

The Distributive Consequences of Downscaling Production to Ecological Limits Under Full Employment

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Abstract

Post-growth scholars argue that a Job Guarantee (JG) can mitigate the unemployment arising from downscaling production and consumption to move within planetary boundaries. However, the institutional and macroeconomic conditions necessary to maintain price stability and reduce inequality amid such sufficiency-oriented structural transformations remain insufficiently explored. I bring this terrain to light through a Post-Keynesian model to examine the distributive consequences of a resource-use cap implemented through a profit tax and a purple-green Job Guarantee (JG) programme. I analyse the price and distributional effects of these policies under three institutional configurations—Fordist, Neoliberal, and Post-growth—each characterised by competing claims among shareholders, managers, and workers. The simulations suggest that combining a resource-use cap with a JG can safeguard livelihoods amid a rapid reduction in resource use. However, inflationary pressures arising from sufficiency-oriented policies are contained only under the Post-growth regime, in which high bargaining power of workers, constraints on corporate profitability and the nominal anchor of the JG prevent firms from shifting the costs of the resource tax to consumers. Overall, the results underscore the importance of developing historically specific economic models to identify the institutional conditions under which different sufficiency-oriented post-growth scenarios are viable.

Keywords: Stock-flow consistency, job guarantee, resource cap, institutional configurations, wage bargaining, organisation of work

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1 Introduction

2 The Model

Given growth dependencies, the demand contraction from downscaling environmentally harmful production can lead to inequality. Moreover, the purple-green JG might overcome these growth dependencies, however, the institutional conditions for this to occur are still unclear. This discussion raises key questions for modelling scenarios. How do past institutional configurations, such as the Fordist and Neoliberal bargaining regimes, condition the distributive impacts of a JG? Even if inequality is contained, can low inflation and sufficiently high profits be expected to sustain the political legitimacy of a dominant social bloc? In the negative case, is there an alternative institutional configuration under which the JG mitigates the negative distributive consequences of demand contraction while inflation and profits are stabilised?

To tackle these questions, I adopt a stock-flow consistent (SFC) model. SFCs integrate stocks and flows within a coherent accounting structure, ensuring that all sectoral budget constraints and balance sheets are satisfied consistently over time. I adopt an SFC modelling methodology for three reasons. First, given the lack of observational data on how a JG would operate under Post-growth conditions, SFCs provide a valuable framework for simulating hypothetical scenarios and policy interactions. While JG pilot programmes and local initiatives in France, Belgium, Greece, and other countries offer important empirical insights, they do not provide sufficient evidence to evaluate dynamics at macroeconomic scale. Although based on theoretical assumptions, an SFC model offers a coherent representation of macroeconomic interdependencies, enabling the analysis of policy outcomes under conditions that have yet to be experienced, such as the deliberate downscaling of environmentally harmful production.

Second, its capacity to trace the evolution of the economy over time while allowing for disequilibrium is ideal for comparing alternative policy trajectories (Lavoie, 2022). This property is particularly important because a JG and downscaling production are structural policy interventions that generate gradual adjustments rather than immediate outcomes. In this sense, an SFC model makes it possible to evaluate the conditions under which these interventions can lead to long-run stability while also reducing inflationary pressures, inequality, and macroeconomic instability during the transitional process.

Third, the multi-sector structure of SFC models, together with their explicit representation of the financial system, enables recording and analysing every flow consistently across sectors. This accounting framework ensures that government expenditure on a JG is recorded simultaneously as a financial commitment of the state and as the income that mobilises productive resources and generates output (Nersisyan & Wray, 2021). As a result, the financing and macroeconomic effects of the JG become fully transparent when its fiscal costs are evaluated alongside its contributions to employment, production, and aggregate demand within a single, coherent accounting framework.

The model developed in this study combines and extends three stock-flow consistent (SFC) modelling frameworks to address the research questions. Its core structure builds on Yajima (2025), who develops a multi-sector, demand-led SFC model to simulate alternative Green New Deal policy packages, including a JG programme in green sectors under scenarios of reduced resource consumption. Yajima's model serves as our benchmark because it distinguishes between the government and the central bank while incorporating a green JG and a distinction between capital, energy and goods sectors. Compared with other frameworks, such as those developed by Godin (2014) and Sawyer Passarella (2021), this structure enables a more accurate representation of modern monetary operations, as it allows the central bank to carry out quantitative easing policies and capture its implications for the financial sector, such as lowering bill rates, increasing bank reserves, and reducing the public deficit through seigniorage.

Nevertheless, I extend Yajima's model in two respects given its limitations in realistically modelling a post-growth economy. The first limitation is seen in how reductions in resource consumption are modelled primarily through improvements in resource efficiency, without accounting for sufficiency-oriented measures or imposing explicit biophysical constraints. Moreover, similarly to previous post-growth modelling literature, direct reductions in consumption are represented by exogenously adjusting the growth rate of household energy consumption (Leoni, 2024). Although the Job Guarantee could contribute to reducing household energy consumption through the renovation of public buildings and other green jobs, it still does so through improved energy efficiency. It therefore does not directly address rebound effects or account for the consumption of other resources, particularly metals and minerals.

To address these limitations in line with our research question, I incorporate a resource

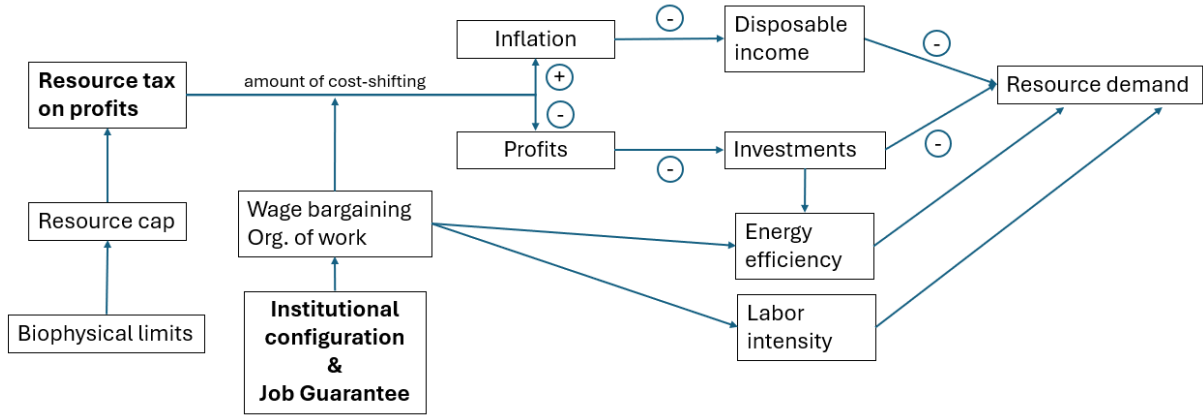


Figure 1: Causal diagram of the model

cap policy based on the PADME model developed by Leoni et al. (2026), allowing resource and material consumption to be reduced through both efficiency improvements and sufficiency-oriented constraints. In this approach, the economy not only depends on an energy sector but, more generally, on ‘resources’, referring to material use needs of an economy such as fossil fuels, biomass, metals and minerals. This approach is adopted because it not only models a policy-driven reduction in resource demand but also more realistically captures the post-growth transition as a potentially conflictual process, marked by tensions between a demand-led economic system and the constraints imposed by resource taxation. However, in contrast to the PADME model, the resource tax enforcing the cap is levied on firms’ profits rather than consumption, as windfall profits are a central transmission channel through which shocks are amplified and inequality is deepened. Firms with market power use economy-wide shocks as an opportunity to raise prices beyond what cost increases justify, protecting or expanding their margins (Semieniuk et al., 2025). Taxing profits directly targets this windfall rather than consumers. It also allows the model to capture how the ultimate incidence of the tax depends on a distributive conflict: firms attempt to preserve their after-tax profits by shifting the cost forward onto prices or backwards onto wages.

