Buying into inequality.

A macroeconomic analysis linking accelerated obsolescence, interpersonal inequality and potential for degrowth.

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Origins of the idea

- Frequent oppositions :

  - ecology VS economy

  - Less pollution VS more jobs, wages, profits

- Does Accelerated Obsolescence (AO) illustrate this opposition?

  - Invented in the 1930s to increase sales.

  - « Material » first, then also « social » and « software »-related.

- Intuitive reaction : AO is socially useless, ecologically nefast
  → who benefits from it?

- Need to verify it macroeconomically

Research hypothesis

- The increase in economic activity due to AO does not « really » benefit workers since their constrained expenditures increase.

- In contrast, capitalists benefit from it.

- The increase in capitalists' consumption is not enough to make workers benefit from AO.

- AO increases income and wealth inequality, even when accounting for macroeconomic feedback effects.

- Conclusion : reducing AO could allow for reducing inequality and resource consumption, without impacting workers negatively.

Methodology

- Construction of a macro SFC model, post-Keynesian theoretical basis

- Simulation: increase in depreciation rate of households' equipment goods (workers and capitalists)

- Interpersonal inequality:

  - Disposable income per person (worker VS capitalist)

  - Wealth per person (worker VS capitalist)

Outline of the presentation

- Presentation of the model

- Simulation of obsolescence acceleration

- Results and discussion

- Conclusion

The model

- Balance sheet matrix

	Households		Firms	Gvt/CB	Σ
	Workers	Capitalists			
High-powered money	$+H_w$	$+H_c$		$-H$	0
Equipment goods	$+N_w E$	$+N_c E$			$+NE$
Productive capital			$+K$		$+K$
Equities		$+Q$	$-Q$		0
Balance (net worth)	$-V_w$	$-V_c$	0	$-V_g$	$-(V_w + V_c + V_g)$
Σ	0	0	0	0	0

The model

- Transactions-flow matrix

	Households		Firms	Gvt/CB	Σ
	Workers	Capitalists			
Consumpt. (equipment)	$-C_{1,w}$	$-C_{1,c}$	$+C_1$		0
Consumpt. (other)	$-C_{2,w}$	$-C_{2,c}$	$+C_2$		0
Government spending			$+G$	$-G$	0
Wages	$+WB$		$-WB$		0
Profits		$+P$	$-P$		0
Taxes	$-T_w$	$-T_c$		$+T$	0
Change in cash	$-\Delta H_w$	$-\Delta H_c$	0	$+\Delta H$	0
Σ	0	0	0	0	0

Other hypotheses

- Consumption of equipment : constrained, autonomous (Depreciation rate x Stock)

- Other consumption : effective disposable income and wealth

- Effective disposable income = Disp. Income - Constrained consumpt.

- Capitalists : 10 % population, 33 % national income (preexist. ineq.)

- Hours worked: proportional to production → Increase/decrease of working time when production increases/decreases (no unemployment)

