

# INVESTMENT TRIVIA



**What does the return in the month of January tell us about  
the stock market return for the full year?**

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**January 2011**

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### Part 3:

#### **The correlation between the stock market returns in the month of January and for the full year**

Does the month of January have any predictability value what returns we are going to get from the stock market for the full year?

*Hypothesis:*

January is just another month like any other and should not have any special powers in predicting the year's outcome.

*Data:*

- The daily closing values of the FTSE JSE All Share Index from July 1995 to 31 December 2010.
- Numerous periods have been tested for any significant correlation between the period and the return for the full year.

For example, the following periods have been evaluated:

First week                      First five trading days in January

First two weeks                First ten trading days in January

First quarter                    1<sup>st</sup> of January to 31 March

Last quarter                    1 October to 31 December

*Results:*

The strength of relationships between full year's return and evaluation period

Year	Annual Return	Current year First week of January	Current year First two weeks of January	Current year January month	Current year First Quarter	Previous year Last Quarter	Previous year Last month
1996	7.1%	6.3%	7.9%	10.5%	8.4%	9.1%	-4.0%
1997	-8.8%	0.1%	1.7%	0.5%	6.2%	-3.9%	1.3%
1998	-8.2%	-3.4%	-5.5%	6.7%	23.5%	-14.3%	1.8%
1999	66.6%	7.6%	4.3%	8.0%	19.1%	6.7%	3.7%
2000	-2.3%	4.7%	7.7%	-1.3%	-7.1%	26.1%	-11.4%
2001	28.1%	1.5%	5.1%	9.5%	-0.9%	0.2%	-5.8%
2002	-11.3%	3.2%	3.1%	-1.2%	5.3%	30.7%	-10.1%
2003	12.0%	1.1%	2.7%	-5.2%	-17.2%	-2.0%	3.1%
2004	21.9%	1.2%	5.1%	4.4%	2.9%	16.4%	-6.3%
2005	43.0%	0.5%	1.0%	1.1%	5.1%	7.6%	-1.3%
2006	37.7%	2.5%	1.3%	9.1%	12.5%	7.2%	-7.3%
2007	16.2%	-2.0%	0.9%	2.1%	8.0%	11.4%	-3.9%
2008	-25.7%	-1.9%	-7.1%	-5.7%	2.2%	-3.3%	4.7%
2009	28.6%	3.4%	-5.0%	-4.4%	-5.3%	-9.8%	-1.4%
2010	16.1%	2.2%	1.0%	-3.6%	3.9%	11.1%	-2.8%
<b>Correlation factor</b>		<b>0.5</b>	<b>0.3</b>	<b>0.4</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>

- Surprisingly, the first five trading days in January (first week) yielded a relatively strong positive relationship with the subsequent full year's return. Likewise, the month of January has had a moderately positive correlation with that year's outcome.
- The first two weeks in January and the first quarter's performances have had a relatively weak correlation with the full year's performance.
- The last quarter and last month of the previous year showed no correlation with the current year's performance.

### Significance of correlation

Statistic	Current year First week of January	Current year First two weeks of January	Current year January month	Current year First Quarter	Previous year Last Quarter	Previous year Last month
t-value	1.91	1.02	1.66	0.61	0.01	0.11
critical t- value (p = 0.05)	1.77	1.77	1.77	1.77	1.77	1.77
critical t- value (p = 0.01)	2.65	2.65	2.65	2.65	2.65	2.65

- Despite the relative small sample of data considered, the correlation between the return of the first week of January and the return for the full year tested statistically significant at  $p = 0.05$  (95% probability that the relationship did not occur by chance). No other period tested any statistically significant correlation.
- However, when tested at  $p = 0.01$  (99% probability that a significant correlation did not occur by chance) the correlation between the first week of January and the full year's return was found not significant. Therefore, care should be taken to view such a correlation as a statistical "fact".

*While no logical explanation can be put forward why such a correlation between the returns of the first week in January and returns for the full year should exist, investors should nonetheless be aware of this market phenomenon. However, as with basically all market indicators, it is perhaps not worthwhile to place utmost trust, and thus bets, in this relationship.*



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