Fiscal Stimulus and Distortionary Taxation

Harald Uhlig\textsuperscript{1}  Thorsten Drautzburg\textsuperscript{2}

\textsuperscript{1}University of Chicago
Department of Economics
huhlig@uchicago.edu

\textsuperscript{2}tdrautzburg@uchicago.edu

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Outline

1. Introduction
2. The model
3. The model: Details
   - Equations
   - Parameters
4. Results
   - Comparison to neoclassical growth.
   - No rules-of-thumb, no binding zero lower bound.
   - Including Rule-of-Thumb Consumers.
   - A binding zero Lower Bound.
   - Chemotherapy
5. Conclusions
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5. Conclusions
Question and Answers

Question:
- What is the effect of a fiscal stimulus as the ARRA?
- What are the resulting fiscal multipliers?

Answers: ...
Bernstein-Romer, Appendix: Multipliers

Romer–Bernstein output effects of a permanent stimulus of 1% of GDP

- Government spending
- Tax cut

Date          output effect
2009          0
2010          0.2
2011          0.4
2012          0.6
2013          0.8

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What I do:


**This paper:**
- Medium-to-long term effects.
- Distortionary labor taxation ...
- ... plus: rule-of-thumb consumers.
- ... plus: binding zero lower bound.
Key insights

- Output response is modest. Fiscal multipliers are typically below 1.
- Consumption response is typically negative or, at most, feebly positive.
- In the medium-to-long term:
  - Pronounced output loss due to increased tax burden.
  - Output losses large relative to initial increase.

**Note:** No or only moderate inflation tax on initial bond holders, i.e. no “stealing from the Chinese”.
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Smets-Wouters (2007): overview

- Elaborate New Keynesian model.
- Continuum of households. They supply household-specific labor in monopolistic competition. They set wages. Wages are Calvo-sticky.
- Continuum of intermediate good firms. They supply intermediate goods in monopolistic competition. They set prices. Prices are Calvo-sticky.
- Final goods use intermediate goods. Perfect competition.
- Habit formation, adjustment costs to investment, variable capital utilization.
- Monetary authority: Taylor-type rule.
Application to ARRA

- **CCWT**: path for government spending. Government consumption. Perhaps additively separable in utility.
- **CCWT**: Fed-Funds = 0 for four quarters. “Jump” to “switched-off” Taylor rule.
- **This paper**:  
  - Distortionary labor taxation, consumption taxes, capital income taxes. Steady state levels: Trabandt-Uhlig (2009).
  - Details. Eg: all of labor income or without “union profits”? The former.
  - Speed to return to steady state debt level: $\psi_{\tau} \in [0, 1]$.
  - ... plus: rule-of-thumb consumers: $\phi \in [0, 100\%]$.
  - ... plus: binding zero lower bound per discount shock, causing recession.
Tax rule

- Remaining deficit, prior to new debt and labor taxes ...

\[ f_t = \text{gov.spend.} + \text{sub.s.} + \text{old debt repaym.} - \text{cons.tax rev., cap.tax rev.} \]

- ... needs to be financed:

\[ \text{lab.tax rev.} + \text{new debt} = f_t \]

- Steady state debt level, steady state taxes: \( \bar{f} \).

- Tax rule:

\[ \text{lab.tax rev.}_t - \text{lab.tax rev.} = \psi_\tau (f_t - \bar{f}) \]
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Outline

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2. The model
3. The model: Details
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Extensions of Smets-Wouters (2007): Investment & Consumption

Shadow price of investment – original SW with $\tau^k = 0$:

$$
\hat{Q}_t = -\hat{q}_t^b - (\hat{R}_t - \mathbb{E}_t[\pi_{t+1}]) + \frac{1}{r^k_*(1 - \tau^k) + \delta \tau^k + 1 - \delta} \times
$$

$$
\times [r^k_*(1 - \tau^k)\mathbb{E}_t(\hat{r}^k_{t+1}) + (1 - \delta)\mathbb{E}_t(\hat{Q}_{t+1})], \quad (1)
$$