Model in stationary state

- In the absence of shock, the model converges to a stationary state

- $Y = G_0$ / Tax rate

Acceleration of obsolescence
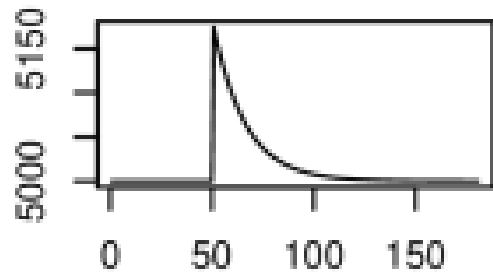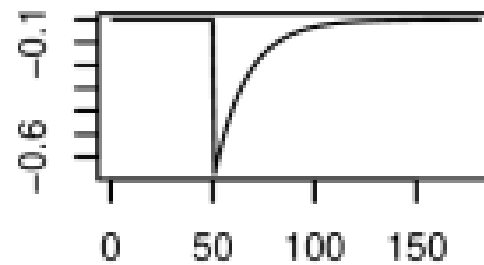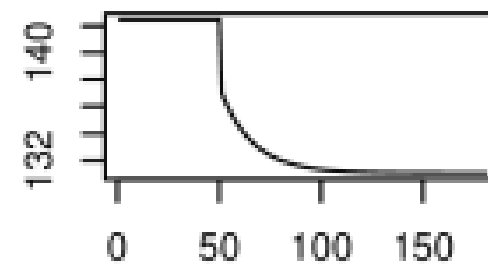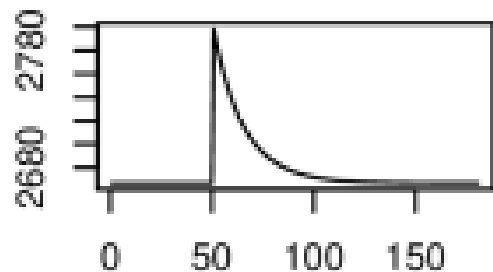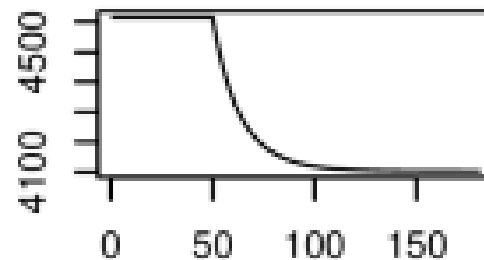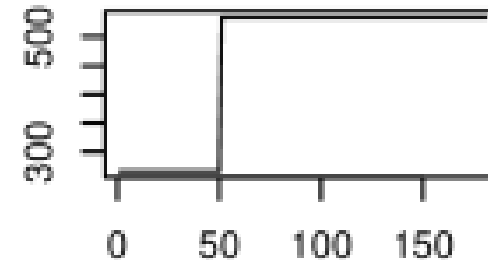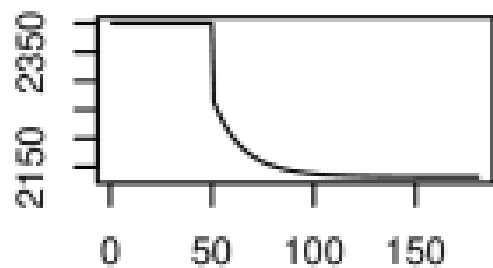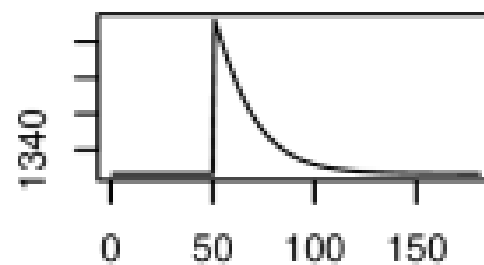