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Germany's Swift Package of Business Tax Breaks Aimed at Stimulating Investment

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Germany's Swift Package of Business Tax Breaks Aimed at Stimulating Investment

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Abstract

Germany has introduced a comprehensive package of staggered business tax breaks to accelerate business investment and give new momentum to economic growth. The key components of the so-called investment booster program are a temporary tax write-off on machinery and other equipment investments to a maximum of 30% in 2025, 2026, and 2027, followed by a stepwise permanent reduction of the corporate tax rate from 15% to 10% between 2028 and 2032. We first present a stochastic general equilibrium (DSGE) modeling setup and baseline results for the enacted unconventional policy measures incentivizing investment, then assess counterfactual policy regimes including various red tape streamlining supply shock scenarios. Overall, the insights into the unconventional reform package provide actionable guidelines for the design of business tax breaks aimed at stimulating investment.

Keywords: Business taxation, unconventional fiscal policy, investment, DSGE model, Germany
JEL-Codes: E22, E60, H25, Q54, Q58

1. Introduction

The new German government aims at reinvigorating the economy out of stagnation with business tax breaks and bureaucracy streamlining reviving investment. The overarching goal of the investment incentive scheme is to kickstart economic growth and enhance competitiveness. These objectives are part of a broader strategy to ensure long-term economic stability, resilience, and sustainability in the face of geoeconomic and geopolitical challenges. This includes in particular Russia's military threat to Europe, and US president Donald Trump's confrontational economic diplomacy.

Germany's economy has been stagnating for more than two years, entering a likely third year of recession in 2025 after GDP in Europe's largest economy shrank 0.3% and 0.2% in 2023 and 2024, respectively. For the year 2025, the German government has revised down its growth forecast to zero, highlighting the struggle Europe's biggest economy faces in regaining momentum.¹ The war in Ukraine, and subsequent energy price shocks also contributed to Germany's poor macroeconomic performance. It is noticeable that business investment in Germany has been particularly sluggish since the global financial crisis by international standards (OECD, 2025a, p. 66). As a result, Germany's economic trajectory in the global landscape characterized by geopolitical tensions and domestic headwinds is under close watch.

Against the backdrop of a multiyear recession, Germany's new government has introduced an unconventional package of business tax breaks, worth a cumulative 45.8 billion euros, to revive the German economy out of stagnation. The German Bundestag passed the package at the end of June 2025, and the Bundesrat approved it on July 11, 2025. From 1 July 2025 to 31 December 2027, businesses are able to deduct 30% of the cost of new equipment (movable fixed assets) from their tax bill annually by means of declining-balance depreciation.² The expectation is that the temporary nature of the selective declining balance depreciation improvements will boost growth via a pull-forward effect. Beyond increasing the expected return on investment and facilitating frontloaded liquidity needs, the measure also reduces uncertainties and risks related to these investments, since the tax-life of capital goods is shortened. From 2028, the statutory corporate tax rate of 15% will then decrease by one point each year to 10% in 2032.³ In other words, the corporate tax cut is being adopted today but will only become effective in the future. Provided this is a trustworthy policy commitment, it can be understood as an assurance that the investments conducted at the start will also prove profitable in the long term.⁴ The agreed but delayed

¹ The downward revision follows the IMF (2025a), which also predicted zero 2025 GDP growth for Germany in April 2025. In October and September 2025, the IMF (2025b) and the OECD (2025b) upgraded their 2025 GDP growth forecasts for Germany to 0.2% and 0.3%, respectively.

² The focus on equipment investment dates back to Delong and Summers (1991) in the pre-digital and knowledge-based economy era.

³ See <https://www.ft.com/content/ec3e35ea-3c8d-414d-a45f-75be9881a363>. Partnerships are also to benefit from the corporate tax reduction, which is why the option model of the German Corporation Tax Act and the tax relief on retained earnings of the German Income Tax Act will be amended. The government wants to enable newly founded partnerships to be taxed in accordance with the Corporation Tax Act from 2027 onwards, regardless of their specific legal form. For the planned strengthening of legal form flexibility, see CDU, CSU, and SPD (2025).

⁴ The future business tax cuts over the period 2028-2032 have already been enacted in order to avert the time inconsistency problem highlighted by Mertens and Ravn (2011). The authors have evaluated the impact of

introduction of the statutory corporate tax cut has a further consequence. From a theoretical perspective, a business tax rate cut implemented without delay has the disadvantage that it also provides relief to returns from past investment expenditures. On the contrary, introducing accelerated depreciation allowances focuses on new investment. The built-in time delay for the business tax rate cut in the investment booster tax law virtually eliminates this difference. Instead, both sub-measures are geared towards future investments. The German government hopes to simultaneously accomplish multiple goals with this unconventional business taxation package. Stimulating demand and employment, spearheading innovative technologies, and environmental benefits.

In addition to the agreed temporary accelerated depreciation allowances and the time-delayed permanent reduction in the business tax rate, the German government also aims at cutting the regulatory over-reach for businesses. In accordance with the spot-on paper by Pellegrino and Zhang (2024), we therefore also model the bureaucratic costs as a separate shadow red tape tax on capital.⁵ In sum, the policy mix is placing business investment firmly at the center of an economic growth strategy.

The more recent empirical business taxation literature has witnessed notable contributions on how tax incentives affect business investment. Given the numerous features of the corporate income tax code, the literature has typically examined specific tax features in isolation. The difference-in-differences estimates of Zwick and Mahon (2017) on the effects of temporary accelerated depreciation allowances in the US indicate that tax-advantaged investments increased relative to ineligible capital by 10.4% between 2001 and 2004 and 16.9% between 2008 and 2010. Using a difference-in-differences design, Dobbins and Jacob (2016) have shown that the reduction of the corporate tax rate from around 39% to 29% as part of the major German corporate tax reform of 2008 has triggered an average increase in investment by domestic businesses of 5.9%. Harju et al. (2022) have studied the consequences of statutory corporate tax rate changes, Ohrn (2018) has evaluated tax deductions and accelerated depreciation allowances, and Maffini et al. (2019) have looked at accelerated depreciation rules. The papers find that businesses respond to business tax incentives by enhancing investment throughout, but to varying degrees. In line with this, Link et al. (2024) show economically large and statistically significant declining investment spending of German businesses to municipality-level local corporate tax hikes. Steinmüller et al. (2019) have examined changes in the effective corporate tax burden. This modeling approach reduces the numerous capital tax system features to one dimension. In contrast, the interplay of multiple capital income taxation features is provided by Ohrn (2018), who analyses both the investment impacts of the US Domestic Production Activities Deduction - a tax provision that reduces the effective corporate tax burden - and a bonus depreciation allowance. The findings suggest that both instruments yield a comparable investment incentive effect. However, the empirical evidence also shows that the incentivizing impact of tax breaks for investment is weakened under economic uncertainty (Guceri and

anticipated and unanticipated tax shocks and conclude that anticipated tax cuts have effects only when the corresponding legislative amendments have been ratified.

⁵ Eighty percent of surveyed German businesses perceive red tape as an obstacle to investment (European Investment Bank, 2025). This points to significant room for reducing bureaucratic burdens.

Albinowski, 2021). In contrast to these individual studies, the meta-regression study of Gechert and Heimberger (2022) suggests that, after correcting for publication bias in the existing literature, the hypothesis of a zero effect of business taxation on growth cannot be rejected.

For some time now, Dynamic Stochastic General Equilibrium (DSGE) models have gained momentum in the taxation literature. At its core, quantitative DSGE models constitute a dynamic general-equilibrium modeling research design making policy assessments more effective and transparent (Blanchard, 2018; Christiano et al, 2018). Recent DSGE analyses evaluating various previous German tax policies comprise, among others, Lieberknecht and Wieland (2019), Funke and Terasa (2022) and Clemens and Röger (2024). In the wake of this literature, we employ a calibrated DSGE model with a rich specification of business taxation mechanisms to evaluate the impact of the investment booster tax law.

The structure of the paper is as follows. Section 2 outlines the stochastic general equilibrium (DSGE) modeling setup modeling framework and characterizes the investment booster shocks hitting the German economy. The aim is to think more formally about unconventional business taxation policies. Section 3 presents the model calibration, and in section 4 we analyze impulse response functions to the business tax breaks. Section 5 concludes and offers some policy recommendations for the way forward.

