```
"Quasi-Hyperbolic Discounting"=
    IF THEN ELSE( Time <= INITIAL TIME + 1 , 1, "beta ( \beta )" * Exponential Discounting t\
        )
        Dmnl
    ~ |
Chge in Exponential Discounting t 1=
    IF THEN ELSE(Time = INTEGER (Time), ( Exponential Discounting t - Exponential Discounting
t 1\
    ) / TIME STEP, 0)
    ~ Dmnl/Year
    ~ |
Biased Real Instanteneous Utility=
    "Biased Utility ( u )"* "Quasi-Hyperbolic Discounting"
    ~ Util / Year
    ~ |
Lagged Exponential Discounting t 1=
    DELAY FIXED( Exponential Discounting t 1, 1 , Exponential Discounting t 1 )
    ~ Dmnl
    ~ |
Exponential Discounting t=
    "delta ( \delta )" * "Exponential Discounting t - 1"
    ~ Dmnl
    ~ |
Actual Real Instanteneous Utility=
    "Quasi-Hyperbolic Discounting" * "Actual Utility ( u )"
    ~ Util / Year
    ~ |
Initial Exponential Discounting t 1=
    1
    ~ Dmnl
    ~ |
"Exponential Discounting t - 1"=
    IF THEN ELSE(Time = INTEGER(Time), Exponential Discounting t 1, Lagged Exponential
Discounting t 1\
                            )
    ~ Dmnl
    ~ |
Real Instanteneous Utility=
    "Utility ( u )" * "Quasi-Hyperbolic Discounting"
    ~ Util / Year
    ~ |
Exponential Discounting t 1= INTEG (
    Chge in Exponential Discounting t 1,
        Initial Exponential Discounting t 1)
    ~ Dmnl
    ~ ।
Retirement Switch=
    STEP (1, Retirement Time + TIME STEP)
    ~ Dmnl
    ~ ।
Normalized Lifetime Utility=
    IF THEN ELSE(Time = FINAL TIME, Actual Lifetime Utility / Optimal Lifetime Utility ,\
    0)
    ~ Dmnl
    ~ ~ :SUPPLEMENTARY
```

```
    |
"Delayed Biased Current Consumption ( BCC )"= DELAY FIXED (
    "Biased Current Consumption ( C )", TIME STEP, "Biased Current Consumption ( C )")
    ~ Dollar/Year
    ~ |
"Biased Current Consumption ( BCC )"=
    IF THEN ELSE(Time = INITIAL TIME, "Biased Current Consumption ( C )", IF THEN
ELSE("Biased Current Consumption ( C )"\
                        > "Delayed Biased Current Consumption ( BCC )", "Biased Current Consumption ( C
)"
    , :NA:))
    ~ Dollar/Year
    ~ |
"Actual Current Consumption ( ACC )"=
    IF THEN ELSE(Time = INITIAL TIME, "Actual Current Consumption ( C )", IF THEN
ELSE("Actual Current Consumption ( C )"\
                    > "Delayed Actual Current Consumption ( ACC )", "Actual Current Consumption ( C
)"
    , :NA:))
    ~ Dollar/Year
    ~ |
Discrete Actual Real Lifetime Utility=
    IF THEN ELSE("Actual Current Consumption ( ACC )" = :NA:, :NA:, "Discrete Actual Real
Lifetime Utility ( DARLU )"\
        )
    ~ Util
    ~ ~ :SUPPLEMENTARY
    |
Discrete Biased Real Lifetime Utility=
    IF THEN ELSE("Biased Current Consumption ( BCC )" = :NA:, :NA:, "Discrete Biased Real
Lifetime Utility ( DBRLU )"\
            )
    ~ Util
    ~ ~ :SUPPLEMENTARY
    |
"Delayed Actual Current Consumption ( ACC )"= DELAY FIXED (
    "Actual Current Consumption ( C )", TIME STEP, "Actual Current Consumption ( C )")
    ~ Dollar/Year
    ~ |
"Delayed Current Consumption ( CC )"=
    DELAY FIXED("Current Consumption ( C )", TIME STEP, "Current Consumption ( C )")
    ~ Dollar/Year
    ~ |
"Consumption ( C )"=
    IF THEN ELSE("Biased Current Consumption ( BCC )" <> :NA: :AND: "Current Consumption ( CC
)"\
    = :NA:, "Biased Current Consumption ( BCC )", "Current Consumption ( CC )"
    )
    ~ Dollar/Year
    ~ ~ :SUPPLEMENTARY
    |
Discrete Real Lifetime Utility=
    IF THEN ELSE("Current Consumption ( CC )" = :NA:, :NA:, "Discrete Real Lifetime Utility (
DRLU )"\
    )
    ~ Util
    ~ ~ :SUPPLEMENTARY
```

```
    |
"Current Consumption ( CC )"=
    IF THEN ELSE(Time = INITIAL TIME, "Current Consumption ( C )", IF THEN ELSE("Current
Consumption ( C )"\
    > "Delayed Current Consumption ( CC )", "Current Consumption ( C )"
    , :NA:))
    ~ Dollar/Year
    ~ |
Actual Consumption=
    IF THEN ELSE("Discrete Actual Current Consumption ( DACC )" > "Delayed Actual Consumption
(C )"\
    , "Discrete Actual Current Consumption ( DACC )"
    , :NA:)
    ~ Dollar/Year
    ~ ~ :SUPPLEMENTARY
    |
Actual Current Consumption=
    IF THEN ELSE(Time <= Death Time - 1, ("Discrete Actual Current Consumption ( DACC )"\
    ) , 0)
    ~ Dollar/Year
    ~ |
"Actual Current Consumption ( C ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), "Actual Current Consumption ( C )", 0)
    ~ Dollar/Year
    ~ |
"Actual Current Consumption ( C )"=
    min(Unconstrained Consumption Growth , Actual Wealth / "Time to Chg Actual Current
Consumption ( C )"\
            )
    ~ Dollar/Year
    ~ |
"Actual Discrete Real Lifetime Utility ( DBRLU )"=
    IF THEN ELSE(Time >= FINAL TIME,"Discrete Actual Real Lifetime Utility ( DARLU )",0)
    ~ Util
    ~ ~ :SUPPLEMENTARY
    |
Actual Last Consumption=
    IF THEN ELSE(Time = FINAL TIME - TIME STEP, Actual Wealth / TIME STEP, 0)
    ~ Dollar/Year
    ~ |
Actual Lifetime Utility=
    IF THEN ELSE(Time >= INTEGER(FINAL TIME),"Actual Real Lifetime Utility ( U )",0)
    ~ Util
    ~ |
"Actual Real Lifetime Utility ( U ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), "Actual Real Lifetime Utility ( U )", 0)
    ~ Util
    ~ |
"Actual Real Lifetime Utility ( U ) "= INTEG (
    Actual Real Instanteneous Utility,
        "Initial Actual Real Lifetime Utility (U)")
    ~ Util
    ~ |
"Actual Utility ( u )"=
```

```
    IF THEN ELSE ("Coefficient of Relative Risk Aversion ( p )" = 1, IF THEN ELSE("Discrete
Actual Current Consumption ( DACC )"\
            = 0, 0, ln (
        "Discrete Actual Current Consumption ( DACC )" / Normal Consumption)
    ) * Util per Year
        , ((( "Discrete Actual Current Consumption ( DACC )"
        / Normal Consumption) ^ (1 - "Coefficient of Relative Risk Aversion ( م )" )) / (1\
                - "Coefficient of Relative Risk Aversion ( \rho )"
        )) * Util per Year )
        Util / Year
    ~ Util I Ye
Actual Wealth= INTEG (
    Actual Wealth Return+"Labor Income ( Y )"-Actual Current Consumption-Actual Last
Consumption\
    "Initial Actual Wealth ( W )")
    ~ Dollar
    ~ |
"Actual Wealth ( W ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), Actual Wealth, 0)
    ~ Dollar
    ~ |
Actual Wealth Return=
    IF THEN ELSE(Time < Death Time - 1 + TIME STEP, "Discrete Actual Wealth ( DW )" *
"Interest Rate ( r )"\
            / Time to Chg WR
    \prime0)
    ~ Dollar/Year
    ~ |
"beta ( \beta )"=
    1
    ~ Dmn1
    ~ ।
"Biased Coefficient of Relative Risk Aversion ( \rho' )"=
    "Coefficient of Relative Risk Aversion ( \rho )" * "Perception of ( م' )"
    ~ Dmnl
    ~ |
Biased Consumption=
    IF THEN ELSE("Discrete Biased Current Consumption ( DCC )" > "Delayed Biased Consumption
( C )"\
    , "Discrete Biased Current Consumption ( DCC )"
    , :NA:)
    ~ Dollar/Year
    ~ ~ :SUPPLEMENTARY
    |
Biased Current Consumption=
    IF THEN ELSE(Time <= Death Time - 1 , ("Discrete Biased Current Consumption ( DCC )"\
            ) , 0)
    ~ Dollar/Year
    ~ |
"Biased Current Consumption ( C ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), "Biased Current Consumption ( C )", 0)
    ~ Dollar/Year
    ~ |
"Biased Current Consumption ( C )"=
```

```
    min(Unconstrained Consumption Growth , Biased Wealth / "Time to Chg Biased Current
Consumption ( C )"\
                                    )
    ~ Dollar/Year
    ~ |
"Biased Discrete Real Lifetime Utility ( DBRLU )"=
    IF THEN ELSE(Time >= FINAL TIME,"Discrete Biased Real Lifetime Utility ( DBRLU )",0)
    ~ Util
    ~ ~ :SUPPLEMENTARY
    |
"Biased Interest Rate ( r ' ) "=
    "Interest Rate ( r )" * "Perception of ( r ' )"
    ~ Dmnl
    ~ |
Biased Last Consumption=
    IF THEN ELSE(Time = FINAL TIME - TIME STEP, Biased Wealth / TIME STEP, 0)
    ~ Dollar/Year
    ~ |
Biased Lifetime Utility=
    IF THEN ELSE(Time >= INTEGER(FINAL TIME),"Biased Real Lifetime Utility ( U )",0)
    ~ Util
    ~ ~ :SUPPLEMENTARY
    |
"Biased Real Lifetime Utility ( U ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), "Biased Real Lifetime Utility ( U )", 0)
    ~ Util
    ~ ।
"Biased Real Lifetime Utility ( U ) "= INTEG (
    Biased Real Instanteneous Utility,
        "Initial Biased Real Lifetime Utility (U)")
    ~ Util
    ~ |
"Biased Utility ( u )"=
    IF THEN ELSE ("Biased Coefficient of Relative Risk Aversion ( م' )" = 1, IF THEN ELSE\
                ("Discrete Biased Current Consumption ( DCC )" = 0, 0, ln (
    "Discrete Biased Current Consumption ( DCC )" / Normal Consumption)
    ) * Util per Year
        , ((( "Discrete Biased Current Consumption ( DCC )"
    / Normal Consumption) ^ (1 - "Biased Coefficient of Relative Risk Aversion ( م' )"\
                )) / (1 - "Biased Coefficient of Relative Risk Aversion ( م' )"
    )) * Util per Year )
    ~ Util / Year
    ~ |
Biased Wealth= INTEG (
    Biased Wealth Return+"Labor Income ( Y )"-Biased Current Consumption-Biased Last
Consumption\
    "Initial Wealth ( W )")
    ~ Dollar
    ~ |
"Biased Wealth ( W ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), Biased Wealth, 0)
    ~ Dollar
    ~ |
Biased Wealth Return=
```

```
    IF THEN ELSE(Time < Death Time - 1 + TIME STEP, "Discrete Biased Wealth ( DW )" * "Biased
Interest Rate ( r ' )"\
                        / Time to Chg WR
    , 0)
    ~ Dollar/Year
    ~ |
Chg in Optimal Consumption=
    ( "Discrete Optimal Consumption Growth ( DOCG )" * Optimal Consumption Growth Rate )\
        / Time to Chg Optimal Consumption
    ~ Dollar / Year / Year
    ~ |
Chg in Unconstrained Consumption=
    ( "Discrete Unconstrained Consumption Growth ( DUCG )" * Unconstrained Consumption Growth
Rate\
                        ) / Time to Chg Unconstrained Consumption
    ~ Dollar / Year / Year
    ~ |
"Coefficient of Relative Risk Aversion ( p )"=
    0.67
    ~ Dmnl
    ~ |
Consumption=
    IF THEN ELSE("Discrete Current Consumption ( DCC )" > "Delayed Consumption ( C )",
"Discrete Current Consumption ( DCC )"\
        , :NA:)
    ~ Dollar/Year
    ~ ~ :SUPPLEMENTARY
    |
"Countervail Biased Coefficient of Relative Risk Aversion ( p )"=
    "Coefficient of Relative Risk Aversion ( p )" * ((ln("delta ( \delta )" * (1 + "Biased
Interest Rate ( r ' )"\
    ))) / (ln("delta ( \delta )"
    * (1 + "Interest Rate ( r )"))))
    ~ Dmnl
    ~ |
"Countervail Biased Interest Rate ( r ' )"=
    ( ( "delta ( \delta )" * ( 1 + "Interest Rate ( r )") ^ ("Biased Coefficient of Relative Risk
Aversion ( م' )"\
                            / "Coefficient of Relative Risk Aversion ( م )"
    )) / "delta ( \delta )" ) - 1
    ~ Dmnl
    ~ |
"Countervail Perception of ( r ' )"=
    "Countervail Biased Interest Rate ( r ' )"/ "Interest Rate ( r )"
    ~ Dmnl
    ~ ~ :SUPPLEMENTARY
    |
"Countervail Perception of ( م' )"=
    "Countervail Biased Coefficient of Relative Risk Aversion ( م )" / "Coefficient of
Relative Risk Aversion ( م )"
    ~ Dmnl
    ~ ~ :SUPPLEMENTARY
    |
Current Consumption=
    IF THEN ELSE(Time <= Death Time - 1, ("Discrete Current Consumption ( DCC )" ) , 0)
    ~ Dollar/Year
    ~ |
```

```
"Current Consumption ( C ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), "Current Consumption ( C )", 0)
