Online Appendix for
"The Aging of the Baby Boomers: Demographics and Propagation of Tax Shocks"

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OA.1   Population Aging

Here we provide additional facts on the changing aging composition of the U.S. labor force, employment, and unemployment.
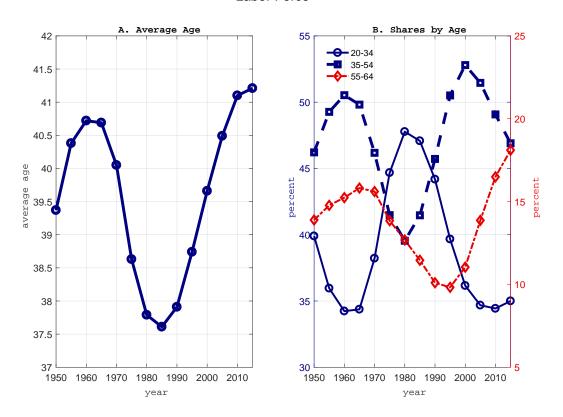
Labor Force

Figure OA.1: Trends in the Age Composition of U.S. Labor Force, 1950-2015

Notes: Panel A shows the average age of the U.S. labor force (employed plus unemployed workers of 20-64 years old). The average age of the labor force is calculated as $\bar{a}^{\mathrm{LF}} \equiv \sum_{a \in A} \left(\frac{\underline{a} + \bar{a}}{2} \right) \phi_a^{\mathrm{LF}}$, where $\underline{a}$ and $\bar{a}$ are respectively lower and upper bounds of the age group $a \in A$, with $A = \{20\text{-}24, 25\text{-}34, 35\text{-}44, 45\text{-}54, 55\text{-}64\}$, and ϕ_a^{LF} is the age-specific labor force share (the ratio of the labor force in the age group a to total labor force). Panel B shows the labor force shares by three age groups: (i) full line with circles (left axis) shows $\phi_{20\text{-}24}^{\mathrm{LF}} + \phi_{25\text{-}34}^{\mathrm{LF}}$; (ii) dashed line with squares (left axis) shows $\phi_{35\text{-}44}^{\mathrm{LF}} + \phi_{45\text{-}54}^{\mathrm{LF}}$; and (iii) dashed-dotted line with diamonds (right axis) shows $\phi_{55\text{-}64}^{\mathrm{LF}}$.
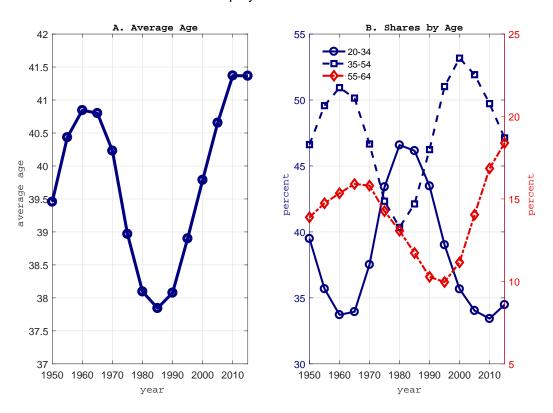
Employed Persons

Figure OA.2: Trends in the Age Composition of U.S. Employment, 1950-2015

Notes: Panel A shows the average age of the U.S. employment pool (20-64 years old). The average age of employment is calculated as $\bar{a}^{\mathrm{E}} \equiv \sum_{a \in A} \left(\frac{\underline{a}+\bar{a}}{2} \right) \phi_a^{\mathrm{E}}$, where $\underline{a}$ and $\bar{a}$ are respectively lower and upper bounds of the age group $a \in A$, with $A = \{20\text{-}24, 25\text{-}34, 35\text{-}44, 45\text{-}54, 55\text{-}64\}$, and ϕ_a^{E} is the age-specific employment share (the ratio of employed in the age group a to total employment). Panel B shows employment shares by three age groups: (i) full line with circles (left axis) shows $\phi_{20\text{-}24}^{\mathrm{E}} + \phi_{25\text{-}34}^{\mathrm{E}}$; (ii) dashed line with squares (left axis) shows $\phi_{35\text{-}44}^{\mathrm{E}} + \phi_{45\text{-}54}^{\mathrm{E}}$; and (iii) dashed-dotted line with diamonds (right axis) shows $\phi_{55\text{-}64}^{\mathrm{E}}$.
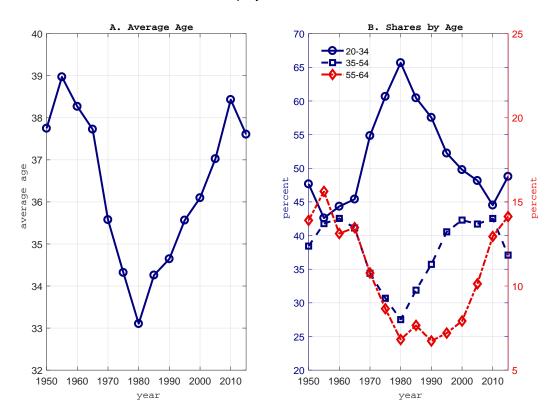
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Unemployed Persons

Figure OA.3: Trends in the Age Composition of U.S. Unemployment, 1950-2015

Notes: Panel A shows the average age of the U.S. unemployment pool (20-64 years old). The average age of unemployment is calculated as $\bar{a}^{\mathrm{U}} \equiv \sum_{a \in A} \left(\frac{\underline{a}+\bar{a}}{2} \right) \phi_a^{\mathrm{U}}$, where $\underline{a}$ and $\bar{a}$ are respectively lower and upper bounds of the age group $a \in A$, with $A = \{20\text{-}24, 25\text{-}34, 35\text{-}44, 45\text{-}54, 55\text{-}64\}$, and ϕ_a^{U} is the age-specific unemployment share (the ratio of unemployed in the age group a to total unemployment). Panel B shows unemployment shares by three age groups: (i) full line with circles (left axis) shows $\phi_{20\text{-}24}^{\mathrm{U}} + \phi_{25\text{-}34}^{\mathrm{U}}$; (ii) dashed line with squares (left axis) shows $\phi_{35\text{-}44}^{\mathrm{U}} + \phi_{45\text{-}54}^{\mathrm{U}}$; and (iii) dashed-dotted line with diamonds (right axis) shows $\phi_{55\text{-}64}^{\mathrm{U}}$.

