

$u^* = \sqrt{uv}$: THE FULL-EMPLOYMENT RATE OF UNEMPLOYMENT IN THE UNITED STATES

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HOW TO INTERPRET THE LEGAL CONCEPT OF FULL EMPLOYMENT?

- Employment Act of 1946:
 - Full employment allows “to foster ... general welfare”
 - Full Employment and Balanced Growth Act of 1978:
 - Away from full employment, the economy “is deprived of the full supply of goods and services, the full utilization of labor ... and the related increases in economic well-being”
- ~> Full employment = social efficiency
- ~> FERU = efficient rate of unemployment

COMPUTING THE FERU

- Planner's objective: minimize **nonproductive use of labor** $u + v$
 - Unemployment rate u : value of home production & recreation is offset by psychosocial cost of unemployment
 - Vacancy rate v : 1 vacancy requires 1 worker devoted to recruiting
- Subject to **hyperbolic Beveridge curve** $u \times v = A$
 - u and v cannot be reduced simultaneously
- First-order condition gives efficient unemployment rate u^* :

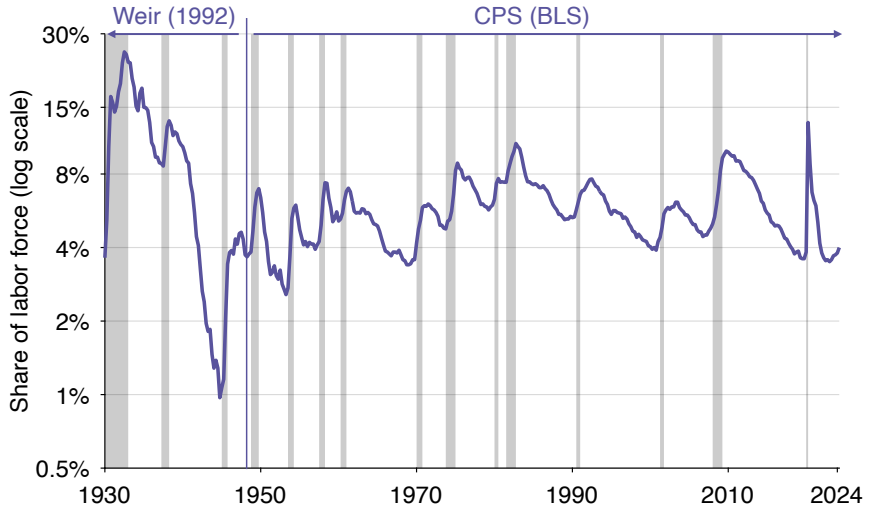
$$\frac{d[u + A/u]}{du} = 0 \Rightarrow 1 - A/(u^*)^2 = 0 \Rightarrow u^* = \sqrt{A}$$

