

2017

2017

*The Harriman*

STOCK

MARKET

ALMANAC

Seasonality analysis and studies of market anomalies to give  
you an edge in the year ahead

**Stephen Eckett**

2017

H

2017

Hh

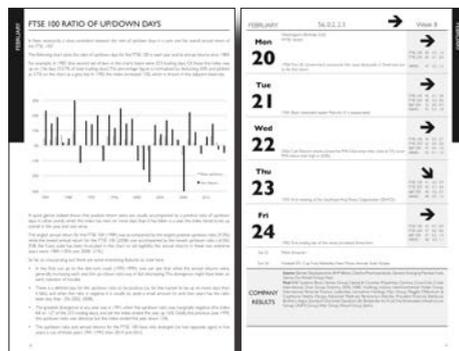
# THE HARRIMAN STOCK MARKET ALMANAC 2017

## SAMPLER

This short PDF contains a sample of articles taken from *The UK Stock Market Almanac 2016*. The Almanac is a unique study of stock market anomalies and seasonality, comprised of over 70 individual articles on a wide range of topics. The articles are variously intended to offer practical investment strategies, inform and entertain.

The sample featured gives a flavour of this study. In this sample you will find articles on these topics:

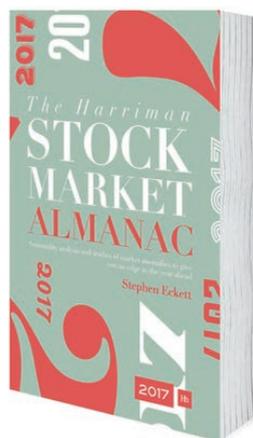
- The January Effect
- Monthly seasonality of shares
- FOMC announcements
- Do European stocks follow the US day-by-day
- An average month
- Turn of the month
- Comparative performance of UK indices
- Announcement dates of company results



In the full Almanac you will find articles on these topics:

- Quarterly sector momentum strategy
- Monthly sector momentum strategy
- The world's simplest trading system
- Sell in May
- Bounceback portfolio
- Correlation of UK equity markets
- Day of the week strategy
- The psychology of drawdowns
- Holidays and the market
- The market's decennial cycle
- Dividend payment calendar
- Chinese New Year
- The January Barometer

And much more!



**RRP: £25**

**RELEASE DATE: 8/11/16**

**ORDER YOUR COPY NOW**

**WWW.HARRIMAN-HOUSE.COM  
OR CALL 01730 233870**

**CORPORATE OPPORTUNITIES**

**FOR INFORMATION ABOUT BULK PURCHASE, BRANDED EDITIONS AND SPONSORSHIP, CONTACT KATE BOSWELL: KATE@HARRIMAN-HOUSE.COM**

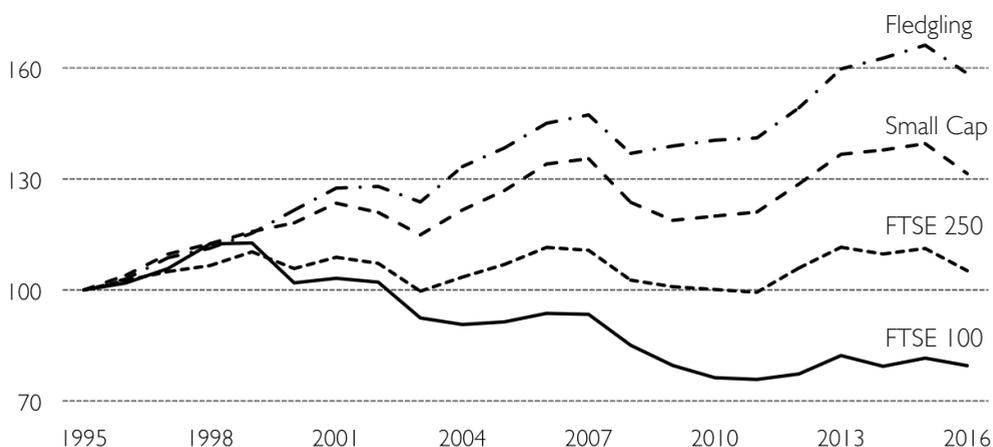
# THE JANUARY EFFECT

In 1976, an academic paper<sup>1</sup> found that equally-weighted indices of all the stocks on the NYSE had significantly higher returns in January than in the other 11 months over the period 1904-1974. This indicated that small capitalisation stocks outperformed larger stocks in January. Over the following years many further papers were written confirming this finding. In 2006, a paper<sup>2</sup> tested this effect (now called the *January Effect*) on data from 1802 and found the effect was consistent up to the present time.

