

<u>The Impact of Economic News on Financial Markets</u> - This paper analyzes the impact of economic news, that is, the difference between economic announcements and what was anticipated, on financial markets. It is not news that news moves financial markets. Financial news is full of stories about how markets were surprised or anticipated an economic statistic and how the markets moved in response to this news. Many people trade in financial markets around economic announcements. These traders like the volatility that surrounds the announcement, so some people bet on good news, others on bad, and there is much speculation on what the market sentiment is before a new economic statistic such as the U.S. employment situation that is embodied in the monthly non-farm payrolls release. Those trading or interested in economic news announcements span the spectrum of individual day trades to large financial institutions. For example most foreign exchange traders1 are interested in economic releases and their impact on currencies. One trader Tom Yeomans2 teaches foreign exchange traders to trade the news. There is evidence that large banks such as HSBC3 have studied the impact of economic news announcements on financial markets. Of course just as some want to profit from these market gyrations others see the market moves following news as a risk and would like to avoid them. Just as with speculators, risk managers are concerned with how their view, the "correct" view differs from the market view. If you are completely in agreement with what the market has priced into asset prices then there is no need to take any



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action. This paper aims to document the announcement effect of news on financial markets to better understand the markets for all participants. In the past surveys have been done of market forecasters before economic announcements. These have been used to gauge market sentiment and the extent to which the actual number differs from the survey is taken as the news component that drives the market in the minutes following the announcement. Recently two developments have occurred that have allowed us to quantify how much, when, and in what direction financial markets move in esponse to news. Bernard Baumohl's (2004) book "The Secrets of Economic Indicators: Hidden Clues to Future Economic Trends and Investment Opportunities" provides a fascinating description the economic announcement process and how it affects financial markets. The secrecy, the regimented process of the "lock-up" all show how important the release of economic statistics. Economic announcements are usually published according to a release schedule that is published in advance4. Financial markets anticipate, speculate, and analyze the releases. Teams of economists spend their entire careers interpreting, dissecting, and forecasting these indicators of the economy's health. Legions of journalists report on the latest numbers, collect reactions of economists and traders, and endure the stress of release lock-ups to get their stories out with the numbers. The release of economic data is so important it is tightly controlled. Often, along with the journalists, governments will get a sneak preview, monetary



and fiscal policy makers, politicians, and others who need advance access are granted it. The advanced release, as well as the release itself is always under tight security arrangements that stop agents from using the information for profit. And it should be noted that the literature proves that these arrangements work. The literature has not found any evidence of an anticipation effect (see for example Kim and Sheen (2001) for Australian bond futures market returns, volatilities and volumes before and after economic announcements). A rather quaint anachronism is that releases in the U.S. are usually at 8:30am, "before the market opens". But these days the market never closes. Foreign exchange markets operate around the clock, futures markets likewise. Nonetheless, an attractive feature of economic announcements is that they are fair. The information is available to everyone, essentially without cost, at exactly, and Baumohl stresses it is exactly, the same time. So a hedge fund, and investment bank, day trader, risk manager, and you and I all learn about the news at the same time and all have the same opportunity to profit. The ability to profit or hedge though, comes from an investment in information and understanding about: i) what the economic statistic will be, ii) what the market expectation is (and perhaps an appreciation of the range and distribution of opinion), and iii) how our portfolio of asset holdings will change in response to the likely news, or surprise. As Faust et. al. point out, the literature measuring the effects of macroeconomic announcements on asset prices at daily or intra-day frequency is vast. The reader is directed to their paper for a sample



of the contributions. Some of the papers cited also document a relationship between the announcements and the conditional variance of asset returns. One of the earliest announcement effect studies is by Pearce and Roley (1985) who examine the daily response of stock prices to announcements about the money supply, inflation, real economic activity, and the discount rate. Roley had published articles earlier looking at the impact of monetary policy changes on asset prices. Pearce and Roley (1985), using survey data on market participants' expectations of these announcements, find that the unexpected component of the announcements, the surprise, moves stock prices. They also conclude that the surveys are more accurate, in the sense of having lower mean squared errors, than the forecasts from standard autoregressive time series models. For the period 1985 to 2005 survey data was used for most studies. Gürkaynak and Wolfers (2006) introduced the concept of using derivative data to measure market expectations. There is more on this approach below. Pearce and Roley (1985) used daily stock price data and found that there is only limited evidence of an impact from inflation surprises and no evidence of an impact from real activity surprises on the announcement days. There is also only weak evidence of stock price responses to surprises beyond the announcement day. Since 1985 there has been an increased use of intra-day data. For example, people have started to capture the quoted price for the exchange rates from Reuters or other data providers, recording, as an example, some 130,000 observations over



