of U.S. companies. Eight years after the financial crisis, we can now safely say that 2008 was a major shift in the environment. We also have had eight more years to observe the innovation transformation in American business. We think stocks have become the preferred asset class; their headwind has shifted to a tailwind.

Within the stock market the preferred companies are those who have embraced the innovation revolution. The lingering fear from the 2008 crisis has kept our stocks reasonably priced, i.e. to yield acceptable returns to our clients even after the high results of the last eight years. Successful investing will require long holding periods; trading will prove to be distracting and harmful to results.

Bonds are useful only as a source of income and an expensive hedge against short-term market volatility. For us, the path to investment success remains clearer than normal. The challenge will be to maintain our discipline, exercise patience and to filter out the many distracting short-term events.
FIGURE 5

U.S. CORPORATE PROFITABILITY 12/31/69 – 9/30/16

Source: Bureau of Economic Analysis, FactSet, Disciplined Growth Investors
Past performance is no guarantee of future results.
ABOUT THE AUTHORS

Fred Martin is Disciplined Growth Investors’ Founder and a Lead Portfolio Manager. Fred has been managing portfolios since 1976 and is the primary architect of the investment philosophy employed by the firm.

Nick Hansen is a Senior Equity Analyst and a Portfolio Manager at Disciplined Growth Investors and joined DGI in 2006. Nick holds an MBA from St. Thomas University (St. Paul, Minn.) and is a Chartered Financial Analyst (CFA) charter holder and a Chartered Alternative Investment Analyst (CAIA) charter holder.

ABOUT DISCIPLINED GROWTH INVESTORS

DISCIPLINED GROWTH INVESTORS IS A MINNEAPOLIS-BASED INVESTMENT MANAGEMENT FIRM SPECIALIZING IN PRUDENTLY EXPLOITING INVESTMENT OPPORTUNITIES IN PUBLICLY HELD SMALL CAP AND MID CAP GROWTH COMPANIES. FOUNDED IN 1997, THE FIRM REMAINS EMPLOYEE OWNED AND COMPLETELY INDEPENDENT.

FOR FURTHER INFORMATION ABOUT THIS ARTICLE, RELATED MATERIALS, OR FURTHER INVESTMENT OPTIONS AT DISCIPLINED GROWTH INVESTORS

CONTACT:

ROBERT BUSS
CFA, CIPM DIRECTOR OF MARKETING LEAD PORTFOLIO MANAGER
612 317 4107
ROBERTB@DGINV.COM
## DISCIPLINED GROWTH INVESTORS – BALANCED GROWTH COMPOSITE

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COMPOSITE PERFORMANCE GROSS of FEES</th>
<th>COMPOSITE PERFORMANCE NET of FEES</th>
<th>S&amp;P 500</th>
<th>NUMBER of PORTFOLIOS in COMPOSITE</th>
<th>COMPOSITE DISPERSION</th>
<th>TOTAL COMPOSITE ASSETS at END of PERIOD ($ in MILLIONS)</th>
<th>COMPOSITE PERCENTAGE of TOTAL FIRM ASSETS</th>
<th>TOTAL FIRM ASSETS at END OF PERIOD ($ in MILLIONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997*</td>
<td>11.4%</td>
<td>10.8%</td>
<td>24.6%</td>
<td>35</td>
<td></td>
<td>$288.8</td>
<td>35.6%</td>
<td>$811.5</td>
</tr>
<tr>
<td>1998</td>
<td>6.7%</td>
<td>6.1%</td>
<td>28.6%</td>
<td>28</td>
<td>0.85%</td>
<td>$260.4</td>
<td>37.9%</td>
<td>$686.4</td>
</tr>
<tr>
<td>1999</td>
<td>37.3%</td>
<td>36.6%</td>
<td>21.0%</td>
<td>29</td>
<td>2.96%</td>
<td>$303.7</td>
<td>35.2%</td>
<td>$862.2</td>
</tr>
<tr>
<td>2000</td>
<td>3.4%</td>
<td>2.8%</td>
<td>-9.1%</td>
<td>32</td>
<td>1.03%</td>
<td>$262.7</td>
<td>32.6%</td>
<td>$804.7</td>
</tr>
<tr>
<td>2001</td>
<td>-1.7%</td>
<td>-2.2%</td>
<td>-11.9%</td>
<td>34</td>
<td>1.24%</td>
<td>$257.5</td>
<td>36.6%</td>
<td>$704.1</td>
</tr>
<tr>
<td>2002</td>
<td>-13.8%</td>
<td>-14.3%</td>
<td>-22.1%</td>
<td>32</td>
<td>0.95%</td>
<td>$198.9</td>
<td>35.4%</td>
<td>$565.1</td>
</tr>
<tr>
<td>2003</td>
<td>34.9%</td>
<td>34.2%</td>
<td>28.7%</td>
<td>34</td>
<td>1.34%</td>
<td>$272.0</td>
<td>31.4%</td>
<td>$866.8</td>
</tr>
<tr>
<td>2004</td>
<td>17.4%</td>
<td>16.7%</td>
<td>10.9%</td>
<td>39</td>
<td>0.72%</td>
<td>$317.9</td>
<td>28.9%</td>
<td>$1,098.3</td>
</tr>
<tr>
<td>2005</td>
<td>13.0%</td>
<td>12.3%</td>
<td>4.9%</td>
<td>41</td>
<td>0.60%</td>
<td>$352.5</td>
<td>22.9%</td>
<td>$1,540.3</td>
</tr>
<tr>
<td>2006</td>
<td>7.3%</td>
<td>6.7%</td>
<td>15.8%</td>
<td>45</td>
<td>0.54%</td>
<td>$370.3</td>
<td>23.1%</td>
<td>$1,603.9</td>
</tr>
<tr>
<td>2007</td>
<td>4.6%</td>
<td>4.0%</td>
<td>5.5%</td>
<td>45</td>
<td>0.50%</td>
<td>$353.1</td>
<td>21.0%</td>
<td>$1,683.5</td>
</tr>
<tr>
<td>2008</td>
<td>-26.4%</td>
<td>-26.8%</td>
<td>-37.0%</td>
<td>38</td>
<td>1.18%</td>
<td>$235.2</td>
<td>23.6%</td>
<td>$995.9</td>
</tr>
<tr>
<td>2009</td>
<td>44.5%</td>
<td>43.5%</td>
<td>26.5%</td>
<td>38</td>
<td>1.95%</td>
<td>$231.3</td>
<td>15.6%</td>
<td>$1,484.5</td>
</tr>
<tr>
<td>2010</td>
<td>27.4%</td>
<td>26.6%</td>
<td>15.1%</td>
<td>38</td>
<td>1.03%</td>
<td>$277.7</td>
<td>13.9%</td>
<td>$2,002.2</td>
</tr>
<tr>
<td>2011</td>
<td>3.2%</td>
<td>2.6%</td>
<td>2.1%</td>
<td>40</td>
<td>0.33%</td>
<td>$281.5</td>
<td>11.8%</td>
<td>$2,382.6</td>
</tr>
<tr>
<td>2012</td>
<td>16.8%</td>
<td>16.0%</td>
<td>16.0%</td>
<td>52</td>
<td>0.58%</td>
<td>$338.3</td>
<td>12.1%</td>
<td>$2,788.0</td>
</tr>
<tr>
<td>2013</td>
<td>27.7%</td>
<td>26.9%</td>
<td>32.4%</td>
<td>47</td>
<td>1.39%</td>
<td>$397.6</td>
<td>9.8%</td>
<td>$4,054.4</td>
</tr>
<tr>
<td>2014</td>
<td>13.1%</td>
<td>12.3%</td>
<td>13.7%</td>
<td>44</td>
<td>0.53%</td>
<td>$423.2</td>
<td>9.5%</td>
<td>$4,459.7</td>
</tr>
<tr>
<td>2015</td>
<td>-4.3%</td>
<td>-4.9%</td>
<td>1.4%</td>
<td>43</td>
<td>0.36%</td>
<td>$388.6</td>
<td>9.3%</td>
<td>$4,158.5</td>
</tr>
</tbody>
</table>

