

Credit Subsidy rel. Pareto weight 1

December 22, 2017

1 Tables with Results

	No cred sub	Optimal policy	Optimal SS cred sub	Optimal Flat cred sub
ς_0	0.00000	1.00000	0.25789	-0.07778
$\bar{\varsigma}$	0.00000	-0.76401	0.25789	-0.07778
Half life	-	16.00000	-	-
Welfare (weighted)	-10.29030	-9.74609	-10.51029	-10.28139
Welfare workers	-5.86691	-5.89540	-6.82162	-5.68462
Welfare entrepreneurs	-19.13708	-17.44748	-17.88763	-19.47493

	Constant ς_0	Constant $\bar{\varsigma}$
ς_0	1.00000	-0.76401
$\bar{\varsigma}$	1.00000	-0.76401
Half life	-	-
Welfare (weighted)	-29.36320	-10.69217
Welfare workers	-37.98524	-5.07960
Welfare entrepreneurs	-12.11912	-21.91733

Experiment	Total welfare	Worker welfare	Entrepreneur welfare
Optimal policy	0.01902	-0.00085	0.08815
Optimal flat cred sub	0.00031	0.00548	-0.01675
Constant ς_0	-0.50953	-0.65105	0.42034
Constant $\bar{\varsigma}$	-0.01381	0.02390	-0.12978

2 Parameters and functional forms

2.1 Functional forms etc.

- Occupational choice: No
- Workers save: No
- Decreasing returns to scale: Yes
- Productivity process: Ornstein-Uhlenbeck, $d \log(z) = -\nu \log(z)dt + \sigma dW$
- Period utility function:

$$u(c, l) = (1 - \gamma)^{-1} c^{1-\gamma} - \nu(l), \quad \nu(l) = (1 + 1/\chi)^{-1} l^{1+1/\chi}$$

- Production function: $y = F(z, k, n) = zA((k - f_k)^+)^{\alpha}((n - f_n)^+)^{\beta}$
- Credit subsidy schedule: $\varsigma_k(t) = \bar{\varsigma}_k + e^{-\gamma t}(\varsigma_{k,0} - \bar{\varsigma}_k)$

2.2 Parameter values

Pareto weight workers		0.667
Population share of workers	$popshare$	0.667
Total population	$popmass$	1.000
Discount rate entrepreneurs	ρ_e	0.050
Discount rate workers	ρ_w	0.030
Relative risk aversion	γ	1.000
Inverse Frisch elasticity	φ	1.000
Depreciation rate	δ	0.000
Death rate	θ	0.000
Fixed cost capital	f_k	0.000
Fixed cost labor	f_n	0.000
Financial constraint parameter	λ	2.000
Common TFP parameter	A	1.000
Capital share	α	0.297
Labor share	β	0.603
Returns to scale	$\alpha + \beta$	0.900
Interest rate	r^*	0.030
Effect of productivity on effective labor supply	η	0.000
Productivity drift parameter	ν	0.163
Productivity yearly autocorrelation	$e^{-\nu}$	0.850
Productivity standard deviation parameter	σ	0.300
Productivity mean	\bar{z}	1.148
Poisson arrival rate		0.100
Parameter of Pareto distribution of Poisson shocks		1.100
Contraction of initial distribution	χ	0.100

2.3 Iteration parameters

Number of grid points assets	I	200.000
Number of grid points productivity	J	30.000
Number of grid points time	N	150.000
Number of time periods	T	150.000
Max assets	a_{max}	350.000
Mean wealth relative to steady state		0.100
Range of initial credit subsidy rate tested	ς_0	[0.900,1.000]
Range of final credit subsidy rate tested	$\bar{\varsigma}$	[-0.800,-0.700]