2. Theoretical Framework

We center our analysis on a calibrated DSGE model with nominal frictions, with a detailed account of intertemporal business investment decisions and how they are influenced by the staggered temporary and permanent business tax breaks. The model is cast in discrete time $t = 0, \dots, \infty$ at quarterly frequency.

2.1 Households

The modeling framework comprises a mixture of optimizing and hand-to-mouth households capturing household-level heterogeneity.

2.1.1 Ricardian Households

The share of intertemporally optimizing households is $(1 - \mu) \in (0,1)$. The representative Ricardian households-shareholder who makes decisions on capital investment, derives utility from consumption (C_t^R) and disutility from labor supply (N_t^R) according to the separable CRRA utility function:

$$\max_{N_t^R, C_t^R, B_t, S_{t+1}} E_0 \sum_{t=0}^{\infty} \beta^t \left(\frac{(C_t^R - hC_{t-1}^R)^{1-\sigma}}{1-\sigma} - \chi^R \frac{(N_t^R)^{1+\varphi}}{1+\varphi} \right), \quad (1)$$

where E_0 represents the conditional expectation operator, $\beta \in (0,1)$ is the discount factor, $h \in (0,1)$ is the consumption habit parameter, χ^R is the weight attached to the disutility from labor, $\varphi > 0$ is the inverse of the Frisch elasticity, and $\sigma > 0$ is the inverse of the intertemporal elasticity of substitution (IES). The household's maximization problem is subject to a sequence of budget constraints given by:

$$C_t^R + \frac{B_t}{P_t} + P_t^S \frac{S_{t+1}}{P_t} = W_t N_t^R + R_{t-1} \frac{B_{t-1}}{P_t} - T_t + \frac{S_t}{P_t} (\Pi_t + P_t^S) \quad (2)$$

The variable B_t denotes sovereign bonds paying the nominal interest rate R_t . The representative Ricardian household's labor income is given by $W_t N_t^R$, where W_t represents the real wage. The variable S_t denotes the shares of the monopolistically competitive intermediate good firms held by the representative Ricardian household at market price P_t^S . The government levies lump-sum taxes denoted by T_t , and the variable P_t is the price level of final goods. Finally, the variable Π_t denotes the dividend net of corporate income tax, as defined below. Maximizing (1) subject to (2) yields the following first-order conditions:

$$(C_t^R - hC_{t-1}^R)^{-\sigma} - \beta E_t h (C_{t+1}^R - hC_t^R)^{-\sigma} = \lambda_t \quad (3)$$

$$E_t \beta \frac{\lambda_{t+1}}{\lambda_t} \frac{R_t}{\pi_{t+1}} = 1 \quad (4)$$

$$\chi^R (N_t^R)^\varphi = \lambda_t W_t \quad (6)$$

$$P_t^S = \beta E_t \frac{\lambda_{t+1}}{\lambda_t} \frac{(\Pi_{t+1} + P_{t+1}^S)}{\pi_{t+1}} \quad (7)$$

The rationale of (3) – (7) is clear and compelling. The Lagrange multiplier on the budget constraint λ_t represents the marginal utility of consumption, as shown through equation (3). Equation (4) is the Euler equation for sovereign bonds where the variable π_t denotes final goods inflation rate. Equation (6) determines the optimal labor supply that varies along the extensive margin. Finally, equation (7) defines firms' external value as the present discounted sum of their future share price and dividends (Ghilardi and Zilberman, 2025).

2.1.2 Non-Ricardian Households

The utility function of the remaining share $\mu \in (0,1)$ of non-Ricardian households corresponds to that of the Ricardian households. However, hand-to-mouth consumers neither optimize intertemporally, nor do

they have access to financial markets. The consumption decision of the rule-of-thumb households is thus given by

$$C_t^N = W_t N_t^N \quad (8)$$

where, C_t^N denotes consumption and N_t^N denotes labor supply.

2.2 Production

The supply side of the economy comprises two kinds of producers. First, intermediate good producers produce differentiated goods in a monopolistically competitive market. Following Rotemberg (1982), the intermediate good producers face quadratic costs when changing prices. Second, perfectly competitive wholesalers aggregate intermediate goods by means of a CES aggregator to produce final goods.

In addition, following the work of Ghilardi and Zilberman (2025), we introduce business taxation and depreciations allowances into the intermediate good producers' maximization problem. Moreover, we also introduce a bureaucratic shadow tax rate as suggested by Pellegrino and Zheng (2024). The implicit shadow red tape tax rate on capital is a concept to grasp the hidden costs of excessive bureaucracy and regulation discouraging investment.

2.2.1 Intermediate Good Producers

As part of the investment booster tax law, accelerated declining balance depreciation allowances have been reinstated exclusively for equipment investment ("bewegliche Wirtschaftsgüter"). Given the differing tax treatment of various capital goods, the continuum of intermediate good producers in the model combines diverse types of capital and labor by means of the CES production function:

$$Y_t(i) = A_t \left(\alpha K_t(i)^{\frac{\nu_Y-1}{\nu_Y}} + (1-\alpha) N_t(i)^{\frac{\nu_Y-1}{\nu_Y}} \right)^{\frac{\nu_Y}{\nu_Y-1}}, \quad (9)$$

where N_t and A_t denote labor and total factor productivity, respectively. The parameter $\alpha \in (0,1)$ denotes the share of capital in the production function, and the variable K_t is the aggregated capital stock in accordance with

$$K_t(i) = \left(\alpha_{K,M} \left(u_t^M K_t^M(i) \right)^{\frac{\nu_K-1}{\nu_K}} + \alpha_{K,Z} \left(u_t^Z K_t^Z(i) \right)^{\frac{\nu_K-1}{\nu_K}} + \alpha_{K,B} \left(u_t^B K_t^B(i) \right)^{\frac{\nu_K-1}{\nu_K}} \right)^{\frac{\nu_K}{\nu_K-1}}, \quad (10)$$

where the variables K_t^B , K_t^M and K_t^Z denote buildings, machinery and equipment capital and intangible assets, and $\alpha_{K,l}$ for $l \in \{B, M, Z\}$ denote the shares of the three types of capital in the production function.⁶ The capital utilization variables u_t^M, u_t^Z and u_t^B transform physical capital into effective capital and capture the fact that a higher capital utilization intensity entails higher costs. The parameters $\nu_Y > 0$ and $\nu_K > 0$ in equations (9) and (10) are the elasticities of substitution between capital and labor and between the distinct types of capital, respectively. In the spirit of Hayashi (1982) the capital adjustment cost function is

$$K_{t+1}^l = (1 - \delta(u_t^l))K_t^l + I_t^l - \frac{\kappa^l}{2} \left(\frac{I_t^l}{K_t^l} - \delta_0^l \right)^2 K_t^l . \quad (11)$$

The capital adjustment costs are convex for $\kappa^l > 0$, i.e., marginal adjustment costs rise with the amount of investment.⁷ Finally, economic depreciation is a function of capital utilization as for example in Khan and Tsoukalas (2011):

$$\delta(u_t^l) = \delta_0^l + \delta_1^l(u_t^l - 1) + \frac{\delta_2^l}{2}(u_t^l - 1)^2 \quad (12)$$

where $\delta_0^l \in (0,1)$ flags the economic depreciation rate for $l \in \{B, M, Z\}$ capital, and δ_1^l and δ_2^l are parameters that define the degree of capital utilization. Following Ghilardi and Zilberman (2025), the dividends net of corporate income tax takes the form:

$$\begin{aligned} \Pi_t(i) = (1 - \tau_t^\Pi) & \left(Y_t(i) - W_t N_t(i) - \frac{\phi_P}{2} \left(\frac{P_t(i)}{P_{t-1}(i)} - \pi \right)^2 \right) - \Omega_t \sum_l I_t^l(i) \\ & + \tau_t^\Pi \left(\omega_t^M + \delta^B I_t^B(i) + \delta^Z I_t^Z(i) \right) \end{aligned} \quad (13)$$

The variable Π_t denotes the dividends after corporate taxation. The tax burden on the profits of corporations τ_t^Π consists of the corporate income tax rate, the solidarity surcharge, and the median municipality-level local trade tax. Intermediate good producers face quadratic price adjustment cost $\frac{\phi_P}{2} \left(\frac{P_t(i)}{P_{t-1}(i)} - \pi \right)^2$ according to Rotemberg (1982), where P_t denotes the price level, $\phi_P > 0$ denotes the price adjustment cost parameter and π denotes the steady state inflation rate.⁸ Ω_t denotes the bureaucratic

⁶ Crouzet and Eberly (2023) have enriched the theory of investment to include intangibles.

