Online Appendix for

"Inequality Aversion, Populism, and the Backlash Against Globalization"

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This Online Appendix presents the proofs of all propositions in Pástor and Veronesi (2019), additional theoretical results, multiple extensions of the baseline model, details of data construction, and additional empirical evidence.

Overview

This Appendix is organized as follows:

- **Section A1. Theory: Additional Results**
- **Section A2. Theory: Proofs**
  - The proofs of all theoretical results in the paper
- **Section A3. Theory: Model Extensions**
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A1. Theory: Additional Results

This section has two subsections. In Section A1.1., we present additional theoretical results on country imbalances under globalization, adding to Section 4.2 in the paper. In Section A1.2., we analyze the impact of income taxes on the equilibrium, adding to Section 5.3 in the paper.

Throughout this Appendix, we take the finance interpretation of contracts between agents. The results under the labor interpretation are analogous. The finance interpretation can be formally mapped into the labor interpretation while retaining the same mathematics. Agents' financial wealth, which is invested in stocks and bonds, maps into human capital, which is "invested" in a job whose risk exposure is the same as that of the stock-bond portfolio. Under the finance interpretation, agents receive dividends from their stock holdings and interest payments from their bond holdings. Under the labor interpretations, agents receive wages from their job. The wage of a given agent at a given time in a given state is the agent's optimal consumption at that time in that state, as computed below. For any wage pattern, there exists a job that generates it. Each agent chooses a job that generates the wage pattern matching the agent's optimal consumption.

A1.1. Imbalances under Globalization

In this subsection, we present some additional theoretical results that are summarized at the end of Section 4.2 in the paper. First, we establish some notation. The wealth of agent i at time t is

$$W_{it} = \mathrm{E}_t \left[\int_t^T \frac{\pi_s}{\pi_t} C_{is} \, ds \right] , \tag{A1}$$

so the aggregate wealth of all agents in country $k \in \{US, RoW\}$ is

$$W_t^k = \int_{i \in \mathcal{I}^k} W_{it} \, di \; . \tag{A2}$$

We let P_t^k denote the market price of country k's stock, which is a claim on the stream of dividends produced by the country's tree, and $P_t = P_t^{US} + P_t^{RoW}$ denote the value of the global stock market portfolio. Under globalization, all agents have positions in this stock portfolio and in risk-free bonds. We let N_{it} and B_{it} denote agent i's holdings of stocks and bonds, respectively, and also define $N_t^k = \int_{i \in \mathcal{I}^k} N_{it} \, di$ and $B_t^k = \int_{i \in \mathcal{I}^k} B_{it} \, di$. In terms of the state variable δ_t, we have $W_t^k = W^k(\delta_t)$ and $P_t = P(\delta_t)$. For each country, we then have

$$W^k(\delta_t) = N_t^k \, P(\delta_t) + B_t^k \; , \tag{A3}$$

which shows that a country's wealth is equal to the value of its stock-bond portfolio.

Corollary A1. *U.S. agents are net borrowers whereas RoW agents are net lenders.*

That is, $B_t^{US} < 0$ and $B_t^{RoW} > 0$. From Corollary A1 and equation (A3), we see that U.S. agents have a levered position in the stock market (i.e., $N_t^{US} P(\delta_t) > W^{US}(\delta_t)$), unlike RoW agents (for whom $N_t^{RoW} P(\delta_t) < W^{RoW}(\delta_t)$). As a result, U.S. agents benefit more from economic growth (i.e., from growing δ_t) than do RoW agents.

Corollary A2. *When output is large enough, U.S. agents' total wealth exceeds the U.S. stock market capitalization. The opposite is true for RoW:*

$$\frac{W_t^{US}}{P_t^{US}} > 1 > \frac{W_t^{RoW}}{P_t^{RoW}} . \tag{A4}$$

Since U.S. agents hold levered portfolios, their wealth exceeds the value of their own tree, increasingly so as output continues to grow. The U.S. is therefore "rich" relative to RoW under globalization.

The proofs of Corollaries A1 and A2 are in Section A2. of this Appendix, along with all other proofs. While Corollary A1 appears to hold generally, we are able to prove it only in the special case when the distribution of γ_i satisfies equation (4) in the paper and agents perceive zero probability of a move to autarky at time τ. In contrast, Corollary A2 holds more generally under condition (3) from the paper, as do our remaining results. The proof of Corollary A2 does not rely on Corollary A1; instead, it follows directly from Proposition 2.

A1.2. Redistribution: Income tax

In this subsection, we supply the details for the results on income taxation, which are summarized in Section 5.3 in the paper. Section A1.2.1. addresses a flat tax, whereas Section A1.2.2. allows for agent-specific tax rates (e.g., progressive income taxation).

We analyze the impact of income taxation on equilibrium consumption and the state price density. Recall that the only income in our model is financial income derived from agents' holdings of stocks and bonds. Agents' stock holdings generate income in the form of dividends and capital gains, whereas agents' bond holdings earn interest. We sidestep some realistic complications, such as the asymmetric impact of gains and losses and whether taxes are paid on "paper" profits or profits realized at the time of the asset's sale. To focus on the key implications of income taxation, we consider a setting in which agent i's after-tax income from holding N_{it} shares in the global stock

market portfolio is simply equal to $(1-\tau_{P,i,t})N_{it}(dP_t + D_t dt)$, where $\tau_{P,i,t}$ is an agent-specific tax rate on the stock return earned at time t. Similarly, the after-tax income from a bond position B_{it} is $(1-\tau_{r,i,t})B_{it}r_t$, where $\tau_{r,i,t}$ is the tax rate on the bond return earned at time t. We assume that the income tax revenue is immediately and equally redistributed to all agents within the same country, so that each country's government runs a balanced budget.

A1.2.1. Flat Tax

We first consider a flat income tax schedule, under which all agents face equal, though possibly time-varying, income tax rates: $\tau_{P,i,t} = \tau_{P,t}$ and $\tau_{r,i,t} = \tau_{r,t}$ for all agents i. We assume that both rates are bounded above: $0 \leq \tau_{P,t} \leq \overline{\tau}_P < 1$ and $0 \leq \tau_{r,t} \leq \overline{\tau}_r < 1$. The dynamic budget constraint of agent i in country k is then given by

$$dW_{it} = N_{it}\left(1-\tau_{P,t}\right)\left(dP_t + D_t dt\right) + B_{it}\left(1-\tau_{r,t}\right)r_t dt + ds_t^k - C_{it}dt\ ,$$

where ds_t^k is the redistribution to agent i from the collected income tax revenue, so that

$$\begin{aligned} ds_t^k &= \frac{1}{m^k}\int_{j\in I^k}\left[N_{jt}\tau_{P,t}\left(dP_t + D_t dt\right) + B_{jt}\tau_{r,t}r_t dt\right]dj \\ &= \overline{N}_t^k \tau_{P,t}\left(dP_t + D_t dt\right) + \overline{B}_t^k \tau_{r,t} r_t dt \end{aligned}$$

where

$$\begin{aligned} \overline{N}_t^k &= \frac{\int_{j\in I^k} N_{jt}dj}{m^k} \\ \overline{B}_t^k &= \frac{\int_{j\in I^k} B_{jt}dj}{m^k} \end{aligned}$$

and $m^k = \int_{j\in I^k} dj$ is the mass of agents in country k (so that $m^{US} = m$ and $m^{RoW} = 1-m$). Note that the redistribution amount ds_t^k is stochastic because higher stock returns imply higher tax revenue. Negative stock returns imply that agents receive tax rebates, which the government raises by levying ds_t^k. This is a simplification; of course, additional lump-sum taxes may generate net positive redistribution on average.

Proposition A1. *The equilibrium with a flat income tax is identical to the one with no taxes, except that the optimal stock and bond allocations are equal to*

$$N_{it} = \frac{V_{it}\sigma_{Vi} - \frac{\tau_{P,t}}{m^k}\int_{j\in I^k} V_{jt}\sigma_{Vj}dj}{\sigma_P P_t(1-\tau_{P,t})} \tag{A5}$$

$$B_{it} = V_{it} - \frac{\tau_{r,t}}{m^k}\int_{j\in I^k} V_{jt}dj - \frac{V_{it}\sigma_{Vi} - \frac{\tau_{r,t}}{m^k}\int_{j\in I^k} V_j\sigma_{Vj}dj}{\sigma_P(1-\tau_{P,t})} \tag{A6}$$

where $V_{it} = E_t\left[\int_t^T \frac{\pi_s^*}{\pi_t^*} C_{is} ds\right]$ *and* σ_{Vi} *is the diffusion of* dV_{it}/V_{it}*. The values of* π_s^* *and* C_{is} *in the expression for* V_{it} *are equilibrium values of the state price density and consumption, respectively, whose expressions are given in the proof.*

This proposition shows that with a flat income tax, the equilibrium consumption and state price density are the same as in the no-tax case analyzed in the paper, except that the optimal asset allocation is adjusted to reflect agents' natural exposure to stock and bond returns due to redistribution. Note that if $\tau_P = 0$, then the position in stocks is the same as in the no-tax case. The result stems from the fact that stochastic redistribution makes agents exposed to stock return shocks. To hedge this exposure, agents adjust their portfolio positions. Similarly, if $\tau_r = 0$, the position in bonds becomes the standard $B_{it} = V_{it}\left(1 - \sigma_{Vi}/\sigma_P(1-\tau_{P,t})\right)$, which can be positive or negative. With taxes on bond returns, agents are naturally long bonds, so they adjust their bond positions downward to obtain their desired exposure.

The proof of Proposition A1 is in Section A2. of this Appendix, along with all other proofs.

A1.2.2. Agent-Specific Income Tax Rates

Agent-specific income tax rates generate market segmentation. Agents i and j facing different tax rates earn different after-tax returns on the same securities. Therefore, even though each agent has access to the same stock and the same bond, agents i and j effectively perceive them as two different assets, albeit with perfectly correlated returns. This implies that each agent effectively faces his own state price density, which we denote by π_{it}. While the equilibrium is difficult to compute, we can obtain some necessary conditions that highlight the impact of agent-specific tax rates on agents' consumption. Throughout, we make the simplifying assumption that the tax rates on stock returns are the same as the tax rates on bond returns:

$$\tau_{P,i,t} = \tau_{r,i,t} = \tau_{i,t} \ . \tag{A7}$$

Proposition A2. *In any equilibrium with agent-specific tax rates, the market price* ν_t *of risk is common to all agents. Each agent's consumption satisfies*

$$C_{it} = e^{\frac{g_t - \log(\xi_i)}{\gamma_i} - \frac{1}{\gamma_i}\int_0^t \tau_{i,s} r_s ds} \ , \tag{A8}$$

where ξ_i *is the Lagrange multiplier from the static budget constraint,* $g_t = -\phi t - \log(\pi_t)$*, and* π_t *is the common component of all state price densities* $\pi_{it} = e^{\int_0^t \tau_{i,s} r_s ds}\pi_t$ *such that*

$$\pi_t = e^{-\int_0^t (r_s + \frac{1}{2}\nu_s^2)ds - \int_0^t \nu_s dZ_s} \ .$$

Proposition A2 shows that in any equilibrium under the assumption (A7), each agent's consumption depends on the agent's tax rate and risk aversion. Each agent's consumption decreases with the agent's tax rate, to the extent that depends on the agent's risk aversion. Since agents facing higher tax rates consume less, the tax schedule affects the equilibrium distribution of consumption across agents. We thus see that a progressive tax schedule, one that imposes higher income tax rates on higher-income agents, could in principle address the consumption externality.

The proof of Proposition A2 is in Section A2. of this Appendix, along with all other proofs.

A2. Theory: Proofs

Each country k's stock price P_t^k and riskless bond price B_t^k follow the processes

$$\begin{aligned} \frac{dP_t^k + D_t^k dt}{P_t^k} &= \mu_{P,t}^k dt + \sigma_{P,t}^k dZ_t + q^k dA_t \\ \frac{dB_t^k}{B_t^k} &= r_t^k dt + q^k dA_t \end{aligned}$$

where all parameter values are endogenously determined in equilibrium, q^k is an F_τ-measurable random variable, also determined in equilibrium, and

$$A_t = \begin{cases} 0 & \text{if} \quad t < \tau \\ 1 & \text{if} \quad t \geq \tau \end{cases}$$

The jump component dA_t arises in equilibrium due to the shift to autarky at time τ under the conditions obtained below. (In equilibrium, $q^k = 0$ if the mainstream candidate is elected, but $q^k \neq 0$ if the populist is elected and the move to autarky takes place.) Even with the move to autarky, markets are dynamically complete because the jumps in prices at time τ are perfectly predictable just before time τ and their magnitude is known. The state price density for country k follows the process

$$\frac{d\pi_t^k}{\pi_t^k} = -r_t^k dt - \sigma_{\pi,t}^k dZ_t - q^k dA_t$$

where all quantities are again determined in equilibrium. The stock and bond prices of each country jump by the same percentage amount as the state price density so that $\pi_t^k P_t^k$ and $\pi_t^k B_t^k$ are continuous at time τ: For instance, $\pi_\tau^k P_\tau^k = \left(\pi_{\tau-}^k e^{-q^k}\right)\left(P_{\tau-}^k e^{q^k}\right) = \pi_{\tau-}^k P_{\tau-}^k$. Under this condition, standard replication arguments prove market completeness (see Karatzas and Shreve, 2010).

Proof of equation (16): Market clearing requires

$$D_t = \int_{\cup_k \mathcal{I}^k} C_{it} di$$

Under globalization, $\pi_t^{US} = \pi_t^{RoW} = \pi_t$ and thus $g_t^{US} = g_t^{RoW} = g_t$. Optimal consumption is

$$C_{it} = e^{\psi_i + \rho_i (g_t - y)}$$

Substituting and invoking the law of large numbers gives

$$D_t = \mathrm{E}^i \left[e^{\psi_i + \rho_i (g_t - y)} | i \in \mathcal{I} \right] = \mathrm{E}^i \left[e^{\psi_i} | i \in \mathcal{I} \right] \mathrm{E}^i \left[e^{\rho_i (g_t - y)} | i \in \mathcal{I} \right]$$

where the second equality stems from the independence of ψ_i from ρ_i. Taking logs, we obtain

$$\delta_t = \log\left(\mathrm{E}^i\left[e^{\psi_i}|i \in \mathcal{I}\right]\right) + \log\left(\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}\right]\right) \tag{A9}$$

Denote the solution as

$$g_t = g\left(\delta_t\right)$$

Thus, the state price density is

$$\pi_t = e^{-\phi t - g(\delta_t)}$$

The normalization $\pi_0 = 1$ implies $g_0 = g\left(\delta_0\right) = 0$. Normalizing $D_0 = 1$ without loss of generality, we obtain the restriction

$$\mathrm{E}^i\left[e^{\psi_i}|i \in \mathcal{I}\right] = \frac{1}{\mathrm{E}^i\left[e^{-y\rho_i}|i \in \mathcal{I}\right]} \tag{A10}$$

which yields the equilibrium condition for g_t given in equation (16):

$$\delta_t = \log\left(\frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}\right]}{\mathrm{E}^i\left[e^{-y\rho_i}|i \in \mathcal{I}\right]}\right) \tag{A11}$$

Q.E.D.

Lemma 1. $g\left(\delta_t\right)$ is globally increasing and concave: $g'\left(\delta_t\right) > 0$ and $g"\left(\delta_t\right) < 0$ with $g\left(\delta_t\right) \to \infty$ when $\delta_t \to \infty$.

Proof: See Veronesi (2018). Q.E.D.

Proof of Proposition 1: We first derive the expression for V_t^k stated in the proposition. Recall the notation

$$\overline{C}_t^k = \mathrm{E}^i\left[C_{it}|i \in \mathcal{I}^k\right]$$

Therefore

$$\begin{aligned} V_t^k &= \mathrm{Var}\left(\frac{C_{it}}{\overline{C}_t^k}|i \in \mathcal{I}^k\right) = \mathrm{E}^i\left[\left(\frac{C_{it}}{\overline{C}_t^k}\right)^2|i \in \mathcal{I}^k\right] - \mathrm{E}^i\left[\frac{C_{it}}{\overline{C}_t^k}|i \in \mathcal{I}^k\right]^2 \\ &= \frac{\mathrm{E}^i\left[\left(C_{it}\right)^2|i \in \mathcal{I}^k\right]}{\left(\overline{C}_t^k\right)^2} - \left(\frac{\mathrm{E}^i\left[C_{it}|i \in \mathcal{I}^k\right]}{\overline{C}_t^k}\right)^2 \\ &= \frac{\mathrm{E}^i\left[\left(C_{it}\right)^2|i \in \mathcal{I}^k\right]}{\mathrm{E}^i\left[C_{it}|i \in \mathcal{I}^k\right]^2} - 1 \end{aligned}$$

Substituting for the optimal consumption, we obtain

$$V_t^k = \frac{\mathrm{E}\left[e^{2\psi_i}|i \in \mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i \in \mathcal{I}^k\right]^2} \frac{\mathrm{E}\left[e^{2\rho_i(g(\delta_t)-y)}|i \in \mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i(g(\delta_t)-y)}|i \in \mathcal{I}^k\right]^2} - 1$$

We next show that $\partial V/\partial \delta_t > 0$. Because $g_t = g(\delta)$ is uniformly increasing in δ (from Lemma 1), it suffices to show that $\partial V/\partial g > 0$. Let us take the first derivative with respect to g_t

$$\begin{aligned}
\frac{\partial V_t^k}{\partial g_t} &= \frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2} \left\{ \frac{\mathrm{E}\left[2\rho_i e^{2\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]^2} - \frac{\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i \in \mathcal{I}_k\right] 2\mathrm{E}\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right] \mathrm{E}\left[\rho_i e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]}{\left\{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]^2\right\}^2} \right\} \\
&= 2\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2} \left\{ \frac{\mathrm{E}\left[\rho_i e^{2\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]^2} - \frac{\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]^2} \frac{\mathrm{E}\left[\rho_i e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]} \right\} \\
&= 2\left(1 + V_t^k\right) \left\{ \frac{\mathrm{E}\left[\rho_i e^{2\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]}{\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]} - \frac{\mathrm{E}\left[\rho_i e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}_k\right]} \right\} \\
&= 2\left(1 + V_t^k\right) \left\{ \widetilde{\mathrm{E}}\left[\rho|\delta_t\right] - \mathrm{E}^*\left[\rho|\delta_t\right] \right\}
\end{aligned}$$

where the expectations $\mathrm{E}^*\left[\rho|\delta_t\right]$ and $\widetilde{\mathrm{E}}\left[\rho|\delta_t\right]$ use the densities $f^*\left(\rho|\delta_t\right)$ and $\widetilde{f}\left(\rho|\delta_t\right)$, respectively:

$$\begin{aligned}
f^*\left(\rho|\delta_t\right) &= \frac{e^{\rho(g_t-y)} f(\rho)}{\int e^{\rho(g_t-y)} f(\rho)\, d\rho} \\
\widetilde{f}\left(\rho|\delta_t\right) &= \frac{e^{2\rho(g_t-y)} f(\rho)}{\int e^{2\rho(g_t-y)} f(\rho)\, d\rho} \\
&= \frac{e^{\rho(g_t-y)} e^{\rho(g_t-y)} f(\rho)}{\int e^{\rho(g_t-y)} e^{\rho(g_t-y)} f(\rho)\, d\rho} \\
&= \frac{e^{\rho(g_t-y)} f^*\left(\rho|\delta_t\right)}{\int e^{\rho(g_t-y)} f^*\left(\rho|\delta_t\right) d\rho}
\end{aligned}$$

For $g_t > y$ we have $e^{\rho(g_t-y)}$ is increasing in ρ. Therefore, $\widetilde{f}\left(\rho|\delta_t\right)$ gives more weight to high ρ. Thus, the average ρ computed using $\widetilde{f}\left(\rho|\delta_t\right)$ must be higher than the one computed using $f^*\left(\rho|\delta_t\right)$. That is, $\widetilde{\mathrm{E}}\left[\rho|\delta_t\right] - \mathrm{E}^*\left[\rho|\delta_t\right] > 0$. It follows that $\partial V(g)/\partial g > 0$.