3 Figures

Optimal steady state credit subsidy rate = 0.258

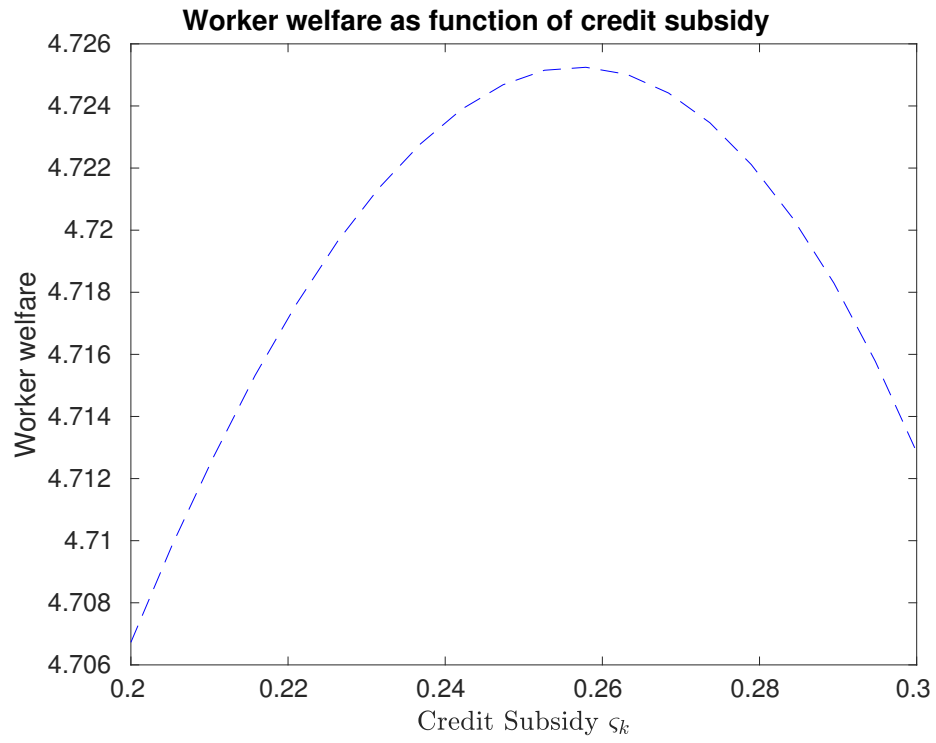


Figure 1

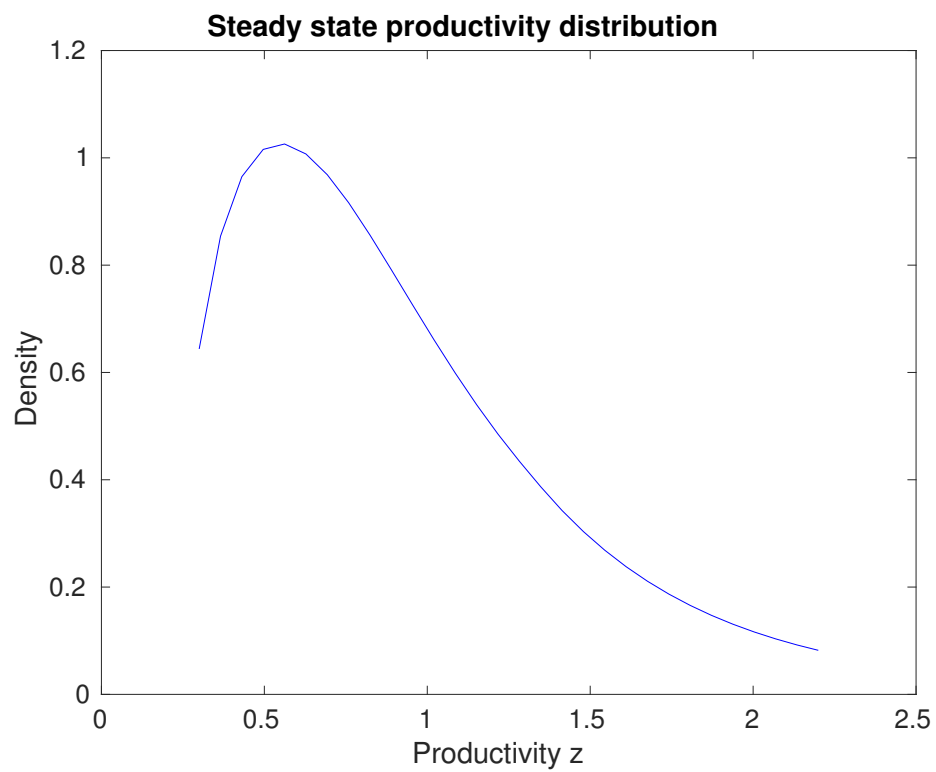


Figure 2

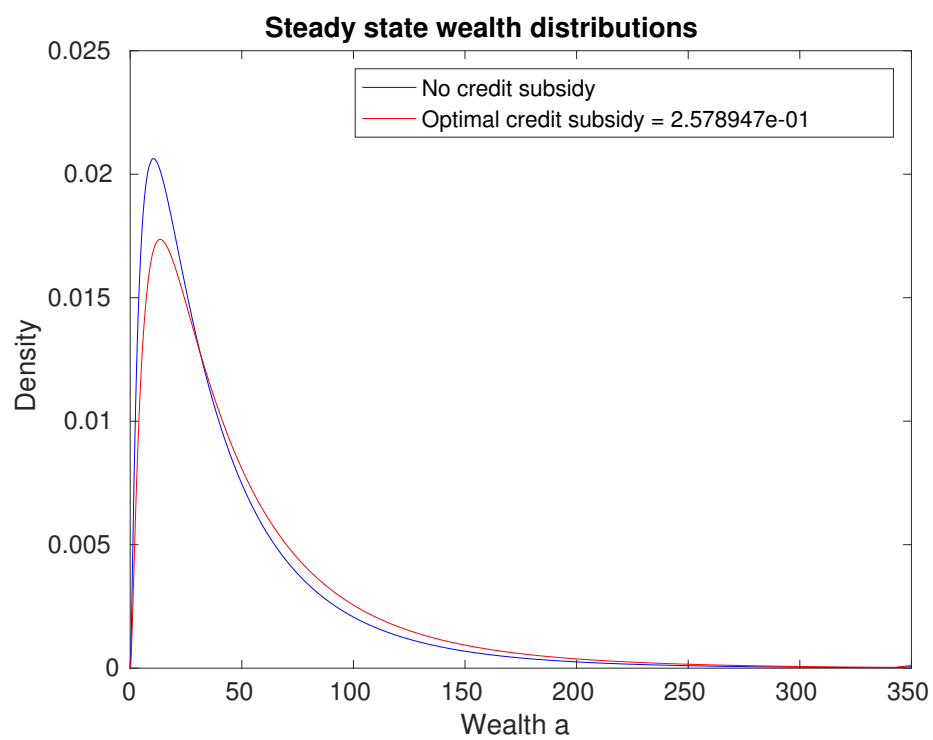


Figure 3

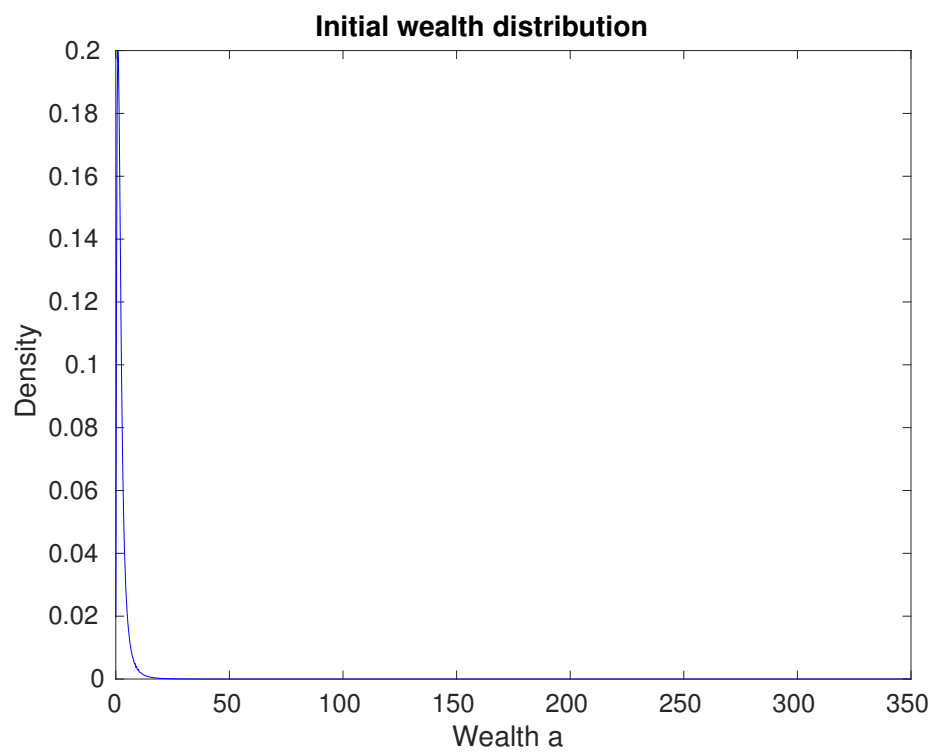


Figure 4

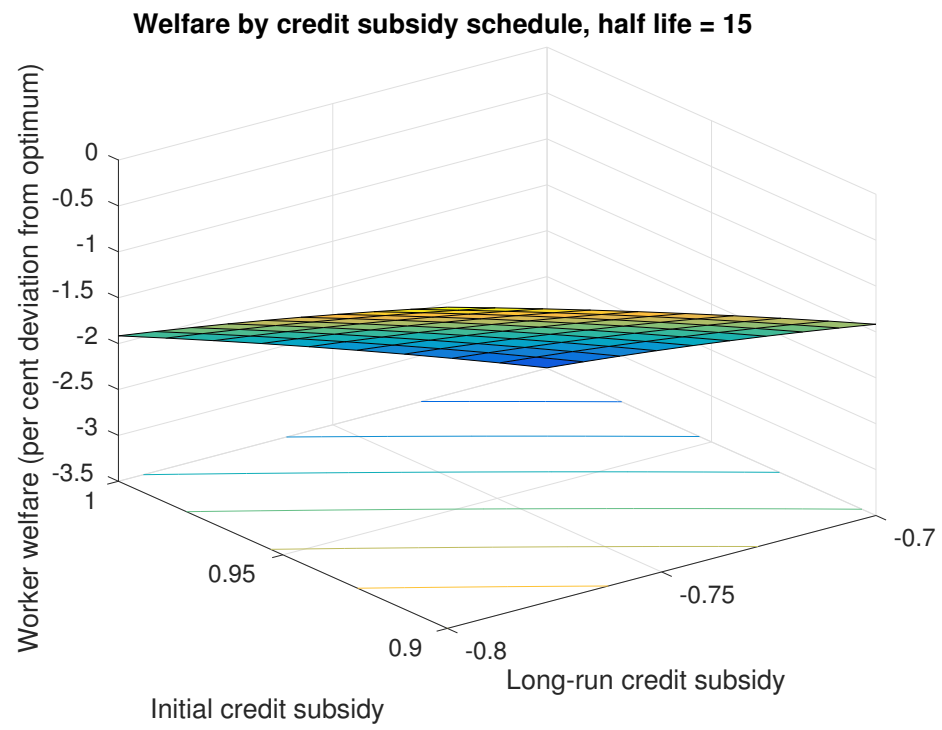