    ~ Dollar/Year
    ~ |
"Current Consumption ( C )"=
    min(Optimal Consumption Growth , "Wealth ( W )" / "Time to Chg Current Consumption ( C
)"\
    )
    ~ Dollar/Year
    ~ |
Death Time=
    FINAL TIME
    ~ Year
    ~ ।
"Delayed Actual Consumption ( C )"= DELAY FIXED (
    "Discrete Actual Current Consumption ( DACC )", 1, "Discrete Actual Current Consumption (
DACC )"\
    )
    ~ Dollar/Year
    ~ |
"Delayed Actual Current Consumption ( C )"= DELAY FIXED (
    "Actual Current Consumption ( C ) Discrete", 1 , 0)
    ~ Dollar/Year
    ~ |
"Delayed Actual Real Lifetime Utility ( U )"= DELAY FIXED (
    "Actual Real Lifetime Utility ( U ) Discrete", 1 , 0)
    ~ Util
    ~ |
"Delayed Actual Wealth ( W )"= DELAY FIXED (
    "Actual Wealth ( W ) Discrete", 1 , 0)
    ~ Dollar
    ~ |
"Delayed Biased Consumption ( C )"= DELAY FIXED (
    "Discrete Biased Current Consumption ( DCC )", 1, "Discrete Biased Current Consumption (
DCC )"\
    )
    ~ Dollar/Year
    ~ ।
"Delayed Biased Current Consumption ( C )"= DELAY FIXED (
    "Biased Current Consumption ( C ) Discrete", 1 , 0)
    ~ Dollar/Year
    ~ |
"Delayed Biased Real Lifetime Utility ( U )"= DELAY FIXED (
    "Biased Real Lifetime Utility ( U ) Discrete", 1 , 0)
    ~ Util
    ~ |
"Delayed Biased Wealth ( W )"= DELAY FIXED (
    "Biased Wealth ( W ) Discrete", 1 , 0)
    ~ Dollar
    ~ |
"Delayed Consumption ( C )"= DELAY FIXED (
    "Discrete Current Consumption ( DCC )", 1, "Discrete Current Consumption ( DCC )")
    ~ Dollar/Year
    ~ |
```

```
"Delayed Current Consumption ( C )"= DELAY FIXED (
    "Current Consumption ( C ) Discrete", 1 , 0)
    ~ Dollar/Year
    ~ |
"Delayed Discrete Actual Real Lifetime Utility ( DARLU )"=
    DELAY FIXED("Discrete Actual Real Lifetime Utility ( DARLU )", TIME STEP, "Discrete
Actual Real Lifetime Utility ( DARLU )"\
        )
    ~ Util
    ~ ~ :SUPPLEMENTARY
    |
Delayed Optimal Consumption Growth Discrete= DELAY FIXED (
    Optimal Consumption Growth Discrete, 1 , 0)
    ~ Dollar/Year
    ~ |
"Delayed Real Lifetime Utility ( U ) "= DELAY FIXED (
    "Real Lifetime Utility ( U ) Discrete", 1 , 0)
    ~ Util
    ~ ।
Delayed Unconstrained Consumption Growth Discrete= DELAY FIXED (
    Unconstrained Consumption Growth Discrete, 1 , 0)
    ~ Dollar/Year
    ~ |
"Delayed Wealth ( W )"= DELAY FIXED (
    "Wealth ( W ) Discrete", 1 , 0)
    ~ Dollar
    ~ |
"delta ( \delta ) "=
    0.99
    ~ Dmnl
    ~ ।
Discounting Utility=
    "delta ( \delta )" ^ ( ( Time - 18) / Time to Chge DU )
    ~ Dmnl
    ~ ~ :SUPPLEMENTARY
    |
"Discrete Actual Current Consumption ( C ) "= INTEG (
    ("Actual Current Consumption ( C ) Discrete" - "Delayed Actual Current Consumption ( C
)"\
    ) / TIME STEP,
            0)
    ~ Dollar/Year
    ~ |
"Discrete Actual Current Consumption ( DACC )"=
    IF THEN ELSE(Time = INTEGER(Time), "Actual Current Consumption ( C ) Discrete", "Discrete
Actual Current Consumption ( C )"\
            )
    ~ Dollar/Year
    ~ |
"Discrete Actual Real Lifetime Utility ( DARLU )"=
    IF THEN ELSE(Time = INTEGER(Time), "Actual Real Lifetime Utility ( U ) Discrete",
"Discrete Actual Real Lifetime Utility ( U )"\
            )
    ~ Util
    ~ |
```

```
"Discrete Actual Real Lifetime Utility ( U )"= INTEG (
    ("Actual Real Lifetime Utility ( U ) Discrete" - "Delayed Actual Real Lifetime Utility (
U )"\
    ) / TIME STEP,
            0)
    ~ Util
    ~ |
"Discrete Actual Wealth ( DW )"=
    IF THEN ELSE(Time = INTEGER(Time), "Actual Wealth ( W ) Discrete", "Discrete Actual
Wealth ( W )"\
    ~ Dollar
    ~ Dollar ,
"Discrete Actual Wealth ( W )"= INTEG (
    ("Actual Wealth ( W ) Discrete" - "Delayed Actual Wealth ( W )") / TIME STEP,
            0)
    ~ Dollar
    ~ |
"Discrete Biased Current Consumption ( C )"= INTEG (
    ("Biased Current Consumption ( C ) Discrete" - "Delayed Biased Current Consumption ( C
)"\
    ) / TIME STEP,
            0)
    ~ Dollar/Year
    ~ |
"Discrete Biased Current Consumption ( DCC )"=
    IF THEN ELSE(Time = INTEGER(Time), "Biased Current Consumption ( C ) Discrete", "Discrete
Biased Current Consumption ( C )"\
    ~ Dollar/Year
    ~ |
"Discrete Biased Real Lifetime Utility ( DBRLU )"=
    IF THEN ELSE(Time = INTEGER(Time), "Biased Real Lifetime Utility ( U ) Discrete",
"Discrete Biased Real Lifetime Utility ( U )"\
            )
    ~ Util
    ~ |
"Discrete Biased Real Lifetime Utility ( U )"= INTEG (
    ("Biased Real Lifetime Utility ( U ) Discrete" - "Delayed Biased Real Lifetime Utility (
U )"\
    ) / TIME STEP,
            0)
    ~ Util
    ~ |
"Discrete Biased Wealth ( DW )"=
    IF THEN ELSE(Time = INTEGER(Time), "Biased Wealth ( W ) Discrete", "Discrete Biased
Wealth ( W )"\
            )
    ~ Dollar
    ~ |
"Discrete Biased Wealth ( W )"= INTEG (
    ("Biased Wealth ( W ) Discrete" - "Delayed Biased Wealth ( W )") / TIME STEP,
            0)
    ~ Dollar
    ~ ।
"Discrete Current Consumption ( C ) "= INTEG (
```

```
    ("Current Consumption ( C ) Discrete" - "Delayed Current Consumption ( C )") / TIME STEP\
        0)
    ~ Dollar/Year
    ~ |
"Discrete Current Consumption ( DCC )"=
    IF THEN ELSE(Time = INTEGER(Time), "Current Consumption ( C ) Discrete", "Discrete
Current Consumption ( C )"\
        )
    ~ Dollar/Year
    ~ |
Discrete Optimal Consumption Growth= INTEG (
    (Optimal Consumption Growth Discrete - Delayed Optimal Consumption Growth Discrete) \
            / TIME STEP,
            0)
    ~ Dollar/Year
    ~ |
"Discrete Optimal Consumption Growth ( DOCG )"=
    IF THEN ELSE(Time = INTEGER(Time), Optimal Consumption Growth Discrete, Discrete Optimal
Consumption Growth\
            )
    ~ Dollar/Year
    ~ |
"Discrete Real Lifetime Utility ( DRLU )"=
    IF THEN ELSE(Time = INTEGER(Time), "Real Lifetime Utility ( U ) Discrete", "Discrete Real
Lifetime Utility ( U )"\
            )
    ~ Util
    ~ ।
"Discrete Real Lifetime Utility ( U )"= INTEG (
    ("Real Lifetime Utility ( U ) Discrete" - "Delayed Real Lifetime Utility ( U )") / TIME
STEP\
            0)
    ~ Util
    ~ |
Discrete Unconstrained Consumption Growth= INTEG (
    (Unconstrained Consumption Growth Discrete - Delayed Unconstrained Consumption Growth
Discrete\
            ) / TIME STEP,
            0)
    ~ Dollar/Year
    ~ |
"Discrete Unconstrained Consumption Growth ( DUCG )"=
    IF THEN ELSE(Time = INTEGER(Time), Unconstrained Consumption Growth Discrete, Discrete
Unconstrained Consumption Growth\
    ~ Dollar/Year
    ~ |
"Discrete Wealth ( DW )"=
    IF THEN ELSE(Time = INTEGER(Time), "Wealth ( W ) Discrete", "Discrete Wealth ( W )")
    ~ Dollar
    ~ |
"Discrete Wealth ( W )"= INTEG (
    ("Wealth ( W ) Discrete" - "Delayed Wealth ( W )") / TIME STEP,
            0)
    ~ Dollar
```

```
"Income Growth Rate (G)"=
"Initial Actual Real Lifetime Utility (U)"=
    1
    ~ Util
    ~ |
"Initial Actual Wealth ( W )"=
    1000
    ~ Dollar
    ~ |
"Initial Biased Real Lifetime Utility (U)"=
    1
    ~ Util
    ~ |
Initial Optimal Consumption Growth=
    263.7
    ~ Dollar / Year
    ~ |
"Initial Real Lifetime Utility (U)"=
    1
    ~ Util
    ~ ।
Initial Unconstrained Consumption Growth=
    263.7
    ~ Dollar / Year
    ~ |
"Initial Wealth ( W )"=
    1000
    ~ Dollar
    ~ ।
"Interest Rate ( r )"=
    0.05
    ~ Dmnl
    ~ |
"Labor Income ( Y )"=
    "Normal Labor Income (Y)" * ( 1 + "Income Growth Rate (G)" ) * (1 - Retirement Switch\
        ) + 0*(1 + RAMP (-1, 58, 59))
    ~ Dollar/Year
    ~ |
Last Consumption=
    IF THEN ELSE(Time = FINAL TIME - TIME STEP, "Wealth ( W )" / TIME STEP, 0)
    ~ Dollar/Year
    ~ ।
Normal Consumption=
    1
    ~ Dollar/Year
    ~ |
"Normal Labor Income (Y) "=
        1000
    ~ Dollar
```

```
    ~ |
Normalized Consumption Growth=
    Unconstrained Consumption Growth Rate / Optimal Consumption Growth Rate
    ~ Dmnl
    ~ ~ :SUPPLEMENTARY
    |
Optimal Consumption Growth= INTEG (
    Chg in Optimal Consumption,
                Initial Optimal Consumption Growth)
    ~ Dollar / Year
    ~ |
Optimal Consumption Growth Discrete=
    IF THEN ELSE(Time = INTEGER(Time), Optimal Consumption Growth, 0)
    ~ Dollar/Year
    ~ ।
Optimal Consumption Growth Rate=
    0.05956
    ~ Fraction
    ~ ।
"Optimal Discrete Real Lifetime Utility ( DRLU )"=
    IF THEN ELSE(Time >= FINAL TIME,"Discrete Real Lifetime Utility ( DRLU )",0)
    ~ Util
    ~ ~ :SUPPLEMENTARY
    |
Optimal Lifetime Utility=
    IF THEN ELSE(Time >= INTEGER(FINAL TIME),"Real Lifetime Utility ( U )",0)
    ~ Util
    ~ |
"Perception of ( r ' )"=
    1.2
    ~ Dmnl
    ~ ।
"Perception of ( م' )"=
    1.217
    ~ Dmnl
    ~ |
"Real Lifetime Utility ( U ) Discrete"=
    IF THEN ELSE(Time = INTEGER(Time), "Real Lifetime Utility ( U )", 0)
    ~ Util
    ~ |
"Real Lifetime Utility ( U ) "= INTEG (
    Real Instanteneous Utility,
        "Initial Real Lifetime Utility (U)")
    ~ Util
    ~ ।
Retirement Time=
    5 8
    ~ Year
    ~ ।
"Time to Chg Actual Current Consumption ( C )"=
    1
    ~ Year
    ~ ।
```

```
"Time to Chg Biased Current Consumption ( C )"=
Time to Chg Optimal Consumption=
    1
    ~ Year
    ~ ।
Time to Chg Unconstrained Consumption=
    1
    ~ Year
    ~ |
Time to Chg WR=
    1
    ~ Year
    ~ |
Time to Chge DU=
    1
    ~ Year
    ~ |
Unconstrained Consumption Growth= INTEG (
    Chg in Unconstrained Consumption,
                Initial Unconstrained Consumption Growth)
    ~ Dollar / Year
    ~ |
Unconstrained Consumption Growth Discrete=
    IF THEN ELSE(Time = INTEGER(Time), Unconstrained Consumption Growth, 0)
    ~ Dollar/Year
    ~ |
Unconstrained Consumption Growth Rate=
    0.05956
    ~ Fraction
    ~ ।
Util per Year=
    1
    ~ Util/Year
    ~ |
"Utility ( u )"=
    IF THEN ELSE ("Coefficient of Relative Risk Aversion ( م )" = 1, IF THEN ELSE("Discrete
Current Consumption ( DCC )"\
                =0, 0, ln (
            "Discrete Current Consumption ( DCC )" / Normal Consumption)
    ) * Util per Year
            , ((( "Discrete Current Consumption ( DCC )"
            / Normal Consumption) ^ (1 - "Coefficient of Relative Risk Aversion ( م )" )) / (1\
                - "Coefficient of Relative Risk Aversion ( م )" )) * Util per Year )
    ~ Util / Year
    ~
"Wealth ( W )"= INTEG (
    "Labor Income ( Y )"+Wealth Return-Current Consumption-Last Consumption,
                        "Initial Wealth ( W )")
```

```
    ~ Dollar
    ~ |
```

```
"Wealth ( W ) Discrete"=
```

"Wealth ( W ) Discrete"=
IF THEN ELSE(Time = INTEGER(Time), "Wealth ( W )", 0)
IF THEN ELSE(Time = INTEGER(Time), "Wealth ( W )", 0)
~ Dollar
~ Dollar
~ |
~ |
Wealth Return=
IF THEN ELSE(Time < Death Time - 1 + TIME STEP, "Discrete Wealth ( DW )" * "Interest Rate
( r )"\
/ Time to Chg WR,
0)
~ Dollar/Year
~ |
**************************************************************
.Control
*********************************************************
Simulation Control Parameters
|
FINAL TIME = 79
~ Year
~ The final time for the simulation.