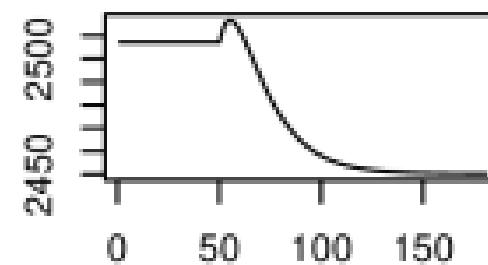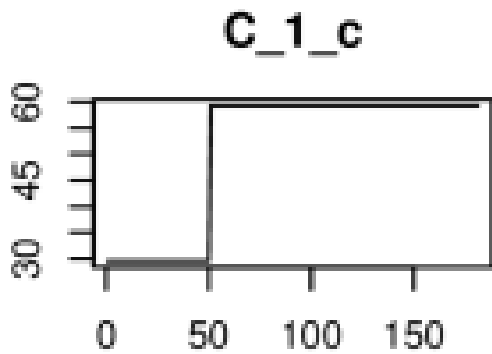
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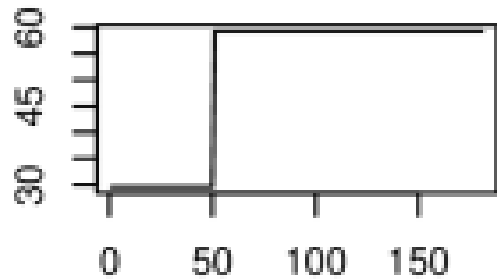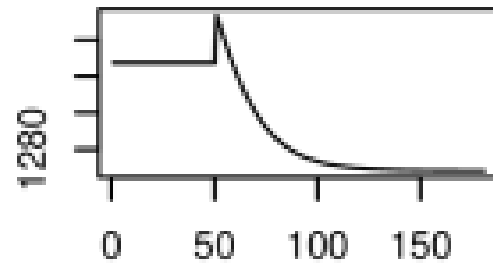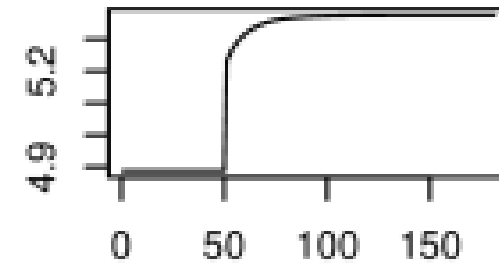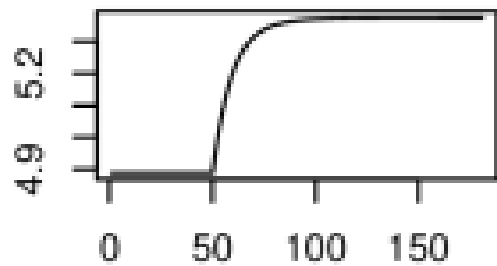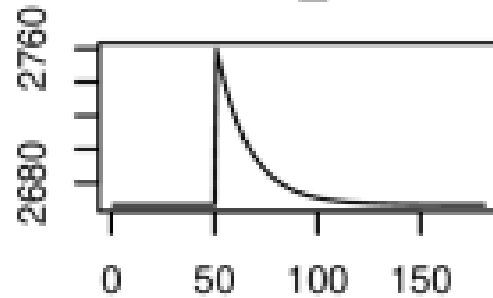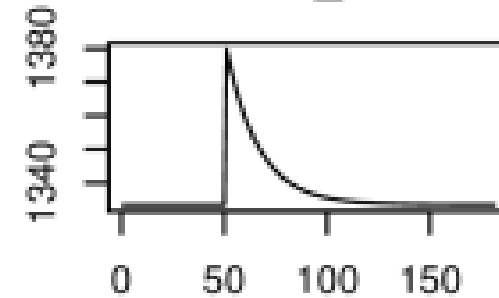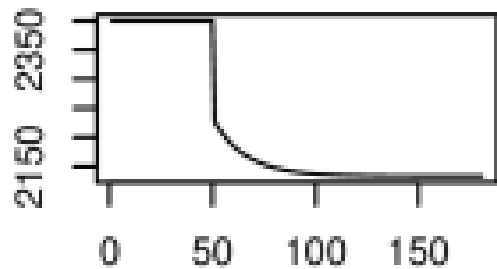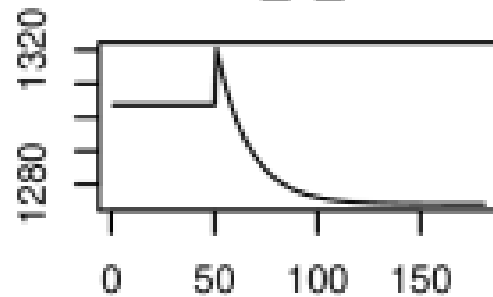