⁷ Following Asker et al. (2014), we assume that the adjustment costs reflect technological frictions and not bureaucratic capital distortions. The investment literature has emphasized a range of alternative adjustment cost functions. Inter alia, these models depart from the benchmark investment model by incorporating financial frictions and/or non-convex adjustment costs. See, among others, Abel and Eberly (1996), Caballero and Engel (1999), Cooper and Haltiwanger (2006) and Winberry (2021).

⁸ Steady-state variables are denoted without the time subscript.

shadow tax rate. Lastly, the term $\tau_t^\Pi \left(\omega_t^M + \delta^B I_t^B(i) + \delta^Z I_t^Z(i) \right)$ denotes the firm's total depreciation allowances reducing taxable profit, lowering the user cost of new capital, and improving the firm's cash flow. The terms $\delta^B \in (0,1)$ and $\delta^Z \in (0,1)$ denote the linear depreciation allowance rates of buildings and intangible assets, while respectively. The term ω_t^M represents the depreciation allowances for equipment investments.

$$\omega_t^M = \theta_t^{switch} \left(\delta^{L,M} I_t^M(i) \right) + (1 - \theta_t^{switch}) \left(\sum_{s=1}^{\infty} \delta^{D,M} (1 - \delta^{D,M})^{s-1} I_{t-s}^M(i) \right) \quad (14)$$

Given the temporary regime change in the depreciation methodology in the tax break law, the solution space is fragmented into multiple disjoint regions by means of the dummy variable (shock) θ_t^{switch} that either takes the value one or zero. In the baseline case $\theta_t^{switch} = 1$, equipment investment is depreciated linearly at the rate $\delta^{L,M}$. When the dummy variable takes the value $\theta_t^{switch} = 0$, equipment investment is depreciated with the declining balance rate $\delta^{D,M}$ in the spirit of Born and Pfeifer (2014).⁹ The firm's first-order conditions with respect to the input factors (N_t, K_{t+1}^l) , investment (I_t^l) , capital utilization (u_t^l) and price level $(P_t(i))$ are as follows:

$$W_t = MC_t (1 - \alpha) \left(\frac{Y_t(i)}{N_t(i)} \right)^{\frac{1}{v_Y}} \quad (15)$$

$$Q_t^l = \beta E_t \Lambda_{t+1} \left(\begin{array}{l} (1 - \tau_{t+1}^\Pi) MC_{t+1} \alpha_{K,l} \alpha \left(\frac{Y_{t+1}(i)}{K_{t+1}(i)} \right)^{\frac{1}{v_Y}} \left(\frac{K_{t+1}(i)}{u_{t+1}^l K_{t+1}^l(i)} \right)^{\frac{1}{v_K}} \\ + Q_{t+1}^l \left((1 - \delta(u_{t+1}^l)) - \frac{\kappa^l}{2} \left(\frac{I_{t+1}^l}{K_{t+1}^l} - \delta_0^l \right)^2 + \kappa \left(\frac{I_{t+1}}{K_{t+1}} - \delta_0^l \right) \frac{I_{t+1}^l}{K_{t+1}^l} \right) \end{array} \right) \quad \forall l \in \{B, M, Z\} \quad (16)$$

$$Q_t^M \left(1 - \kappa^M \left(\frac{I_t^M}{K_t^M} - \delta_0^M \right) \right) = \Omega_t - \Gamma_t^M \quad (17)$$

$$Q_t^l \left(1 - \kappa^l \left(\frac{I_t^l}{K_t^l} - \delta_0^l \right) \right) = \Omega_t - \tau_t^\Pi \delta^l \quad \forall l \in \{B, Z\} \quad (18)$$

⁹ An implicit assumption of the model is that carrybacks - in which businesses apply unused current deductions against past tax liabilities - are inadmissible. The enacted law does not provide for any changes regarding the inter-period loss deduction rules.

$$Q_t^l \left(\delta_1^l + \delta_2^l (u_t^l - 1) \right) = (1 - \tau_t^\Pi) MC_t \alpha_{K,l} \alpha \left(\frac{Y_t(i)}{K_t(i)} \right)^{\frac{1}{\nu_Y}} \left(\frac{K_t(i)}{u_t^l K_t^l(i)} \right)^{\frac{1}{\nu_K}} \quad (19)$$

$$\pi_t (\pi_t - \pi) = \beta E_t \left[\Lambda_{t+1} \pi_{t+1} (\pi_{t+1} - \pi) \frac{Y_{t+1}}{Y_t} \right] + \frac{\epsilon}{\phi_P} \left(MC_t - \frac{\epsilon - 1}{\epsilon} \right) \quad (20)$$

The variable MC_t denotes real marginal cost, the variable ϵ denotes the elasticity of substitution between different varieties and $\beta E_t \Lambda_{t+1} = \beta E_t \frac{\lambda_{t+1}}{\lambda_t}$ is the stochastic discount factor. The variable $\Gamma_t^M = (1 - \theta_t^{switch}) \beta E_t \Lambda_{t+1} \hat{\delta}^{D,M} \tau_{t+1}^\Pi + \beta (1 - \hat{\delta}^{D,M}) E_t \Lambda_{t+1} \Gamma_{t+1}^M + \theta_t^{switch} \tau_t^\Pi \hat{\delta}^{L,M}$ denotes the equipment depreciation allowances for tax purposes. Equation (13) determines the optimal labor demand. Equation (16) is the first-order condition with respect to capital of type $l \in \{B, M, Z\}$ in which Q_t^l is Tobin's investment-specific marginal q value. Equation (18) is the first-order conditions with respect to machinery and equipment investment, and equation (19) is the first-order condition for $l \in \{B, Z\}$.¹⁰ Finally, equation (20) is the nonlinear Phillips curve.

2.2.2 Wholesalers

Wholesalers at the top of the production chain combine a continuum of differentiated intermediate goods into a single homogeneous final good Y_t using the CES production function:

$$Y_t = \left[\int_0^1 Y_t(i)^{\frac{\epsilon-1}{\epsilon}} di \right]^{\frac{\epsilon}{\epsilon-1}}, \quad (21)$$

where $Y_t(i)$ is the quantity of intermediate good $i \in [0,1]$, and $\epsilon > 1$ denotes the elasticity of substitution between intermediate good varieties. Optimal demand for each intermediate good is:

$$Y_t(i) = Y_t \left(\frac{P_t(i)}{P_t} \right)^{-\epsilon} \quad (22)$$

Lastly, the final good price index P_t becomes:

$$P_t = \left[\int_0^1 P_t(i)^{1-\epsilon} di \right]^{\frac{1}{1-\epsilon}} \quad (23)$$

¹⁰ While accumulated allowances from past investment affect the value of the firm, this hangover effect does not affect the choice of future investment expenditures.

2.3 Monetary Policy

The central bank reacts to deviations in inflation and output according to the Taylor-type interest rate rule:

$$R_t = \left[\frac{R_{t-1}}{R} \right]^{\rho^r} \left[\left(\frac{\pi_t}{\pi} \right)^{\rho^\pi} \left(\frac{Y_t}{Y} \right)^{\rho^y} \right]^{(1-\rho^r)}, \quad (24)$$

where R_t is the nominal monetary policy rate, $0 < \rho^r < 1$ govern monetary policy smoothing, (π_t/π) is the inflation gap, (Y_t/Y) is the output gap, and ρ^y and ρ^π are the responsiveness parameters for the output gap and the inflation gap, respectively.