*Does the January Effect work for UK stocks?*

The following chart shows the cumulative performance from 1995 to 2016 of four stock indices in just the month of January. The four indices are:

1. FTSE 100
2. FTSE 250
3. FTSE Small Cap
4. FTSE Fledgling



A portfolio investing in the FTSE 100 in just the Januaries since 1995 would have fallen 20.4% in value by 2016. By contrast, similar portfolios investing in the FTSE 250, Small Cap and Fledgling would have returned 5.2%, 31.4% and 58.5% respectively.

This suggests that not only does the January Effect hold for UK equities but also that, to a certain extent, performance in January is inversely proportional to company size (down to the level of FTSE Fledgling companies at least).

## Other January Effects

In academic literature the term *January Effect* usually refers to the anomaly described above. It is occasionally used in another couple of cases as well:

1. The returns in January indicate the returns for the rest of the year. If January market returns are positive, then returns for the whole year will be positive (and vice versa). This is sometimes called the *January Predictor* or *January Barometer*. A variant of this effect has it that returns for the whole year can be predicted by the direction of the market in just the first five days of the year. [See page 106.]
2. In 1942, Sidney B. Wachtel wrote the paper 'Certain Observations on Seasonal Movements in Stock Prices', in which he proposed that stocks rose in January as investors began buying again after the year-end tax-induced sell-off.

<sup>1</sup> Rozeff and Kinney, 'Capital market seasonality: The case of stock returns', *Journal of Financial Economics* 3 (1976), pp. 379-402.

<sup>2</sup> M. Haug and M. Hirschey, 'The January effect', *Financial Analysts Journal* 62:5 (2006), pp. 78-88.

# MONTHLY SEASONALITY OF SHARES

*Do individual shares display abnormal strength or weakness in particular months?*

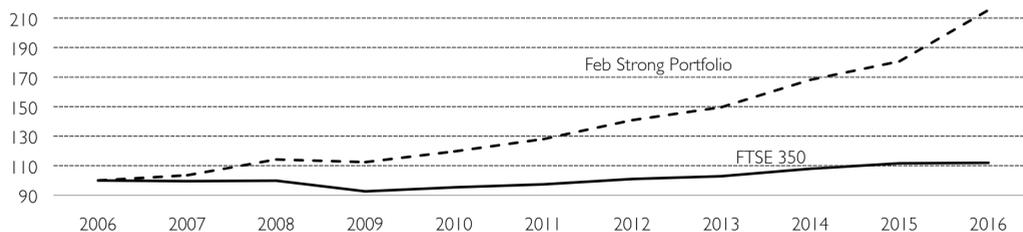
## Shares that like February

The following table lists the five FTSE 350 shares with the best record of performance in February over the last ten years. For example, Hunting shares have seen an average return of 7.6% in the ten Februaries since 2007. And Weir Group shares have had positive returns in nine of the past ten Februaries.

Strong shares	TIDM	Avg Feb rtn (%)	Positive rtn
Hunting	HTG	7.6	10
Provident Financial	PFG	6.8	10
Anglo American	AAL	9.6	9
Croda International	CRDA	9.1	9
Weir Group	WEIR	7.4	9

An equally-weighted portfolio could be formed that comprised the above five shares. Such a portfolio would have outperformed the FTSE 350 every February over the past ten years. For example, in 2016 this *February Strong Portfolio* would have beaten the FTSE 350 by 18.9 percentage points in the month of February.

The following chart plots the cumulative performance of the February Strong Portfolio and the FTSE 350 for all Februaries since 2007 (with starting values rebased to 100).



By 2016, a portfolio tracking the FTSE 350 would have had a value of 112, whereas the February Strong Portfolio would have had a value of 215. (Account has not been taken of dealing costs or cost of carry, but these would not have been significant relative to the scale of outperformance.)