We next show that V_t^k is unbounded. We exploit our assumption that the distribution $f(\rho)$ on $\rho \in [\rho_L, \rho_H]$ is non-degenerate. To do so, we define a set of economies with n groups of agents with risk tolerances $\{\rho_L, \rho_2, ..., \rho_{n-1}, \rho_H\}$ and each group with distributions $f_{(n)} = \left\{f_{(n),L}, f_{(n),2} ... f_{(n),n-1}, f_{(n),H}\right\}$ with $f_{(n),i} > 0$ and $\sum_{i=1}^n f_{(n),i} = 1$. Define

$$V_{(n),t}^k = \frac{\mathrm{E}\left[e^{2\psi}\right]}{\mathrm{E}\left[e^{\psi}\right]^2} \frac{\mathrm{E}\left[e^{2\rho_i(g-y)}\right]}{\mathrm{E}\left[e^{\rho_i(g-y)}\right]^2} = \frac{\mathrm{E}\left[e^{2\psi}\right]}{\mathrm{E}\left[e^{\psi}\right]^2} \frac{\sum_{i=1}^n f_{(n),i} e^{2\rho_i(g-y)}}{\left[\sum_{i=1}^n f_{(n),i} e^{\rho_i(g-y)}\right]^2}$$

We can factor out $e^{2\rho_H g}$ from the sum in the numerator and $e^{\rho_H g}$ from the sum in the denominator to obtain

$$V_{(n),t}^k = \frac{\mathrm{E}\left[e^{2\psi}\right]}{\mathrm{E}\left[e^{\psi}\right]^2} \frac{e^{2\rho_H(g-y)} \sum_{i=1}^n f_{(n),i} e^{2(\rho_i-\rho_H)(g-y)}}{\left[e^{\rho_H(g-y)} \sum_{i=1}^n f_{(n),i} e^{(\rho_i-\rho_H)(g-y)}\right]^2} = \frac{\mathrm{E}\left[e^{2\psi}\right]}{\mathrm{E}\left[e^{\psi}\right]^2} \frac{\sum_{i=1}^n f_{(n),i} e^{2(\rho_i-\rho_H)(g-y)}}{\left[\sum_{i=1}^n f_{(n),i} e^{(\rho_i-\rho_H)(g-y)}\right]^2}$$

As δ increases to infinity, so does $g = g(\delta)$, and thus for each term i in the sum $e^{2(\rho_i-\rho_H)(g-y)} \to 0$ and $e^{(\rho_i-\rho_H)(g-y)} \to 0$, except for the last one $i = H$ which is always equal to 1. Thus, for every n we have

$$V_{(n),t}^k \to \frac{\mathrm{E}\left[e^{2\psi}\right]}{\mathrm{E}\left[e^{\psi}\right]^2} \frac{1}{f_{(n),H}}$$

As $n \to \infty$, the assumption of a non-degenerate distribution implies that the density of each risk-aversion group declines to zero, $f_{(n),H} \to 0$, and thus $V_{(n),t}^k \to \infty$. Q.E.D.

Proof of Corollary 1.

For any random variable X, skewness is given by

$$Skew\,(X) = \mathrm{E}\left[\left(\frac{X - \mathrm{E}\,[X]}{\mathrm{Std}\,(X)}\right)^3\right] = \frac{\mathrm{E}\,[X^3] - 3\mathrm{E}\,[X]\,\mathrm{Var}\,(X) - \mathrm{E}\,[X]^3}{\mathrm{Var}\,(X)^{\frac{3}{2}}}$$

In our case,

$$X = \frac{C_{it}}{\overline{C}_t^k}$$

Therefore $\mathrm{E}\,[X] = 1$ and $\mathrm{Var}\,(X)$ is our inequality measure. Thus

$$Skew\left(\frac{C_{it}}{\overline{C}_t^k}|i \in \mathcal{I}^k\right) = \frac{\mathrm{E}\left[\left(\frac{C_{it}}{\overline{C}_t^k}\right)^3 |i \in \mathcal{I}^k\right] - 3\mathrm{Var}\left(\frac{C_{it}}{\overline{C}_t^k}|i \in \mathcal{I}^k\right) - 1}{\mathrm{Var}\left(\frac{C_{it}}{\overline{C}_t^k}|i \in \mathcal{I}^k\right)^{\frac{3}{2}}}$$

Optimal consumption $C_i = e^{\psi_i + \rho_i(g_t - y)}$ implies

$$\mathrm{Var}\left(\frac{C_i}{\overline{C}^k}|i \in \mathcal{I}^k\right) = \mathrm{E}\left(\left(\frac{C_i}{\overline{C}^k}\right)^2 |i \in \mathcal{I}^k\right) - \mathrm{E}\left(\frac{C_i}{\overline{C}^k}|i \in \mathcal{I}^k\right)^2 = \frac{\mathrm{E}\left[\left(e^{\psi_i+\rho_i(g_t-y)}\right)^2 |i \in \mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i+\rho_i(g_t-y)}|i \in \mathcal{I}^k\right]^2} - 1$$

and

$$\mathrm{E}\left[\left(\frac{C_i}{\overline{C}^k}\right)^3 |i \in \mathcal{I}^k\right] = \frac{\mathrm{E}\left[\left(e^{\psi_i+\rho_i(g_t-y)}\right)^3 |i \in \mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i+\rho_i(g_t-y)}|i \in \mathcal{I}^k\right]^3}$$

Therefore

$$
\begin{aligned}
Skew\left(\frac{C_i}{\overline{C}^k}|i\in\mathcal{I}^k\right) &= \frac{\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}\frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^3}-3\left(\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\frac{\mathrm{E}\left[e^{2\rho_i(g_t-y)}\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}\right]^2}-1\right)-1}{\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\frac{\mathrm{E}\left[\left(e^{2\rho_i(g_t-y)}\right)\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}\right]^2}-1\right)^{\frac{3}{2}}} \\
&= \frac{\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}\widehat{S}-3\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\widehat{V}+2}{\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\widehat{V}-1\right)^{\frac{3}{2}}}
\end{aligned}
$$

where we denote for simplicity

$$
\widehat{S}=\frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^3}\ \text{ and }\ \widehat{V}=\frac{\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^2}
$$

The first order limiting term is

$$
\begin{aligned}
K &= \frac{\widehat{S}}{\widehat{V}^{\frac{3}{2}}}=\frac{\frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^3}}{\left(\frac{\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^2}\right)^{\frac{3}{2}}}=\frac{\frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^3}}{\frac{\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^{\frac{3}{2}}}{\mathrm{E}\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]^3}} \\
&= \frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}}}
\end{aligned}
$$

Using the discretization and limiting argument used in the proof of Proposition 1,

$$
\begin{aligned}
K &= \frac{\sum e^{3\rho_i(g_t-y)}f_i}{\left(\sum e^{2\rho_i(g_t-y)}f_i\right)^{\frac{3}{2}}}=\frac{e^{3\rho_H(g-y)}\sum e^{3(\rho_i-\rho_H)(g_t-y)}f_i}{e^{3\rho_H(g-y)}\left(\sum e^{2(\rho_i-\rho_H)(g_t-y)}f_i\right)^{\frac{3}{2}}} \\
&= \frac{\sum e^{3(\rho_i-\rho_H)(g_t-y)}f_i}{\left(\sum e^{2(\rho_i-\rho_H)(g_t-y)}f_i\right)^{\frac{3}{2}}}\to\frac{f_H}{f_H^{\frac{3}{2}}}=\frac{1}{f_H^{\frac{1}{2}}}
\end{aligned}
$$

which converges to infinity as $f_H\to 0$.

Therefore, we can write

$$
\begin{aligned}
Skew\left(\frac{C_{it}}{\overline{C}^k}|i\in\mathcal{I}^k\right) &= \frac{\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}\widehat{S}-3\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\widehat{V}+2}{\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\widehat{V}-1\right)^{\frac{3}{2}}} \\
&= \frac{\frac{1}{\widehat{V}^{\frac{3}{2}}}\left(\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}\widehat{S}-3\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\widehat{V}+2\right)}{\frac{1}{\widehat{V}^{\frac{3}{2}}}\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\widehat{V}-1\right)^{\frac{3}{2}}}
\end{aligned}
$$

$$
\begin{aligned}
&= \frac{\left(\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}K - 3\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\frac{\widehat{V}}{\widehat{V}^{\frac{3}{2}}} + \frac{2}{\widehat{V}^{\frac{3}{2}}}\right)}{\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2} - \frac{1}{\widehat{V}}\right)^{\frac{3}{2}}} \\
&= \frac{\left(\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}K - 3\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\frac{1}{\widehat{V}^{\frac{1}{2}}} + \frac{2}{\widehat{V}^{\frac{3}{2}}}\right)}{\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2} - \frac{1}{\widehat{V}}\right)^{\frac{3}{2}}}
\end{aligned}
$$

As $g \to \infty$,

$$
Skew\left(\frac{C_{it}}{\overline{C}^k}|i\in\mathcal{I}^k\right) \to \frac{\left(\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}(\infty) - 3\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}0 + 0\right)}{\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2} - 0\right)^{\frac{3}{2}}} = \infty
$$

Finally, note that

$$
\begin{aligned}
\frac{\partial K}{\partial g} &= \frac{\mathrm{E}\left[3\rho_i e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}}}{\left[\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}}\right]^2} \\
&\quad - \frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\frac{3}{2}\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}-1}\left(\mathrm{E}\left[2\rho_i e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)}{\left[\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}}\right]^2} \\
&= \frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}}}\left(\frac{\mathrm{E}\left[3\rho_i e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]} - \frac{3\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}-1}\mathrm{E}\left[\rho_i e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}}}\right) \\
&= 3\frac{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)^{\frac{3}{2}}}\left(\frac{\mathrm{E}\left[\rho_i e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{3\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]} - \frac{\mathrm{E}\left[\rho_i e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]}{\left(\mathrm{E}\left[e^{2\rho_i(g_t-y)}|i\in\mathcal{I}^k\right]\right)}\right) \\
&= 3K\left(\widetilde{\widetilde{\mathrm{E}}}\left[\rho_i|i\in\mathcal{I}^k\right] - \widetilde{\mathrm{E}}\left[\rho_i|i\in\mathcal{I}^k\right]\right) \\
&> 0
\end{aligned}
$$

where $\widetilde{\mathrm{E}}\left[\rho_i|i\in\mathcal{I}^k\right]$ and $\widetilde{\widetilde{\mathrm{E}}}\left[\rho_i|i\in\mathcal{I}^k\right]$ use the following distributions, respectively:

$$
\begin{aligned}
\widetilde{f}\left(\rho|\delta_t\right) &= \frac{e^{2\rho(g_t-y)}f\left(\rho\right)}{\int e^{2\rho(g_t-y)}f\left(\rho\right)d\rho} \\
\widetilde{\widetilde{f}}\left(\rho|\delta_t\right) &= \frac{e^{3\rho(g_t-y)}f\left(\rho\right)}{\int e^{3\rho(g_t-y)}f\left(\rho\right)d\rho} \\
&= \frac{e^{\rho(g_t-y)}e^{2\rho(g_t-y)}f\left(\rho\right)}{\int e^{\rho(g_t-y)}e^{2\rho(g_t-y)}f\left(\rho\right)d\rho} \\
&= \frac{e^{\rho(g_t-y)}\widetilde{f}\left(\rho|\delta_t\right)}{\int e^{\rho(g_t-y)}\widetilde{f}\left(\rho|\delta_t\right)d\rho}
\end{aligned}
$$

This implies that $\widetilde{\widetilde{f}}(\rho|\delta_t)$ gives more weight to high ρ for $g_t > y$ and thus $\widetilde{\widetilde{\mathrm{E}}}\left[\rho_i|i \in \mathcal{I}^k\right] > \widetilde{\mathrm{E}}\left[\rho_i|i \in \mathcal{I}^k\right]$, which explains the inequality.

Therefore, for g large enough,

$$Skew\left(\frac{C_{it}}{\overline{C}^k}|i \in \mathcal{I}^k\right) = \frac{\left(\frac{\mathrm{E}\left[e^{3\psi_i}|i\in\mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i\in\mathcal{I}^k\right]^3}K - 3\frac{\mathrm{E}\left[e^{2\psi_i}\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2}\frac{1}{V^{\frac{1}{2}}} + \frac{3}{V^{\frac{3}{2}}}\right)}{\left(\frac{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]}{\mathrm{E}\left[e^{\psi_i}\right]^2} - \frac{1}{V}\right)^{\frac{3}{2}}} \rightarrow \frac{\mathrm{E}\left[e^{3\psi_i}|i \in \mathcal{I}^k\right]}{\mathrm{E}\left[\left(e^{2\psi_i}\right)\right]^{\frac{3}{2}}}K$$

and given $\partial K/\partial g > 0$ we have that

$$\frac{\partial Skew}{\partial g} > 0$$

for δ large enough. Q.E.D.

Proof of Corollary 2.

The consumption share of U.S. agent i is given by

$$s_t^i = \frac{C_{it}}{\overline{C}_t^{US}} = \frac{e^{\psi_i}}{E^I\left[e^{\psi_i}|i \in I^{US}\right]}\frac{e^{\rho_i\left(g_t^{US}-y\right)}}{E^I\left[e^{\rho_i\left(g_t^{US}-y\right)}|i \in I^{US}\right]} .$$

Recall that $g_t^{US}(\delta_t)$ is monotonically increasing in δ_t. Therefore, to determine the conditions under which s_t^i is increasing in δ_t, we only need to consider the sign of

$$\frac{ds_t^i}{dg_t^{US}} = \frac{\rho_i e^{\rho_i\left(g_t^{US}-y\right)}E^I\left[e^{\rho_i\left(g_t^{US}-y\right)}|i \in I^{US}\right] - e^{\rho_i\left(g_t^{US}-y\right)}E^I\left[\rho_i e^{\rho_i\left(g_t^{US}-y\right)}|i \in I^{US}\right]}{\left(E^I\left[e^{\rho_i\left(g_t^{US}-y\right)}|i \in I^{US}\right]\right)^2} .$$

Therefore,

$$\frac{ds_t^i}{dg_t^{US}} \geq 0$$

iff

$$\rho_i > \frac{E^I\left[\rho_i e^{\rho_i\left(g_t^{US}-y\right)}|i \in I^{US}\right]}{E^I\left[e^{\rho_i\left(g_t^{US}-y\right)}|i \in I^{US}\right]}$$

iff

$$\rho_i > \overline{\rho}\left(\delta_t\right) = E^*\left[\rho_i|g^{US}\left(\delta_t\right)\right] , \tag{A12}$$

where $E^*\left[.|g^{US}\left(\delta_t\right)\right]$ uses the distribution

$$f^*\left(\rho_i|g^{US}\left(\delta_t\right), i \in I^{US}\right) = \frac{f\left(\rho_i|i \in I^{US}\right)e^{\rho_i\left(g^{US}(\delta_t)-y\right)}}{\int f\left(\rho_i|i \in I^{US}\right)e^{\rho_i(g^{US}(\delta_t)-y)}d\rho_i} .$$

The weights $e^{\rho_i\left(g^{US}(\delta_t)-y\right)}$ are increasing in ρ_i when $g^{US}(\delta_t)-y>0$, which is true when output δ_t is large enough. Moreover, as g_t^{US} increases further, the distribution $f^*\left(\rho_i|g^{US}(\delta_t), i\in I^{US}\right)$ assigns increasingly large weights to larger values of ρ_i. That in turn implies that $E^*\left[\rho_i|g^{US}(\delta_t)\right]$ increases as δ_t increases. That is, the fraction of agents who satisfy condition (A12) shrinks as δ_t increases. Q.E.D.

Proof of Proposition 2. We prove the more general statement in Section A3.1. with stochastic F_t. The case $F_t=F=m$, which is presented in the paper, is a special case. First, note that

$$\int_{i\in\mathcal{I}^{US}} C_{it}di > D_t^{US}$$

if and only if

$$s_t^{US}=\frac{\int_{i\in\mathcal{I}^{US}} C_{it}di}{D_t} > \frac{D_t^{US}}{D_t}=F_t$$

Aggregate consumption in the U.S. is

$$\int_{i\in\mathcal{I}^{US}} C_{it}di = m\frac{\mathrm{E}^i\left[e^{\rho_i(g(\delta_t)-y)}|i\in\mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{-\rho y}|i\in\mathcal{I}\right]}$$

Because by market clearing

$$\begin{aligned} D_t &= \int_{i\in\mathcal{I}} C_{it}di = \int_{i\in\mathcal{I}^{US}} C_{it}di + \int_{i\in\mathcal{I}^{RoW}} C_{it}di \\ &= m\frac{\mathrm{E}\left[e^{\rho_i(g-y)}|i\in\mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{-\rho y}|i\in\mathcal{I}\right]} + (1-m)\frac{\mathrm{E}\left[e^{\rho_i(g-y)}|j\in\mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{-\rho y}|i\in\mathcal{I}\right]} \end{aligned}$$

we obtain

$$\begin{aligned} s^{US}(g) &= \frac{\int_{i\in\mathcal{I}^{US}} C_{it}di}{D_t} = \frac{m\,\mathrm{E}\left[e^{\rho_i(g-y)}|i\in\mathcal{I}^{US}\right]}{m\,\mathrm{E}\left[e^{\rho_i(g-y)}|i\in\mathcal{I}^{US}\right]+(1-m)\,\mathrm{E}\left[e^{\rho_i(g-y)}|j\in\mathcal{I}^{RoW}\right]} \\ &= \frac{1}{1+\frac{(1-m)}{m}\frac{\mathrm{E}\left[e^{\rho_i(g-y)}|j\in\mathcal{I}^{RoW}\right]}{\mathrm{E}\left[e^{\rho_i(g-y)}|i\in\mathcal{I}^{US}\right]}} \\ &= F(\delta) \end{aligned}$$

where $F(\delta)$ is in equation (A24). Equation (3) in the paper is

$$R(x)=\frac{\mathrm{E}\left[e^{\rho_j x}|j\in\mathcal{I}^{RoW}\right]}{\mathrm{E}\left[e^{\rho_i x}|i\in\mathcal{I}^{US}\right]}\to 0 \text{ as } x\to\infty$$

Clearly

$$s^{US}(g)=\frac{1}{1+\frac{1-m}{m}R(g-y)}$$

and we know from Lemma 1 that $g(\delta_t) \to \infty$ as $\delta_t \to \infty$. It follows that $s^{US}(g) \to 1$ as $\delta_t \to \infty$. Therefore, if $F_t < F(\delta_t) = s^{US}(g)$, the result follows.

The case $F = m$ is a special case that just requires

$$R(g(\delta_t) - y) = \frac{\mathrm{E}\left[e^{\rho_i(g(\delta_t)-y)} | j \in \mathcal{I}^{RoW}\right]}{\mathrm{E}\left[e^{\rho_i(g(\delta_t)-y)} | i \in \mathcal{I}^{US}\right]} < 1$$

Indeed, if $R(g(\delta_t) - y) = 1$ then $s^{US}(g) = m$ and thus $R(g(\delta_t) - y) < 1$ implies $s(g) > m = F$. Letting $\underline{\delta}$ denote the threshold such that $R(g(\delta_t) - y) < 1$ for all $\delta_t > \underline{\delta}$ (such $\underline{\delta}$ exists from equation (3)), the result follows.

Q.E.D.

Proof of Corollary A1. We can prove Corollary A1 under the following sufficient conditions:

1. Let $\gamma_i < \gamma_j$ (i.e., $\rho_i > \rho_j$) for all $i \in \mathcal{I}^{US}$ and $j \in \mathcal{I}^{RoW}$
2. The probability of a switch to autarky is negligible

Then the proof follows from Veronesi (2018), who considers a single-country setting. From Cox and Huang (1986), the positions in stocks and bonds are, respectively,

$$\begin{aligned} N_{it} &= \frac{\sigma_{Wi} W_{it}}{\sigma_{P_t} P_t} \\ B_{it} &= W_{it}\left(1 - \frac{\sigma_{Wi}}{\sigma_{P_t}}\right) \end{aligned}$$

where σ_{Wi} is the volatility of the stochastic process driving agent i's wealth W_{it} and σ_{P_t} is the volatility of the stock price process. In a one-country model (where the single country can represent the global economy in our model), Veronesi (2018) shows that for all ρ_i and $\rho_j \leq 1$

$$\sigma_{W,i} > \sigma_{W,j} \text{ if and only if } \rho_i > \rho_j$$

The wealth volatilities of U.S. and RoW agents are the wealth-weighted averages of the individual agents' volatilities. Denoting the wealth weights by $\omega_i^k = W_i / \int_{i \in \mathcal{I}^k} W_i di$, the wealth-weighted averages are

$$\begin{aligned} \sigma_{W,US} &= \int_{i \in \mathcal{I}^{US}} \omega_i^{US} \sigma_{W,i} di \\ \sigma_{W,RoW} &= \int_{i \in \mathcal{I}^{RoW}} \omega_i^{RoW} \sigma_{W,i} di \end{aligned}$$

Under the condition $\rho_i > \rho_j$ for $i \in \mathcal{I}^{US}$ and $i \in \mathcal{I}^{RoW}$ we thus have

$$\sigma_{W,US} > \sigma_{W,RoW}$$

The final step is to note that by market clearing we must have

$$P_t = W_t^{US} + W_t^{RoW}$$

and thus the global market volatility is

$$\sigma_P = \frac{W_t^{US}}{W_t^{US} + W_t^{RoW}} \sigma_{W,US} + \frac{W_t^{RoW}}{W_t^{US} + W_t^{RoW}} \sigma_{W,RoW}$$

which implies

$$\sigma_{W,RoW} < \sigma_P < \sigma_{W,US}$$

Thus, $B_t^{US} < 0$ and $B_t^{RoW} > 0$, i.e. U.S. borrows and RoW lends.

