SOCIETE GENERALE
Cross Asset Research

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Equity
Global Quantitative Research
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Quant Quickie

Ex-dividend deluge ahead - Selling prior to ex-dividend date is not advised

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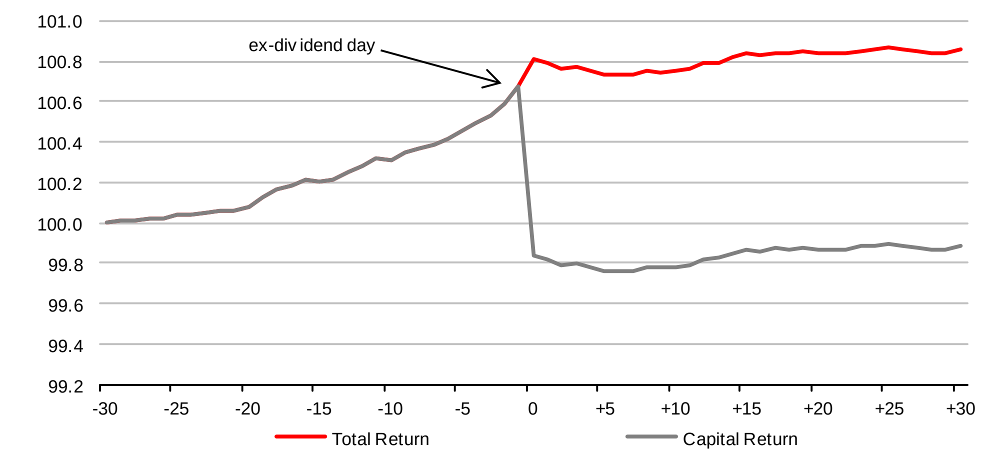
With many dividend payments due over coming months we have taken the opportunity to look at the performance of stocks on and around their ex-dividend date. Our findings confirm previous studies: that stock prices tend to see a run-up in the period immediately before the ex-div date and fall by less than the amount of the dividend on the ex-div date itself. The obvious conclusion is 'Do not sell a stock prior to the ex-dividend date'!

■ We have examined the price behaviour of 80,000 ex-dividend events in 12 developed countries since the 1990s. Specifically, we calculated the average relative performance in the 30 days before the ex-div date, on the ex-div date, and in the 30 days after the stock traded ex-dividend. We look at both total and capital returns. Typically, the price of a stock – and hence its capital return – falls on the ex-div date as new buyers are not entitled to the dividend anymore. However, the total return, which includes the dividend, is often positive on the ex-div date, demonstrating that investors are being more than fully compensated for the drop in price.

■ We have also looked at the performance of stocks with differing levels of dividend yield. Not surprisingly, we find that higher yielding stocks see a higher total return on the ex-div date. That said, we could not find any compelling link between the dividend level and performance in the 30 days up to the ex-div date.

■ Finally, we have broken down our results for individual countries and sectors and observe a consistent ex-dividend premium in most cases. We note a stronger run-up in prices before the ex-div date, although weaker total returns on the ex-div date in recent years.

Relative performance around the ex-dividend date: Global universe 1990-2011



Source: SG Cross Asset Research, FTSE, FactSet

The ex-dividend anomaly

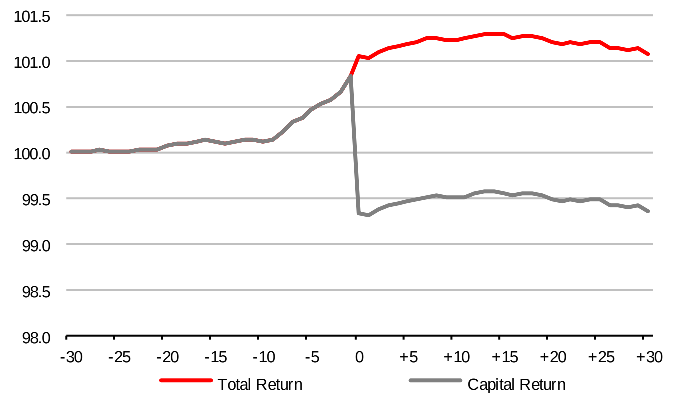
Relative performance around the ex-div date in various regions

The four charts below demonstrate our results for different regions. We focussed on the relative performance around the ex-div date for the UK, US, Europe ex-UK and Japanese stocks.