Disciplined Growth Investors, Inc. (DGI) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. DGI has been independently verified for the period February 28, 1997 through June 30, 2016. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm’s policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Balanced Growth Composite has been examined for the periods February 28, 1997 through December 31, 2015. The verification and performance examination reports are available upon request. GIPS® is a registered trademark of CFA Institute. CFA Institute has not been involved in the preparation or review of this report/advertisement. Benchmark returns are not covered by the report of independent verifiers.

Notes:
1. Disciplined Growth Investors, Inc. (DGI) is an investment adviser registered with the U.S. Securities and Exchange Commission specializing in small cap growth equity, mid cap growth equity and balanced growth portfolio management. DGI was founded in February 1997.
2. Valuations are computed in U.S. dollars.
3. Benchmark comparisons are presented using the SP 500. Management considers this index to parallel both associated risk and the investment style represented by the composite.
4. * DGI was formed February 6, 1997. It is the policy of DGI to include accounts in the composite after the first full month of performance; thus, 1997 only includes performance for the period February 28, 1997, through December 31, 1997.
5. The Balanced Growth Composite was created on February 28, 1997.
6. The dispersion of annual returns is measured by the standard deviation across asset-weighted portfolio returns represented within the composite for the full year.
7. Gross performance results are presented before management and custodial fees but after all trading costs. Performance is based on trade-date valuation and is size weighted. Net performance results are presented before custodial fees but after actual management fees and all trading costs. The management fee schedule is as follows: BALANCED GROWTH ACCOUNT FEES
   1.00% on the first $5 million
   0.75% on the next $20 million
   Over $25 million fees are negotiable
8. The historical rates of return should not be relied on as indicative of future results.
9. The Balanced Growth Strategy is to invest in equities with market capitalizations between $1 billion and $10 billion at initial purchase, and fixed income securities using an active duration around a benchmark. The Balanced Growth composite is approximately 50-75% equities with the remainder in fixed-income securities and cash. The composites contain all fully invested, tax-exempt discretionary portfolios in the strategy. Accounts are included in the composite after the first calendar month of fully invested performance. No alteration of the composite as presented here has occurred because of changes in personnel or other reasons at any time. A complete list of firm composites and performance results is available upon written request. A minimum account size of $1 million was removed as of 9/30/2012.
10. DGI’s policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.
11. Three-year annualized standard deviation:

<table>
<thead>
<tr>
<th>Year</th>
<th>DGI Balanced Growth Composite</th>
<th>SP 500 Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>16.76</td>
<td>18.71</td>
</tr>
<tr>
<td>2012</td>
<td>14.10</td>
<td>15.09</td>
</tr>
<tr>
<td>2013</td>
<td>12.15</td>
<td>11.94</td>
</tr>
<tr>
<td>2014</td>
<td>9.52</td>
<td>8.97</td>
</tr>
<tr>
<td>2015</td>
<td>9.63</td>
<td>10.47</td>
</tr>
</tbody>
</table>