

Macroeconomia Avançada II

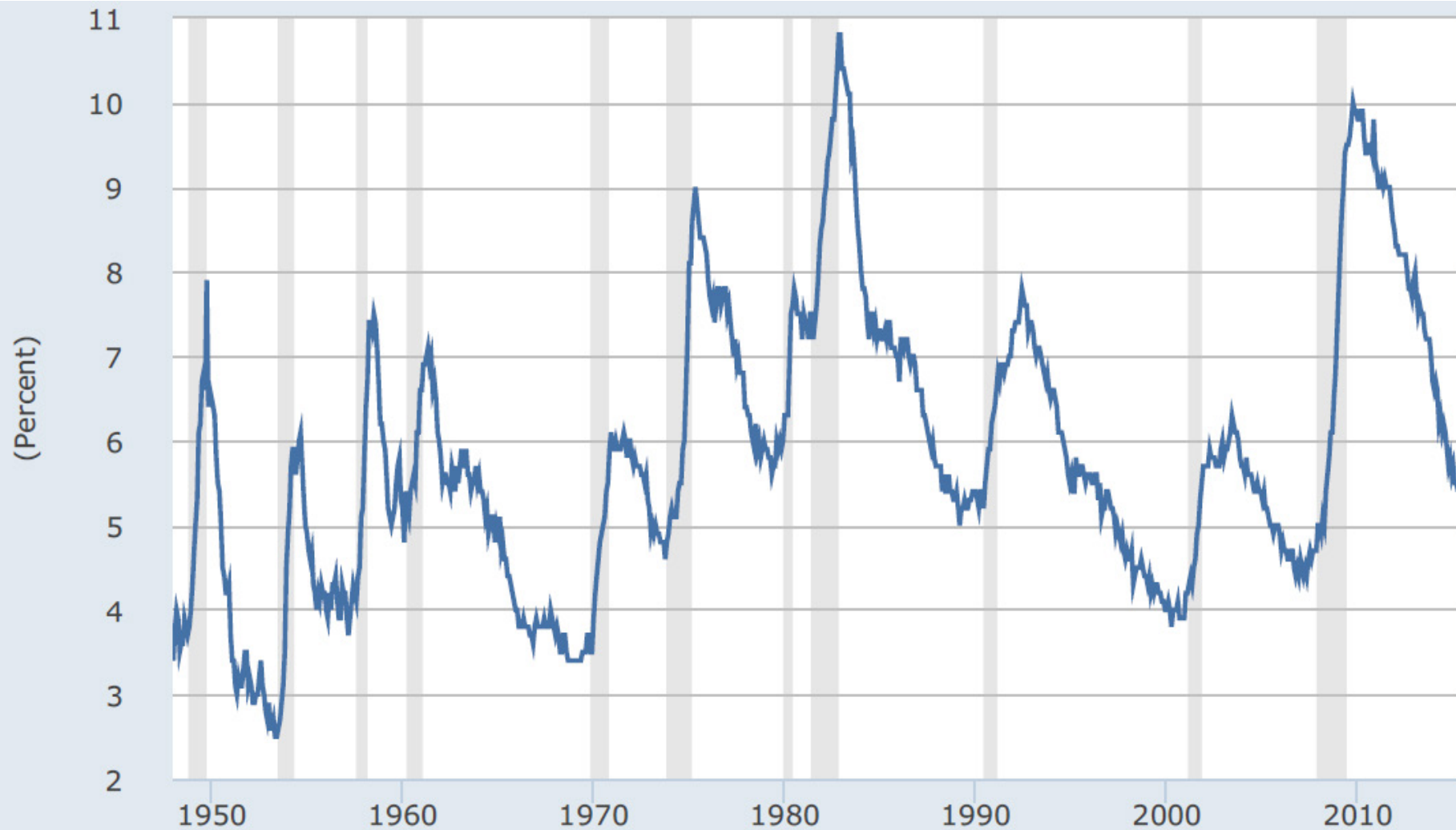
Fluctuacions Econòmiques i Mercat de Treball

