SFC simulation report

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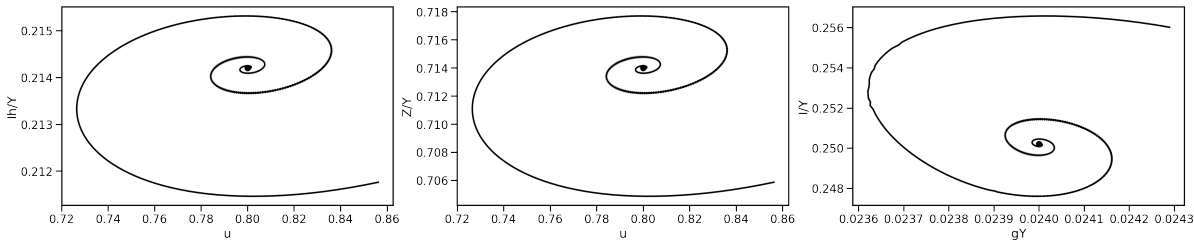## Contents

1 Symbolic Solution

2 Simulations

2.1 Solving

<Figure size 1728x360 with 3 Axes>

<Figure size 1152x720 with 4 Axes>

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<Figure size 1152x720 with 4 Axes>
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<Figure size 1152x720 with 4 Axes>
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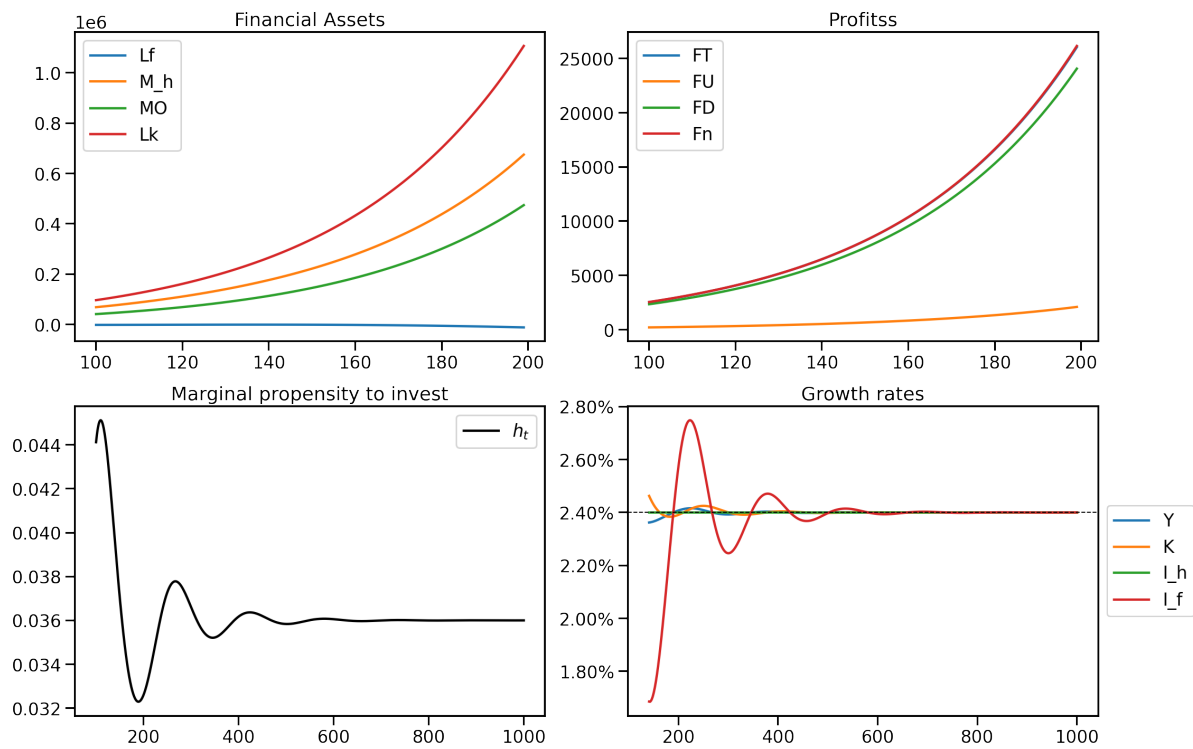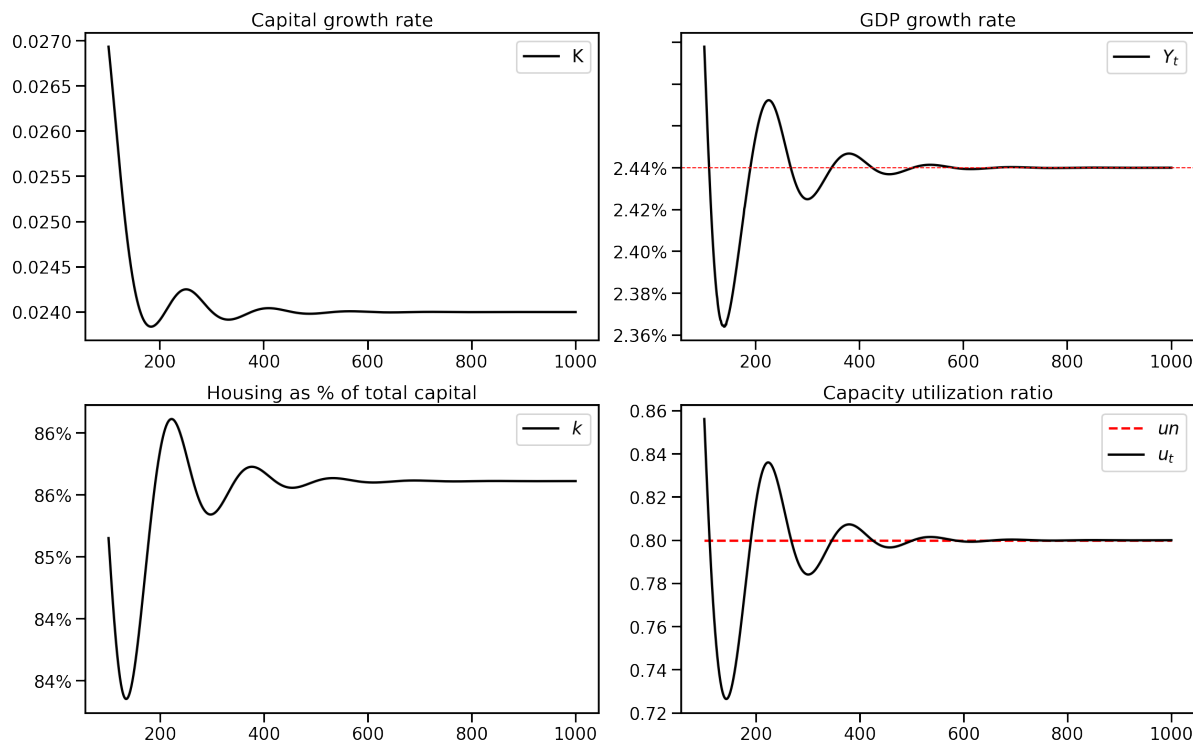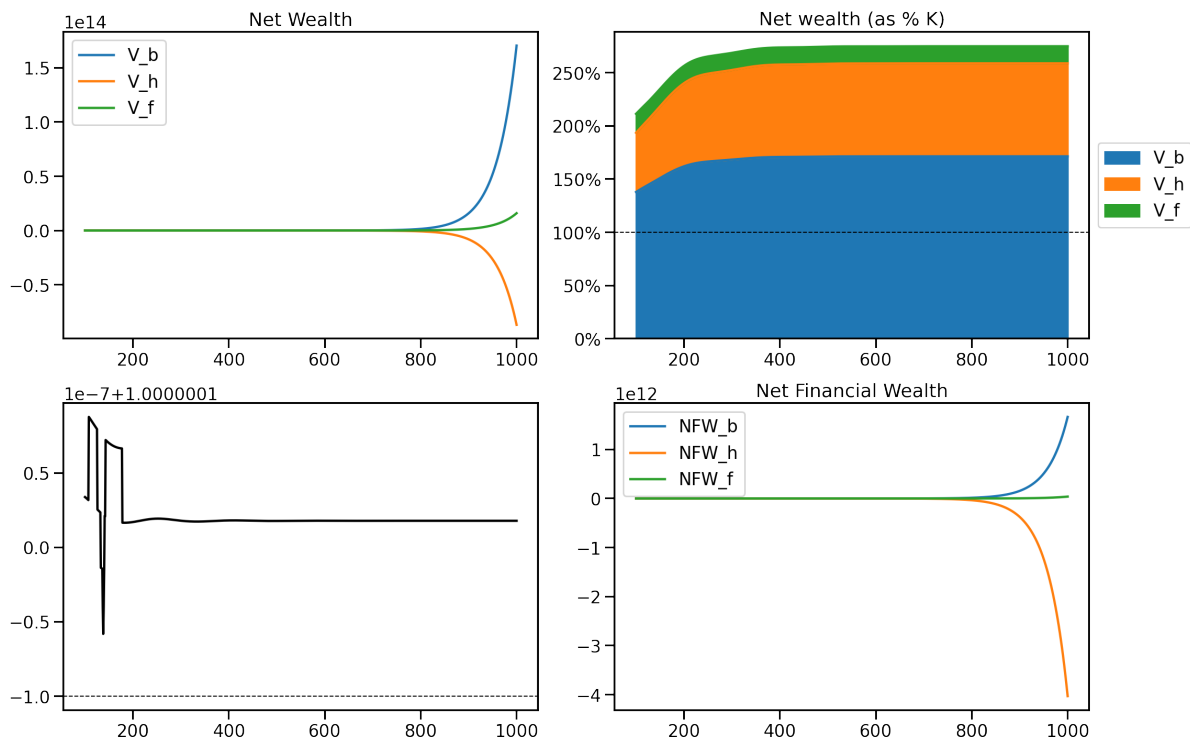
	100	101	102	103	104	\
C	3765.134938	3855.863961	3948.736973	4043.803678	4141.115084	
Cw	1264.970108	1295.695180	1327.124143	1359.272144	1392.154796	
Ck	2500.175522	2560.179735	2621.624049	2684.543026	2748.972058	
FD	2341.126764	2397.480047	2455.114187	2514.057576	2574.339527	
Fn	2544.703005	2605.956573	2668.602378	2732.671278	2798.195138	
...	...	...	...	...	...	
TIME	1.000000	2.000000	3.000000	4.000000	5.000000	
Ih/Y	0.211765	0.211705	0.211652	0.211606	0.211566	
I/Y	0.255887	0.256027	0.256150	0.256258	0.256350	
Z/Y	0.705880	0.705681	0.705504	0.705350	0.705218	
gY	NaN	0.024289	0.024256	0.024224	0.024191	