Figure 5

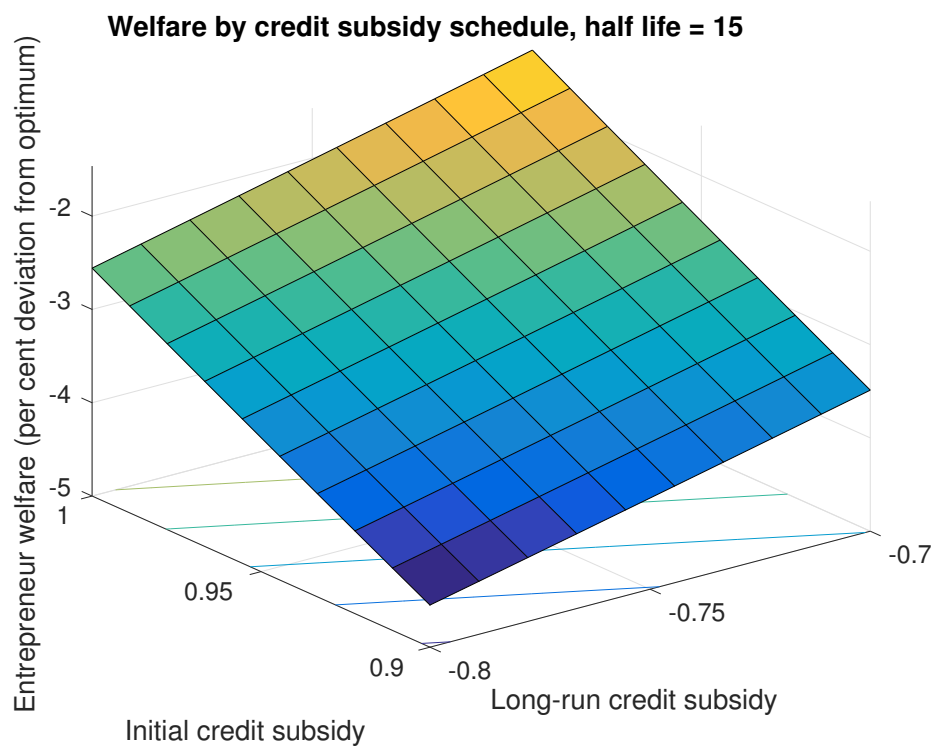


Figure 6

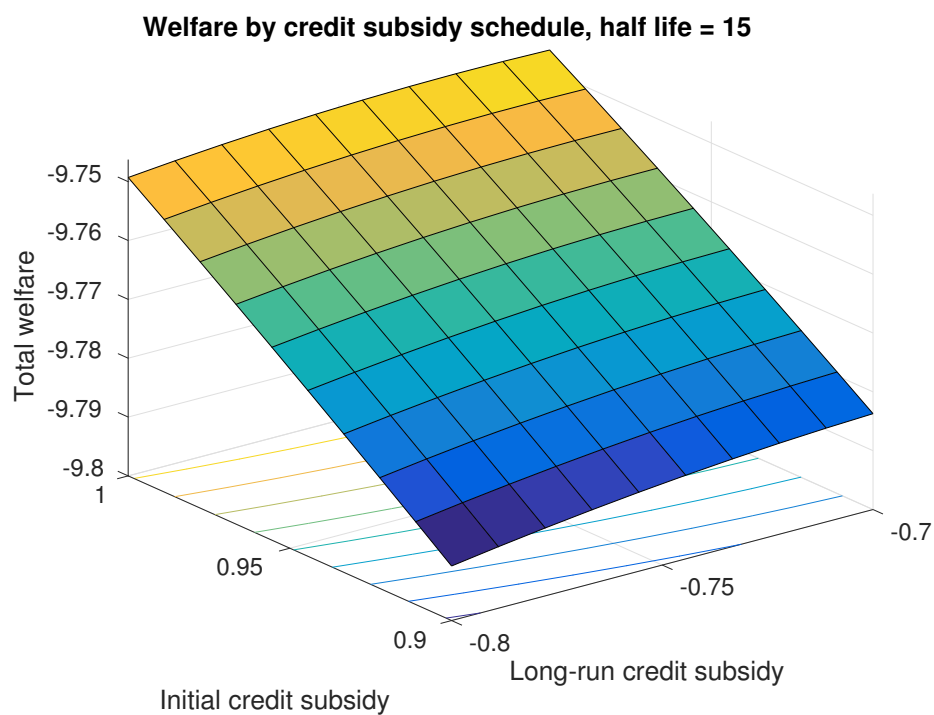


Figure 7

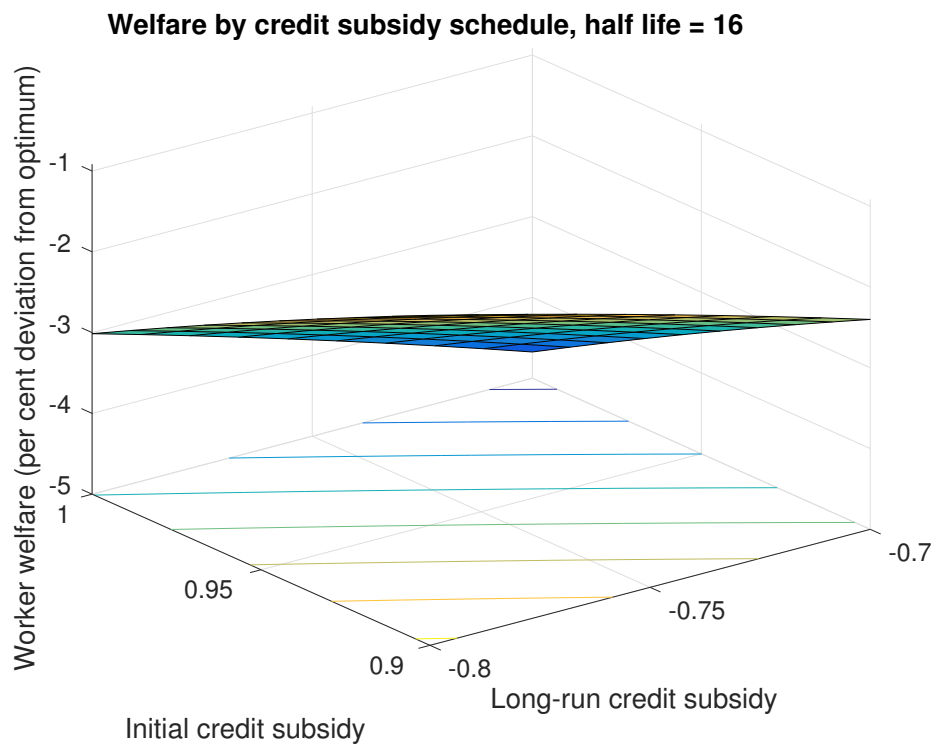


Figure 8

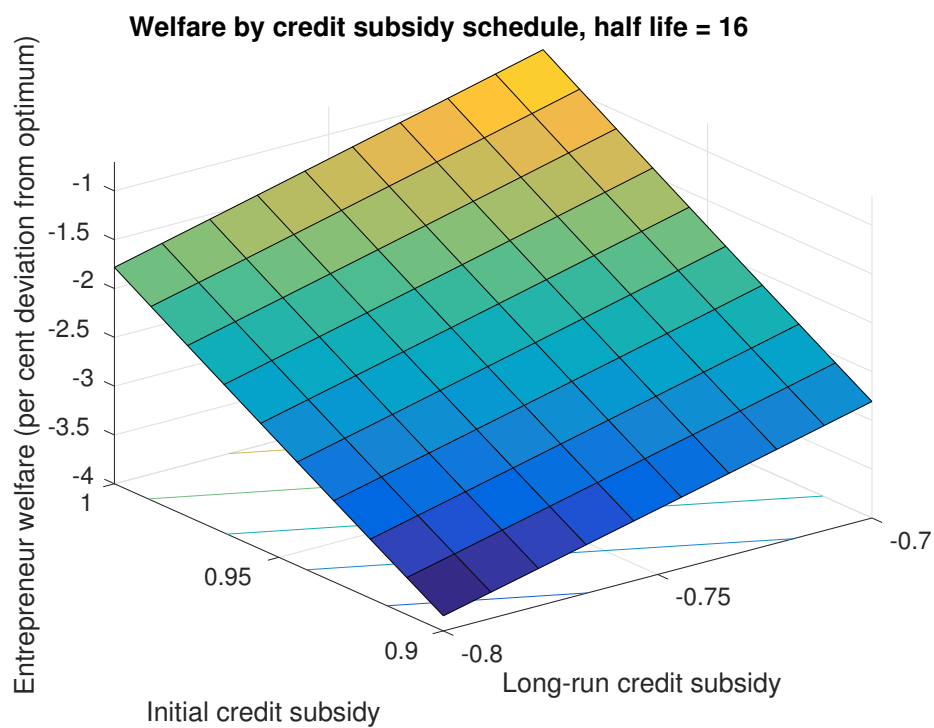


Figure 9

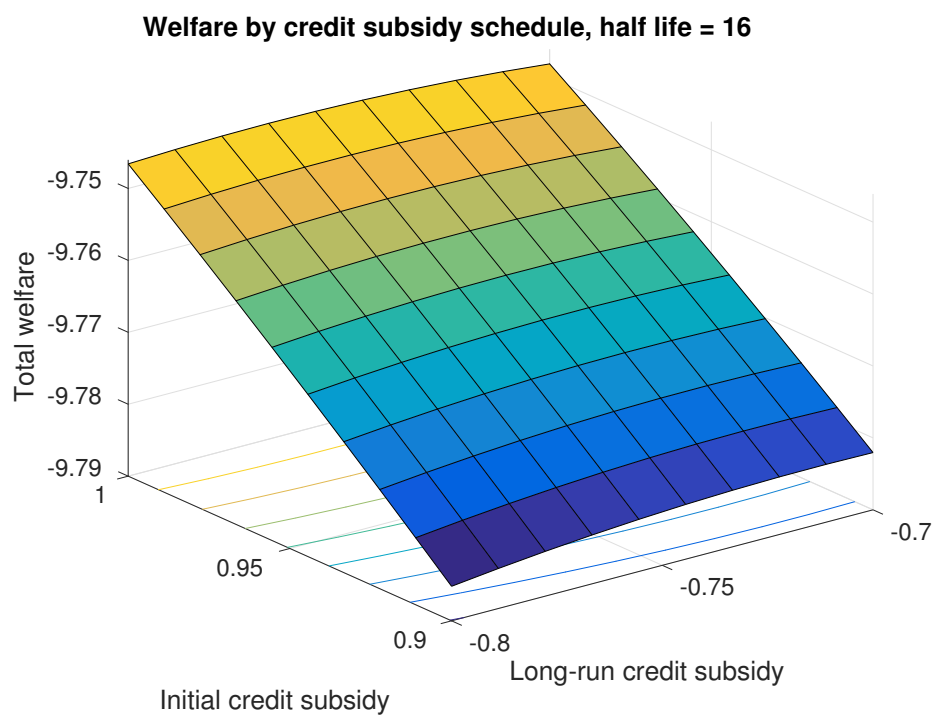


Figure 10