- FERU is geometric average of u and v : $u^* = \sqrt{uv}$

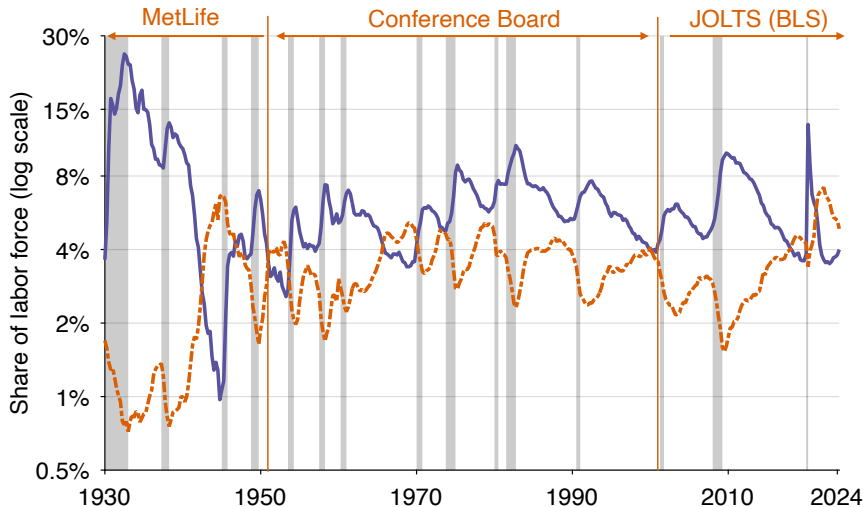
CRITERION FOR FULL EMPLOYMENT

- Economy is at full employment when $u = u^* = \sqrt{uv}$
 \leadsto At full employment when $u = v$
- Economy is inefficiently slack when $u > u^* = \sqrt{uv}$
 \leadsto Inefficiently slack when $u > v$
- Economy is inefficiently tight when $u < u^* = \sqrt{uv}$
 \leadsto Inefficiently tight when $u < v$

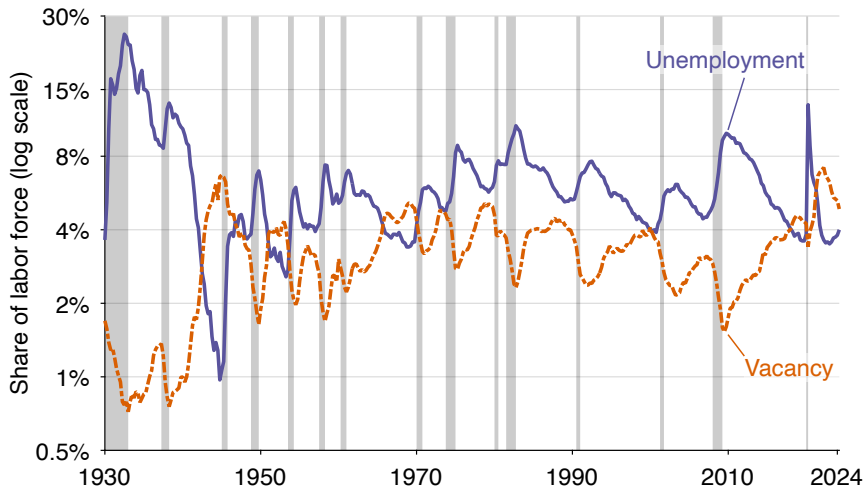
US UNEMPLOYMENT RATE (PETROSKY-NADEAU & ZHANG 2021)



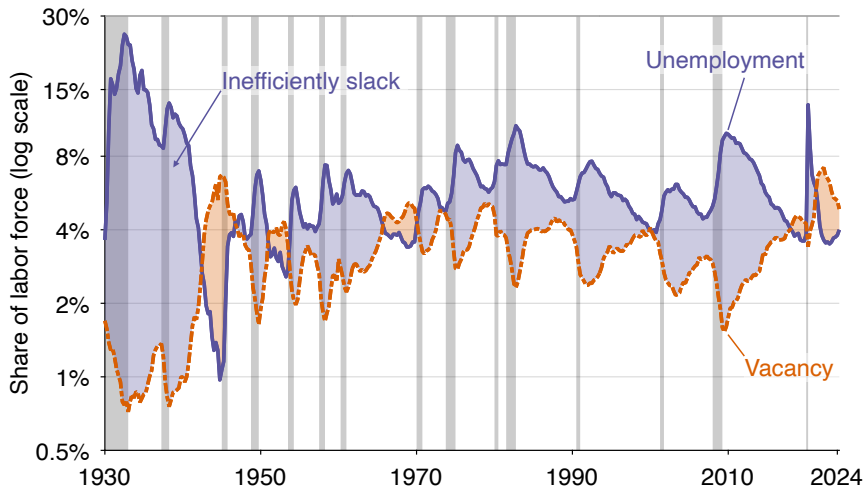
US VACANCY RATE (PETROSKY-NADEAU & ZHANG 2021)



