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Inflation and public debt in Austria, 1870–today

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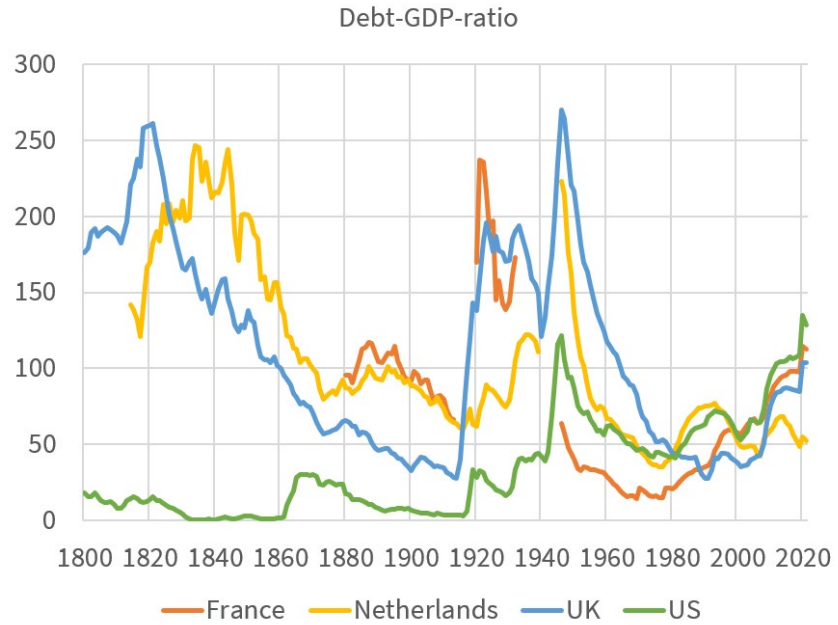
Can inflation help in consolidating debt?

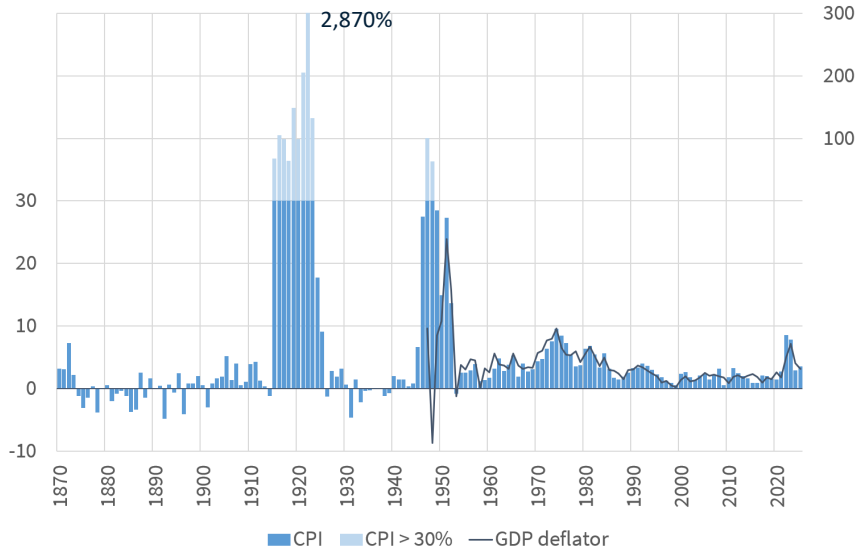
- Sharp increase in government debt since 2008.
- Renewed interest in factors that helped reduce debt burden in the past.
- US post 1945 as prominent example:
  - Krugman (2012): “Debt from World War II was never repaid and just became increasingly irrelevant as the U.S. economy grew.”
  - Primary surpluses (Eichengreen and Esteves 2022), inflation coupled with financial repression (Acalin and Ball 2024)
- Cross-country studies: Eichengreen et al (2021), Bernardini et al (2021), Eichengreen and Esteves (2022)
- Limited research on Austria. Today: decomposition exercise, examine role of inflation vs. other factors over long run.