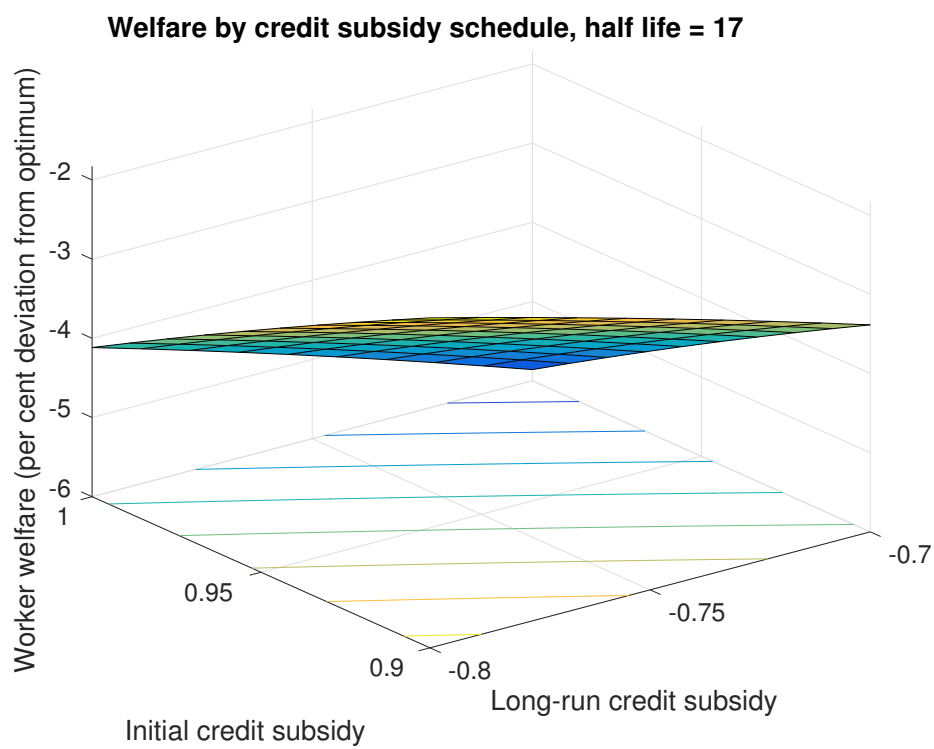


Figure 11

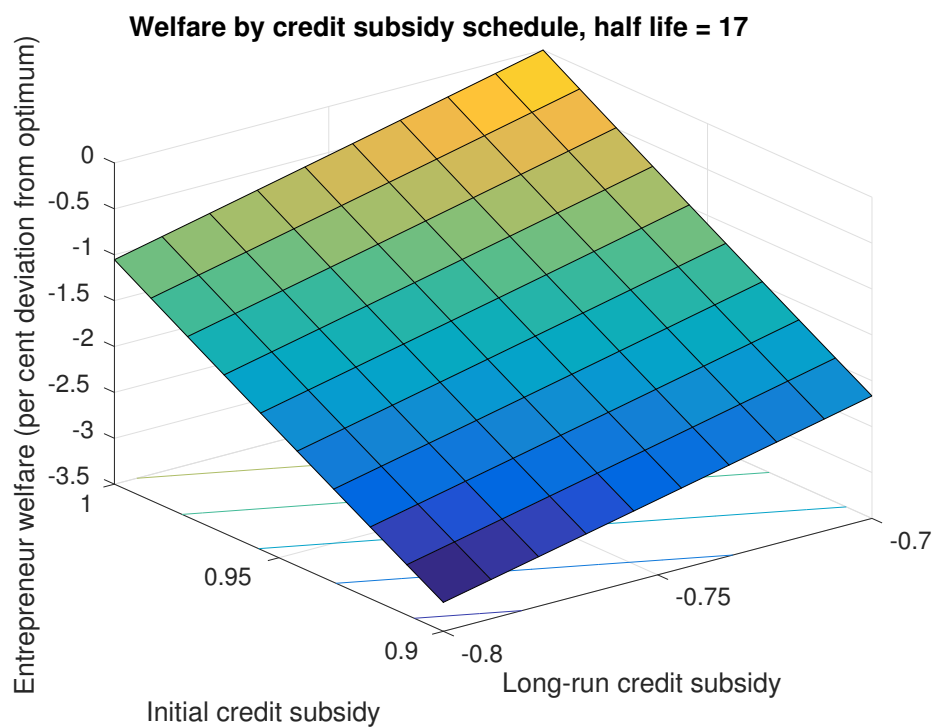


Figure 12

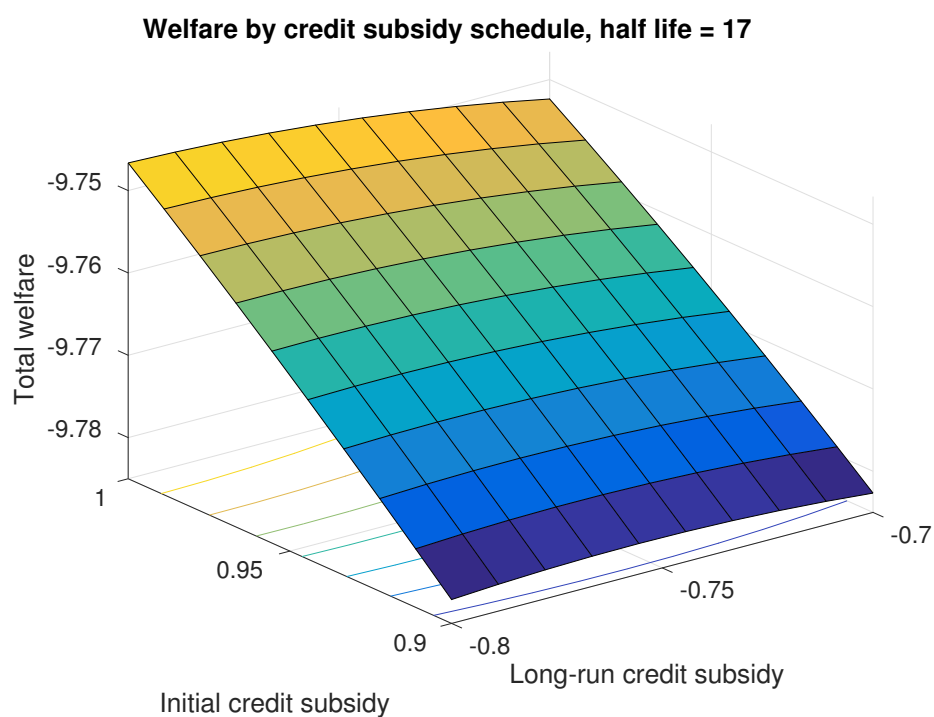


Figure 13

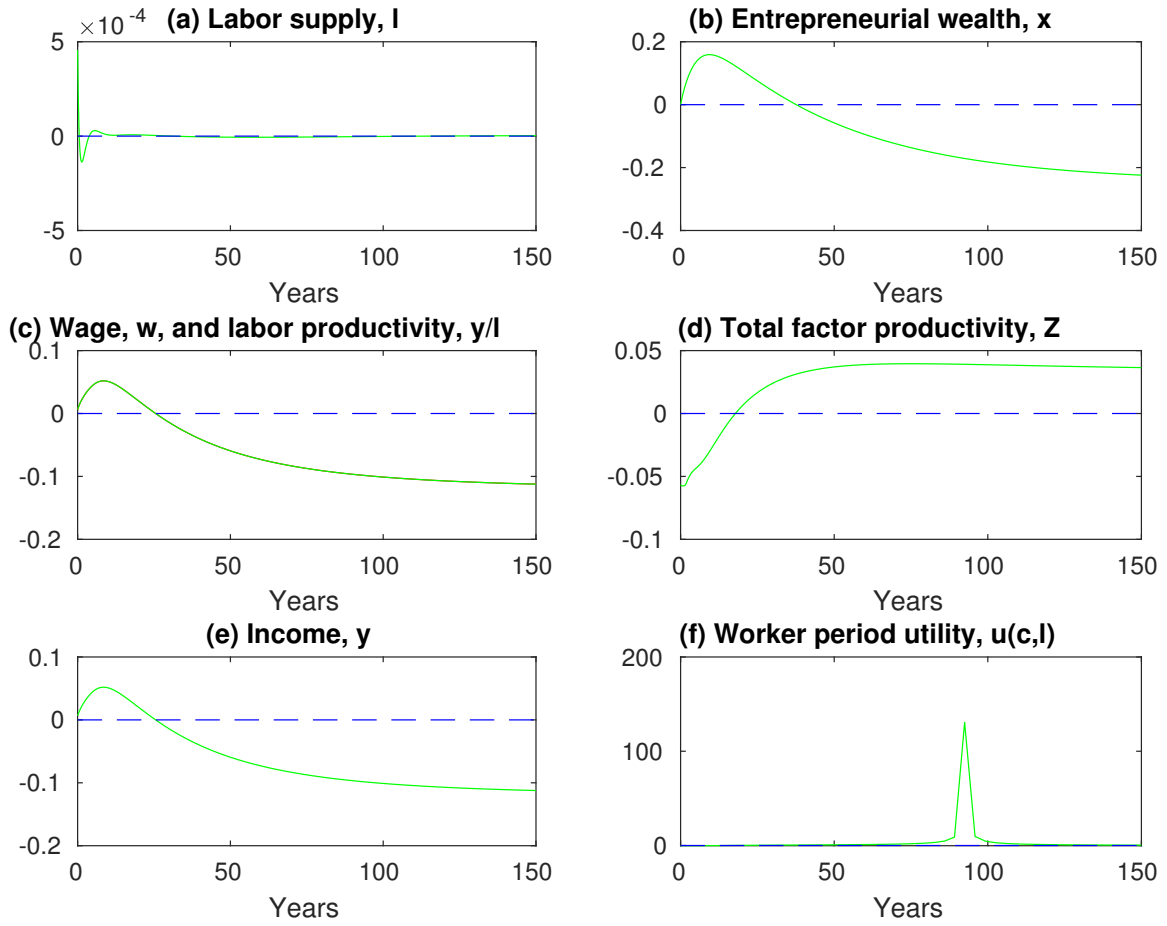


Figure 14 – Proportional deviations of optimal credit subsidy equilibrium from the laissez-faire equilibrium