Q.E.D.

The conditions used in this corollary are only sufficient and do not appear to be tight. Unfortunately, a generalization appears difficult.

Proof of Corollary A2. We have

$$\frac{W_t^{US}}{P_t} = \frac{W_t^{US}}{W_t^{US} + W_t^{RoW}}$$

where

$$W_t^k = \mathrm{E}_t \left[\int_t^T \frac{\pi_s^k}{\pi_t^k} C_s^k ds \right]$$

and

$$C_s^k = \int_{i \in \mathcal{I}^k} C_{is} di$$

Denote by $\underline{\delta}$ the threshold in Proposition 2 such that $C_s^{US} > D_s^{US}$ for $\delta_s > \underline{\delta}$. Given our assumptions, for every $s > t$ we have $\delta_s|_{\delta_t} \sim N\left(\delta_t + \mu_\delta (s-t), \sigma_\delta^2 (s-t)\right)$. Thus, denoting by $\Phi(x; a, b)$ the cdf of a normal distribution with mean a and variance b, the probability

$$\Pr\left(\delta_s < \underline{\delta} | \delta_t\right) = \Phi\left(\underline{\delta}; \delta_t + \mu_\delta (s-t), \sigma_\delta^2 (s-t)\right) \to 0 \quad \text{as} \quad \delta_t \to \infty.$$

Thus, when δ_t is large enough, then we know that under globalization, $C_s^{US} > D_s^{US}$, while under autarky, $C_s^{US} = D_s^{US}$. In complete markets, the wealth of U.S. and RoW is given by

$$\begin{aligned} W_t^{US} &= \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{US}}{\pi_t^{US}} \left(\int_{i \in \mathcal{I}^{US}} C_{is} di \right) ds \right] = \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{US}}{\pi_t^{US}} \left(C_s^{US} \right) ds \right] \\ W_t^{RoW} &= \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{RoW}}{\pi_t^{RoW}} \left(\int_{i \in \mathcal{I}^{RoW}} C_{is} di \right) ds \right] = \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{RoW}}{\pi_t^{RoW}} \left(C_s^{RoW} \right) ds \right] \end{aligned}$$

When δ_t is sufficiently large, $C_s^{US} \geq D_s^{US}$ for every s with probability (close to) one, and by the same token $C_s^{RoW} \leq D_s^{RoW}$, with strict inequalities under globalization when $\delta_s > \underline{\delta}$. It follows that for δ_t sufficiently large and $t < \tau$:

$$\begin{aligned} W_t^{US} &= \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{US}}{\pi_t^{US}} \left(C_s^{US} \right) ds \right] > \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{US}}{\pi_t^{US}} D_s^{US} ds \right] = P_t^{US} \\ W_t^{RoW} &= \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{RoW}}{\pi_t^{RoW}} \left(C_s^{RoW} \right) ds \right] < \mathrm{E}_t \left[\int_t^T \frac{\pi_s^{RoW}}{\pi_t^{RoW}} D_s^{RoW} ds \right] = P_t^{RoW} \end{aligned}$$

But market clearing also implies that

$$W_t^{US} + W_t^{RoW} = P_t^{US} + P_t^{RoW}$$

It follows

$$\frac{W_t^{US}}{P_t^{US}} > 1 > \frac{W_t^{RoW}}{P_t^{RoW}}$$

Q.E.D.

Lemma 2. (a) For every δ_t,

$$g^{US}\left(\delta_t\right) < g\left(\delta_t\right) < g^{RoW}\left(\delta_t\right)$$

if and only if $F_t = D_t^{US}/D_t$ satisfies

$$F_t < F\left(\delta_t\right) = \left(1 + \frac{\mathrm{E}^i \left[e^{\rho_i (g_t - y)} | i \in \mathcal{I}^{RoW} \right] m^{RoW}}{\mathrm{E}^i \left[e^{\rho_i (g_t - y)} | i \in \mathcal{I}^{US} \right] m^{US}} \right)^{-1}$$

(b) There exists $\underline{\delta}$ such that $F_t < F\left(\delta_t\right)$ is always satisfied for $\delta_t > \underline{\delta}$.

(c) In particular, the above holds for $F = m$.

(d) If $F = m$, then $g\left(\delta\right) = y$ implies $g^{US}\left(\delta\right) = y$ and $g^{RoW}\left(\delta\right) = y$. That is, the three functions $g\left(\delta_t\right)$, $g^{US}\left(\delta_t\right)$ and $g^{RoW}\left(\delta_t\right)$ intersect at $\delta^* = g^{-1}\left(y\right)$.

Proof of Lemma 2.

(a) We first consider the general case with generic F_t and then the special case of $F_t = F = m$. The equilibrium consumption under autarky is the same as under globalization, except that the state price density is

$$\pi_i^k = e^{-\phi t - g^k(\delta_t)}$$

where we retain the aggregate δ_t as the only state variable. In particular

$$C_{it} = e^{\psi_i + \rho_i \left(g^k(\delta_t) - y\right)}$$

where ψ_i and y are determined at time 0 (i.e., they do not change as we move to autarky; complete markets). The equilibrium condition for each country is

$$\begin{aligned}
D_t^k &= \int_{\mathcal{I}^k} C_{it} di = \int_{\mathcal{I}^k} e^{\psi_i + \rho_i \left(g_t^k - y\right)} di = \mathrm{E}^i \left[e^{\psi_i + \rho_i \left(g_t^k - y\right)} | i \in \mathcal{I}^k \right] m_k \\
&= \mathrm{E}^i \left[e^{\psi_i + \rho_i \left(g_t^k - y\right)} | i \in \mathcal{I}^k \right] m_k \\
&= \mathrm{E}^i \left[e^{\psi_i} | i \in \mathcal{I}^k \right] \mathrm{E}^i \left[e^{\rho_i \left(g_t^k - y\right)} | i \in \mathcal{I}^k \right] m_k \\
&= \mathrm{E}^i \left[e^{\psi_i} | i \in \mathcal{I} \right] \mathrm{E}^i \left[e^{\rho_i \left(g_t^k - y\right)} | i \in \mathcal{I}^k \right] m_k \\
&= \frac{\mathrm{E}^i \left[e^{\rho_i \left(g_t^k - y\right)} | i \in \mathcal{I}^k \right] m_k}{\mathrm{E}^i \left[e^{-\rho_i y} | i \in \mathcal{I} \right]}
\end{aligned}$$

where we used the fact that

$$\mathrm{E}^i \left[e^{\psi_i} | i \in \mathcal{I}^k \right] = \mathrm{E}^i \left[e^{\psi_i} | i \in \mathcal{I} \right] = \frac{1}{\mathrm{E}^i \left[e^{-\rho_i y} | i \in \mathcal{I} \right]}$$

as the distribution of ψ_i does not depend on the country. Because

$$D_t^k = F_t^k D_t$$

we have

$$e^{\delta_t} \frac{F_t^k}{m^k} = \frac{\mathrm{E}^i \left[e^{\rho_i \left(g_t^k - y\right)} | i \in \mathcal{I}^k \right]}{\mathrm{E}^i \left[e^{-\rho_i y} | i \in \mathcal{I} \right]} \tag{A13}$$

Recall that market clearing under globalization had

$$e^{\delta_t} = \frac{\mathrm{E}^i \left[e^{\rho_i (g_t - y)} | i \in \mathcal{I} \right]}{\mathrm{E}^i \left[e^{-\rho_i y} | i \in \mathcal{I} \right]}$$

which gives the condition

$$\frac{\mathrm{E}^i \left[e^{\rho_i (g_t - y)} | i \in \mathcal{I} \right]}{\mathrm{E}^i \left[e^{-\rho_i y} | i \in \mathcal{I} \right]} \frac{F_t^k}{m^k} = \frac{\mathrm{E}^i \left[e^{\rho_i \left(g_t^k - y\right)} | i \in \mathcal{I}^k \right]}{\mathrm{E}^i \left[e^{-\rho_i y} | i \in \mathcal{I} \right]}$$

(i) Let $k = US$ for simplicity and rewrite

$$\left(\mathrm{E}^i \left[e^{\rho_i (g_t - y)} | i \in \mathcal{I}^{US} \right] m^{US} + \mathrm{E}^i \left[e^{\rho_i (g_t - y)} | i \in \mathcal{I}^{RoW} \right] m^{RoW} \right) \frac{F_t^{US}}{m^{US}} = \mathrm{E}^i \left[e^{\rho_i \left(g_t^{US} - y\right)} | i \in \mathcal{I}^{US} \right]$$

Divide throughout by $\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{US}\right]$:

$$\left(m^{US}+\frac{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{US}\right]}m^{RoW}\right)\frac{F_t^{US}}{m^{US}}=\frac{\mathrm{E}^i\left[e^{\rho_i\left(g_t^{US}-y\right)}|i\in\mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{US}\right]} \quad \text{(A14)}$$

The right hand side uses the same distribution of ρ_i in both the numerator and the denominator. In addition, $\rho_i>0$. Therefore,

$$g_t^{US}<g_t$$

if and only if

$$\left(m^{US}+\frac{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_j(g_t-y)}|j\in\mathcal{I}^{US}\right]}m^{RoW}\right)\frac{F_t^{US}}{m^{US}}<1$$

that is, if and only if

$$F_t^{US}<F\left(\delta_t\right)=\frac{1}{1+\frac{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]m^{RoW}}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{US}\right]m^{US}}}$$

which is the statement in the Lemma.

(ii) We now show that the same threshold applies for the case $k=RoW$. In this case, from

$$\frac{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}\right]}{\mathrm{E}^i\left[e^{-\rho_i y}|i\in\mathcal{I}\right]}\frac{F_t^{RoW}}{m^{RoW}}=\frac{\mathrm{E}^i\left[e^{\rho_i\left(g_t^{RoW}-y\right)}|i\in\mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{-\rho_i y}|i\in\mathcal{I}\right]}$$

rewrite

$$\left(\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{US}\right]m^{US}+\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]m^{RoW}\right)\frac{F_t^{RoW}}{m^{RoW}}=\mathrm{E}^i\left[e^{\rho_i\left(g_t^{RoW}-y\right)}|i\in\mathcal{I}^{RoW}\right]$$

Divide throughout by $\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]$:

$$\left(\frac{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]}m^{US}+m^{RoW}\right)\frac{F_t^{RoW}}{m^{RoW}}=\frac{\mathrm{E}^i\left[e^{\rho_i\left(g_t^{RoW}-y\right)}|i\in\mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]}$$

The right hand side uses the same distribution over ρ_i in both numerator and denominator. Thus,

$$g_{RoW,t}>g_t$$

if and only if

$$\left(\frac{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i\in\mathcal{I}^{RoW}\right]}m^{US}+m^{RoW}\right)\frac{F_t^{RoW}}{m^{RoW}}>1$$

iff

$$F_t^{RoW} > F^{RoW}(\delta_t) = \frac{1}{1 + \frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right] m^{RoW}}}$$

Turning this around,

$$1 - F_t^{US} > F^{RoW}(\delta_t) = \frac{1}{1 + \frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right] m^{RoW}}}$$

iff

$$1 - \frac{1}{1 + \frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right] m^{RoW}}} > F_t^{US}$$

iff

$$\frac{\frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right] m^{RoW}}}{1 + \frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right] m^{RoW}}} > F_t^{US}$$

iff

$$\frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right] m^{RoW} + \mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}} > F_t^{US}$$

iff

$$\frac{1}{1 + \frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right] m^{RoW}}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right] m^{US}}} = F(\delta_t) > F_t^{US}$$

which the same condition as before.

(b) Note that from the equilibrium condition, we also have $g(\delta_t) \to \infty$ as $\delta_t \to \infty$. Thus, from equation (3), as $g(\delta_t) \to \infty$ we have $\frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_j(g_t - y)}|j \in \mathcal{I}^{US}\right]} \to 0$. Thus, in the limit,

$$F(\delta_t) \to 1$$

Hence, for every F_t^{US} there is δ_t sufficiently large such that $F_t^{US} < F(\delta_t)$ and hence $g_t^{US} < g_t$. Vice versa, for every δ_t, there is $F_t^{US} < F(\delta_t)$ such that $g_t^{US} < g_t$.

(c) In the case $F = m$, the condition required is simply

$$R(g(\delta_t) - y) = \frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}^{US}\right]} < 1$$

which in turn implies

$$F(\delta_t) > m = F^{US}$$

(d) In the case $F = m$, condition (A13) is

$$\begin{aligned} e^{\delta_t} &= \frac{\mathrm{E}^i\left[e^{\rho_i(g_t - y)}|i \in \mathcal{I}\right]}{\mathrm{E}^i\left[e^{-\rho_i y}|i \in \mathcal{I}\right]} \\ e^{\delta_t} &= \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_t^{US} - y\right)}|i \in \mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{-\rho_i y}|i \in \mathcal{I}\right]} \\ e^{\delta_t} &= \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_t^{RoW} - y\right)}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{-\rho_i y}|i \in \mathcal{I}\right]} \end{aligned}$$

If $\delta_t = \underline{\delta} = -\log\left(\mathrm{E}^i\left[e^{-\rho_i y}|i \in \mathcal{I}\right]\right)$, then the equations become

$$\begin{aligned} 1 &= \mathrm{E}^i\left[e^{\rho_i(g(\underline{\delta}) - y)}|i \in \mathcal{I}\right] \\ 1 &= \mathrm{E}^i\left[e^{\rho_i\left(g^{US}(\underline{\delta}) - y\right)}|i \in \mathcal{I}^{US}\right] \\ 1 &= \mathrm{E}^i\left[e^{\rho_i\left(g^{RoW}(\underline{\delta}) - y\right)}|i \in \mathcal{I}^{RoW}\right] \end{aligned}$$

The function $G(x) = \mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^k\right]$ is monotonically increasing in x (as $G'(x) = \mathrm{E}^i\left[\rho_i e^{\rho_i x}|i \in \mathcal{I}^k\right] > 0$). Thus, the unique solutions are

$$g\left(\underline{\delta}\right) - y = g^{US}\left(\underline{\delta}\right) - y = g^{RoW}\left(\underline{\delta}\right) - y = 0$$

That is, the equations all intersect at the same $\underline{\delta}$. Q.E.D.

Lemma 2 implies that for every δ_t, either

$$g^{US}\left(\delta_t\right) < g\left(\delta_t\right) < g^{RoW}\left(\delta_t\right)$$

or

$$g^{US}\left(\delta_t\right) > g\left(\delta_t\right) > g^{RoW}\left(\delta_t\right)$$

That is, the global $g\left(\delta_t\right)$ is always between the U.S. and RoW.

Proof of Proposition 3. We have already shown in Lemma 2 that for every δ_t we either have

$$g_{US}\left(\delta\right) < g\left(\delta\right) < g_{RoW}\left(\delta\right)$$

or

$$g_{US}\left(\delta\right) > g\left(\delta\right) > g_{RoW}\left(\delta\right)$$

Moreover, under the additional constraint that $F = m$, all these functions intersect at y.

Consider now inequality under autarky. The formula is the same as before:

$$V_t^k = \frac{\mathrm{E}\left[e^{2\psi_i}|i \in \mathcal{I}^k\right]}{\mathrm{E}\left[e^{\psi_i}|i \in \mathcal{I}^k\right]^2} \frac{\mathrm{E}\left[e^{2\rho_i\left(g^k(\delta_t)-y\right)}|i \in \mathcal{I}^k\right]}{\mathrm{E}\left[e^{\rho_i\left(g^k(\delta_t)-y\right)}|i \in \mathcal{I}^k\right]^2}$$

We already know that

$$\frac{\partial V^k}{\partial g} > 0$$

holds if and only if $g^k(\delta) - y > 0$. Because all functions intersect at y for $F = y$, we only have two possible cases:

1. $0 < g_{US}(\delta) - y < g(\delta) - y$. Then $V_t^{US}(x)$ is increasing and thus $V_t^{US}\left[g^{US}\right] < V_t^{US}[g]$
2. $0 > g_{US}(\delta) - y > g(\delta) - y$. Then $V_t^{US}(x)$ is decreasing and hence $V_t^{US}\left[g^{US}\right] < V_t^{US}[g]$

which proves the claim for the U.S. The proof for RoW is analogous.

Q.E.D.

Proof of Proposition 4. Consider the intertemporal utility of agent i in US at time τ:

$$\begin{aligned}
\mathrm{E}_\tau\left[\int_\tau^T U_i\left(C_{it}, V_t^{US}, t\right) ds|G\right] &= \mathrm{E}_\tau\left[\int_\tau^T e^{-\phi(t-\tau)}\left(\frac{C_{it}^{1-\gamma_i}}{1-\gamma_i} - \eta_i V^{US}\left[g\left(\delta_t\right) - y\right]\right) dt\right] \\
&= \mathrm{E}_\tau\left[\int_\tau^T e^{-\phi(t-\tau)}\left(\frac{e^{(1-\gamma_i)\psi_i + (1-\gamma_i)\rho_i(g(\delta_t)-y)}}{1-\gamma_i} - \eta_i V^{US}\left[g\left(\delta_t\right) - y\right]\right) dt\right]
\end{aligned}$$

where we now highlight that the function V_t^{US} depends on $V^{US}\left[g\left(\delta_t\right) - y\right]$. Similarly

$$\mathrm{E}_\tau\left[\int_\tau^T U_i\left(C_{it}, V_t^{US}, t\right) ds|A\right] = \mathrm{E}_\tau\left[\int_\tau^T e^{-\phi(t-\tau)}\left(\frac{e^{(1-\gamma_i)\psi_i + (1-\gamma_i)\rho_i\left(g^{US}(\delta_t)-y\right)}}{1-\gamma_i} - \eta_i V^{US}\left[g^{US}\left(\delta_t\right) - y\right]\right) dt\right]$$

Define

$$u[x] = \frac{e^{(1-\gamma_i)\psi_i + (1-\gamma_i)\rho_i x}}{1-\gamma_i} - \eta_i V^{US}[x]$$

We note that

$$u'(x) < 0$$

if and only if

$$e^{(1-\gamma_i)\psi_i + (\rho_i - 1)x}\rho_i < \eta_i \frac{dV^{US}[x]}{dx}$$

For $\eta_i = 0$ this condition is never satisfied. For $\eta_i > 0$, rewrite

$$\frac{e^{(1-\gamma_i)\psi_i+(\rho_i-1)x}\rho_i}{\eta_i} < \frac{dV^{US}[x]}{dx}$$

The right hand side does not depend on x, but it is bounded below, as $V^{US}[x]$ converges to infinity. It follows that as $x \to \infty$, for all i the left hand side converges to 0 and thus for every i (with $\eta_i > 0$) eventually $u'(x) < 0$ for all $x > x^i$. It follows that for $g(\delta_t) - y$ sufficiently high, a jump to $g^{US}(\delta_t) - y < g(\delta_t) - y$ will always increase the utility function. This is especially true for those agents with high η_i and low ρ_i. If this is true for all δ_t sufficiently high, it must be true for the expectation of future values:

$$\begin{aligned}
\mathrm{E}_\tau\left[\int_\tau^T U_i\left(C_{it}, V_t^{US}, t\right) ds|A\right] &= \mathrm{E}_\tau\left[\int_\tau^T e^{-\phi(t-\tau)}\left(u\left[g^{US}(\delta_t) - y\right]\right) dt\right] \\
&> \mathrm{E}_\tau\left[\int_\tau^T e^{-\phi(t-\tau)}\left(u\left[g(\delta_t) - y\right]\right) dt\right] = \mathrm{E}_\tau\left[\int_\tau^T U_i\left(C_{it}, V_t^{US}, t\right) ds|G\right]
\end{aligned}$$

Q.E.D.

Proof of Corollary 3. From the proof of Proposition 4, if $\eta_i = 0$ then $u'(x) < 0$ is never true. Q.E.D.

Proof of Proposition 5. From the proof of Proposition 4, for every i there exists $\overline{\delta}^i$ such that for $\delta_t > \delta^i$ agent i votes for the populist. Given a mass of agents with η_i above zero, rank agents i in ordering i^* according to increasing thresholds $\overline{\delta}^i$, i.e. $i^* > j^*$ if and only if $\overline{\delta}^{i^*} > \overline{\delta}^{j^*}$ and choose $\overline{\delta} = \min\left(\overline{\delta}^{i^*} : \int_{i^*} di^* = 0.5\right)$. Q.E.D.

