**MF728**

**Problem Set#1**

1. **CDS Pricing:**
2. According to the formular, the survival probability and its plot are about:



图表, 折线图

描述已自动生成

And the Hazard rate and the plot are about:

文本, 应用程序

描述已自动生成 图表, 折线图

描述已自动生成

1. A fair spread for a 4y CDS, that starts today is about: ﻿**132.527061971762.**

**(c)** If I had bought a 5y CDS exactly one year ago with the contractual spread of 80bps, the price I want others to buy is about: ﻿**189.266680464000** (Mark-to-Market)

**(d)**The results are shown below:



These 4 values represent the each DV01 of hazard rate we got in (a).

**(e)**The dv01 wrt the interest rate curve is about: **﻿** **﻿-0.00293729017247779.**

**(f)**The sensitivity wrt R is about: **﻿-0.0220878436619706**.

*PS: All of my detailed process and calculation for these computations are contained in .py documents of the attachment uploaded.*