

# MFE 409: Financial Risk Management

## Problem set 6

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Due 5/19 before midnight

You should work with your assigned group but should write up your answer individually. Give the name of your group members in your writeup and post it on BruinLearn before May 19 at midnight.

### 1 Risk management and regulation after the 2008 Financial Crisis

Each study group is assigned to a bank as follows and responsible for summarizing their risk management policies. Your group number can be found in the attached list.

Group	Bank
1/11	Goldman Sachs
2/12	UBS
3/13	JP Morgan Chase
4/14	Citigroup
5/15	Barclays Capital
6/16	Morgan Stanley
7/17	Deutsche Bank
8/18	Bank of America
9/19	BNP Paribas
10/20	Credit Suisse

Download their 2009 and most recent annual reports (10-K for US firms and 20-F or 6-K for foreign firms) from SEC's website (<https://www.sec.gov/edgar/searchedgar/companysearch.htm>). Write a short essay describing the approach of the bank is following for risk management. In particular, describe how it computes the various risk measures to respect the Basel regulations.

## 2 Interview questions

1. You are long an option that promises to pay the square of the stock price in three months ( $S_{t+3months}^2$ ). Does the delta approach to computing VaR underestimate or overestimate your risk?
2. A stock has been going up 10% each year for the past three years. What is the three-month forward price of this stock today?
3. You are trading quanto options. What are the important sources of risks to include in your risk management model. *If you are not familiar with quanto options, you can find information online.*