

Economic Shocks and Populism: The Political Implications of Reference-Dependent Preferences

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Introduction

- Rise of populism in many western democracies
- Evidence that populism is correlated with adverse economic shocks
 - Guiso et al. 2016, Algan et al. 2017, Gidron & Hall 2017, Dal Bo et al. 2018, Colantone and Stanig 2016, Autor 2017, Dustman et al. 2017
- Puzzling, because populist politicians often promote tax cuts and welfare state retrenchement
 - Trump in the US, Salvini in Italy
 - Brexit (supported by disappointed low middle class voters and rich conservatives)
 - Right wing populists in other countries
- Why do economic shocks induce voters to support conservative economic policy platforms?

This Paper

- Populist politicians intrinsically more risky => attractive to disappointed voters
 - Untested; Inexperienced; Anti-establishment; Radical
- Electoral competition between safe vs risky and inefficient candidate
- Risky candidate sets lower taxes & is supported by "unwieldy" coalition of disappointed voters & rich voters

German Socio Economic Panel (2008-16)

- *Populist dummy*: 1 if lean towards populist party, 0 otherwise
 - Populist parties: Alternative für Deutschland (AfD), Piratenpartei, and the coalition of NPD, DVU, die Republikaner and die Rechte (Inglehart & Norris 2016)
- *Risk love* : self-reported risk aversion
 - 0 = "unwilling to take risks"; 10 = "fully prepared to take risk".
 - *Extreme risk love* : dummy variable for *Risk love* > 8
- *Income dissatisfaction* : How satisfied with household income ?
 - 10 = "Completely dissatisfied"; 0 = "completely satisfied"
 - *Extreme income dissatisfaction* : dummy for *Income dissatisfaction* ≥ 7
- *Large income loss*: dummy for large income losses
 - Current income < 75% of 3 year moving average of lagged income
- Other covariates: income, male, dummy variables for age, education, unemployed, out of the labor force, immigrant, East Germany

Empirical strategy

- Income loss \Rightarrow Income dissatisfaction \Rightarrow Risk love \Rightarrow Populist support

$$y_{it} = \alpha_i + \delta_t + \beta T_{it} + \gamma' \mathbf{X}_{it} + \varepsilon_{it}$$

- T_{it} = risk love; y_{it} = populist support
 - T_{it} = income dissatisfaction; y_{it} = risk love (or populist support)
 - T_{it} = income loss; y_{it} = income dissatisfaction (or risk love, populist support)
- Estimate by conditional logit, SE clustered by individual
 - Becoming very risk loving \Rightarrow 7 pp more likely to lean to populists
 - Becoming very dissatisfied \Rightarrow 7 pp more likely to lean to populists, 5 pp more likely to become very risk loving
 - Large income loss \Rightarrow very risk loving, very dissatisfied, populist (but smaller magnitudes)

Table 1: Risk Love and Populism

	Populist Dummy					
	(1)	(2)	(3)	(4)	(5)	(6)
Risk Love	0.1169*** [0.0014]	0.0896*** [0.0010]	0.0563*** [0.0006]	0.0260* [0.0003]	-0.0260 [-0.0046]	-0.0257 [-0.0049]
Extreme Risk Love		0.4821*** [0.0056]		0.5498*** [0.0063]	0.3759** [0.0672]	0.3910** [0.0740]
Observations	203,207	203,207	193,775	193,775	7,535	7,340
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Labor Market Controls	No	No	Yes	Yes	No	Yes
Other Controls	No	No	Yes	Yes	No	No
Individual FE	No	No	No	No	Yes	Yes

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Marginal effects in square brackets. Labor market controls are being in or out the labor force, being unemployed and log household income. Other individual controls (where included) are dummy variables for gender, age group, immigrant status, education level, and macroregion. Estimation is by logit in columns 1-4, by conditional logit in columns 5 and 6. Source: SOEP.

