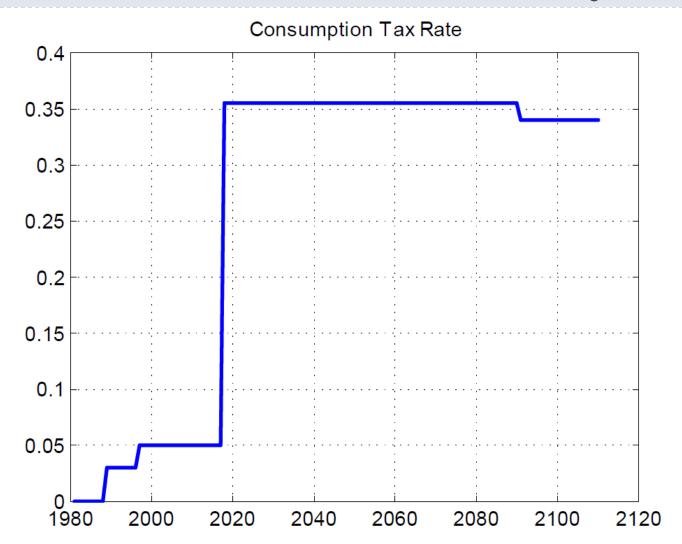
Fiscal sustainability and inequality in Japan

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Necessary Tax increase to restore the fiscal sustainability of Japan

- Doi (2009): Accounting method
 - Consumption tax rate 5 % → 17%
- Shirakawa (2010):Accounting method
 - Consumption tax rate 5 % → 32%
- ▶ Hansen and Imrohoroglu (2011, 2014): General Equilibrium
 - Consumption tax rate 5 % → 35%
- Braun and Joines (2015): General Equilibrium
 - Consumption tax rate 5 % → 53%

Hansen and Imrohoroglu (2011) Tax schedule for fiscal sustainability

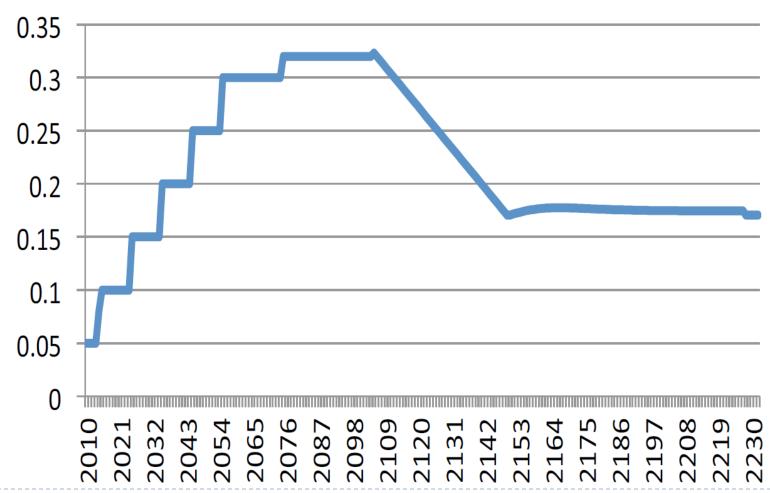


Hansen and Imrohoroglu (2011) Tax schedule for fiscal sustainability

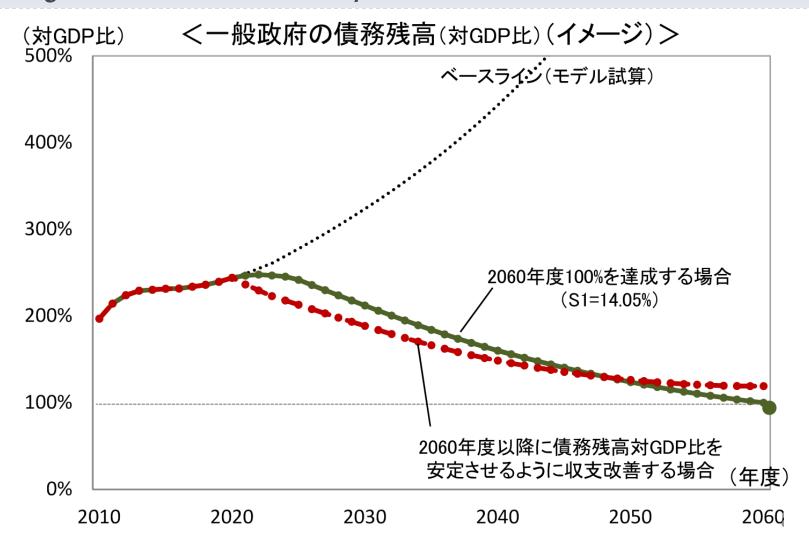


Braun and Joines (2011)

Schedule for consumption tax rate with comprehensive budget cut



Projection of Debt/GDP ratio (MoF, April 28, 2014)



How to restore fiscal sustainability

- Need improve fiscal balance by 14 percent of GDP
- Comprehensive and long-term plan needed
- Need to establish a neutral body for long-term forecast of fiscal sustainability (``Central bank'' in the fiscal sphere)
- Need a contingency plan for crisis management
 - I. Financial crisis management (Capital injection to banks)
 - 2. Plan for fiscal rehabilitation (Budget cuts)
 - 3. Liquidity provision **to** the government (Central bank loans)



Inequality and economic growth

Inequality in wealth

- Financial crisis: bursting of asset-price bubble made huge redistribution of wealth among households and firms
- ▶ 1990-- Japan
- ▶ 2008-- US

Economic growth impaired by inequality => Secular Stagnation

- Liquidity constraint on indebted households and firms depresses economic activities (Mian and Sufi 2014)
- Debt reduction may enhance economic growth (my conjecture)

Targeted redistribution policy may be effective

- Rehabilitation of overly indebted households and firms
- Debt restructuring (bankruptcy or debt forgiveness)

Aging and technology

- Population aging continues regardless the success or failure of fiscal consolidation
 - Increasing demand and decreasing supply for long-term care
 - Social security reform is not sufficient to keep the current living standard
 - Technological innovation in long-term care services is necessary, e.g., Care robots.
 - ==> Gelontechnology
- Also need ``financial gerontology" for asset management for the elderly