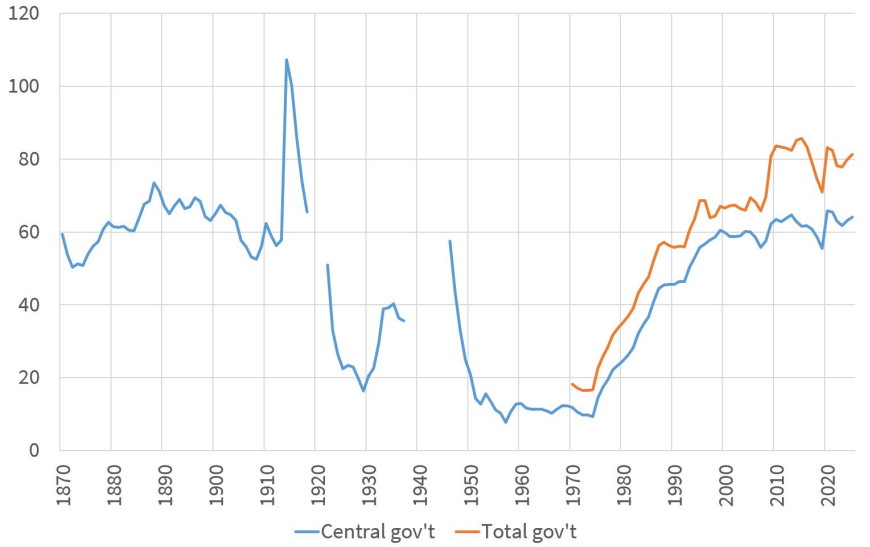
IMF Public Debt Database

Inflation and debt in Austria – main trends and events

CPI



Debt-GDP-ratio



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Decomposition exercise

- Standard formula: debt dynamics as result of primary deficits (*d*) and the difference between real interest rates (*r*) and real growth (*g*), SFA = stock-flow-adjustments:

$$\Delta b = d + (r - g)\, b_{t-1} + sfa$$

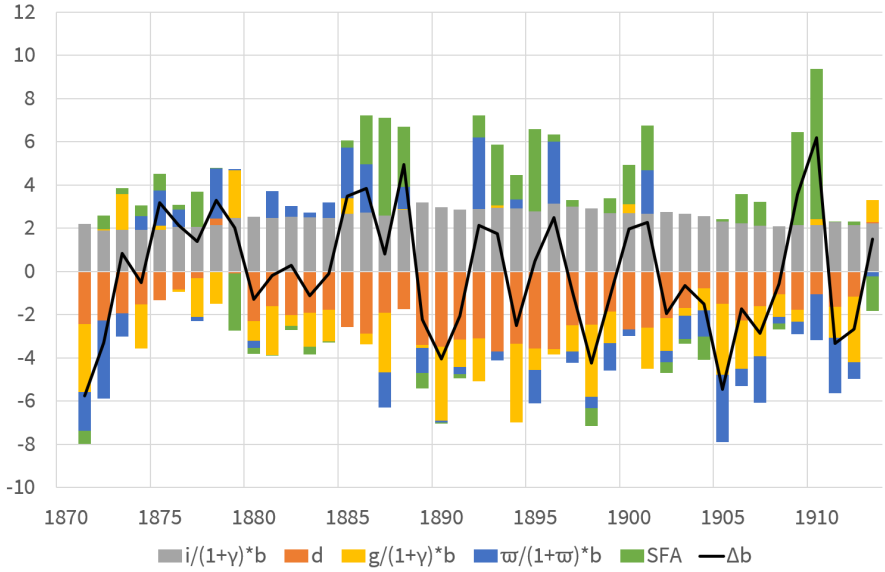
- Here: consider inflation explicitly.
- Use decomposition by Eichengreen, Esteves (2022), which is robust to high(er) inflation.

