# Not-for-Publication Appendix to:

### Tax News in Recessions and Expansions

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#### Abstract

We investigate whether the effect of tax news depends on the state of the economy. Using U.S. quarterly data, we show that news about future tax cuts are more contractionary during recessions. This nonlinearity is mainly due to the response of durable consumption and, especially, nonresidential investment.

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## A Tables

Variable	Frequency	Description	Source and Construction
$r_t^M$	Quarterly	Yield on municipal bonds (1 year)	LRW (2012) and Bloomberg's Municipal Fair Market Bond Index
$r_t^T$	Quarterly	Yield on Treasury bonds (1 year)	LRW (2012) and Bloomberg's Municipal Fair Market Bond Index
$ au_t$	Quarterly	Implicit tax rate (1 year)	$1 - \frac{r_t^M}{r_t^T}$
GCE	Quarterly	Federal government expenditures	BEA (Table $1.1.5$ )
P16	Quarterly	Civilian non-institutional population, over 16	BLS (LNU0000000Q)
GDP	Quarterly	Gross domestic product	BEA (Table $1.1.5$ )
RGDP	Quarterly	Real gross domestic product	BEA (Table $1.1.6$ )
GDPDEF	Quarterly	GDP deflator	<u>GDP</u> RGDP
$g_t$	Quarterly	Real per-capita federal government spending	$\frac{GCE}{P16*GDPDEF}$
Net Tax	Quarterly	Federal tax receipts net of transfer payments	BEA (Table 3.2)
$t_t$	Quarterly	Real per capita federal taxes	$\frac{Nettax}{(P16)*(GDPDEF)}$
$y_t$	Quarterly	Real per-capita GDP	$\frac{RGDP}{P16}$
$ff_t$	Quarterly	Federal funds Rate	Federal Reserve Bank of St. Louis

Table A.1: Data definitions and sources used in the Local Projection Method

Note: The aggregate variables  $t_t$ ,  $g_t$ ,  $y_t$  are used in log levels and then included in the Local Projection Method

## **B** Figures



Figure B.1: Implicit Tax Rate-1956:I-2019:IV

*Note:* The figure plots the implicit tax rate. The shaded regions reflect the time periods when the unemployment rate is above the threshold value.

Figure B.2: Response of Real GDP to News of a Future Tax Cut using threshold value of 6.5%



*Note:* The figure shows the responses to a negative innovation in the implicit tax rate. The solid black line is the response in the linear model, the red dash-dotted line is the response in high-unemployment state and the blue dashed line is the response in low-unemployment state. The dark and light shaded regions represent 68% and 95% confidence intervals.





Note: See notes for Figure B.2.

Figure B.4: Response of Investment to News of Future Tax Cut using threshold value of 6.5%



*Note:* See notes for Figure B.2.

Figure B.5: Response of Real GDP to News of a Future Tax Cut using NBER recession dates



*Note:* The figure shows the responses to a negative innovation in the implicit tax rate. The solid black line is the response in the linear model, the red dash-dotted line is the response in NBER recession state and the blue dashed line is the response in NBER expansion state. The dark and light shaded regions represent 68% and 95% confidence intervals.

Figure B.6: Response of Consumption to News of a Future Tax Cut using NBER recession dates



*Note:* See notes for Figure B.5.

Figure B.7: Response of Investment to News of a Future Tax Cut using NBER recession dates



*Note:* See notes for Figure B.5.