Table 2: Income Dissatisfaction and Populism

	Populist Dummy				Extreme Risk Love	
	(1)	(2)	(3)	(4)	(5)	(6)
Income Dissatisfaction	0.0825*** [0.0009]	-0.0034 [-0.0007]	0.0880*** [0.0010]	0.0096 [0.0019]	-0.0821*** [0.0027]	-0.0535*** [-0.0076]
Extreme Income Dissatisfaction	0.4144*** [0.0047]	0.3333** [0.0664]	0.3914*** [0.0045]	0.2973* [0.0586]	0.7966*** [0.0262]	0.3436*** [0.0486]
Risk Love			0.0281* [0.0032]	-0.0248 [-0.0049]		
Extreme Risk Love			0.4961*** [0.0057]	0.3705** [0.0730]		
Observations	191,116	7,199	186,072	7,021	196,175	19,596
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Labor Market Controls	Yes	Yes	Yes	Yes	Yes	Yes
Other Controls	Yes	No	Yes	No	Yes	No
Individual FE	No	Yes	No	Yes	No	Yes

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Marginal effects in square brackets. The dependent variable is voting for a populist party in columns 1-4, being an extreme risk lover in columns 5 and 6. Labor market controls are being in or out the labor force, being unemployed and log household income. Other individual controls (where included) are dummy variables for gender, age group, immigrant status, education level, and macroregion. Estimation is by logit in columns 1, 3 and 5, by conditional logit in the remaining columns. Source: SOEP.

Table 3: The Effect of Income Losses

	Populist Dummy		Extreme Risk Love				Extreme Income Dissatisfaction	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Large Income Loss	0.1907* [0.0022]	0.3180* [0.0018]	0.3623** [0.0093]	0.1589 [0.0140]	0.3564*** [0.00091]	0.1840* [0.0109]	0.1547*** [0.0126]	0.1008* [0.0000]
Income Dissatisfaction					-0.1110*** [-0.0028]	-0.0756*** [-0.0045]		
Extreme Income Dissatisfaction					0.9433*** [0.0241]	0.3762*** [0.0222]		
Observations	132,531	4,695	133,831	10,543	132,657	10,373	137,164	32,126
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Labor Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other Controls	Yes	No	Yes	No	Yes	No	Yes	No
Individual FE	No	Yes	No	Yes	No	Yes	No	Yes

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Marginal effects in square brackets. The dependent variable is voting for a populist party in columns 1-2, being an extreme risk lover in columns 3-6, and a dummy for extreme dissatisfaction with household income in columns 7 and 8. Labor market controls are being in or out the labor force, being unemployed and log household income. Other individual controls (where included) are dummy variables for gender, age group, immigrant status, education level, and macroregion. Estimation is by logit in columns 1, 3, 5 and 7, by conditional logit in the remaining columns. Source: SOEP.

Prospect theory and voting

Voters' preferences (c consumption, x reference point)