	105	106	107	108	109	...	\
C	4240.723534	4342.682743	4447.047840	4553.856910	4663.204510	...	
Cw	1425.788200	1460.188963	1495.374209	1531.354473	1568.162016	...	
Ck	2814.947388	2882.506125	2951.686272	3022.520925	3095.061426	...	
FD	2635.990307	2699.041168	2763.524372	2829.464035	2896.912612	...	
Fn	2865.206856	2933.740400	3003.830839	3075.504386	3148.818057	...	
...	...	...	...	...	...	...	
TIME	6.000000	7.000000	8.000000	9.000000	10.000000	...	
Ih/Y	0.211533	0.211507	0.211487	0.211474	0.211467	...	
I/Y	0.256427	0.256489	0.256535	0.256567	0.256585	...	
Z/Y	0.705108	0.705020	0.704954	0.704910	0.704885	...	
gY	0.024159	0.024128	0.024096	0.024062	0.024036	...	

|	991	992	993	994	995	\
C	5.641294e+12	5.776685e+12	5.915325e+12	6.057293e+12	6.202668e+12	
Cw	1.880928e+12	1.926071e+12	1.972297e+12	2.019632e+12	2.068103e+12	

3

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Ck     3.760381e+12   3.850630e+12   3.943045e+12   4.037678e+12   4.134583e+12
FD     3.472855e+12   3.556204e+12   3.641553e+12   3.728951e+12   3.818446e+12
Fn     3.774843e+12   3.865439e+12   3.958210e+12   4.053207e+12   4.150484e+12
...              ...            ...            ...            ...            ...
TIME   8.920000e+02   8.930000e+02   8.940000e+02   8.950000e+02   8.960000e+02
Ih/Y   2.142019e-01   2.142019e-01   2.142019e-01   2.142019e-01   2.142019e-01
I/Y    2.502006e-01   2.502006e-01   2.502007e-01   2.502007e-01   2.502007e-01
Z/Y    7.140033e-01   7.140032e-01   7.140032e-01   7.140032e-01   7.140031e-01
gY     2.400005e-02   2.400005e-02   2.400005e-02   2.400006e-02   2.400006e-02

                996            997            998            999           1000
C      6.351533e+12   6.503969e+12   6.660065e+12   6.819907e+12   6.983584e+12
Cw     2.117738e+12   2.168563e+12   2.220609e+12   2.273904e+12   2.328478e+12
Ck     4.233813e+12   4.335424e+12   4.439474e+12   4.546022e+12   4.655126e+12
FD     3.910089e+12   4.003931e+12   4.100026e+12   4.198426e+12   4.299189e+12
Fn     4.250096e+12   4.352099e+12   4.456550e+12   4.563507e+12   4.673032e+12
...              ...            ...            ...            ...            ...
TIME   8.970000e+02   8.980000e+02   8.990000e+02   9.000000e+02   9.010000e+02
Ih/Y   2.142019e-01   2.142019e-01   2.142019e-01   2.142018e-01   2.142018e-01
I/Y    2.502007e-01   2.502008e-01   2.502008e-01   2.502008e-01   2.502009e-01
Z/Y    7.140031e-01   7.140030e-01   7.140030e-01   7.140030e-01   7.140029e-01
gY     2.400006e-02   2.400006e-02   2.400006e-02   2.400006e-02   2.400006e-02

[80 rows x 901 columns]
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`<Figure size 1152x720 with 2 Axes>`
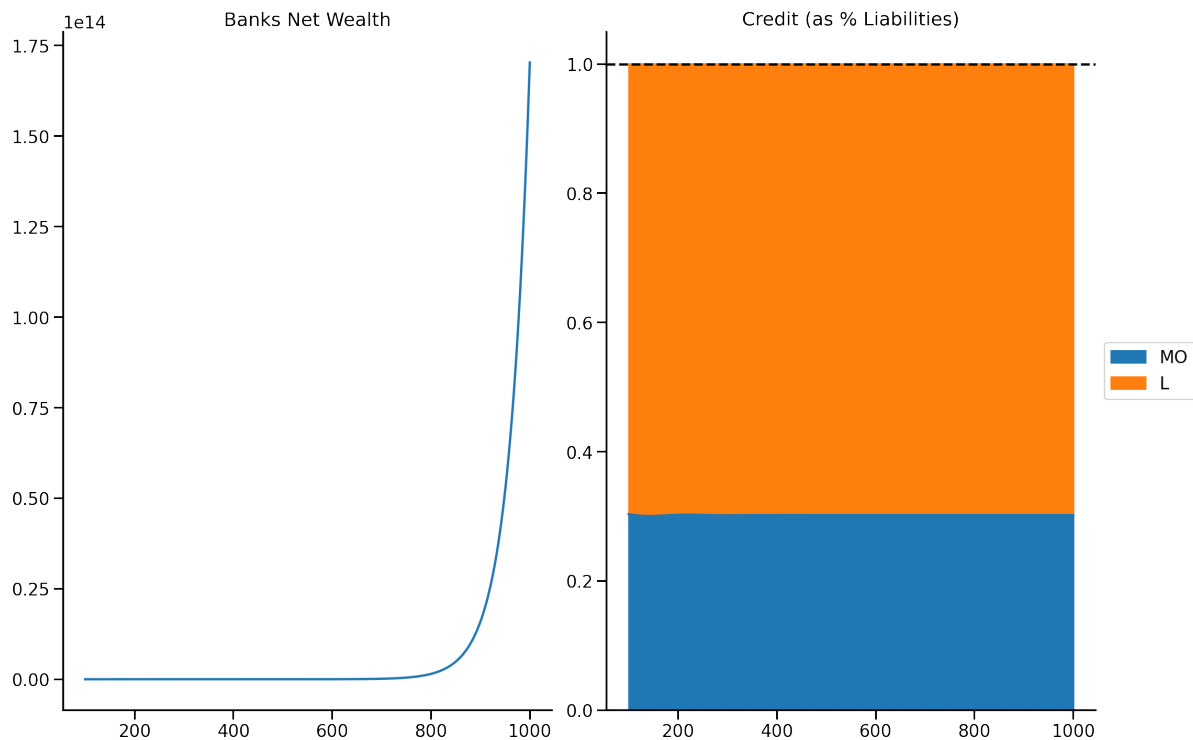
2.2 Shocks