|
INITIAL TIME = 18
~ Year
~ The initial time for the simulation.
|
SAVEPER =
TIME STEP
~ Year [0,?]
~ The frequency with which output is stored.
|
TIME STEP = 0.0078125
Year [0,?]
~ The time step for the simulation.
|
\\\---/// Sketch information - do not modify anything except names
V300 Do not put anything below this section - it will be ignored
*Optimal Behavior
\$192-192-192,0,Open Sans|10||0-0-0|0-0-0|0-0-255|-1--1--1|-1--1--1|96,96,75,0
10,1,"Wealth ( W )",455,389,41,26,3,131,0,0,0,0,0,0,0,0,0,0,0,0
12,2,48,232,394,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0,Open Sans|10||0-0-0,0,0,0,0,0,0
1,3,5,1,4,0,0,22,0,0,0,-1--1--1, ,1|(369,394)।
1,4,5,2,100,0,0,22,0,0,0,-1--1--1,,1|(277,394)|
11,5,48,319,394,6,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0
10,6,"Labor Income ( Y )",319,412,56,10,40,3,0,0,-1,0,0,0,0,0,0,0,0,0
12,7,48,668,400,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0,Open Sans|10| | - 0-0,0,0,0,0,0,0
1,8,10,7,4,0,0,22,0,0,0,-1--1--1,,1|(615,395)।
1,9,10,1,100,0,0,22,0,0,0,-1--1--1, ,1|(528,395)|
11,10,48,566,395,6,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0
10,11,Current Consumption,566,421,52,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0
10,12,Optimal Consumption Growth, 956,201,49,27,3,131,0,0,0,0,0,0,0,0,0,0,0,0
12,13,48,449,225,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0,Open Sans|10||0-0-0,0,0,0,0,0,0
1,14,16,1,4,0,0,22,0,0,0,-1--1--1,,1|(453,332)|
1,15,16,13,100,0,0,22,0,0,0,-1--1--1,,1|(453,261)|
11,16,48,453,296,8,6,33,3,0,0,4,0,0,0,0,0,0,0,0,0
10,17,Wealth Return,501,296,40,29,40,131,0,0,-1,0,0,0,0,0,0,0,0,0
12,18,48,1213,194,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0,Open Sans|10||0-0-0,0,0,0,0,0,0
1,19,21,12,4,0,0,22,0,0,0,-1--1--1,,1|(1059,195)।

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\(1,20,21,18,100,0,0,22,0,0,0,-1--1--1,1|(1163,195)|\)
\(11,21,48,1119,195,5,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,22, Chg in Optimal Consumption, 1119, 221, 47, 18, 40, 131, 0, 40, -1, 0, 0, 0, 0-0-0,0-0-0,Open Sans|10।|0-\(0-0,0,0,0,0,0,0\)
10,23,"Initial Wealth ( W )", 397,332,43,26,8,131,0,40,0,0,0,0,0-0-0,0-0-0,Open Sans|10||0-0-
\(0,0,0,0,0,0,0\)
10,24, Initial Optimal Consumption Growth, \(954,141,69,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,25, "Utility ( u )" \(, 435,665,32,10,8,3,0,40,0,0,0,0,0-0-0,0-0-0\), Open Sans \(110 \mid 10-0-0,0,0,0,0,0,0\)
10,26,Optimal Consumption Growth Rate, 1159, 129, 71, 26, 8, 131, 0, 40, 0, 0, 0, 0, 0-0-0, 0-0-0, Open
Sans|10||0-0-0, 0, 0, 0, 0, 0, 0
\(1,27,26,22,1,0,0,0,0,128,0,-1--1--1,1|(1157,174)|\)
\(1,28,24,12,0,1,0,0,0,128,1,-1--1--1,1|(954,159)|\)
\(1,29,23,1,0,1,0,0,0,128,1,-1--1--1,1 \mid(420,355)\) |
10,30,"Income Growth Rate (G)", 250, 328, 49, 18, 8, 3, 0, 40, 0, 0, 0, 0, 0-0-0,0-0-0, Open Sans|10||0-0-
\(0,0,0,0,0,0,0\)
10,31,"Time to Chg Current Consumption (C)", 754, 400, 64, 18, 8, 131, 0, 40, 0, 0, 0, 0, 0-0-0, 0-0-0,0pen Sans|10||0-0-0, 0, 0, 0, 0, 0, 0
10,32 , Normal Consumption, \(273,609,44,18,8,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans|10||0-0\(0,0,0,0,0,0,0\)
10,33 , Util per Year, \(274,725,38,10,8,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| 10-0-0,0,0,0,0,0,0\) 10, 34, Retirement Time, \(338,557,52,10,8,131,0,40,0,0,0,0,0-0-0,0-0-0,0 p e n ~ S a n s|10| \mid 0-0-\) \(0,0,0,0,0,0,0\)
\(1,35,33,25,1,0,0,0,0,128,0,-1--1--1,, 1|(367,711)|\)
10,36 , "Normal Labor Income (Y) ", 243, 482, 44, 18, 8, 3, 0, 40, 0, 0, 0, 0, 0-0-0,0-0-0, Open Sans|10||0-0\(0,0,0,0,0,0,0\)
10,37, Time to Chg WR, \(392,283,49,10,8,3,0,40,0,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\) \(1,38,30,6,1,0,0,0,0,64,0,-1--1--1,1|(259,366)|\)
\(1,39,36,6,1,0,0,0,0,64,0,-1--1--1,, 1|(253,444)|\)
10,40 , Death Time, \(659,356,36,10,8,3,0,40,0,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
\(1,41,32,25,1,0,0,0,0,128,0,-1--1--1,1|(361,625)|\)
10,42, Discrete Optimal Consumption Growth, \(1150,438,56,29,3,131,0,0,0,0,0,0,1,0,0,0,0,0\)
10,43 , Delayed Optimal Consumption Growth Discrete, \(1079,554,92,30,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,44,43,42,1,0,0,0,0,128,0,-1--1--1,1 \mid(1141,497)\) |
10,45, "Discrete Optimal Consumption Growth ( DOCG )", 1105, 346, \(70,30,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,46,42,45,1,0,0,0,0,128,0,-1--1--1,1|(1148,399)|\)
10,47 , Optimal Consumption Growth Discrete, \(935,342,70,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,48,47,45,1,0,0,0,0,128,0,-1--1--1,1|(999,388)|\)
\(1,49,47,43,1,0,0,0,0,128,0,-1--1--1,1|(961,455)|\)
\(1,50,47,42,1,0,0,0,0,128,0,-1--1--1,1|(994,445)|\)
10,51, TIME STEP, 1289, 410, 40, 10, 8, 2, 1, 43,-1, 0, 0, 0, 128-128-128, 0-0-0,Open Sans|10।|128-128-
128, 0, 0, 0, 0, 0, 0
\(1,52,51,42,1,1,0,0,0,64,0,-1--1--1,, 1|(1234,437)|\)
\(1,53,12,47,1,0,0,0,0,128,0,-1--1--1,1|(913,275)|\)
10,54 , Time, \(973,263,24,10,8,2,1,43,-1,0,0,0,128-128-128,0-0-0, O p e n\) Sans|10||128-128-
\(128,0,0,0,0,0,0\)
\(1,55,54,47,1,1,0,0,0,64,0,-1--1--1,1|(954,291)|\)
\(1,56,54,45,1,1,0,0,0,128,0,-1--1--1,1|(1038,269)|\)
10,57,"Discrete Wealth ( W )", 425,53, 40, 24, 3, 131, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0
10,58, "Delayed Wealth ( W ) ", 263, 78, 47, 21, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,59,58,57,1,0,0,0,0,128,0,-1--1--1,1 \mid(314,42)\) ।
10,60,"Discrete Wealth ( DW )", 600, 170,51, 20, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,61,57,60,1,0,0,0,0,128,0,-1--1--1,1 \mid(527,52)\) ।
10,62 , "Wealth ( W ) Discrete", 374, 133, 61, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,63,62,60,1,0,0,0,0,128,0,-1--1--1,1 \mid(487,104)\) ।
\(1,64,62,58,1,0,0,0,0,128,0,-1--1--1,1|(307,145)|\)
\(1,65,62,57,1,0,0,0,0,128,0,-1--1--1,1|(383,101)|\)
10,66, TIME STEP, \(523,5,40,10,8,2,1,43,-1,0,0,0,128-128-128,0-0-0\), Open Sans|10||128-128128, 0, 0, 0, 0, 0, 0
10,67, Time to Chg Optimal Consumption, \(1228,291,65,18,8,3,0,40,0,0,0,0,0-0-0,0-0-0\), Open
Sans|10||0-0-0, 0, 0, 0, 0, 0, 0
\(1,68,67,22,1,0,0,0,0,128,0,-1--1--1,1|(1206,245)|\)
10,69, "Current Consumption ( C )", 782, 317, 57, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,70,31,69,1,0,0,0,0,64,0,-1--1--1,1 \mid(780,362)\) ।
10,71,"Discrete Current Consumption ( C ) ", 705, 629, 58, 35, 3, 131, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0
10,72,"Delayed Current Consumption (C)", 889,596,73,27,8,131,0,0,0,0,0,0,0,0,0,0,0,0
\(1,73,72,71,1,0,0,0,0,128,0,-1--1--1,1|(820,631)|\)

10,74,"Discrete Current Consumption ( DCC )", 684,533, 66, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 \(1,75,71,74,1,0,0,0,0,128,0,-1--1--1,1|(681,606)|\)
10, 76, "Current Consumption ( C ) Discrete", 839, 501, 57, 27, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,77,76,74,1,0,0,0,0,128,0,-1--1--1,1|(785,540)|\)
\(1,78,76,72,1,0,0,0,0,128,0,-1--1--1,1|(874,544)|\)
\(1,79,76,71,1,0,0,0,0,128,0,-1--1--1,1|(788,607)|\)
10,80, TIME STEP, \(627,701,40,10,8,2,1,43,-1,0,0,0,128-128-128,0-0-0\), Open Sans | \(10|\mid 128-128-\)
\(128,0,0,0,0,0,0\)
\(1,81,80,71,1,1,0,0,0,64,0,-1--1--1,1|(663,673)|\)
\(1,82,69,76,1,0,0,0,0,128,0,-1--1--1,1|(833,371)|\)
\(1,83,45,22,1,0,0,0,0,128,0,-1--1--1,1|(1139,276)|\)
\(1,84,60,17,1,0,0,0,0,128,0,-1--1--1,1|(605,234)|\)
\(1,85,66,57,0,1,0,0,0,128,0,-1--1--1,1|(490,21)|\)
\(1,86,74,11,1,0,0,0,0,128,0,-1--1--1,1|(593,480)|\)
10,87, FINAL TIME \(, 636,305,44,10,8,2,1,43,-1,0,0,0,128-128-128,0-0-0\), Open Sans|10।|128-128-
\(128,0,0,0,0,0,0\)
\(1,88,87,40,1,1,0,0,0,64,0,-1--1--1,1 \mid(647,326)\) |
10,89, Retirement Switch, \(354,487,45,17,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,90,34,89,1,0,0,0,0,64,0,-1--1--1,1|(352,534)|\)
\(1,91,89,6,1,0,0,0,0,128,0,-1--1--1,1 \mid(347,446)\) |
\(1,92,1,62,1,0,0,0,0,128,0,-1--1--1,1|(315,251)|\)
\(1,93,37,17,1,0,0,0,0,128,0,-1--1--1,1|(433,311)|\)
10,94 , Time, \(699,464,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\)
10,95, TIME STEP \(, 376,229,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\)
\(1,96,95,17,1,1,0,0,0,128,0,-1--1--1,1|(452,248)|\)
\(1,97,94,11,1,0,0,0,0,128,0,-1--1--1,1|(638,464)|\)
\(1,98,12,69,1,0,0,0,0,128,0,-1--1--1,1|(855,218)|\)
\(12,99,48,451,549,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,100,102,99,4,0,0,22,0,0,0,-1--1--1,1|(453,510)|\)
\(1,101,102,1,100,0,0,22,0,0,0,-1--1--1,, 1|(453,441)|\)
\(11,102,48,453,474,8,6,33,3,0,0,4,0,0,0,0,0,0,0,0,0\)
10,103 , Last Consumption, \(513,474,44,18,40,131,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,104, FINAL TIME \(548,584,44,10,8,2,17,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\) \(1,105,104,103,0,17,0,0,0,64,0,-1--1--1,1|(533,539)|\)
10,106, TIME STEP \(, 446,620,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\)
\(1,107,106,103,1,1,0,0,0,64,0,-1--1--1,1|(478,570)|\)
\(1,108,1,102,1,0,0,0,0,128,0,-1--1--1,1 \mid(404,436)\) |
10,109,"Real Lifetime Utility ( U ) ", 607, 812, 45, 24, 3, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(12,110,48,356,807,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,111,113,109,4,0,0,22,0,0,0,-1--1--1,1|(526,809)|\)
\(1,112,113,110,100,0,0,22,0,0,0,-1--1--1,1|(423,809)|\)
\(11,113,48,485,809,5,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,114,Real Instanteneous Utility, \(485,835,61,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,115,"Initial Real Lifetime Utility (U)", \(604,757,59,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,116,115,109,0,1,0,0,0,128,1,-1--1--1,1 \mid(603,774)\) |
\(1,117,25,113,1,0,0,0,0,128,0,-1--1--1,1|(476,731)|\)
10,118 , Time, \(313,833,24,10,8,2,17,11,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
10,119,Optimal Lifetime Utility, \(767,724,53,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,120 , FINAL TIME \(, 989,701,44,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\)
\(1,121,120,119,1,1,0,0,0,64,0,-1--1--1,1|(880,699)|\)