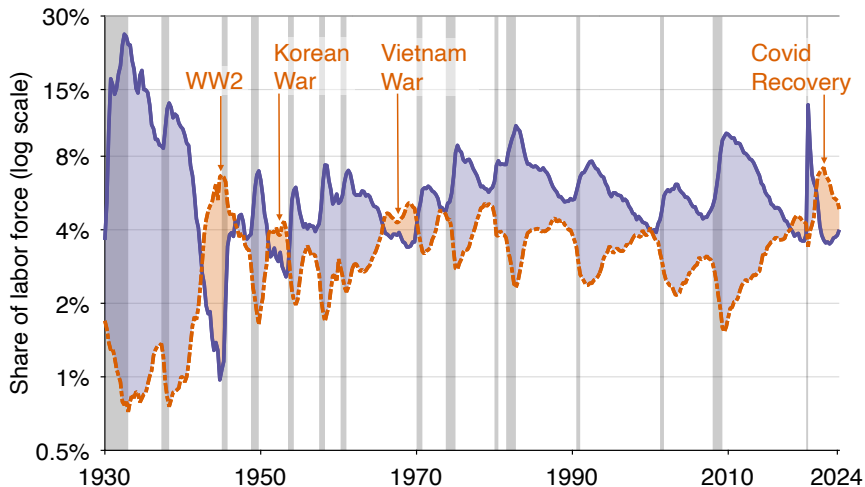
BEVERIDGE CURVE IS A RECTANGULAR HYPERBOLA