2.2.1 Increase in autonomous growth rate (g_Z)

```
                    0         Shock             1             2             3  \
C        2.286001e+13  2.352303e+13  2.420550e+13  2.490790e+13  2.563082e+13
Cw       7.622032e+12  7.843186e+12  8.070931e+12  8.305424e+12  8.546874e+12
Ck       1.523805e+13  1.567993e+13  1.613465e+13  1.660256e+13  1.708403e+13
FD       1.407295e+13  1.448104e+13  1.490128e+13  1.533397e+13  1.577948e+13
Fn       1.529668e+13  1.574027e+13  1.619705e+13  1.666736e+13  1.715161e+13

...               ...           ...           ...           ...           ...
TIME     5.100000e+01  5.200000e+01  5.300000e+01  5.400000e+01  5.500000e+01
Ih/Y     2.142014e-01  2.141981e-01  2.141904e-01  2.141791e-01  2.141643e-01
I/Y      2.502018e-01  2.502111e-01  2.502287e-01  2.502549e-01  2.502896e-01
Z/Y      7.140015e-01  7.139894e-01  7.139640e-01  7.139266e-01  7.138770e-01
gY       2.400000e-02  2.901608e-02  2.903698e-02  2.905401e-02  2.907140e-02


                  t-1             t    difference
C        5.801908e+25  5.970163e+25  1.682553e+24
Cw       1.948123e+25  2.004619e+25  5.649557e+23
Ck       3.853798e+25  3.965559e+25  1.117602e+24
FD       3.575659e+25  3.679353e+25  1.036941e+24
Fn       3.886586e+25  3.999297e+25  1.127110e+24

...               ...           ...           ...
TIME     1.050000e+03  1.051000e+03  1.000000e+00
Ih/Y     2.119514e-01  2.119514e-01  1.094891e-10
I/Y      2.554511e-01  2.554511e-01 -2.554738e-10
Z/Y      7.065020e-01  7.065020e-01  3.649624e-10
gY       2.900000e-02  2.900000e-02  1.417932e-10


[80 rows x 8 columns]