2.4 Fiscal Policy

The fiscal authority is characterized by the following income statement identity:

$$B_t = G_t - \tau_t^\Pi \left(Y_t - W_t N_t - \frac{\phi_P}{2} \left(\frac{P_t(i)}{P_{t-1}(i)} - \pi \right)^2 Y_t \right) - T_t + \tau_t^\Pi \left(\omega_t^M + \widehat{\delta}_t^B I_t^Z + \widehat{\delta}_t^Z I_t^Z \right), \quad (25)$$

where the newly introduced variable G_t are exogenous government expenditures. To ensure long-run debt stability of sovereign debt B , the model includes a fiscal feedback rule for the lump sum tax T_t levied on household (Leeper et al., 2010):

$$T_t = T + \phi^b (B_t - B), \quad (26)$$

where T is the steady-state level of lump-sum taxation and the parameter $\phi^b > 0$ determines the speed of adjustment. In other words, we suppose that the government can finance the stimulus package using per capita lump-sum taxes satisfying the government's budget constraint (together with the no-Ponzi solvency condition).¹¹

¹¹ Given the unprecedented national security risks following Russia's invasion of Ukraine and the need for infrastructure modernization, the German Bundestag has passed legislation in March 2025 loosening the country's constitutional borrowing straitjacket to allow unlimited defense spending and create a debt-funded EUR 500 billion, 12-year vehicle to modernize the country's public infrastructure. The constitutional amendments deliver a frontloaded increase in spending and a backloaded need to raise taxes and/or slash spending tomorrow. This could linger fiscal uncertainty. The debt brake reform remains unconsidered hereinafter in order to ascertain the impact of the staggered business tax policies *ceteris paribus*.

2.5 Market Clearing

Market clearing implies that total output (*GDP*) is absorbed by its components:

$$Y_t = C_t + \sum_l I_t^l + G_t + \frac{\phi_P}{2} (\pi_t - \pi)^2 Y_t \quad (27)$$

where aggregate consumption is given by $C_t = \mu C_t^N + (1 - \mu) C_t^R$. The remaining labor market clearing condition is

$$N_t = \mu N_t^N + (1 - \mu) N_t^R \quad (28)$$

2.6 Shocks

Next, we describe the stochastic structure of the policy shocks enabling real-time assessments of unconventional fiscal policies. The business tax rate shock and red tape shock take the random walk form:

$$\tau_t^\Pi = \tau_{t-1}^\Pi + \epsilon_t^\Pi \quad (29)$$

$$\Omega_t = \Omega_{t-1} + \epsilon_t^\Omega, \quad (30)$$

where ϵ_t^Π and ϵ_t^Ω are i.i.d. innovations.

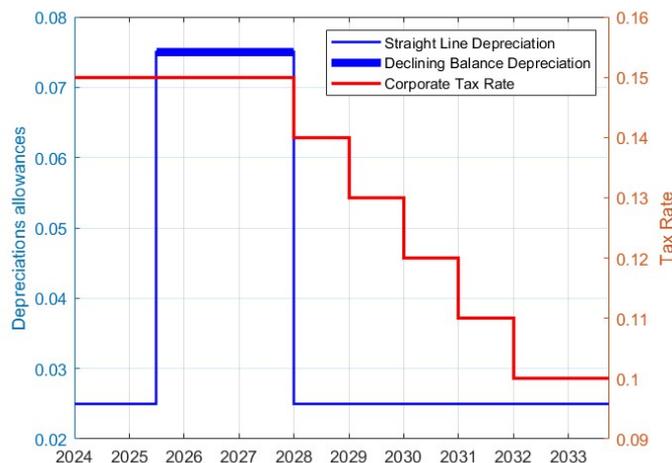
The change in depreciation allowances entails a sequence of two opposing θ_t^{switch} shocks in equation (14) in the years 2025 and 2027. First, depreciation allowances for tax purposes are temporarily enhanced at mid-2025 and then, as already ratified by the Bundestag, subsequently cut back to the baseline level at the end of 2027. Summarized, one can say that the anticipated equipment investment incentives due to improved depreciation allowances entail three features. First, they comprise a qualitative regime change from the straight-line to the declining balance depreciation method. Second, the depreciation allowances are getting more favorable in quantitative terms. Finally, the measure is time-bound. In the context of the model framework, this particular depreciation design is analyzed using the regime switching variable θ_t^{switch} in equation (14). During the temporary treatment period, θ_t^{switch} switches to zero, followed by a return to the value one. The anticipation is that this shock sequence will lead to temporary pull-forward equipment investment expenditures in the two-and-a-half-year treatment period 2025-2027, followed by

subsequent temporary investment undershooting.¹² In other words, the temporary nature of the heightened allowance policy increases the stimulus through intertemporal shifting.

Appropriate expectation modeling with regard to the onset and permanence of the shocks is pivotal for the modeling of the business tax break package impacts. To facilitate the match between the modeling framework and the sequence of investment-promoting instruments in the investment booster tax law ratified by the Bundestag, the perfect foresight solver is employed presuming that agents have full knowledge regarding the time profile of business tax rate and depreciation allowance shocks in (29). Perfect foresight is also assumed with regard to the depreciation regime switch variable θ_t^{switch} . Consequently, there are only deterministic (expected) business tax rate and depreciation allowance shocks, and accordingly the economy follows the model equations exactly at every point in time.

In a more rigorous form, the mathematical structure can be described as follows. The perfect foresight solver deals with nonlinear deterministic dynamic models of the general form $f(y_t, y_{t+1}, y_{t-1}, x_t, \psi) = 0$, where y_t is the vector of endogenous variables, x_t is the vector of exogenous deterministic shocks, and ψ is the parameter vector. The time horizon T is finite. The aim is to solve the path $\{y_t\}_{t=0}^T$ such that all model equations hold for all $t \in [0, T]$, given the initial conditions y_0 , the sequence $\{x_t\}$ of deterministic shocks, and the steady state terminal conditions. For this purpose, the perfect foresight solver transforms the dynamic model into a nonlinear system of equations of the form $F(z) = 0$, where $z = (y_0, y_1, \dots, y_T)$ and $F(\cdot)$ aggregates the model equations at each time step. Newton-type, quasi-Newton methods as well as sparse matrix algebra for efficiency are employed in the course of calculating the perfect foresight paths.¹³

Figure 1: The Time Profiles of Depreciation Allowances and Statutory Corporate Tax Rate Cuts



¹² In principle, the period between the initial disclosure of the planned business tax breaks and the final parliamentary vote may have led to a temporary reluctance to invest on the part of businesses. Given the short three-month announcement phase and the considerable investment planning lead times, this ex-ante reaction pattern is disregarded.

¹³ See Adjemian et al. (2021) and Judd (1998), pp. 537-572.

Notes: Quarters are drawn on the horizontal axis. The quarterly depreciation allowance of 2.5% (7.5%) corresponds to an annual depreciation allowance of 10% (30%). The intermittent temporary switch from straight-line to declining balance depreciation between July 2025 and December 2024 is highlighted by the blue line printed in bold.

Figure (1) visualizes the unfolding of the temporary acceleration of depreciation allowances for equipment investments and the subsequently commencing permanent downward cascade of the statutory corporate tax rate. Both measures jointly enacted by the Bundestag are deemed credible.¹⁴

A different modeling approach applies to the planned streamlining of bureaucratic costs in equation (30). Since this is only a government declaration of intent, businesses are unaware of the precise path of future bureaucratic cost cuts.¹⁵ To address this issue, we use a perfect-foresight algorithm with expectation errors for this purpose. Under this scenario, businesses take their decisions as if they know exactly the path of future red tape shocks, but the latest information that they may receive comes as a surprise to them. In colloquial terms, businesses make expectation errors, in the sense that the perfect foresight path they had anticipated initially does not realize exactly.

Overall, these investment booster policy settings enable the evaluation of the investment incentive impacts and the associated convergence trajectories to new stationary steady states. Before moving on to evaluating the model, the DSGE model is subsequently mapped step-by-step onto the data. The explanatory notes outline the parameterizations and the rationale for our choices.

3. Model Calibration

Next, we choose a reference calibration to anchor our numerical model evaluation. Time is measured in quarters. In the course of model calibration, the values of several parameters are set in accordance with the literature or directly obtained from observed data. The baseline parameters are provided in Table 1.

¹⁴ The prerequisite is that the legally established tax reduction path is adhered to, as uncertainty about future tax policy tends to have a deterrent effect (Edmiston, 2004). In this context, it is noteworthy that the stepwise corporate tax cuts over the period 2028-2032 are scheduled beyond the current parliamentary term, which will end in 2029.

¹⁵ There is little doubt that the EU needs more growth-friendly regulatory settings. The Draghi Report (https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en) has called the risk emanating from it even existential.