Consumption growth – SW with $\tau^j = 0, j = l, c$ and “ex-dividend” wage $w^h_*$ instead of $w_*$:

$$
\hat{c}_t = \frac{1}{1 + h/\mu} \mathbb{E}_t[\hat{c}_{t+1}] + \frac{h/\mu}{1 + h/\mu} \hat{c}_{t-1} - \frac{1 - h/\mu}{\sigma[1 + h/\mu]} (\hat{q}_t^b + \hat{R}_t - \mathbb{E}_t[\hat{\pi}_{t+1}])
$$

$$
- \frac{[\sigma - 1][w_*n_*/c_*]}{\sigma[1 + h/\mu]} \frac{1 - \tau^l}{1 + \tau^c} (\mathbb{E}_t[\hat{n}_{t+1}] - n_t), \quad (2)
$$
Extensions of Smets-Wouters (2007): Wages

Evolution of wages:

\[
(1 + \bar{\beta}_w)\hat{w}_t - \hat{w}_{t-1} - \bar{\beta}_w E_t[\hat{w}_{t+1}] \\
= \left(1 - \zeta_w \bar{\beta}_w\right) \frac{1}{\zeta_w} \left[\frac{1}{1 - h/\mu} \left[\hat{c}_t - (h/\mu)\hat{c}_{t-1}\right] + \nu \hat{n}_t - \hat{w}_t + \frac{d\tau^l_t}{1 - \tau^l_t}\right] \\
- (1 + \bar{\beta}_w \bar{\mu}_w)\hat{\pi}_t + \nu_w \hat{\pi}_{t-1} + \bar{\mu}_t \pi_{t+1} + \lambda_{w,t}, \quad (3)
\]

In the flexible economy:

\[
\hat{w}_t = \frac{1}{1 - h/\mu} \left[\hat{c}_t - (h/\mu)\hat{c}_{t-1}\right] + \nu \hat{n}_t + \frac{d\tau^l_t}{1 - \tau^l_t}. \quad (4)
\]
Extensions of Smets-Wouters (2007): Tax rate and gov’t deficit

Financing the current deficit:

\[
\tau^l \frac{w^* n^* c^*}{c^* \bar{Y}} \left[ \frac{d \tau^l}{\tau^l} + \hat{w}_t + \hat{n}_t \right] + \epsilon_t
\]

\[
= \frac{\psi^T}{\psi} \left[ \mu [\hat{g}_t^a + \hat{g}^s] + \frac{b^* \hat{b}_{t-1} - \hat{\pi}_t}{\bar{Y}} - \mu \tau_c \frac{c^*}{Y} \hat{c}_t - \tau^k [r^k_t r^k_t + (r^k_t - \delta) \hat{k}^p_{t-1}] \frac{k^*}{\mu \bar{Y}} \right]
\]

Budget:

\[
\hat{g}_t + \frac{1}{\mu \pi^*} \frac{b^*}{\bar{Y}} [\hat{b}_{t-1} - \hat{\pi}_t] = \frac{1}{\bar{R}^*} \frac{b^*}{\bar{Y}} [\hat{b}_t - \hat{R}_t - \hat{q}_t^b] + \tau_c \frac{c^*}{\bar{Y}} \hat{c}_t + \\
\frac{d \tau^l}{\tau^l} + \hat{w}_t + \hat{n}_t \right] + \tau^k [r^k_t r^k_t + (r^k_t - \delta) \hat{k}^p_{t-1}] \frac{k^*}{\mu \bar{Y}}.
\]
The model: Details

Equations

Unchanged SW equations: Cost and pricing equations

\[ \hat{m}c_t = (1 - \alpha)\hat{w}_t + \alpha\hat{r}_t^k - \gamma_t, \quad (7) \]

\[ (1 + \bar{\beta}_\mu p)\hat{\pi}_t = \nu p\hat{\pi}_{t-1} + \bar{\beta}_\mu E_t[\hat{\pi}_{t+1}] + A\frac{[1 - \zeta_p \bar{\beta}_\mu][1 - \zeta_p]}{\zeta_p} \hat{m}c_t + \hat{\lambda}_{p,t}. \quad (8) \]

1 - \zeta_p is the probability of (potential) price adjustment.
Unchanged SW equations: Capital services and Capital Stock

Cost minimization yields:

\[ \hat{k}_t = \hat{w}_t - \hat{r}_t^k + \hat{n}_t. \]  

(9)

