

# PORTFOLIO INSIGHTS

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from a simple idea:

**In an industry where high  
quality, objective advice is  
hard to come by, we make a  
difference by putting the client's  
interests above our own.**

## Running to Stand Still

The total returns for the S&P 500 and the Dow Jones Industrial Average were barely positive last year - so close, in fact, that without the paltry dividend yields, the returns would have been negative.

Bond investors didn't fare any better with the Barclays US Aggregate bond index gaining just 0.55 percent.

The flat returns might make you think that nothing happened last year, but in fact, it was a wild ride across all markets and asset classes.

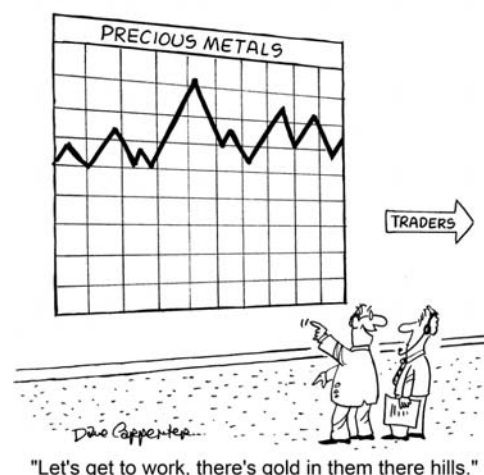
US stock investors, for example, experienced the first correction last year since the 2008 financial crisis. Over the course of just four days in August, the S&P 500 lost more than 10 percent, but almost as quickly as the correction arrived it was gone - everything lost in that rout was earned back in 30 days.

The bond market experienced its fair share of fretting and volatility as well amid the first interest rate hike by the Federal Reserve in nearly a decade, persistent negative interest rates in Europe and Japan, and an ongoing selloff in junk bonds that left the Barclays High Yield (junk) bond index down -5.26 percent.

Commodities continued their multi-year decline as the CRB All Commodities Spot index fell -14.40 percent in 2015. At the same time, oil prices continued their slide with West Texas Intermediate (WTI) crude falling from \$53.27 to \$37.04 per barrel, a decline of -30.47 percent. At the end of 2013, WTI traded at \$98.42 per barrel.

As if all of that wasn't enough, the currency markets commanded a great deal of attention as well with the Chinese devaluing their currency in August, the Swiss National Bank breaking their peg to the euro in January after persistent claims that they wouldn't, and the US dollar gaining more than nine percent across a trade-weighted basket of major currencies.

Indeed, 2015 was a tough year and even though it's impossible to get excited about paltry returns, we are relieved that things turned out as well as they did given the circumstances. The specifics were unpredictable, but we were prepared by maintaining our well-diversified approach that is designed to weather tough times like these. Here's to a better 2016!



**Don't gamble; take all your savings and buy some good stock and hold it 'til it goes up, then sell it. If it don't go up, don't buy it.**  
- Will Rogers, Humorist

## Stock Market Summary

By David Ott

The chart below shows the 2015 returns for the asset classes that make up our equity allocations.

The column that stands out like a sore thumb is the MSCI EAFE EM index of emerging market stocks. This allocation is well understood as the most volatile and, therefore, only receives a five percent weight in our equity allocation and even less for portfolios with bond allocations.

More than two-thirds of the decline can be attributed to the strong US dollar relative to emerging market currencies. The impact of falling commodities and rising interest rates in the US has been a double whammy for their currencies.

The strong US dollar hurt developed markets (the other column in green), which lost less than one percent last year. If the impact of the dollar appreciation is stripped out, developed international markets enjoyed the best returns, just north of five percent for the MSCI EAFE (hedged).

Among US stocks, in blue, only the S&P 500 managed to eke out a gain - the other three major asset classes, mid-, small- and