Second, another limitation of current SFC models of the green JG is that they do not incorporate alternative institutional configurations, leaving the political-economic conditions required to achieve and sustain full employment largely unexplored. Therefore, I introduce a conflicting claims mechanism based on the SFC model of Dallery and Van Treeck (2011), which enables the analysis of different institutional configurations of capital-labour relations, including Fordist and Neoliberal regimes. This extension is particularly suitable because its

conflicting-claims mechanism captures how firms' ability to pass rising costs on to prices, thereby generating inflationary pressures, depends on the relative bargaining power of social groups. Furthermore, by extending Lavoie's (2002) conflicting-claims approach to incorporate the dynamics of financialisation, it provides a framework for representing Neoliberalism as a regime in which firms prioritise profitability over capital accumulation.

2.1 Structure of the model

Table 1 presents the balance sheet matrix of the integrated model which does not diverge from the benchmark balance sheet of Yajima's original framework, as neither the conflicting claims framework of Dallery and Van Treeck (2011) nor the resource-cap policy of the PADME model introduces new financial assets or liabilities. The model is composed of households, three productive sectors (resource, consumption goods and capital goods), the financial sector, the government, the central bank and the foreign sector. Households' wealth consists of deposits, cash and firms' securities, while firms' net worth corresponds to the difference between their productive capital and their financial liabilities. Banks' balance sheets are balanced through their holdings of loans, government securities, reserves and central bank advances, whereas government net worth reflects the accumulation of public liabilities issued through treasury bills.

Table 1: Balance Sheet Matrix

	Households	Firms e	Firms c	Firms k	Financial Sector	Government	Central Bank	Foreign Sector	Sum
Checking deposits	$+m1_h$					$-m1_h$			0
Saving deposits	$+m2_h$					$-m2_h$			0
Bills					$+bb$	$-bs$	$+bcb$		0
Loans			$-lf_e$	$-lf_c$	$-lf_k$	$+ls$			0
Equities (Securities)	$+eh$	$-eh_e$	$-eh_c$	$-eh_k$					0
Capital			$+k_e$	$+k_c$	$+k_k$				K
Cash	$+hh$							$-hh$	0
Advances							$-ad$	$+ad$	0
Reserves							$+hbd$	$-hbd$	0
Foreign reserves							$+hf$		
$-hf$	0								
Balance	$-V$	NW_e	NW_c	NW_k	NW_b	NW_g	NW_{cb}	NW_f	0

Description: This table shows how financial and real stocks are distributed across the institutional sectors at the beginning and end of each accounting period. In line with the stock-flow consistent methodology, every financial asset held by one sector corresponds to an equal liability of another sector, so that each row sums to zero. The only exception is the stock of physical capital, which constitutes the economy's real asset and therefore has no corresponding financial liability. Net worth is recorded as the balancing item that ensures each sector's balance sheet satisfies the accounting identity that assets equal liabilities plus net worth. Source: based on (Yajima, 2025).

Table 2 presents the transaction flow matrix (TFM), which summarises all monetary flows between institutional sectors during each accounting period. Households receive wages, distributed profits, interest income and government transfers, while consuming final goods, paying taxes and allocating their savings among deposits, securities and cash holdings. The three productive sectors sell resource, consumption goods and capital goods to households,

firms and the government. Firms also undertake investment, borrow from the banking sector and distribute profits to households. Banks receive interest on loans and government securities while paying interest on deposits, whereas the government purchases goods and services, finances the JG programme, collects taxes and issues treasury bills to finance any remaining deficit. The central bank supplies reserves, provides advances to commercial banks and holds government securities, while the foreign sector records exports, imports and changes in foreign financial assets.

The integrated model extends Yajima's transaction flow matrix by introducing a resource tax as a new transaction from firms to the government. The tax is levied on firms' profits as a function of resource use and varies endogenously according to the gap between aggregate resource demand and the exogenously specified resource cap. Moreover, the tax also represents a money outflow to households, as they bear the costs of excess resource use to the extent that firms pass them on through higher prices. In turn, resource-tax revenues become an additional source of government income.