## Shares that dislike February

We can also identify those shares that have been historically weak in February (shown in the following table). For example, Vodafone shares have only seen positive returns in February in two of the past ten years.

Weak shares	TIDM	Avg Feb return (%)	Positive return
AstraZeneca	AZN	-4.1	2
Workspace Group	WKP	-3.8	3
Vectura Group	VEC	-3.4	2
Vodafone Group	VOD	-3.3	2
JPMorgan Indian Investment Trust	JII	-1.5	3

An interesting strategy might be to go long the February Strong Portfolio and go short the February Weak Portfolio (comprising the five shares in the above table).

Note: The results of such analysis of the strong/weak shares in respective months can be seen on the Month Summary pages throughout the Diary section of the *Almanac*.

# FOMC ANNOUNCEMENTS

---

*An FOMC statement will be released next week following the committee's meeting.*

The Federal Open Market Committee (FOMC) is the monetary policy-making body of the US Federal Reserve System. Since 1981, the FOMC has had eight scheduled meetings<sup>1</sup> per year, the timing of which is quite irregular. The schedule of meetings for a particular year is announced ahead of time.

Starting in 1994, the FOMC began to issue a policy statement (the FOMC statement) after the meetings that summarised the Committee's economic outlook and the policy decision at that meeting. The FOMC statements are released around 14h15 Eastern Time.

Before 1994, monetary policy decisions were not announced; investors therefore had to guess policy actions from the size and type of open market operations in the days following each meeting. But since 1994 there has been far greater transparency over both the timing and the motivation for monetary policy actions.

This has led to a number of academic papers investigating the influence of these FOMC statements on financial markets. One such recent paper<sup>2</sup> found large average excess returns in US equities in the 24-hour period immediately before the announcements (an effect the paper called the "Pre-FOMC Announcement Drift"). In other words, equities tended to be strong just before the FOMC statement. Further, these excess returns have increased over time and they account for sizable fractions of total annual realised stock returns. Quantifying this, the paper says:

"[since 1994] the S&P 500 index has on average increased 49 basis points in the 24 hours before scheduled FOMC announcements. These returns do not revert in subsequent trading days and are orders of magnitude larger than those outside the 24-hour pre-FOMC window. As a result, about 80% of annual realized excess stock returns since 1994 are accounted for by the pre-FOMC announcement drift."

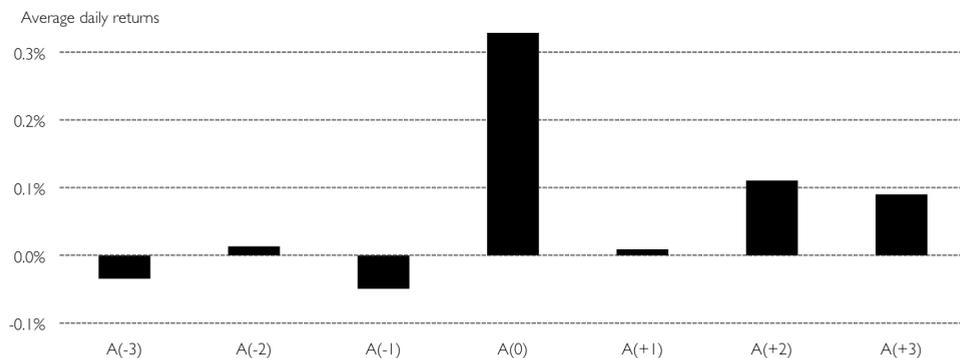
A quite extraordinary finding!

*And the relevance to UK equities is...?*

The above quoted paper found that such pre-FOMC excess returns occurred also in major international equity indices.

*Let's see if that is the case.*

The following chart shows the average daily returns for the FTSE 100 for the seven days around the FOMC statements for the period 1994-2016. The seven days cover the three days leading up to the statement, the day of the statement itself A(0), and then the three days after the statement. Given that the FOMC statement is usually released around 18h15 GMT (i.e. after the UK market has closed), A(0) can be taken as occurring in the 24 hours before the statement.



The result is quite clear: the average daily return for A(0) is 0.33%, over ten times greater than the average daily return on all other days. This does support the claim in the above referenced paper. It is also interesting to note the weakness in equities on the day prior to the FOMC statement.