From the FOC with respect to capacity utilization:

\[ r_*^k \hat{r}_t^k = a''(1) \hat{u}_t \Rightarrow \hat{u}_t \equiv \frac{1 - \psi_u}{\psi_u} \hat{r}_t^k. \]  

(10)

The law of motion for capital implies:

\[ \hat{k}_t^p = \left[ 1 - \frac{x_*}{k_*^p} \right] \hat{k}_{t-1}^p + \frac{x_*}{k_*^p} \hat{q}_t^x + \frac{x_*}{k_*} \hat{x}_t. \]  

(11)
Unchanged SW equations: Investment and FedFunds

The FOC for investment implies:

\[
\hat{x}_t = \frac{1}{1 + \beta \mu} \left[ \hat{x}_{t-1} + \beta \mu \mathbb{E}_t(\hat{x}_{t+1}) \right] + \frac{1}{\mu^2 S''(\mu)} \left[ \hat{Q}_t^k + \hat{q}_t^x \right], \tag{12}
\]

The interest rate rule:

\[
\hat{R}_t = \rho_R \hat{R}_{t-1} + [1 - \rho_R] [\psi_1 \pi_t + \psi_2 (\hat{y}_t - \hat{y}^{\text{flex}}_t)] + \psi_3 [\hat{y}_t - \hat{y}_{t-1} + \hat{y}^{\text{flex}}_t - \hat{y}^{\text{flex}}_{t-1}] + ms_t, \tag{13}
\]

Here: Introduce wedge between \( \hat{R}_t \) and the relevant interest rate for the private sector for first periods.
Unchanged SW equations: Production and Expenditure

The production technology for final goods:

$$\hat{y}_t = \frac{\bar{Y}}{\bar{Y}} [\alpha \hat{k}_t + (1 - \alpha) \hat{n}_t + \gamma_t],$$

(14)

Spending identity with costs of capacity utilization:

$$\hat{y}_t = \hat{g}_t + \frac{c_*}{\bar{Y}} \hat{C}_t + \frac{x_*}{\bar{Y}} \hat{X}_t + \frac{r^k_* k_*}{\bar{Y}} \hat{U}_t.$$  

(15)
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5 Conclusions
### Parameters: Estimated SW parameters I

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\delta$</td>
<td>0.025</td>
<td>depreciation rate</td>
</tr>
<tr>
<td>$\lambda_w$</td>
<td>1.5</td>
<td>markup labor market</td>
</tr>
<tr>
<td>$g$</td>
<td>0.18</td>
<td>exogenous gov’t spending/GDP</td>
</tr>
<tr>
<td>$\mu$</td>
<td>$1 + \frac{0.4312}{100}$</td>
<td>trend growth rate</td>
</tr>
<tr>
<td>$\beta$</td>
<td>$\frac{0.1657 + 100}{100}$</td>
<td>discount factor</td>
</tr>
<tr>
<td>$\pi_*$</td>
<td>$1 + \frac{0.7869}{100}$</td>
<td>inflation rate</td>
</tr>
<tr>
<td>$\alpha$</td>
<td>0.1901</td>
<td>capital share in production</td>
</tr>
<tr>
<td>$\sigma$</td>
<td>1.3808</td>
<td>1/intertemporal elasticity of substitution</td>
</tr>
<tr>
<td>$\bar{Y} + \Phi \bar{Y}$</td>
<td>$\lambda p$</td>
<td>fixed cost and goods market markup</td>
</tr>
<tr>
<td>$0.5187$</td>
<td>net exports/gov’t exp. reaction to techn.</td>
<td></td>
</tr>
<tr>
<td>$S''(\mu)$</td>
<td>5.7606</td>
<td>investment adjustment cost</td>
</tr>
<tr>
<td>$h$</td>
<td>0.7133</td>
<td>habit persistence</td>
</tr>
<tr>
<td>$\Xi_w$</td>
<td>0.7061</td>
<td>calvo parameter labor market</td>
</tr>
</tbody>
</table>
### Parameters: Estimated SW parameters II