Proof of Proposition 6. The proof is implicit in the Proof of Proposition 4. To repeat, recall that $u'[x] < 0$ if and only if

$$\frac{e^{\left(1-\frac{1}{\rho_i}\right)\psi_i+(\rho_i-1)x}\rho_i}{\eta_i} < \frac{dV^{US}[x]}{dx} \tag{A15}$$

Clearly, the left hand side is decreasing in η_i . Moreover, the log left hand side of this expression

$$\log(LHS(\rho)) = \left(1 - \frac{1}{\rho_i}\right)\psi_i + (\rho_i - 1)x + \log(\rho_i) - \log(\eta_i)$$

has

$$\frac{d\log(LHS(\rho))}{d\rho} = \frac{\psi_i}{\rho_i^2} + x + \frac{1}{\rho_i} > 0$$

for $x > -\frac{1}{\rho_i}\left(\frac{\psi_i}{\rho_i} + 1\right)$, which is always true for $\psi_i > -\rho_i$. Therefore, for x large enough, the LHS of (A15) is increasing in ρ_i making it less likely to be satisfied. I.e. agents with low risk tolerance (high risk aversion) are more likely to have (A15) satisfied and hence to vote for a populist. Q.E.D.

Proof of Proposition 7. Immediate from the paragraph following its claim. Q.E.D.

Proof of Proposition 8. Immediate from complete markets, under standard regularity conditions on $\mathrm{T}_i(\delta_t)$ that ensure the existence of the expectation. Q.E.D.

Proof of Corollary 4. It follows from Proposition 8 and Proposition 5. Q.E.D.

Proof of Equation (32) in the paper : Under equation (3)

$$\begin{aligned}\left(g^{US}(\delta_t)\right)' &< \left(g^{RoW}(\delta_t)\right)' \\ (g(\delta_t))' &< \left(g^{RoW}(\delta_t)\right)'\end{aligned}$$

The equations determining $g^{US}(\delta_s)$ and $g^{RoW}(\delta_s)$ are

$$\left(m^{US} + R(g_t - y)\, m^{RoW}\right)\frac{F_t^{US}}{m^{US}} = \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{US,t}-y\right)}|i \in \mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{US}\right]}$$

and

$$\left(\frac{1}{R(g_t - y)}m^{US} + m^{RoW}\right)\frac{F_t^{RoW}}{m^{RoW}} = \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{RoW,t}-y\right)}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{RoW}\right]}$$

where

$$\begin{aligned}R(x) &= \frac{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{US}\right]} \\ \frac{1}{R(x)} &= \frac{1}{\frac{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{US}\right]}} = \frac{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{RoW}\right]}\end{aligned}$$

As $g_t - y \to \infty$, then

$$\begin{aligned}\frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{US,t}-y\right)}|i \in \mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{US}\right]} &\to F_t \\ \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{RoW,t}-y\right)}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{RoW}\right]} &\to \infty\end{aligned}$$

This implies that $g_{RoW}(\delta_t)$ must increase unboundedly compared to both $g(\delta_t)$ and $g^{US}(\delta_t)$ and thus both $g^{RoW}(\delta_t) - g(\delta_t)$ and $g^{RoW}(\delta_t) - g^{US}(\delta_t)$ must increases unboundedly. It follows that for δ_t sufficiently large,

$$\begin{aligned}\left(g^{RoW}(\delta_t)\right)' &> (g(\delta_t))' \\ \left(g^{RoW}(\delta_t)\right)' &> \left(g^{US}(\delta_t)\right)'\end{aligned}$$

The final case

$$\left(g\left(\delta_t\right)\right)' > \left(g^{US}\left(\delta_t\right)\right)'$$

is unfortunately too hard to prove under the general condition in equation (3). But we can prove it under the more restrictive condition in equation (4). In this case, in autarky we have (for $t \geq \tau$ recall $F_t = F_\tau$)

$$\begin{aligned} D_t^k &= m^k \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]}{\mathrm{E}^i\left[e^{-\rho_i y} | i \in \mathcal{I}\right]} \\ e^{\delta_t} F_\tau^k &= m^k \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]}{\mathrm{E}^i\left[e^{-\rho_i y} | i \in \mathcal{I}\right]} \end{aligned}$$

or

$$\delta_t + \log\left(\frac{F_\tau^k}{m^k}\right) = \log\left(\mathrm{E}^i\left[e^{\rho\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]\right) - \log\left(\mathrm{E}^i\left[e^{-\rho_i y} | i \in \mathcal{I}\right]\right)$$

Thus, the total differential is

$$1 = g_k'\left(\delta_t\right) \frac{\mathrm{E}^i\left[\rho e^{\rho\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]}{\mathrm{E}^i\left[e^{\rho\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]}$$

or

$$g_k' = \frac{1}{\mathrm{E}_k^*\left[\rho\right]}$$

where

$$\mathrm{E}_k^*\left[\rho\right] = \frac{\mathrm{E}^i\left[\rho e^{\rho\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]}{\mathrm{E}^i\left[e^{\rho\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]}$$

is the weighted average risk tolerance, where the weights are given by $\left(\frac{e^{\rho\left(g_t^k - y\right)}}{\mathrm{E}^i\left[e^{\rho\left(g_t^k - y\right)} | i \in \mathcal{I}^k\right]}\right)$.

Under equation (4) in the paper, namely, $\rho_i > \rho_j$ for $i \in \mathcal{I}^{US}$, $j \in \mathcal{I}^{RoW}$, we clearly have

$$\mathrm{E}_{US}^*\left[\rho\right] > \mathrm{E}^*\left[\rho\right] > \mathrm{E}_{RoW}^*\left[\rho\right]$$

which implies the claim. Q.E.D.

Proof of Proposition 9. Follows instantly from the two equations immediately preceding it in the paper.

Proof of Proposition 10. Note that $\frac{P_t^{US}}{P_t^{RoW}+P_t^{US}}$ increases if and only if $\frac{P_t^{US}}{P_t^{RoW}}$ increases. Consider the ratio

$$\frac{P_t^{US}}{P_t^{RoW}} = \frac{\mathrm{E}_t\left[\int_t^T \frac{\pi_s^{US}}{\pi_t} D_s^{US} ds\right]}{\mathrm{E}_t\left[\int_t^T \frac{\pi_s^{RoW}}{\pi_t} D_s^{RoW} ds\right]} = \frac{F}{1-F}\frac{\mathrm{E}_t\left[\int_t^T \pi_s^{US} D_s ds\right]}{\mathrm{E}_t\left[\int_t^T \pi_s^{RoW} D_s ds\right]}$$

where $\pi_s^{US} = \pi_s^{RoW} = \pi_s$ if $s < \tau$ or $s > \tau$ and $\delta_\tau > \overline{\delta}$.

We know that for δ_s sufficiently large $g^{US}(\delta_s) \leq g^{RoW}(\delta_s)$ and therefore $\pi_s^{US} = e^{-\phi s - g^{US}(\delta_s)} \geq \pi_s^{RoW} = e^{-\phi s - g^{RoW}(\delta_s)}$. It follows that

$$\frac{P_t^{US}}{P_t^{RoW}} > \frac{F}{1-F}$$

Finally, the equations determining $g^{US}(\delta_s)$ and $g^{RoW}(\delta_s)$ are

$$\left(m^{US} + R(g_t - y)\, m^{RoW}\right)\frac{F_t^{US}}{m^{US}} = \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{US,t}-y\right)}|i \in \mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{US}\right]}$$

and

$$\left(\frac{1}{R(g_t-y)}m^{US} + m^{RoW}\right)\frac{F_t^{RoW}}{m^{RoW}} = \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{RoW,t}-y\right)}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{RoW}\right]}$$

where

$$\begin{aligned} R(x) &= \frac{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{US}\right]} \\ \frac{1}{R(x)} &= \frac{1}{\frac{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{US}\right]}} = \frac{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i x}|i \in \mathcal{I}^{RoW}\right]} \end{aligned}$$

As $g_t - y \to \infty$, then

$$\begin{aligned} \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{US,t}-y\right)}|i \in \mathcal{I}^{US}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{US}\right]} &\to F_t \\ \frac{\mathrm{E}^i\left[e^{\rho_i\left(g_{RoW,t}-y\right)}|i \in \mathcal{I}^{RoW}\right]}{\mathrm{E}^i\left[e^{\rho_i(g_t-y)}|i \in \mathcal{I}^{RoW}\right]} &\to \infty \end{aligned}$$

This implies that $g_{RoW}(\delta_t)$ must increase unboundedly compared to $g^{US}(\delta_t)$ and thus $g^{US}(\delta_t) - g^{RoW}(\delta_t)$ also increases unboundedly. It follows that $\frac{P_t^{US}}{P_t^{RoW}}$ increases as well as δ_t increases. Q.E.D.

PROOFS OF THE RESULTS FOR INCOME TAXES (see Section A1.2. of this Appendix)

Proof of Proposition A1. First, consider an equivalent expression for the budget constraint using after-tax returns:

$$dW_{it} = N_{it}\left(dP_t^* + D_t^* dt\right) + B_{it} r_t^* dt + ds_t^k - C_{it} dt \ ,$$

where we define

$$\begin{aligned} dP_t^* + D_t^* dt &\equiv (1-\tau_{P,t})\left(dP_t + D_t dt\right) \\ r_t^* &\equiv (1-\tau_{r,t})\, r_t \end{aligned}$$

and rewrite

$$ds_t^k = \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})}\left(dP_t^* + D_t^* dt\right) + \overline{B}_t^k \frac{\tau_{r,t}}{(1-\tau_{r,t})} r_t^* dt \ .$$

We can then define the stochastic discount factor using after-tax returns:

$$\frac{d\pi_t^*}{\pi_t^*} = -r_t^* dt - \sigma_\pi^* dZ_t \ ,$$

where

$$\sigma_\pi^* = \frac{\mu_P(1-\tau_{P,t}) - r_t(1-\tau_{r,t})}{\sigma_P(1-\tau_{P,t})} \ .$$

For notational convenience, we denote after-tax expected dollar return and volatility by

$$\begin{aligned} \mu_P^{\$} &= E_t\left[dP_t^* + D_t^* dt\right] = (1-\tau_{P,t})\,\mu_P P_t \\ \sigma_P^{\$} &= \sqrt{E\left[\left(dP_t^* + D_t^* dt\right)^2\right]} = (1-\tau_{P,t})\,\sigma_P P_t \ . \end{aligned}$$

We now show that agent i's wealth at time t is equal to

$$W_{it} = E_t\left[\int_t^T \frac{\pi_s^*}{\pi_t^*} C_{is} ds\right] \ ,$$

for any consumption path C_{is} satisfying the budget constraint. That is, there exists a replicating strategy that delivers consumption C_{is} as its outcome. From the budget equation, we have

$$\begin{aligned} dW_{it} &= N_{it}\left(dP_t^* + D_t^* dt\right) + B_{it} r_t^* dt + \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})}\left(dP_t^* + D_t^* dt\right) + \overline{B}_t^k \frac{\tau_{r,t}}{(1-\tau_{r,t})} r_t^* dt - C_{it} \\ &= \left[N_{it} + \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})}\right] \mu_P^{\$} dt \\ &\quad + \left[N_{it} + \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})}\right] \sigma_P^{\$} dZ_t + \left[B_{it} + \overline{B}_t^k \frac{\tau_{r,t}}{(1-\tau_{r,t})}\right] r_t^* dt - C_{it} \ . \end{aligned}$$

Define V_{it} as

$$V_{it} = E_t\left[\int_t^T \frac{\pi_s^*}{\pi_t^*} C_{is} ds\right] = \frac{1}{\pi_t^*}\left\{E_t\left[\int_0^T \pi_s^* C_{is} ds\right] - \int_0^t \pi_s^* C_{is} ds\right\} .$$

It follows from the martingale representation theorem that there exists a process $\widetilde{\eta}_{it}$ for which

$$\begin{aligned} dV_{it} &= (\pi_t^*)^{-1}\left\{\widetilde{\eta}_{it} dZ_t - \pi_t^* C_{it} dt\right\} - (\pi_t^*)^{-2} d\pi_t^*\left\{E_t\left[\int_0^T \pi_s^* C_{is} ds\right] - \int_0^t \pi_s^* C_{is} ds\right\} \\ &\quad + (\pi_t^*)^{-3} d\pi_t^2\left\{E_t\left[\int_0^T \pi_s^* C_{is} ds\right] - \int_0^t \pi_s^* C_{is} ds\right\} + (\pi_t^*)^{-2}\pi_t^*\sigma_\pi^*\widetilde{\eta}_{it} dt \end{aligned}$$

That is,

$$dV_{it} = (\pi_t^*)^{-1}\left\{\widetilde{\eta}_{it} dZ_t - \pi_t^* C_{it} dt\right\} - \frac{d\pi_t^*}{\pi_t^*} V_{it} + (\sigma_\pi^*)^2 V_{it} + (\pi_t^*)^{-1}\sigma_\pi^*\widetilde{\eta}_{it} dt$$

or

$$dV_{it} = \eta_{it} V_{it} dZ_t - C_{it} dt + r_t^* V_{it} dt + V_{it}\sigma_\pi^* dZ_t + (\sigma_\pi^*)^2 V_t dt + \sigma_\pi^*\eta_t V_t dt$$

where

$$\eta_{it} = \widetilde{\eta}_{it}\frac{1}{\pi_t^* V_{it}}$$

or

$$dV_{it} = -C_{it} dt + r_t^* V_{it} dt + V_{it}\left(\sigma_\pi^* + \eta_{it}\right) dZ_t + V_{it}\left(\sigma_\pi^* + \eta_{it}\right)\sigma_\pi^* dt$$

For given values of $\overline{N}_t^k$ and $\overline{B}_t^k$, we choose N_{it} and B_{it} so that

$$\left[N_{it} + \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})}\right]\sigma_P^\$ = V_{it}\left(\sigma_\pi^* + \eta_{it}\right) \tag{A16}$$

$$\left[N_{it} + \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})}\right]\mu_P^\$ + \left[B_{it} + \overline{B}_t^k \frac{\tau_{r,t}}{(1-\tau_{r,t})}\right] r_t^* = V_{it}\left[r_t^* + \left(\sigma_\pi^* + \eta_{it}\right)\sigma_\pi^*\right] \tag{A17}$$

From equation (A16),

$$N_{it} + \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})} = \frac{V_{it}\left(\sigma_\pi^* + \eta_{it}\right)}{\sigma_P^\$}$$

Substituting this expression into equation (A17), we obtain

$$\frac{V_{it}\left(\sigma_\pi^* + \eta_{it}\right)}{\sigma_P^\$}\mu_P^\$ + \left[B_{it} + \overline{B}_t^k \frac{\tau_{r,t}}{(1-\tau_{r,t})}\right] r_t^* = V_{it}\left[r_t^* + \left(\sigma_\pi^* + \eta_{it}\right)\sigma_\pi^*\right] ,$$

which we can rewrite as

$$\left[B_{it} + \overline{B}_t^k \frac{\tau_{r,t}}{(1-\tau_{r,t})}\right] r_t^* = V_{it}\left[r_t^* + \left(\sigma_\pi^* + \eta_{it}\right)\sigma_\pi^*\right] - \frac{V_{it}\left(\sigma_\pi^* + \eta_{it}\right)}{\sigma_P^\$}\mu_P^\$$$

From the equilibrium condition of the SDF, the after-tax equity premium must be equal to the negative covariance of the SDF with the after-tax stock return, which immediately implies

$$\mu_P^\$ = r_t^* P_t + \sigma_\pi^*\sigma_P^\$$$

and therefore

$$\left[B_{it}+\overline{B}_t^k\frac{\tau_{r,t}}{(1-\tau_{r,t})}\right]r_t^*=V_{it}\left[r_t^*+\left(\sigma_\pi^*+\eta_{it}\right)\sigma_\pi^*\right]-\frac{V_{it}\left(\sigma_\pi^*+\eta_{it}\right)}{\sigma_P^\$}\left[r_t^*P_t+\sigma_\pi^*\sigma_P^\$\right]$$

or

$$\left[B_{it}+\overline{B}_t^k\frac{\tau_{r,t}}{(1-\tau_{r,t})}\right]r_t^*=V_{it}r_t^*+V_{it}\left(\sigma_\pi^*+\eta_{it}\right)\sigma_\pi^*-\frac{V_{it}\left(\sigma_\pi^*+\eta_{it}\right)}{\sigma_P^\$}r_t^*P_t-\frac{V_{it}\left(\sigma_\pi^*+\eta_{it}\right)}{\sigma_P^\$}\sigma_\pi^*\sigma_P^\$$$

or

$$\begin{aligned}\left[B_{it}+\overline{B}_t^k\frac{\tau_{r,t}}{(1-\tau_{r,t})}\right]r_t^* &= V_{it}r_t^*-\frac{V_{it}\left(\sigma_\pi^*+\eta_{it}\right)}{\sigma_P^\$}r_t^*P_t\\ B_{it}+\overline{B}_t^k\frac{\tau_{r,t}}{(1-\tau_{r,t})} &= V_{it}-\frac{V_{it}\left(\sigma_\pi^*+\eta_{it}\right)}{\sigma_P(1-\tau_{P,t})}\\ B_{it}+\overline{B}_t^k\frac{\tau_{r,t}}{(1-\tau_{r,t})} &= V_{it}\left(1-\frac{\sigma_{V_i}}{\sigma_P(1-\tau_{P,t})}\right),\end{aligned}$$

where $\sigma_{Vi}\equiv\sigma_\pi^*+\eta_{it}$. Therefore, the following positions in stocks and bonds are budget-feasible, and they replicate the consumption flow of agent i:

$$N_{it} = \frac{V_{it}\sigma_{Vi}}{\sigma_P P_t(1-\tau_{P,t})}-\overline{N}_t^k\frac{\tau_{P,t}}{(1-\tau_{P,t})} \tag{A18}$$

$$B_{it} = V_{it}\left[1-\frac{\sigma_{Vi}}{\sigma_P(1-\tau_{P,t})}\right]-\overline{B}_t^k\frac{\tau_{r,t}}{(1-\tau_{r,t})} \tag{A19}$$

We now solve for $\overline{N}_t^k$ and $\overline{B}_t^k$, which are defined earlier as

$$\overline{N}_t^k=\frac{\int_{j\in I^k}N_{jt}dj}{m^k}\quad\text{and}\quad\overline{B}_t^k=\frac{\int_{j\in I^k}B_{jt}dj}{m^k}.$$

Computing averages of both sides of N_{it} and B_{it} in equations (A18) and (A19), we obtain

$$\begin{aligned}\overline{N}_t^k &= \frac{\frac{1}{m^k}\int_{i\in I^k}V_{it}\sigma_{Vi}di}{\sigma_P P_t(1-\tau_{P,t})}-\overline{N}_t^k\frac{\tau_{P,t}}{(1-\tau_{P,t})}\\ \overline{B}_t^k &= \frac{1}{m^k}\int_{i\in I^k}V_{it}di-\frac{\frac{1}{m^k}\int_{i\in I^k}V_i\sigma_{Vi}di}{\sigma_P(1-\tau_{P,t})}-\overline{B}_t^k\frac{\tau_{r,t}}{(1-\tau_{r,t})}.\end{aligned}$$

Solving for $\overline{N}_t^k$ and $\overline{B}_t^k$, we find

$$\begin{aligned}\overline{N}_t^k &= \frac{\frac{1}{m^k}\int_{i\in I^k}V_{it}\sigma_{Vi}di}{\sigma_P P_t}\\ \overline{B}_t^k &= (1-\tau_{r,t})\left[\frac{1}{m^k}\int_{i\in I^k}V_{it}di-\frac{\frac{1}{m^k}\int_{i\in I^k}V_i\sigma_{Vi}di}{\sigma_P(1-\tau_{P,t})}\right].\end{aligned}$$

Therefore, the positions in stocks and bonds are

$$\begin{aligned} N_{it} &= \frac{V_{it}\sigma_{Vi} - \frac{\tau_{P,t}}{m^k}\int_{j\in I^k} V_{jt}\sigma_{Vj}dj}{\sigma_P P_t(1-\tau_{P,t})} \\ B_{it} &= V_{it} - \frac{\tau_{r,t}}{m^k}\int_{j\in I^k} V_{jt}dj - \frac{V_{it}\sigma_{Vi} - \frac{\tau_{r,t}}{m^k}\int_{j\in I^k} V_j\sigma_{Vj}dj}{\sigma_P(1-\tau_{P,t})} \ . \end{aligned}$$