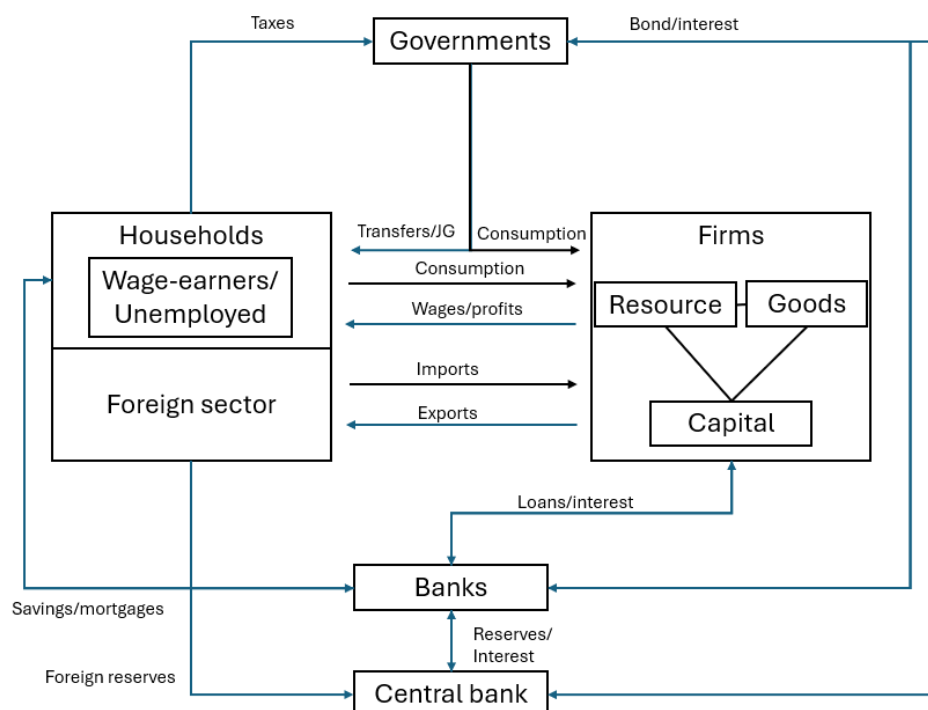


Figure 2: Monetary flow diagram

Table 2: Transaction flow matrix

	Households	Firms e	Firms c	Firms k	Financial sector	Government	Central bank	Foreign sector	sum
Consumption resource	$-c$	$+y_e$	$+y_c$	$-c_k$		$-c_{g,e}$			0
Consumption Govt. Expenditures	$-c_e$	$+c_{ge}$	$-c_c$			$-c_{g,e}$			0
Investment				$+y_k$		$-g_{ov}$			0
Firms' Profit	$+fdf$	$-id_e$	$+c_{gk}$	$-idf_k$	$-id_k$	$-c_{g,k}$			0
Retained earnings		$+fu_e$	$-fdf_c$	$-fu_k$	$+fu_k$				0
Taxes	$-tax$		$-fu_c$			$+tax$			0
Resource cap tax	$-tax_e$	$-tax_e$	$-tax_e$	$-tax_e$		$+tax_e$			0
Banks Profits	$+fb$					$+fcb$	$-fcb$		0
CB Profits									0
Exports			$+x$					$-x$	0
Imports			$-m$					$+m$	0
Int. on checking deposits	$+m_1 m1h_{-1}$								0
Int. on Saving deposits	$+m_2 m2h_{-1}$								0
Int. on Bills	$+rb_{-1} bh_{-1}$						$+rb_{-1} bcb_{-1}$		0
Int. on Loans			$-rl_{k,-1} lf_{k,-1}$	$-rl_{k,-1} lf_{k,-1}$		$-rb_{-1} bs_{-1}$			0
Int. on Securities		$-rl_{e,-1} lf_{e,-1}$	$-re_{e,-1} eh_{e,-1}$	$-re_{k,-1} eh_{k,-1}$			$+ra_{-1} ad_{-1}$		0
Int. on Advances	$+re_{x,-1} eh_{x,-1}$	$-re_{e,-1} eh_{e,-1}$					$-rh_{-1} hhd_{-1}$		0
Int. on Reserves									0
Changes in Stock									
Change in checking deposits	$-\Delta m1h$								0
Change in Saving deposits	$-\Delta m2h$								0
Change in Bills	$-\Delta bh$					$+\Delta bs$	$-\Delta bcb$		0
Change in Loans		$+\Delta f_e$	$+\Delta f_c$	$+\Delta f_k$					0
Change in Securities	$-\Delta eh$	$+\Delta eh_e$					$+\Delta hh$		0
Change in Cash	$-\Delta hl$					$-\Delta ad$			0
Change in Advances						$+\Delta hb$			0
Change in Reserves								$+\Delta hf$	0
Change in Foreign reserves									0

Description: Following Golley and Lavoie 2012, each row represents a particular transaction, while each column records the receipts and expenditures of an institutional sector. Every transaction appears twice: once as an expenditure (negative entry) and once as the corresponding receipt (positive entry). Consequently, all row and column totals equal zero, reflecting the stock-flow consistent principle that every payment by one sector constitutes income for another sector and that each sector's current account is fully reconciled with its saving and changes in financial assets. Source: based on (Yojima, 2025).

2.2 Behavioural Equations

Non-financial Firms

Aggregate output (1) is composed of the sum of each sector's output. The consumption in sector c (2) depends on household consumption demand and government expenditures and is the only one that includes imports (exports). The output of capital sector k (3) is a function of the sum of investment goods of other sectors plus government expenditures on capital. The demand for resource in sector e (4) is a function of resource demand from sectors k and c which depend on resource productivity (5) and from the household sector which is a fraction of total consumption (6).

$$y = y_c + y_k + y_e \quad (1)$$

$$y_c = c + c_{g,c} + tb \quad (2)$$

$$y_k = \sum_{x=1}^n id_x + c_{g,k}, \quad \forall x \in \{c, k, e\} \quad (3)$$

$$y_e = c_c + c_k + c_{g,e} + c_e \quad (4)$$

$$c_x = \frac{y_x}{pre}, \quad \forall x \in \{c, k\} \quad (5)$$

$$c_e = \sigma_3 * (c_{-1}) \quad (6)$$

To make investment determination in each sector conditional on the institutional configuration, I include conflicting profitability targets between shareholders, managers and workers. Following Dallery and Van Treeck (2011), who draw from a Kaleckian growth model, firms' investment growth (12) depends on three main factors. The first is capacity utilisation rate (7), which measures actual output relative to potential output (the division between capital stock and the capital to full capacity output ratio). Second is the profitability target (8), which results from the weighted average of the profit targets of shareholders (rsh) and managers (rsm),

with δ_1 determining their relative weight. Third is the leverage ratio (11), which measures the sector's outstanding bank loans relative to its capital stock, indicating the extent to which its productive assets are financed through debt. Investment growth (13) drives investment demand together with depreciation allowances. As a result, capital accumulation (14) equals the previous-period capital stock plus gross investment minus depreciation. Under a Fordist institutional configuration, I assume that $\gamma_2 = 0$ and $\gamma_3 > 0$ in equation 12 (Dallery & van Treeck, 2011). This is justified as the Fordist dominant social bloc aligned managers and workers, orienting firms' objectives toward expansion rather than profitability. As a result, firms' investment was mainly responsive to the availability of finance (γ_3) rather than shareholder profitability claims (γ_2). In contrast, under a Neoliberal dominant social bloc, shareholder profitability objectives are imposed onto managers and workers, so I assume that $\gamma_2 > 0$ and $\gamma_3 = 0$ in equation 12.

$$u_x = \frac{y_x}{k_{x,t-1}/\kappa_f} \quad (7)$$

$$rsf = \delta_1 \cdot rsh + (1 - \delta_1) \cdot rsm \quad (8)$$

$$da_x = \delta \cdot k_{x,t-1} \quad (9)$$

$$af_x = da_x \quad (10)$$

$$lev_x = \frac{lf_{x,t-1}}{k_{x,t-1}} \quad (11)$$

$$g_x = \gamma_0 + \gamma_1 \cdot u_{x,t-1} - \gamma_2 \cdot rsf_{x,t-1} - \gamma_3 \cdot lev_{x,t-1} \quad (12)$$

$$id_x = da_x + g_x \cdot k_{x,t-1} \quad (13)$$

$$k_x = k_{x,t-1} + id_x - da_x \quad (14)$$

With these investment equations, it becomes clear how the institutional configuration has an impact on the amount of profits (15): investment demand in each sector drives aggregate income, from which a share goes to profits after interest payments, depreciation, and the wage bill are subtracted. The amount of retained profits (17) as a share of total profits also feeds back into the leverage ratio through the demand for loans (18). Overall, the firm's liability position is determined by previous-period liabilities plus investment expenditure, minus depreciation, retained profits, and the issuance of corporate securities offered to the public (19).