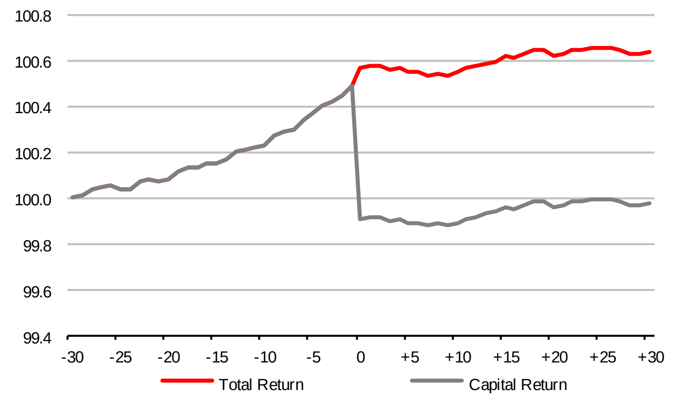
In all regions, we see that stocks had a good run in the period prior to ex-div date and that the dividend payment was greater than the price drop on the day the stock went ex-dividend. Performance after the ex-div date tends to be flat versus the market, with the exception of Japan, where our sample was more volatile, showing a significant drop in the first week but recovering later.

We noticed that typically higher-yielding regions, such as the UK and Europe ex-UK, had, on average, a higher overall total return in the period before and including the ex-div date. This suggests a link between higher dividend yields and stronger ex-dividend effects. We investigated this in the following section where we checked whether this was the case for individual stocks as well.

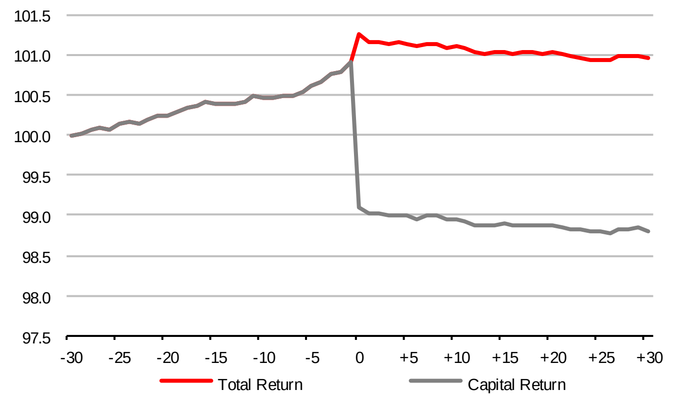
United Kingdom: ~7,500 ex-div events



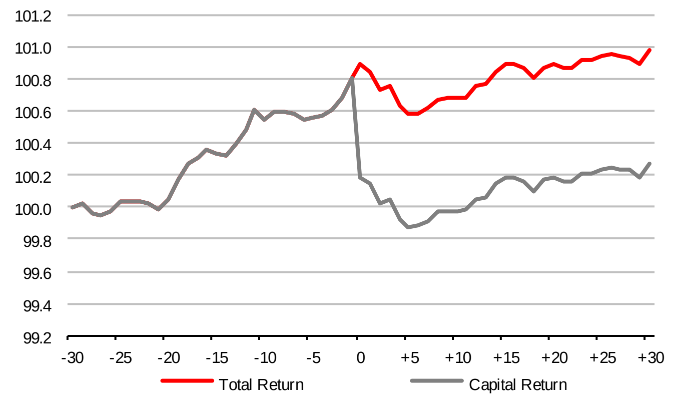
United States: ~38,500 ex-div events



Europe ex UK: ~5,500 ex-div events



Japan: ~16,500 ex-div events



Source: SG Cross Asset Research, FTSE, FactSet

Is the ex-div effect stronger for higher yielding stocks?