\(12,122,0,2187,336,263,213,3,188,0,0,1,0,0,0,0,0,0,0,0,0\)
Wealth
10,123 , Time \(, 485,143,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,124,1,69,1,0,0,0,0,128,0,-1--1--1,1 \mid(628,282)\) |
\(1,125,74,25,1,0,0,0,0,128,0,-1--1--1,1|(594,614)|\)

10,127,"Delayed Real Lifetime Utility ( U ) ", 1711, 1037, 59, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 \(1,128,127,126,1,0,0,0,0,128,0,-1--1--1,1|(1818,994)|\)
10,129, "Discrete Real Lifetime Utility ( DRLU ) ", 1724, 807, 67, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,130,126,129,1,0,0,0,0,128,0,-1--1--1,, 1|(1808,856)|\)
10,131, "Real Lifetime Utility ( U ) Discrete", 1613, 934, 62, 22, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,132,131,129,1,0,0,0,0,128,0,-1--1--1,1|(1636,865)|\)
\(1,133,131,127,1,0,0,0,0,128,0,-1--1--1,1|(1637,994)|\)
\(1,134,131,126,1,0,0,0,0,128,0,-1--1--1,1|(1721,968)|\)
10,135,"Real Lifetime Utility ( U )", 1460, 901, 44, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,136,135,131,1,0,0,0,0,128,0,-1--1--1,1|(1508,932)|\)
10,137, TIME STEP, 1951, 1029, 40, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10|| \(128-128-128,0,0,0,0,0,0\) \(1,138,137,126,0,0,0,0,0,64,0,-1--1--1,1|(1905,989)|\)
10,139 , Time, \(1565,803,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\)
\(1,140,139,129,1,1,0,0,0,64,0,-1--1--1,1|(1635,776)|\)
\(1,141,109,119,1,0,0,0,0,128,0,-1--1--1,1|(690,778)|\)
\(1,142,40,11,1,0,0,0,0,128,0,-1--1--1,1|(604,376)|\)
\(1,143,123,17,1,1,0,0,0,128,0,-1--1--1,1|(526,207)|\)
\(1,144,94,74,1,0,0,0,0,128,0,-1--1--1,1|(684,493)|\)
\(1,145,94,76,1,0,0,0,0,128,0,-1--1--1,1|(785,458)|\)
10, 146, Discounting Utility, \(1725,1112,57,10,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,147, Time \(, 1849,1183,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,148,147,146,0,0,0,0,0,64,0,-1--1--1,1|(1793,1150)|\)
10,149,"delta ( \(\delta\) )", 1605,1180,37,10,8,2,0,3,-1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-
\(128,0,0,0,0,0,0\)
\(1,150,149,146,1,0,0,0,0,128,0,-1--1--1,1|(1647,1136)|\)
\(1,151,123,60,1,1,0,0,0,128,0,-1--1--1,1|(530,159)|\)
\(1,152,139,131,1,1,0,0,0,128,0,-1--1--1,1|(1570,868)|\)
10, 153, Time to Chge DU, 1895, 1211, \(52,10,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,154,153,146,1,0,0,0,0,128,0,-1--1--1,1|(1719,1171)|\)
10, 155, Consumption, 2091, 785, 43, 10, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,156,"Delayed Consumption ( C )", 2010, \(865,57,18,8,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,157,156,155,1,0,0,0,0,64,0,-1--1--1,1|(2028,820)|\)
\(12,158,0,1647,336,263,213,3,188,0,0,1,0,0,0,0,0,0,0,0,0\)
Real_Lifetime_Utility
10,159 , Death Time, \(560,209,35,17,8,130,0,3,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\)
\(1,160,159,17,1,0,0,0,0,128,0,-1--1--1,1 \mid(560,246)\) ।
10,161, Time, \(908,646,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,162,161,119,1,1,0,0,0,128,0,-1--1--1,1|(857,655)|\)
10,163,"Optimal Discrete Real Lifetime Utility ( DRLU
)" \(, 1631,706,72,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,164,129,163,1,0,0,0,0,128,0,-1--1--1,1|(1706,749)|\)
10,165, FINAL TIME, \(1458,686,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,166,165,163,0,0,0,0,0,64,0,-1--1--1,1|(1523,693)|\)
10,167 , Time, 1484, 732, 24, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,168,167,163,0,0,0,0,0,64,0,-1--1--1,1 \mid(1526,724)\) |
10,169 , Time \(, 580,548,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,170,169,103,0,1,0,0,0,128,0,-1--1--1,1|(554,520)|\)
\(1,171,123,62,0,1,0,0,0,128,0,-1--1--1,1 \mid(454,140)\) |
10,172,"Coefficient of Relative Risk Aversion ( \(\rho\) ) ", 234, 671, 68, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,173,172,25,1,0,0,0,0,128,0,-1--1--1,1|(343,670)|\)
10,174,"Interest Rate (r )", 428, 187,52, 10, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,175,174,17,1,0,0,0,0,128,0,-1--1--1,1 \mid(488,229)\) |
10, 176, Discrete Real Lifetime Utility, \(1899,688,46,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,177,"Discrete Current Consumption ( DCC )", 2208, 867,69,18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-
\(0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,178,177,155,1,0,0,0,0,128,0,-1--1--1,1|(2170,806)|\)
\(1,179,177,156,1,0,0,0,0,128,0,-1--1--1,1|(2070,935)|\)
10,180,"Current Consumption ( CC )", 2108, 689, 61, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,0
10,181,"Current Consumption ( C )", 2322, 676, 60, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10।|128-128-128,0,0,0,0,0,0
\(1,182,129,176,1,0,0,0,0,128,0,-1--1--1,1|(1754,761)|\)
\(1,183,181,180,1,0,0,0,0,128,0,-1--1--1,1|(2250,728)|\)
\(1,184,180,176,1,0,0,0,0,128,0,-1--1--1,1 \mid(2032,671)\) |
10,185,"Delayed Current Consumption (CC )", 2196,591, 61, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,186,181,185,1,0,0,0,0,128,0,-1--1--1,1 \mid(2287,615)\) |
\(1,187,185,180,1,0,0,0,0,128,0,-1--1--1,1|(2110,632)|\)
10,188, TIME STEP, 2004,571, 40, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, | \(10|\mid 128-128-128,0,0,0,0,0,0\)
\(1,189,188,185,0,0,0,0,0,64,0,-1--1--1,1|(2082,578)|\)
\(1,190,106,89,1,1,0,0,0,128,0,-1--1--1,, 1|(405,556)|\)
10, 191, INITIAL TIME, 1980, 623, 48, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-
128, 0, 0, 0, 0, 0, 0
\(1,192,191,180,0,0,0,0,0,64,0,-1--1--1,1|(2029,648)|\)
10,193 , Time, 2003, 754, 24, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,194,193,180,0,0,0,0,0,64,0,-1--1--1,1|(2042,729)|\)
\(10,195, " \operatorname{delta}(\delta) ", 974,1172,30,10,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)

10,196,"beta ( \(\beta\) )", 504,1084,35,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10||128-128-
128, 0, 0, 0, 0, 0, 0
10,197, INITIAL TIME, \(662,942,48,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
10,198, Exponential Discounting t 1,903,927,50,28,3,131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(12,199,48,1159,931,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,200,202,198,4,0,0,22,0,0,0,-1--1--1,, 1|(1004,932)|\)
\(1,201,202,199,100,0,0,22,0,0,0,-1--1--1,1|(1108,932)|\)
\(11,202,48,1061,932,6,8,34,3,0,0,3,0,0,0,0,0,0,0,0,0\)
10,203, Chge in Exponential Discounting \(t 1,1061,906,62,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,204, Lagged Exponential Discounting \(t\) 1, \(898,1028,62,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,205,"Exponential Discounting \(t-1 ", 717,978,53,19,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
10,206, Exponential Discounting \(t, 846,1096,42,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,207,198,202,1,0,0,0,0,128,0,-1--1-1,1|(978,965)|\)
\(1,208,198,204,1,0,0,0,0,128,0,-1--1--1,1|(909,973)|\)
\(1,209,204,205,1,0,0,0,0,128,0,-1--1--1,, 1|(770,1035)|\)
\(1,210,198,205,1,0,0,0,0,128,0,-1--1--1,1|(764,933)|\)
\(1,211,205,206,1,0,0,0,0,128,0,-1--1--1,, 1|(748,1052)|\)
\(1,212,206,202,1,0,0,0,0,128,0,-1--1--1,1|(1033,1024)|\)
10,213, Initial Exponential Discounting \(t\) 1,923, \(834,57,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,214,213,198,0,0,0,0,0,128,1,-1--1--1,1|(916,868)|\)
10,215,"Quasi-Hyperbolic Discounting", 594, 1016, 55, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,216 , Time, \(711,1087,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\)
\(1,217,216,215,1,1,0,0,0,64,0,-1--1--1,1|(639,1062)|\)
10,218 , Time, \(1213,836,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\)
\(1,219,218,203,1,1,0,0,0,64,0,-1--1--1,1|(1126,866)|\)
\(1,220,197,215,1,1,0,0,0,128,0,-1--1--1,, 1|(627,984)|\)
\(1,221,216,205,1,1,0,0,0,128,0,-1--1--1,, 1|(687,1046)|\)
10,222 ,TIME STEP, \(1113,814,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,223,222,203,0,1,0,0,0,64,0,-1--1--1,1|(1093,849)|\)
\(1,224,195,206,1,0,0,0,0,128,0,-1--1--1,, 1|(885,1146)|\)
\(1,225,196,215,1,0,0,0,0,128,0,-1--1--1,, 1|(523,1054)|\)
\(1,226,215,114,1,0,0,0,0,128,0,-1--1--1,1|(501,941)|\)
\(1,227,206,215,1,0,0,0,0,64,0,-1--1--1,1|(666,1080)|\)
\\\---/// Sketch information - do not modify anything except names
v300 Do not put anything below this section - it will be ignored
*Biased Behavior
\$192-192-192,0,Open Sans|10||0-0-0|0-0-0|0-0-255|-1--1--1|-1--1--1|96,96, 85,0
10,1 , Time, \(1247,1186,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
10,2,TIME STEP,1482,1215,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10||128-128-128,0,0,0,0,0,0
10, 3, Time, 519, 1030, 24, 10, 8, 2, 17, 11, \(-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
10,4,TIME STEP, 452, 1192, 40, 10, 8, 2, 17, 3, -1, 0, 0, 0, 128-128-128, 0-0-0,|10||128-128-128, 0, 0, 0, 0, 0, 0
10,5 , Normal Consumption, \(501,700,44,18,8,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(110 \mid 10-0-\)
\(0,0,0,0,0,0,0\)
10,6 , Util per Year, \(502,815,38,10,8,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans|10| \(10-0-0,0,0,0,0,0,0\)
10,7,"Biased Coefficient of Relative Risk Aversion ( \(\mathrm{p}^{\prime}\)
)", 469, 756, 85, 25, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,8 , Unconstrained Consumption Growth, \(1163,312,49,27,3,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,9,10,8,4,0,0,22,0,0,0,-1--1--1,, 1|(1269,314)|\)
\(11,10,1344,1332,314,5,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,11, Chg in Unconstrained Consumption, \(1332,340,68,18,40,131,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,12, Discrete Unconstrained Consumption Growth, \(1357,555,56,35,3,131,0,0,0,0,0,0,1,0,0,0,0,0\)
10,13, Delayed Unconstrained Consumption Growth
Discrete, 1286, 665, 73, 27, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,14,13,12,1,0,0,0,0,128,0,-1--1--1,1|(1338,622)|\)
10,15,"Discrete Unconstrained Consumption Growth ( DUCG
)",1335, 454, 96, 24, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,16,12,15,1,0,0,0,0,128,0,-1--1--1,1|(1355,510)|\)
