OKUN'S LAW: FIT AT 50?

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RESEARCH QUESTION

- How relevant is Okun’s Law in explaining short-run unemployment-output relationships?
- Empirical evidence of the validity of Okun’s observation of a negative short run relationship between output and employment.
- Examines data from 1948 to 2015 for the US and 20 OECD countries from 1980-2015.

POSITIONING IN THE LITERATURE

- A number of papers are skeptical about the validity of Okun's Law.
- Barcelona Center for International Economic Research (2011), Gordon (2010), Schreft and Singh (2003)- Okun's Law invalid because last 3 US recessions display Jobless recoveries.
- Bernanke (2012)- Recent years' unemployment lower than what Okun's Law Predicts.
- Cazes, Verick and Al-Hussami- studies various countries to conclude the stability varies erratically.
- Knotek (2007), Meyer and Tasci (2012)- coefficient of Okun's Law varies over time

OKUN'S LAW

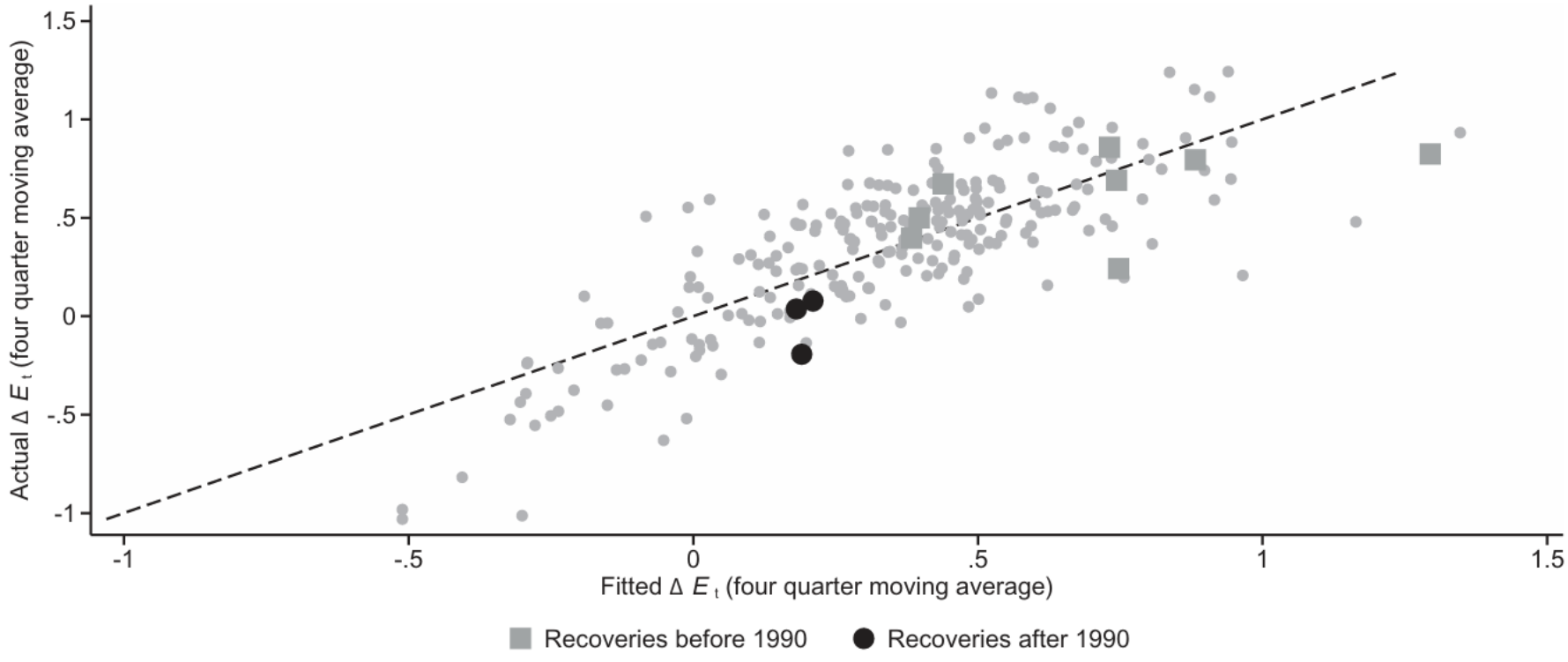
- Short run negative relationship between deviation of output from potential and deviation of unemployment from its natural rate.
- $$E_t - E_t^* = \gamma(Y_t - Y_t^*) + \eta_t \ldots (1)$$
- $$U_t - U_t^* = \delta(E_t - E_t^*) + \mu_t \ldots (2)$$
- $$U_t - U_t^* = \beta(Y_t - Y_t^*) + \epsilon_t \ldots (3)$$

  where $\beta = \gamma\delta$ and $\epsilon_t = \mu_t + \delta\eta_t$
- For the US, estimates of beta is around -0.4. Quite robust to data frequency or additon of lags.