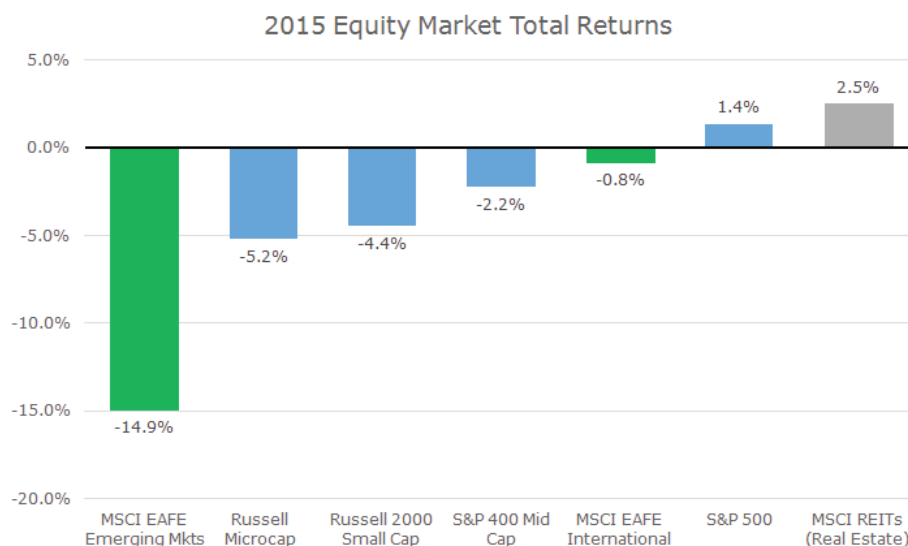
micro-cap stocks were all in the red last year as investors reduced exposure to the higher risk asset classes.

Earlier in the year, it was thought that the smaller US equity asset classes would outperform large-cap because they don't have as much exposure outside of the US, but that failed to come to fruition.

Although we won't know what fourth quarter corporate earnings will look like for a few months, estimates by FactSet suggest that earnings growth for the calendar year will be approximately -0.60 percent.

While three sectors produced double digit earnings growth (telecom, healthcare and financials), four more were largely flat. The worst news, however, came from materials and energy, which saw their profits contract by -8.1 and -58.8 percent respectively.

Somewhat interestingly, of the seven equity asset classes that comprise our equity allocation, Real Estate Investment Trusts (REITs) produced the best returns for the second year in a row. In 2014, the MSCI REIT index gained 33.60 percent.



Data Source: Bloomberg



# Bond Market Review

By Ryan Craft, CFA

Although last year wasn't particularly volatile for the bond market, it was full of twists and turns. If you simply looked at the opening and closing yield on the 10-year US Treasury note, a bell-weather indicator for the bond market, you might think nothing happened since the yield started at 2.17 percent and ended at 2.27 percent.

At first, the yield dropped like a stone, falling to 1.64 percent by the end of January, not far above the all-time low of 1.39 percent, which was set in July of 2012. But by early summer, the yield had jumped to 2.49 percent leading a lot of investors to think rates might end substantially higher by year end.

Overall, the Barclays US Aggregate earned 0.55 percent, which was the lowest return for the index in the past 20 years, except for the two losing years in 1994 and 2013.

Although there are many sectors and subsectors within the Aggregate, the three main categories are Treasury bonds, corporate bonds (referred to as credit in the chart) and mortgage backed securities (MBS).

The Aggregate and its components are shown in blue below, and you see a fair amount

of divergence between the worst performing sector, corporate bonds which fell -0.8 percent and MBS, which gained 1.6 percent.

To further diversify our portfolios, we also invest in sectors outside the Aggregate index (in green below), most notably in inflation protected bonds (TIPs) and foreign bonds. We also buy municipal bonds for some clients based on their tax bracket.

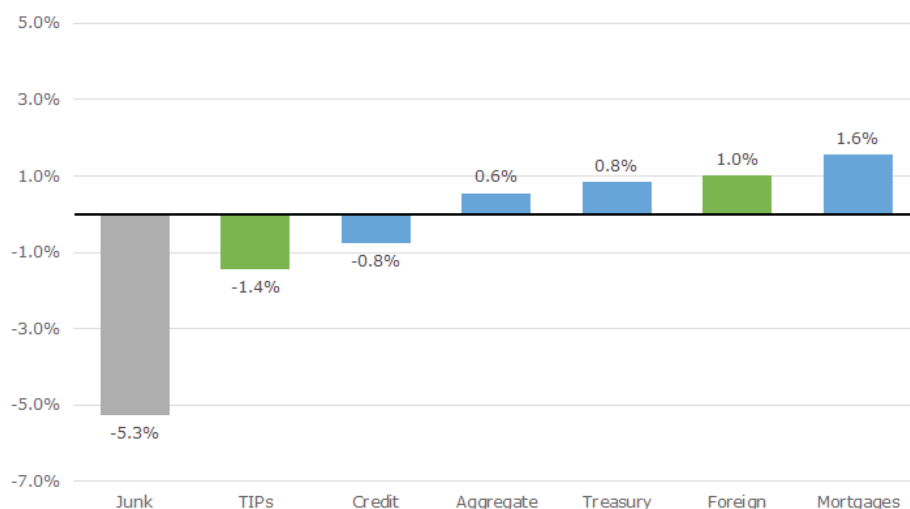
Foreign bonds had a good year provided that they were hedged to the US dollar. The Citigroup World Government 1-5 Year Hedged bond index earned 1.0 percent. The Morningstar world bond category, which includes hedged and unhedged portfolios lost -4.0 percent last year, showing the negative impact of the strong dollar for US-based investors.

