

**J D Women's College**

**Course Name- MBA (PG)**

**Finance specialization**

**(3rd semester)**

**Subject- Security Analysis and Portfolio Management**

**Topic- Anomalies to EMH**

**Faculty Name – Anjali**

**Faculty member**

**Department of MBA**

## **Anomalies to EMH**

Consistent abnormal patterns in asset return in the market are called anomalies. In other world, anomalies are empirically observed consistent patterns in the asset prices and returns which are inconsistent with EMH. Researchers ( Bowman and Buchanan, 1995) believe that anomalies are the result of the shortfalls in the models applied for testing market efficiency, rather than of inefficiency of market. Anomalies have always been a challenge for efficient market hypothesis. EMH theory says that nobody can make excess profit or outperform in market whereas anomalies are all about 'How to make profit in the market'. These indicate market inefficiency (profit opportunities) or in another words inadequacies in the underlying asset-pricing model. After its documentation and analysis in the academic literature, anomalies often seem to disappear, reverse, or soothe. It raises a question, whether profit opportunities existed in the past, but have since been arbitrated away, or whether the anomalies were simply statistical peculiarity that engrossed the attention of academics and practitioners.

There are a large numbers of anomalies documented by researchers and still continues to grow. In which some important or famous market anomalies are:

### **1. Size Effect (Small Firm Effect):**

Researchers such as Banz, (1981), Reinganum(1981) etc. found that the stock of small firms (small capitalized firm) provide higher return than the stocks of the large firms. Banz (1981) examined 10 small and 10 large companies of New York stock exchange for the period of 1931 to 1975 and he found that returns are highly correlated with size of firms. Fama and Frence (1992, 1993) in their famous studies, confirmed that the small capitalization firms provide higher returns than large capitalization firms.

### **2. The Value Effect:**

Stocks with a low valuation and low price-to-book ratio earn on average higher returns than growth stocks with a high valuation and high price-to book ratios. Fama and French (1992) analyzed data for the period 1963-1990 from a cross-section of companies and found that the premium for investing in value stocks instead of growth stocks was about three and half to four percent.

### **3. The Momentum Effect (Past price movement Effect):**

It consists of two kinds of effects:

**Contrarian Effect:** De Bondt and Thaler (1985) and Guin (2005) observed in their empirical results that past loser (stock which has low return in past 3 -5 years) overtake winners (stock with high return of the past 3 - 5years). This suggests that in long run market tends to over-react to information which is subsequently corrected producing the reversal effect.

**Continuation Effect:** Jegadeesh and Titman, (1993) found high returns are obtained by recent past winner than past losers. This effect is found highly effective for short term winners in several studies even Fama and French (1996) could not explain the short term momentum effect. Guin, (2005) comments - "Stocks that have outperformed the market usually continue to do so for an intermediate period of time, three to five years on average". This effect suggests that the market under-react to information in short run. The information gets reflected in price gradually (not instantaneously as claimed by the supporters of EMH) producing returns which are positively autocorrelated in the short run.

### **4. Low Beta Firm Effect:**

Low beta stocks outperform high beta stocks on average over time on a risk adjusted basis.

### **5. Neglected Firm Effect:**

Stocks with a relatively small analyst following have higher risk-adjusted returns on average than stocks with many analysts.

### **6. Liquidity Effect:**

According to Amihud and Mendelson (1986), higher returns compensate for low liquidity of small firm stocks than high liquidity stock.

### **7. Speculative Economic Bubbles Effect:**

Economic bubbles are typically followed by an overreaction of hysterical selling, allowing shrewd (wise) investors to buy stocks at bargain prices.

### **8. Buyback of Shares:**

Studies have found that after announcement of stock repurchases, stock outperform in the market in competition to the stocks of the companies who have come with their new issues. This evidence seems to confirm the theory that managers tend to have inside information regarding the value of their company's stock and their decisions whether to issue or buyback their stock may signal over or undervaluation.

### **9. Announcement Effect:**

Ball (1978) discovered in his empirical study that announcement related to financial health, made by the company reflects on the movement of the stock of the related company. Stocks with positive surprises tend to go upward; those with negative surprises tend to go downward. Some refer to the likelihood (possibility) of positive earnings surprises to be followed by several more earnings as the "cockroach" theory which says when you find one, there are likely to be more in hiding.

### **10. Low P/E Ratio:**

Basu (1977) documented the use of price/earnings ratios (P/E) to forecast stock returns. In a study of 1400 firms over the period 1956-71, he observed that low P/E securities outperforming their high P/E counterparts by more than seven percent per year. Basu regards his results as indicative of market inefficiency:

### **11. Calendar Anomalies**

Calendar effect is most common anomaly among all. The abnormal returns of stock in a particular time /season (hours of the day, day of the week, week of the month, month of the year etc.) are called calendar anomalies.