A variety of dividend capture strategies has been used by investors to capture dividends and simultaneously attempt to minimise the risk of capital loss as a result of general fall in the equity market. The main alpha that dividend capture strategy brings is for tax-exempt funds, for example pension funds in the UK which are not liable to any form of income or capital gain tax where dividends are received gross of tax without delays in reclaiming the Advance Corporation Tax (ACT) from the Inland Revenue. The purpose of this paper is to review and examine the hedged dividend capture strategy that can be used for enhancing the performance a fund with a special study on HK stock market. The result suggests that such strategy will have a similar benefit on non-tax bearing fund domiciled in HK reflecting on the nature and difference between developed and emerging markets.

Hedged Approach to Capture Dividend
The concept of hedged dividend capture strategies is basically selling a futures contract when one has a portfolio of equities offers the means to protect the investor against market risk. As demonstrated by [Dubofsky 87], the strategy can be simplistically modelled as one stock and one futures contract. Through buying the one stock and selling index futures, investor can theoretically capture the excess returns that have been found to exist prior to and on the ex-dividend date.

This model can be extended to a dividend stock portfolio of an arbitrarily choice of 5 to 10 stocks over one ex-dividend period. The risk exposures of this type of dividend capture model are two types of risk: market risk and firm specific risk. The latter can be hedged away if options on the stocks are available while selling index futures contracts can reduce the former. Consequently, the optimal cash position for hedging is a well-diversified portfolio that moves highly correlated to the index futures contract. However, it is very unlikely that the hedged dividend portfolio will be a well-diversified portfolio that has a high correlation with the index futures. The hedge depends on the correlation relationship between the dividend portfolio and the index futures. The challenge is to run the hedge with a stable beta (1). Such cross hedge carries also a considerable amount of basis risk since the dividend stock portfolio and futures contract are dissimilar.

Methodology and Results
The testing started with each of the created dividend capture portfolio valued $100,000,000 and the chosen stocks in the portfolio were equally weighted. For example, assuming that there were five stocks in a portfolio which have taken their ex-dividend dates on the 12th April 2016, then $20,000,000 would be allocated for the purchase of each of the five stocks based on the closing prices of 5th April 2016. All these stocks were very liquid, hence there would not be any difficulties in purchasing and disposing the stocks in quantities required. This is a reasonable assumption as the corporations used were the top fifty in the Hang Seng Index constituents. The period of the study commenced from 1st Jan 2000 till end on the 31th Dec 2015. It is further sub-divided into 2 periods (i.e. (1) 2000-2007 and (2) 2008 – 2015) during the 2008 subprime crisis.

In creating dividend stock portfolio for strategy testing, it involved the assembling of portfolio of stocks prior the stocks became ex-dividend. The time window is taken from 5 to 10 trading days prior to assess the impact. Empirically, beyond 10 trading days prior to ex-dividend date will involuntarily capture a lot of other market noises convoluting the performance. A maximum of 10 trading days prior is chosen for being the closest to the ex-div date accepting the dominant effect will be driven by dividend. The trade will be unwounded (i.e. sell stocks and buy index futures) as soon as the stock portfolio goes ex-dividend.

The results of the strategy employed, covering a total of fifty two ex-dividend dates (or periods), indicates that a hedged dividend capture strategy can offer a degree of risk reduction for a small decrease in expected returns in both the 5 and 10 trading days window. A somewhat surprising observation is that
the results of the period excluding crash period behave similarly with the result on the entire period.

The test period covers a period of extreme volatility in 2008, the sharp price change in those months prior and post to the crash, the sale of futures had an almost neutral effect with a relatively small overall loss of $203,630 (excluding transaction costs) over the period of the study. On comparing the results of this study with that of [Dubofsky 1987], who used the same strategy on tax exempt funds, it is found that our results appear to be more favourable; returns were reduced by 4.2% compared with 38.0%, for a removal of 36.9% of the risk compared with 25%.

The results of this study also compares well to the strategies based on covered options. [Brown and Lummer 1984] observed returns declining by 18.5% and 21.7% in their 1984 and 1986 articles, respectively. [Ziveny and Alderson 86] actually found corporate tax returns to rise by 54.6% when employing a strategy involving the purchase of every stock in the S&P in proper value adjusted weights, with the monthly sale of S&P100 index call options. Fundamentally, Ziveny and Alderson’s strategy would be more aptly described as a covered call strategy for a corporate investor, rather than a hedged dividend capture strategy, and the call writing strategy worked well in what would generally be described as a favourable sideways year for the market.

In conclusion, the results indicates that hedging dividend capture strategies using stock index futures is a viable method of capturing the excess returns of the ex-dividend day period with reduced risk, not only for gross investors but also seems to be viable for HK market with the absence of tax exempted condition.