10,17 , Unconstrained Consumption Growth Discrete, \(1142,453,69,27,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,18,17,15,1,0,0,0,0,128,0,-1--1--1,, 1|(1206,499)|\)
\(1,19,17,13,1,0,0,0,0,128,0,-1--1--1,, 1|(1146,580)|\)
\(1,20,17,12,1,0,0,0,0,128,0,-1--1--1,1|(1201,556)|\)
10,21,TIME STEP, 1496,521,40,10, 8,2,1,43,-1, 0, 0, 0,128-128-128, 0-0-0, open Sans|10||128-128-
\(128,0,0,0,0,0,0\)
\(1,22,21,12,1,1,0,0,0,64,0,-1--1--1,, 1|(1441,548)|\)
\(1,23,8,17,1,0,0,0,0,128,0,-1--1--1,1|(1120,386)|\)

10, 24, Time, \(1180,374,24,10,8,2,0,43,-1,0,0,0,128-128-128,0-0-0\), Open Sans | \(10|\mid 128-128-\)
128, 0, 0, 0, 0, 0, 0
\(1,25,24,17,1,0,0,0,0,64,0,-1--1--1,1 \mid(1161,402)\) |
\(1,26,24,15,1,0,0,0,0,128,0,-1--1--1,1|(1245,380)|\)
\(1,27,15,11,1,0,0,0,0,128,0,-1--1--1,1|(1347,392)|\)
10,28, Biased Lifetime Utility, \(987,894,48,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,29, FINAL TIME \(, 1087,832,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,30,29,28,1,0,0,0,0,64,0,-1--1--1,1 \mid(1034,873)\) |
10,31 , Time, \(964,827,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,32,31,28,1,0,0,0,0,128,0,-1--1--1,1|(968,851)|\)
\(12,33,48,1429,308,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,34,10,33,100,0,0,22,0,0,0,-1--1--1,, 1|(1378,314)|\)
10,35, Initial Unconstrained Consumption Growth, \(1159,256,69,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,36, Unconstrained Consumption Growth Rate, \(1393,242,98,25,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,37,35,8,0,0,0,0,0,128,1,-1--1--1,1 \mid(1159,273)\) ।
\(1,38,36,11,1,0,0,0,0,128,0,-1--1--1,1|(1368,293)|\)
10,39, "Biased Real Lifetime Utility ( U ) ", \(820,942,45,24,3,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(12,40,48,601,938,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,41,43,39,4,0,0,22,0,0,0,-1--1--1,1 \mid(739,939)\) ।
\(1,42,43,40,100,0,0,22,0,0,0,-1--1--1,1|(652,939)|\)
\(11,43,48,698,939,5,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,44, Biased Real Instanteneous Utility, \(698,965,66,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,45 ,"Initial Biased Real Lifetime Utility (U)", \(816,868,56,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,46,45,39,0,1,0,0,0,128,1,-1--1--1,1|(816,895)|\)
\(1,47,39,28,1,0,0,0,0,128,0,-1--1--1,1|(886,942)|\)
10,48, Biased Wealth, \(658,492,39,25,3,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(12,49,48,873,493,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
\(1,50,52,49,4,0,0,22,0,0,0,-1--1--1,1|(820,488)|\)
\(1,51,52,48,100,0,0,22,0,0,0,-1--1--1,1|(731,488)|\)
\(11,52,48,771,488,6,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,53, Biased Current Consumption, \(771,514,47,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(12,54,48,654,318,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
\(1,55,57,48,4,0,0,22,0,0,0,-1--1--1,1 \mid(654,432)\) |
\(1,56,57,54,100,0,0,22,0,0,0,-1--1--1,, 1|(654,355)|\)
\(11,57,48,654,391,8,6,33,3,0,0,4,0,0,0,0,0,0,0,0,0\)
10,58, Biased Wealth Return, \(707,391,45,18,40,131,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,59,"Time to Chg Biased Current Consumption ( C ) ", 956, 498, 70, 32, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,60, "Discrete Biased Wealth ( \(W\) ) ", \(662,113,40,24,3,131,0,0,0,0,0,0,1,0,0,0,0,0\)
\(10,61, " D e l a y e d\) Biased Wealth ( \(W\) ) ", 472, 106, 48, 18, \(8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,62,61,60,1,0,0,0,0,128,0,-1--1--1,1 \mid(535,78)\) |
10,63, "Discrete Biased Wealth ( DW )", \(819,221,48,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,64,60,63,1,0,0,0,0,128,0,-1--1--1,1|(754,121)|\)
10,65, "Biased Wealth ( W ) Discrete", \(577,194,60,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,66,65,63,1,0,0,0,0,128,0,-1--1--1,1|(688,155)|\)
\(1,67,65,61,1,0,0,0,0,128,0,-1--1--1,1|(483,170)|\)
\(1,68,65,60,1,0,0,0,0,128,0,-1--1--1,1|(586,149)|\)
10,69, TIME STEP \(, 757,63,40,10,8,2,1,43,-1,0,0,0,128-128-128,0-0-0\), Open Sans \(110|\mid 128-128-\)
128, 0, 0, 0, 0, 0, 0
10,70,"Biased Current Consumption ( C )", 987, 410,57, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,71,59,70,1,0,0,0,0,64,0,-1--1--1,1 \mid(985,455)\) ।
10, 72,"Discrete Biased Current Consumption ( DCC )", 889, 652, 73, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,73, "Biased Current Consumption (C ) Discrete", 1044, 594,57,27, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,74,73,72,1,0,0,0,0,128,0,-1--1--1,1|(995,644)|\)
\(1,75,70,73,1,0,0,0,0,128,0,-1--1--1,1|(1038,464)|\)
\(1,76,63,58,1,0,0,0,0,128,0,-1--1--1,1|(814,314)|\)
\(1,77,69,60,1,1,0,0,0,128,0,-1--1--1,1|(732,83)|\)
\(1,78,72,53,1,0,0,0,0,128,0,-1--1--1,1|(792,585)|\)
\(1,79,48,65,1,0,0,0,0,128,0,-1--1--1,1|(525,411)|\)
10,80 , Time, \(904,557,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\)
10,81, TIME STEP, \(549,324,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\)
\(1,82,81,58,1,1,0,0,0,128,0,-1--1--1,1|(648,331)|\)
\(1,83,80,53,1,0,0,0,0,128,0,-1--1--1,1|(843,557)|\)
\(12,84,48,656,642,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,85,87,84,4,0,0,22,0,0,0,-1--1--1,1 \mid(658,603)\) ।
\(1,86,87,48,100,0,0,22,0,0,0,-1--1--1,1|(658,539)|\)
\(11,87,48,658,567,8,6,33,3,0,0,4,0,0,0,0,0,0,0,0,0\)

10,88, Biased Last Consumption, \(718,567,44,18,40,131,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,89,48,87,1,0,0,0,0,128,0,-1--1--1,1|(622,534)|\)
10,90 , Time, \(700,207,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,91,48,70,1,0,0,0,0,128,0,-1--1--1,1|(835,392)|\)
\(1,92,90,58,1,0,0,0,0,128,0,-1--1--1,1|(775,310)|\)
\(1,93,80,72,1,0,0,0,0,128,0,-1--1--1,1|(882,597)|\)
\(1,94,80,73,1,0,0,0,0,128,0,-1--1--1,1|(990,551)|\)
\(1,95,90,63,1,0,0,0,0,128,0,-1--1--1,1|(746,219)|\)
10,96, Time \(, 785,641,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,97,96,88,0,1,0,0,0,128,0,-1--1--1,1|(759,613)|\)
\(1,98,90,65,0,0,0,0,0,128,0,-1--1--1,1|(663,204)|\)
10,99, FINAL TIME \(755,649,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,100,99,88,1,0,0,0,0,64,0,-1--1--1,1 \mid(745,617)\) ।
10,101, TIME STEP \(, 660,691,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,102,101,88,0,0,0,0,0,64,0,-1--1--1,1 \mid(683,639)\) ।
10,103,"Discrete Biased Current Consumption (C)", \(910,722,58,35,3,131,0,0,0,0,0,0,1,0,0,0,0,0\)
10,104, "Delayed Biased Current Consumption ( C ) ", 1094, 689, \(73,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,105,104,103,1,0,0,0,0,128,0,-1--1--1,1|(1025,724)|\)
\(1,106,73,104,1,0,0,0,0,128,0,-1--1--1,1|(1091,654)|\)
\(1,107,8,70,1,0,0,0,0,128,0,-1--1--1,1|(1029,328)|\)
\(1,108,103,72,1,0,0,0,0,128,0,-1--1--1,, 1|(819,705)|\)
\(1,109,73,103,1,0,0,0,0,128,0,-1--1--1,1|(1009,662)|\)
10,110, TIME STEP, \(1036,763,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,111,110,103,0,0,0,0,0,64,0,-1--1--1,1 \mid(993,748)\) |
10,112,"Biased Utility ( u )", 653, 762,53, 10, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,113,5,112,1,0,0,0,0,128,0,-1--1--1,1 \mid(586,717)\) |
\(1,114,7,112,1,0,0,0,0,128,0,-1--1--1,1|(571,773)|\)
\(1,115,6,112,1,0,0,0,0,128,0,-1--1--1,1|(576,811)|\)
\(1,116,72,112,1,0,0,0,0,128,0,-1--1--1,1|(744,691)|\)
\(1,117,112,44,1,0,0,0,0,128,0,-1--1--1,, 1|(673,785)|\)
10,118," Income Growth Rate (G) " \(, 440,426,49,18,8,3,0,40,0,0,0,0,0-0-0,0-0-0\), Open Sans|10|।0-0\(0,0,0,0,0,0,0\)
10,119, Retirement Time, \(537,644,52,10,8,131,0,40,0,0,0,0,0-0-0,0-0-0\), Open Sans|10||0-0-
\(0,0,0,0,0,0,0\)
10,120 , "Normal Labor Income (Y) ", 456, 578, 44, 18, 8, 3, 0, 40, 0, 0, 0, 0, 0-0-0,0-0-0, Open Sans|10||0-0\(0,0,0,0,0,0,0\)
10,121, Time to Chg WR, \(591,367,49,10,8,3,0,40,0,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
10,122, Retirement Switch, \(565,571,45,17,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,123,119,122,1,0,0,0,0,64,0,-1--1--1,1|(556,622)|\)
\(1,124,121,58,1,0,0,0,0,128,0,-1--1--1,1|(615,388)|\)
\(12,125,48,437,487,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
\(1,126,127,125,100,0,0,22,0,0,0,-1--1--1,1|(482,487)|\)
\(11,127,48,524,487,6,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,128,"Labor Income ( Y )", 524,505,56, 10, 40, 3, 0, 0, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,129,118,128,1,0,0,0,0,64,0,-1--1--1,1|(510,455)|\)
\(1,130,120,128,1,0,0,0,0,64,0,-1--1--1,1|(470,533)|\)
\(1,131,122,128,1,0,0,0,0,64,0,-1--1--1,1 \mid(557,532)\) |
\(1,132,127,48,4,0,0,22,0,0,0,-1--1--1,1|(574,487)|\)
10,133 , Death Time, \(905,316,36,10,8,3,0,40,0,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
10,134, FINAL TIME, \(932,243,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,135,134,133,1,0,0,0,0,64,0,-1--1--1,, 1|(933,271)|\)
10,136,"Initial Wealth ( W ) ", 597, 419, 43, 26, 8, 131, 0, 40, 0, 0, 0, 0, 0-0-0, 0-0-0, Open Sans|10।|0-0\(0,0,0,0,0,0,0\)
\(1,137,136,48,1,0,0,0,0,128,1,-1--1--1,1|(604,453)|\)
\(1,138,133,58,1,0,0,0,0,64,0,-1--1--1,1|(805,386)|\)
10,139,"Perception of ( \(\rho^{\prime}\) )", 301, 653, \(56,10,8,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,140,139,7,0,0,0,0,0,64,0,-1--1--1,1 \mid(366,693)\) |
10, 141,"Countervail Biased Interest Rate ( \(r{ }^{\prime}\) ) ", \(324,248,59,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10, 142,"Biased Coefficient of Relative Risk Aversion ( \(\rho^{\prime}\) ) ", 115, 253, 69, 33, 8, 130, 0, 3, -
\(1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,143,142,141,0,0,0,0,0,128,0,-1--1--1,1|(217,252)|\)
10,144,"delta ( \(\delta\) )", 411, 355, 37, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-
128, 0, 0, 0, 0, 0, 0
\(1,145,144,141,1,0,0,0,0,128,0,-1--1--1,1 \mid(354,324)\) |


\(1,148,147,146,1,0,0,0,0,64,0,-1--1--1,, 1|(631,293)|\)
\(1,149,146,58,1,0,0,0,0,128,0,-1--1--1,, 1|(715,348)|\)
10,150, Death Time, \(825,437,43,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,151,150,53,1,0,0,0,0,128,0,-1--1--1,, 1|(809,467)|\)