Table 1: Baseline Calibration

Parameter	Description	Value
τ^Π	Baseline corporate tax burden	0.3006
δ_0^M	Depreciation rate of machinery and equipment capital	0.025
$\hat{\delta}^{L,M}$	Straight-line tax depreciation allowance for equipment capital	0.025
$\hat{\delta}^{D,M}$	Declining balance tax depreciation allowance rate for equipment capital	0.075
δ_0^Z	Intangible capital depreciation rate	0.025
$\hat{\delta}^Z$	Tax depreciation allowance for intangible investment	0.025
δ_0^B	Building depreciation rate	0.01
δ_2^M	Machinery and equipment capital utilization squared term parameter	0.10
δ_2^B	Building capital utilization squared term parameter	0.10
δ_2^Z	Intangible capital utilization squared term parameter	0.10
$\hat{\delta}^B$	Tax depreciation allowance for buildings	0.01
σ	Inverse of the IES	2.50
Ω	Steady-state bureaucracy cost	0.038
φ	Inverse Frisch elasticity	2.50
χ^R	Labor disutility parameter Ricardian household	1.54
χ^N	Labor disutility parameter Hand-to-mouth households	2.81
μ	Share of hand-to-mouth households	0.30
α	Share of capital in the production function	0.33
$\alpha_{K,Z}$	Share of intangible capital in aggregate capital	0.106
$\alpha_{K,B}$	Share of the building stock in aggregate capital	0.652
ν_M	Equipment capital adjustment costs	30.0
ν_K	Elasticities of substitution between capital types	0.65
ν_Y	Elasticities of substitution between aggregate capital and labor	0.65
κ^M	Equipment capital adjustment costs	30.0
κ^Z	Intangible capital adjustment costs	15.0
κ^B	Building capital adjustment costs	45.0
ϵ	Elasticity of substitution between intermediate goods	3.50
ϕ_P	Rotemberg adjustment-cost	28.0
ϕ^b	Lump-sum tax responsiveness parameter regarding sovereign debt	0.10
ρ^r	Monetary policy smoothing parameter	0.60
ρ^π	Monetary policy reaction parameter regarding inflation	1.50
ρ^y	Monetary policy reaction parameter regarding output	0.25

The baseline tax burden on the profits of corporations amounting to 30.06% consists of the central government statutory corporate income tax rate of 15%, the solidarity surcharge of 0.83% and the median local trade tax (“Gewerbesteuer”) of 14.23%.¹⁶ The economic depreciation rates of the three capital goods are specified according to Hongjie et al. (2013) and Ziebarth (2002). As regards tax depreciation allowances for equipment investments, a distinction is made between the baseline straight-line tax depreciation allowances $\hat{\delta}^{L,M} = 0.025$ and the temporarily accelerated declining-balance tax depreciation allowances $\hat{\delta}^{D,M} = 0.075$ as part of the investment booster package. In accordance with Khan and

¹⁶ Benchmarking Germany’s tax system with OECD peers indicates that German corporate income taxes are subject to competitive pressures in an international context. See <https://www.oecd.org/en/data/datasets/corporate-income-tax-rates-database.html>. Considering the average municipal business tax rate of 14%, the corporate tax cut of 5 percentage points actually means that the overall rate will fall to 24% - bringing Germany in line with the OECD average.

Tsoukalas (2011) we assume a uniform quadratic adjustment parameter of capital utilization for all types of capital with $\delta_2^M = \delta_2^B = \delta_2^Z = 0.1$. The linear adjustment cost parameter of capital utilization for each type of capital is adjusted to pin-down the quadratic parameter. For the modeling of red tape cutbacks - either on their own or in tandem with the two business tax break measures - quarterly bureaucratic costs are calibrated as $\Omega = 0.038$. The value corresponds to the estimated mean shadow tax rate on capital in Pellegrino and Zheng (2024), converted to the taxation of investments in the model at hand. Turning to the utility function, the discount factor is set in a standard way to $\beta = 0.99$. The consumption habit persistence parameter is set to $h = 0.78$ following the estimates of Pytlarczyk (2005). The share of hand-to-mouth household is set to $\mu = 0.30$ in line with the estimations of Kaplan et al. (2014). The inverse Frisch elasticity is calibrated to $1/\varphi = 0.40$, which is in line with the literature review provided by Whalen and Reichling (2017). The labor disutility parameter of Ricardian households and hand-to-mouth households are set to $\chi^R = 1.54$ and $\chi^N = 2.81$ in order to pin-down the steady-state hours worked. The parameter σ is set to 2.5 corresponding to an intertemporal elasticity of substitution of 0.4, consistent with the estimates reported in the meta-analysis by Havránek (2015). The consensus share of capital in the Cobb-Douglas production function is $\alpha = 0.33$. The data provided by the Federal Statistical Office and the Deutsche Bundesbank on disaggregated balance sheets provide $\alpha_{K,M} = 0.242$, $\alpha_{K,B} = 0.652$ and $\alpha_{K,Z} = 0.106$.¹⁷ We set the baseline equipment capital adjustment cost parameter to $\kappa^M = 30$, which is roughly in line with Ireland (2003). The adjustment cost parameters $\kappa^B = 45$ and $\kappa^Z = 15$ for buildings and intangibles area adjusted using the rich disaggregated adjustment cost estimates provided by Hall (2004). The elasticity of substitution between aggregate capital and labor is set to $\nu_Y = 0.65$ in accordance with the estimates of Mućk (2017). The elasticity between the distinct types of capital ν_K is set to the same value implying mild complementarity. Quantifying businesses' market power - the ability of businesses to maintain prices above marginal cost - is an important topic as businesses' market power affects pricing behavior and investment. Related to this, the parameter governing the elasticity of substitution between intermediate goods varieties is set to $\epsilon = 3.50$, which pins down the steady-state markup of 1.40 (Deutsche Bundesbank, 2017). In line with Khan (2005), the Rotemberg adjustment cost parameter is set to $\phi_P = 28$ mirroring a Calvo parameter of 0.6. The monetary and fiscal policy parameters choices are standard. The monetary policy reaction function parameters are set to $\rho^r = 0.8$, $\rho^\pi = 1.50$ and $\rho^y = 0.350$, respectively. The fiscal policy parameter $\phi^b = 0.10$ enables lump-sum taxes to adapt ensuring fiscal solvency and the model's stability.

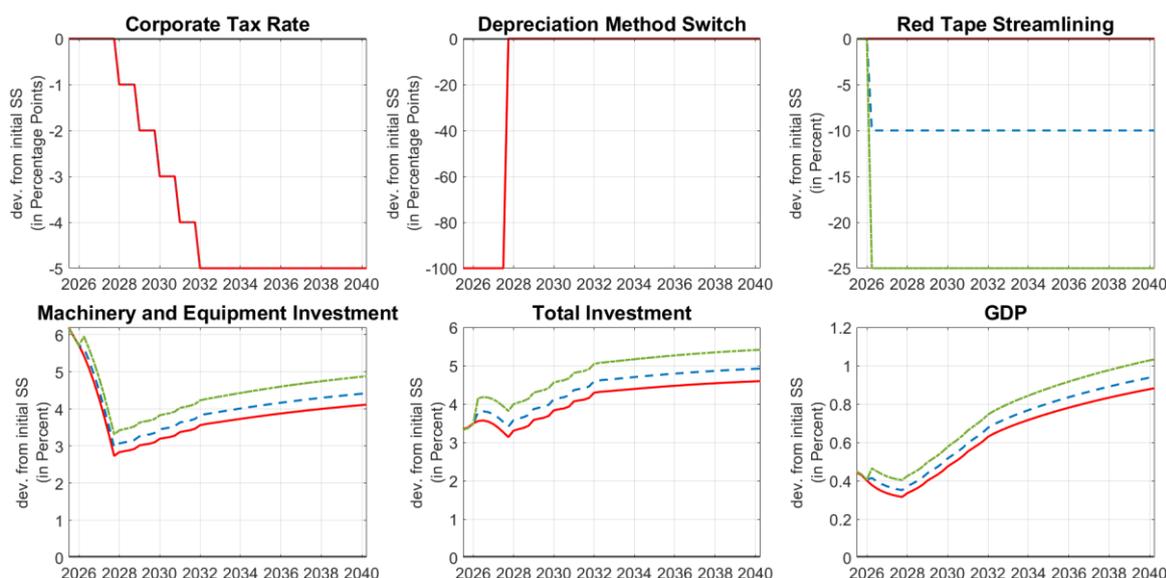
The following section illustrates the quantitative properties and takeaways of the model and conducts counterfactual policy analyses and robustness analyses providing a band of uncertainty around the baseline projections.