$$\mathbb{E}[c + \mu(c - x)]$$

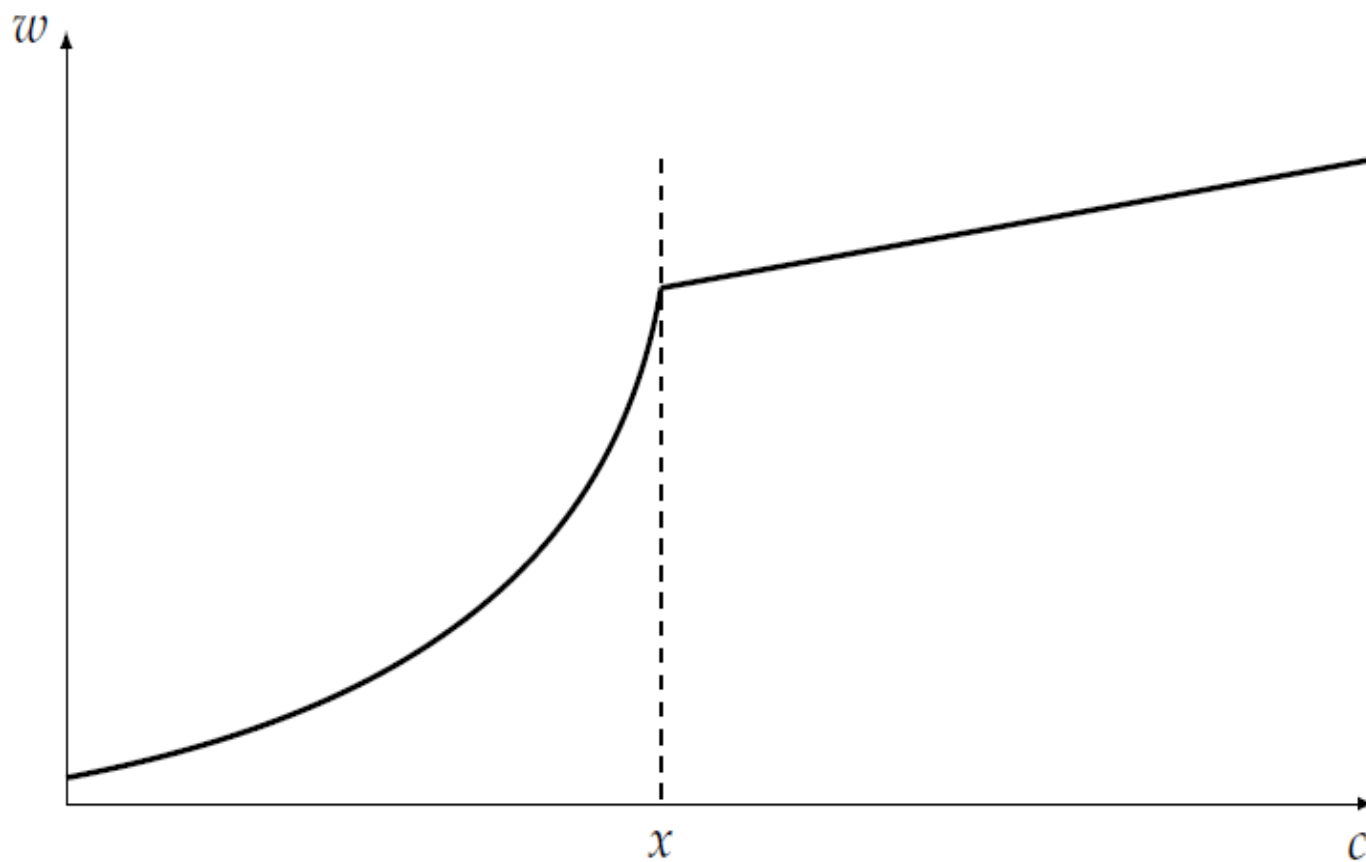
Loss function $\mu(\cdot)$ is continuous everywhere, with $\mu(d) = 0$ for all $d = c - x \geq 0$. For $d < 0$:

- ① $\mu(d) < 0$ - Loss aversion
- ② $\mu'(d) > 0$, $\mu''(d) > 0$ - As c approaches x , the loss in utility decreases at an increasing rate
- ③ $\mu'''(d) \leq 0$ - more disappointed agents are more risk loving

(1)-(2) standard in prospect theory (Kahneman & Tversky 1979)

(3) important for our results

Voters preferences over consumption



Candidates

- Continuum of voters with known income $\theta \sim G(\cdot)$ in population, and given reference point x (same for all voters)
 - Can be relaxed to $[(\theta - x(\theta))]$ increasing in θ
- They vote over two candidates, no taxes for now
- The Moderate (M) candidate is **safe** and generates income $\theta \geq 0$ for agent θ
- The Populist (P) candidate is **risky and inefficient**: if elected, it generates income $\theta + \eta - z$
 - η is a random variable with $\mathbb{E}\eta = 0$ and support over $[-\varepsilon, \varepsilon]$
 - $z > 0 \Rightarrow$ Expected income lower under P
- Assume $\varepsilon > z \Rightarrow$ With some probability P generates higher income

Single crossing

Expected utility ahead of the election for voter θ

- If M is elected:

$$w_M(\theta) = \theta + \mu(\theta - x)$$

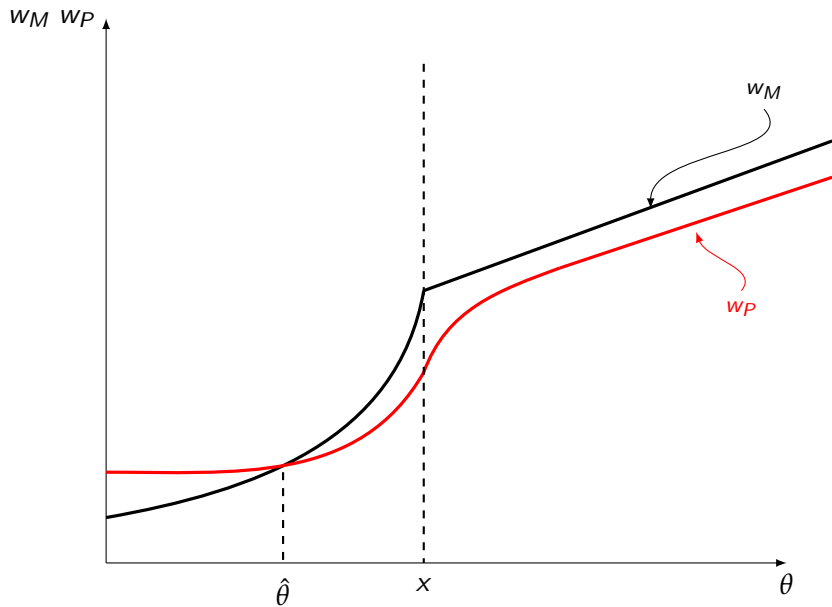
- If P is elected:

