



## Built-in Premium Effects within Exotic FX Options

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### Jel Classification

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### Abstract

**Purpose:** This paper explains the analysis of built-in premium within 'premium-free' FX Option strategies, also known as 'exotic options'. The aim is to analyse whether such an increase in built-in premium would have an effect on the outcome of the strategies.

**Methodology:** The analysis was conducted through three different currency pairs, namely, the EURUSD, EURJPY and EURGBP, throughout a period between 2007 to 2014. The authors used the Bloomberg terminal to design two different option strategies: Window Forward Extra and At Expiry Forward Extra. These strategies are known as low risk hedging strategies within the FX options industry. The authors examined different combinations of changes in built-in premium and analysed the respective outcome with each combination. The outcomes were compared to analyse whether an increase in built-in premium would have an effect on the outcome of the strategy. A test was also conducted should these strategies be used as a speculative tool. The strategies were built on a 1 year tenor which is rolled over every month. Hence, each month a hedge using the strategy for 1 year was conducted. The authors used back dated implied volatilities when performing the back-testing in order for results to be realistic.

**Findings:** In most cases it was found that there was no effect on the outcome of the strategy. However, this was only valid if an expiry at a time is taken. On the other hand, when taking into account the whole sample, even though only 3% of the times there was an effect on the outcome of the strategy, the total result finds that an increase in built-in premium has an effect on the outcome of the strategy. Such result was found to be statistically significant using a paired sample t-test. This applied for all currency pairs under review. When analysing the exotic option strategies for speculative purposes, the authors found that in most cases it would have been better for brokers to take higher risk and receive an upfront Premium.