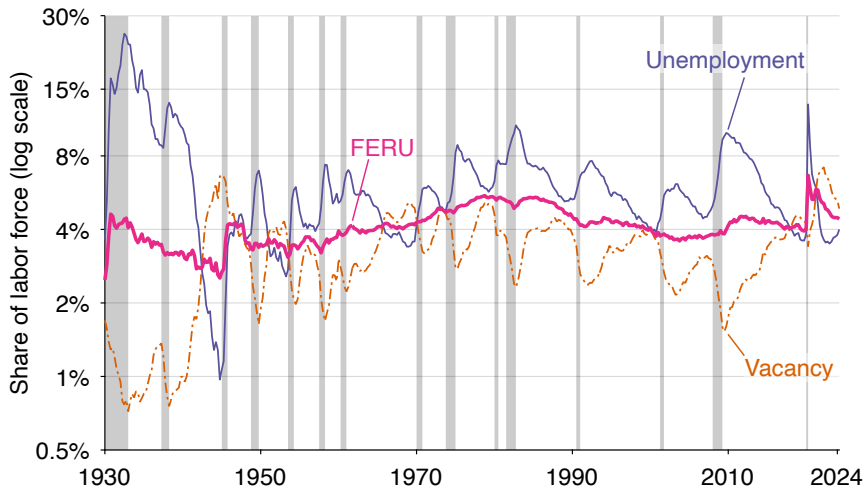
LABOR MARKET IS GENERALLY TOO SLACK



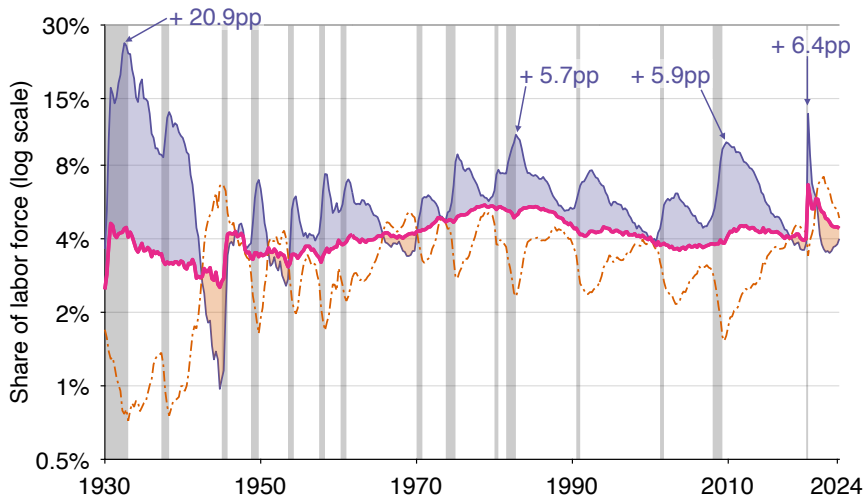
LABOR MARKET IS TOO TIGHT DURING WARS



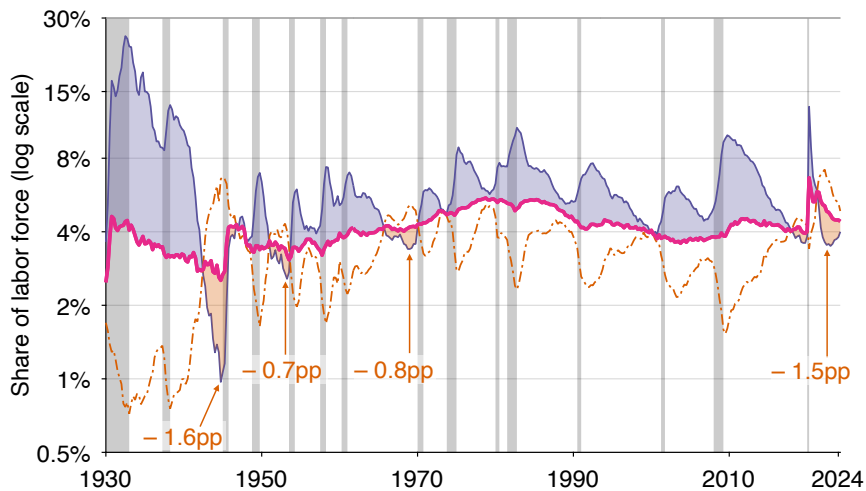
FERU $u^* = \sqrt{uv}$ AVERAGES 4.1% AND IS STABLE