Inflation protected bonds, as measured by the Barclays TIPs index, also struggled, falling -1.44 percent as the headline Consumer Price Index continued to remain low with falling energy prices. In 2014, CPI was 0.80 percent and was largely unchanged in 2015 through November at 0.50 percent.

**The curious task  
of economics is to  
demonstrate to men  
how little they really  
know about what  
they can imagine and  
design.**

- Friedrich August von Hayek, Economist

2015 Bond Market Total Returns



Data Source: Bloomberg

**The only thing we learn  
from history is that  
we do not learn from  
history.**

**- Milton Friedman,  
Economist**

## The Fed Awakens

By Michael Lissner, CEPA

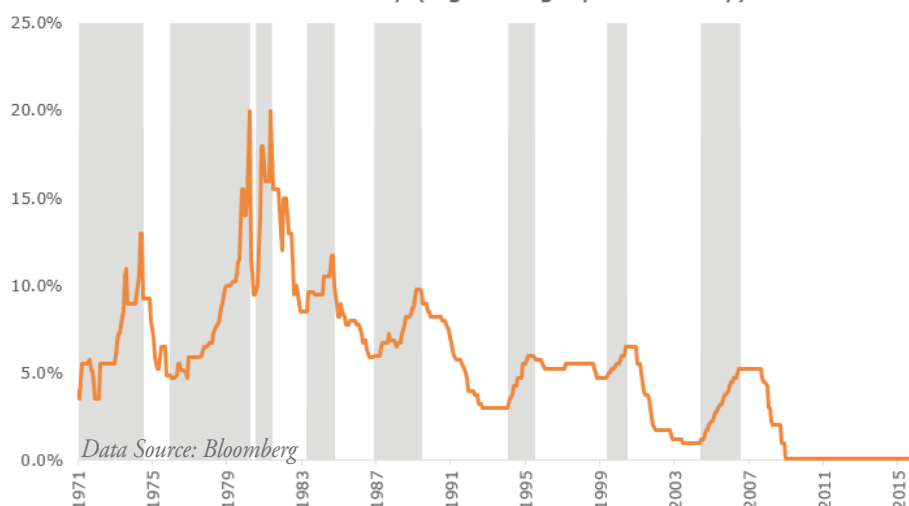
Last month, the Federal Open Market Committee (FOMC) did what markets had been expecting for some time and raised short-term interest rates.

The fed funds rate, which is the rate that banks use to borrow and lend to each other on overnight money, had been basically at zero since the end of 2008. The increase of 0.25 percent was the first hike since 2006.

years. Of course, it's impossible to say since history doesn't repeat itself, but there is some interesting data for consideration.

One of the tricky things about analyzing previous cycles is actually defining a cycle. We've noticed that different researchers make different assumptions about how to define a cycle, so we thought it would be important to start with our own definitions

Fed Funds History (Tightening Cycles in Gray)



Starting Month	Ending Month	Starting Rate	Ending Rate	Total Increase	S&P 500 Return	US Bond Return	Inflation Rate
02/1971	06/1974	3.50%	13.00%	9.50%	0.0%	4.0%	6.3%
01/1976	03/1980	4.75%	20.00%	15.25%	8.1%	2.8%	9.0%
08/1980	05/1981	10.00%	20.00%	10.00%	16.7%	-3.5%	10.4%
05/1983	09/1984	9.63%	11.75%	2.12%	5.6%	6.4%	4.5%
12/1986	05/1989	6.00%	9.75%	3.75%	14.4%	6.8%	4.7%
02/1994	06/1995	3.25%	6.00%	2.75%	12.3%	4.7%	3.0%
06/1999	05/2000	4.75%	6.50%	1.75%	10.5%	2.1%	3.2%
06/2004	06/2006	1.25%	5.25%	4.00%	8.2%	3.1%	3.4%

Many investors reasonably wonder what will happen now that the Fed has started to tighten monetary policy, both in terms of how high rates might go and what the impact on stocks and bonds could be.

