

# Information Theory in Economics and Investment

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## Abstract—

### I. INTRODUCTION

Big results in information theory applied to economics and investing. Hopefully a look at open problems.

### II. INFORMATION THEORY IN ECONOMICS

#### A. Rational Inattention - Modeling behavior in the absence of perfect information

Discuss rational inattention (especially in the context of typical models of behavior in economics).

Also discuss results and newer papers.

#### B. Robustness

Similar motivation to rational inattention.

Again discuss results and newer papers.

#### C. Credit Risk Modeling

Info theory used to develop AIC - used in all sorts of model validation.

One paper also uses AIC to look at the predictability of the stock market historically.

### III. INFORMATION THEORY IN INVESTMENT

Lots and lots of papers by Cover on this stuff.

#### A. Value of Information

#### B. Influence of Side Information in Investment

#### C. Cost of Achieving the Best Portfolio in Hindsight

running refs list: [10], [2], [6], [1],  
[7], [5], [9], [11], [3], [4],  
[8]

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