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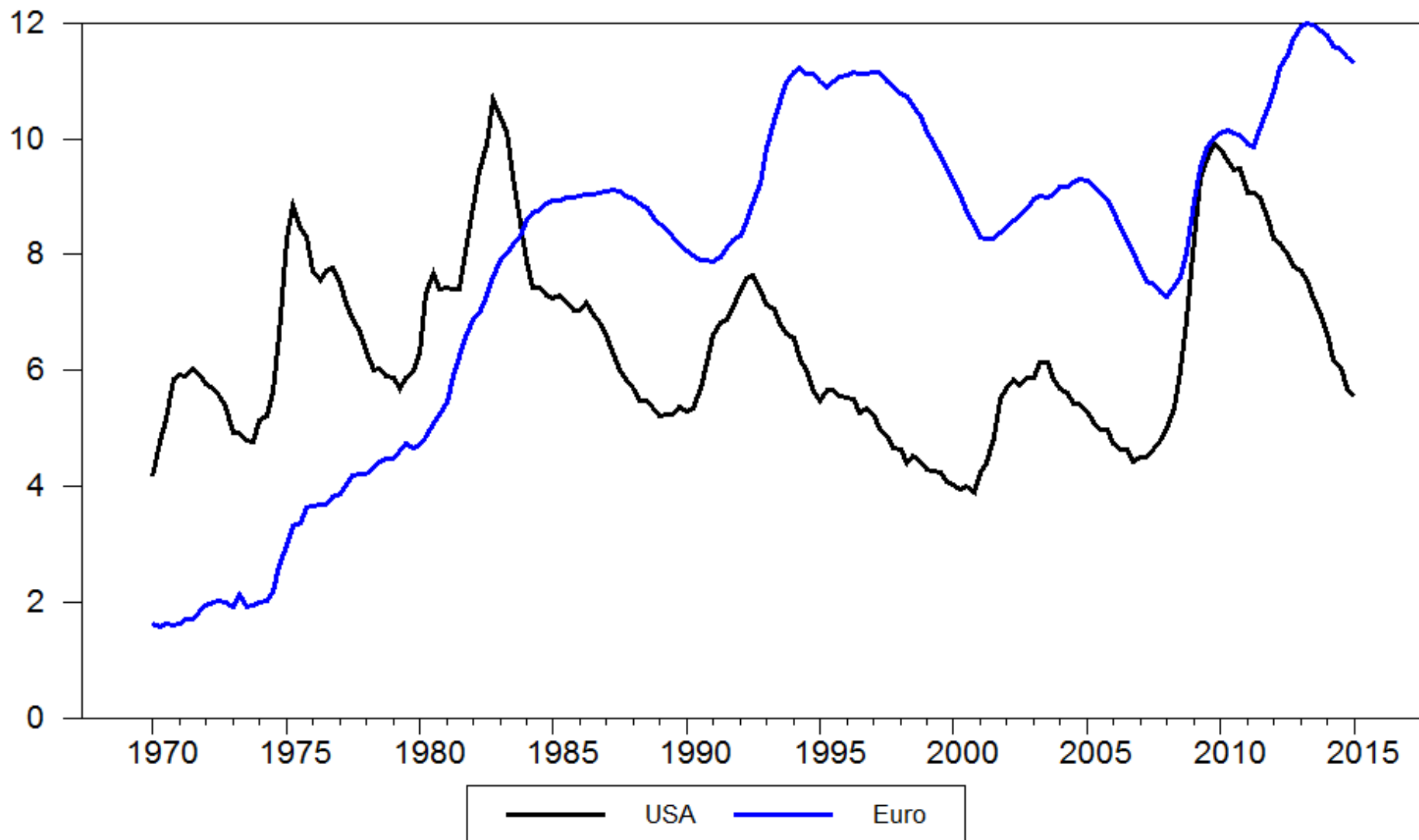
Taxa d'atur: Estats Units



