Strategic Finance Decision-Making and Optimization Solutions

Data Source

1. Short-term Financing Problem

The company has two methods to conduct short-term financing. It can borrow up to $100k monthly at a 0.5% interest rate per month. It can also issue a 3-month zero-coupon bond at 1.5% for a three-month period. Any available cash at the end of each month can earn 0.2% interest rate per month.

The treasury department determined the company's net cash flow (NCF) as described in the table below (in thousands of dollars):

Month	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013
NCF	-250	-50	225	-175	150	400

2. Currency Arbitrage Problem

Assuming no transaction costs, we were given US$1 to attempt an arbitrage tradeand we would like to buy and sell quantities of the base currencies to reach an arbitrage/profit of at most US$10,000.

The table below presents hypothetical bid/ask quotes for four major currencies at a given date/time:

Pair	Bid	Ask
EUR/USD	0.87060	0.87063
GBP/USD	1.42790	1.42796
USD/JPY	133.330	133.333
EUR/GBP	0.60970	0.60972
EUR/JPY	116.140	116.144
GBP/JPY	190.480	190.476