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\nu$</td>
<td>1.8383</td>
<td>labor supply elasticity</td>
</tr>
<tr>
<td>$\Xi_p$</td>
<td>0.6523</td>
<td>calvo parameter goods market</td>
</tr>
<tr>
<td>$\iota_w$</td>
<td>0.5845</td>
<td>indexation labor market</td>
</tr>
<tr>
<td>$\iota_p$</td>
<td>0.2432</td>
<td>indexation goods market</td>
</tr>
<tr>
<td></td>
<td>0.5462</td>
<td>capital utilization elasticity</td>
</tr>
<tr>
<td>$\psi_1$</td>
<td>2.0443</td>
<td>Taylor rule reaction to inflation</td>
</tr>
<tr>
<td>$\rho_R$</td>
<td>0.8103</td>
<td>Taylor rule interest rate smoothing</td>
</tr>
<tr>
<td>$\psi_2$</td>
<td>0.0882</td>
<td>Taylor rule long run reaction to output gap</td>
</tr>
<tr>
<td>$\psi_3$</td>
<td>0.2247</td>
<td>Taylor rule short run reaction to output gap</td>
</tr>
</tbody>
</table>
# Parameters: Calibration and Implications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{b}{Y}$</td>
<td>0.63</td>
<td>Debt to GDP ratio</td>
</tr>
<tr>
<td>$\tau_k$</td>
<td>0.36</td>
<td>capital tax</td>
</tr>
<tr>
<td>$\tau_l$</td>
<td>0.28</td>
<td>wage tax rate</td>
</tr>
<tr>
<td>$\tau_c$</td>
<td>0.05</td>
<td>consumption tax rate</td>
</tr>
<tr>
<td></td>
<td>0.1059</td>
<td>implied transfer payment</td>
</tr>
<tr>
<td></td>
<td>0.0097</td>
<td>Interest payments relative to GDP</td>
</tr>
<tr>
<td></td>
<td>0.2268</td>
<td>Labor tax revenue relative to GDP</td>
</tr>
<tr>
<td></td>
<td>0.0335</td>
<td>Capital tax revenue relative to GDP</td>
</tr>
<tr>
<td></td>
<td>0.0353</td>
<td>Consumption tax revenue relative to GDP</td>
</tr>
</tbody>
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3. The model: Details
   - Equations
   - Parameters
4. Results
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5. Conclusions
Outline

1. Introduction
2. The model
3. The model: Details
   - Equations
   - Parameters
4. Results
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A neoclassical growth model

Comparison to a neoclassical growth:

- standard, but..
- ... add distortionary labor taxes, capital income taxes, consumption taxes.
- Frisch elasticity: 1.
- Consider an anticipated permanent increase in government spending.
Neoclass. vs SW-DU: announced, $\psi_{\tau} = 0.03$. 

Impulse response to gov.spending announcement shock $\psi_{\tau} = 0.03$

<table>
<thead>
<tr>
<th>Year</th>
<th>percent</th>
<th>consumption</th>
<th>output</th>
<th>$\tau$ (wage tax rate, perc. points)</th>
<th>government spending (% init. output)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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Harald Uhlig (University of Chicago) Fiscal Stimulus and Distortionary Taxation January 8, 2010 28 / 70
Neoclass. vs SW-DU: perm., ann., $\psi_\tau = 0.03$. Long run.

Results

Comparison to neoclassical growth.
Results

No rules-of-thumb, no binding zero lower bound.

Outline

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2. The model
3. The model: Details
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Short-run. $\psi_{\tau} = .03$ vs lump-sum.

$\psi_{\tau} = 0.03$

Lump-sum (CCWT)

- Stimulus
- GDP
- Investment
- Consumption

$\tau$ (wage tax rate, perc. points)

% of init. output/perc. points

year
Medium-run. $\psi_{\tau} = .03$ vs lump-sum.
Fiscal stimulus: medium run. $\psi_T = 0.03$. 

Graph showing the effects of fiscal stimulus on GDP, Consumption, Investment, and Stimulus with a wage tax rate over time from 2010 to 2035.
Spending increase, short-run output dynamics: various $\psi_T$. 

![Graph showing various $\psi_T$ values over years from 2008 to 2016.](chart)
Results

No rules-of-thumb, no binding zero lower bound.

Spending increase, short-run fiscal multipliers

\[ \psi = 0.03 \]
\[ \psi = 0.10 \]
\[ \psi = 0.30 \]
\[ \psi = 1.00 \]
Spending increase, short-run tax dynamics: various $\psi_T$. 

![Graph showing various $\psi_T$ values over years from 2008 to 2016.]