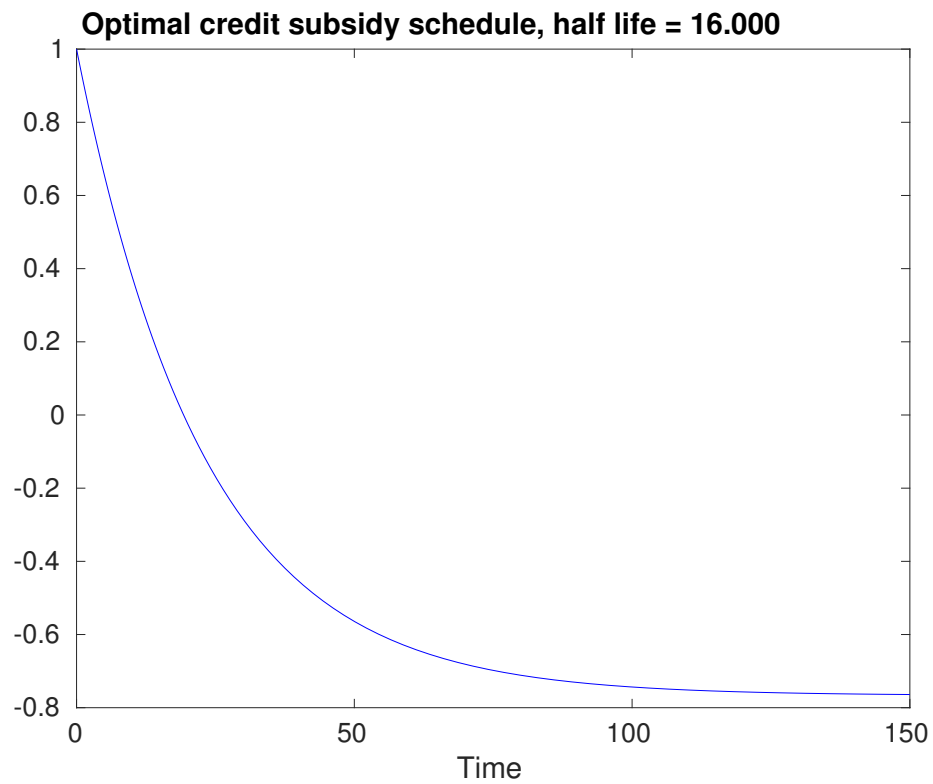


Figure 15

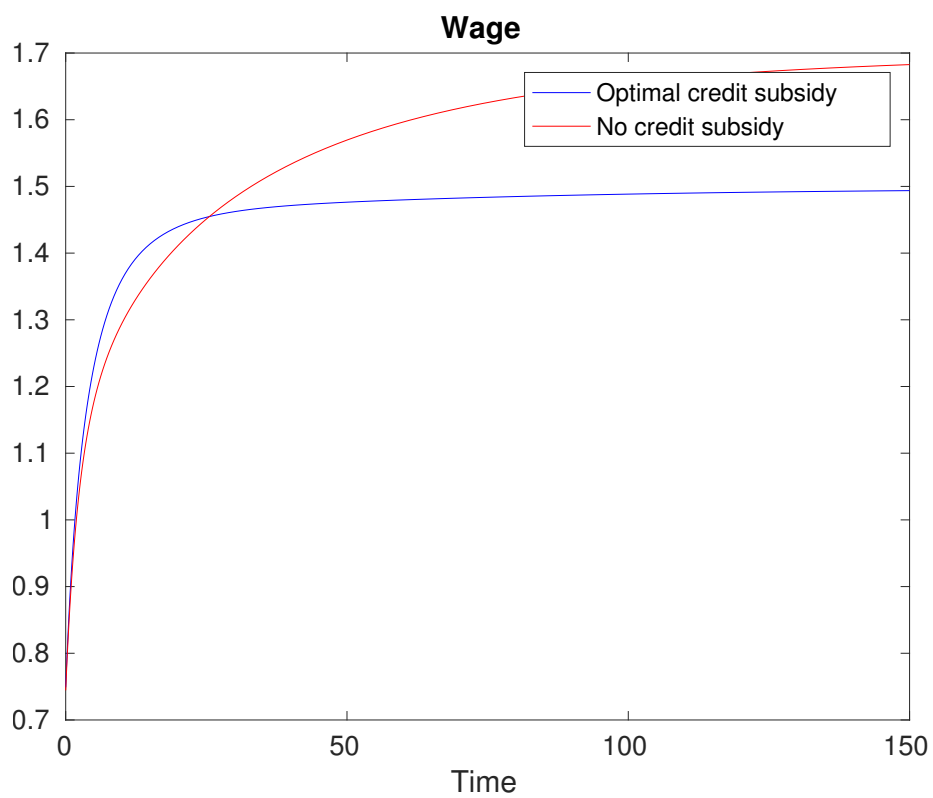


Figure 16

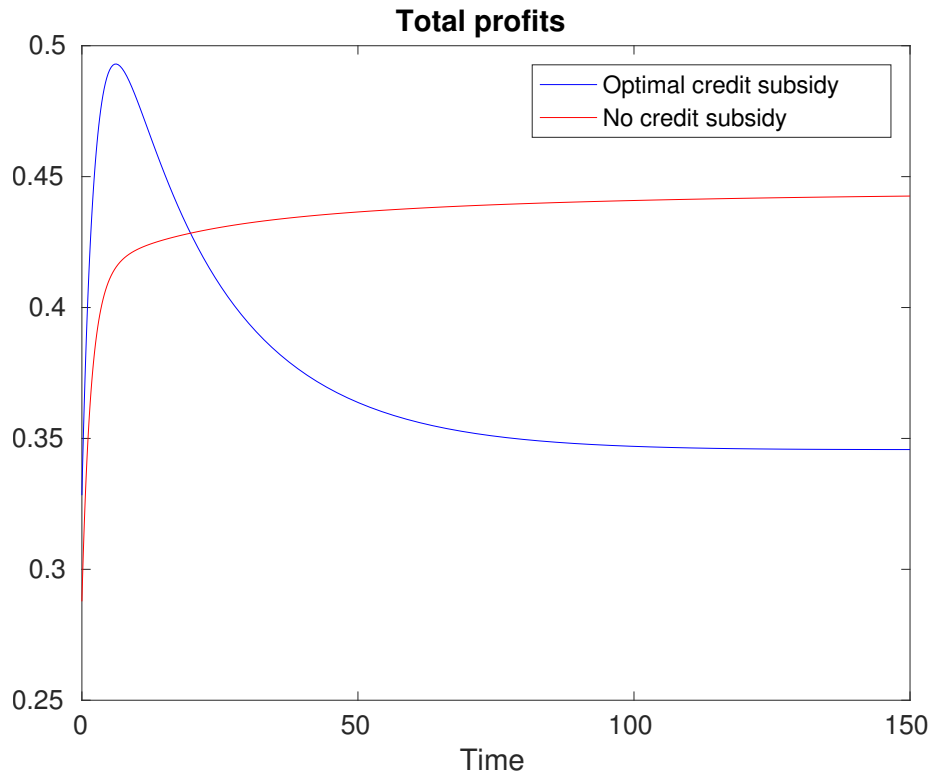


Figure 17

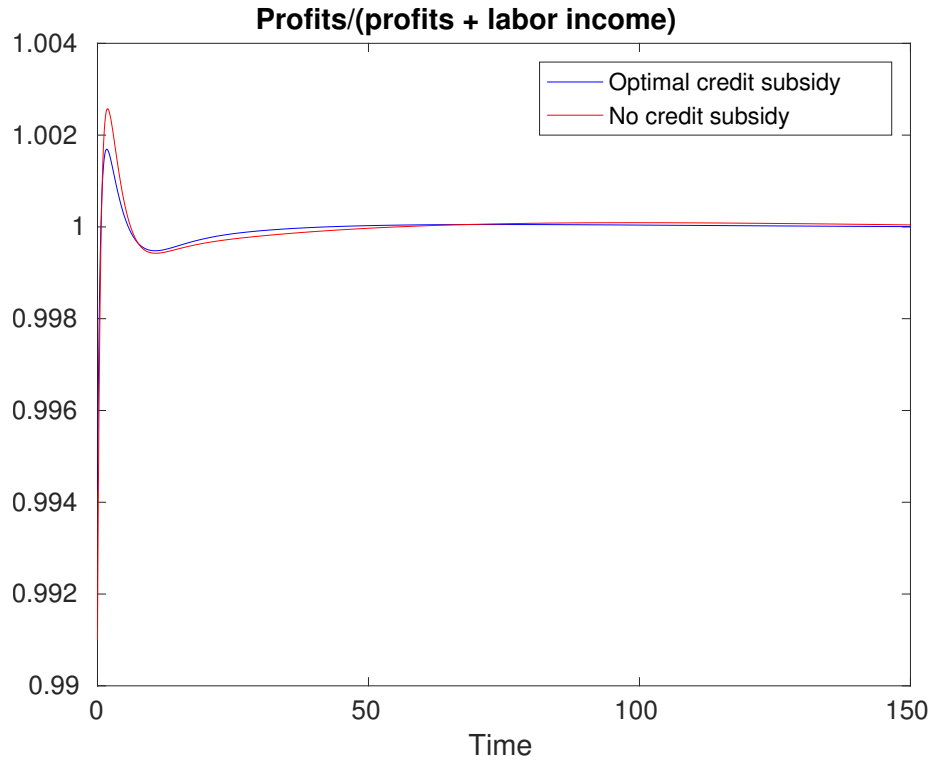


Figure 18