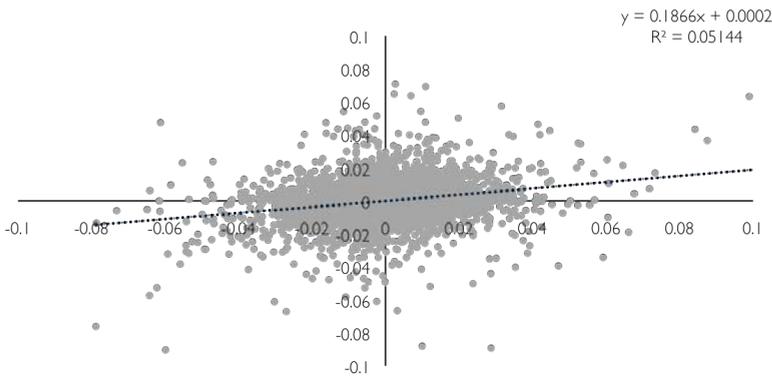
<sup>1</sup> FOMC meeting calendars, statements, and minutes ([www.federalreserve.gov/monetarypolicy/fomccalendars.htm](http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm)).

<sup>2</sup> D. O. Lucca and E. Moench, 'The Pre-FOMC Announcement Drift' (2013).

# DO EUROPEAN STOCKS FOLLOW THE US DAY-BY-DAY?

Do European stocks follow the lead of the US market from the previous day? In other words if, say, the US market is down one day are European stocks more likely to fall in their trading session the following day?

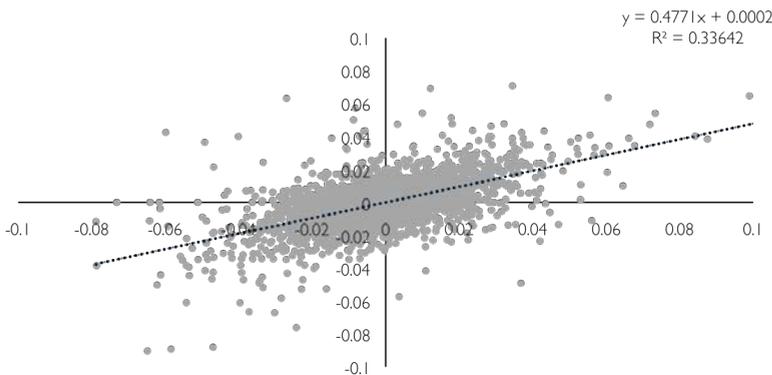
To test this the following chart plots the daily returns of the S&P 500 against the corresponding daily return of the EuroSTOXX 50 for the following day.



There is a positive correlation here, but as can be easily seen it is a very weak correlation (a very low  $R^2$  of 0.05).

So the immediate answer to the question of whether European stocks follow the US is: only very slightly.

However, the following chart is interesting. It plots the daily returns for the two indices as above, but this time it is the daily returns for the same day. In other words, this time the US market movements come after those in Europe.



As can be seen, here the correlation is higher than in the above first case. The  $R^2 = 0.3$ , which while not statistically very significant is quite a bit higher than in the first case.

So, this might suggest that it is the US market that follows Europe.

*Is this the case?*

Probably not. Rather it is likely to be a feature of the trading hours of the respective markets.

Each day there is an overlap of a couple of hours between the Paris and New York exchanges, and longer for Frankfurt and New York. Each day European markets can be active at their open in the morning (reacting to overnight developments – including US stock movements), then often these markets can tread water for a while waiting for the US market to open in the afternoon. The European markets can then take their lead from the US for the rest of their trading day.

The higher correlation seen in the second chart above therefore most likely reflects this overlap period when European stocks are influenced by what is happening in the US that same day.