EMPIRICAL EVIDENCE

- **Stability of Okun's Law over time** - Sample broken from 1948-1984 (Great Moderation) and 1985-2014. Coefficient does change but economically not much difference.
- **Jobless growth** Estimate Okun's regression coefficients and find predicted unemployment during these recessions. Prediction is not too far from data.
- **Unemployment has been lower than expected**- Empirical analysis shows (1) is stable but (3) is unstable because (2) is unstable- unusual decrease in labor force participation

JOBLESS RECOVERIES



UNEMPLOYMENT HAS BEEN LOWER THAN EXPECTED

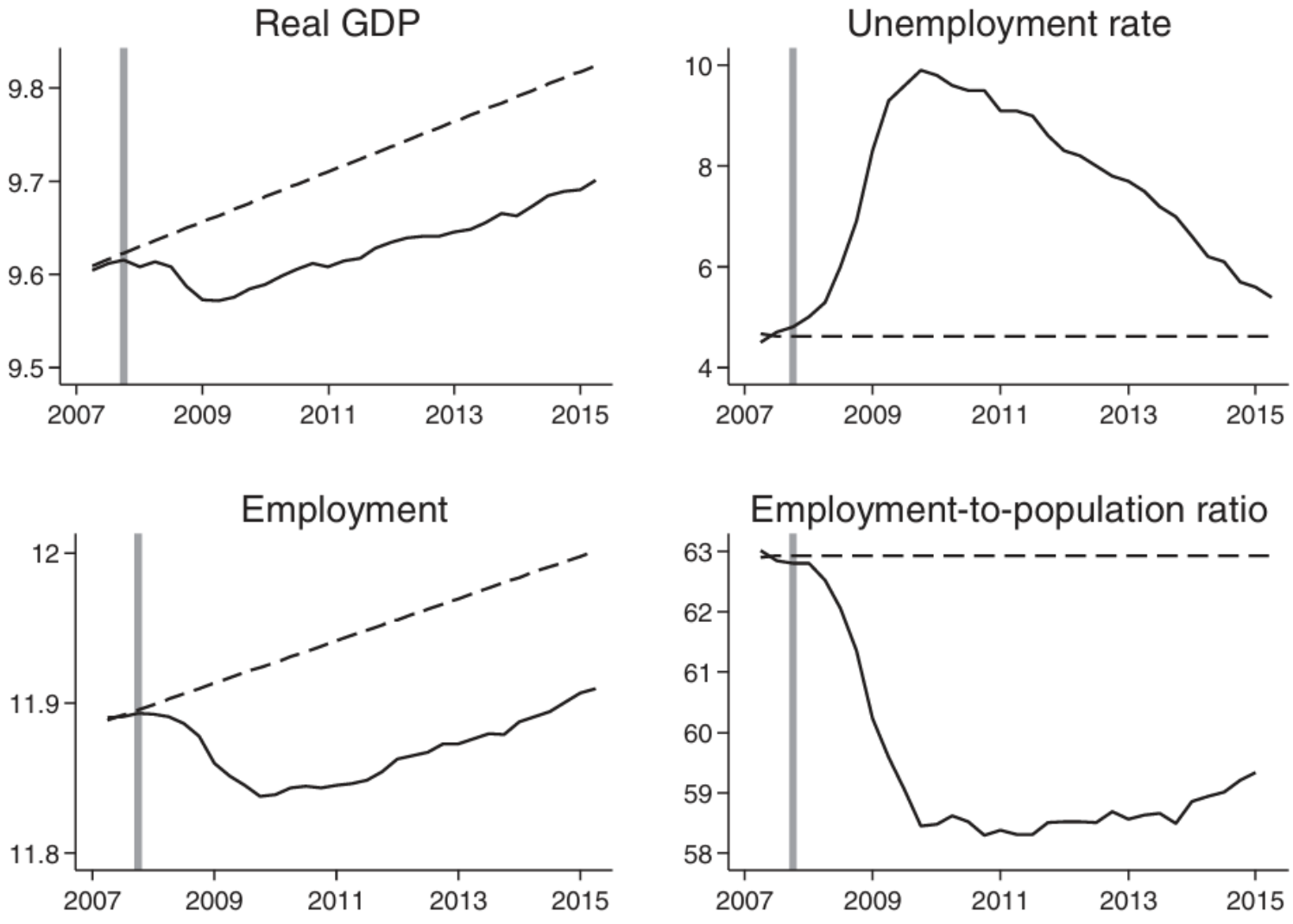


FIG. 4. United States and the Great Recession.

EMPIRICAL EVIDENCE

- **Okun's Law across countries** - large variation of beta across countries from -0.17 (Japan) to -0.94 (Spain) with average of -0.4.
- **Okun's Law rejected in great Recession**- After accounting for length of recession in different countries and country fixed effects, predicted values matches data well.

CONCLUSION

- Okun’s "Law" has earned it’s name. Even 50 years hence, it is fairly robust and stable across countries and recessions.
- Possible direction of research is to use Okun’s Law to test macro theories.
- **Open Question** What variable(s) explain(s) the difference in Okun’s coefficient’s in different countries?