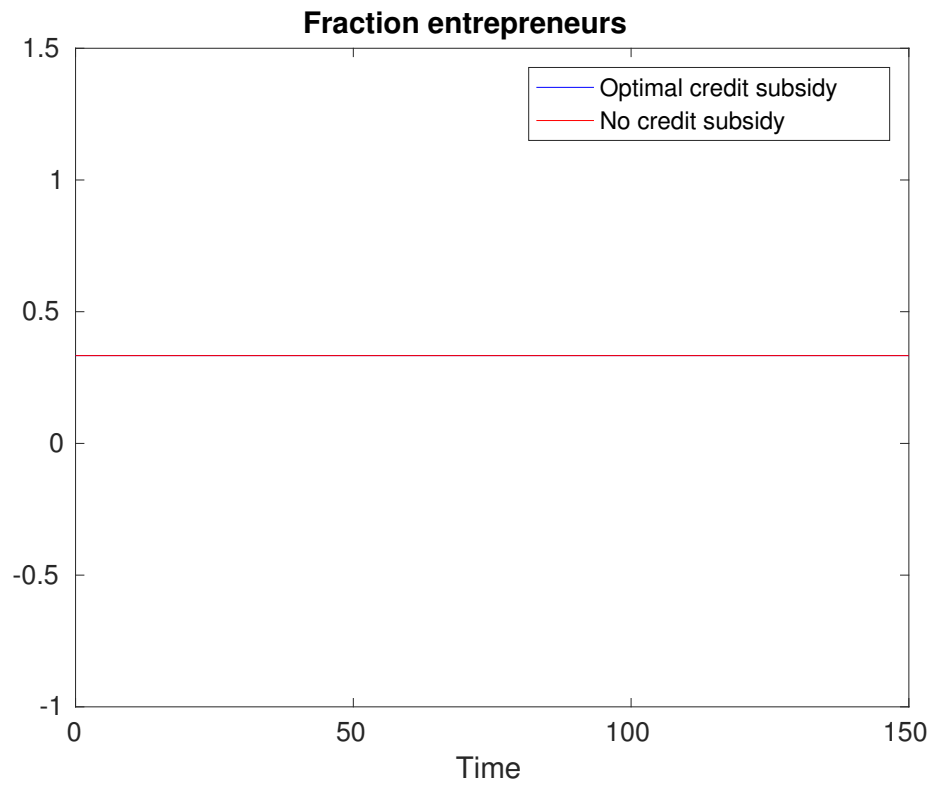


Figure 19

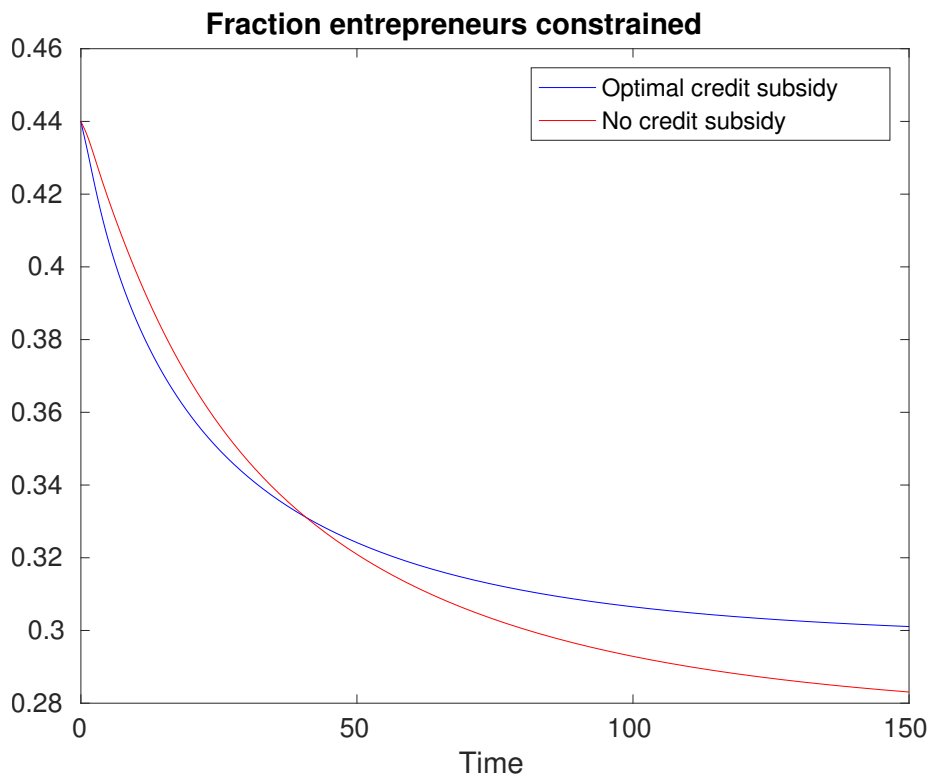


Figure 20

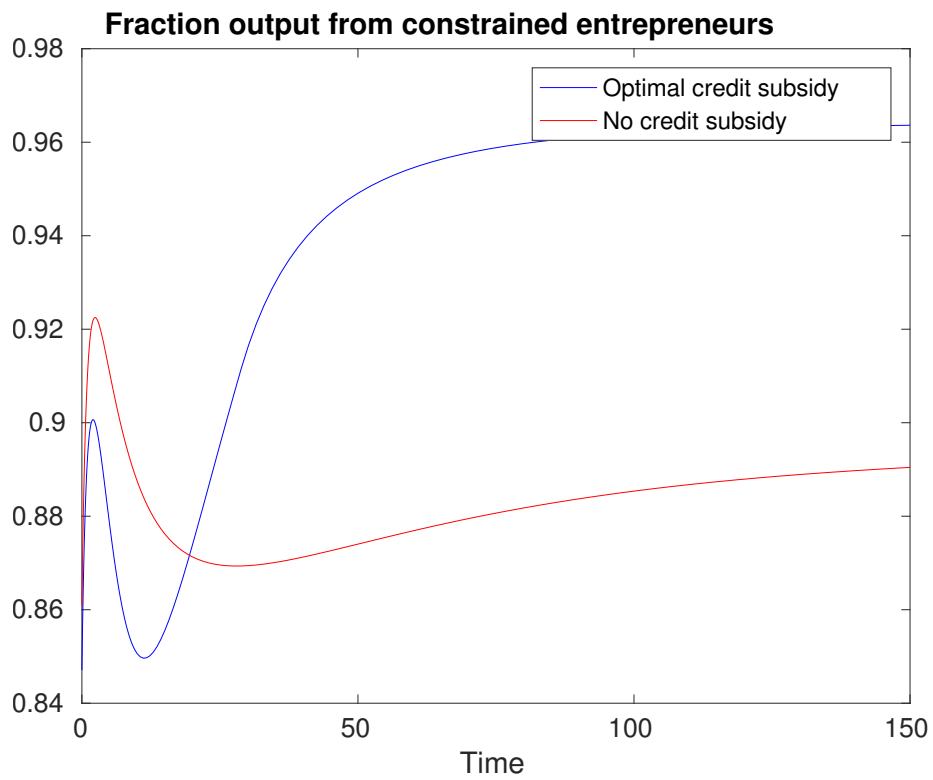


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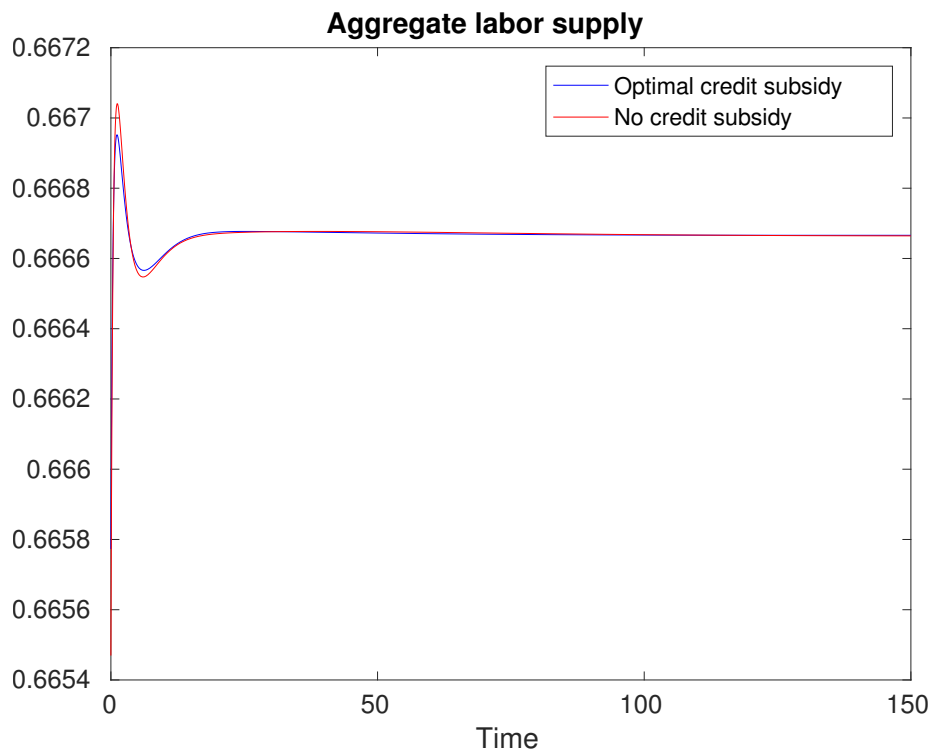