10,152,"Countervail Biased Coefficient of Relative Risk Aversion ( \(\rho\)
)", 357, 880, 82, 27, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,153,"Biased Interest Rate ( r ' )",501,993,51,18,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10||128-128-128, 0, 0, 0, 0, 0, 0
10,154,"delta ( \(\delta\) )",401,1010,37,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10||128-128-
\(128,0,0,0,0,0,0\)
\(1,155,154,152,1,0,0,0,0,128,0,-1--1--1,, 1 \mid(405,947)\) |
\(1,156,153,152,1,0,0,0,0,128,0,-1--1--1,1|(478,933)|\)
10, 157, "Countervail Perception of ( \(\rho^{\prime}\) )", \(174,815,57,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,158,152,157,1,0,0,0,0,64,0,-1--1--1,, 1 \mid(222,865)\) ।
10,159,"Countervail Perception of (r')", 359, 133,57, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,160,141,159,1,0,0,0,0,128,0,-1--1--1,1|(361,205)|\)
\(10,161, "\) Interest Rate ( r ) " \(, 216,170,52,10,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,162,161,141,1,0,0,0,0,128,0,-1--1--1,, 1|(237,210)|\)
10,163,"Interest Rate ( г ) ", 677,242,59,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10||128-128-
\(128,0,0,0,0,0,0\)
\(1,164,163,146,1,0,0,0,0,128,0,-1--1--1,1|(712,264)|\)
10,165,"Coefficient of Relative Risk Aversion ( \(\rho\) ) ", 226, 354, 71, 18, 8, 2, 0, 3, \(-1,0,0,0,128-128\) -
128, 0-0-0,|10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,166,165,141,0,0,0,0,0,64,0,-1--1--1,, 1|(269,307)|\)
10,167,"Coefficient of Relative Risk Aversion ( \(\rho\) ) ", 146, 994, 71, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-
128, 0-0-0,|10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,168,167,152,1,0,0,0,0,64,0,-1--1--1,, 1|(217,931)|\)
10,169,"Interest Rate ( r )",294,1007,59,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10||128-128-
\(128,0,0,0,0,0,0\)
\(1,170,169,152,1,0,0,0,0,128,0,-1--1--1,, 1|(311,941)|\)
10,171,"Coefficient of Relative Risk Aversion ( \(\rho\) ) ", 259, 723, 71, 18, 8, 2, 0, 3, \(-1,0,0,0,128-128\) -
128, 0-0-0,|10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,172,171,7,0,0,0,0,0,64,0,-1--1--1,, 1|(350,736)|\)
\(1,173,161,159,1,0,0,0,0,64,0,-1--1--1,, 1|(245,136)|\)
10,174,Time to Chg Unconstrained Consumption, \(1492,390,92,27,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,175,174,11,1,0,0,0,0,128,0,-1--1--1,1|(1409,352)|\)
\(1,176,171,157,1,0,0,0,0,128,0,-1--1--1,, 1|(200,772)|\)
10,177,"Discrete Biased Real Lifetime Utility ( U )", 2006, 907, 45, 31, 3, 131, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0
10,178, Delayed Biased Real Lifetime Utility ( U ) ", 1890, \(1025,62,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,179,178,177,1,0,0,0,0,128,0,-1--1--1,1|(1997,982)|\)
10,180,"Discrete Biased Real Lifetime Utility ( DBRLU
)",1883, \(800,76,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,181,177,180,1,0,0,0,0,128,0,-1--1--1,, 1|(1980,840)|\)
10,182, Biased Real Lifetime Utility ( U ) Discrete", 1792, \(922,62,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\) \(1,183,182,180,1,0,0,0,0,128,0,-1--1--1,, 1|(1810,860)|\)
\(1,184,182,178,1,0,0,0,0,128,0,-1--1--1,, 1 \mid(1816,982)\) |
\(1,185,182,177,1,0,0,0,0,128,0,-1--1--1,, 1|(1900,956)|\)
10,186,"Biased Discrete Real Lifetime Utility ( DBRLU
)", 1810, 694, 76, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,187,180,186,1,0,0,0,0,128,0,-1--1--1,, 1|(1873,745)|\)
10,188 , FINAL TIME, \(1637,674,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,189,188,186,0,0,0,0,0,64,0,-1--1--1,, 1|(1700,681)|\)
10,190, Time, 1663, \(720,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,191,190,186,0,0,0,0,0,64,0,-1--1--1,1|(1703,712)|\)
10, 192, Time, 1715,987,24,10, 8, 2, 0, 3,-1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0 \(1,193,192,182,0,0,0,0,0,64,0,-1--1--1,1|(1742,963)|\)
10,194,"Biased Real Lifetime Utility ( U )", 1608, 865, 66, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128,0-0-
\(0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,195,194,182,1,0,0,0,0,128,0,-1--1--1,, 1|(1683,923)|\)
10,196,TIME STEP, 2071, \(976,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\)
\(1,197,196,177,0,0,0,0,0,64,0,-1--1--1,1|(2053,957)|\)
\(1,198,190,180,1,0,0,0,0,128,0,-1--1--1,, 1|(1753,752)|\)
10,199, Biased Consumption, 1828, 461, 44, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,200,"Delayed Biased Consumption ( C )", 1744, 555,57, 18, 8, 3, 0, 0, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,201,200,199,1,0,0,0,0,64,0,-1--1--1,1|(1753,497)|\)

10,202,"Discrete Actual Current Consumption ( DACC ) ", 1828, 497, 76, 18, 8, 2, 1, 3, -1, 0, 0, 0, 128-128128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
10,203,"Discrete Actual Current Consumption ( DACC ) ", 1744,580, 76, 18, 8, 2, 1, 3, -1, 0, 0, 0, 128-128128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
10, 204, Discrete Biased Real Lifetime Utility, \(2052,636,62,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,205, "Discrete Biased Current Consumption ( DCC ) ", 1910, 597, 77, 18, \(8,2,0,3,-1,0,0,0,128-128-\)
128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,206,205,200,1,0,0,0,0,128,0,-1--1--1,1|(1800,615)|\)
\(1,207,205,199,1,0,0,0,0,128,0,-1--1--1,1|(1925,520)|\)
10,208,"Biased Current Consumption ( BCC ) ", 2047, 378, 65, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10, 209," Delayed Biased Current Consumption ( BCC )", 1936, 258, 73, 18, 8, 3, 0, 0, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0 \(1,210,209,208,1,0,0,0,0,64,0,-1--1--1,1|(2027,301)|\)
10,211,"Biased Current Consumption (C )",1797,358, 60, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-
\(0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,212,211,208,1,0,0,0,0,128,0,-1--1--1,1 \mid(1870,405)\) ।
\(1,213,211,209,1,0,0,0,0,128,0,-1--1--1,1|(1859,268)|\)
10,214, TIME STEP, \(1906,170,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,215,214,209,0,0,0,0,0,64,0,-1--1--1,1|(1916,204)|\)
\(1,216,180,204,1,0,0,0,0,128,0,-1--1--1,1|(2001,730)|\)
\(1,217,208,204,1,0,0,0,0,128,0,-1--1--1,1|(2078,488)|\)
\(1,218,101,122,1,0,0,0,0,128,0,-1--1--1,1|(619,627)|\)
10, 219, INITIAL TIME, 2018, 478, 48, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-
128, 0, 0, 0, 0, 0, 0
\(1,220,219,208,0,0,0,0,0,64,0,-1--1--1,1|(2028,438)|\)
10,221 , Time, \(2073,302,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\)
\(1,222,221,208,0,0,0,0,0,64,0,-1--1--1,1|(2063,330)|\)
10,223,"delta ( \(\delta\) ) ", 1357, 1213, 30, 10, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,224,"beta ( \(\beta\) )", 730,1195,35,10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-
\(128,0,0,0,0,0,0\)
10,225, INITIAL TIME \(, 888,1053,48,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-\)
\(128,0,0,0,0,0,0\)
10, 226, Exponential Discounting \(t 1,1187,1044,50,28,3,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(12,227,48,1443,1048,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,228,230,226,4,0,0,22,0,0,0,-1--1--1,1 \mid(1288,1049)\) |
\(1,229,230,227,100,0,0,22,0,0,0,-1--1--1,1|(1392,1049)|\)
\(11,230,48,1345,1049,6,8,34,3,0,0,3,0,0,0,0,0,0,0,0,0\)
10,231, Chge in Exponential Discounting \(t 1,1345,1023,62,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,232 , Lagged Exponential Discounting \(t 1,1182,1145,62,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,233,"Exponential Discounting \(t-1 ", 1024,1092,55,16,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
10,234, Exponential Discounting \(t, 1210,1211,53,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,235,226,230,1,0,0,0,0,128,0,-1--1--1,1 \mid(1262,1082)\) |
\(1,236,226,232,1,0,0,0,0,128,0,-1--1--1,1|(1193,1090)|\)
\(1,237,232,233,1,0,0,0,0,128,0,-1--1--1,1|(1069,1144)|\)
\(1,238,226,233,1,0,0,0,0,128,0,-1--1--1,1|(1064,1047)|\)
\(1,239,233,234,1,0,0,0,0,128,0,-1--1--1,1|(1072,1190)|\)
\(1,240,234,230,1,0,0,0,0,128,0,-1--1--1,1|(1332,1118)|\)
10,241, Initial Exponential Discounting t \(1,1207,951,57,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,242,241,226,0,0,0,0,0,128,1,-1--1--1,1|(1200,985)|\)
10,243,"Quasi-Hyperbolic Discounting", \(820,1127,55,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,244 , Time, \(937,1198,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,245,244,243,1,1,0,0,0,64,0,-1--1--1,1|(865,1173)|\)
10,246 , Time, \(1439,947,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,247,246,231,1,1,0,0,0,64,0,-1--1--1,1|(1410,983)|\)
\(1,248,225,243,1,0,0,0,0,128,0,-1--1--1,1|(853,1095)|\)
\(1,249,244,233,1,1,0,0,0,128,0,-1--1--1,1|(980,1165)|\)
10,250, TIME STEP, \(1320,898,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,251,250,231,0,1,0,0,0,64,0,-1--1--1,1|(1330,949)|\)
\(1,252,223,234,1,0,0,0,0,128,0,-1--1--1,1|(1302,1230)|\)
\(1,253,224,243,1,0,0,0,0,128,0,-1--1--1,1|(749,1165)|\)
\(1,254,243,44,1,0,0,0,0,128,0,-1--1--1,1|(720,1060)|\)
\(1,255,234,243,1,0,0,0,0,64,0,-1--1--1,1 \mid(970,1229)\) |
\\\---/// Sketch information - do not modify anything except names
V300 Do not put anything below this section - it will be ignored
*Actual Behavior
\$192-192-192,0, Open Sans|10||0-0-0|0-0-0|0-0-255|-1--1--1|-1--1--1|96,96,75,0
\(10,1, "\) delta \((\delta) ", 1125,1140,30,10,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)

10,2 , Time, \(1041,1102,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) 10,3, TIME STEP \(, 1276,1131,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) 10,4 , Time, \(313,946,24,10,8,2,17,11,-1,0,0,0,128-128-128,0-0-0,110| | 128-128-128,0,0,0,0,0,0\) 10,5, TIME STEP, \(246,1108,40,10,8,2,17,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) 10,6 , Normal Consumption, \(285,689,44,18,8,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans|10||0-0\(0,0,0,0,0,0,0\)