$$ff_x = y_x - rl_{x,t-1} \cdot lf_{x,t-1} - af_x - wb_x \quad (15)$$

$$fdf_x = (1 - \theta_x) \cdot ff_x \quad (16)$$

$$fuf_x = \theta_x \cdot ff_x \quad (17)$$

$$lf_e = lf_{x,t-1} + id_x - af_x - fuf_x - (esr_x - esr_{x,t-1}) \cdot pe_x \quad (18)$$

$$esr_x = esr_{x,t-1} + \chi \frac{id_{x,t-1}}{pe_{x,t-1}} \quad (19)$$

$$ns_t = ns_{t-1} \cdot (1 + gl) + \nu \cdot (nd_{t-1} - ns_{t-1}) \quad (21)$$

$$un = 1 - \frac{nd}{ns} \quad (22)$$

$$wb_x = w_x \cdot nd_x \quad (23)$$

$$\omega_1 = \omega_2 - \omega_3 \cdot un_{t-1} \quad (24)$$

$$rsw_t = rsw_{t-1} + \rho_2 (un_{t-1} - un_{t-2}) \quad (25)$$

$$rs_x = \frac{unorm_x}{\kappa_f} \left(1 - \frac{w}{p \cdot prf} \right) \quad (26)$$

$$w_{x,t} = w_{x,t-1} [1 + \omega_1 (rs_{x,t-1} - rsw_{t-1}) + \omega_4 \cdot epi] \quad (27)$$

$$w = \frac{w_e + w_c + w_k}{3} \quad (28)$$

$$prf = \frac{prf_e + prf_c + prf_k}{3} \quad (29)$$

Prices and Expectations

The unit price of private-sector output (31), calculated as unit labour cost, adjusted for the firm's markup (30). The markup adjusts to the gap between its target and current profit rates, while also incorporating expected inflation, which is assumed to adjust adaptively (35). The overall price level (33) includes the production costs of public goods (32), determined by labour costs in the JG sector.

$$mup = mup_{p,-1} + \psi_3 \cdot (rsf_e - rs_e) + \psi_4 \cdot epi \quad (30)$$

$$p_f = \left(\frac{w}{prf} \right) \cdot (1 + mup) \quad (31)$$

$$p_g = \left(\frac{c_{gov}}{pr_g \cdot n_g} \right) \cdot (1 + \tau_e) \quad (32)$$

$$p = p_f \cdot \left(1 - \frac{c_{gov,t-1}}{y_{t-1}} \right) + p_g \cdot \left(\frac{c_{gov,t-1}}{y_{t-1}} \right) \quad (33)$$

$$\pi = \frac{p}{p_{-1}} - 1 \quad (34)$$

$$epi = epi_{-1} + \psi_1 + \psi_2 \cdot (\pi_{-1} - epi_{-1}) \quad (35)$$

$$ep = p_{-1} \cdot (1 + epi) . \quad (36)$$

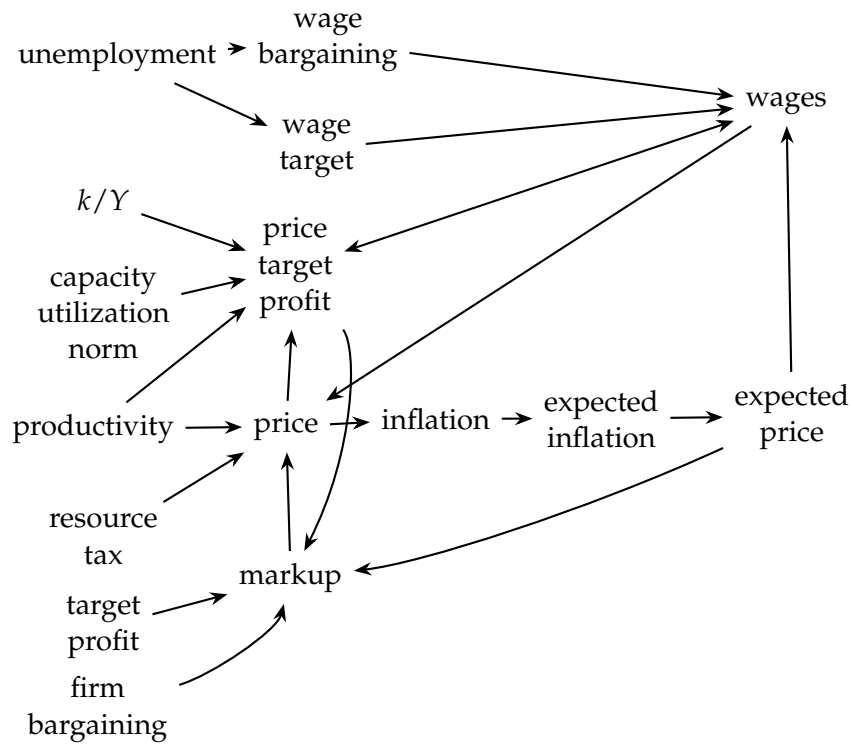


Figure 4: Price and wage determination diagram.

Households, commercial banks, government, portfolio decisions and central bank

The rest of the equations are maintained the same as Yajima's (2025) model as described in the

Appendix. According to the model, households' disposable income comprises private- and JG-sector wages, distributed profits, interest income, and government transfers, net of taxes and public tariffs. Consumption is determined by real disposable income, wealth, and resource use, with asset-specific propensities to consume and an income propensity that varies with the policy interest rate and unemployment. Wealth follows the Haig–Simons definition, including capital gains.

Banks meet firms' credit demand and receive household deposits. Their balance sheets contain bills, reserves, and central bank advances, while bank profits are distributed to households. Excess demand for bills is held as treasury bills and additional reserves; otherwise, banks obtain central bank advances.

Government revenue derives from taxes on labour, capital, property income, and the resource tax on consumer and capital goods. Public spending on productive sectors responds pro-cyclically to sectoral demand, while transfers combine autonomous and unemployment-dependent components. The resulting deficit is financed through government bill issuance, while central bank profits accrue to the government.

Households allocate wealth across shares, government bills, and deposits according to a Tobinesque portfolio rule. Money demand also reflects expected consumption, while saving deposits provide a liquidity buffer. Firms issue shares to households, and their valuation is expressed in real terms.

The central bank supplies advances on demand, maintains required reserves, and purchases bills not absorbed by the private sector, acting as lender of last resort. Under open-market operations, bill purchases depend on a policy target and the policy rate. Financial yields are linked to the central bank's policy rate through mark-ups, with the bill-rate spread adjusting endogenously to private demand for government bills.

Exports and imports are confined to the goods sector and depend on the exchange rate, foreign output, and domestic prices. Foreign output follows an exogenous growth path, while the exchange rate is fixed and external imbalances are settled through changes in foreign reserves. The model is closed by the identity equating household cash demand with the corresponding money supply.