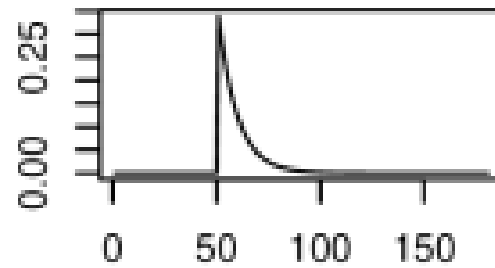# Same + tax cut or increase in G_0
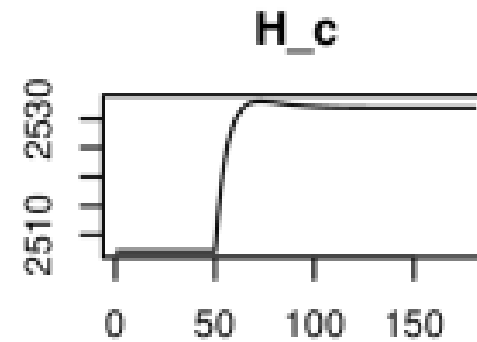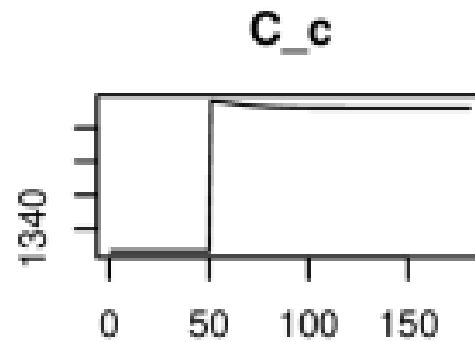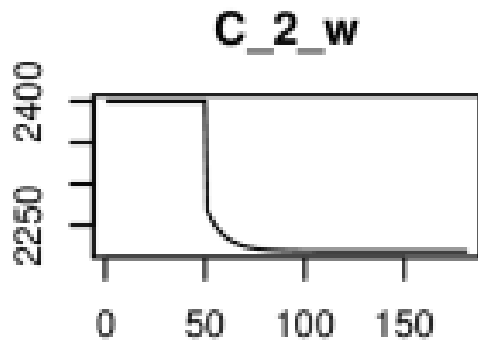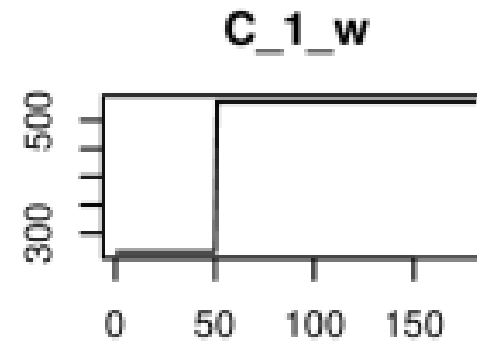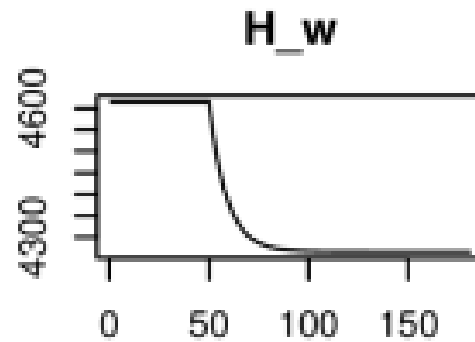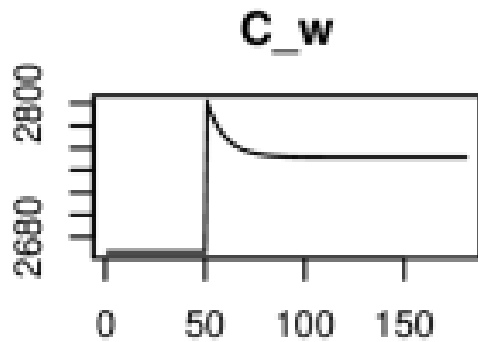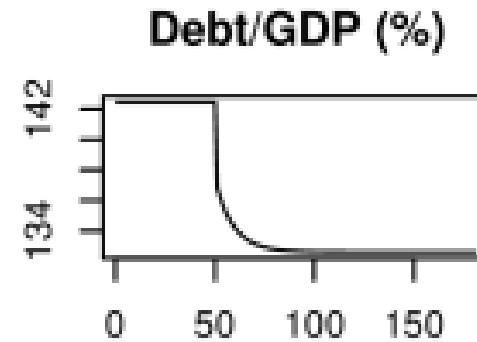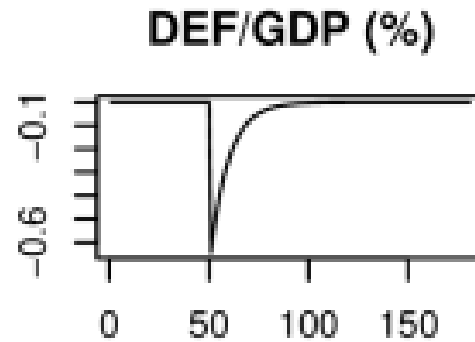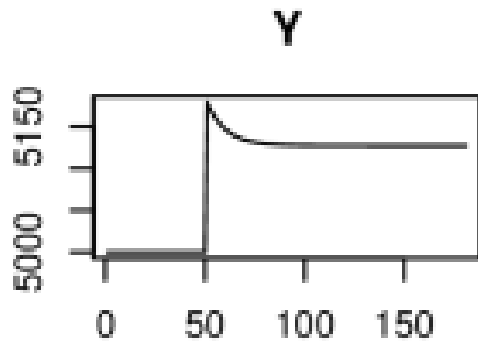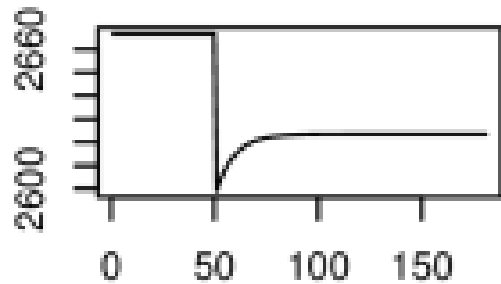