10,7 , Util per Year \(, 287,801,38,10,8,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| 10-0-0,0,0,0,0,0,0\) 10,8 ,Actual Lifetime Utility, \(775,799,47,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,9, FINAL TIME, \(1016,774,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,10,9,8,1,0,0,0,0,64,0,-1--1--1,1|(888,797)|\)
10,11, Time \(, 908,759,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,12,11,8,1,0,0,0,0,128,0,-1--1--1,1|(854,771)|\)
10,13, "Actual Real Lifetime Utility ( U ) ", 581, 876, 45, 24, 3, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(12,14,48,362,872,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,15,17,13,4,0,0,22,0,0,0,-1--1--1,1 \mid(502,874)\) ।
\(1,16,17,14,100,0,0,22,0,0,0,-1--1--1,1|(415,874)|\)
\(11,17,48,464,874,5,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,18 , Actual Real Instanteneous Utility, \(464,900,66,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,19,"Initial Actual Real Lifetime Utility (U) ", \(567,821,56,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,20,19,13,0,1,0,0,0,128,1,-1--1--1,1|(570,838)|\)
\(1,21,13,8,1,0,0,0,0,128,0,-1--1--1,1|(675,845)|\)
10,22 , Actual Wealth \(, 453,467,39,25,3,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(12,23,48,668,468,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
\(1,24,26,23,4,0,0,22,0,0,0,-1--1--1,1|(615,463)|\)
\(1,25,26,22,100,0,0,22,0,0,0,-1--1--1,1 \mid(526,463)\) |
\(11,26,48,566,463,6,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10, 27, Actual Current Consumption, \(566,489,46,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(12,28,48,449,293,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
\(1,29,31,22,4,0,0,22,0,0,0,-1--1--1,1|(452,407)|\)
\(1,30,31,28,100,0,0,22,0,0,0,-1--1--1,1|(452,331)|\)
\(11,31,48,452,367,8,6,33,3,0,0,4,0,0,0,0,0,0,0,0,0\)
10,32 , Actual Wealth Return, \(504,367,44,18,40,131,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,33,"Initial Actual Wealth ( \(W\) ) ", 397, 410, 39, 18, \(8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
10,34, "Actual Utility ( u ) " \(, 435,733,52,10,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,35,33,22,0,1,0,0,0,128,1,-1--1--1,1|(416,430)|\)
10,36,"Time to Chg Actual Current Consumption ( C ) ", 766, 461, 83, 27, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,37, "Discrete Actual Wealth ( \(W\) ) ", 444, 126, 53, 30, 3, 131, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0
10, 38, "Delayed Actual Wealth ( \(W\) ) " \(, 240,143,47,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,39,38,37,1,0,0,0,0,128,0,-1--1--1,1|(294,95)|\)
10, 40,"Discrete Actual Wealth ( DW )", 602, 236, 47, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,41,37,40,1,0,0,0,0,128,0,-1--1--1,1|(529,135)|\)
10,42, "Actual Wealth ( \(W\) ) Discrete", \(366,217,59,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,43,42,40,1,0,0,0,0,128,0,-1--1--1,1|(480,178)|\)
\(1,44,42,38,1,0,0,0,0,128,0,-1--1--1,1|(271,212)|\)
\(1,45,42,37,1,0,0,0,0,128,0,-1--1--1,1|(392,167)|\)
10,46, TIME STEP \(, 510,67,40,10,8,2,0,43,-1,0,0,0,128-128-128,0-0-0\), Open Sans \(|10| \mid 128-128-\) \(128,0,0,0,0,0,0\)
10,47,"Actual Current Consumption (C)",773, 366,57,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0
\(1,48,36,47,1,0,0,0,0,64,0,-1--1--1,1 \mid(781,416)\) |
10,49, "Discrete Actual Current Consumption ( C ) ", \(705,697,58,35,3,131,0,0,0,0,0,0,1,0,0,0,0,0\)
10,50,"Delayed Actual Current Consumption ( C ) ", 889, 664, 72, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 \(1,51,50,49,1,0,0,0,0,128,0,-1--1--1,1 \mid(820,699)\) |
10,52, "Discrete Actual Current Consumption ( DACC ) ", 682, 606, 72, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 \(1,53,49,52,1,0,0,0,0,128,0,-1--1--1,1|(682,675)|\)
10,54 ,"Actual Current Consumption ( C ) Discrete", \(839,569,57,27,8,131,0,0,0,0,0,0,0,0,0,0,0,0\) \(1,55,54,52,1,0,0,0,0,128,0,-1--1--1,1|(785,611)|\) \(1,56,54,50,1,0,0,0,0,128,0,-1--1--1,1|(874,612)|\)
\(1,57,54,49,1,0,0,0,0,128,0,-1--1--1,1|(788,675)|\)
10,58, TIME STEP \(, 675,783,40,10,8,2,0,43,-1,0,0,0,128-128-128,0-0-0\), Open Sans|10|।128-128-
128, 0, 0, 0, 0, 0, 0
\(1,59,58,49,1,0,0,0,0,64,0,-1--1--1,1|(690,747)|\)
\(1,60,47,54,1,0,0,0,0,128,0,-1--1--1,1|(847,428)|\)
\(1,61,40,32,1,0,0,0,0,128,0,-1--1--1,1|(581,281)|\)
\(1,62,46,37,0,0,0,0,0,128,0,-1--1--1,1|(493,82)|\)
\(1,63,52,27,1,0,0,0,0,128,0,-1--1--1,1|(592,550)|\)
\(1,64,22,42,1,0,0,0,0,128,0,-1--1--1,1|(329,418)|\)

10,65, Time, \(699,532,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\) 10,66, TIME STEP, \(376,297,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\)
\(1,67,66,32,1,1,0,0,0,128,0,-1--1--1,1|(457,315)|\)
\(1,68,65,27,1,0,0,0,0,128,0,-1--1--1,1 \mid(638,532)\) |
\(12,69,48,451,617,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,70,72,69,4,0,0,22,0,0,0,-1--1--1,1 \mid(453,578)\) ।
\(1,71,72,22,100,0,0,22,0,0,0,-1--1--1,1|(453,514)|\)
\(11,72,48,453,542,8,6,33,3,0,0,4,0,0,0,0,0,0,0,0,0\)
10,73 , Actual Last Consumption, \(513,542,44,18,40,131,0,0,-1,0,0,0,0,0,0,0,0,0\)
10, 74, FINAL TIME \(, 540,664,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\) \(1,75,74,73,0,0,0,0,0,64,0,-1--1--1,1 \mid(528,613)\) ।
10,76, TIME STEP \(, 456,684,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|12| \mid 128-128-128,0,0,0,0,0,0\) \(1,77,76,73,1,0,0,0,0,64,0,-1--1--1,1|(469,615)|\)
\(1,78,22,72,1,0,0,0,0,128,0,-1--1--1,1|(417,509)|\)
10,79 , Time, \(485,211,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,80,22,47,1,0,0,0,0,128,0,-1--1--1,1|(595,374)|\)
\(1,81,52,34,1,0,0,0,0,128,0,-1--1--1,1|(596,691)|\)
\(1,82,79,32,1,0,0,0,0,128,0,-1--1--1,, 1|(531,274)|\)
\(1,83,65,52,1,0,0,0,0,128,0,-1--1--1,1|(682,563)|\)
\(1,84,65,54,1,0,0,0,0,128,0,-1--1--1,1 \mid(785,526)\) |
\(1,85,79,40,1,0,0,0,0,128,0,-1--1--1,1|(530,227)|\)
10,86 , Time, \(573,618,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,87,86,73,0,1,0,0,0,128,0,-1--1--1,1|(550,589)|\)
\(1,88,79,42,0,0,0,0,0,128,0,-1--1--1,1|(449,212)|\)
\(1,89,6,34,1,0,0,0,0,128,0,-1--1--1,1|(363,694)|\)
\(1,90,7,34,1,0,0,0,0,128,0,-1--1--1,1|(390,772)|\)
10,91,Unconstrained Consumption Growth, \(1026,217,49,27,3,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,92,93,91,4,0,0,22,0,0,0,-1--1--1,1|(1132,219)|\)
\(11,93,1344,1195,219,5,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,94, Chg in Unconstrained Consumption, \(1195,245,68,18,40,131,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,95, Discrete Unconstrained Consumption Growth, \(1220,460,56,35,3,131,0,0,0,0,0,0,1,0,0,0,0,0\)
10,96, Delayed Unconstrained Consumption Growth
Discrete, \(1149,570,73,27,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,97,96,95,1,0,0,0,0,128,0,-1--1--1,1 \mid(1201,527)\) |
10,98,"Discrete Unconstrained Consumption Growth ( DUCG
)", 1198, 359, 96, 24, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,99,95,98,1,0,0,0,0,128,0,-1--1--1,1|(1218,415)|\)
10,100, Unconstrained Consumption Growth Discrete, \(1005,358,69,27,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,101,100,98,1,0,0,0,0,128,0,-1--1--1,1|(1069,404)|\)
\(1,102,100,96,1,0,0,0,0,128,0,-1--1--1,1|(1009,485)|\)
\(1,103,100,95,1,0,0,0,0,128,0,-1--1--1,1|(1064,461)|\)
10,104, TIME STEP, 1359, 426, 40, 10, 8, 2, 0, 43, -1, 0, 0, 0, 128-128-128, 0-0-0,Open Sans|10||128-128-
128, 0, 0, 0, 0, 0, 0
\(1,105,104,95,1,0,0,0,0,64,0,-1--1--1,1|(1304,453)|\)
\(1,106,91,100,1,0,0,0,0,128,0,-1--1--1,1|(983,291)|\)
10, 107, Time, 1043, 279, 24, 10, 8, 2, 1, 43,-1, 0, 0, 0, 128-128-128, 0-0-0, Open Sans | 10||128-128-
\(128,0,0,0,0,0,0\)
\(1,108,107,100,1,1,0,0,0,64,0,-1--1--1,1|(1024,307)|\)
\(1,109,107,98,1,1,0,0,0,128,0,-1--1--1,1|(1108,285)|\)
\(1,110,98,94,1,0,0,0,0,128,0,-1--1--1,1 \mid(1210,297)\) |
\(12,111,48,1292,213,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,112,93,111,100,0,0,22,0,0,0,-1--1--1,1|(1241,219)|\)
10, 113, Initial Unconstrained Consumption Growth, \(1022,161,69,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,114, Unconstrained Consumption Growth Rate, \(1256,147,98,25,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,115,113,91,0,0,0,0,0,128,1,-1--1--1,1|(1022,178)|\)
\(1,116,114,94,1,0,0,0,0,128,0,-1--1--1,1 \mid(1231,198)\) |
10,117,Time to Chg Unconstrained Consumption, \(1355,295,92,27,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,118,117,94,1,0,0,0,0,128,0,-1--1--1,1|(1272,257)|\)
\(1,119,91,47,1,0,0,0,0,128,0,-1--1--1,1 \mid(895,246)\) ।
\(1,120,34,18,1,0,0,0,0,128,0,-1--1--1,1|(463,789)|\)
10,121 , Death Time, \(624,416,43,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,122,121,27,1,0,0,0,0,128,0,-1--1--1,1 \mid(594,450)\) |
10, 123, Death Time, 689, 280, 43, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10।| \(128-128-128,0,0,0,0,0,0\) \(1,124,123,32,1,0,0,0,0,128,0,-1--1--1,1|(609,321)|\)
10,125,"Interest Rate ( r ) ", 434, 256,59, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-
\(128,0,0,0,0,0,0\)
\(1,126,125,32,1,0,0,0,0,128,0,-1--1--1,1|(475,291)|\)
10,127, Time to Chg WR, 361, 345,56, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128128, 0, 0, 0, 0, 0, 0
\(1,128,127,32,1,0,0,0,0,128,0,-1--1--1,1|(398,369)|\)
10,129,"Coefficient of Relative Risk Aversion ( \(\rho\) ) ", 251, 757, 71, 18, \(8,2,0,3,-1,0,0,0,128-128-\)
128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,130,129,34,0,0,0,0,0,64,0,-1--1--1,, 1|(345,744)|\)
\(12,131,48,237,462,10,8,0,3,0,40,-1,0,0,0,0-0-0,0-0-0\), Open Sans \(|10| \mid 0-0-0,0,0,0,0,0,0\)
\(1,132,133,131,100,0,0,22,0,0,0,-1--1--1,1|(281,464)|\)
\(11,133,48,321,464,6,8,34,3,0,0,1,0,0,0,0,0,0,0,0,0\)
10,134,"Labor Income ( Y ) ", 321,482,53, 10, 40, 3, 0, 40, -1, 0, 0, 0, 0-0-0, 0-0-0, Open Sans|10||0-00,0,0,0,0,0,0
10,135,"Income Growth Rate (G) ", 253, 407, 49, 18, 8, 3, 0, 40, 0, 0, 0, 0, 0-0-0,0-0-0, Open Sans|10।|0-00,0,0,0,0,0,0
10,136, Retirement Time, \(341,636,52,10,8,131,0,40,0,0,0,0,0-0-0,0-0-0,0\) pen Sans \(110 \| 10-0-\)
0,0,0,0,0,0,0