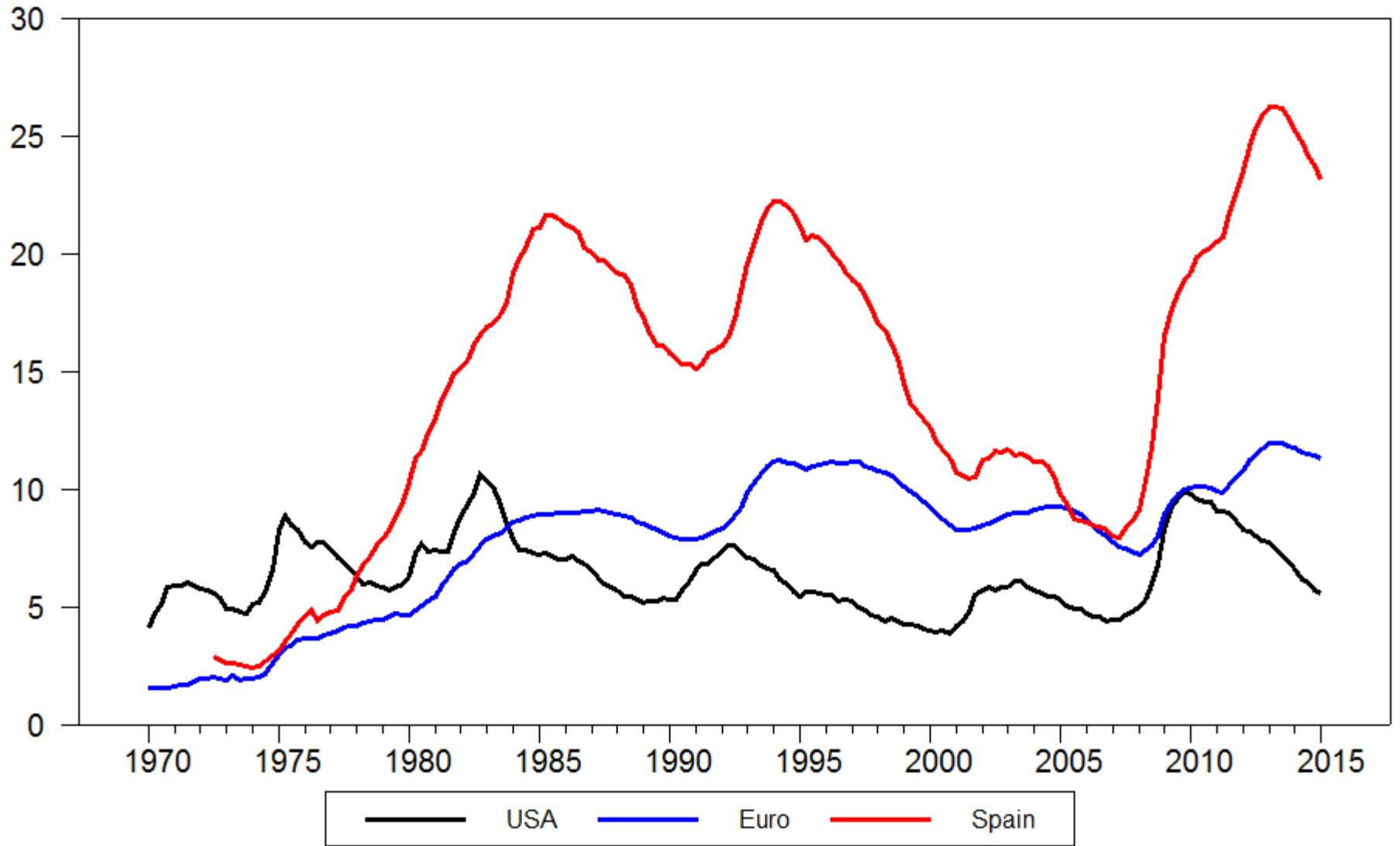
Source: US. Bureau of Labor Statistics

Shaded areas indicate US recessions - 2015 research.stlouisfed.org

Taxa d'atur: Estats Units vs. Zona Euro



Taxa d'atur: Estats Units, Zona Euro, Espanya



Atur i Distorsions en el Mercat de Treball

- Mercat de treball perfectament competitiu

$$w_t = \sigma c_t + \varphi n_t \equiv mrs_t$$

\implies absència d'atur involuntari

- Competència imperfecta o altres distorsions

$$w_t = \mu_t^w + \sigma c_t + \varphi n_t$$

on $\mu_t^w > 0$ és el "marge de salaris".