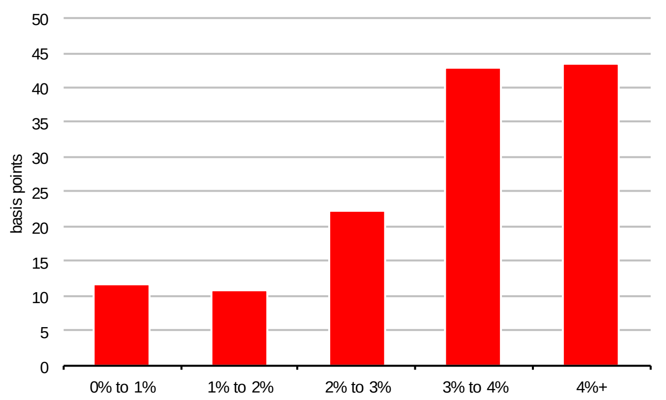
To answer this question we divided the average relative total return by the level of dividend yield and split our sample into five groups; i) 0% to 1%, ii) 1% to 2%, iii) 2% to 3%, iv) 3% to 4%, and v) 4%+ yield.

First, we looked at the total return on the ex-div date. Although the 1% to 2% group has shown a similar total return to the lowest yielding group, the three high yielding groups have actually shown much higher outperformance on the ex-div date, on a total return basis of course. Hence, not surprisingly, we find that **higher yielding stocks tend to experience a stronger ex-dividend effect on the day the stock goes ex-dividend**.

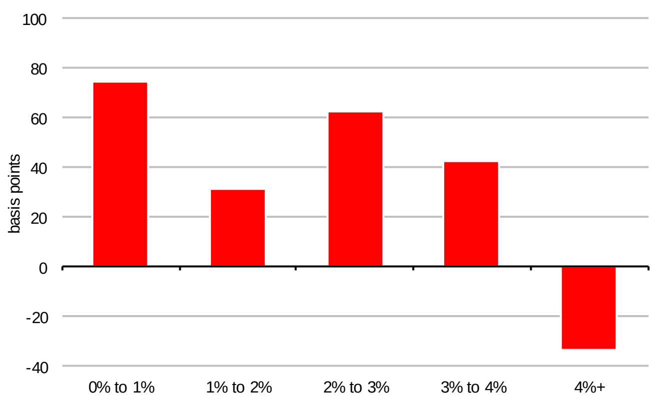
Much has been written about the ex-dividend effect over the years, namely the anomaly that stocks tend to fall by less than the dividend on the ex-dividend date. Elton and Gruber[1] in 1970 were among the first to suggest differences between capital gains and income tax was to blame and since then hundreds of articles have sought to either replicate their work in different markets, or to come up with alternative theories. The most damaging of these points out that an ex-dividend effect still exists in markets without differential tax rates, or indeed with zero tax rates. Many (ourselves included) have failed to profit from the ex-dividend effect as a consequence of transaction costs, and a fair bit of academic research also makes this point along with a whole plethora of other microstructure explanations.

What strikes us is that we don't see any consistent performance pattern across stocks with different yields before the ex-div date. In theory, we would think higher yielding stocks would show better performance as we expect investors to be more keen on buying/or avoid selling these stocks to capture the higher dividend, but it is stocks in the lowest yielding group that actually had the best run before the ex-div date. It is worth pointing our here that many of these will be half yearly or quarterly dividends, so stocks with high payouts will be comparatively rare. **In any case, selling a stock before it goes ex-div is not the best policy.**