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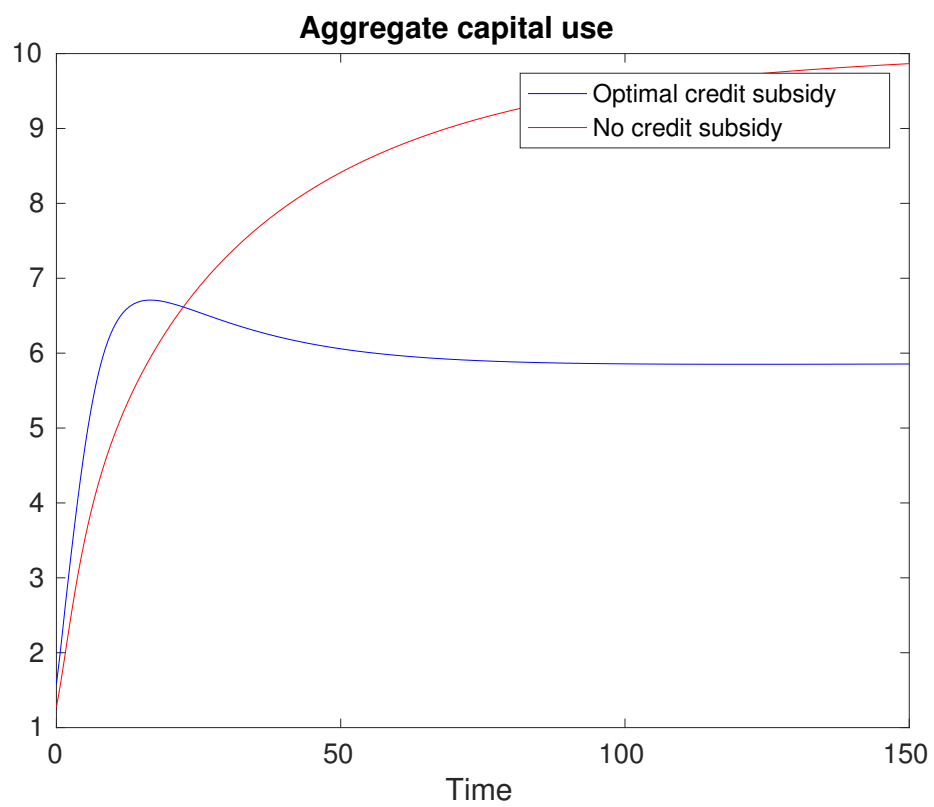


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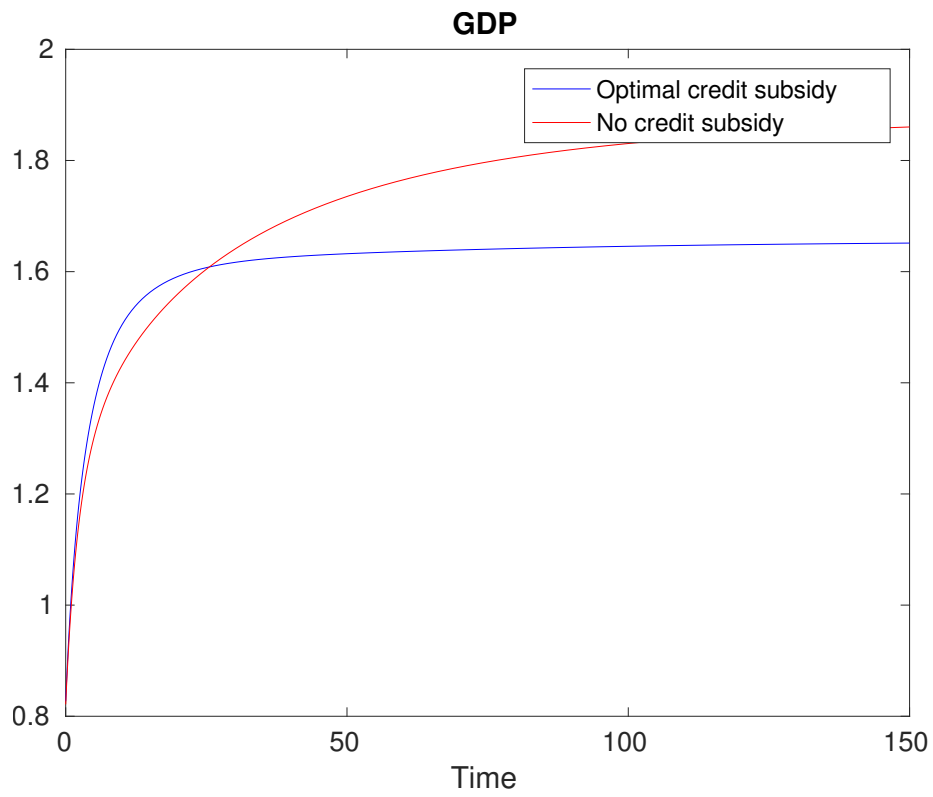


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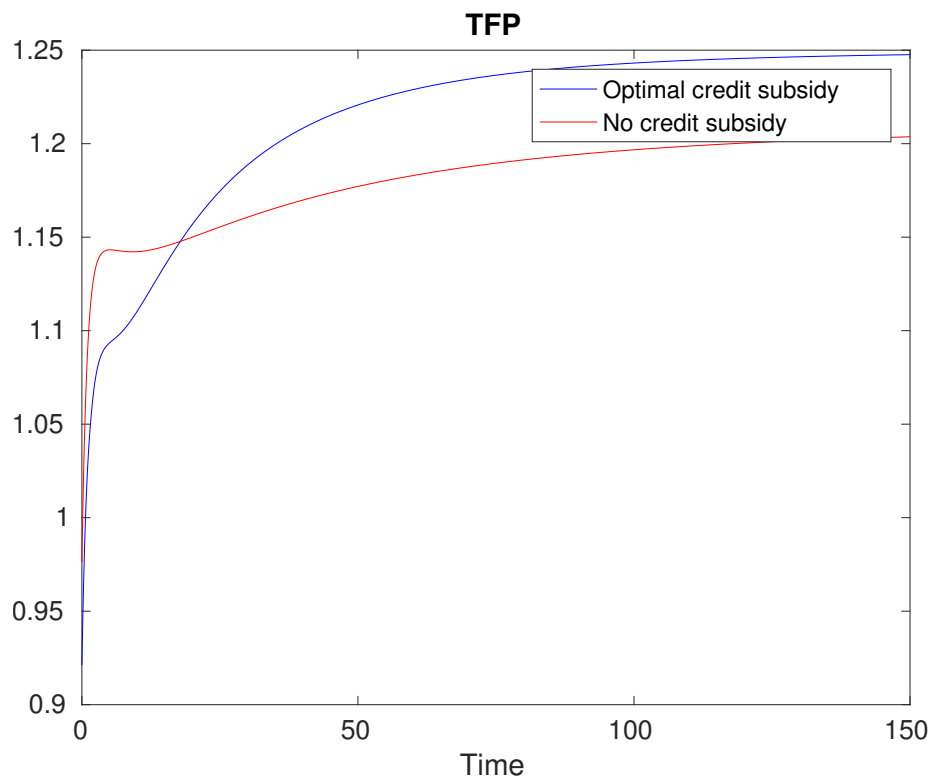