We thought it would be interesting to look back and see what has happened during previous tightening cycles to help get a sense of what may happen in the coming

and simply show the assumptions in the above graph.

For example, in the very first tightening cycle on the left in the chart above, you can see that rates rise sharply, then drop a little bit and then rise again. We considered that one cycle and other researchers considered it two.

Neither one is right or wrong necessarily, but

*Continued on next page.*

different inputs produce different outputs and the assumptions can make a real difference. In general, we're trying to get a sense of the big picture, so in this example, we chose to view this as one big cycle.

This first cycle, which lasted nearly two and a half years the way we defined it, saw interest rates shoot up from 3.5 percent to 13.0 percent, a hike of 9.5 percent (which we include in the data table below the chart).

During this period, the S&P 500 was flat. Bonds, as measured by five-year US Treasury notes (until the creation of the Barclays US Aggregate bond index in 1976) actually gained 4.0 percent in annualized terms.

Interestingly, in all of the research that we saw, no one included the inflation rate, which dramatically overstates the real returns that investors experienced, because the Consumer Price Index (CPI) was 3.6 percent during that period.

The inflation adjusted (or 'real') returns don't look so good: -5.9 percent for stocks and -2.1 percent for bonds in the first tightening cycle. These are the kind of results that investors are worried about whenever the Fed starts to raise rates. Fortunately, the outcomes on other hikes are not this bad.

In fact, looking at this data, there are two fairly distinct periods since 1971. The first period, as we see it, includes the first three tightening cycles and the average interest rate hike was 11.6 percent. The Fed was battling inflation, which averaged 9.0 percent during the first three cycles.

On average, the non-inflation adjusted returns aren't so bad during the first three cycles: 8.3 percent for stocks and 1.09 percent for bonds. But when you factor in inflation, the results are much worse: real returns of -0.3 percent for stocks and -6.8 percent for bonds.

The second period, which we define as the next five hiking periods, is much less severe. The average interest rate increase was 2.9 percent and inflation averaged 3.8 percent.

During this milder series of five hikes, the non-inflation adjusted return for the S&P 500 was 10.2 percent and 4.6 percent for the Barclays Aggregate bond index.

Even after inflation, the real returns weren't so bad either: 6.2 percent for stocks and 0.8 percent for bonds.

As we stand at the beginning of a new cycle, it's impossible to know what will happen, but it seems reasonable to think that the cycle starting today will look more like the most recent five hikes and less like the first three.

After all, the Fed is going to great lengths to communicate that the pace of hikes will be 'gradual' and that they expect rates to end up around 3.5 percent over the long run. The bond market thinks that is even too high and, based on futures prices, thinks that the fed funds rate will be closer to 1.75 percent in 2018.

Furthermore, inflation isn't anywhere close to where it was in the 1970s. The most recent data from November shows that year-over-year headline CPI is 0.5 percent. The low rate is largely a function of falling oil prices, but even 'core' inflation that strips out food and energy was only two percent over that same period.

We don't know where markets will go from here, but given the expected pace and final rate for fed funds, it seems unlikely that we will get results like those during the first three hikes.

Interest rate increases are only one factor that impacts stock prices, so even event studies like this one can only tell us so much.

**Your net worth to the world is usually determined by what remains after your bad habits are subtracted from your good ones.**

**- Benjamin Franklin,  
Founding Father**

**He uses statistics  
as a drunken man  
uses lamp posts... for  
support rather than  
illumination.**

**- Andrew Lang, Poet**

## Volatility Strikes Back

*By David Ott*

It's no secret that returns since the 2008 financial crisis have been unusually high: since the bottom in March of 2009, the S&P 500 has earned 17.36 percent on an annualized basis.

Obviously, a great deal of that return was simply digging out of the hole that was created in the crisis, but it's still more than most investors were expecting at the bottom of the market.

What has been less publicized is that volatility has been much lower than normal over the same period, producing extraordinarily high risk-adjusted returns. In fact, the past few years have been among the best on record if you look at the Sharpe ratio, a measure that combines realized returns and volatility.

In 2015, markets were more volatile, but given the news last year, I think most investors would be surprised to find out the level of volatility was relatively normal and certainly nothing like what we experienced in the Tech Wreck in the early 2000s and the 2008 financial crisis.

