

# The two equations of a capitol

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## Abstract

In this paper, I describe the two equations of a capitol.

## Introduction

**The capitol** is the most politically, economically and financially important building in a financial economy.  
In this paper, I describe the two equations of a capitol.

## Preliminaries

The capitol prices three types of assets using three types of valuation functions:

1.  $N$  government assets  $\mathbf{G}_i$  are priced through bond-pricing valuation functions  $\mathbf{F}_i$
2.  $N$  public-sector assets  $P_j$  are priced through public-finance valuation functions  $F_j$
3.  $n$  public-private-partnership assets  $p_k$  are priced through joint-stock valuation functions  $f_k$

## The additive equation of a capitol

When there is **political cohesion** in the financial economy,  
the capitol follows the additive equation of a capitol

$$C(t) = \frac{\sum_{i=1}^N \mathbf{F}_i(\mathbf{G}_i(t)) + \sum_{j=1}^N F_j(P_j(t)) + \sum_{k=1}^n f_k(p_k(t))}{1 + r_f(t) + \mathbf{p}_G(t) + p_P(t) + p_p(t)}$$

where

$C(t)$  is the value of the capital

$r_f(t)$  is the risk-free rate

$p_G(t)$  is the government assets premium

$p_P(t)$  is the public-sector assets premium

$p_p(t)$  is the public-private-partnership assets premium

## The separative equation of a capitol

When there is **no political cohesion** in the financial economy,  
the capitol follows the separative equation of a capitol

$$C(t) = \frac{\sum_{i=1}^N \mathbf{F}_i(\mathbf{G}_i(t))}{1 + r_f(t) + \mathbf{p}_G(t)} + \frac{\sum_{j=1}^N F_j(P_j(t))}{1 + r_f(t) + p_P(t)} + \frac{\sum_{k=1}^n f_k(p_k(t))}{1 + r_f(t) + p_p(t)}$$

## The End