an 8-week period (Goodhart, Hall, Pesaran (1993)). Andersen, Bollerslev, Diebold and Vega (2002) use a high frequency exchange rate data set, 5-minute return series for U.S. dollar spot exchange rates versus German Mark, British Pound, Japanese Yen, Swiss Franc, and the Euro, to model announcement surprises (that is, divergences between expectations and actuals, or "news"). Andersen et. al. use their high frequency data to isolate the impact on financial markets around an announcement. They find that announcement surprises produce conditional mean jumps and they characterize the speed and path of adjustment. They find that the market reacts to news in an asymmetric fashion: bad news has greater impact than good news. Andersen et. al. conclude that "Throughout, news exerts a generally statistically significant influence on exchange rates, whereas expected announcements generally do not. That is, only unanticipated shocks to fundamentals affect exchange rates, in accordance with the predictions of rational expectations theory. Many U.S. indicators have statistically significant news effects across all currencies, including payroll employment, durable goods orders, trade balance, initial unemployment claims, NAPM index, retail sales, consumer confidence, and advance GDP. The general pattern is one of very quick exchange rate conditional mean adjustment, characterized by a jump immediately following the announcement, and little movement thereafter. Favorable U.S. "growth news" tends to produce dollar appreciation, and conversely." (pp. 9-10) Faust, Rogers, Wang and Wright (2003) add to the



announcement effects literature in two ways. First, they study the joint announcement effects across a broad range of assets - exchange rates and U.S. and foreign term structures. Also they use a longer span of high frequency data than has been common in previous announcement work. This allows them to explore the possibility that the effects of news on asset prices have varied over economic booms and busts. Faust et. al. conclude that: "Stronger than expected real releases (e.g. nonfarm payrolls, retail sales, GDP) tend to appreciate the dollar and raise short and long-term interest rates in the U.S. and, to a lesser extent, overseas. Higher than expected inflation (CPI or PPI) is estimated to have little effect on the exchange rate, but to raise U.S. interest rates significantly. Tighter than expected monetary policy (i.e. a higher than expected target Fed Funds rate) is estimated to appreciate the dollar and to raise the term structure of U.S. interest rates." (p. 4) **DEFINITION OF NEWS** The announcement effect is defined as the impact of news on financial markets. News is defined as the difference between the market's expectation of the release and the actual release (before any revision): News (N) or surprise at time t is the actual released data (A) at time t minus the market expectation (E(A)) close to, but before, time t ($\square > 0$ but small, so the expectation is measured perhaps a few hours or at most a day or two before the announcement).

1) $N_t = A_t - E_{t-\delta}(A_t)$

In the case of economic derivatives, since 2002 the auction data I





have used has come from the same day as the announcement. So for example the auctions on U.S. GDP will take place on Friday, October 27th (from 7 - 8am Eastern Time) and the release will be the same day at 8:30am. ESTIMATION OF THE EFFECT OF NEWS ON FINANCIAL MARKETS The announcement effect literature focuses on the following regression:

2) $X_t = \beta N_t + \varepsilon_t$

where t X is the change in an asset return in a small time window around an announcement and t N is the news or surprise component of the announcement. b measures the typical effect of the news or surprise. t e is assumed to be a random error. The regression reflects how the markets learn and react to news. Note that there is no constant as the mean return should be zero. **THE**

ANNOUNCEMENT WINDOW Theory suggests that a narrow window be used. Recently intra-day data has allowed 20-minute or narrower windows to be used around the announcement. As Faust et. al. note, "The hope is that by focusing on a narrow time window, we get something like a natural experiment allowing us to learn the effects of a particular type of information." To read more ,Please download the book. Download This Book JOHN C. PARKER