The chart below depicts an intuitive measure of volatility that simply counts the number of days where the market return was less than one percent or greater than one percent.

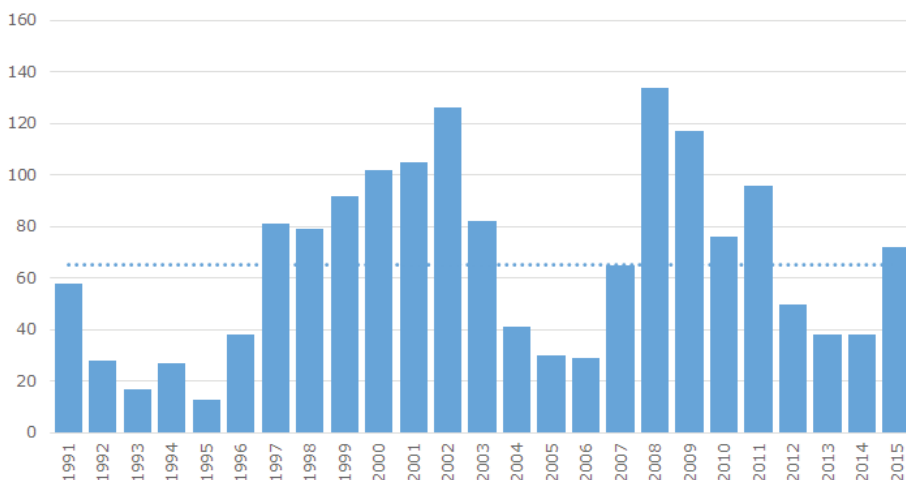
Last year, for example, there were 41 days where the market fell by more than one percent and 31 days where the market gained more than one percent, giving us a total of 72 days.

You might say that this isn't a good measure because there were more down days than up days and emotionally those down days hurt a lot more than the good days give pleasure. But volatility isn't just a measure of downside movement, it's a measure of all movements, up and down.

And, if you look at the full period from 1991-2015, you actually find that the number of big down days is roughly equal to the number of big up days (52 to 48 percent).

In that sense, 2015 was a little uglier than usual because 57 percent of the big days were down, but this isn't a great measure.

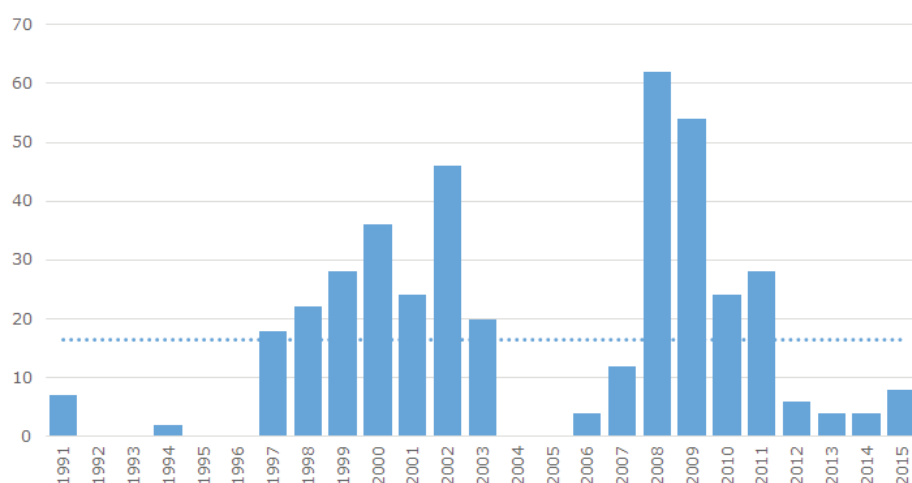
**Number of S&P 500 Daily Price Changes**  
Less than -1% and Greater than 1%



*Data Source: Bloomberg*



Number of S&P 500 Daily Price Changes  
Less than -2% and Greater than 2%



Data Source: Bloomberg

Consider, for example, that in the 2008 financial crisis, only 44 percent of the big one percent swing days were negative.

The chart shows that the number of one percent up or down days was about average for the last 25 years.

In this data, however, not many of the years are actually 'average.' Most of the data is either really low, like in the early 1990s and early-to-mid 2000s, or pretty high in the bubble/burst around the year 2007 or in the 2008 financial crisis.

The chart above depicts the same idea, but looks at days where markets either fell more than two percent or gained more than two percent.

