Discussion of Christiano-Eichenbaum-Rebelo’s "When is the Government Spending Mulitplier Large?"

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A representative agent maximizes

\[ E_0 \sum_{t=0}^{\infty} \beta^t \left\{ \frac{[C_t^\gamma (1 - N_t)^{1-\gamma}]^{1-\sigma}}{1 - \sigma} + v(G_t) \right\}, \quad \gamma \in (0, 1) \]

st. \( P_t C_t + B_{t+1} = W_t N_t + T_t + B_t (1 + R_t) \)

Prices are sticky under monopolistic competition and

\[ N_t = Y_t = C_t + G_t \]

Argue that government spending multiplier is large when consumption and labor supply are complement (\( \sigma > 1 \)) and/or nominal interest rate stays zero
\[
MU \left( C_t, N_t \right) = \beta E_t \left[ \frac{1 + R_{t+1}}{1 + \pi_{t+1}} MU \left( C_{t+1}, N_{t+1} \right) \right]
\]

\[
1 \cdot \mu(N_t) = MRS(1 - N_t, C_t) = \frac{1 - \gamma}{\gamma} \frac{C_t}{1 - N_t}
\]

\[
\pi_t = \beta E_t(\pi_{t+1}) + \kappa MRS(1 - N_t, C_t)
\]

\(G_t \uparrow \rightarrow C_t \downarrow \quad N_t \uparrow\) due to wealth effect \(\rightarrow \quad MU_t \uparrow \rightarrow C_t \uparrow\)

due to complement effect

If the complement effect is larger, consumption increases and the multiplier is larger than 1

Increase in patience or temporary \(\uparrow\) of TFP \(\rightarrow\) Saving\(\uparrow\) \(\rightarrow\) Nominal interest hits zero \(\rightarrow\) \(Y_t \downarrow \pi_{t+1} \downarrow\) \(\rightarrow\) \(G_t \uparrow\) can recover output loss without crowding out
Comments

(i) Clear intuition for each extension $\rightarrow$ easy to learn and teach

(ii) Reminds Mundell model under fixed exchange rates

$\rightarrow$ Under flexible exchange rates, the effect may be smaller

(iii) In Japan and US, the financial crises leads to zero nominal interest rate of Treasury Bill

$\rightarrow$ Perhaps policy to reduce the spreads directly is less distortionary
Expected rate of return

- financial crisis
- traditional policy
- new policy
- boom

money, govt bond, equity, physical assets

ABS

illiquidity
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<tr>
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<th>Monetary policy</th>
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(iv) In Japan

annual average growth rate of real GDP is 1%, inflation rate is -1%, and personal saving rate drops from over 20% to 3% in the last 20 years

discount rate is almost zero in the last 15 years

Proposed fiscal deficit exceeds 50% of the expenditure this year

Perhaps we should worry more about the long-run growth

Zero nominal interest rate tends to keep zombie banks and firms staying in business

Government fiscal policy tends to subsidize declining industry

→ Growth rates of TFP and output stagnate in the long-run
New Issuance of Asset Backed Securities in Previous Three Months

Source: JP Morgan
An example: Term Asset-Backed Securities Loan (TALF)

Treasury provides $20bil subordinate debt to the facility using TARP money

Fed provides non-recourse loans to private financial institutions, using newly-issued ABS and legacy CMBS as collateral (3-5 years, no change of haircut before maturity)

→ Increase liquidity and reduce risks of ABS for private financial institutions

→ Encourage new loans and investment
Impact of TALF in 2009

TALF loans started in March to become $40 bil in September

ABS new issue revived from the mid-year ($95 bil TALF-eligible, $28 bil non-eligible Aaa)

Spread of Auto ABS shrank from 3% in January to less than 1% from September → Private sector took over because TALF loan spread is 1%

Spread of Credit Card ABS remains above 1%

Secondary market spread of Legacy CMBS(AJ) is 0.4% in 1/08, 3% in 9/08, 1.2% from summer/09