2.3 Policy features

Two different shocks to the model are introduced by modifying some of the baseline equations presented in the previous section:

1. *A sufficiency policy based on resource caps* which is enforced through an endogenous tax rate on excess resource use (37). If resource demand exceeds the capped level of production, the resource tax rate increases endogenously until resource demand falls to the level permitted by the cap. In every time period, the cap decreases by 3% until it reaches the level of resource consumption within planetary boundaries (represented by a 30% reduction of the baseline). The tax burden is distributed between the markup in the price of private goods (39), disposable income (40) and profit from firms in the k and c sectors (41). The resource sector does not bear the tax on the assumption that it does not consume resources. Moreover, the distribution of the tax burden between firms and households depends on the amount of cost-shifting (with a full pass-through when $cshift=1$). As a result, reduced resource demand can arise from either a decrease in household consumption due to lower disposable income or from lower investments due to declining profits. The tax also represents an income to governments, so it is also discounted from the public deficit equation (42).

$$\tau_e = \max \left\{ 0, \tau_{e,t-1} + \lambda_\tau \cdot \left(\frac{(c_c + c_k) - \text{cap}_{e,t-1}}{\text{cap}_{e,t-1}} \right) \right\} \quad (37)$$

$$mup = mup_{p,-1} + \psi_3 \cdot (rsf - rs_x) + \psi_4 \cdot epi \quad (38)$$

$$p_f = \left(\frac{w}{prf} \right) \cdot (1 + mup) \cdot (1 + cshift \cdot \tau_e) \quad (39)$$

$$\begin{aligned} yd = & wb + rm_{t-1} \cdot m2h_{t-1} + rb_{t-1} \cdot bh_{t-1} - (rep_{t-1} + rlh_{t-1}) \cdot lh_{t-1} \\ & + fdf + fb + tr - tax + wbg - cgov - cshift \cdot \tau_e \cdot (c_c + c_k) \end{aligned} \quad (40)$$

$$ff_x = y_x - rl_{x,t-1} \cdot lf_{x,t-1} - af_x - wb_x - c_x - (1 - cshift) \cdot \tau_e \cdot c_x \quad (41)$$

$$def_{j,i} = gov_{j,i} + tr_{j,i} + rb_{j,i-1} \cdot bs_{j,i-1} - tax_{j,i} - \tau_e \cdot (c_c + c_k) - fcb_{j,i} + wbg_{j,i} - cgov_{j,i} \quad (42)$$

2. *The implementation of a purple-green JG* which absorbs unemployment completely (43) and increases resource productivity through a fourth public production sector dedicated to green investment and ecological restoration. Additionally, the JG reduces resource demand by reducing the labour productivity of the economy, intending to represent the growth of care provisioning and thus the ‘purple’ dimension of the job guarantee (Garzón Espinosa & Cruz Hidalgo, 2021). This provisioning of green and purple services is based on an exogenous public wage rate which is below the wage of the private sector in the time period when implemented (44). In line with a modern monetary theory approach, the JG wage would become the nominal price of labour and thus serve as an anchor to wages in the private sector (45) (Levey, 2025). At the same time, the impact of the JG also feeds back into the conflicting claims mechanisms. Following Kalecki’s insight that the threat of unemployment disciplines wage demands, a permanent JG fundamentally alters the balance of power in the labour market by eliminating the cost of involuntary unemployment. Overall, the JG wage acts as a nominal wage floor and establishes the reservation wage for all workers, strengthening their outside option in wage negotiations.

$$ng = ng_{t-1} + \gamma_g \cdot (nn - ng_{t-1}) \quad (43)$$

$$wg = \rho_g \cdot w_{t=60} \quad (44)$$

$$w_e = w_{e,t-1} \cdot \left[1 + \omega_1 \cdot (rs_{e,t-1} - rsw_{t-1}) + \omega_4 \cdot epi_a - \frac{\omega_5 \cdot (w_{e,t-1} - wg_{t-1})}{wg_{t-1}} \right] \quad (45)$$

2.4 Model calibration and baseline configurations

The initial values of the variables and the parameter calibration follow a conceptual approach, drawing on empirical evidence from high-income countries where available. Where empirical

Table 3: Model Parameters by Social Compromise

Social compromise / Parameter	Investment sensitivity to profitability (γ_2)	Investment sensitivity to leverage (γ_3)	Shareholder target (r_{sh})	Wage bargaining strength (ω_2)	Amount of cost shifting
Fordism	0.02	0.2	0.07	0.4	0.6
Neoliberalism	0.4	0.02	0.09	0	1
Post-growth	0	0.25	0.02	0.7	0

estimates are unavailable, parameter values are informed by the benchmark models and other stock-flow consistent (SFC) literature or selected based on their implications for model stability. The full list of parameters, their calibrated values, and the corresponding justifications are provided in the Appendix.

In addition, I modify the values of key parameters to represent three different baseline institutional configurations under study, as summarised in Table 3: a Fordist, Neoliberal and post-growth regime. Fordism refers to the post-war accumulation regime characterised by strong economic growth, productivity-linked wage increases, relatively strong worker bargaining power, the nuclear family model, and an energy-intensive industrial system supported by abundant, cheap energy (Aglietta, 2000; Cahen-Fourot & Magalhães, 2023). Under Fordism, profitability targets of shareholders are subject to the growth objectives of managers. Firms' growth priority leads to flexible profitability targets. In this context, managers have higher liquidity constraints or are more reluctant to increase indebtedness. As a result, investment determination is not determined by profitability targets but by demand and the leverage ratio (thereby $\gamma_2 = 0$ and $\gamma_3 = 0.2$) (Dallery & van Treeck, 2011). As seen in figure , the Fordist regime leads to an increasing accumulation while profits adjust to the target rate of managers. Moreover, the high wage bargaining of workers pushes the wage share upwards. Therefore, despite firms accommodate wage growth, the profit rate is still increasing since an expanding capacity utilisation rate compensates for the reductions in the profit share.

Under Neoliberalism, weakened labour bargaining power and shareholder-oriented firms prioritise profitability over employment and investment, resulting in lower wage shares and more demand-constrained growth. The shareholder target rises ($r_{sh}=0.09$), and firms internalise this target into their pricing and financial decisions. Investment becomes sensitive to profitability ($\gamma_2=0.4$) and insensitive to leverage ($\gamma_3=0$). Wage bargaining strength falls ($\omega_2=0.2$), compressing the wage share and redistributing income toward profits and rentier income. The result is a regime in which profitability is prioritised over accumulation, and

growth is constrained by demand and distributional conflict.