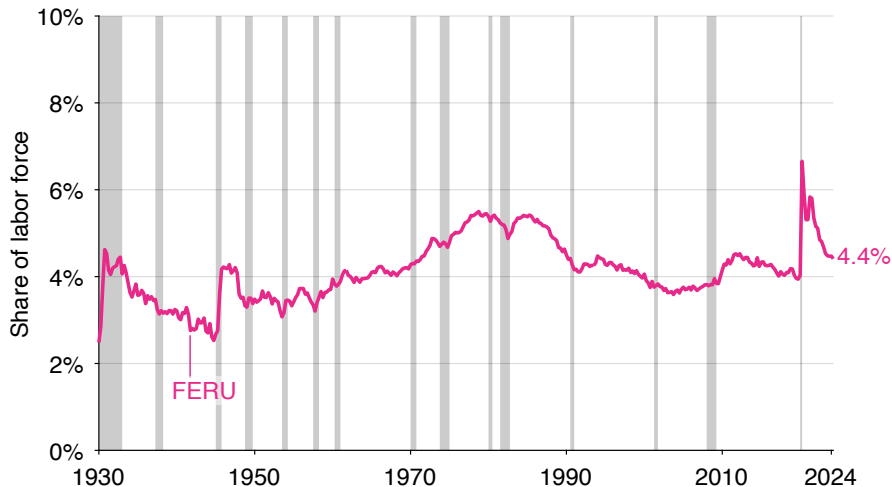
UNEMPLOYMENT GAP IS COUNTERCYCLICAL



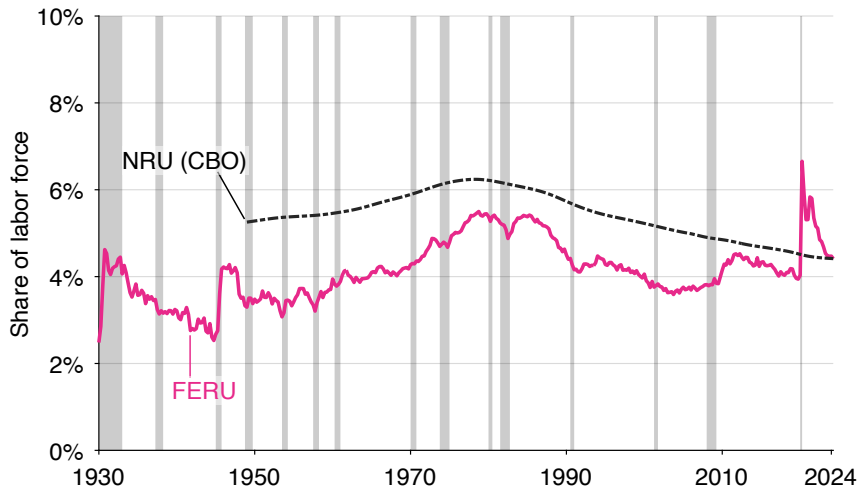
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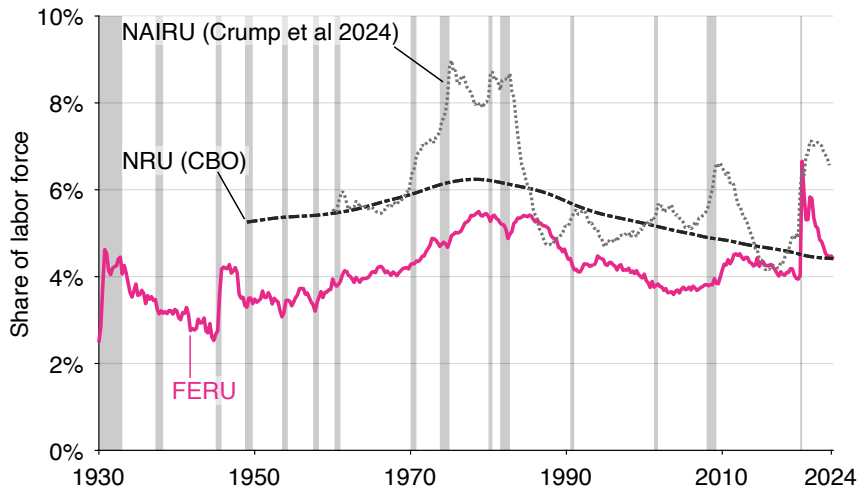
FERU IS LOWER THAN EXISTING UNEMPLOYMENT TARGETS



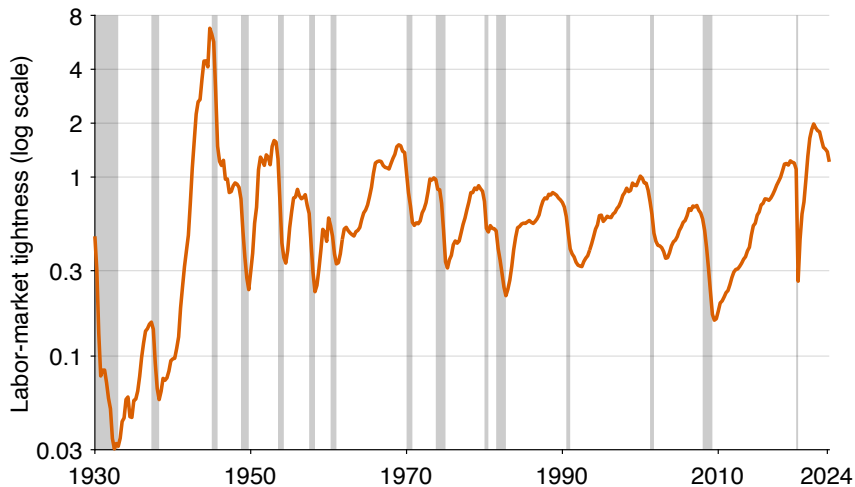
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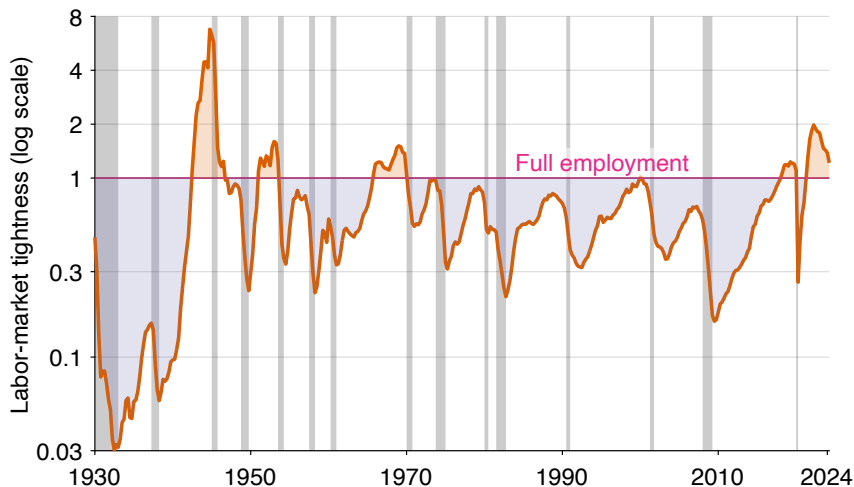
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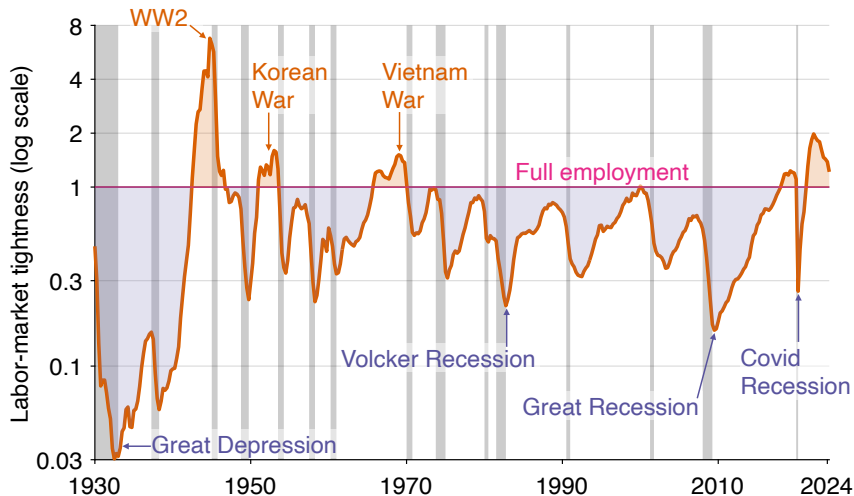
TIGHTNESS v/u SUMMARIZES STATE OF LABOR MARKET