Finally, from equation (A16) and the definition of $\sigma_{Vi} = \sigma_\pi^* + \eta_{it}$, we have that for every i,

$$\left[N_{it} + \overline{N}_t^k \frac{\tau_{P,t}}{(1-\tau_{P,t})}\right]\sigma_P^{\$} = V_{it}\sigma_{Vi} \ .$$

Next, we integrate across i on both sides of this equation. Noting that $\int N_{it}di = m^{US}\overline{N}^{US} + m^{RoW}\overline{N}^{RoW}$, we obtain

$$\left[\int N_{it}di + \int N_t di \frac{\tau_{P,t}}{(1-\tau_{P,t})}\right]\sigma_P^{\$} = \int V_{it}\sigma_{Vi}di \ .$$

Imposing market clearing $\int N_{it}di = 1$, we obtain the restriction

$$\left[1 + \frac{\tau_{P,t}}{(1-\tau_{P,t})}\right]\sigma_P^{\$} = \int V_{it}\sigma_{Vi}di$$

or

$$\frac{1}{(1-\tau_{P,t})}\sigma_P P_t(1-\tau_{P,t}) = \int V_{it}\sigma_{Vi}di$$

or

$$\sigma_P P_t = \int V_{it}\sigma_{Vi}di \ . \tag{A20}$$

Similarly, from equation (A17), we have

$$B_{it} + \overline{B}_t^k \frac{\tau_{r,t}}{(1-\tau_{r,t})} = V_{it}\left[1 - \frac{\sigma_{Vi}}{\sigma_P(1-\tau_{P,t})}\right] \ .$$

Taking the integral on both sides and recognizing that $\int B_{it}di = m^{US}\overline{B}_t^{US} + m^{RoW}\overline{B}_t^{RoW}$, we obtain

$$\int B_{it}di + \int B_{it}di\frac{\tau_{r,t}}{(1-\tau_{r,t})} = \int V_{it}di - \frac{\int V_i\sigma_{Vi}di}{\sigma_P(1-\tau_{P,t})}$$

and from market clearing $\int B_{it}di = 0$ we obtain the restriction

$$0 = \int V_{it}di - \frac{\int V_i\sigma_{Vi}di}{\sigma_P(1-\tau_{P,t})} \ . \tag{A21}$$

Equations (A20) and (A21) imply that market clearing holds (by construction, given that we used market clearing to obtain these restrictions):

$$\begin{aligned}
\int N_{it} di &= \frac{\int V_{it}\sigma_{Vi} di - \tau_{P,t}\int V_{jt}\sigma_{Vj} dj}{\sigma_P P(1-\tau_{P,t})} = \frac{\sigma_P P_t - \tau_{P,t}\sigma_P P_t}{\sigma_P P_t\,(1-\tau_{P,t})} = 1 \\
\int B_{it} di &= \int V_{it} di - \tau_{r,t}\int V_{jt} dj - \frac{\int V_{it}\sigma_{Vi} di - \tau_{r,t}\int V_j \sigma_{Vj} dj}{\sigma_P(1-\tau_{P,t})} \\
&= \int V_{it} di\,(1-\tau_{r,t}) - \frac{\int V_{it}\sigma_{Vi} di\,(1-\tau_r)}{\sigma_P(1-\tau_{P,t})} \\
&= \left(\int V_{it} di - \frac{\int V_{it}\sigma_{Vi} di}{\sigma_P(1-\tau_{P,t})}\right)(1-\tau_r) \\
&= 0\,.
\end{aligned}$$

Finally, agent i's wealth at time 0 is given by

$$W_{i0} = E_0\left[\int_0^T \pi_t^* C_{it} dt\right] = w_{i0} + s_0^k\,,$$

where w_{i0} is the financial endowment at time 0. The Lagrangean is thus

$$L = E\left[\int_0^T e^{-\phi t}\left(\frac{C_{it}^{1-\gamma_i}}{1-\gamma_i} - \eta_i V_t^k\right) dt\right] - \xi_i\left(E\left[\int_0^T \pi_t^* C_{it} dt\right] - \left(w_{i0} + s_0^k\right)\right)$$

obtaining the first-order conditions

$$e^{-\phi t} C_{it}^{-\gamma_i} = \xi_i \pi_t^*$$

and hence

$$C_{it} = e^{-\rho_i \log(\xi_i) + \rho_i g^*(\delta_t)}$$

where

$$g^*(\delta_t) = -\phi t - \log(\pi_t^*)\ .$$

Substituting the consumption, we obtain the initial wealth restriction that determines the Lagrange multipliers

$$e^{-\rho_i \log(\xi_i)} E_0\left[\int_0^T e^{-\phi t - g^*(\delta_t) + \rho_i g^*(\delta_t)} dt\right] = w_{i0} + s_0^k$$

Finally, market clearing pins down $g^*(\delta_t)$ as the solution to the following equation:

$$D_t = \int C_{it} di = \int e^{-\rho_i \log(\xi_i) + \rho_i g^*(\delta_t)} di = E^{\mathcal{I}}\left[e^{-\rho_i \log(\xi_i) + \rho_i g^*(\delta_t)}\right]\ .$$

This is the same market-clearing condition as in the no-tax case examined in the paper. It follows that the state price density in the economy with taxes is the same as its counterpart in the economy

without taxes, except for the Pareto weights ξ_i, which depend on the initial distribution $w_{i0} + s_0^k$. It follows that consumption paths are also the same in both economies. Q.E.D.

Proof of Proposition A2. The dynamic budget constraint is

$$dW_{it} = N_{it}\left(1 - \tau_{P,i,t}\right)\left(dP_t + D_t dt\right) + B_{it}\left(1 - \tau_{r,i,t}\right) r_t dt + ds_t^k - C_{it} dt \ ,$$

where

$$ds_t^k = \frac{1}{m^k}\int \left[N_{jt}\tau_{Pjt}\left(dP_t + D_t dt\right) + B_{jt}\tau_{r,j,t} r_t dt\right] dj \ .$$

This is equivalent to agent i having access to stock and bond investments with returns

$$\begin{aligned} dP_{it} + D_{it}dt &= \left(1 - \tau_{P,i,t}\right)\left(dP_t + D_t dt\right) \\ r_{it} &= \left(1 - \tau_{r,i,t}\right) r_t \end{aligned}$$

and being endowed with a security that pays the stochastic flow ds_t^k over time. We denote by s_t^k the value of such a security. The budget constraint is

$$dW_{it} = N_{it}\left(dP_{it} + D_{it}dt\right) + B_{it} r_{it} dt + ds_t^k - C_{it} dt \ .$$

Define the state price density for agent i as

$$\frac{d\pi_{it}}{\pi_{it}} = -r_{it}dt - v_{it}dZ_t \ ,$$

where the market price of risk is

$$v_{it} = \frac{\mu_{it} - r_{it}}{\sigma_{it}} = \frac{\mu_P\left(1 - \tau_{P,it}\right) - r_t\left(1 - \tau_{rit}\right)}{\sigma_P\left(1 - \tau_{P,it}\right)} \ .$$

From equation (A7), all agents have the same market price of risk:

$$v_{it} = v_t = \frac{\mu_P - r_t}{\sigma_P} \ .$$

Standard results imply that the dynamic budget constraint for agent i can be equivalently written in its static form as

$$w_{i0} + s_0^k = E_0\left[\int_0^T \pi_{is} C_{is} ds\right] \ ,$$

where we use the agent-specific state price density π_{it}. The first order conditions from the Lagrangean are

$$\begin{aligned} e^{-\phi t} C_{it}^{-\gamma_i} &= \xi_i \pi_{it} = \xi_i e^{-\int^t (1-\tau_{is}) r_s ds - \int^t v_s^2/2 ds - \int^t v_s dZ_s} \\ &= \xi_i e^{-\int^t (1-\tau_{is}) r_s ds + \int^t r_s ds - \int^t r_s ds - \int^t v_s^2/2 ds - \int^t v_s dZ_s} \\ &= \xi_i e^{\int^t \tau_{is} r_s ds} \pi_t \ , \end{aligned}$$

where

$$\pi_t = e^{-\int^t r_s ds - \int^t v_s^2/2ds - \int^t v_s dZ_s}$$

is the common part of the state price density. Therefore, optimal consumption can be written as

$$C_{it} = e^{\frac{g(\delta_t) - \log(\xi_i)}{\gamma_i} - \frac{1}{\gamma_i}\int^t \tau_{is} r_s ds} \ ,$$

where

$$g_t = -\phi t - \log\left(\pi_t\right) \ .$$

Q.E.D.

PROOFS OF THE RESULTS IN MODEL EXTENSIONS (see Section A3. of this Appendix)

The case with stochastic F_t has been covered in general statements.

Proof of Voting for Autarky under Higher Costs:

We need to show

$$\mathrm{E}_\tau\left[\int_\tau^T U_i\left(C_{it}, V_{k,t}, t\right) ds|A\right] > \mathrm{E}_\tau\left[\int_\tau^T U_i\left(C_{it}, V_{k,t}, t\right) ds|G\right]$$

where now we have different distributions depending whether we are under G or under A. Denote by δ_t^A the process under autarky. We have that for $h > 0$

$$\delta_{\tau+h}^A = \delta_\tau - j + \mu^A h + \sigma^A \sqrt{h} x$$

whereas in global economy we have

$$\delta_{\tau+h} = \delta_\tau + \mu h + \sigma \sqrt{h} x$$

Following Veronesi (2018), note that the expected utility is equivalent to the expectation over two independent random variables, a random time h distributed according to a truncated exponential density with parameter ϕ and a random normal variable x that determines $\delta_{t+h} = \delta_t + \mu_\delta h + \sigma_\delta \sqrt{h} x$.

Using the notation of Veronesi (2018), agent i votes for autarky if and only if

$$\mathrm{E}_\tau^{h,x}\left[u\left[g_{US}\left(\delta_{\tau+h}^A\right)\right]\right] - \mathrm{E}_\tau^{h,x}\left[u\left[g\left(\delta_{\tau+h}\right)\right]\right] > 0$$

where

$$u\left[g\right] = \frac{e^{(1-\gamma_i)\psi_i}}{1-\gamma_i} e^{(1-\gamma_i)\rho_i(g-y)} - \eta_i V\left[g\right]$$

Now, recall that h and x are the two stochastic quantities. If $\sigma^A = \sigma$, then given $\mu^A < \mu$ and $j > 0$ we have

$$\delta_{t+h}^A < \delta_{t+h}$$

for each possible realization of (h, x). Because g_{US} and g are increasing, this implies

$$g_{US}\left(\delta_{\tau+h}^A\right) < g_{US}\left(\delta_{\tau+h}\right) < g\left(\delta_{\tau+h}\right)$$

Therefore, if u is decreasing in g, we have the result that agent i under the jump j and the decrease μ^A will be even more likely to vote for autarky against the alternative that $j = 0$ and $\mu^A = \mu$.

The case with higher volatility instead relies on the near linearity of the utility function for large δ, which makes the expected utility insensitive to volatility for large δ_t. In particular, the utility function is

$$u[g] = \frac{e^{(1-\gamma_i)\psi_i}}{1-\gamma_i} e^{(1-\gamma_i)\rho_i(g-y)} - \eta V[g]$$

Note that

$$u'[g] = e^{(1-\gamma_i)\psi_i} \rho_i e^{(1-\gamma_i)\rho_i(g-y)} - \eta_i \frac{dV}{dg}$$

and

$$u''[g] = e^{(1-\gamma_i)\psi_i} \rho_i (\rho_i - 1) e^{(\rho_i - 1)(g-y)} - \eta_i \frac{d^2V}{dg^2}$$

Both terms converge to zero as g diverges to infinity. That is, the function $u[g]$ becomes nearly linear in the limit. Therefore, in the limit, volatility of g (through higher δ volatility) has no impact, and the discrete shift in $g(\delta) \to g_{US}(\delta) < g(\delta)$ must dominate. Q.E.D.

A3. Theory: Model Extensions

In this section, we discuss four extensions of the baseline model presented in the paper. In Section A3.1., we allow the countries' output shares to vary over time. In Section A3.2., we allow the countries' population shares to vary over time, effectively permitting migration across countries. In Section A3.3., we assume that a move to autarky reduces subsequent output. We consider two such scenarios: (i) a lower long-term growth rate of output, and (ii) a one-time destruction of capital. Finally, in Section A3.4., we assume that a move to autarky makes output more volatile.

In all four extensions, our main result about the fragility of globalization continues to hold. The extensions also produce additional insights into the conditions under which the populist candidate gets elected. For example, the first extension explains why the recent rise of China may have contributed to the rise of populism in the West. The second extension shows that immigration increases the likelihood of populist victory. The third extension shows that the prospect of a destruction of capital does not discourage agents from voting populist; on the contrary, it encourages them to do so.

A3.1. Extension: Time-Varying Output Shares

In the baseline model, each country's share of global output is constant and equal to the country's population share ($\frac{D_t^{US}}{D_t} = m$). We now generalize this setting by allowing the output shares to vary over time. Similar to Menzly, Santos and Veronesi (2004), we assume that

$$F_t = \frac{D_t^{US}}{D_t} \tag{A22}$$

is stochastic, following a diffusion process in the interval (0,1). For tractability, we assume that F_t stops fluctuating at time τ if agents elect the populist (i.e., $F_t = F_\tau$ for $t \geq \tau$ under autarky). We maintain all other assumptions of the baseline model.

In this more general setting, our main results continue to hold. More interesting, the outcome of the U.S. election depends on the value of F_τ. This value affects two necessary conditions for the populist to be elected. The first of these is $g^{US}(\delta_t) < g(\delta_t)$, which ensures that U.S. inequality declines upon the move to autarky. The second one is that the U.S. runs a trade deficit. Both conditions hold if and only if

$$F_t \; < \; F(\delta_t) \; , \tag{A23}$$

where

$$F(\delta_t) \;=\; \left(1 + \frac{\mathrm{E}^i[e^{(g(\delta_t)-y)/\gamma_i} \mid i \in \mathcal{I}^{RoW}]}{\mathrm{E}^i[e^{(g(\delta_t)-y)/\gamma_i} \mid i \in \mathcal{I}^{US}]} \frac{1-m}{m}\right)^{-1} . \tag{A24}$$

The function $F(\delta_t)$ monotonically increases from 0 to 1 as δ_t increases from $-\infty$ to $+\infty$. The threshold condition (A23) implies that for any given value of F_t, there exists δ_t sufficiently large—larger than $F^{-1}(F_t)$—so that the two conditions mentioned above hold. Also, for any given δ_t, there exists F_t sufficiently low—lower than $F(\delta_t)$—so that the same two conditions hold. The threshold condition (A23) can thus be triggered by either an increase in δ_t or a decrease in F_t.

Building on these results, we prove that our main result—Proposition 5—continues to hold with a modified threshold: there exists a value $\overline{\delta}(F_\tau)$ such that the U.S. elects the populist when $\delta_\tau > \overline{\delta}$. The backlash against globalization thus eventually happens also in this more general setting. Our main theoretical result is thus robust to allowing for time-varying output shares.

The threshold $\overline{\delta}(F_\tau)$ is increasing in F_τ when F_τ is large enough. Further increases in F_τ then make the condition (A23) binding, so that δ_τ must exceed a larger threshold $\overline{\delta}(F_\tau)$ for this condition to hold. As a result, the populist's victory becomes more likely when F_τ declines from a high level. Intuitively, when F_τ declines, a shift to autarky is more attractive to U.S. agents because it gives them less risk to share, resulting in less inequality. After moving to autarky, U.S. agents share only the risk associated with their own tree. This local risk is lower when F_τ declines, implying less extreme portfolio positions across U.S. agents and thus less inequality, making autarky more desirable.

This result—that a decrease in F_t makes the populist victory more likely when F_t is large enough—provides the basis for a novel potential explanation for why populism in the West appeared in 2016. The rise of populism has its roots in the 2008 financial crisis. The argument is *not* that the crisis made the U.S. poorer in absolute terms; after all, the 2009–2016 period was characterized by a long uninterrupted economic expansion, one of the longer expansions in the U.S. history. But the crisis made the U.S. poorer *relative* to RoW. The 2008 crisis is often perceived as global, but it was more of an "Atlantic" crisis, which impoverished the West but not China or certain other parts of the world. While U.S. output shrank, Chinese output continued to grow at a rapid pace approaching 10% per year. (Australia did not have a recession in 2008 either.) As a result, China—and RoW more generally—grew richer relative to the U.S. in the decade preceding 2016, implying a decrease in F_t. The lower U.S. output share implies more Chinese risk to share, making autarky more appealing to U.S. agents, as explained earlier.

A3.2. Extension: Time-Varying Population Shares

In the baseline model, the fraction of agents living in the U.S. is fixed at m. We now allow the U.S. population share m_t to vary over time. An increase in m_t can be interpreted, for example, as immigration from RoW into the U.S. While varying m_t, we hold constant the distributions of risk aversion in both countries, maintaining the interpretation of country-level differences in financial development. We also assume, similar to the previous section, that both m_t and F_t stop fluctuating at time τ if agents elect the populist.

Since the function $F(\delta_t)$ from equation (A24) depends on m_t, we relabel it as $F(\delta_t, m_t)$. Since $F(\delta_t, m_t)$ is an increasing function of m_t, the threshold condition (A23) is more likely to hold at time τ when m_τ is larger, holding δ_τ and F_τ constant. Recall that the condition (A23) is necessary for the populist to get elected. As a result, immigration from RoW to the U.S. makes it more likely that the populist gets elected. Intuitively, when m_t increases, autarky becomes more attractive to U.S. agents because they have more other U.S. agents to share local risk with. This result is consistent with the important role of immigration observed in the recent populist backlash. However, immigration is also closely related to cultural reasons that are outside our model.

A3.3. Extension: Lower Output in Autarky

In the baseline model, a move to autarky does not affect the output process. In this section, we consider two possible changes in that process upon a shift to autarky:

1. A reduction in the growth rate of output, μ_δ ,
2. A downward jump in output: $D_\tau = JD_{\tau-}$, where $J < 1$.

Both changes capture the idea that a shift to autarky may be costly in terms of lost output. In the first change, growth slows down permanently when the gains from cross-border trade disappear. The second change is an abrupt one-time contraction at time τ resulting from the disruption of trade. Both changes have ambiguous effects on agents' utility—while they imply lower consumption, they also reduce inequality.

Adding either or both of these changes to our baseline model leads to the same basic conclusions. As long as the values of J and the drop in μ_δ are known, markets continue to be complete and our main results continue to hold. That includes the key Proposition 5, with a different threshold $\overline{\delta}$ compared to the baseline case. The backlash against globalization thus eventually takes place—when output is large enough, U.S. voters find it optimal to elect a populist even if the move to autarky is costly in terms of lost output.

This result sheds new light on the 2016 EU referendum in Britain. Before the referendum, many economists predicted that Brexit would lead to significant output losses for Britain. The British voters heard the message and yet voted in favor of Brexit. Interpreting this fact through the lens of our model, lower output was a price the British voters were willing to pay in order to reduce inequality. Along the same lines, the British voters may have accepted that Brexit would weaken the City of London. Since inequality is driven mostly by the highest incomes, a particularly effective way to reduce it is to drive the wealthy London bankers out of Britain.

A reduction in output reduces inequality because it hurts the rich (i.e., the low-γ_i agents) more than the poor. When output is large enough, the median voter welcomes a reduction in output because the resulting reduction in inequality outweighs the decline in consumption in utility terms. This is true even if there is no shift to autarky at time τ. Suppose we replace the move to autarky by a destruction of capital at time τ, so that the second change described above (a downward jump in output) happens in the absence of autarky. Agents then find it optimal to destroy some of the capital when inequality grows large enough, which in turn happens when output is large enough. Such destruction could also take the form of a war or a revolution (e.g., Scheidel, 2017). The implications of our model thus extend beyond the reversal of globalization.

A3.4. Extension: Higher Output Volatility in Autarky

Another potential cost of autarky is an increase in output volatility. After cross-border risk sharing stops, agents face the risk associated with local but not global output; they can no longer diversify country-specific risks. We do not model such risks, but in their presence, a shift to autarky would raise the output volatility faced by agents. To illustrate this fact, suppose the two countries' outputs follow processes with identical drifts and volatilities:

$$\frac{dD_t^k}{D_t^k} \;=\; \mu_\delta dt + \sigma_\delta dZ_t^k \;, \qquad k \in \{US, RoW\} \;, \tag{A25}$$

where dZ_t^{US} and dZ_t^{RoW} are Brownian motions with correlation $\rho < 1$. Global output, $D_t = D_t^{US} + D_t^{RoW}$, then follows the process

$$\frac{dD_t}{D_t} \;=\; \mu_\delta dt + \sigma_\delta \left(F_t\, dZ_t^{US} + (1-F_t)\, dZ_t^{RoW}\right) \;, \tag{A26}$$

where $F_t = D_t^{US}/D_t$ as before. It follows that

$$\text{Var}\left(\frac{dD_t}{D_t}\right) \;=\; \sigma_\delta^2 \left[F_t^2 + (1-F_t)^2 + 2F_t(1-F_t)\rho\right] \;\leq\; \sigma_\delta^2 \;, \tag{A27}$$

so that global output is less volatile than local output. Therefore, in the presence of country-specific risks, a move to autarky would raise output volatility due to the loss of cross-country diversification benefits.