$$w_P(\theta) = \theta - z + \mathbb{E}\mu(\theta - z + \eta - x)$$

Single crossing result: $w_M(\theta)$ and $w_P(\theta)$ cross at most once, at $\hat{\theta} < x$

- Voters with $\theta \geq x$ prefer M (more efficient)
- Voters with θ far below x may prefer P (more risky) despite its inefficiency
- Voters with θ close to x least likely to prefer P (efficiency, loss aversion)

Expected utilities



Redistributive taxes

Before election, M and P commit to τ_M, τ_P :

$$c_M(\theta, \tau_M) = (1 - \tau_M)\theta + f(\tau_M),$$

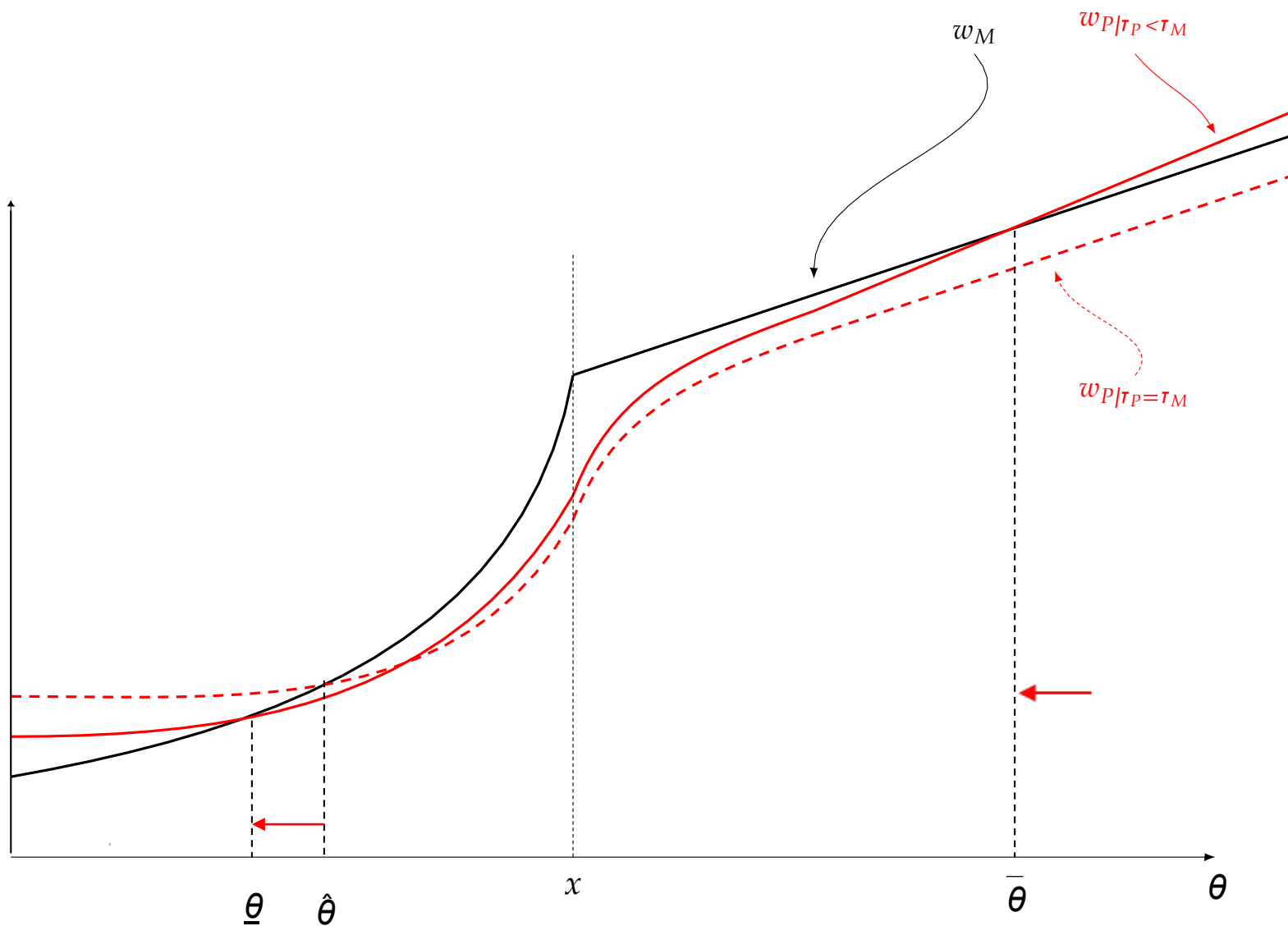
$$c_P(\theta, \tau_P) = (1 - \tau_P)\theta + f(\tau_P) - z + \eta.$$

