# The three discount factor theorem, its implication and the question it poses

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**Abstract**

In this paper, I describe the three discount factor theorem, its implication and the question it poses. The paper ends with "The End"

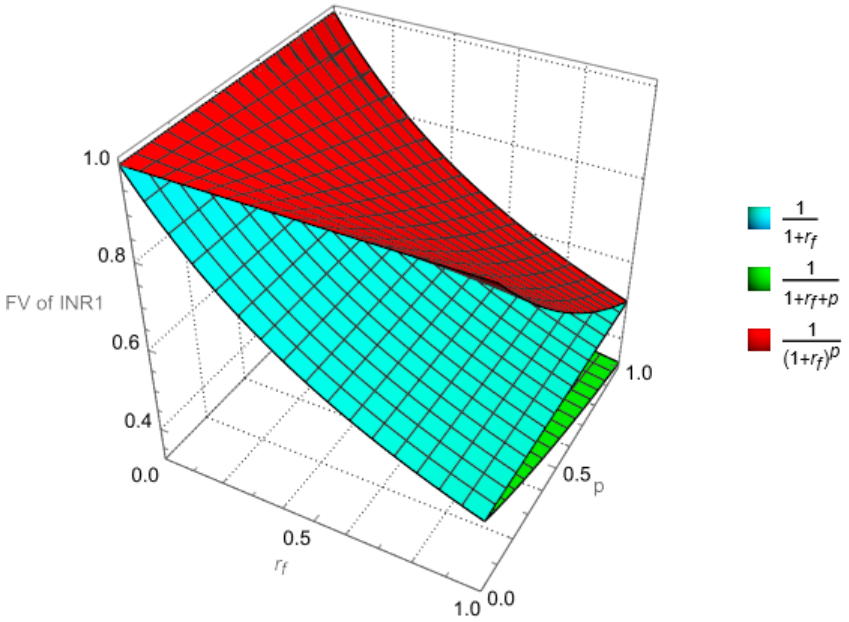
## Introduction

In a previous paper, I've described discount factors, the four discount factor theorem and its implication. In this paper, I describe the three discount factor theorem, its implication and the question it poses.

## The three discount factor theorem

The three discount factor theorem states

$$\frac{1}{1+r_f} = \frac{1}{1+r_f+p} = \frac{1}{(1+r_f)^p} \iff (r_f = 0) \wedge (p = 0)$$




## The implication of the three discount factor theorem

**The implication of the three discount factor theorem** is that **exactly** three discount factors are **sufficient** to obtain a zero risk-free rate and a zero risk premium.

## The question the three discount factor theorem poses

Should we eliminate the exponential discounter or not?
That's the question the three discount factor theorem poses!

## The End