¹⁷ See <https://www.bundesbank.de/en/statistics/macroeconomic-accounting-systems/balance-sheets/balance-sheets-792952>.

4. Numerical Model Evaluation

The described modeling framework provides a laboratory for the analysis of business taxation reform proposals of distinct designs. We also conduct various policy experiments and robustness checks. The experiments shed light on the investment landscape and serve as a tool for policymakers seeking actionable insights into the staggered investment booster initiative. The scrutiny against reality and the robustness checks offer a modus operandi to comprehend and prepare for potential policy impacts under different scenarios. Next, we road-test our modeling framework by applying it to the enacted entire business tax break package and both of its subcomponents separately. We also offer quantitative guidance on several policy counterfactuals enriching the picture by incorporating alternative tax policy designs. Finally, we also offer various robustness tests.

Figure 2: IRFs of the Business Tax Break and Alternative Red Tape Streamlining Packages



Notes: Quarters are drawn on the horizontal axis. IRFs are reported as percentage deviations from the non-stochastic steady state with the exceptions of the corporate tax rate τ_t^{Π} , the depreciation switching variable θ_t^{switch} and the inflation rate π_t , which are reported as annualized percentage-point deviations. The solid red lines display the IRFs of the baseline investment booster package without any red tape streamlining. The dashed blue (dashed-dotted green) lines display the IRFs of the baseline investment booster package plus a 10% (25%) permanent bureaucracy cost reduction. Total investment includes investments in machinery and equipment, buildings, and intangibles.

To begin with, Figure 2 illustrates the impacts of the Investment Booster Act consisting of temporarily enhanced depreciation allowances and subsequently phased-in permanent corporate tax reductions. The effects on equipment investment, total investment, and GDP are displayed. The first two graphs in the upper row show the time profiles of both enacted business tax measures. In addition, the upper right graph illustrates three hypothetical time profiles for supplementary red tape cost reductions. Specifically, in addition to the baseline hypothesis of unaltered bureaucratic costs, hypothetical red tape cost reductions of 10% or 25% introduced all at once are assumed. Thus, a total of three scenarios is presented by means

of impulse response functions (IRFs) providing transitions to the new steady state after the business tax cut. In the baseline scenario, displayed in solid red, the structural barriers to investment from regulatory burdens are not being tackled. The corresponding IRFs thus highlight the isolated impacts of the two consecutive business tax policy provisions. Alternatively, the remaining dashed blue and dashed-dotted green IRFs illustrate the impacts in the event of permanent add-on red tape cost reductions of 10% and 25% with effect from 2026, respectively.

Four findings in Figure 2 may be highlighted. First, the equipment investment dynamics in the absence of a positive red tape supply shock - indicated by the IRFs displayed in solid red - demonstrate the intended pull-forward effects triggered by the temporarily heightened depreciation allowances. As expected, this initial frontloading impact is stronger for depreciation-advantaged equipment investments than total investments. We thus find that businesses respond noticeably to depreciation incentives. Second, the IRFs reveal that the subsequent incremental corporate tax rate reductions over the period 2028-2032 prevent the higher investment expenditures levelling out afterwards. The growth stimulus of both tax measures in the absence of a positive red tape supply shock - indicated by the IRFs displayed in solid red - amounts to 4.29% deviation of total investment from the previous steady state in the year 2032. Third, and relatedly, both business tax measures lead to a steady state GDP increase compared to the former steady state. It is noteworthy that this effect emerges despite the drop in consumption caused by forward-looking Ricardian consumers expecting higher taxes due to falling government revenues.¹⁸ Finally, additional red tape cutbacks from the year 2026 onwards will further spur investment expenditures and GDP growth. This illustrates that a multipronged policy approach exploiting complementarities between policies is beneficial to incentivize pro-growth investment, and foster a more agile economy.¹⁹ Overall, the IRFs in Figure 2 illustrate that business taxation plays a perceptible role in shaping the investment landscape, affecting how much businesses decide to invest.²⁰

The German Council of Economic Experts has analyzed the impact of the Investment Booster Act by means of the computable general equilibrium (CGE) model of Radulescu and Stimmelmayer (2010). In terms of magnitude, the pull-forward effect and the overall investment impact displayed in multi-year bar charts are basically in accordance with the baseline scenario presented here.²¹

To better understand the dynamics at play, we next present various counterfactual policy designs aimed at bringing the German economy back to growth. We begin with hypothetical alternative corporate tax rate scenarios in the second business taxation reform subperiod.

In Figure 3, IRFs for two alternative corporate tax reform scenarios are shown alongside the baseline scenario again displayed by the solid red lines. The single-step corporate tax rate reduction of five

¹⁸ The mechanism underlying this effect is described in detail in Baxter and King (1993), among others.

¹⁹ In terms of magnitude the DSGE modeling results are in line with the GDP per capita income gain estimates owing to a streamlining of bureaucracy identified using a difference-in-differences design (e.g., Falck et al., 2024).

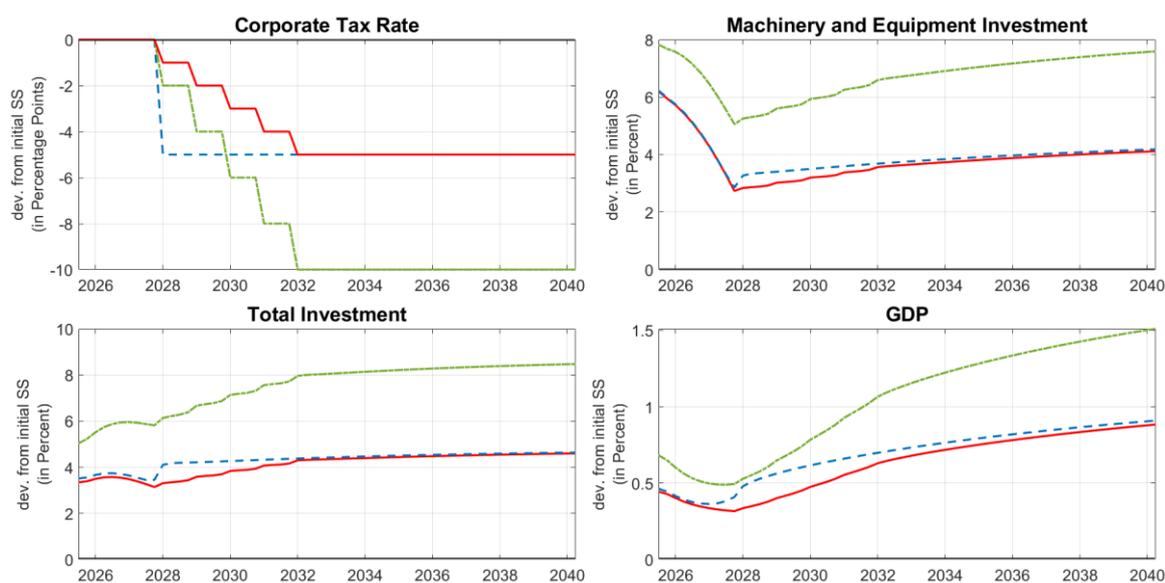
²⁰ The business cycle model does not account for possible longer-term TFP effects resulting from the investment upturn or the dismantling of red tape.

²¹ See Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (2025), Figure 65, p. 244 and Neumeier and Stimmelmayer (2025). Model-based analyses of the red tape streamlining aimed at are not provided.

percentage points in 2028 is displayed in dashed blue. The incremental corporate tax rate cut of ten percentage points from 2028 to 2032 is displayed in dashed-dotted green. In the first alternative scenario, the corporate tax rate reduction is thus as large as in the baseline scenario but is implemented all at once. In the second alternate scenario, the incremental reduction in five steps from 2028 to 2032 is being retained, but the amount of the yearly corporate tax rate reductions is doubled.