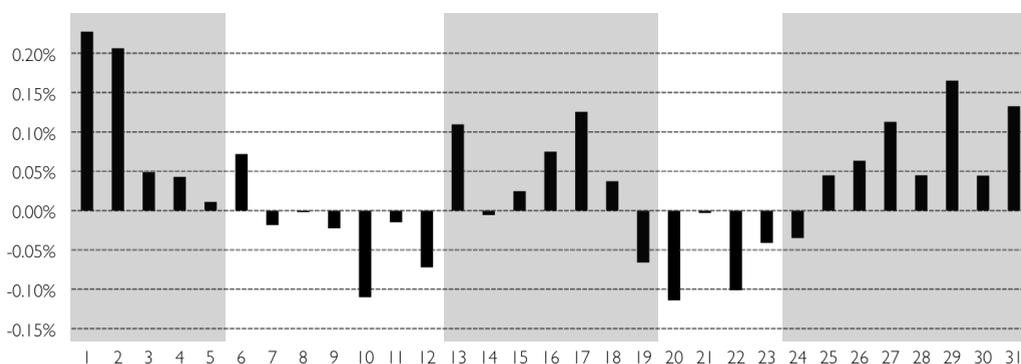
# AN AVERAGE MONTH

What does an average month for the FTSE 100 look like?

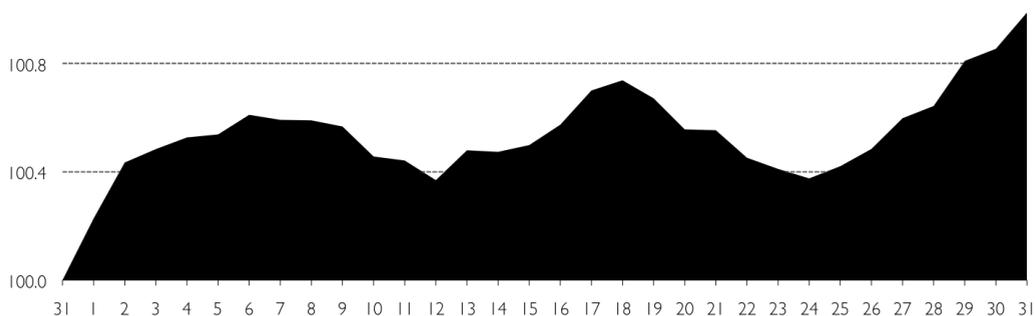
The summary pages for each month in the diary section of the *Almanac* carry charts that show the average cumulative behaviour of the market day-by-day. These charts are produced by calculating the daily mean return for each day in the trading year over a specific period (in this case from 1984). These charts then show the average behaviour of the market for the 12 calendar months for each day of the month. But we can also combine those 12 month charts into one, to show the average behaviour of the market on each day in any month.

The following chart plots the average daily returns for each day in the month for the FTSE 100 over the period 1984-2016. For example, since 1984 the market has traded 246 times on the first calendar day of all the months, and the average return of the FTSE 100 on those 246 days has been 0.23% (the first data point plotted in the chart).<sup>1</sup>

Note: the chart here plots the average returns on the *calendar days* of the months, whereas elsewhere in the *Almanac* we look at the trading days.



From this data we can calculate the average cumulative performance of the FTSE 100 in a month based on each day's average gain/loss (see following chart).



So, in an average month the FTSE 100 rises to the 5th of the month, falls back until the 12th, then increases again briefly to the 19th, before it falls back and then bottoms on the 23rd, and then rises quite strongly from there to the end of the month.

In conclusion, we have the rather remarkable fact that 76% of all the index gains in a month come from the first six days and last six days of the month. For more about this see the articles *Turn of the Month* (page 125) and *Turn of the Month Strategy* (page 28).

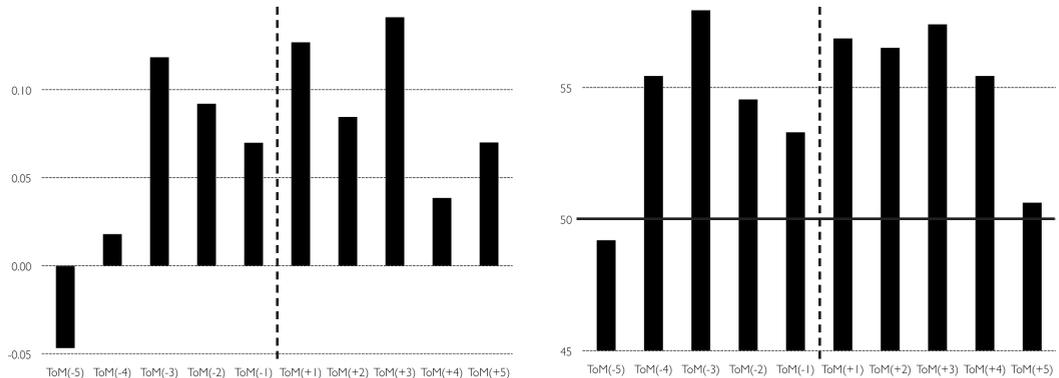
<sup>1</sup> Credit to Crossing Wall Street ([www.crossingwallstreet.com](http://www.crossingwallstreet.com)) for the idea for this bar chart.