Ex-div day performance by dividend yield



30-day pre ex-div day performance by dividend yield



Source: SG Cross Asset Research, FTSE, FactSet

[1] Elton, E. J., & Gruber, M. (1970). Marginal shareholder tax rates and the clientele effect. *Review of Economics and Statistics, 52*(1), 68-74.
For a solid round up of much of the ex-dividend effect work it is worth looking up Elton and Gruber's follow up piece issued some 32 years later Elton, Edwin J., Gruber, Martin J. and Blake, Christopher R., Marginal Stockholder Tax Effects and Ex dividend Day Behavior - Thirty-two Years Later (March 12, 2003). AFA 2004 San Diego Meetings; EFA 2003 Annual Conference Paper. Available at SSRN: http://ssrn.com/abstract=363620 or http://dx.doi.org/10.2139/ssrn.363620

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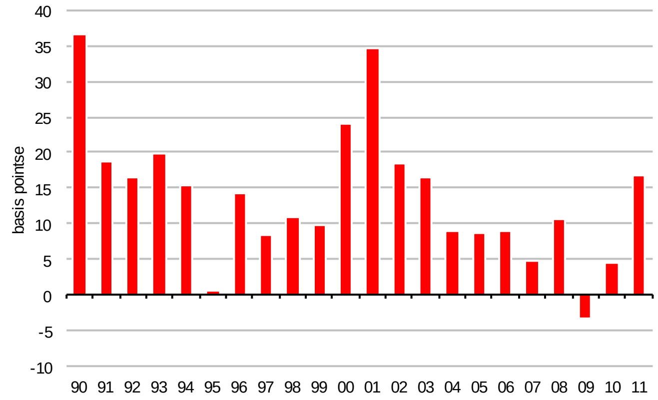
Has the ex-dividend effect been consistent over the years?

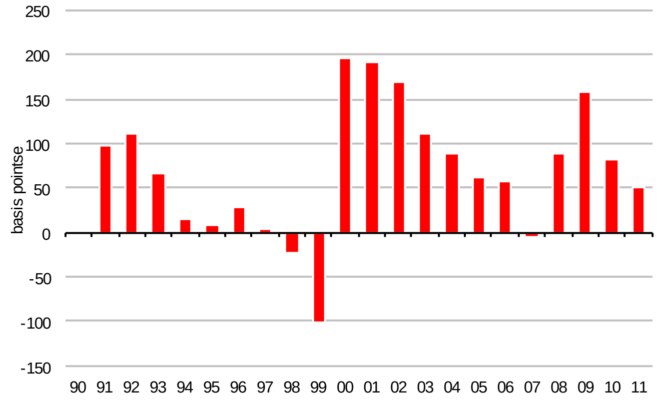
Since 1990, there has only been one year (2009) where we found an average negative total return on the ex-div date. The price run up to the ex-div date has also been pretty consistent and has only been negative in 1998, 1999 and 2007.

Interestingly, the returns in the 30-day period before the ex-div date have been notably stronger in recent years. At the same time, the average total returns on the ex-div date have been weaker recently.

Ex-div day performance by year



30-day pre ex-div day performance by year



Source: SG Cross Asset Research, FTSE, FactSet

Ex-dividend performance by country and sector

Below we show the performance around the ex-div date for the developed countries for which we have a large enough sample. All countries show, on average, a positive performance before the ex-div date and all but Spain also show a positive total return on the ex-div date. Italy, Singapore, Germany and Australia show the best pre ex-dividend performance, while the Netherlands and France show the best performance on the ex-div date.

Total Excess Return in basis points around ex-div day: Developed Countries 1990-2011

Country	ex-div day events	-30 to 0	ex-div day	0 to +30	-30 to +30
Australia	3250	117.7	18.8	15.1	152.1
Canada	5464	57.5	26.5	-26.9	57.1
France	1665	27.6	59.8	-35.3	51.9
Germany	820	143.5	28.8	-31.9	140.2
Italy	610	182.5	-1.5	-111.8	67.1
Japan	16507	65.7	8.9	-14.2	60.4
Netherlands	742	26.9	69.8	-16.6	80.1
New Zealand	259	57.9	43.8	14.7	116.8
Singapore	825	164.7	29.6	32.0	227.4
Spain	882	114.7	-17.1	-64.8	32.0
United Kingdom	7451	84.1	20.8	0.6	105.7
United States	38680	45.3	7.9	0.4	53.6

Source: SG Cross Asset Research, FTSE, FactSet

Similarly, in the table below we show the average performance across ICB super-sector. Again, we notice a consistent outperformance before and on the ex-div date for almost all sectors.