where

$$f(\tau) = \tau \mathbb{E}\theta - i(\tau), \quad (1)$$

$i(\tau) \geq 0$ is increasing and convex in τ , with $i(0) = 0 = i'(0)$.

- Single crossing may no longer hold
 - $\tau_P < \tau_M \Rightarrow w_P$ steeper than $w_M \Rightarrow$ they may cross at more than one value of θ



As τ_p falls, red curve gets steeper
 \Rightarrow both crossing points move left,
 \Rightarrow P gains vote to the right, loses votes to the left

Discussion

Two dimensions of political conflict:

- Redistribution (driven by income)
- Features of candidate (risk vs efficiency), valued differently by voters
 - Disappointed voters want risk, and may give up on redistribution
 - Voters close to x dislike risk, may want redistribution
 - Rich voters don't care about risk, oppose redistribution

Nash equilibrium for game of Downsian electoral competition need not exist

Stackelberg game

Assume instead:

- Sequential moves:
 - M is the incumbent and sets τ_M
 - P observes τ_M and sets τ_P
 - Voters observe (τ_M, τ_P) and vote
- Both candidates maximize their vote share

Equilibrium

Suppose that $\mathbb{E}\theta \leq x + z - \varepsilon$. Then:

Equilibrium: Either: (i) P is indifferent between $\tau_P^*(\tau_M^*) \geq \tau_M^*$ vs $\tau_P^*(\tau_M^*) \leq \tau_M^*$; Or (ii) P strictly prefers $\tau_P^*(\tau_M^*) < \tau_M^*$ to any other τ

In case (ii):

- ① Double crossing or more
- ② P supported by a coalition of rich voters and of disappointed voters
- ③ Voters with intermediate levels of θ vote for M

P retains very disappointed voters \Rightarrow he can afford to broaden the coalition by promising low taxes to richest voters

Cannot have that P strictly prefers $\tau_P^*(\tau_M^*) > \tau_M^*$ in equilibrium

Equilibrium with single crossing

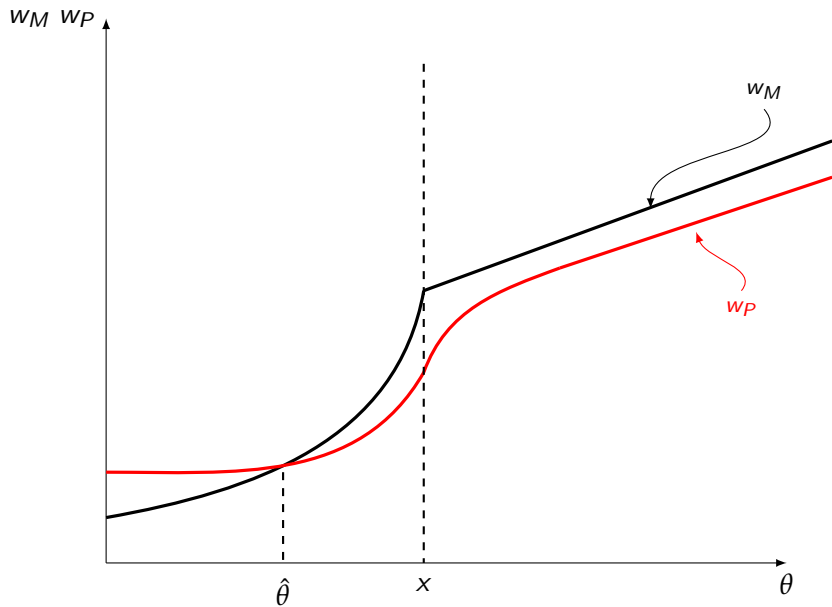
Suppose $\tau_P \geq \tau_M$. Then:

- *Single Crossing*: $w_M(\theta, \tau_M)$ and $w_P(\theta, \tau_P)$ cross at most once at $\hat{\theta}(\tau_P, \tau_M)$
 - $\theta < \hat{\theta}(\tau_P, \tau_M)$ votes for P ; $\theta > \hat{\theta}(\tau_P, \tau_M)$ votes for M
 - P wants to shift $\hat{\theta}$ to the right, M to the left
 - Both want to $\uparrow \tau$ (flatten $w_P(\cdot)$, $w_M(\cdot)$), but rising tax distortions limit this tendency
- If $\tau_P \geq \tau_M$ does not bind, interior equilibrium with single crossing is found where

$$\tau_P^* = \tau_M^* = \text{bliss point of } \hat{\theta}(\tau^*, \tau^*)$$

Single crossing \Rightarrow policy convergence if $\tau_P \geq \tau_M$ does not bind

Expected utilities



Equilibrium with double crossing (or more)

- If τ_M is too high, P may prefer to $\downarrow \tau_P$ to get the votes of the rich
- If so, M has to choose between:
 - $\tau_M < \tau_P \Rightarrow$ single crossing
 - $\tau_M > \tau_P \Rightarrow$ double crossing or more
- In equilibrium, either P is left indifferent between these two options, or P strictly prefers $\tau_M > \tau_P$
- P has stronger incentive to $\downarrow \tau$, compared to M
 - $\tau \downarrow \Rightarrow$ poor more disappointed \Rightarrow more attracted by P
 - Electoral penalty of $\downarrow \tau$ amongst the poor is lower for M than for P
 - M finds it optimal to set τ at higher level than P

Summary

- Disappointed voters tradeoff risk preferences vs redistributive policy. Rich voters only care about expected income.
- Large negative shocks \Rightarrow unwieldy coalition of disappointed voters and rich voters, supporting P on a platform of high risk and low taxes
- Two forces pushing for this:
 - *Global*: P retains very disappointed voters despite $\downarrow \tau$. M lets this happen, and targets risk averse voters close to x
 - *Local*: electoral benefit of $\tau \uparrow$ is higher for M , because redistribution \Rightarrow less disappointment

Macroeconomic populism

Prospect theory has other implications that can explain macroeconomic populism (Dorbusch & Edwards 1989)

- Populist govt can impose negative externality on foreign countries
 - Renege on international treaty / Protectionism / Debt default
- Imposing "fiscal austerity" on highly indebted country can be counterproductive for creditors
- Loss aversion \Rightarrow myopic fiscal policies after *permanent* negative income shock
 - Public debt reduces current disappointment, but does not increase future disappointment if voters' reference point is forward looking
- Myopic policies can be self-fulfilling
 - Voters expect more debt, $\Rightarrow x \uparrow \Rightarrow$ more disappointment \Rightarrow demand more debt

Table A1: Summary Statistics

	N	Mean	SD	Min	Max
Populist (dummy)	208,573	0.0116	0.107	0	1
Risk Love	218,145	4.593	2.396	0	10
Extreme Risk Love	218,145	0.0385	0.192	0	1
Income Dissatisfaction	225,217	3.445	2.288	0	10
Extreme Income Dissatisfaction	225,217	0.114	0.318	0	1
Large Income Loss	140,581	0.0765	0.266	0	1
Male	238,597	0.463	0.499	0	1
Age Under 28	238,597	0.135	0.342	0	1
Age Over 45	238,597	0.517	0.500	0	1
Direct Immigrant	238,597	0.169	0.375	0	1
Second-Generation Immigrant	238,597	0.0721	0.259	0	1
Low Education Level	233,219	0.162	0.369	0	1
Medium Education Level	233,219	0.548	0.498	0	1
High Education Level	233,219	0.290	0.454	0	1
Income	228,540	10.40	0.568	8.587	11.66
Resident in East Germany	238,597	0.223	0.416	0	1
Unemployed	238,597	0.0508	0.220	0	1
Out of Labor Force	238,597	0.358	0.479	0	1