Fiscal Macroeconomics

Class Exercise

Consider two Italian government bonds: a BTP and a BTP Italia, both issued at the end of January 2022 at a price of 100. The BTP pays an annual fixed coupon of 2 percent, while the BTP Italia pays an annual real coupon of 1.6 percent, with an inflation adjustment based on the ISTAT index for consumer prices for households of workers and employees (FOI), excluding tobacco. Additionally, with BTP Italia, the principal adjustment is paid annually, with immediate recovery of inflation. At the end of January 2023, the price of the BTP is 80, and the price of the BTP Italia is 98. Given that the ISTAT index is equal to 1 at the end of January 2022, its value at the end of January 2023 is 1.081.

Q1

1. What was the annual return of the two bonds for the period January 2022-January 2023?

Q2

1. What is the ”break-even inflation” in January 2022 and in January 2023?

Q3

1. Is it possible to determine the nominal return of the two bonds in January 2023?
2. Indicate a sequence of annual inflation rates between 2024 and 2032 that would result in the same nominal yield to maturity in January 2032 for both the BTP and the BTP Italia.