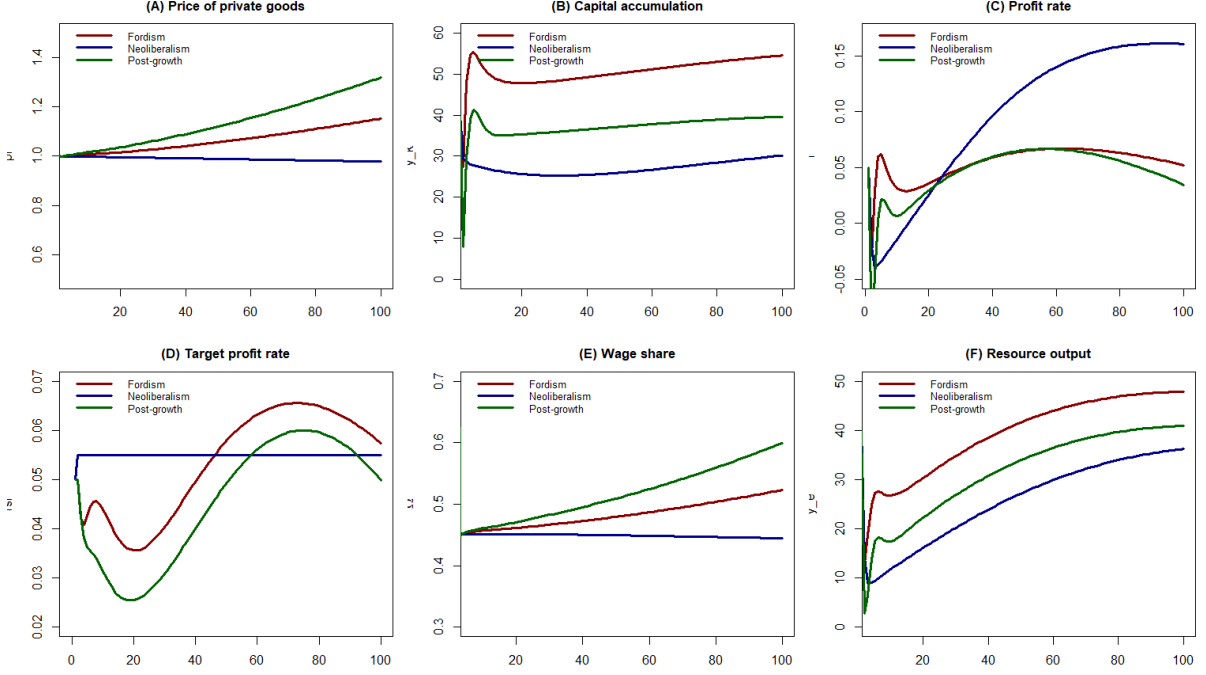


Figure 5: Baseline results under different institutional configurations

Under a post-growth scenario, shareholder profitability targets are drastically reduced ($r_{sh}=0.02$), reflecting a social compromise in which financial returns are no longer the organising principle of the economy. Investment is no longer driven by profitability ($\gamma_2=0$) but remains moderately responsive to leverage ($\gamma_3=0.3$). Wage bargaining strength is high ($\omega_2=0.6$), reflecting institutions that prioritise income security and distribution. The profit share is compressed, and demand is sustained through redistribution and public provisioning rather than through private accumulation.

3 Simulation Results

After obtaining the baseline scenarios by running the model through 100 periods, three different policy experiments are applied separately for Fordist, Neoliberal and Post-growth institutional conditions:

- Scenario 1: The implementation of a sufficiency policy.
- Scenario 2: The implementation of a purple-green JG.
- Scenario 3: The implementation of a sufficiency policy and a purple-green JG.

3.1 Fordism

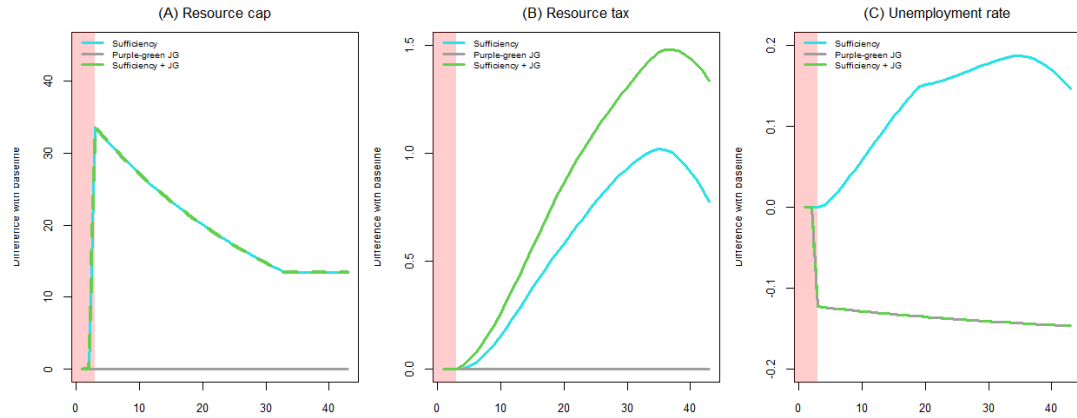


Figure 6: Scenario results under a Fordist regime

3.2 Neoliberalism

3.3 Post-growth

4 Discussion

Table 4: Summary of Results

Inst. Conditions	Policy	Resource use	Wage share	Inflation	Profits
Fordism	Sufficiency	-	++	++	--
	JG	+	-	-	+
	JG + sufficiency	-	+	++	--
Neoliberalism	Sufficiency	-	++	+	+
	JG	+	-	-	-
	JG + sufficiency	-	++	+	-
Post-growth	Sufficiency	-	++	+	--
	JG	+	-	-	++
	JG + sufficiency	-	++	-	-