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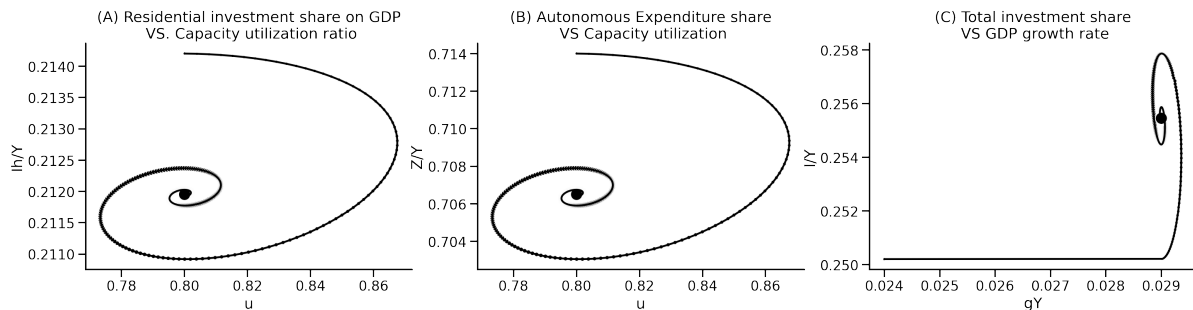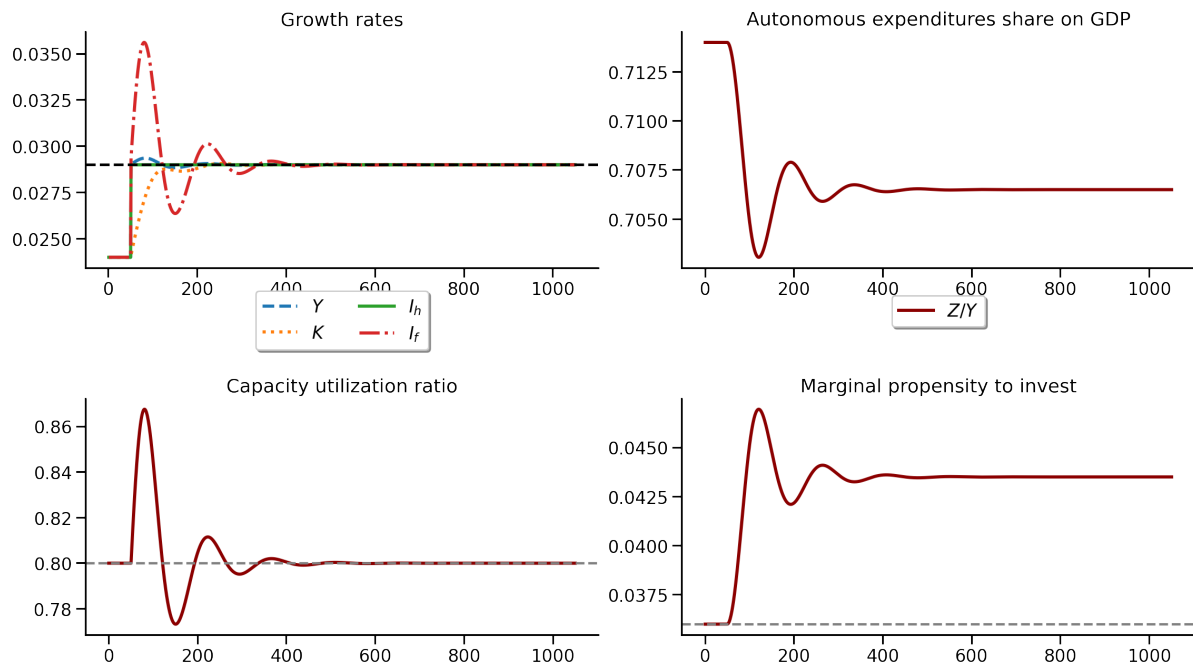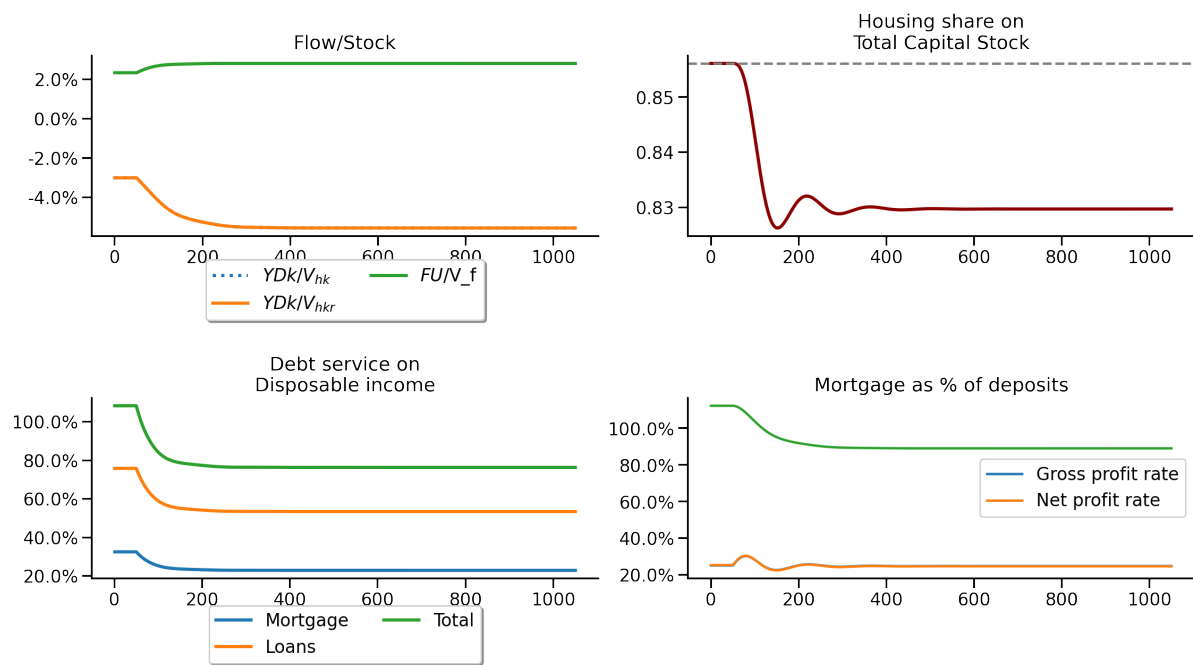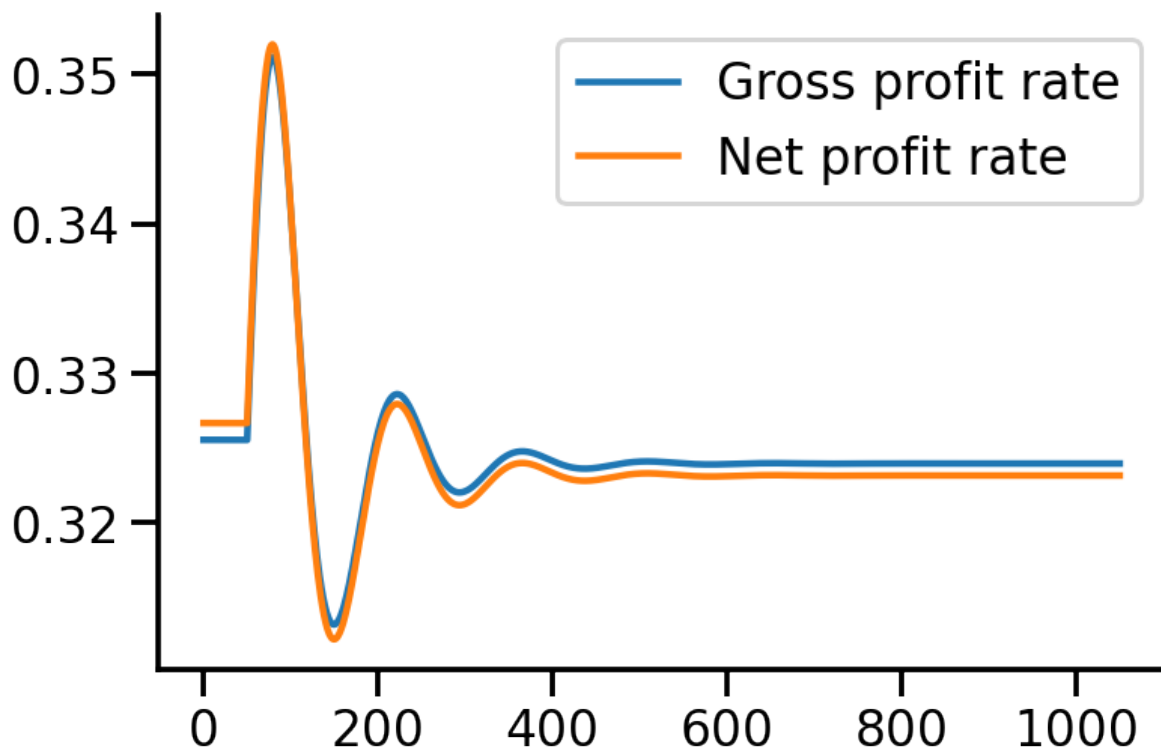
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<Figure size 1728x360 with 3 Axes>
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<Figure size 1152x720 with 4 Axes>
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Growth rates

Autonomous expenditures share on GDP

Capacity utilization ratio

Marginal propensity to invest

<Figure size 1152x720 with 4 Axes>

Flow/Stock

Housing share on
Total Capital Stock

Debt service on
Disposable income

Mortgage as % of deposits

<Figure size 432x288 with 1 Axes>

`<Figure size 432x288 with 1 Axes>`

`<Figure size 432x288 with 1 Axes>`

Household debt stability

<Figure size 576x360 with 1 Axes>

Credit (as % Passives)

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