Motivated by this fact, we extend our model by allowing the volatility of the output process, σ_δ, to rise at time τ if a move to autarky occurs. We find that our main results continue to hold in that setting.

A4. Data: Cross-Country Election Analysis

In this section we fill in some details regarding the data used in our cross-country election-based analysis. The scoring used in the 2014 Chapel Hill Survey of Experts is as follows:

1. NATIONALISM: Position towards nationalism.
   0 = Strongly promotes cosmopolitan rather than nationalist conceptions of society
   10 = Strongly promotes nationalist rather than cosmopolitan conceptions of society

2. IMMIGRATE_POLICY: Position on immigration policy.
   0 = Strongly opposed tough policy
   10 = Strongly favors tough policy

3. ANTIELITE_SALIENCE: Salience of anti-establishment and anti-elite rhetoric.
   0 = Not Important at all
   10 = Extremely Important

We match the timing of the independent variables to the timing of the election. For an election in a given country-year, we measure inequality, current account balance, and financial development in the same country-year. If the same-year value is unavailable, we use the prior-year value. If financial development is unavailable for both years, we record it as missing. If inequality is unavailable for both years, we go farther back in time until we find a non-missing value. This approach is motivated by the high persistence of the inequality series. We do not have to go much farther back—our oldest Gini coefficient is from 2014, and our oldest top 10% share is from 2013. Current account balance data are available for each country-year.

A5. Data: International Social Survey Programme (ISSP)

This survey covers the following countries: Belgium, Switzerland, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, Great Britain, Georgia, Croatia, Hungary, Ireland, Israel, India, Iceland, Japan, South Korea, Lithuania, Latvia, Mexico, Norway, Philippines, Portugal, Russian Federation, Sweden, Slovenia, Slovakia, Turkey, Taiwan, United States, and South Africa. We only use data for OECD countries as of 2013, which implies that we exclude Croatia, Georgia, Latvia, Lithuania, the Philippines, Russia, South Africa, and Taiwan.

National Identity insets are available in 2013, 2003, and 1995. We use the 2013 inset.

When we match the country-level protectionism scores to our data on inequality, financial development, and current account balance, we use the 2013 values of these variables to match the year of the ISSP survey. If the 2013 value of financial development is missing, we take the most recent value since 2010; if all values since 2010 are missing, we record financial development as missing. For inequality, we go as far back as necessary to find a non-missing observation. Our oldest top 10% share observation is from 2008; our oldest Gini coefficient is from 2012. Current account balance is available in 2013 for each country.

The question we focus on, "Country should limit the import of foreign products," is question 5a. Individual responses in the database are on the scale of 1 to 5, with 1 indicating "agree strongly" and 5 indicating "disagree strongly." We flip the original numerical ranking so that higher response values indicate a stronger anti-globalization attitude. That is, in our data, 5 indicates "agree strongly" and 1 indicates "disagree strongly."

Two other ISSP questions seem somewhat related to globalization, though not as closely related as question 5a, in our view. One is question 2c: "Important to have lived in a country for most of one's life." The other is question 5d: "Foreigners should not be allowed to buy land in country." The results based on question 2c are similar to those for question 5a: all four slopes have the same sign and three of them are statistically significant. The results based on question 5d are weaker: three of the four slopes have the same sign but none are statistically significant. We show those results in Section A8. of this Appendix.

The full list of questions asked in the national identity survey:

- **Q1a-d** Identification with [City/ County/ Country/ Continent]
- **Q2a-h** What is important to be (NATIONALITY)

- **Q3a-h** Attitudes towards own nation
- **Q4a-j** Proud of national and political achievements
- **Q5a-e** Views on national versus international issues, attitudes towards rights of foreigners
- **Q6a-e** Views on national versus international issues
- **Q7 a/b** Attitudes towards foreign cultural presence
- **Q8** Maintain traditions – adapt in society
- **Q9a-h** Attitudes towards foreigners and their rights
- **Q10** Number of immigrants increase to country
- **Q11** Statements about immigrants and [Country's] culture
- **Q12** How proud are you of being [Country Nationality]
- **Q13a-d** Impact of patriotic feelings on [country's unification/ intolerance/ ...]
- **Q14** Are you a citizen of [Country]
- **Q15** Parents citizens of [Country] at birth
- **Q16** Heard or read about [the European Union]
- **Q17 OPTIONAL** Benefits from being member of [the European Union]
- **Q18 OPTIONAL** [Country] should follow decisions of [the European Union]
- **Q19 OPTIONAL** EU should have more power than national government
- **Q20 OPTIONAL** EU Referendum to become new member
- **Q21 OPTIONAL** EU members: Referendum to remain member

We do not use EU-related questions because our sample contains also countries outside the EU such as Israel, Japan, Korea, Mexico, and Turkey.

A6. Data: British Election Study (BES)

To measure the support for Brexit, we use the BES variable *profile_eurefvote*, which contains three possible responses to the question "Which way did you vote?" in the 2016 EU referendum: "Remain in the EU," "Leave the EU," or "Don't know." The response "Leave the EU" indicates support for Brexit. If the variable *profile_eurefvote* is missing, we use the variable *euRefVote* from wave 10, which contains the same voter's response as to how they would vote in the same referendum. If the wave-10 value is missing, we use the corresponding values from waves 9, 8, or 7, in that order. The waves 7 though 10 were all conducted between April and December of 2016. We define a dummy variable *SupportForBrexit*, which is equal to one if the voter voted for Brexit and zero otherwise.

We measure the respondent's willingness to take risk, or *WillingnessToTakeRisk*, by using the BES variable *riskTaking*, which contains the response to the question "Generally speaking, how willing are you to take risks?" We convert the four possible responses to integer values between 0 and 3 as follows:

- 'Very unwilling to take risks' $\rightarrow$ 0
- 'Somewhat unwilling to take risks' $\rightarrow$ 1
- 'Somewhat willing to take risks' $\rightarrow$ 2
- 'Very willing to take risks' $\rightarrow$ 3

We use the wave-8 value to keep the timing as close as possible to the EU referendum. But if the wave-8 value is unavailable, we use the most recent wave in which it is available.

To measure income, we use the BES variable *profile_gross_household*, which reports each household's annual gross income in one of 15 income ranges. We construct *Income* by assigning the values 1 through 15 as follows:

- under £5,000 per year $\rightarrow$ 1
- £5,000 to £9,999 per year $\rightarrow$ 2
- £10,000 to £14,999 per year $\rightarrow$ 3
- £15,000 to £19,999 per year $\rightarrow$ 4
- £20,000 to £24,999 per year $\rightarrow$ 5
- £25,000 to £29,999 per year $\rightarrow$ 6

- £30,000 to £34,999 per year → 7
- £35,000 to £39,999 per year → 8
- £40,000 to £44,999 per year → 9
- £45,000 to £49,999 per year → 10
- £50,000 to £59,999 per year → 11
- £60,000 to £69,999 per year → 12
- £70,000 to £99,999 per year → 13
- £100,000 to £149,999 per year → 14
- £150,000 and over → 15

We measure the respondent's education by using the BES variable *profile_education*, which contains the responses to the question "At what age did you finish full-time education?" We create a dummy variable *Education*, which is equal to zero if the response is 18 years or less and one otherwise.

We construct our first measure of the respondent's aversion to inequality by using two BES variables: *inequalityChange* and *inequalityGoodBad*. The variable *inequalityChange* contains the response to the question "Do you think the difference in incomes between rich people and poor people in the UK today is larger, smaller, or about the same as it was 20 years ago?" The variable *inequalityGoodBad* contains the response to the follow-up question "And do you think this is a good thing, a bad thing, or havent you thought about it?" Both variables are available only in waves 2, 3, and 4. We use the wave-4 values whenever available; if they are unavailable, we use the most recent wave for which they are available. We construct our *InequalityBad* variable as an integer value 1, 2, or 3 as follows:

- If *inequalityChange* = "Larger" then we compute *InequalityBad* as
  - If *inequalityGoodBad* = 'Good thing' → 1
  - If *inequalityGoodBad* = 'Don"t know' → 2
  - If *inequalityGoodBad* = 'Bad thing' → 3
- If *inequalityChange* = "Smaller" then we compute *InequalityBad* as
  - If *inequalityGoodBad* = 'Good thing' → 3
  - If *inequalityGoodBad* = 'Don't know' → 2
  - If *inequalityGoodBad* = 'Bad thing' → 1

- If *inequalityChange* is neither "Larger or "Smaller then we declare *InequalityBad* as missing

We measure the respondent's *LeftRight* orientation by using the BES variable *leftRight*, which contains the response to the question "In politics people sometimes talk of left and right. Where would you place yourself on the following scale?" The possible values range from 0 (extreme left) to 10 (extreme right). We use these numerical values directly. We use the most recently observed value of the *leftRight* variable.

We measure the respondent's religiosity by using the BES variable *profile_religion*, which contains the response to the question "Do you have a religious affiliation?" We create a dummy variable *Religious*, which is equal to zero if the response is "No, I do not regard myself as belonging to any particular religion" and one otherwise.

To measure the respondent's dislike of the elites, we create three variables: *PoliticiansFavorTheRich*, *LawFavorsTheRich*, and *DoNotTrustExperts* based on the responses to the question "How much do you agree or disagree with the following statements?" for three different statements as follows:

- "Politicians only care about people with money." → *PoliticiansFavorTheRich*
- "There is one law for the rich and one for the poor." → *LawFavorsTheRich*
- "I'd rather put my trust in the wisdom of ordinary people than the opinions of experts." → *DoNotTrustExperts*

Each of the three variables takes integer values from 1 to 5, which we assign as follows:

- 'Strongly disagree' → 1
- 'Disagree' → 2
- 'Neither agree nor disagree' → 3
- 'Agree' → 4
- 'Strongly agree' → 5

Our variable *PoliticiansFavorTheRich* is derived from the BES variable *polForTheRich*. We use the most recent available value of this variable; that is the value from wave 7 or from prior waves 4, 3, 2, and 1, in that order. Our variable *LawFavorsTheRich* is derived from the BES variable *lr4W7W8W9*, which comes from waves 7 through 9. Our variable *DoNotTrustExperts* is derived

from the BES variable *antiIntellectual*, which is available from waves 7 through 11. We use the most recent available value of that variable.

We measure the respondent's ethnic minority status by using the BES variable *profile_ethnicity*, which contains the response to the question "To which of these groups do you consider you belong?" If the response is "White British" (this is the response given by 88.8% of respondents) then we set the dummy variable *Minority* equal to zero; otherwise we set it equal to one.

We measure the respondent's *Feminist* attitude by using the BES variable *femaleEquality*, which contains the response to the question "Please say whether you think these things have gone too far or have not gone far enough in Britain: Attempts to give equal opportunities to women." We convert the five possible responses to integer values between 1 and 5 as follows:

- 'Gone much too far' $\rightarrow$ 1
- 'Gone too far' $\rightarrow$ 2
- 'About right' $\rightarrow$ 3
- 'Not gone far enough' $\rightarrow$ 4
- 'Not gone nearly far enough' $\rightarrow$ 5

The variable is available as an aggregate from waves 6 through 12.

Finally, to measure the respondent's age, we use the BES variable *Age* ("What is your age?"), and to measure the respondent's gender, we use the BES variable *gender* ("Are you male or female?").

A7. Data: Cooperative Congressional Election Survey (CCES)

We use data from the 2016 CCES.

To measure the support for Trump, we use the CCES variable *CC16_410a*, which contains the responses to the question "For whom did you vote for President of the United States?" in the 2016 election. We set the variable *SupportForTrump* equal to one if the voter voted for Trump and zero otherwise.

To measure income, we use the CCES variable *faminc*, which reports the response to the question "Thinking back over the last year, what was your family's annual income?" in multiple income ranges. We construct *Income* by assigning the values 1 through 16 as follows:

- Less than \$10,000 $\rightarrow$ 1
- \$10,000 to \$19,999 $\rightarrow$ 2
- \$20,000 to \$29,999 $\rightarrow$ 3
- \$30,000 to \$39,999 $\rightarrow$ 4
- \$40,000 to \$49,999 $\rightarrow$ 5
- \$50,000 to \$59,999 $\rightarrow$ 6
- \$60,000 to \$69,999 $\rightarrow$ 7
- \$70,000 to \$79,999 $\rightarrow$ 8
- \$80,000 to \$99,999 $\rightarrow$ 9
- \$100,000 to \$119,999 $\rightarrow$ 10
- \$120,000 to \$149,999 $\rightarrow$ 11
- \$150,000 to \$199,999 $\rightarrow$ 12
- \$150,000 or more $\rightarrow$ 12
- \$200,000 to \$249,999 $\rightarrow$ 13
- \$250,000 to \$349,999 $\rightarrow$ 14
- \$250,000 or more $\rightarrow$ 14
- \$350,000 to \$499,999 $\rightarrow$ 15

- \$500,000 or more $\rightarrow$ 16

To measure *Education*, we use the CCES variable *educ*, which contains the response to the question "What is the highest level of education you have completed?" We convert the six possible responses to integer values between 1 and 6 as follows:

- 'No high school' $\rightarrow$ 1
- 'High school graduate' $\rightarrow$ 2
- 'Some college' $\rightarrow$ 3
- '2-year' $\rightarrow$ 4
- '4-year' $\rightarrow$ 5
- 'Post-grad' $\rightarrow$ 6

To measure how *Religious* the respondent is, we use the CCES variable *pew_religimp*, which contains the response to the question "How important is religion in your life?" We convert the four possible responses to integer values between 0 and 3 as follows:

- 'Very important' $\rightarrow$ 3
- 'Somewhat important' $\rightarrow$ 2
- 'Not too important' $\rightarrow$ 1
- 'Not at all important' $\rightarrow$ 0

To measure the respondent's ethnic minority status we use the CCES variable *race*, which contains the response to the question "What racial or ethnic group best describes you?" If the response is one of 'Black', 'Hispanic', 'Asian', 'Native American', or 'Middle Eastern' then we classify the respondent as *Minority*.

The *Republican* variable is based on the CCES variable *pid3*, which contains the response to the question "Generally speaking, do you think of yourself as a ...?". If the response is 'Republican' then we set *Republican* equal to one; otherwise we set it to zero.

We back out the respondent's age from the variable *birthyr*. Gender comes from the variable *gender*.

A8. Evidence: Which Countries Are Populist?

This section presents additional information and empirical evidence that is mentioned but not shown in the paper.

A8.1. Political Party Positions.

Table A1 reports the positions of all political parties in our sample along four dimensions related to anti-global populism: nationalism, attitudes toward immigrants and ethnic minorities, and the salience of anti-elite rhetoric. Each number in the table is the party's score on the scale of 0 to 10, with higher values indicating a more populist stance. Each party's scores are averaged across all experts evaluating this party in the 2014 Chapel Hill Survey.

A8.2. Alternative Populism Definition: Anti-Ethnic-Minority Parties.

Figure A1 is the counterpart of the vote share figures in the paper, except that it defines populist parties as anti-ethnic-minority (as opposed to nationalist, anti-immigrant, or anti-elite). Analogous to the other three definitions of populist parties, we classify a party as populist if its average score for the position towards ethnic minorities is at least six. The scoring used by the experts in the survey is on the scale of 0 to 10 as follows:

0 = Strongly supports more rights for ethnic minorities

10 = Strongly opposes more rights for ethnic minorities

A8.3. Alternative Election Set: Excluding European Parliament Elections.

Figures A2 through A4 are the counterparts of the corresponding vote share figures in the paper, except that they do not use the results from European Parliament elections. In other words, they use the results from national elections only.

A8.4. Alternative Election Set: Excluding National Elections.

Figures A5 through A7 are the counterparts of the corresponding vote share figures in the paper, except that they do not use the results from national elections. In other words, they use the results

from European Parliament elections only.

A8.5. Alternative Election Set: Excluding the U.S.

Figures A8 through A10 are the counterparts of the corresponding vote share figures in the paper, except that they exclude the results from the U.S. elections. Similarly, Figures A11 through A16 are the counterparts of the corresponding vote share figures in Sections A8.3. and A8.4. of this Appendix, except that they exclude the results from the U.S. elections.

A8.6. Alternative Measures of Financial Development.

Figures A17 through A19 are the counterparts of Panels D of the vote share figures in the paper, except that they replace stock market capitalization / GDP by three other measures of financial development. Figure A20 does the same for the survey figure in the paper. The three alternative measures are:

- Private credit / GDP
  - Private credit by deposit money banks and other financial institutions, divided by GDP
- Stock market trading volume / GDP
  - Also known as stock value traded, divided by GDP
- The sum of stock and bond market capitalizations / GDP
  - Calculated by adding the following three series:
    - Private Bond Market Capitalization / GDP
    - Public Bond Market Capitalization / GDP
    - Stock Market Capitalization / GDP

All measures of financial development are taken from the World Bank's Financial Development and Structure database. As of this writing, this database was most recently revised in June 2017 and contains cross-country data from 1960 to 2015. All variables are in percentage terms.

A8.7. Alternative Survey Questions.

Figures A21 and A22 are the counterparts of the corresponding figure in the paper, except that they are based on different questions from the 2013 ISSP survey. Instead of using responses to question 5a, they use responses to questions 2c and 5d.

A8.8. Alternative Set of Survey Countries: Excluding the U.S.

Figure A23 is the counterpart of the survey figure in the paper, except that it excludes the results from the U.S. elections. Similarly, Figures A24 and A25 are the counterparts of the corresponding survey figures in Section A8.7. of this Appendix, except that they exclude the results from the U.S. elections.