$$b_t - b_{t-1} = d_t + \frac{i_t}{1+\gamma_t} b_{t-1} - \frac{g_t}{1+\gamma_t} b_{t-1} - \frac{\pi_t}{1+\pi_t} b_{t-1} + sfa_t.$$

Data

- 1870–1918: Austrian part of Habsburg monarchy (Cisleithania)
- 1918–: Republic of Austria
  - 1918-1995: administrative data on budgetary central government
  - 1995-2025: ESA 2010 data on general government
- Challenges and caveats
  - Nominal GDP, especially during high inflation periods
  - Changes in government accounting
  - Secondary market yields
- New long-term data set as supplementary outcome of the exercise

Modest but discernible impact in the 19th century



- Periods of increasing debt and consolidation coincide with deflation/inflation.
- Nominal interest rates very stable.
- SFA due to nationalisation of railroads.

	Δ debt-ratio total/per annum		d	i	g	π	SFA
1872-1888	23,1	1,4	-1,5	2,4	-0,7	0,7	0,6
1888-1908	-20,9	-1,0	-2,5	2,7	-1,5	-0,3	0,6

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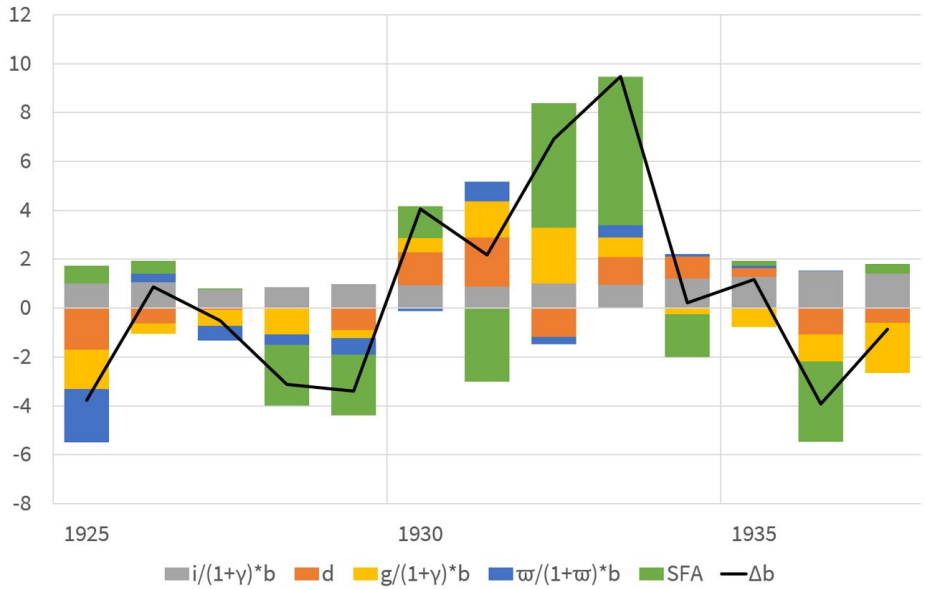
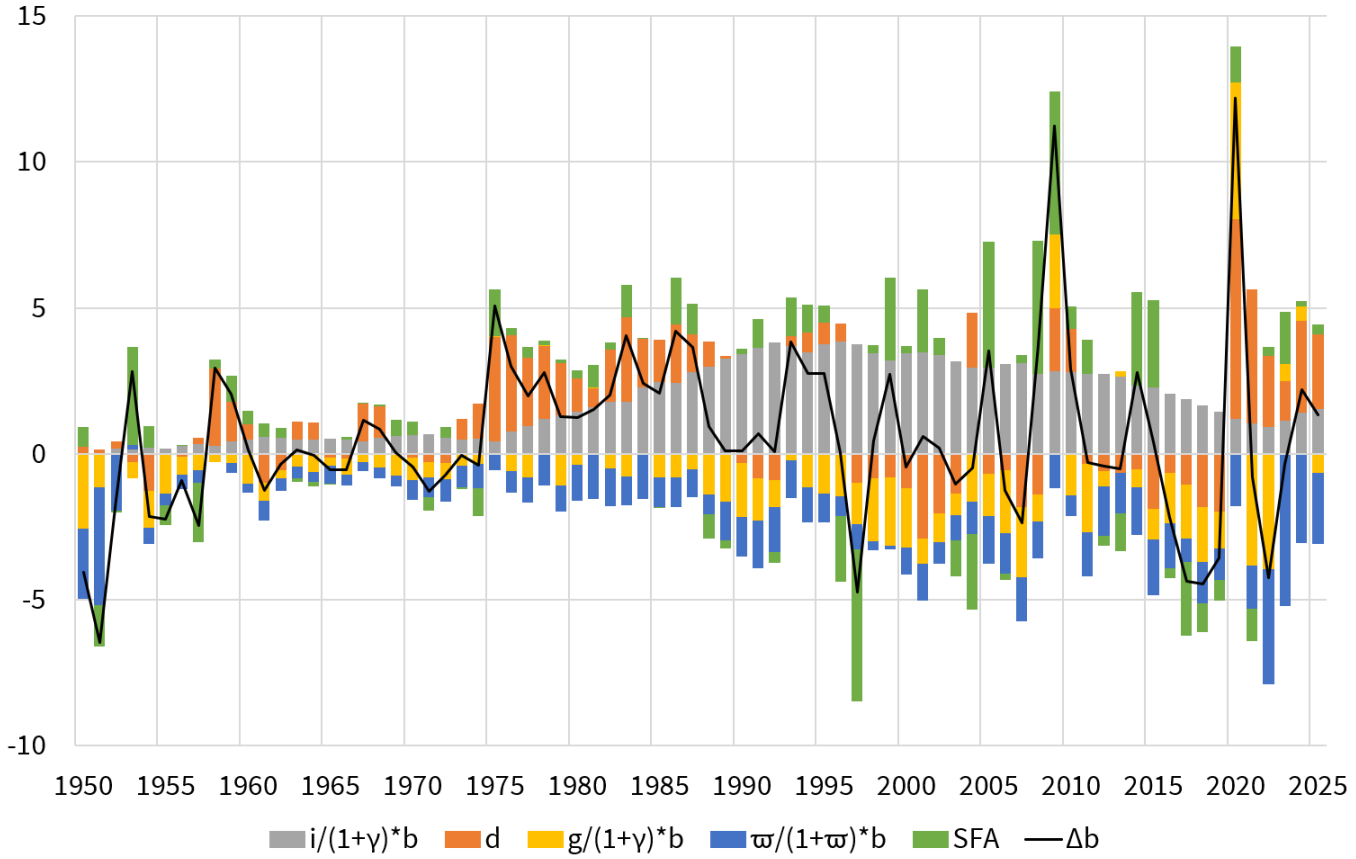
Interwar



- Hyperinflation wipes out war debts.
- Pre-war forex debt renegotiated.
- After currency reform, only modest impact of inflation/deflation.
- Some primary deficits in 1930s.
- Negative growth and rescue of banking system increase debt ratio significantly during the 1930s.