Turning to the two investment sub-graphs in Figure 3, three points stand out. All three features can be attributed to the intertemporal modeling approach, perfect foresight, and the presumed policy credibility. First, due to the same-sized corporate tax rate cut by five percentage points in the solid red and the dashed blue scenario, the pull-forward effects are almost identical. This is an example where anticipation effects are crucial. Future business taxation reductions stimulate the economy prior to their implementation to its full extent already during the stepwise phasing-in period. The credible future tax policy roadmap is the mechanism for transmitting anticipated policy effects to the economy. The theoretical underpinning is the fiscal forward guidance tool, i.e., ex-ante commitments by governments (Fujiwara and Waki, 2020). Second, and relatedly, it is evident that the lowering of the corporate tax rate by ten percentage points leads to significantly higher long-term total investment growth when compared to the baseline scenario. Finally, in the hypothetical ten percentage point corporate income tax rate cut scenario, the pull-forward effect in the first subperiod of the reform is more pronounced, as it is superimposed by the anticipated larger corporate tax rate reduction impact in the second subperiod of the reform.

Figure 3: IRFs for Alternative Corporate Tax Rate Reductions

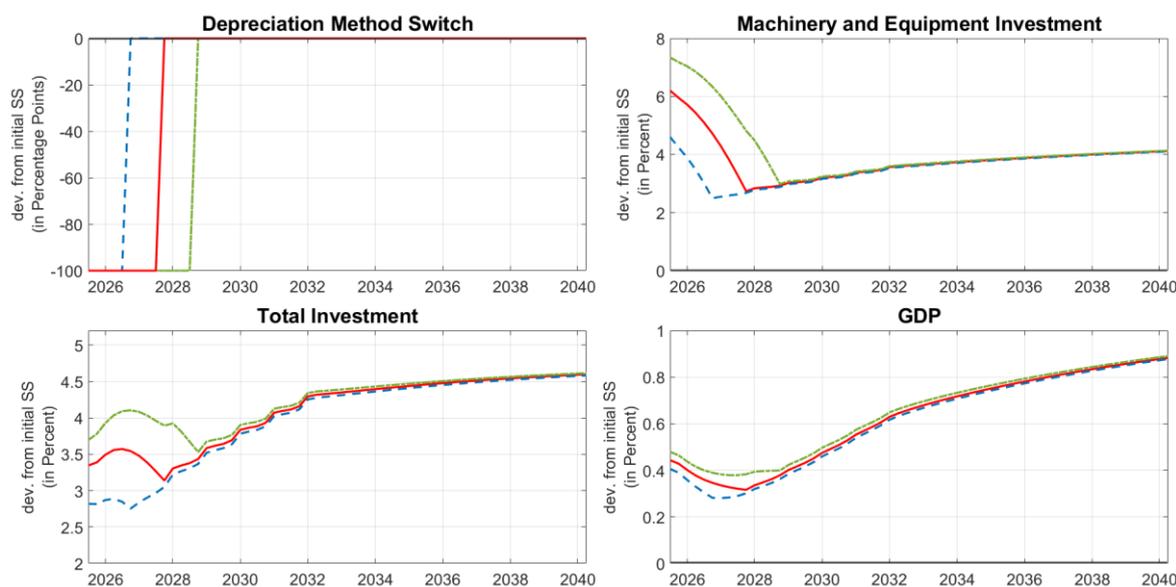


Notes: Quarters are drawn on the horizontal axis. IRFs are reported as percentage deviations from the non-stochastic steady state with the exceptions of the corporate tax rate τ_t^Π . The solid red lines display the IRFs of the baseline investment booster package. The single-step (stepwise) corporate tax rate cuts of 5 (10) percentage points in 2028 (from 2028 to 2032) are displayed in dashed blue (dashed-dotted green). In all three scenarios, no red tape streamlining is conducted, and the temporarily enhanced declining balance depreciation allowances for equipment

investments are implemented as stipulated by law. Total investment includes investments in machinery and equipment, buildings, and intangibles.

Next, we unpack the channels of action of the investment-boosting depreciation allowances.²² Figure 4 traces how the economy responds to different declining balance depreciation allowance timespans. Like in the previous Figures, the solid red lines again display the IRFs of the baseline investment booster package. The IRFs shown in dashed blue (dashed-dotted green) illustrate the hypothetical impacts of shortening (extending) the validity of the enhanced declining balance depreciation allowances by one year compared to the enacted law. Consequently, the stepwise reduction of the corporate income tax rate by five percentage points over the five-year period starts one year earlier and one year later, respectively. The IRF dynamics are easy to characterize. First, due to the convex adjustment costs, the investment momentum triggered by the enhanced depreciation allowances hinges on their validity period. Figure 4 illustrates the differing amounts by which equipment investment expenditures are pulled forward. The longer (shorter) the enhanced declining balance depreciation allowances are permissible, the more pronounced (less pronounced) the pull-forward effect is. Second, over and above the initial intertemporal substitution impact, all three scenarios exhibit a uniform long-term investment and GDP response due to the identical corporate income tax rate cut in the three alternative investment booster packages.

Figure 4: IRFs for Alternative Enhanced Depreciation Allowance Validity Periods

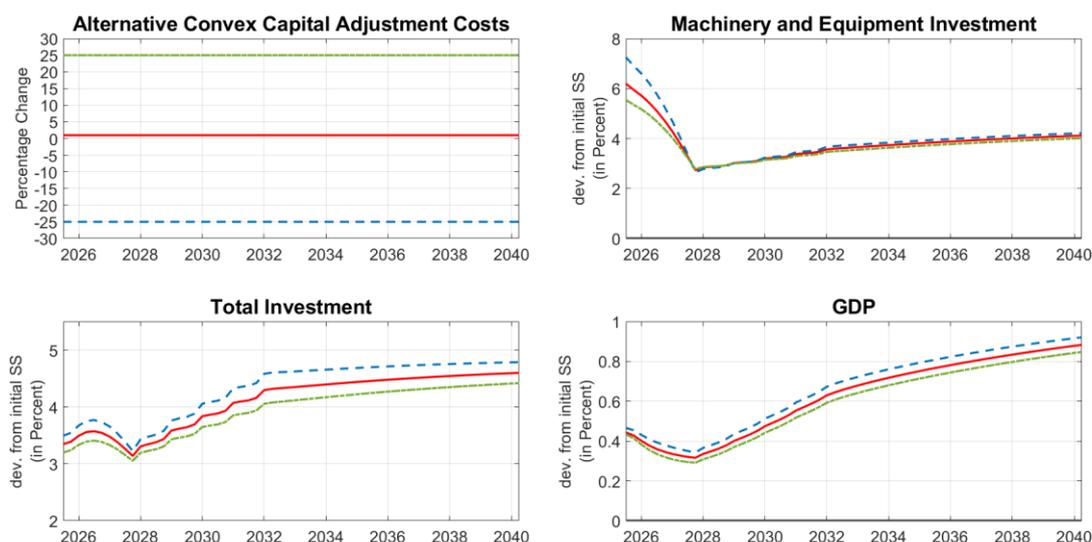


Notes: Quarters are drawn on the horizontal axis. IRFs are reported as percentage deviations from the non-stochastic steady state. The solid red lines display the IRFs of the baseline investment booster package. The impacts of shortening (extending) the validity of the enhanced declining balance depreciation allowances by one year compared to the enacted law are displayed in dashed blue (dashed-dotted green). In all three scenarios, the red tape cost burden stays unaltered. Total investment includes investments in machinery and equipment, buildings, and intangibles.

²² Businesses judge the advantageousness of depreciation allowances by the present discounted value of deductions over time. In other words, enhanced depreciation allowances are effective owing to discounting (Summers, 1987).

In the next steps of the analysis, we delve deeper into the capital adjustment cost sensitivity of investment. Figure 5 displays the IRFs for varying convex capital adjustment costs and thus sheds further light on the business tax break package’s impact.²³ In addition to the baseline model specification, which is again marked in solid red, the IRFs for 25% higher (25% lower) adjustment costs are depicted in dashed-dotted green (dashed blue).

Figure 5: IRFs for Alternative Capital Adjustment Costs



Notes: Quarters are drawn on the horizontal axis. IRFs are reported as percentage deviations from the non-stochastic steady state. The solid red lines display the IRFs of the baseline investment booster package. In addition, the IRFs for 25% higher (25% lower) adjustment costs are depicted in dashed-dotted green (dashed blue). In all three scenarios, the red tape cost burden stays unaltered. Total investment includes investments in machinery and equipment, buildings, and intangibles.