We see basically the same thing, except that last year falls into the low volatility category. There were years where there were no days with up or down days of more than two percent, but it's been 10 years.

The idea here is that we did experience more volatility than we did in the previous three years, but it's still not very high.

The natural question is whether or not we are reentering a period of high volatility or whether things will calm down in the New Year.

Sadly, we don't know the answer, but it seems reasonable to assume that markets will be more volatile in the coming years than they have been in the recent past.

The higher volatility makes everyone's job harder because it's easier to get nervous when markets are jumpy than when everything is smooth sailing. After all, it's easy to take risk when it doesn't seem risky.

The thing to remember is that risk is normal – without it, there would be no return. We all know in our heart of hearts that risk and return go hand in hand and that if we don't want to take risk, we should expect low returns.

We think that in almost all cases that the answer isn't 'either-or,' but a sensible approach that combines high and low risk investments for a balanced portfolio.

**Under capitalism, man exploits man. Under communism, it's just the opposite.**

**- John Kenneth Galbraith, Economist**

Data Center	2015
Dow Jones	0.21%
S&P 500	1.37%
S&P Midcap	-2.18%
Russell 2000	-4.41%
MSCI EAFE (Intl)	-0.81%
MSCI Emerging Mkt	-14.92%

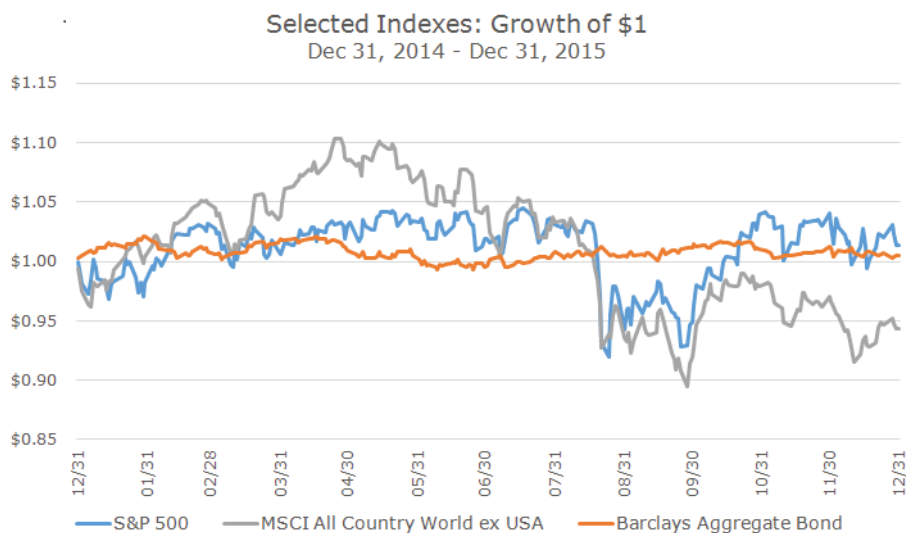
S&P Sectors	2015
Consumer Discretion.	10.11%
Consumer Staples	6.60%
Energy	-21.21%
Financials	-1.56%
Healthcare	6.89%
Industrials	-2.56%
Technology	5.92%
Basic Materials	-8.38%
Telecom	3.40%
Utilities	-4.84%

Interest Rates	2015
Fed Funds	0.50%
Prime Rate	3.50%
3-mo. Treasuries	0.17%
2-yr. Treasuries	1.05%
5-yr. Treasuries	1.76%
10-yr. Treasuries	2.23%

Currencies	2015
Euro	1.0862
Japanese Yen	120.22
British Pound	1.4736

All Data as of 12/31/2015

## The Big Picture



Data Source: Bloomberg

## Fast Facts

**147,444,789** - The number of individual income tax returns filed in the U.S. in 2014. There were 3.4 million partnership returns, 2.2 million corporate tax returns, and 34,132 estate tax returns filed as well.

**347,070** - The number of individual tax returns with an adjusted gross income of \$1 million or more. California had the most with a total of 53,990 and Vermont had the least with 400. Approximately 0.25 percent of individual returns had this much AGI.

**\$428,713** - The adjusted gross income needed to be in the top one percent in 2013. To be in the top 10 percent of households, you needed an income of \$127,695. The median adjusted gross income in 2013 was \$36,841.

**112.7 million** - The number of returns that had refunds in 2013. The average refund was \$2,843 and the grand total across all filers was \$320.6 billion.

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