# TURN OF THE MONTH

This study analyses the behaviour of the market on the ten days around each turn of the month (ToM). The days studied are the five last trading days of the month, from ToM(-5) to ToM(-1) (the latter being the last trading day of the month), and the first five trading days of the following month, from ToM(+1) to ToM(+5). The index analysed is the FTSE All-Share.

## From 1970

The charts below analyse the 561 ToMs since 1970. The left chart shows the average return on the day, and the right chart is the percentage number of positive days. For example, on ToM(-5) the market has on average risen 49.2% of the time with an average return of -0.05.

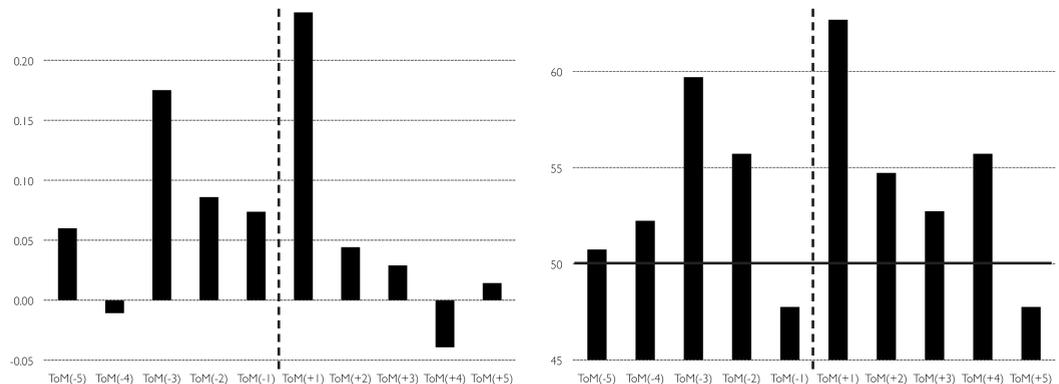


We can see that there is a definite trend for the market to be weak at the beginning of the ten-day period, to then strengthen on the third day before the end of the month, then weaken in the final two days, before starting strong in the new month.

*Does this behaviour persist in more recent years?*

## From 2000

The charts below are the same configuration as above, except they look at a shorter time period: the 201 ToMs from the year 2000 to mid-2016.



Broadly, the behaviour has been the same for the last few years as that from 1970. The main observation is that the strength of the first trading day of the month, ToM(0), has become ever more pronounced. On average since 2000, the market rises on 63% of all ToM(+1), with an average change of 0.24% (which is eight times the average change on all trading days).

# COMPARATIVE PERFORMANCE OF UK INDICES

The table below gives the year-end closing values for eight UK stock indices.

## Year-end closing values of UK indices

Index	TIDM	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
FTSE 100	UKX	6,220.80	6,456.90	4,434.17	5,412.88	5,899.94	5,572.28	5,897.81	6,749.09	6,566.09	6,242.30
FTSE 250	MCX	11,177.80	10,657.80	6,360.85	9,306.89	11,558.80	10,102.90	12,375.00	15,935.35	16,085.44	17,429.80
FTSE All-Share	ASX	3,221.42	3,286.67	2,209.29	2,760.80	3,062.85	2,857.88	3,093.41	3,609.63	3,532.74	3,444.26
FTSE Fledgling	NSX	4,389.40	4,022.30	2,321.76	4,035.39	4,789.69	4,081.64	4,751.92	6,453.65	6,849.46	7,725.75
FTSE Small Cap	SMX	3,905.60	3,420.30	1,854.20	2,780.20	3,228.60	2,748.80	3,419.07	4,431.11	4,365.92	4,634.66
FTSE TechMARK Focus	TIX	1,512.38	1,641.10	1,217.00	1,704.80	2,040.00	2,064.10	2,479.80	3,197.32	3,522.00	4,027.41
FTSE4Good UK 50	4UK5	5,267.43	5,428.60	3,787.40	4,577.90	4,852.90	4,529.80	4,864.74	5,636.57	5,496.77	5,205.47
FTSE AIM	AXX	1,054.00	1,049.10	394.32	653.24	933.63	693.18	707.21	850.68	702.00	738.83

The table below gives the annual returns of the eight indices. The light grey cells highlight the best performing index in each respective year; the dark grey cells the worst performing.