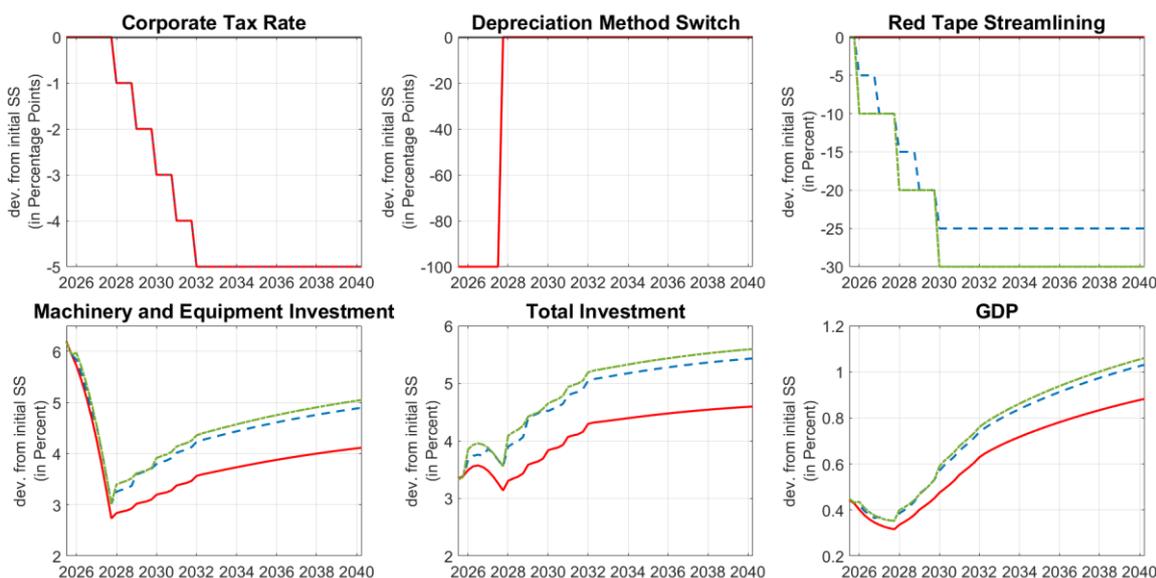
Three conclusions stand out. First, the microeconomic impact of the Investment Booster Act is sensitive to capital adjustment costs and thus investment-specific characteristics. Second, higher adjustment costs make rapid changes in the capital stock more expensive. Consequently, businesses continue along with previous trajectories to a greater extent creating higher autocorrelation in investment. The mirror image of a higher responsiveness emerges from lower adjustment costs. Finally, convex adjustment costs can also be interpreted as mimicking organizational and planning frictions and/or regulatory clearance. In short: red tape is part of the microfoundation for convex adjustment costs provided that the marginal regulatory cost of increasing investment grows with the size of the adjustment. That being the case, bureaucratic hurdles causing long approval times, sequential regulatory steps, and legal challenges

²³ Empirically, investment at the microeconomic level appears to be both infrequent and spiky (e.g., Domes and Dunne, 1998; Cooper and Haltiwanger, 2006). While this evidence suggests that fixed adjustment costs can play a key role, it is less pertinent at the aggregate level. Thomas (2002) shows that there are general equilibrium forces which impose that the aggregate implications of lumpy investment dynamics at the microeconomic level remain negligible. In her paper, this result obtains because wages and the interest rate respond endogenously.

amplify the adjustment frictions. Put positively, a multipronged policy approach streamlining red tape can unleash additional investment momentum via the associated reduction of adjustment costs.

All numerical model evaluations so far have assumed a one-time reduction in red tape costs to varying degrees in mid-2026. This contrasts with the fact that progress with red tape streamlining is difficult and a time-consuming uphill battle. One challenge is that the structural reforms must be coordinated with the principal stakeholders, such as state governments, businesses, and labor unions.²⁴ Given the entrenched regulatory over-reach, the ultimate success of the endeavor is also uncertain ex ante. In other words, it is not an open-and-shut case but an ongoing reform process with uncertain prospects.²⁵ To address this, Figure 6 compares the scenario of a non-existent red tape reduction indicated by the solid red IRFs with two alternative incremental red tape reform scenarios with slightly different time profiles. The dashed blue IRFs indicate a cascade of five red tape cost cuts of five percent each. The third scenario - shown by the dashed-dotted green IRFs - illustrates an incremental streamlining with three ten percent red tape cost reductions each. The model simulations convey the key message that incremental bureaucracy cuts will provide an additional boost to investment and growth aimed at. In other words, a step-by-step approach is a workable and auspicious long-term economic growth strategy.

Figure 6: The Red Tape Streamlining Sensitivity of Investment and Growth



²⁴ At the beginning of October 2025, the German government announced first red tape streamlining legislative initiatives. See <https://www.bloomberg.com/news/articles/2025-10-01/german-red-tape-drive-aims-to-slash-16-billion-from-cost-burden>. This is the starting point for the successive roll-out of the respective reform agenda in the legislative period.

²⁵ An exemplary policy turnaround is that the EU has dismantled the formerly decreed reporting obligations in its Supply Chain Act. Specifically, the thresholds for firms covered were raised to more than 5,000 employees and over 1.5 billion EUR in annual turnover. In addition, the obligation for firms to draw up climate plans has been removed, and the European civil liability regime harmonizing companies' obligations and their liability before the courts in the event of breaches has been scrapped altogether.

Notes: Quarters are drawn on the horizontal axis. IRFs are reported as percentage deviations from the non-stochastic steady state. The scenario of a non-existent red tape reduction is indicated by the solid red IRFs. The impacts of the cascading red tape cost reduction of 25% versus 30% with different time profiles are displayed by the dashed blue and dashed-dotted green IRFs. Total investment includes investments in machinery and equipment, buildings, and intangibles.

6. Concluding Remarks

DSGE models can serve as a laboratory providing quantitative guidance on policy counterfactuals. By means of this modeling approach, the paper makes two inroads into the study of business investment in Germany. First, it utilizes a calibrated DSGE model allowing for a comprehensive analysis of the sequential investment booster transmission impacts. Second, it considers red tape reduction initiatives beyond the adopted business taxation break package to enhance the subdued market sentiment and future economic growth. The modeling results illustrate that the business taxation package will catalyze an investment acceleration and thus marks a leap forward.²⁶ The reduction in bureaucracy costs aimed at reinforces these impacts, and thus contributes to strengthen the German economy, amid rising external pressures.

Finally, it must be added that the investment booster impact on capital accumulation in the medium-term DSGE framework cannot mask the problems that will shape Germany's long-term growth trajectory. The most troubling trend is the secular decline in Germany's growth potential. The World Bank's cross-country database of potential GDP growth finds that Germany's potential growth rate based on the production function approach has declined from 1.5% to around 0.9% since the early 2000s. Using the 5-year ahead expectations according to the IMF's World Economic Outlook database vintages, Germany's potential GDP growth rate declined from 2.1% to 1.1% over the same period.²⁷ This slowdown is primarily driven by sluggish productivity gains, indicating that the traditional growth model is running out of steam. In addition, the German labor market is facing structural challenges as a result of demographic change, leading to a shortage of skilled workers in many industries. Against the background of these challenges, revitalizing economic dynamism requires a comprehensive set of longer-term policies. This includes questioning the prevailing policy mindset focused on equipment investment. In recent years considerable investment in advanced economies has been channeled into knowledge-based intangible assets, such as software, data, cloud infrastructure, and complementary tangible investments, such as information and communication technology and networking equipment. Together, these investments foster business dynamism, help firms to innovate and develop a competitive edge, and promote resilience. In short, robust and faster economic growth comes from the intangible world, not the tangible one. Indeed, the more fragmented and uncertain the world economy becomes, the more the future

²⁶ However, even in best-case scenarios the attainable medium-term growth rates will not deliver the growth thresholds commonly examined in the empirical literature on past investment accelerations - defined as periods of sustained rapid growth (see, e.g., de Haan et al., 2025).

²⁷ See Celik et al. (2023) and <https://www.worldbank.org/en/research/brief/potential-growth-database>.

of the German economy hinges on how effectively the country adapts to shifting global and regional dynamics.

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