- Oferta de treball competitiva

$$w_t = \sigma c_t + \varphi l_t$$

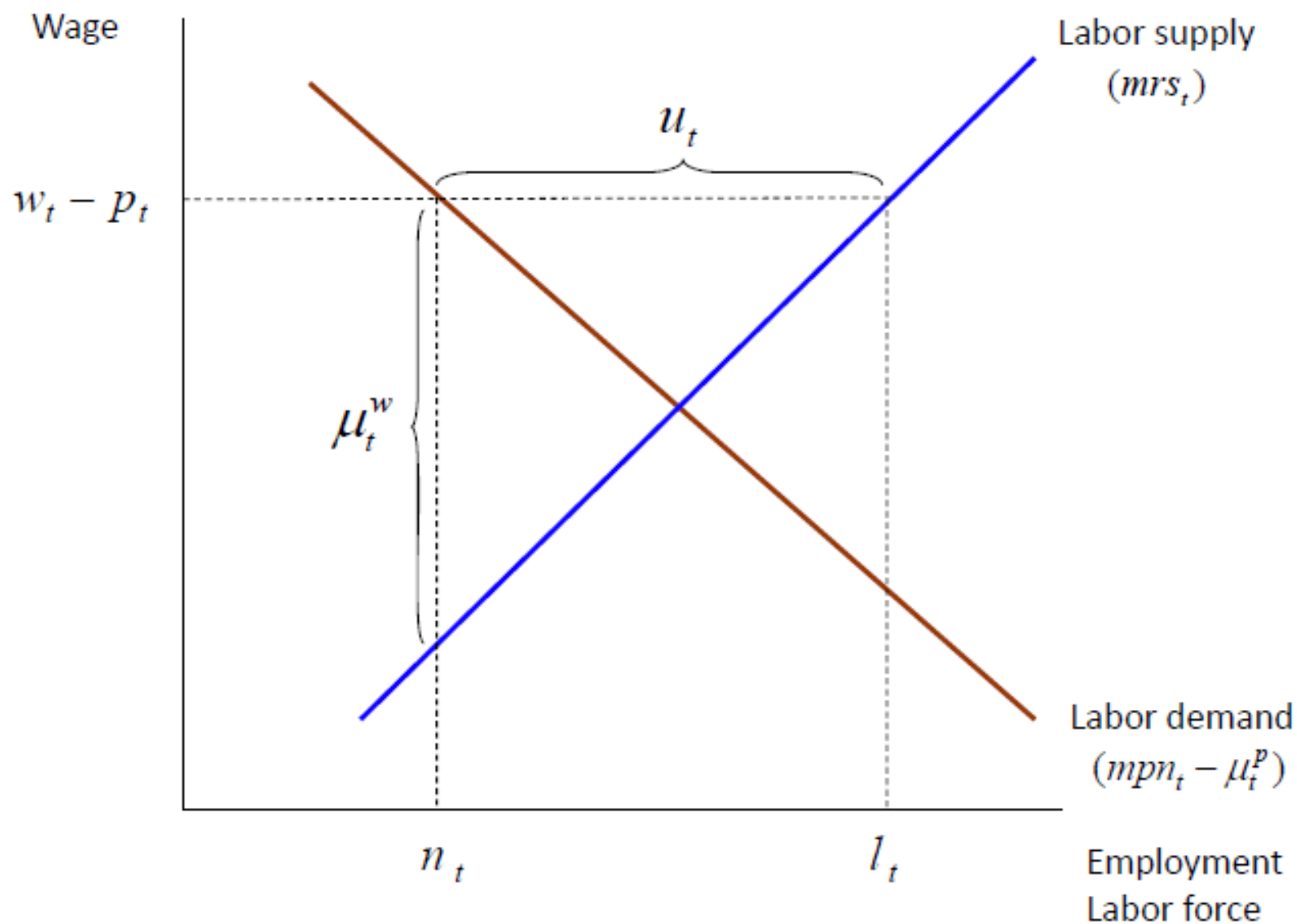
- Taxa d'atur

$$u_t \equiv l_t - n_t$$

- Atur i marge de salaris

$$\mu_t^w = \varphi u_t$$

Figure 1. The Wage Markup and the Unemployment Rate



Exemple (I): Salaris d'Eficiència

Funció de producció:

$$Y_t = F(E(W_t)N_t)$$

Problema de l'empresa:

$$\max_{W_t, N_t} F(E(W_t)N_t) - W_t N_t$$

Condicions d'optimalitat:

$$F'(E(W)N_t) E(W) = W \quad \implies \quad N_t, \text{ donat } W_t$$

$$\frac{E'(W_t)}{E(W_t)} W_t = 1 \quad \implies \quad W$$

amb independència de l'oferta de treball.

Exercici: $E(W_t) = \log(1 + W_t)$

Exemple (II): Sindicat Monopolístic

$$\max_{W_t} U(C_t, N_t)$$

subjecte a:

$$C_t = W_t N_t + \Pi_t$$

$$N_t = W_t^{-\epsilon_w} Q_t$$

Condicció d'optimalitat:

$$W_t = \frac{\epsilon_w}{\epsilon_w - 1} MRS_t$$

Definim $\mu^w \equiv \log \frac{\epsilon_w}{\epsilon_w - 1}$ ("marge òptim de salaris") i suposant $MRS_t = C_t^\sigma N_t^\varphi$

$$w_t = \mu^w + \sigma c_t + \varphi n_t$$

$$u_t = \frac{\mu^w}{\varphi} \equiv u$$

Exemple (III): Rigideses de Salaris

Salari "desitjat":

$$w_t^* = \mu^w + \sigma c_t + \varphi n_t$$

Salari "efectiu":

$$w_t = \mu_t^w + \sigma c_t + \varphi n_t$$

Implicació:

$$w_t - w_t^* = \varphi(u_t - u^*)$$

on $u^* = \frac{\mu^w}{\varphi}$ ("taxa d'atur natural").