## Annual performance (%) of UK indices

Index	TIDM	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
FTSE 100	UKX	10.7	3.8	-31.3	22.1	9.0	-5.6	5.8	14.4	-2.7	-4.9
FTSE 250	MCX	27.1	-4.7	-40.3	46.3	24.2	-12.6	22.5	28.8	0.9	8.4
FTSE All-Share	ASX	13.2	2.0	-32.8	25.0	10.9	-6.7	8.2	16.7	-2.1	-2.5
FTSE Fledgling	NSX	17.1	-8.4	-42.3	73.8	18.7	-14.8	16.4	35.8	6.1	12.8
FTSE Small Cap	SMX	18.2	-12.4	-45.8	49.9	16.1	-14.9	24.4	29.6	-1.5	6.2
FTSE TechMARK Focus	SMX	5.6	8.5	-25.8	40.1	19.7	1.2	20.1	28.9	10.2	14.4
FTSE4Good UK 50	TIX	9.7	3.1	-30.2	20.9	6.0	-6.7	7.4	15.9	-2.5	-5.3
FTSE AIM	4UK5	0.8	-0.5	-62.4	65.7	42.9	-25.8	2.0	20.3	-17.5	5.2

The FTSE Fledgling and FTSE TechMARK 100 indices have been the best performing indices in the year the most number of times, while the FTSE AIM and FTSE 4Good UK 50 indices are at the bottom of the class, having been the worst performing indices in the year the most number of times.

The following chart shows the relative performance of the FTSE 100, FTSE 250, FTSE AIM and FTSE Fledgling (all indices rebased to start at 100).



# ANNOUNCEMENT DATES OF COMPANY RESULTS

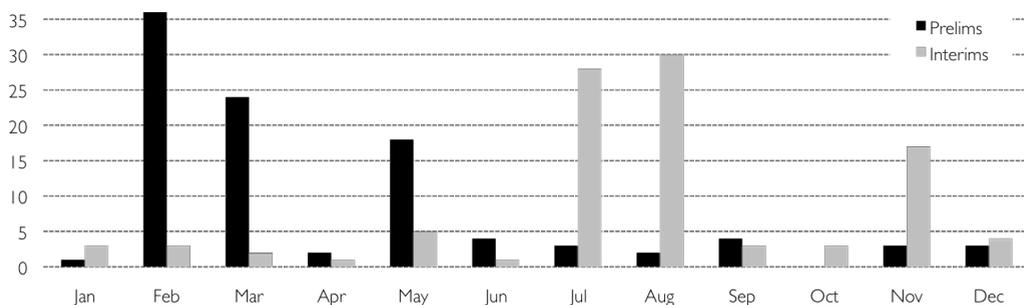
Companies listed on the London Stock Exchange are required to release certain information to the public. Some of these statements are one-offs and unpredictable, such as news of takeovers or board changes, while others follow a more regular timetable. For investors, two important announcements each year are:

1. **Interim results** (known as *interims*): usually reported about eight months into a company's financial year; they relate to the unaudited headline figures for the first half of the company's year.
2. **Preliminary results** (known as *prelims*): unaudited figures published prior to the full annual report at the end of the company's financial year. (Note that although these are termed "preliminary", these are very much the real final results.)

These announcements are watched very carefully and have the potential to significantly move the share price of a company.