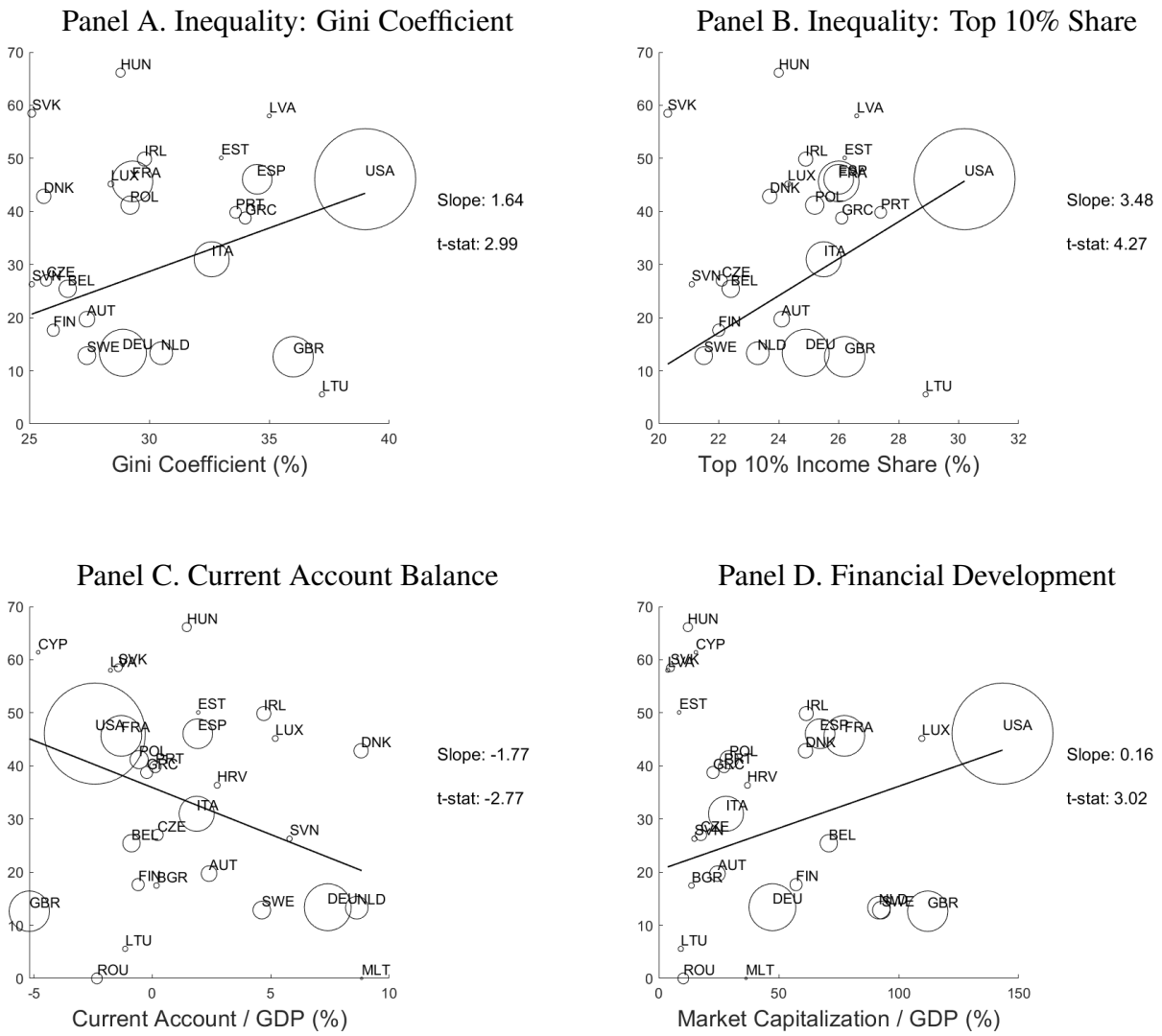

Figure A1. Vote Share of Anti-Ethnic-Minority Parties. This figure plots the election vote share of the parties we classify as anti-ethnic-minority, in percent. For each country, we use either the most recent national parliamentary election as of January 1, 2017 or the same country's May 2014 European Parliament election, whichever occurs later. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

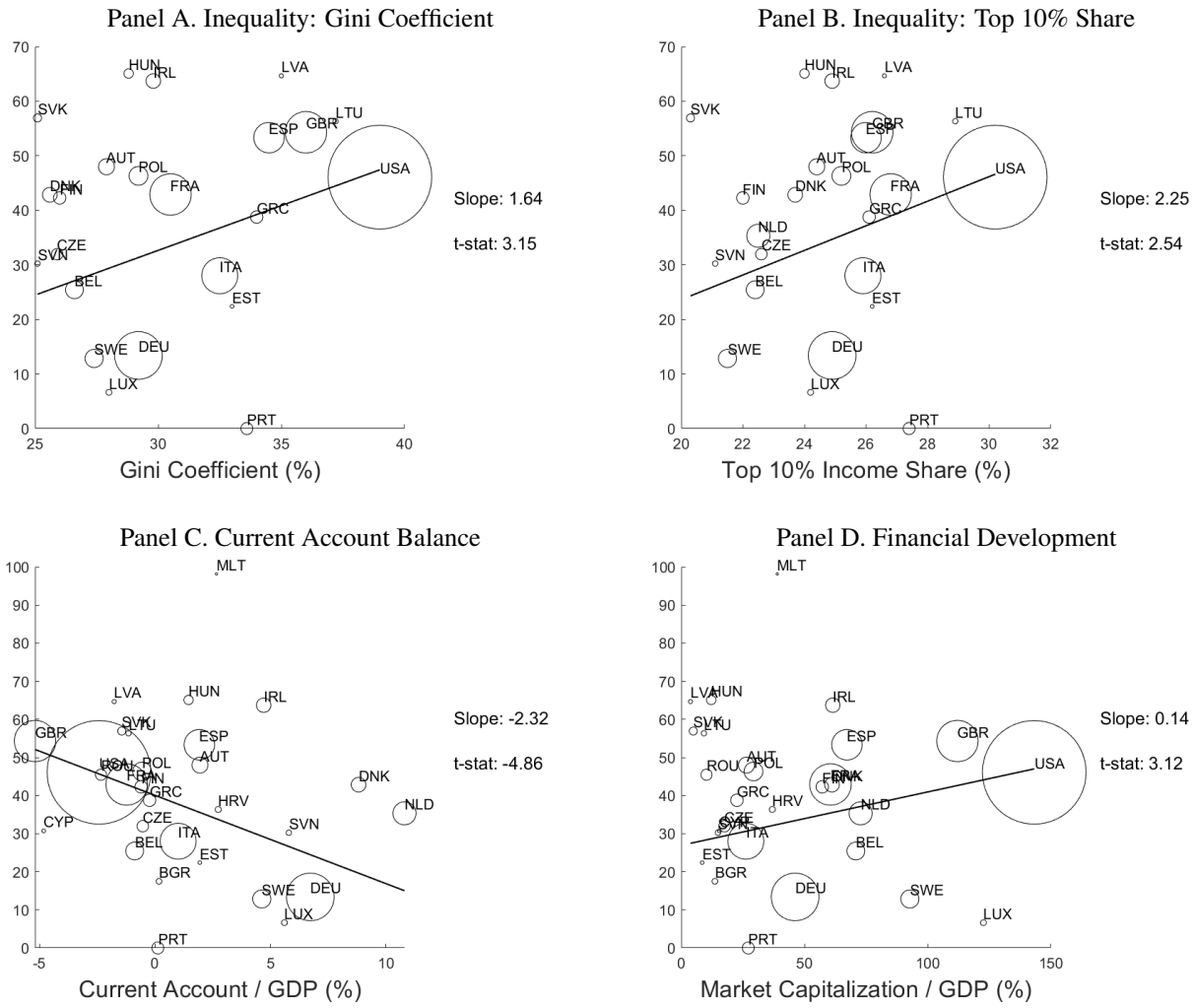

Figure A2. Vote Share of Nationalist Parties: National Elections Only. This figure plots the election vote share of the parties we classify as nationalist, in percent. For each country, we use the most recent national parliamentary election as of January 1, 2017. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

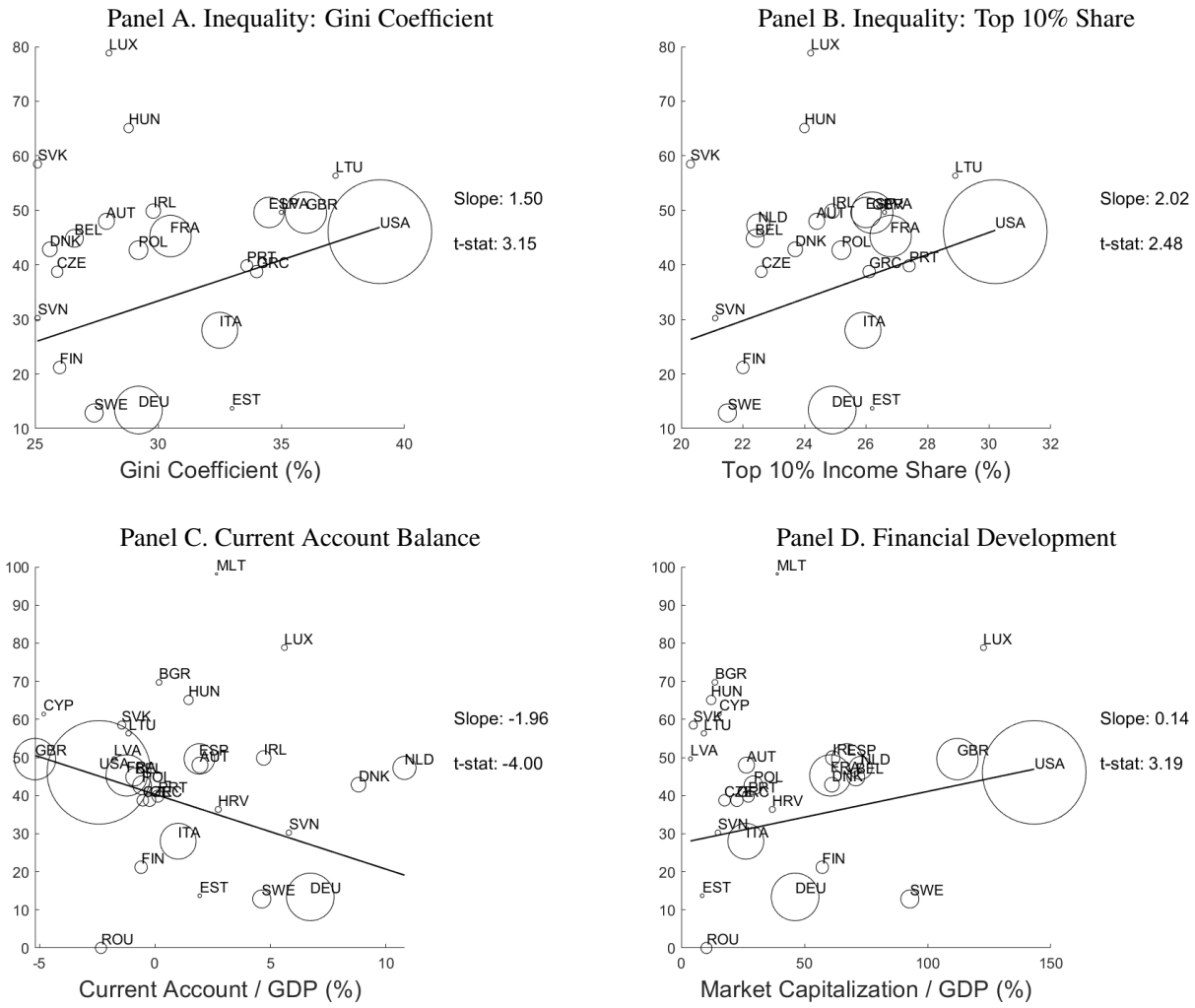

Figure A3. Vote Share of Anti-Immigrant Parties: National Elections Only. This figure plots the election vote share of the parties we classify as anti-immigrant, in percent. For each country, we use the most recent national parliamentary election as of January 1, 2017. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

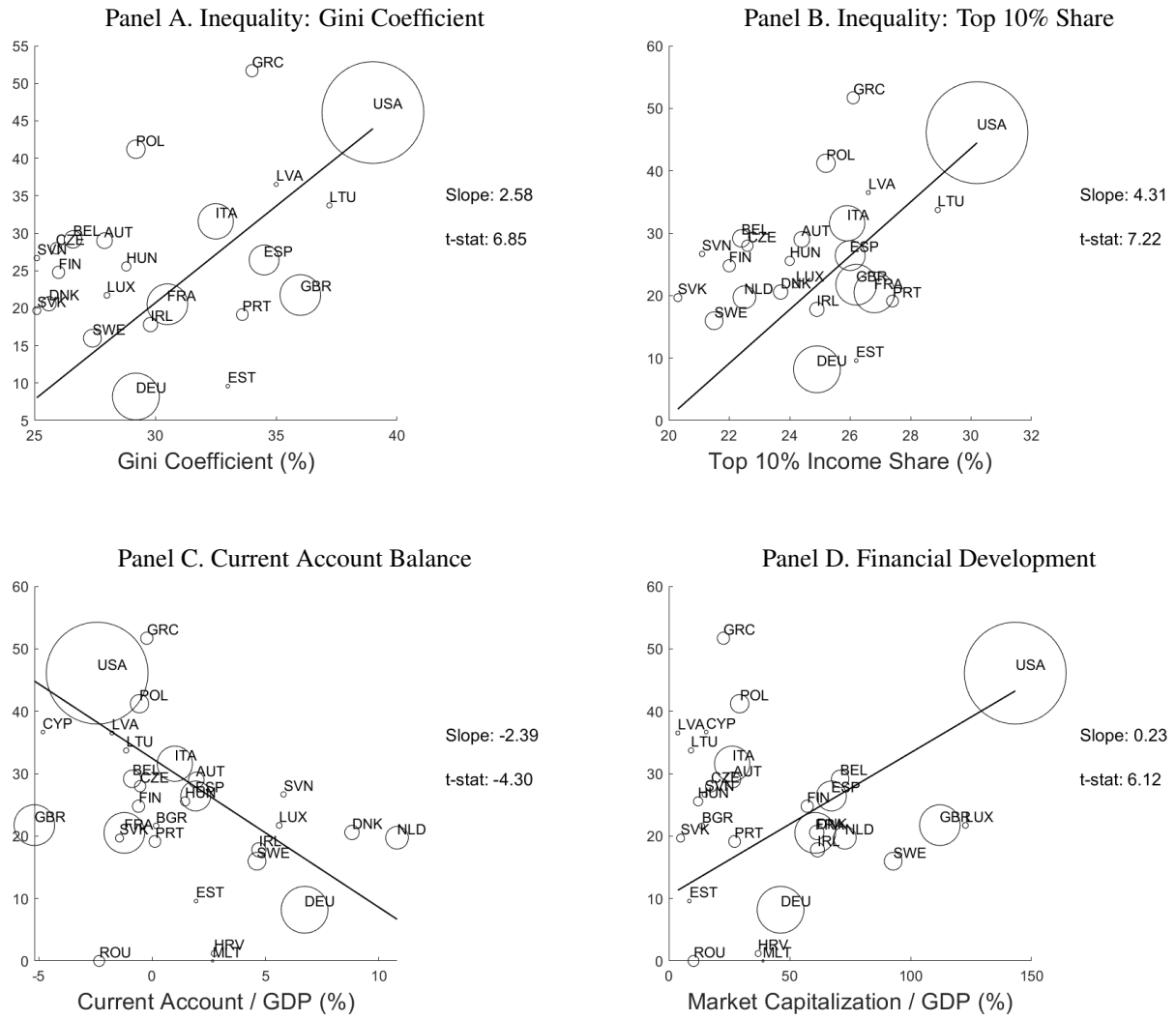

Figure A4. Vote Share of Anti-Elite Parties: National Elections Only. This figure plots the election vote share of the parties we classify as anti-elite, in percent. For each country, we use the most recent national parliamentary election as of January 1, 2017. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

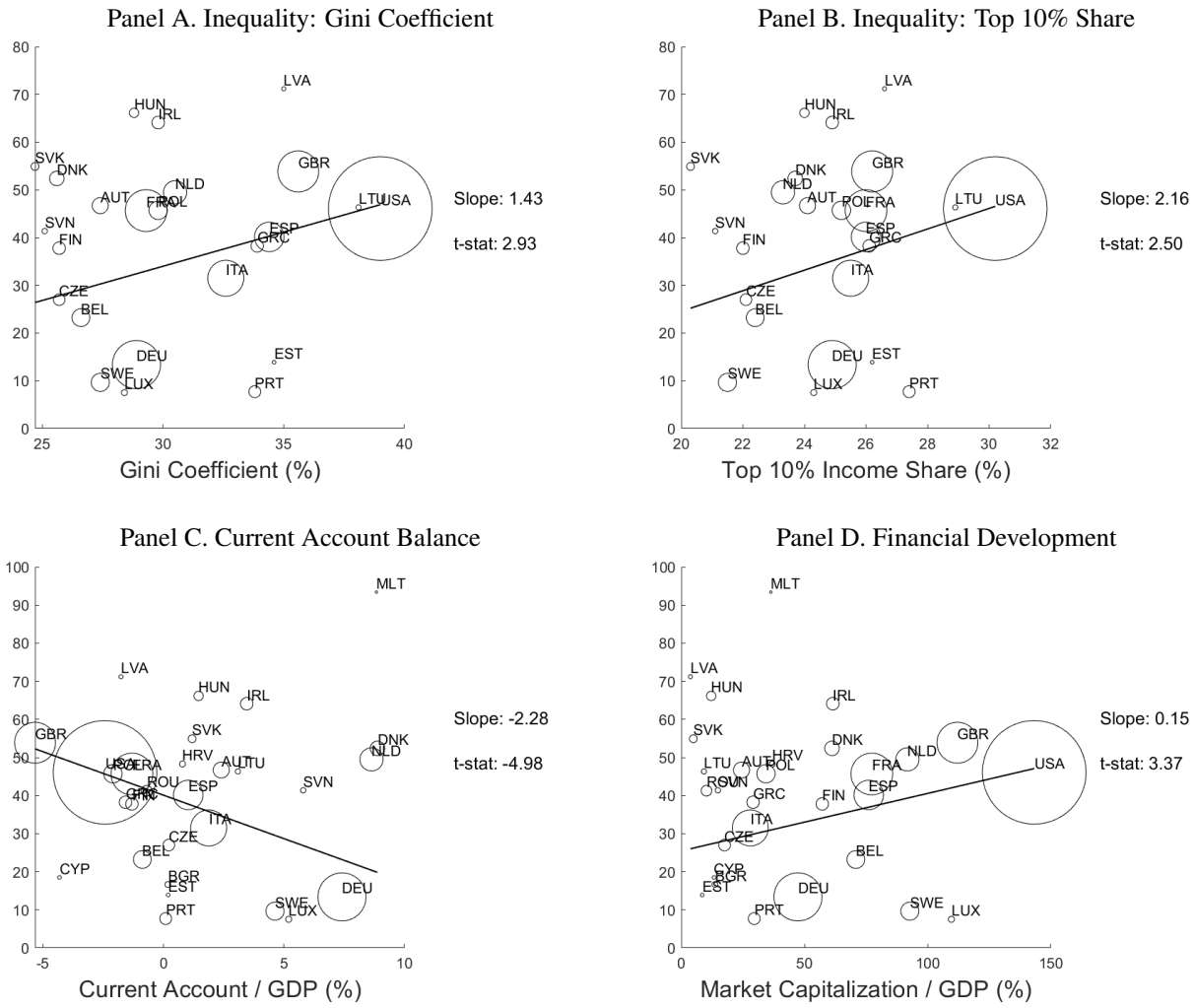

Figure A5. Vote Share of Nationalist Parties: European Parliament Elections Only. This figure plots the election vote share of the parties we classify as nationalist, in percent. For each European country, we use its May 2014 European Parliament election. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

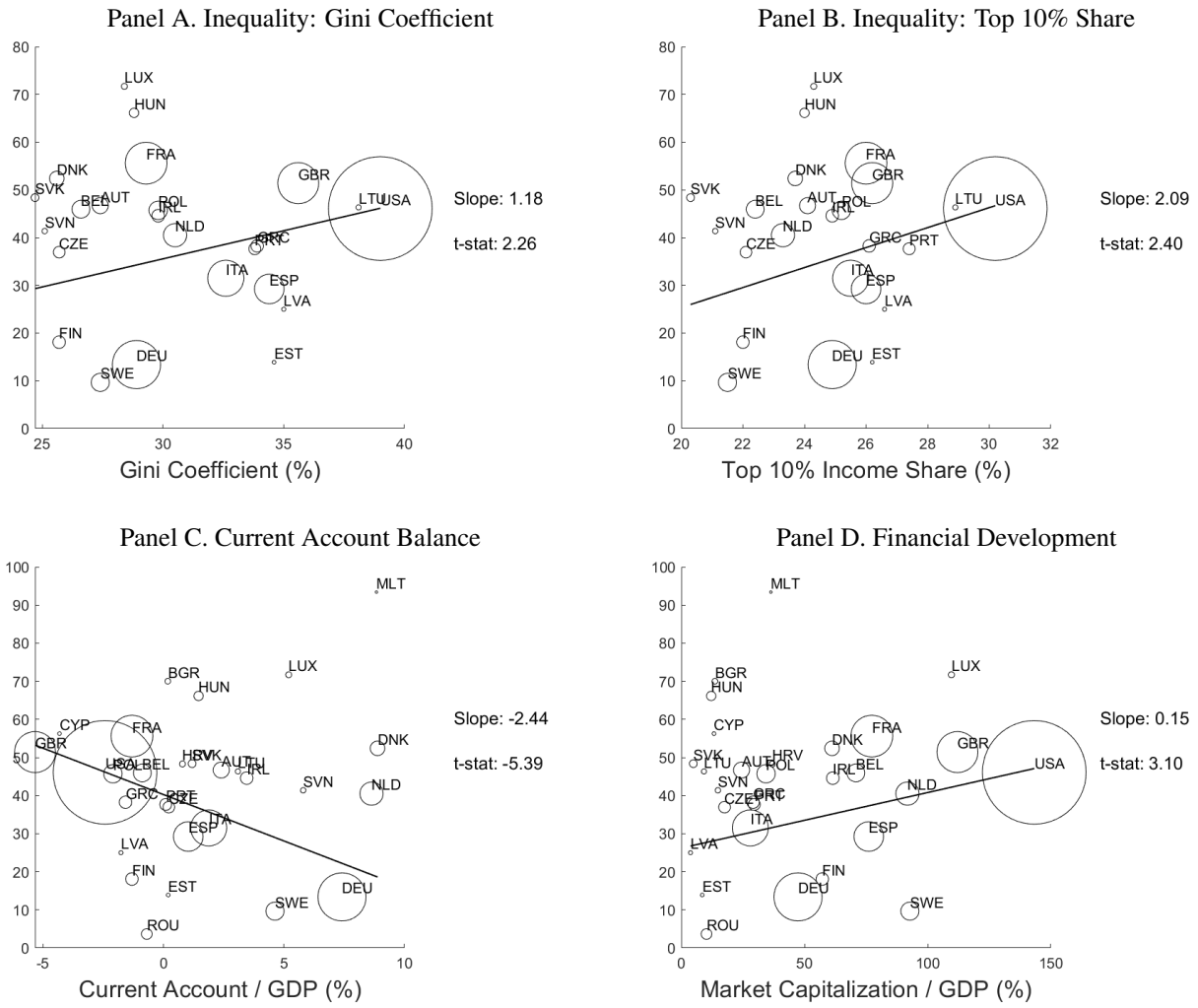

Figure A6. Vote Share of Anti-Immigrant Parties: European Parliament Elections Only. This figure plots the election vote share of the parties we classify as anti-immigrant, in percent. For each European country, we use its May 2014 European Parliament election. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