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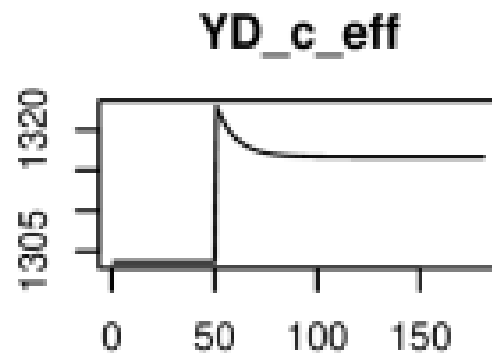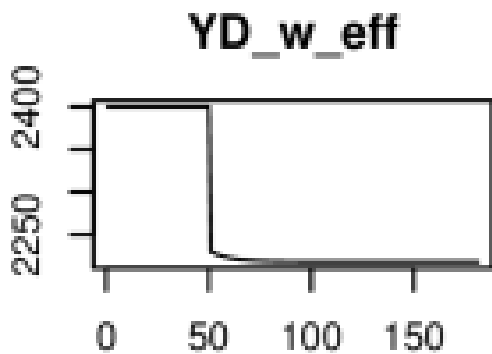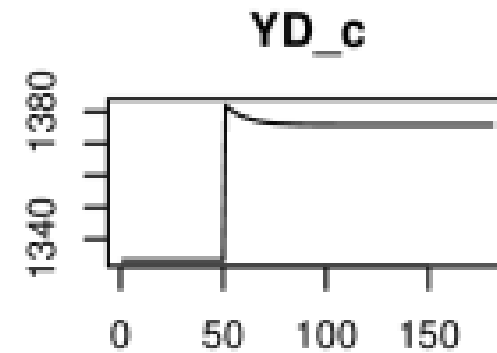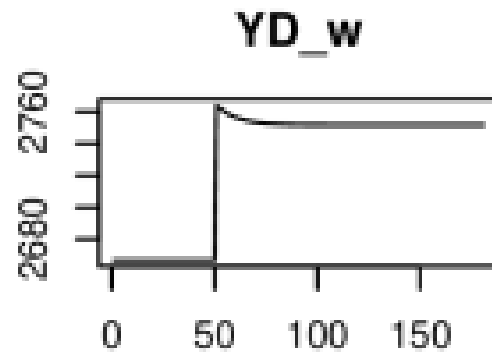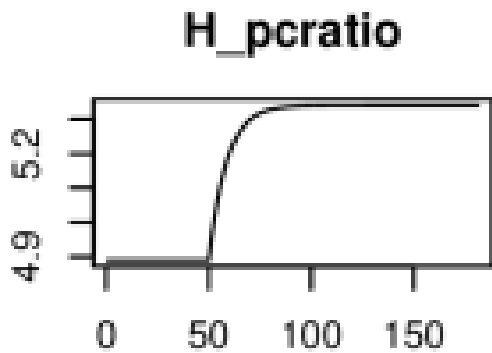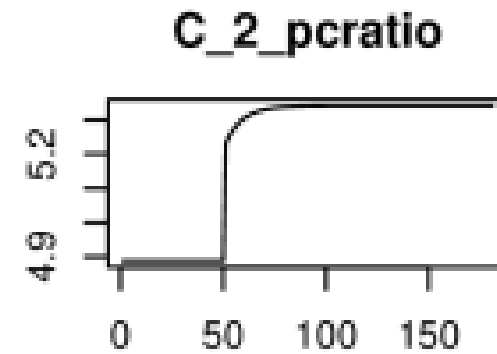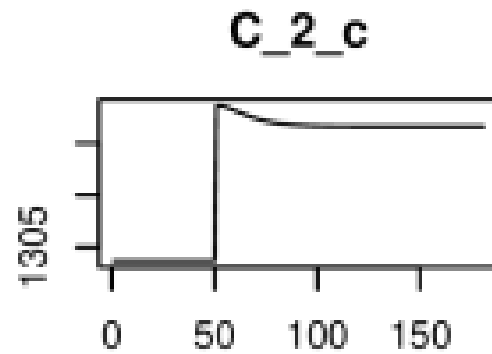
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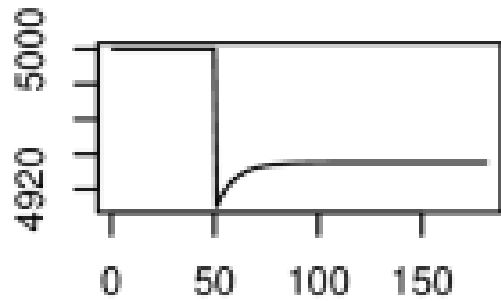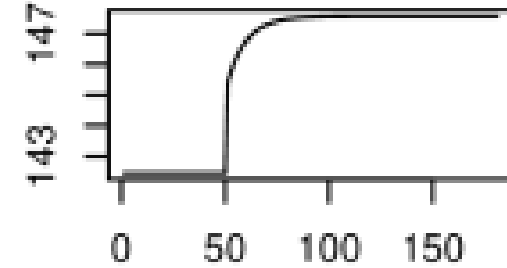