Political and Economic Reinforcement

Kalle Moene

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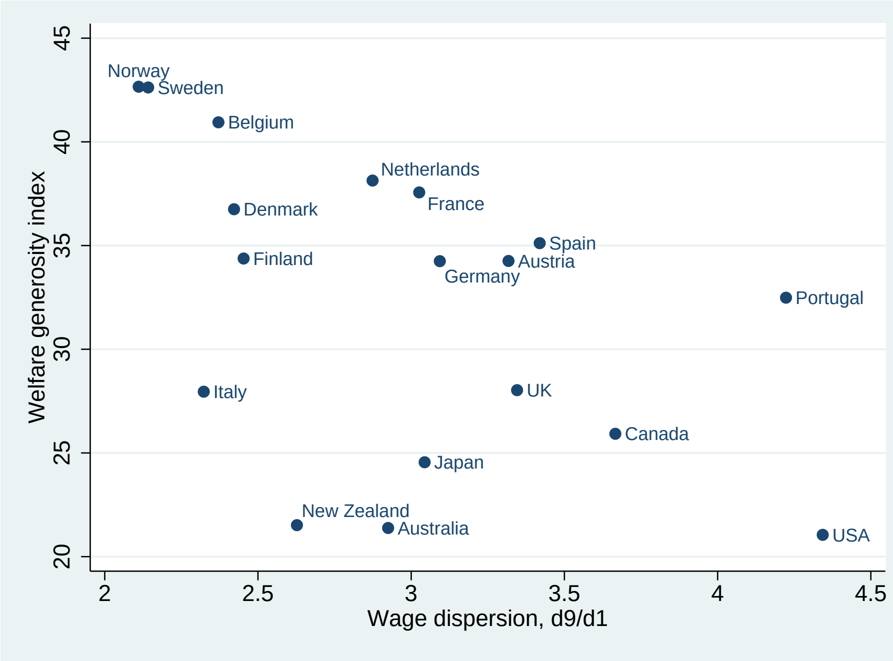
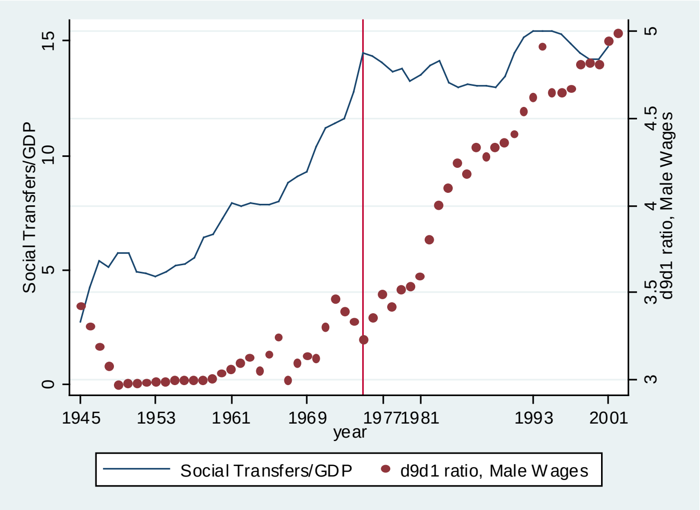
Reinforcment

Enhancement:
A shift in inequality leads to endogenous adjustments changing inequality in the same direction.

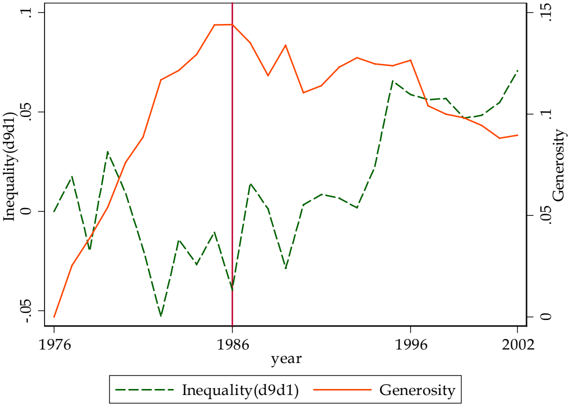


Welfare generosity index
45
40
35
30
25
20
Norway
Sweden
Belgium
Netherlands
France
Denmark
Spain
Finland
Austria
Germany
Portugal
Italy
UK
Canada
Japan
New Zealand
Australia
USA
2
2.5
3
3.5
4
4.5
Wage dispersion, d9/d1

