

<b>Monthly rate</b>	0.004
<b>EAR</b>	0.04907021

<b>Inflation rate</b>	0.02
<b>Real interest rate</b>	0.0285002

	<b>Monthly rate</b>	<b>Cash flow</b>
<b>January</b>	0.003	-1000
<b>February</b>	0.005	20
<b>March</b>	0.005	20
<b>April</b>	0.002	20
<b>May</b>	0.002	1000
<b>Net NPV</b>	51.6223065	

## ZERO COUPON BOND

Face value 0CPB	1000
Current price 0CPB	970
Years to maturity	0.5
Months to maturity	6

YTM 0CP	0.062812201
Monthly YTM 0CP	0.005089442
EAR monthly YTM 0CP	0.062812201

Macaulay duration	0.5
Modified duration	0.47045

## PRICE EVOLUTION OF A TWO-YEAR ZERO COUPON BOND

Face value	Years passed	Years to maturity	Yield to maturity
10000	0	2	0.05
10000	0.2	1.8	0.05
10000	0.4	1.6	0.05
10000	0.6	1.4	0.05
10000	0.8	1.2	0.05
10000	1	1	0.05
10000	1.2	0.8	0.05
10000	1.4	0.6	0.05
10000	1.6	0.4	0.05
10000	1.8	0.2	0.05
10000	2	0	0.05

## COUPON BOND

Face value CPB	1000
Current price CPB	1019.85
Years to maturity	1.666666667
Months to maturity	20
Coupon payment	25
N. coupons per year	2
YTM	0.02

PV(C_1)	24.91762506
PV(C_2)	24.67212523
PV(C_3)	24.42904418
PV(C_4)	991.722681
Macaulay duration	1.668846112
Modified duration	1.652322883

### Price

9070.294785
9159.23626
9249.049878
9339.744189
9431.327831
9523.809524
9617.198073
9711.502372
9806.731399
9902.894223
10000