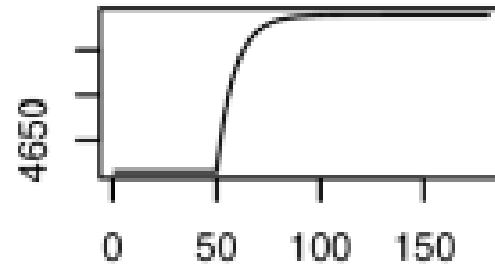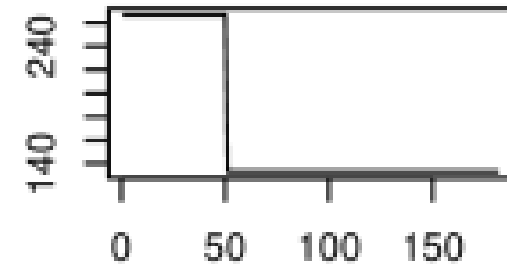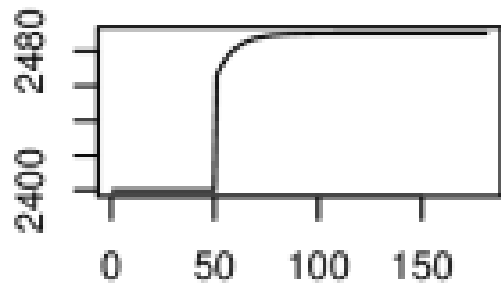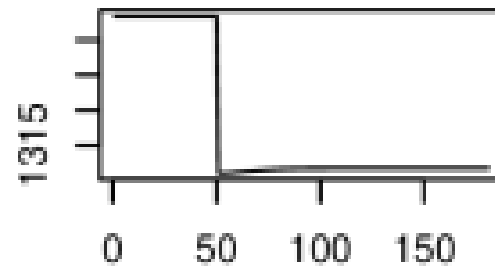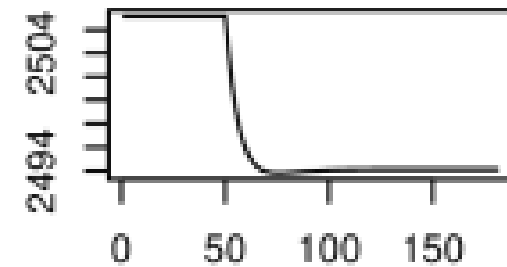
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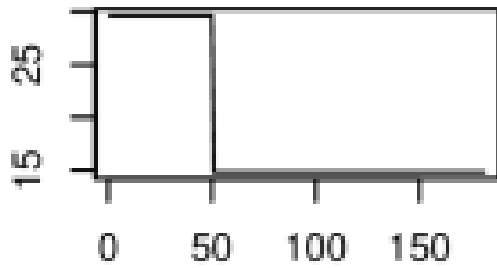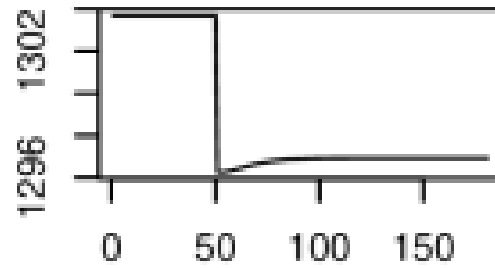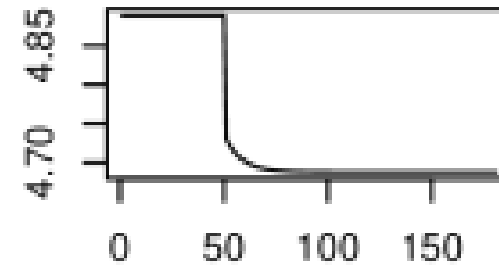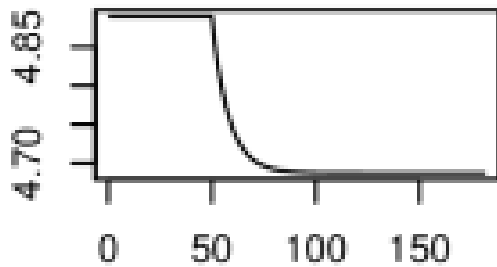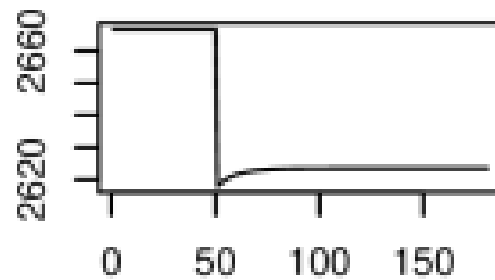
Conclusion