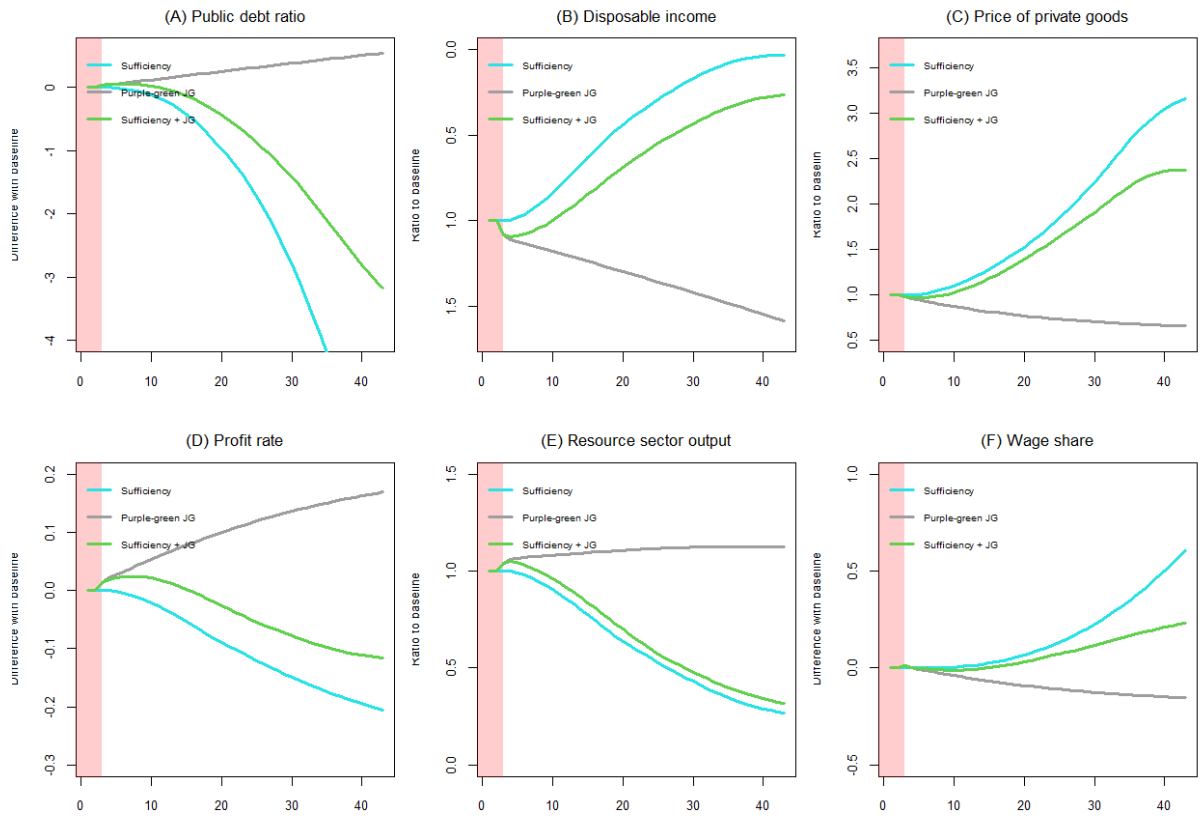


Figure 7: Scenario results under a Fordist regime

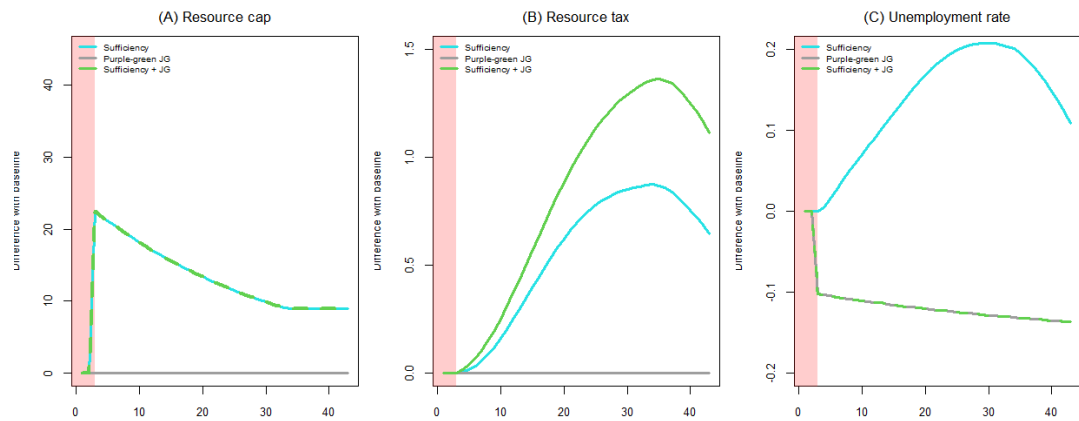


Figure 8: Scenario results under a Neoliberal regime

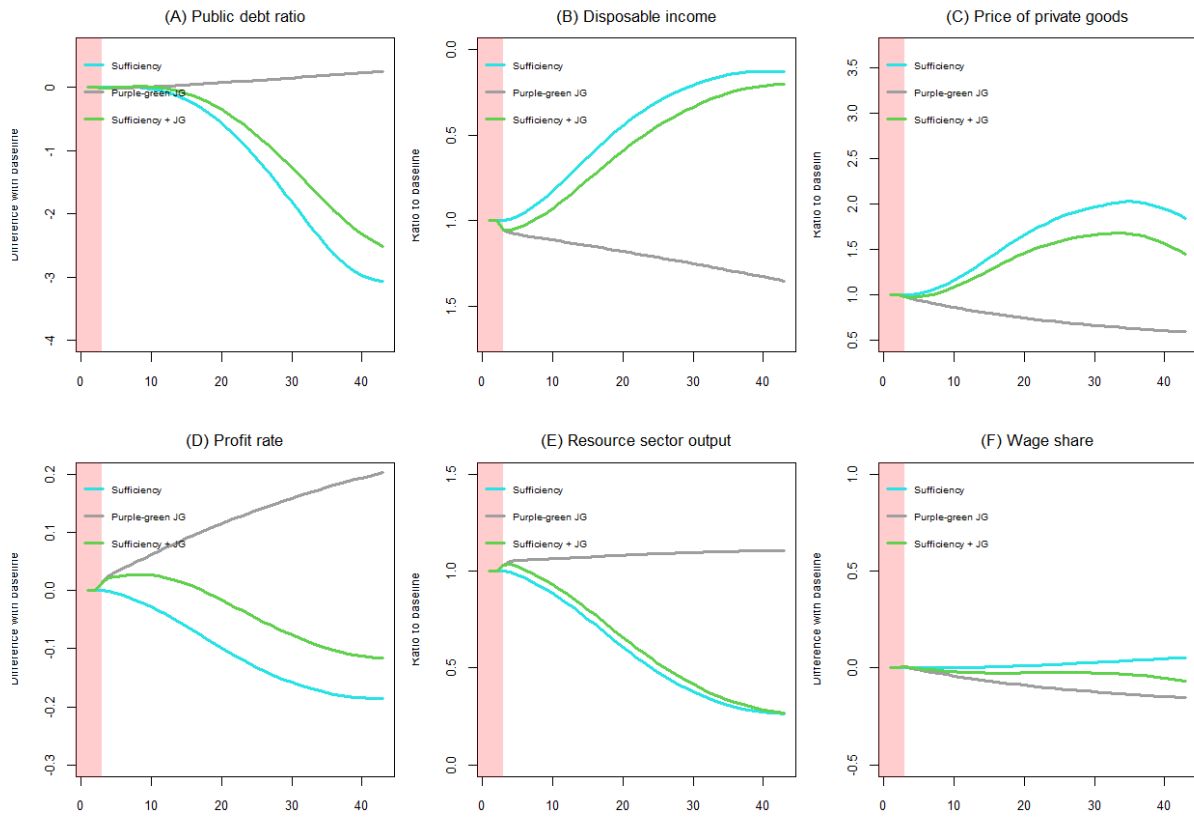


Figure 9: Scenario results under a Neoliberal regime

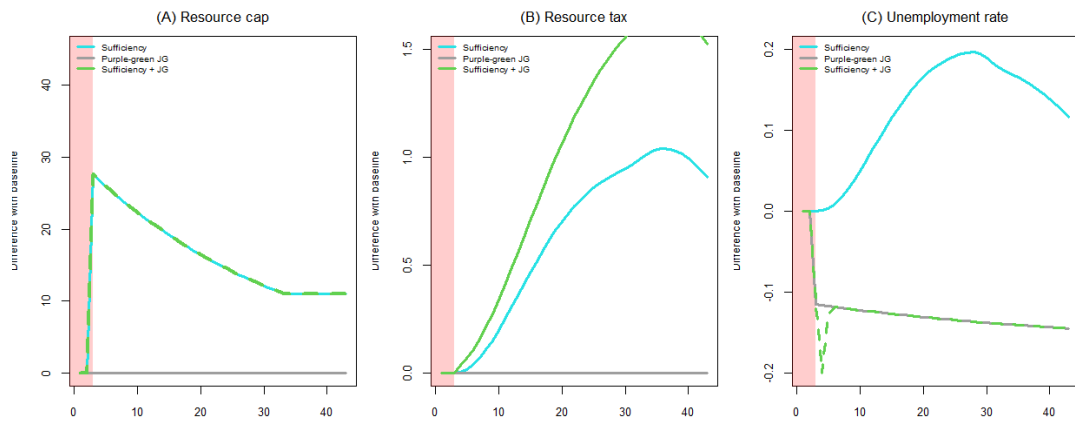


Figure 10: Scenario results under a Post-growth regime

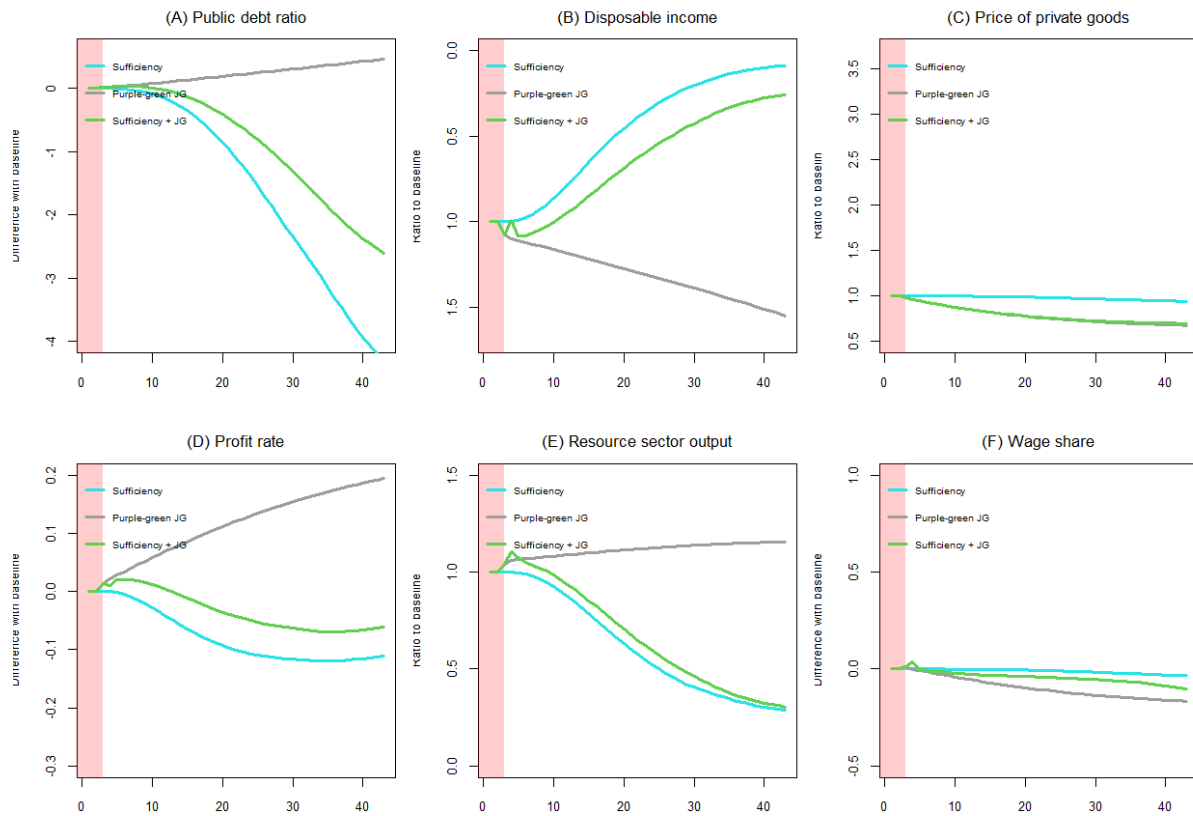


Figure 11: Scenario results under a Post-growth regime

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Declaration of Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have influence the work reported in this paper.

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Data Availability

Appendix

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A

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Table 5: Transaction flow matrix

	Households	Firms e	Firms c	Firms k	Financial sector	Government	Central bank	Foreign sector	sum
Consumption	$-c$		$+y_c$			$-c_{g,c}$			0
resource Consumption	$-c_e$	$+y_e$	$-c_c$	$-c_k$		$-c_{g,e}$			0
Govt. Expenditures		$+c_{ge}$		$+c_{gk}$		$-gov$			0
Investment		$-id_e$	$-id_c$	$+y_k$		$-c_{gk}$			0
Firms' Profit	$+fdf$	$-fdf_e$	$-fdf_c$	$-fdf_k$					0
Dividends	$+div$	$-div_e$	$-div_c$	$-div_k$					0
Taxes	$-tax$					$+tax$			0
resource Cap Tax		$-tax_e$	$-tax_c$	$-tax_k$		$+tax_e$			0
Banks Profits	$+fb$				$-fb$				0
CB Profits						$+fcb$	$-fcb$		0
Exports			$+x$					$-x$	0
Imports			$-m$					$+m$	0