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OA.2   Additional Results

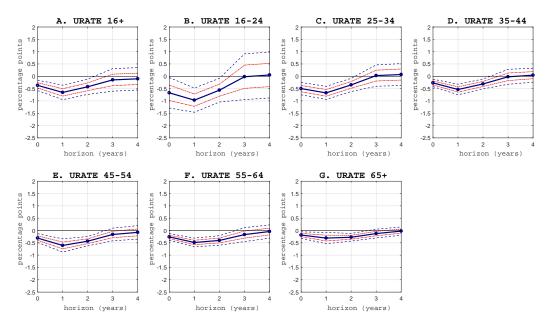Here we provide additional results based on SVARs.

Figure OA.4: Unemployment Rate Responses to an Aggregate Tax Cut by Age

Notes: The figure shows the response to a 1 percentage point cut in the aggregate AMTR. Full lines with circles are point estimates; dash-dotted lines are 68 percent confidence bands; dashed lines are 95 percent confidence bands. Both intervals are computed using the Delta-method suggested by Montiel-Olea et al. (2017) with a Newey and West (1987) HAC-robust residual covariance matrix.
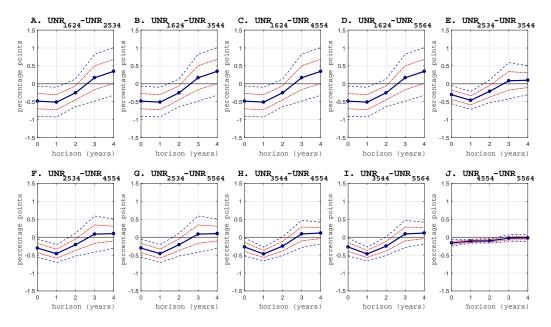
Figure OA.5: Age Differences in Unemployment Rate Responses to Age-Specific Tax Cuts

Notes: The figure shows age differences in responses to a 1 percentage point cut in age-specific AMTRs. Proxy SVARs is estimated with age-specific AMTRs and age-specific proxies. Full lines with circles are point estimates; dash-dotted lines are 68 percent confidence bands; dashed lines are 95 percent confidence bands. Both intervals are computed using the Delta-method suggested by Montiel-Olea et al. (2017) with a Newey and West (1987) HAC-robust residual covariance matrix.
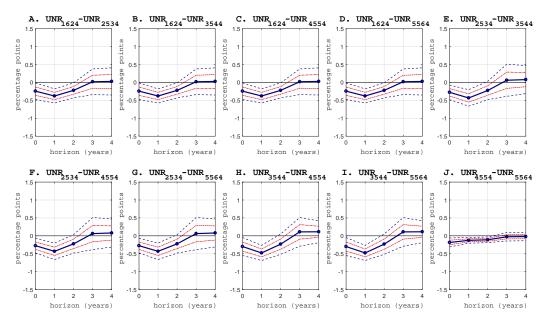
Figure OA.6: Age Differences in Unemployment Rate Responses to an Aggregate Tax Cut

Notes: The figure shows age differences in responses to a 1 percentage point cut in the aggregate AMTR. Full lines with circles are point estimates; dash-dotted lines are 68 percent confidence bands; dashed lines are 95 percent confidence bands. Both intervals are computed using the Delta-method suggested by Montiel-Olea et al. (2017) with a Newey and West (1987) HAC-robust residual covariance matrix.
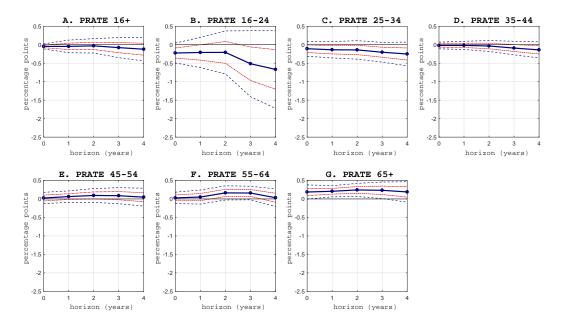
Figure OA.7: Participation Rate Responses to an Aggregate Tax Cut by Age

Notes: The figure shows the response to a 1 percentage point cut in the aggregate AMTR. Full lines with circles are point estimates; dash-dotted lines are 68 percent confidence bands; dashed lines are 95 percent confidence bands. Both intervals are computed using the Delta-method suggested by Montiel-Olea et al. (2017) with a Newey and West (1987) HAC-robust residual covariance matrix.

References

J.L. Montiel-Olea, J. Stock, and M. Watson. Inference in SVARs Identified with External Instruments. *Columbia University Working Paper*, 2017.

N.K. Newey and K.D. West. A Simple, Positive Semi-definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix. *Econometrica*, 55(3):703–708, May 1987.