## FTSE 100

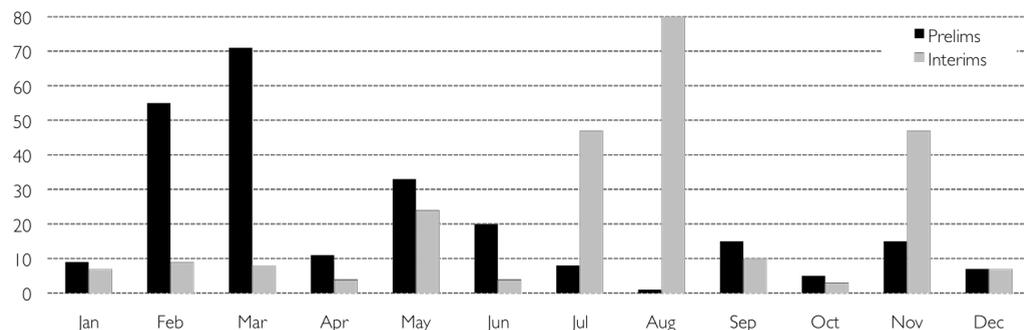
The following chart plots the frequency distribution of the dates of these announcements for FTSE 100 companies.



As can be seen, the majority of interim results are announced in July and August, while preliminary results are clustered in February and March (60 companies announce their prelims in this two-month period).

## FTSE 250

The following chart is similar to that above, except this time the companies are in the FTSE 250.



For the FTSE 250 companies, the announcements are a little more evenly distributed throughout the year, but the main months are the same as those for the FTSE 100: July/August are the busiest months (with November) for interims, and February/March are the busiest for the prelims.

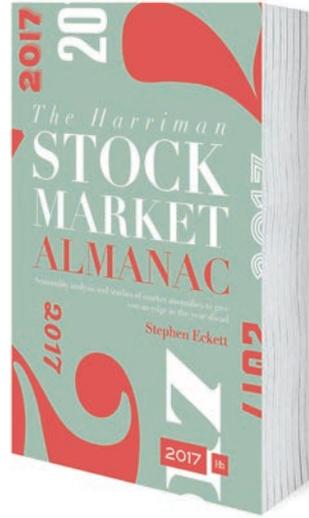
# THE HARRIMAN STOCK MARKET ALMANAC 2017

## A UNIQUE REFERENCE FOR TRADERS AND INVESTORS

Harriman House's fascinating reference work is back for another year – and is once again packed full of essential facts and figures and statistics. The Almanac provides a comprehensive guide to the next financial year and vital information for all investors and traders.

The Almanac also has unique analysis of seasonality effects and anomalies in the UK stock market, and presents strategies and key dates for investors.

Accompanied by the Almanac website – [www.stockmarketalmanac.co.uk](http://www.stockmarketalmanac.co.uk) – for up-to-date articles, comment and information throughout the year.



# RRP: £25

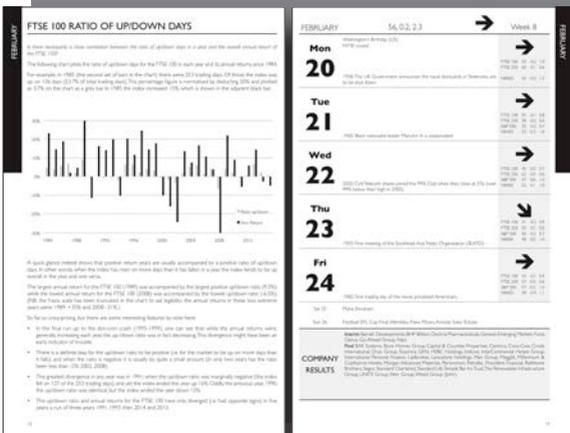
**RELEASE DATE: 8/11/16**

**ORDER YOUR COPY NOW**

**WWW.HARRIMAN-HOUSE.COM**  
**OR CALL 01730 233870**

**CORPORATE OPPORTUNITIES**

**FOR INFORMATION ABOUT BULK PURCHASE, BRANDED EDITIONS AND SPONSORSHIP, CONTACT KATE BOSWELL: [KATE@HARRIMAN-HOUSE.COM](mailto:kate@harriman-house.com)**



**HARRIMAN HOUSE LTD**  
18 College Street  
Petersfield  
Hampshire  
GU31 4AD

Tel: +44 (0) 1730 233870  
Email: [enquiries@harriman-house.com](mailto:enquiries@harriman-house.com)  
Website: [www.harriman-house.com](http://www.harriman-house.com)

Copyright © Harriman House Ltd