- Possible « win-win» scenario: slowing down obsolescence, reduction in resource use, reduction in ineaquality.
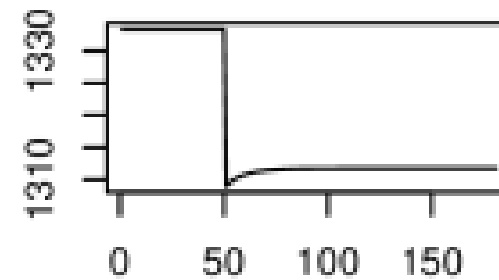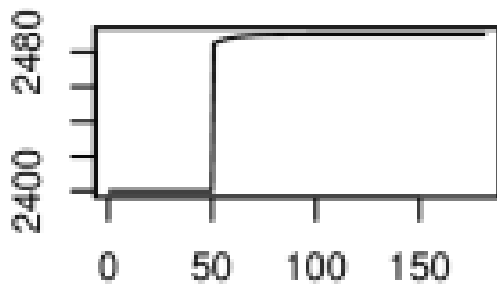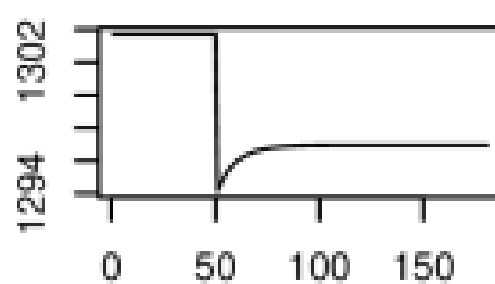
    - Despite increase in tax rate

    - Reduced ecological damage

    - Rebound effect is tamed

    - Public debt increases but stabilises

    - Working time reduction $\rightarrow$ could increase desirability of change

Merci de votre attention !

Calibration

- $N_w / N_c = 9$

- Tau (tax rate) = 0.2

- Propensities to consume : 0.75 (income) ; 0.13 (wealth)