Exemple:

$$w_t = \gamma w_{t-1} + (1 - \gamma)w_t^*$$

Per tant,

$$u_t - u^* = \gamma(u_{t-1} - u^*) - (\gamma/\varphi)\Delta w_t^*$$

Suposant $Y_t = C_t = N_t$:

$$u_t - u^* = \gamma(u_{t-1} - u^*) - (\gamma/\varphi)(\sigma + \varphi)\Delta y_t$$

\Rightarrow fluctuacions persistents (i anticíclicues) de la taxa d'atur

Exemple (IV): Hysteresis (Blanchard-Summers)

Objectiu dels sindicats: maximitzar el salari subjecte a l'objectiu d'ocupació:

$$E_{t-1}\{n_t\} = n_t^*$$

Model "insiders/outside": $n_t^* = n_{t-1}$

Implicació:

$$n_t = n_{t-1} + \varepsilon_t$$

Suposant oferta de treball inelàstica $l_t = 1$:

$$u_t = u_{t-1} - \varepsilon_t^a$$

\implies efectes permanents sobre l'atur de qualsevol xoc!

Un model per a Europa?

El Model de Cerca i Emparellament ("Search and Matching")

- Diamond-Mortensen-Pissarides (Premi Nobel 2010)
- Friccions en el mercat de treball: Funció d'emparellament ("matching function")

$$H_t = M(V_t, U_t)$$

- Evolució de l'ocupació

$$N_{t+1} = (1 - \delta)N_t + H_t$$

- Atur

$$U_t = 1 - N_t$$

- Cost fix d'anunciar vacants k

- Probabilitat de trobar d'un lloc de treball ("job finding rate")

$$\frac{H_t}{U_t} = M \left(\frac{V_t}{U_t}, 1 \right) \equiv \phi(x_t)$$

on $x_t \equiv V_t/U_t$ (índex de "pressió" en el mercat de treball) i $\phi'(x_t) > 0$

- Taxa d'ocupació de vacants

$$\frac{H_t}{V_t} = M \left(1, \frac{U_t}{V_t} \right) \equiv \rho(x_t)$$

on $\rho'(x_t) < 0$.

- *Corba de Beveridge*

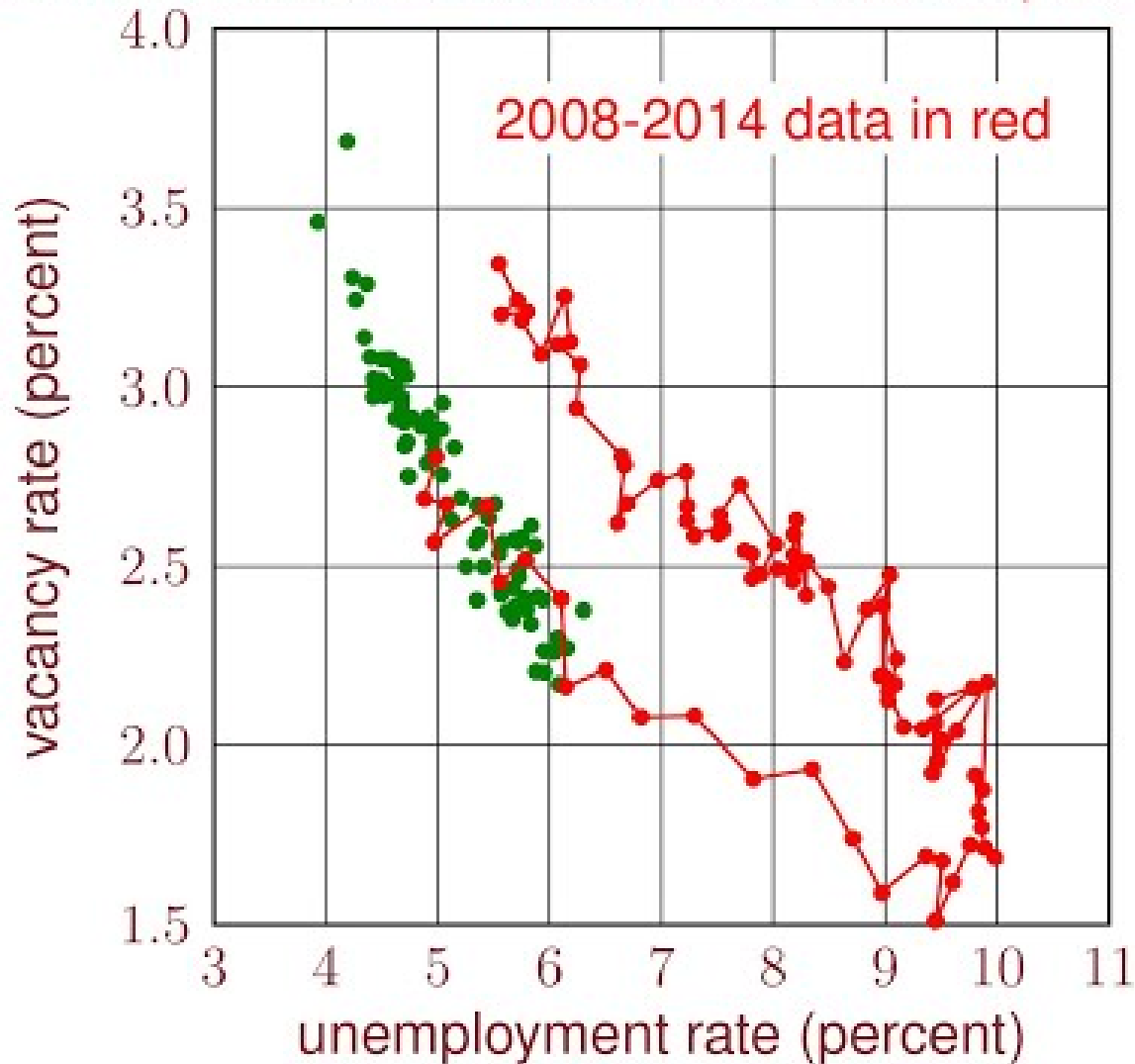
$$\begin{aligned} M(V_t, U_t) &= \delta N_t + \Delta N_{t+1} \\ &= \delta(1 - U_t) - \Delta U_{t+1} \end{aligned}$$