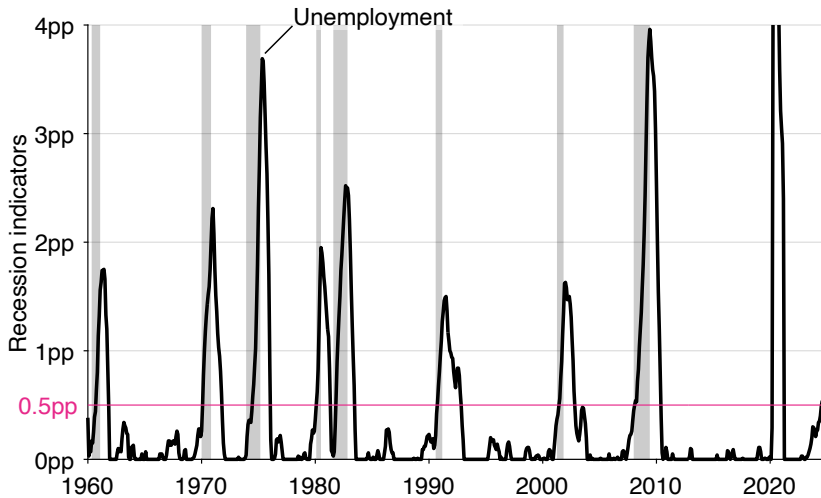
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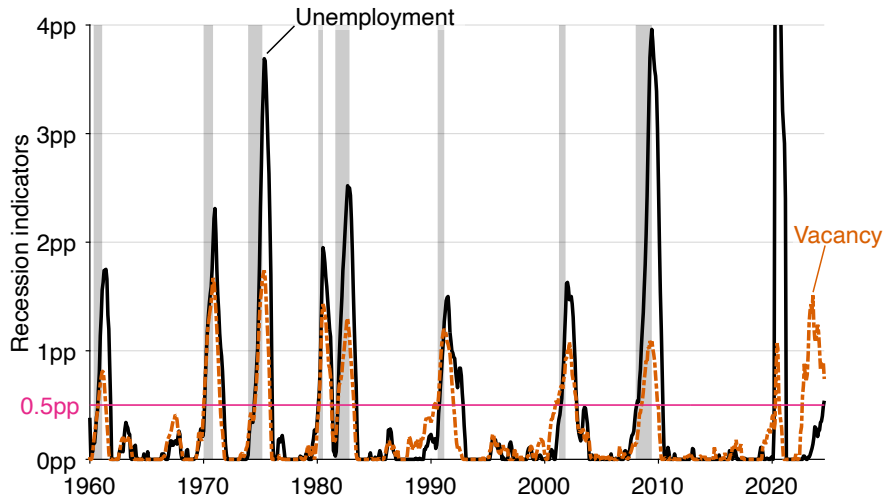
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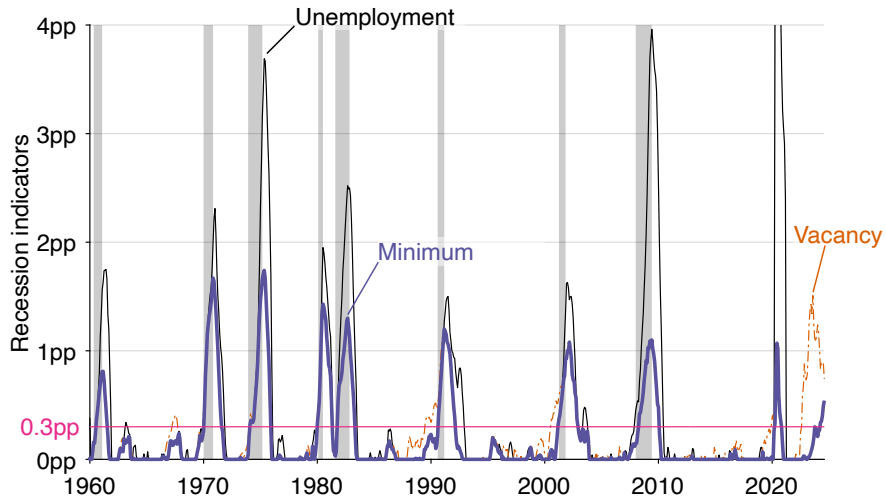
DETECTING RECESSIONS WITH UNEMPLOYMENT: SAHM RULE