Total Excess Return in basis points around ex-div day: Global ICB Super Sectors 1990-2011

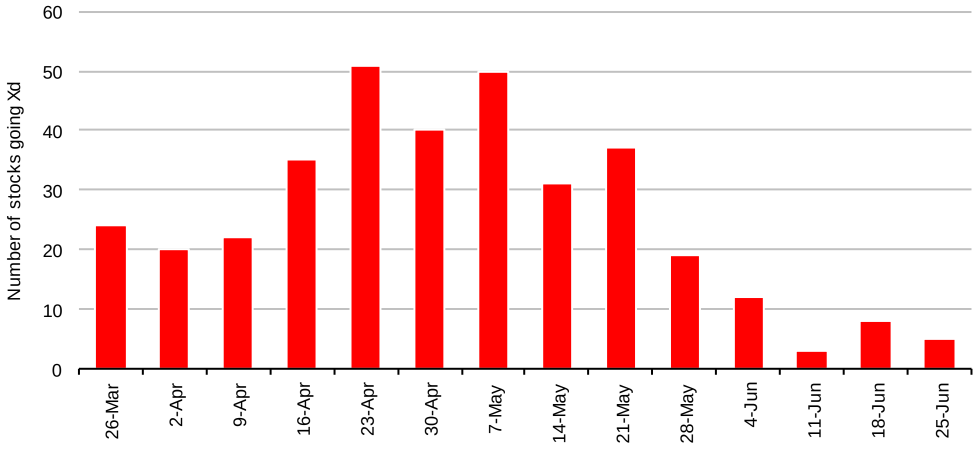
Sector	Ex-div day events	-30 to 0	Ex-div day	0 to +30	-30 to +30
Automobiles & Parts	1930	32.9	24.7	27.5	85.3
Banks	6160	91.7	12.9	-8.6	96.1
Basic Resources	4117	31.9	21.0	-39.5	13.2
Chemicals	3656	57.5	20.2	33.4	111.5
Construction & Materials	2217	95.8	32.4	-84.7	42.8
Financial Services	4553	58.8	18.3	5.2	82.5
Food & Beverage	4284	65.4	11.2	-18.5	58.1
Health Care	4115	80.9	14.3	2.2	97.6
Industrial Goods & Services	12511	75.4	11.9	-5.1	82.2
Insurance	3763	31.7	11.7	12.5	55.9
Media	3122	-7.8	13.9	-15.5	-9.4
Oil & Gas	4292	85.9	11.2	39.7	137.3
Personal & Household Goods	4976	57.8	10.6	-15.3	53.1
Real Estate	2595	43.9	29.4	24.7	98.2
Retail	4909	37.0	16.3	-0.9	52.4
Technology	2520	45.3	19.6	11.8	76.9
Telecommunications	1846	111.6	-0.2	-66.4	44.2
Travel & Leisure	1585	76.5	15.2	-27.2	64.4
Utilities	5045	66.6	-13.2	-23.5	29.7

Source: SG Cross Asset Research, FTSE, FactSet

Ex-dividend season is about to kick off in Europe

Why is all this important now? In Europe, with its often annual or large final dividend payments, ex-dividend dates and payments are highly concentrated in April and May. As we show below the bulk of these ex-dividend events occur in these two months, which contain over 65% of all the ex-dividend events and 50% of total dividend payments for the year. Given this and our findings this may provide a reason for European equity investors to hold on to equities over the comings weeks. It may also provide a reason to sell later on in May.

Number of stocks in the Stoxx 600 going ex-dividend over the next three months



Source: SG Cross Asset Research, STOXX, Bloomberg

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APPENDIX

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