Figure 25

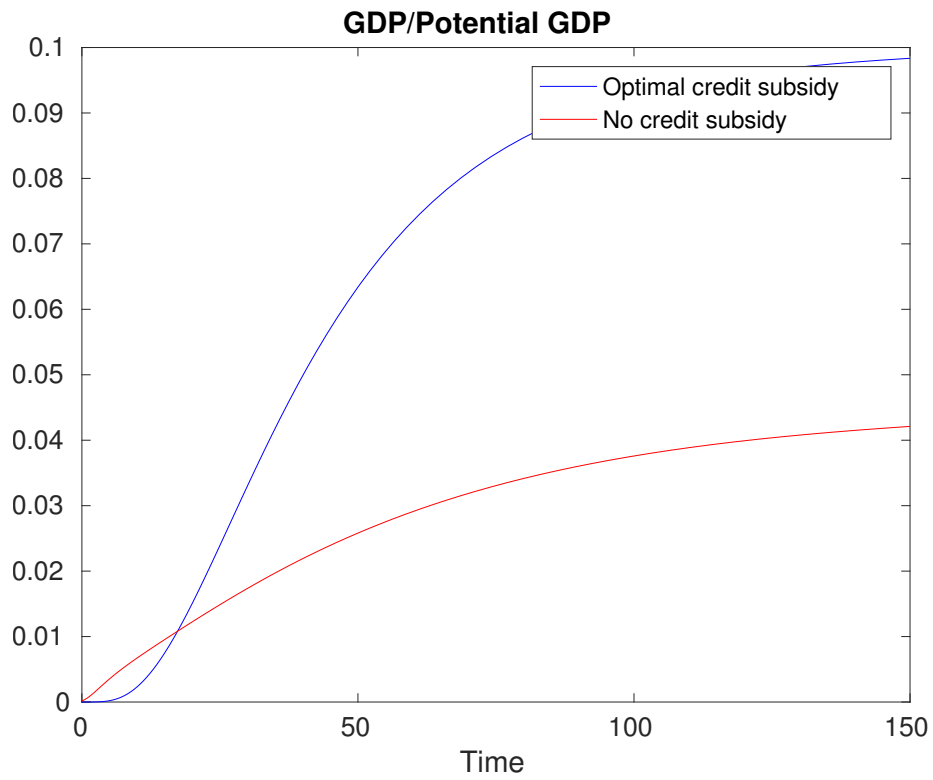


Figure 26

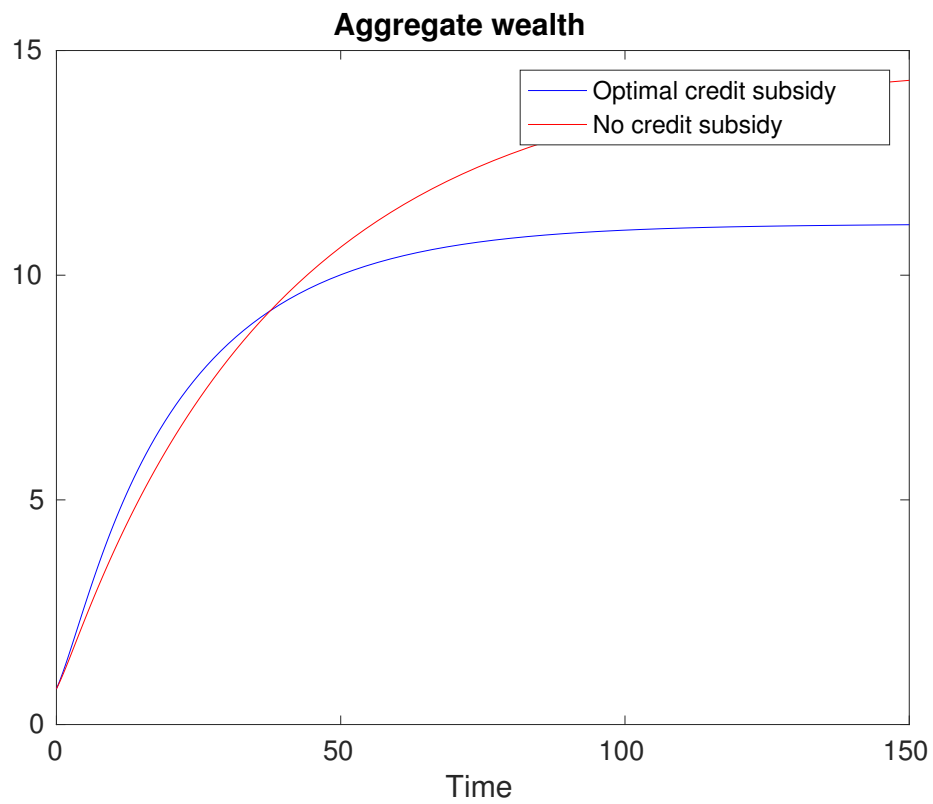


Figure 27

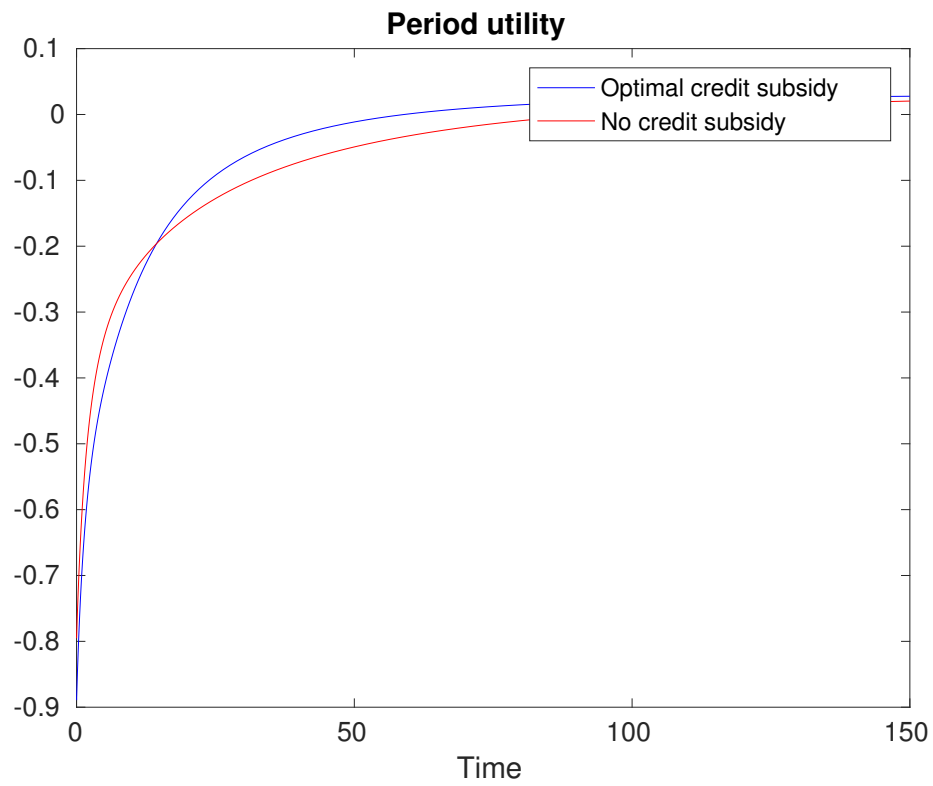


Figure 28

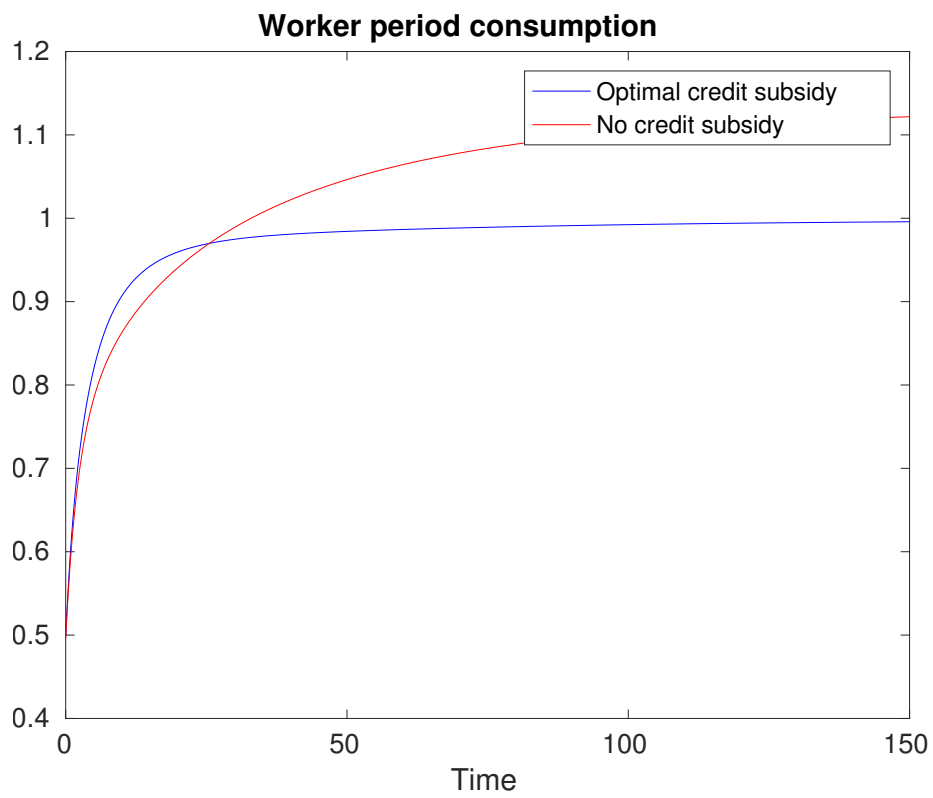


Figure 29