Estat estacionari

$$M(V, U) = \delta(1 - U)$$

The Beveridge Curve

United States, December 2000–February 2015



- Evolució de l'ocupació i de l'atur:

$$N_{t+1} = (1 - \delta)N_t + \phi(x_t)U_t$$

$$U_{t+1} = (1 - \delta - \phi(x_t))U_t + \delta$$

- Estat estacionari:

$$U = \frac{\delta}{\delta + \phi(x)}$$

- Valor net ("surplus") per a l'empresa d'una relació laboral existent (suposant $Y_t = A_t N_t$)

$$\mathcal{S}_t^F = A_t - W_t + \beta(1 - \delta)E_t\{\mathcal{S}_{t+1}^F\}$$

- Política òptima de vacants:

$$k = \rho(x_t)\beta E_t\{\mathcal{S}_{t+1}^F\}$$

- Estat estacionari

$$S^F = \frac{A - W}{1 - \beta(1 - \delta)}$$

$$\frac{k}{\rho(x)} = \frac{\beta(A - W)}{1 - \beta(1 - \delta)}$$

- Implicacions

$$\uparrow A \implies \uparrow x \implies \downarrow U$$

$$\uparrow W \implies \downarrow x \implies \uparrow U$$

$$\uparrow k \implies \downarrow x \implies \uparrow U$$

$$\uparrow \delta \implies \downarrow x \implies \uparrow U$$

Figure 4.5. Temporary employment by age group, 2011-12

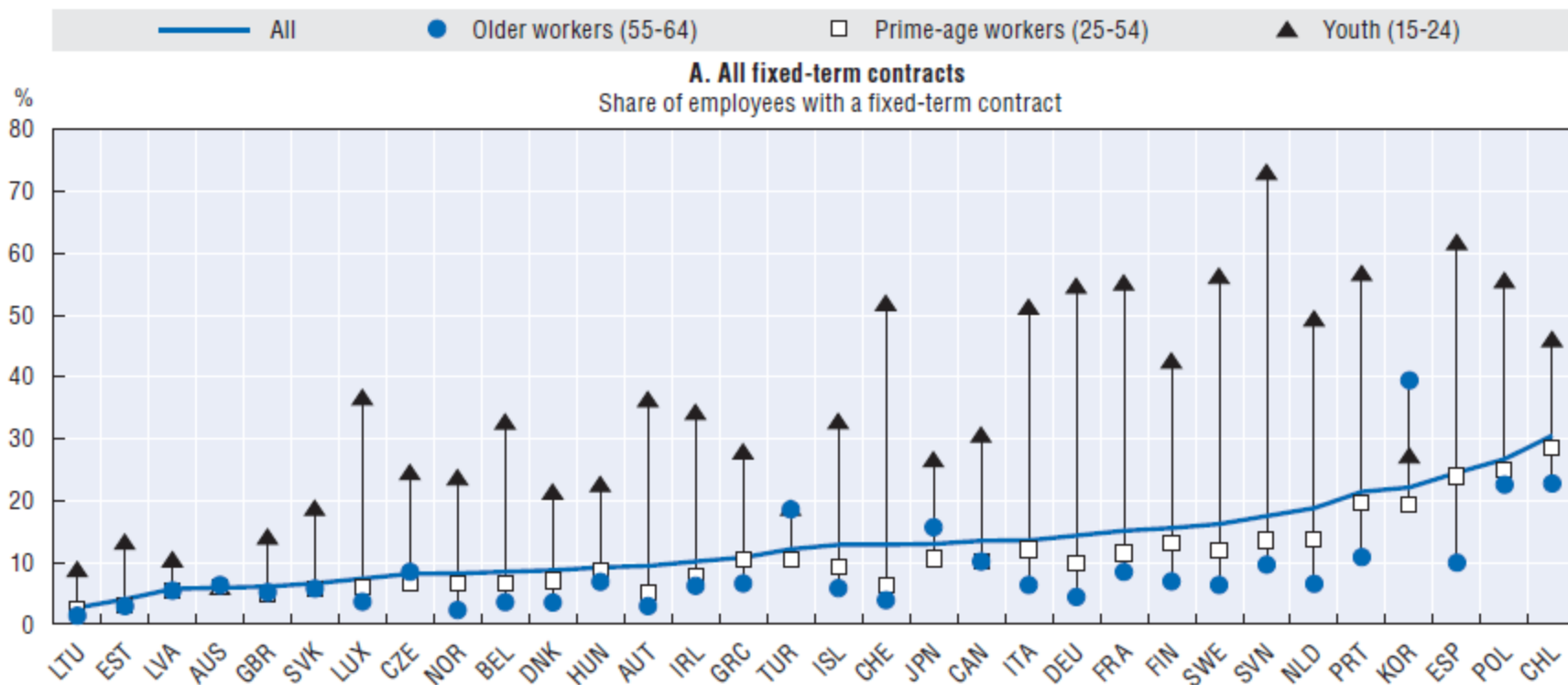


Figure 4.9. Impact of contract type on one-year transition probabilities from employment to unemployment and inactivity

Estimated difference between non-regular and permanent employees, percentage points