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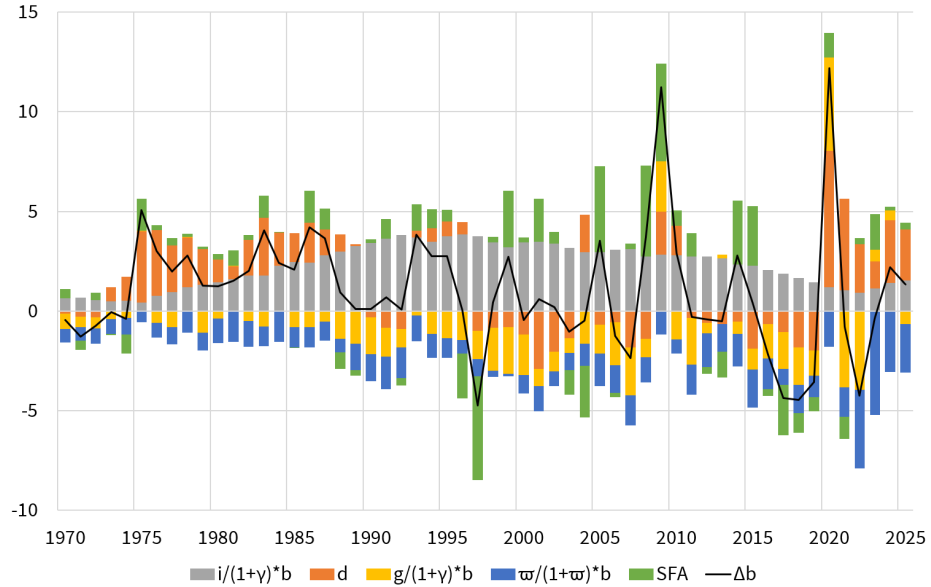
Decompositions of post-1945 episodes



	Δ debt-ratio total/per annum		d	i	g	π	SFA
1974-1995	51,9	2,5	1,3	2,3	-0,8	-1,1	0,4
1995-2007	-2,8	-0,2	-0,7	3,4	-1,5	-0,9	0,0
2007-2025	15,5	0,7	0,6	2,0	-0,8	-1,9	0,8

