











#### 4. Conclusion

The plain vanilla option is the most used one in financial market. The very first BSM formula was derived for this option. Then there are many exotic options also. As explained earlier, all of the other options are compared directly or indirectly with plain vanilla. We also compare our modified log option with the plain vanilla option.

Our first conclusion is the following. From the ten graphs above, we can see that the option values and payoff values for the log option are strictly less than unity. Sometimes, they are even less than the transaction costs (see [2, Table 4.4]). So this BSM formula does not seem to be practically useful in the financial market. On the other hand, our modified log option contract is very close to the plain vanilla.

Our second important conclusion is that as compared to the European plain vanilla, the *writer* is more beneficial to enter into a call option using the modified log payoff whereas the *holder* is more beneficial to enter into a put option using the same. Moreover, American modified log put option is beneficial for both the traders as compared to American put option.

#### References

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