- $\psi = 0.03$
- $\psi = 0.10$
- $\psi = 0.30$
- $\psi = 1.00$
Spending increase, short-run debt dynamics: various $\psi_T$.

![Graph showing various effects of $\psi_T$.](image)
Results

Including Rule-of-Thumb Consumers.

Outline

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2. The model
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Consumption of the two agents

Modify consumption Euler equation to account for Rational Agents only:

\[
\hat{c}_{t}^{RA} = \frac{1}{1 + h/\mu} \mathbb{E}_t[\hat{c}_{t+1}] + \frac{h/\mu}{1 + h/\mu} \hat{c}_{t-1} - \frac{1 - h/\mu}{\sigma[1 + h/\mu]} (\hat{q}_t^b + \hat{R}_t - \mathbb{E}_t[\hat{n}_{t+1}]) \\
- \frac{[\sigma - 1][w_* n_* / c^{RA}_*]}{\sigma[1 + h/\mu]} \frac{1 - \tau^l}{1 + \tau^c} (\mathbb{E}_t[\hat{n}_{t+1}] - n_t), \quad (16)
\]

The consumption of the Rule-of-Thumb consumer is determined from their budget constraint:

\[
\hat{c}_{t}^{RoT} = (1 - \tau^l) \frac{w_* n_*}{c^{RoT}_*} \left[ \hat{w}_t + \hat{n}_t - \frac{d \tau^l}{1 - \tau^l} \right], \quad (17)
\]

using \( \hat{n}_t = \hat{n}_{t}^{RoT} = \hat{n}_t^{RA} \) and \( n_* = n_*^{RoT} = n_*^{RA} \).
Aggregating consumption

Aggregate consumption:

\[
\hat{C}_t = \frac{C^R_A}{C_\ast} (1 - \phi) \hat{C}_t^R + \frac{C^{RoT}}{C_\ast} \phi \hat{C}_t^{RoT},
\]  

(18)

where

\[
C^{RoT}_\ast = \frac{w_n (1 - \tau^l) + S_\ast}{1 + \tau^c},
\]

\[
C^{RA}_\ast = \frac{c_\ast - \phi C^{RoT}_\ast}{1 - \phi}.
\]
Distorting taxation and Rule-of-Thumb Consumers:

$\psi_\tau = 0.03, \phi = 0.50.$
Medium run.

\[ \phi = 0 \]

\[ \phi = 0.5 \]

- Government spending (% init. output)
- Output
- Consumption
- \( \tau \) (wage tax rate, perc. points)

Year:
- 2010
- 2015
- 2020
- 2025
- 2030
- 2035
Comparing consumption patterns, $\psi_\tau = 0.03$. 

![Graph](image)
Short run: $\psi_\tau = 0.03$, vary rules-of-thumb fraction $\phi$. 

- $\psi_\tau = 0.03, \phi = 0$: 
  - $\psi_\tau = 0.03, \phi = 0.25$: 
  - $\psi_\tau = 0.03, \phi = 0.50$: 
  - $\psi_\tau = 0.03, \phi = 0.75$: 

Graphs showing the effects of varying the wage tax rate and government spending on output and consumption over time.
Short run: $\phi = 0.75$, vary $\psi_\tau$.

Results Including Rule-of-Thumb Consumers.

$\psi_\tau = 0.03$

$\psi_\tau = 0.10$
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Zero nominal interest rates

- Before (and following CCWT): for four quarters, “switch off” Taylor rule and set nominal interest rate to zero instead.
- SW/CCWT: steady state quarterly nominal interest rate is 1.55%
- Now: recession per bond-premium-shock $\hat{q}_t^b$: Consumers want to save more at any given interest rate (Christiano, Eichenbaum and Rebelo (2009)). Increase half-life of shock to one period (SW: <0.5 periods).
- Zero lower bound becomes binding with a bond-premium shock of 0.165, implying a (quarterly) change in GDP of -5.46%.
- Assume shock of 0.20.
Results

- Extreme scenario.
- Examine differences between “with” and “without” stimulus.
- Results are practically the same as before.
Without stimulus, $\psi_\tau = 0.03$. 

### Economic performance:
- Consumption
- Output
- Government spending (% init. output)

### Rates:
- Actual fed funds
- Implied fed funds
- Inflation
- Marginal cost

---

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**Fiscal Stimulus and Distortionary Taxation**

January 8, 2010 49 / 70
With stimulus, $\psi_T = 0.03$. 

