probabilities are the probabilities that the wrong recommendation results. Specifically, they are

Pr{ Flag | Green } = α

Pr{ Clear | Red } = β.

We assume that the probabilities (numbers) α and β are known in advance. We also assume that $\alpha + \beta < 1$, for otherwise the procedure would be no better than random. The third characteristic of a binary (or any other) information source is its cost, *c*. For now, we assume that the information is cost-free, i.e. $c = 0$.

Should Decision-maker access this binary information? It can be shown that Decision-maker's optimal policy is determined by two thresholds,

$$p_G^{\,0} = \frac{\alpha F}{\alpha F + (1 - \beta)(L - M)} \; ;$$

$$p_R^{\,0} = \frac{(1 - \alpha) F}{(1 - \alpha)F + \beta(L - M)} \; ;$$

Figure 3:

Expected Cost with No Information