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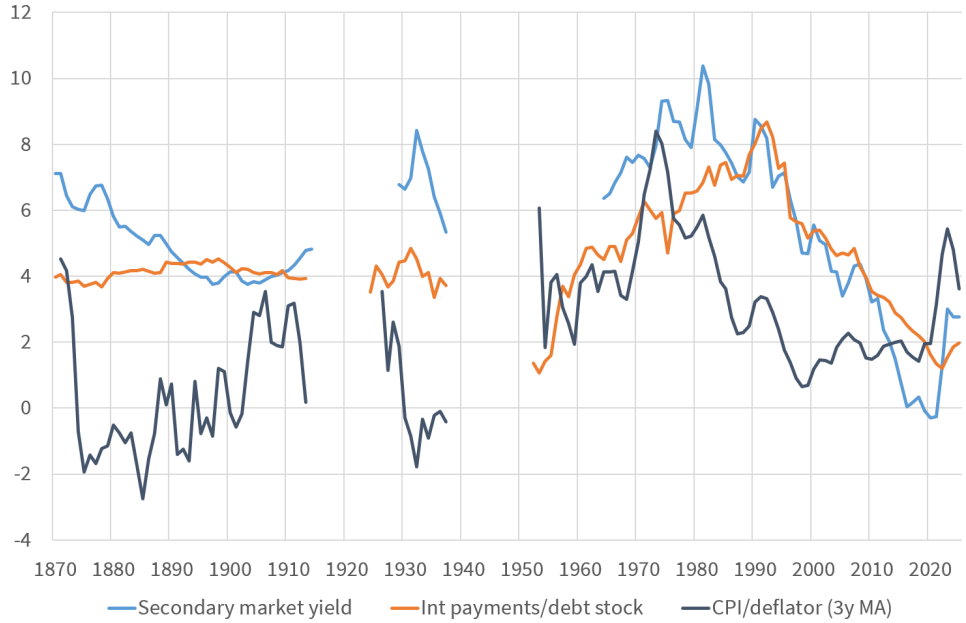
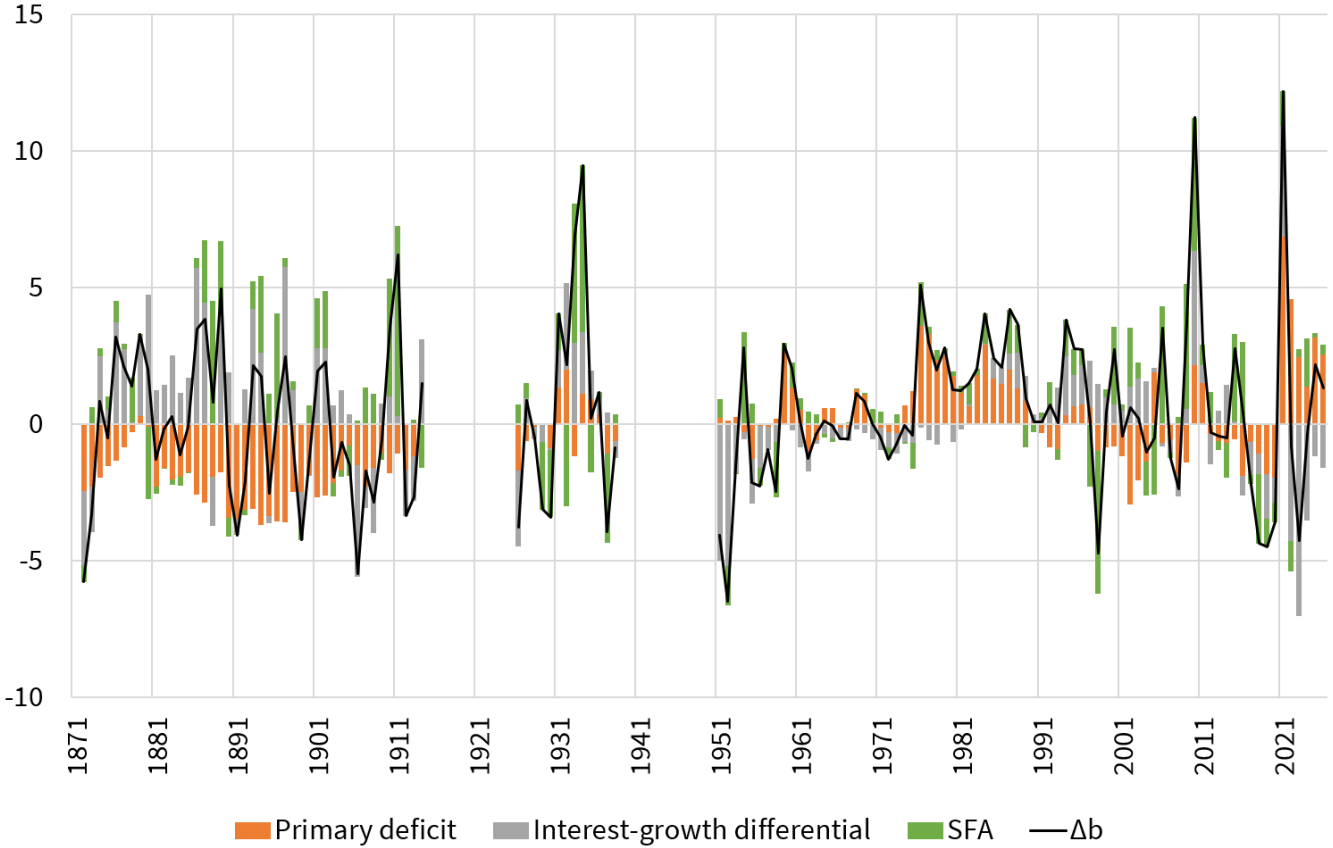
Inflation and nominal interest rates



- High inflation directly reduces real debt.
- But long-lasting impact on nominal interest rates?
- Sometimes due to adverse supply shocks which reduce real GDP growth and increase primary deficits (oil shocks in 70s/80s, energy price shocks in 2020s).

Few periods of supportive r-g differential



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Conclusions

- Inflation important factor during and after WW1.
  - But then new loans only through foreign government guarantees.
- After WW2: monetary reform eliminates gov’t debt.
  - Austria can rely on Marshall plan aid until 1952.
- Inflation shocks typically followed by rising yields.
  - Highly visible now.