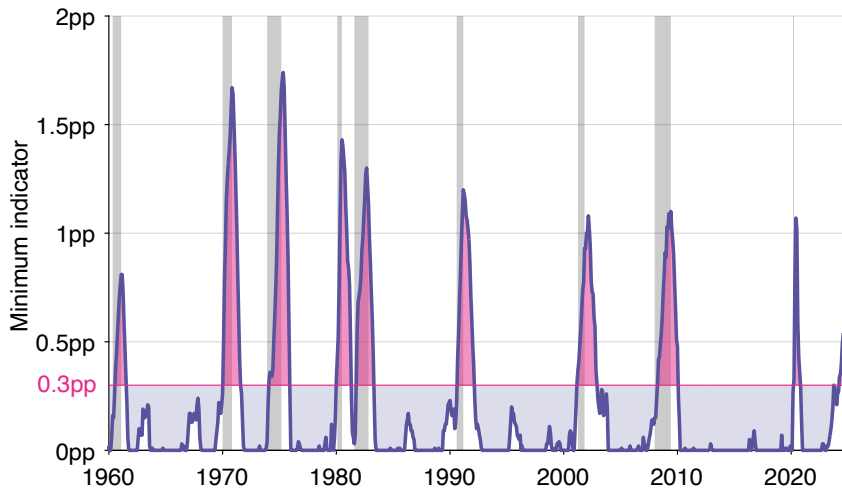
DETECTING RECESSIONS WITH UNEMPLOYMENT & VACANCIES



DETECTING RECESSIONS WITH UNEMPLOYMENT & VACANCIES



RECESSION MAY HAVE STARTED AS EARLY AS MARCH 2024



NEW RULE PERFECTLY DETECTS ALL RECESSIONS SINCE 1929