U.S welfare generosity and wage dispersion 1945-2002



European welfare generosity and wage dispersion 1976-2002



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- Public policy depends on inequality and average productivity P_a

$$G = G(I, P_a)$$

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- Differentiating

$$\frac{dI}{d\gamma} = \frac{1 - P_g G_p}{D} I_\gamma$$
$$\frac{dG}{d\gamma} = \frac{G_i + P_i G_p}{D} I_\gamma$$
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$$D = 1 - [P_g G_p + I_g G_i + I_p P_i + G_i P_g I_p + G_p P_i I_g] < 1$$

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- $$\frac{dG}{d\gamma} = \frac{G_i I_\gamma}{1 - I_g G_i}$$

Ex

Political and economic reinforcement combined *rightarrow* **even higher multipliers**

- P and G be endogenous

$$\frac{dI}{d\gamma} = \frac{1 - P_g G_p}{D} I_\gamma$$
$$\frac{dG}{d\gamma} = \frac{G_i + P_i G_p}{D} I_\gamma$$
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- D positive

$$D = 1 - [P_g G_p + I_g G_i + I_p P_i + G_i P_g I_p + G_p P_i I_g] < 1$$

Economic enforcement

Ideal competition versus
Real competition

Creative destruction and wage inequality

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- Free entry $\Pi(t,t) = B(n(t),t)$
- Free exit: termination of jobs of age $\theta(t)$:

$$(1-\alpha\xi)F\left(t-\theta(t)+1\right) - Q(t) = 0$$

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- ξ **down** $\Rightarrow$ n **up,** θ **down, a higher level of income per capita** nx **and a higher average wage** $\bar{w}$

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- to the extent that λ depends on n, wage compression implies higher growth and more compression

heterogenous workers

Sorting

$$P_H F(\theta_H) - w_H = p_L F(\theta_H) - w_L$$
$$p_L F(\theta_H + \theta_L) = w_L$$

The wage distribution support efficient sorting has $\beta = 1$

$$\frac{w_H - w_L}{w_L} = \beta \frac{p_H - p_L}{p_L} (1 + \lambda)^{\theta_L}$$

Compression: $\beta < 1$, inefficient, but of a special kind.

Dispersion of TFPR in Norway vs. United States

United States	1977	1987	1997
S.D.	.45	.41	.49
75 – 25	.46	.41	.53
90 – 10	1.04	1.01	1.19
Norway	1997	2001	2005
S.D.	.35	.34	.33
75 – 25	.37	.34	.34
90 – 10	.8	.74	.73

Political Reinforcement

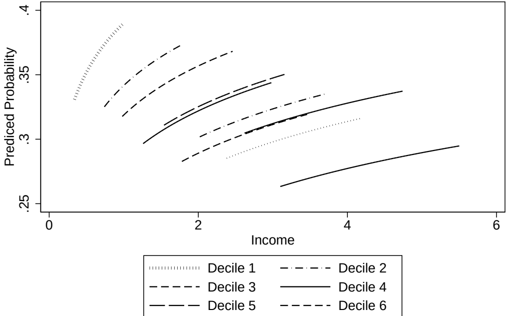
Political reinforcement: Welfare spending as a normal and inferior good

Individual social preferences over disposable income $C_i = (1-t)w_i$ and welfare spending $G-$ contingent on the social parameter h_i:

- $V_i = v(C_i, G; h_i)$ for members of income class i
- v quasi concave utility function, for instance

$$V_i = U((1-t)w_i) + h_i G \equiv V_i(G; w_i)$$

Figure : Social Welfare Should be Expanded. Predicted probabilities



Voting

- with party platforms G_L and G_R, voters in income class i for whom

$$\Delta_i = V_i(G_L, w_i) - V_i(G_R, w_i) \geq \epsilon_i$$

vote left

Competition within and between parties

Factions:

- *The idealists* Preferences $W_L(g)$ in the left party, and $W_R(g)$ in the right party.
- *The opportunists,* Preference q for the left and $(1 - q)$ for the right party

- Must have consent by both factions

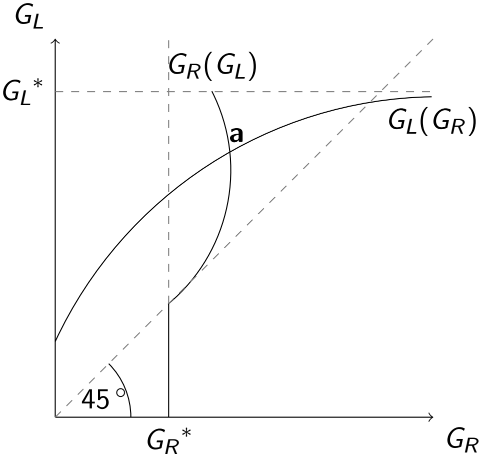
$$N_L(G_L, G_R) = [q(G_L, G_R)]^{\alpha_L} [W_L(G_L) - W_L(G_R))]^{1-\alpha_L}$$
$$N_R(G_L, G_R) = [1 - q(G_L, G_R)]^{\alpha_R}[W_R(G_R) - W_R(G_L))]^{1-\alpha_R}$$

Mixed cooperative non-cooperative game: The equilibrium: $\tilde{G}_L$, $\tilde{G}_R$ that fit in the internal bargaining solution, and that are consistent best responses to the program of the opposing party, i.e. where

$$\max_{G_L} N_L(G_L, \tilde{G}_R) = N_L(\tilde{G}_L, \tilde{G}_R)$$
$$\max_{G_R} N_R(\tilde{G}_L, G_R) = N_R(\tilde{G}_L, \tilde{G}_R)$$

(PUNE, Roemer)

Figure : The political party equilibrium



As long as the bargaining power of the realists is positive, $\beta_j > 0$ for $j = R, L$, a mean preserving compression of wages raises the welfare generosity of the political programs of both sides of the political spectrum.

Economic Reinforcement: Empowerment of welfare spending

Nash-product $[V_i^e - V_i^u]^{\alpha_i}[p_i - w_i]^{1-\alpha_i}$

$$V_i^e - V_i^u = \gamma_i[U(c_i) - \delta_i U(\bar{c}_i) - (1-\delta_i)U(g)]$$

where $\bar{c}_i = (1 - bg)\bar{w}_i$ and U is CRRA with μ.

- $\mu < 1$ higher g reduce pre tax wage gap
- $\mu \geq 1$ higher g reduce the pre-tax wage inequality $I = w_s/w_\omega$ between any weak group ω, with $\alpha_\omega \leq 1/\mu$, and any group s with a more productive job.

- Coordination: all wages in income class i are set simultaneously. Nash product $\max_{w_i} [U(c_i) - \delta_i U(\bar{c}_i) - (1-\delta_i)U(g)]^{\alpha_i} [p_i - w_i]^{1-\alpha_i}$ is replaced by

$$\max_{w_i} (1-\delta_i) [U(c_i) - U(g)]^{\alpha_i} [p_i - w_i]^{1-\alpha_i}$$

- Coordination means that one source of heterogeneity — different outside job opportunities— does no longer affect wages: Differentials across jobs become smaller.

Political and Economic Reinforcement combined

Inequality Multiplier

Table : Generosity and Inequality. IV-regressions

	(1) Inequality	(2) Generosity	(3) Inequality	(4) Unemployment generosity
Generosity	-0.374**			
	(0.147)			
Inequality		-1.190**		-1.097**
		(0.235)		(0.367)
Unemployment generosity			-0.296**	
			(0.126)	
F-value first step	39.30	15.11	13.26	15.11
P-value Sargan	0.1317	0.6247	0.2510	0.9040
N	359	359	359	359

Standard errors in parentheses. Instruments for generosity are measures of right wing in government and the share of women in parliament. Instruments for inequality are coordination in bargaining and industrial conflicts. All models include country and yea measures of gdp per capita, openness, tertiary education, union density, and depender population See appendix for details. ** $p < .05$

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