10,137, "Normal Labor Income (Y)", \(246,561,44,18,8,3,0,40,0,0,0,0,0-0-0,0-0-0, O p e n\) Sans|10||0-0-
\(0,0,0,0,0,0,0\)
\(1,138,135,134,1,0,0,0,0,64,0,-1--1--1,, 1|(264,441)|\)
\(1,139,137,134,1,0,0,0,0,64,0,-1--1--1,1|(253,519)|\)
10,140,Retirement Switch, \(357,566,45,17,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,141,136,140,1,0,0,0,0,64,0,-1--1--1,1|(355,613)|\)
\(1,142,140,134,1,0,0,0,0,128,0,-1--1--1,1|(352,520)|\)
\(1,143,133,22,4,0,0,22,0,0,0,-1--1--1,1 \mid(370,464)\) |
10,144,"Discrete Actual Real Lifetime Utility ( U ) ", 2006, 891, 45, 31, 3, 131, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0
10,145,"Delayed Actual Real Lifetime Utility ( U ) ", 1890, 1009, 61, 18, 8, 131, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,146,145,144,1,0,0,0,0,128,0,-1--1--1,1|(1997,966)|\)
10,147,"Discrete Actual Real Lifetime Utility ( DARLU
)", 1883, \(784,76,18,8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,148,144,147,1,0,0,0,0,128,0,-1--1--1,1|(1980,824)|\)
10,149, "Actual Real Lifetime Utility ( U ) Discrete", 1792,906, 61, 18, \(8,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,150,149,147,1,0,0,0,0,128,0,-1--1--1,1|(1810,844)|\)
\(1,151,149,145,1,0,0,0,0,128,0,-1--1--1,1|(1816,966)|\)
\(1,152,149,144,1,0,0,0,0,128,0,-1--1--1,1|(1900,940)|\)
10,153,"Actual Discrete Real Lifetime Utility ( DBRLU
)" ", 1810, 678, 76, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,154,147,153,1,0,0,0,0,128,0,-1--1--1,, 1|(1873,729)|\)
10,155, FINAL TIME, \(1637,658,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,156,155,153,0,0,0,0,0,64,0,-1--1--1,1|(1700,665)|\)
10,157 , Time, 1663, 704, 24, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, | \(10|\mid 128-128-128,0,0,0,0,0,0\)
\(1,158,157,153,0,0,0,0,0,64,0,-1--1--1,1|(1703,696)|\)
10,159 , Time, 1715, 971, 24, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,160,159,149,0,0,0,0,0,64,0,-1--1--1,1|(1742,947)|\)
10,161, TIME STEP, 2071, \(960,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,162,161,144,0,0,0,0,0,64,0,-1--1--1,1|(2053,941)|\)
\(1,163,157,147,1,0,0,0,0,128,0,-1--1--1,1|(1753,736)|\)
10,164,"Actual Real Lifetime Utility ( U ) ", 1594, 842, 65, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128,0-0-
\(0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,165,164,149,1,0,0,0,0,128,0,-1--1--1,1|(1650,884)|\)
10, 166, Actual Consumption, 1835, 444, 44, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,167,"Delayed Actual Consumption (C)", 1746,545,57,18, 8, 3, 0, 0, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,168,167,166,1,0,0,0,0,64,0,-1--1--1,1 \mid(1761,488)\) |
10,169,"Current Consumption ( C ) ", 1744,564, 60, 18, 8, 2, 1, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
10,170,"beta ( \(\beta\) )", 498, 1122, 35, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-
128, 0, 0, 0, 0, 0, 0
10,171, Discrete Actual Real Lifetime Utility, \(2124,633,61,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,172,"Discrete Actual Current Consumption ( DACC )",1960,569,76,18,8,2,0,3,-1,0,0,0,128-128128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,173,172,166,1,0,0,0,0,128,0,-1--1--1,1|(1955,492)|\)
\(1,174,172,167,1,0,0,0,0,128,0,-1--1--1,1 \mid(1806,607)\) |
10,175,"Delayed Discrete Actual Real Lifetime Utility ( DARLU
) ", 2209, 766, 73, 27, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,176,147,175,1,0,0,0,0,128,0,-1--1--1,1|(2065,795)|\)
10,177, TIME STEP, \(2148,838,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,178,177,175,0,0,0,0,0,64,0,-1--1--1,1|(2166,815)|\)

10,179,"Actual Current Consumption ( ACC )", 2056, 411, 65, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,180,"Delayed Actual Current Consumption ( ACC ) ", 2040, 232, \(72,18,8,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,181,180,179,1,0,0,0,0,64,0,-1--1--1,1|(2093,298)|\)
10,182,"Actual Current Consumption ( C )", 1843,287, 60, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-
\(0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,183,182,180,1,0,0,0,0,128,0,-1--1--1,, 1|(1918,242)|\)
\(1,184,182,179,1,0,0,0,0,128,0,-1--1--1,, 1|(1949,371)|\)
\(1,185,179,171,1,0,0,0,0,128,0,-1--1--1,, 1|(2133,538)|\)
10,186, TIME STEP, \(1911,168,40,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,187,186,180,0,0,0,0,0,64,0,-1--1--1,1|(1960,192)|\)
\(1,188,147,171,1,0,0,0,0,128,0,-1--1--1,, 1|(2044,735)|\)
\(1,189,76,140,1,0,0,0,0,128,0,-1--1--1,, 1|(402,604)|\)
10,190, INITIAL TIME, 2204, 343, 48, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0,|10||128-128-
128,0,0,0,0,0,0
\(1,191,190,179,0,0,0,0,0,64,0,-1--1--1,1|(2145,370)|\)
10, 192, Time, 2192, 452, 24, 10, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, | \(10|\mid 128-128-128,0,0,0,0,0,0\)
\(1,193,192,179,0,0,0,0,0,64,0,-1--1--1,1|(2148,439)|\)
10,194, INITIAL TIME, 656, \(980,48,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
10,195, Exponential Discounting \(t 1,955,971,50,28,3,131,0,0,0,0,0,0,0,0,0,0,0,0\)
\(12,196,48,1211,975,10,8,0,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
\(1,197,199,195,4,0,0,22,0,0,0,-1--1--1,1|(1056,976)|\)
\(1,198,199,196,100,0,0,22,0,0,0,-1--1--1,1|(1160,976)|\)
\(11,199,48,1113,976,6,8,34,3,0,0,3,0,0,0,0,0,0,0,0,0\)
10,200 , Chge in Exponential Discounting \(t\) 1, 1113, \(950,62,18,40,3,0,0,-1,0,0,0,0,0,0,0,0,0\)
10,201,Lagged Exponential Discounting t 1,950, 1072, \(62,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,202, "Exponential Discounting \(t-1 ", 775,1021,51,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,203, Exponential Discounting \(t, 978,1138,53,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
\(1,204,195,199,1,0,0,0,0,128,0,-1--1--1,, 1|(1030,1009)|\)
\(1,205,195,201,1,0,0,0,0,128,0,-1--1--1,1|(961,1017)|\)
\(1,206,201,202,1,0,0,0,0,128,0,-1--1--1,, 1|(837,1071)|\)
\(1,207,195,202,1,0,0,0,0,128,0,-1--1--1,1|(832,974)|\)
\(1,208,202,203,1,0,0,0,0,128,0,-1--1--1,, 1|(840,1117)|\)
\(1,209,203,199,1,0,0,0,0,128,0,-1--1--1,1|(1100,1045)|\)
10,210,Initial Exponential Discounting \(t\) 1,975, 878, 57, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
\(1,211,210,195,0,0,0,0,0,128,1,-1--1--1,1|(968,912)|\)
10,212,"Quasi-Hyperbolic Discounting", 584, 1049,55, 18, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10, 213, Time, \(705,1125,24,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,214,213,212,1,1,0,0,0,64,0,-1--1--1,1|(630,1098)|\)
10,215,Time, 1207, 874,24,10, 8, 2, 1, 3,-1, 0, 0, 0, 128-128-128, 0-0-0, |10|।128-128-128, 0, 0, 0, 0, 0, 0
\(1,216,215,200,1,1,0,0,0,64,0,-1--1--1,, 1|(1178,910)|\)
\(1,217,194,212,1,1,0,0,0,128,0,-1--1--1,, 1|(619,1019)|\)
\(1,218,213,202,1,1,0,0,0,128,0,-1--1--1,, 1|(748,1092)|\)
10,219, TIME STEP, \(1107,852,40,10,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,220,219,200,0,1,0,0,0,64,0,-1--1--1,1|(1108,890)|\)
\(1,221,1,203,1,0,0,0,0,128,0,-1--1--1,1|(1070,1157)|\)
\(1,222,170,212,1,0,0,0,0,128,0,-1--1--1,, 1|(515,1091)|\)
\(1,223,212,18,1,0,0,0,0,128,0,-1--1--1,1|(508,989)|\)
\(1,224,203,212,1,0,0,0,0,128,0,-1--1--1,, 1|(842,1159)|\)
\\\---/// Sketch information - do not modify anything except names
v300 Do not put anything below this section - it will be ignored
*Outcomes
\$192-192-192,0, Open Sans|10||0-0-0|0-0-0|0-0-255|-1--1--1|-1--1--1|96,96,74,0
10,1, Normalized Lifetime Utility, \(528,965,46,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,2 Normalized Consumption Growth, \(966,902,69,18,8,3,0,0,0,0,0,0,0,0,0,0,0,0\)
10,3,Optimal Consumption Growth Rate, 831,1037,69,27,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10||128-128-128,0,0,0,0,0,0
\(1,4,3,2,1,0,0,0,0,128,0,-1--1--1,, 1|(865,973)|\)
10,5,FINAL TIME, \(528,876,44,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\) \(1,6,5,1,0,0,0,0,0,64,0,-1--1--1,, 1|(528,909)|\)
10, 7 , Time, \(419,918,24,10,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,8,7,1,0,0,0,0,0,64,0,-1--1--1,1|(457,934)|\)
10,9, Unconstrained Consumption Growth, \(893,668,72,18,8,2,1,3,-1,0,0,0,128-128-128,0-0-0,110 \mid 1128-\) 128-128, 0, 0, 0, 0, 0, 0
10,10, Unconstrained Consumption Growth Rate, 1090, 1038, 69, 27, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128,0-0-
\(0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,11,10,2,1,0,0,0,0,128,0,-1--1--1,, 1|(1050,951)|\)
\(12,12,0,1482,407,280,135,3,188,0,0,1,0,0,0,0,0,0,0,0,0\) Lifetime_Utility
\(12,13,0, \overline{1} 480,124,280,108,3,188,0,0,1,0,0,0,0,0,0,0,0,0\) Optimal_\&_Biased_Values
\(12,14,0,1486,758,286,175,3,188,0,0,1,0,0,0,0,0,0,0,0,0\) Constants
\(12,15,0,338,194,259,192,3,188,0,0,1,0,0,0,0,0,0,0,0,0\) Consumption
\(12,16,0,874,195,254,195,3,188,0,0,1,0,0,0,0,0,0,0,0,0\) Wealth
\(12,17,0,873,616,259,207,3,188,0,0,1,0,0,0,0,0,0,0,0,0\)
Lifetime_Utility_Consumption
\(12,18,0,2108,836,316,254,3,188,0,0,1,0,0,0,0,0,0,0,0,0\)
Real_Lifetime_Utility
\(12,1 \overline{9}, 0,334,6 \overline{1} 6,262,205,3,188,0,0,1,0,0,0,0,0,0,0,0,0\)
Optimal_Lifetime_Utility
10, 20, "C̄onsumptiōn (C )", 264,959,56, 10, 8, 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
10,21,"Biased Current Consumption (BCC )", 277, 862, 72, 29, 8, 130, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0\(0,|10| \mid 128-128-128,0,0,0,0,0,0\)
\(1,22,21,20,1,0,0,0,0,128,0,-1--1--1,1|(289,915)|\)
10,23,"Current Consumption ( CC )", 220, 1042, 65, 18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128-128, 0, 0, 0, 0, 0, 0
\(1,24,23,20,1,0,0,0,0,128,0,-1--1--1,1|(222,995)|\)
\(12,25,0,2106,281,315,262,3,188,0,0,1,0,0,0,0,0,0,0,0,0\)
Continuous_Consumption
10,26,Optimal Lifetime Utility, 432,1063,56,18, 8, 2, 0, 3, -1, 0, 0, 0, 128-128-128, 0-0-0, |10||128-128128, 0, 0, 0, 0, 0, 0
10,27, Actual Lifetime Utility, \(611,1067,50,18,8,2,0,3,-1,0,0,0,128-128-128,0-0-0,|10| \mid 128-128-\) \(128,0,0,0,0,0,0\)
\(1,28,26,1,1,0,0,0,0,128,0,-1--1--1,1|(452,1016)|\)
\(1,29,27,1,1,0,0,0,0,128,0,-1--1--1,1|(597,1013)|\)```