**Economic performance:**
- Consumption
- Output
- Government spending (% init. output)
- Tax rate (wage tax rate, perc. points)

**Rates:**
- Actual fed funds
- Implied fed funds
- Marginal cost
- Inflation

Results

A binding zero Lower Bound.

Difference between with and without stimulus.

![Graph showing differences in consumption, output, and government spending with and without stimulus over years 2009 to 2016.]

- Consumption (blue line)
- Government spending (% init. output) (teal line)
- Output (green line)
- \( \tau \) (wage tax rate, perc. points) (red line)
Results

A binding zero Lower Bound.

SW-DU, Bondpremium-Shock with binding ZLB: Difference, compared to “switching off”.

ZLB, $\psi = 0.03$:  

“switching off”, $\psi = 0.03$:
Rates: Difference between with and without stimulus.
Results

Chemotherapy

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1. Introduction
2. The model
3. The model: Details
   - Equations
   - Parameters
4. Results
   - Comparison to neoclassical growth.
   - No rules-of-thumb, no binding zero lower bound.
   - Including Rule-of-Thumb Consumers.
   - A binding zero Lower Bound.
   - Chemotherapy
5. Conclusions
$i = 0$ for 0 quarters ($\psi_T = 0.03$).
\( i = 0 \) for 4 quarters \( (\psi_\tau = 0.03) \).
\( i = 0 \) for 8 quarters \((\psi_T = 0.03)\).
$i = 0$ for 12 quarters ($\psi_\tau = 0.03$).
$i = 0$ for 16 quarters ($\psi_{\tau} = 0.03$).
\( i = 0 \) for 20 quarters \( (\psi_T = 0.03) \).
$i = 0$ for 16 quarters ($\psi_T = 0.03$). Long run

\begin{itemize}
  \item \textbf{Output}  \\
  \textbf{Consumption}  \\
  \textbf{Government spending ($\%$ init. output)}  \\
  \textbf{$\tau$ (wage tax rate, perc. points)}
\end{itemize}
$i = 0$ for 12 quarters ($\psi_\tau = 0.03$). Long run
Comparing binding ZLB, “switching off” with proper ZLB. 12 quarters

\[ \psi_T = 0.03, \text{ scaling the interest rate down to } 2/3 \text{ of actual value in interest rate rule. High persistence, } \rho_b = 0.9. \text{ Shocks: } 2.38\% \text{ for } 16 \text{ qtrs, } 2.02\% \text{ for } 12 \text{ qtrs, } 1.57\% \text{ for } 8 \text{ qtrs, } 1.43\% \text{ for } 5 \text{ qtrs.} \]
Comparing binding ZLB, “switching off” with proper ZLB. 16 quarters

( $\psi_{\tau} = 0.03$, scaling the interest rate down to 2/3 of actual value in interest rate rule. High persistence, $\rho_b = 0.9$. Shocks: 2.38% for 16 qtrs, 2.02% for 12 qtrs, 1.57% for 8 qtrs, 1.43% for 5 qtrs. )
Evaluation

What does it take for the ZLB to bind?

Disclaimer: based on linear extrapolation of the case of a non-binding ZLB. This is a problem because it neglects the feedback – since the recession is stronger if the ZLB binds, a smaller shock is needed for a given decline in interest rates.
Necessary initial bond premium shock to make ZLB exactly binding at x quarters

![Graph showing necessary bond shock for ZLB binding at various quarters for different values of SW]
With a maximal contraction of 50%, ZLB of x quarters obtains for ...

maximum horizon at which ZLB binds if peak GDP contraction < 50%
Generating a binding ZLB at x horizons leads to...
Outline

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Conclusions

In the context of this model, the impact of a government spending stimulus ...

- ... is very sensitive to assumptions about taxes.
- ... on output is rarely larger than the government spending increase.
- ... is a comparatively larger output loss later on, due to the increased tax burden.

Furthermore,

- Consumption declines.
- Rules-of-thumb agents do not change the results much. Consumption may be feebly positive, the increase in output is somewhat larger.
- Binding zero lower bound: does not change the results much, if temporary, and is extreme and fragile, if longer.

Therefore: tax considerations and medium-term impacts merit much more attention!