Int. on checking deposits	$+rm_1 \cdot m1h_{-1}$				$-rm_1 \cdot m1h_{-1}$				0
Int. on Saving deposits	$+rm_2 \cdot m2h_{-1}$				$-rm_2 \cdot m2h_{-1}$				0
Int. on Bills	$+rb_{-1} \cdot bh_{-1}$				$+rb_{-1} \cdot bb_{-1}$	$-rb_{-1} \cdot bs_{-1}$	$+rb_{-1} \cdot bcb_{-1}$		0
Int. on Loans		$-rl_{e,-1} \cdot lf_{e,-1}$	$-rl_{c,-1} \cdot lf_{c,-1}$	$-rl_{k,-1} \cdot lf_{k,-1}$	$+rl_{x,-1} \cdot ls_{x,-1}$				0
Int. on Securities	$+re_{x,-1} \cdot eh_{x,-1}$	$-re_{e,-1} \cdot eh_{e,-1}$	$-re_{c,-1} \cdot eh_{c,-1}$	$-re_{k,-1} \cdot eh_{k,-1}$					0
Int. on Advances					$-ra_{-1} \cdot ad_{-1}$		$+ra_{-1} \cdot ad_{-1}$		0
Int. on Reserves					$+rh_{-1} \cdot hbd_{-1}$		$-rh_{-1} \cdot hbd_{-1}$		0
Changes in Stock									
Change in checking deposits	$-\Delta m1h$				$+\Delta m1h$				0
Change in Saving deposits	$-\Delta m2h$				$+\Delta m2h$				0
Change in Bills	$-\Delta bh$				$-\Delta bb$	$+\Delta bs$	$-\Delta bcb$		0
Change in Loans		$+\Delta lf_e$	$+\Delta lf_c$	$+\Delta lf_k$	$-\Delta ls$				0
Change in Securities	$-\Delta eh$	$+\Delta eh_e$	$+\Delta eh_c$	$+\Delta eh_k$					0
Change in Cash	$-\Delta hh$						$+\Delta hh$		0
Change in Advances					$+\Delta ad$		$-\Delta ad$		0
Change in Reserves					$-\Delta hb$		$+\Delta hb$		0
Change in Foreign reserves					$-\Delta hf$			$+\Delta hf$	0

Source: based on (Yajima, 2025). This is the same table as the previous one but without the current and capital account division and with dividends instead of retained earnings.