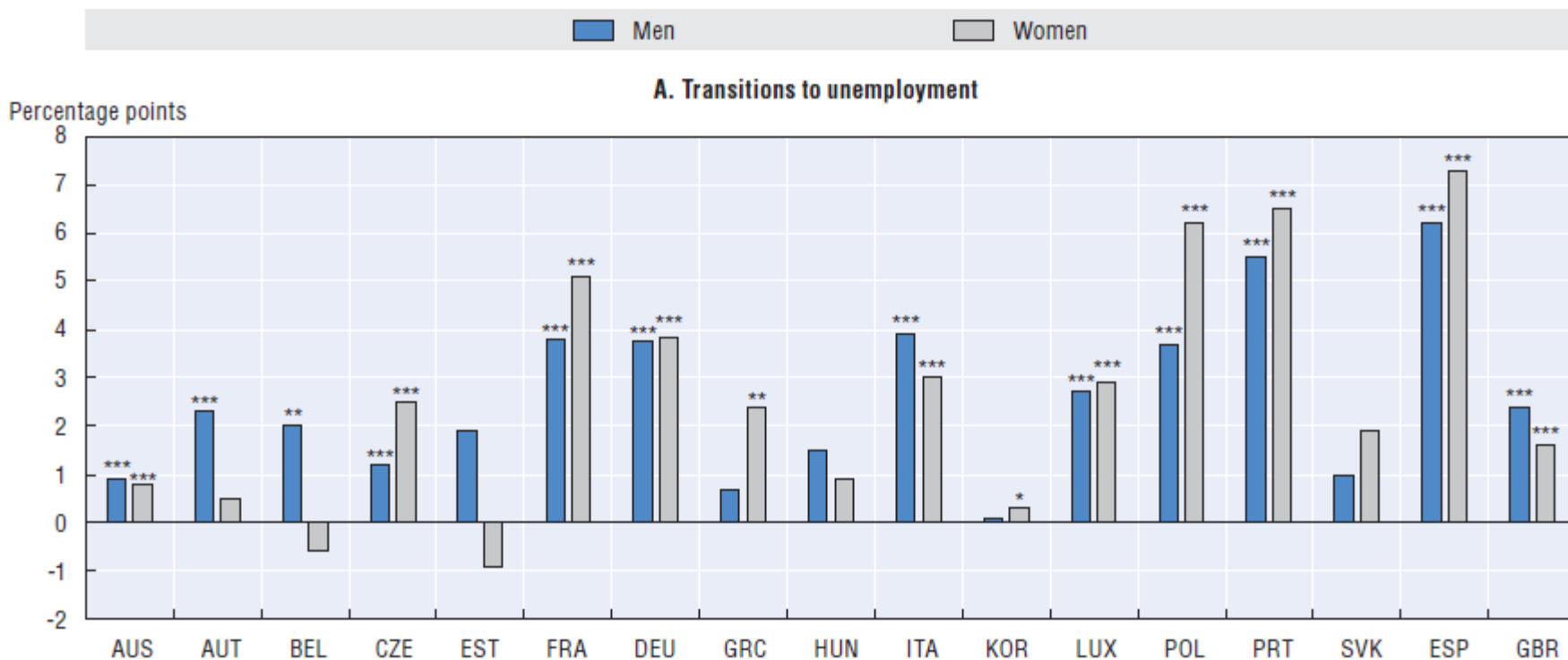
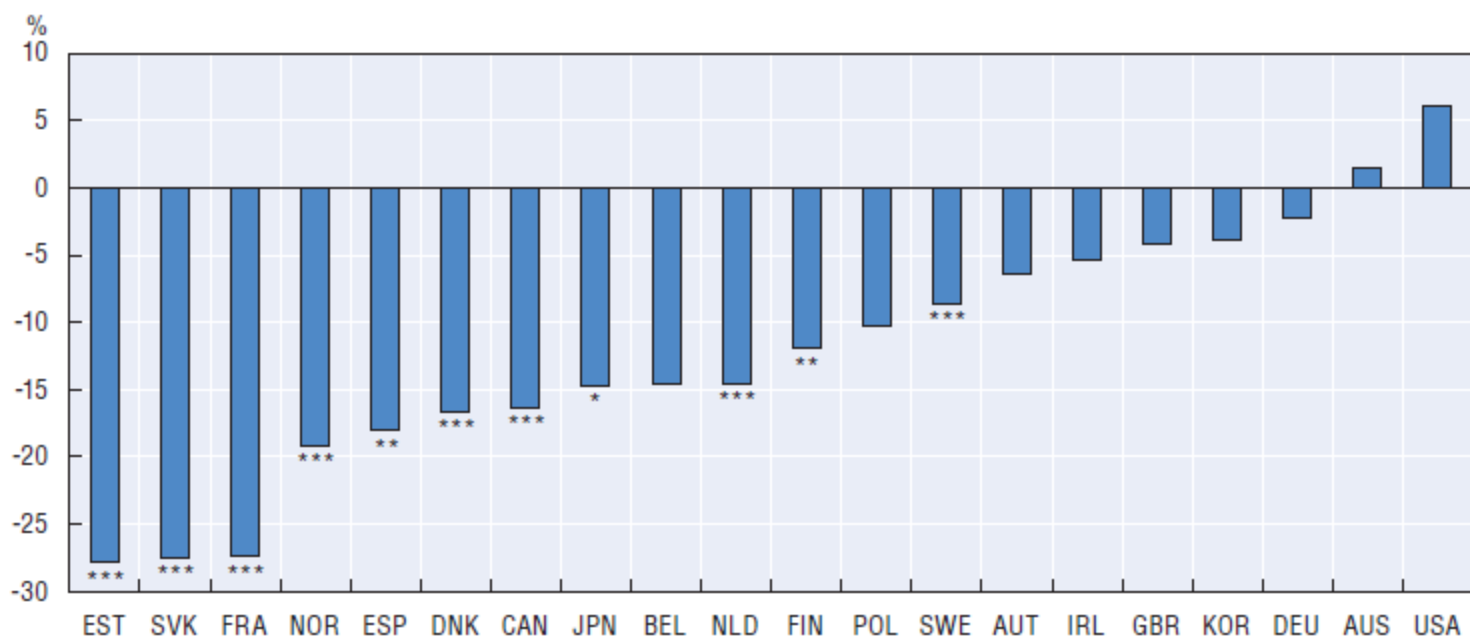


Figure 4.14. Temporary workers and employer-sponsored training

Estimated percentage effect of temporary contract status on the probability of receiving employer-sponsored training, 2012



Note: Estimated percentage difference between temporary and permanent workers in the probability of having received training paid for or organised by the employer in the year preceding the survey, obtained by controlling for literacy and numeracy scores and dummies for gender, being native, nine age classes, nine occupations, nine job tenure classes and five firm size classes. Data are based only on Flanders in the case of Belgium and England and Northern Ireland in the case of the United Kingdom.

***, **, *: significant at the 1%, 5%, 10% level, respectively – based on robust standard errors.

Source: OECD Survey of Adult Skills (PIAAC) 2013, <http://dx.doi.org/10.1787/9789264204256-en>.

Atur i Desigualtat a la Unió Europea