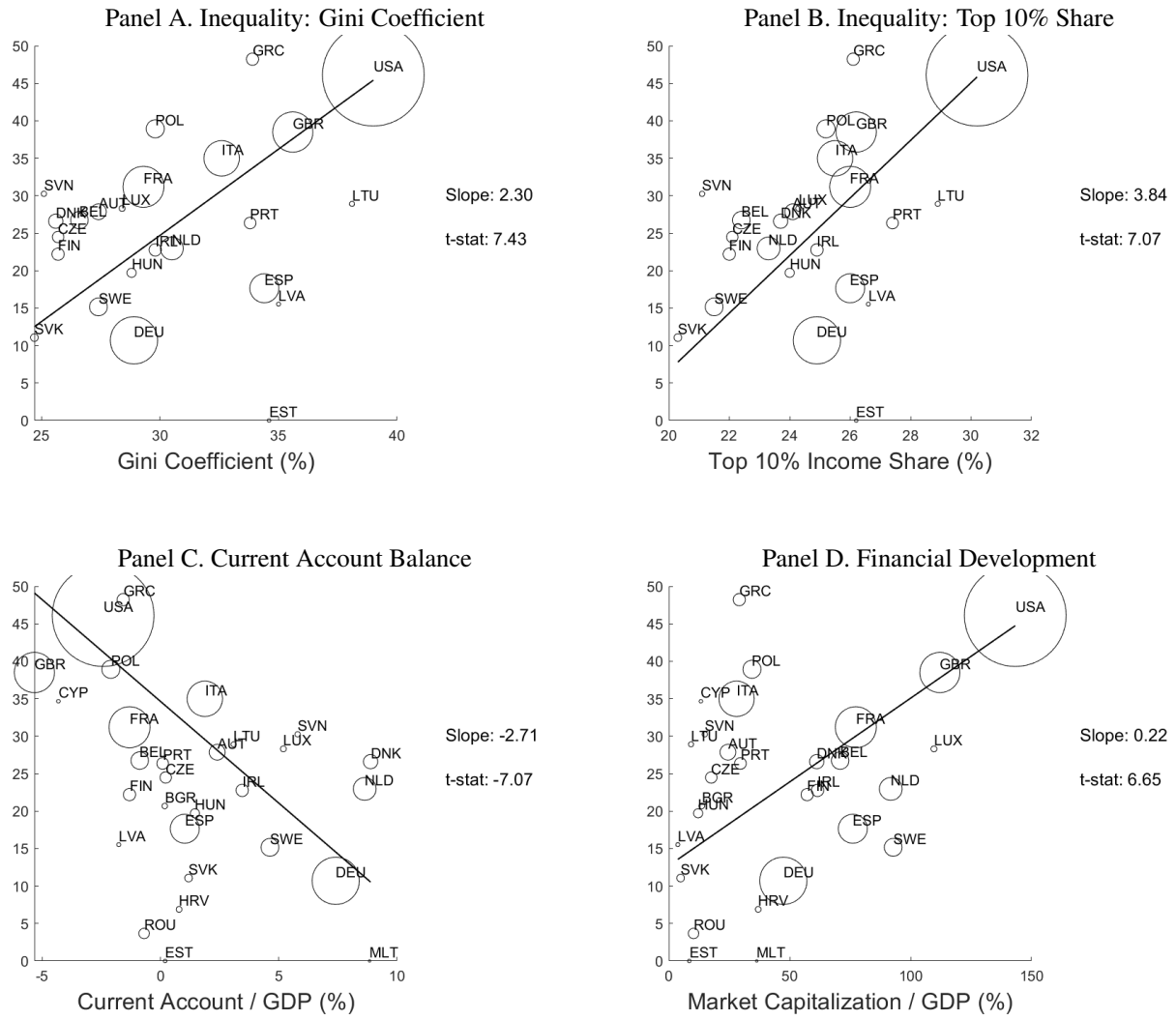

Figure A7. Vote Share of Anti-Elite Parties: European Parliament Elections Only. This figure plots the election vote share of the parties we classify as anti-elite, in percent. For each European country, we use its May 2014 European Parliament election. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

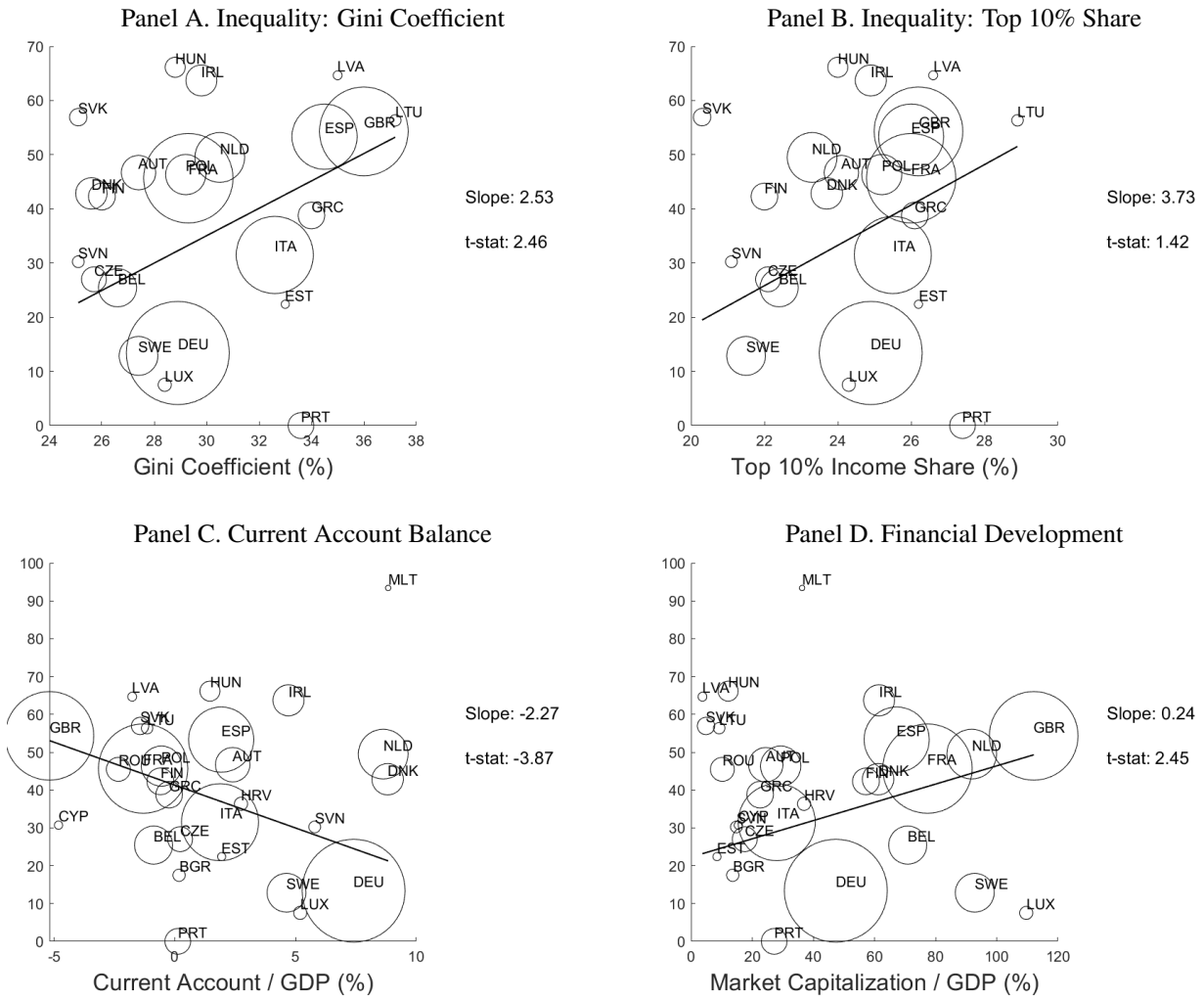

Figure A8. Vote Share of Nationalist Parties. Excluding the U.S. This figure plots the election vote share of the parties we classify as nationalist, in percent. For each country, we use either the most recent national parliamentary election as of January 1, 2017 or the same country's May 2014 European Parliament election, whichever occurs later. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

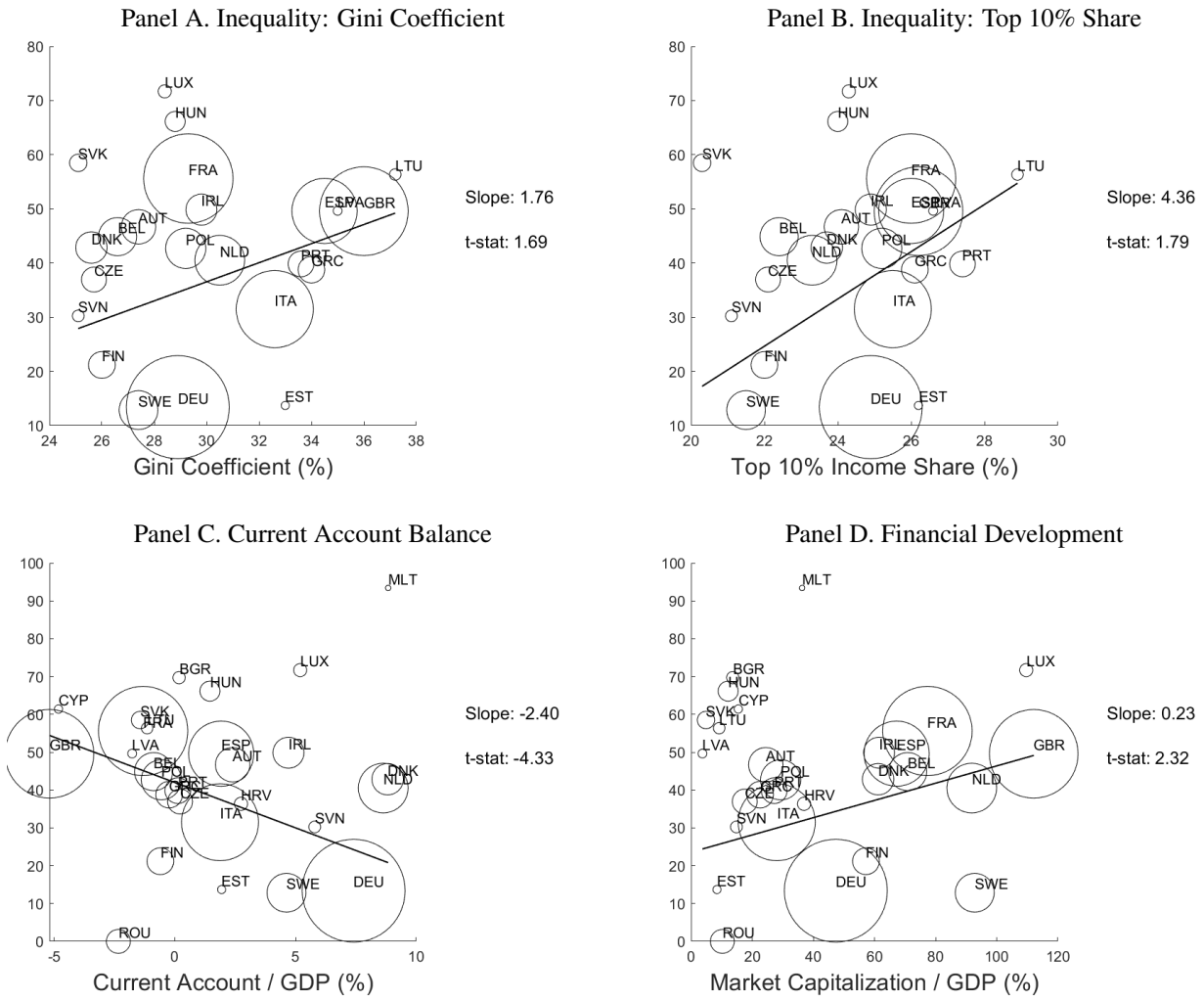

Figure A9. Vote Share of Anti-Immigrant Parties. Excluding the U.S. This figure plots the election vote share of the parties we classify as anti-immigrant, in percent. For each country, we use either the most recent national parliamentary election as of January 1, 2017 or the same country's May 2014 European Parliament election, whichever occurs later. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

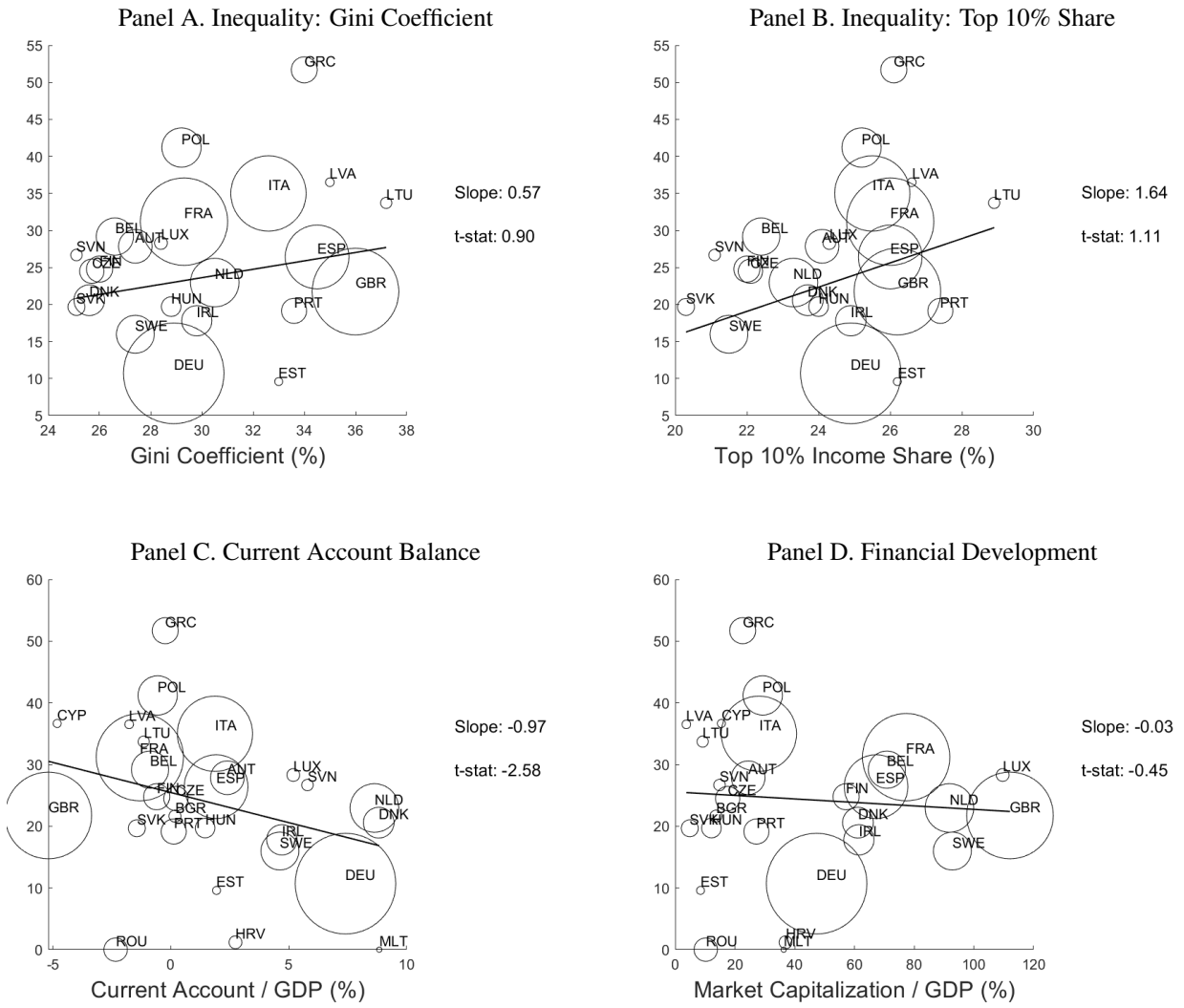

Figure A10. Vote Share of Anti-Elite Parties. Excluding the U.S. This figure plots the election vote share of the parties we classify as anti-elite, in percent. For each country, we use either the most recent national parliamentary election as of January 1, 2017 or the same country's May 2014 European Parliament election, whichever occurs later. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

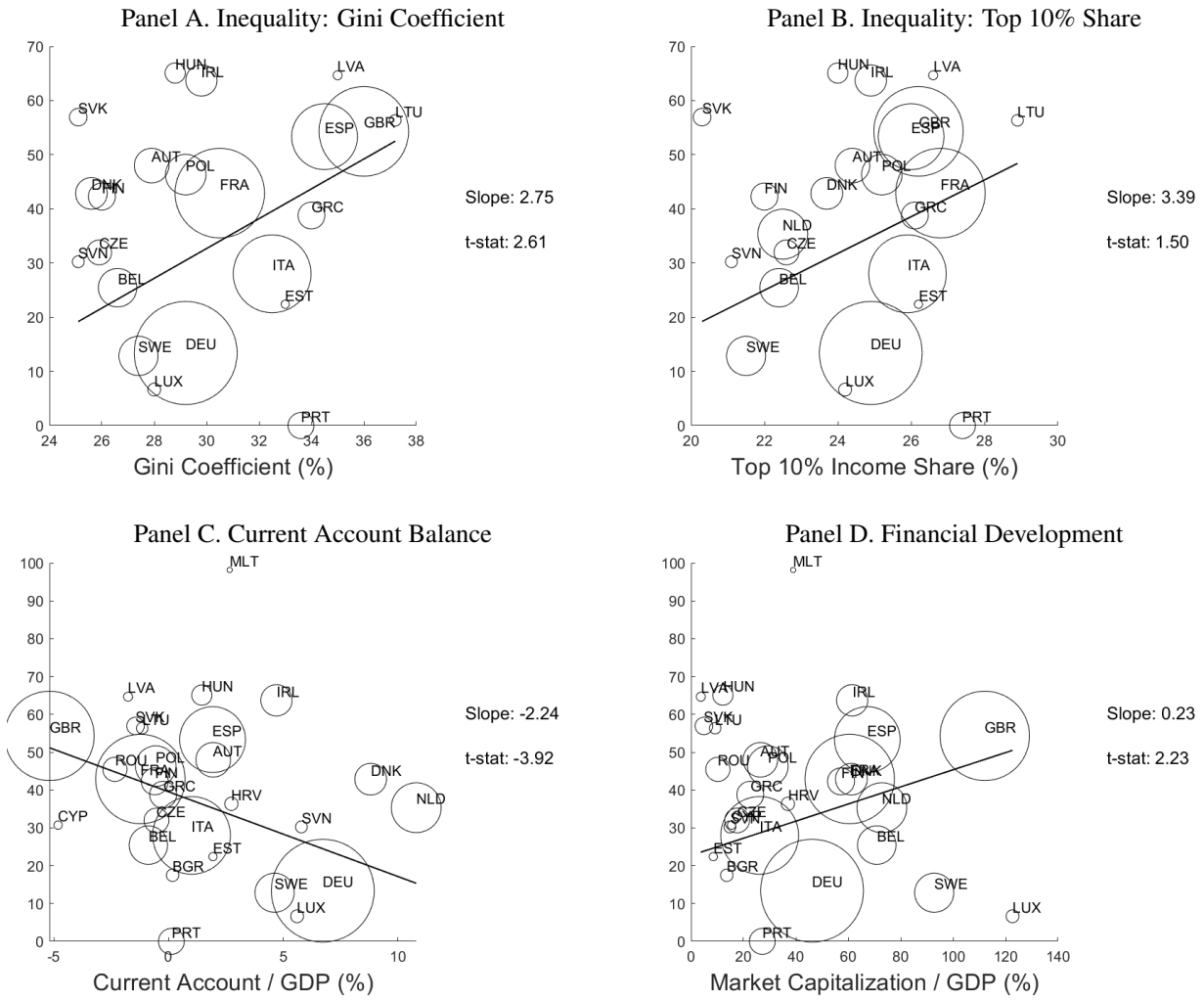

Figure A11. Vote Share of Nationalist Parties: National Elections Only. Excluding the U.S. This figure plots the election vote share of the parties we classify as nationalist, in percent. For each country, we use the most recent national parliamentary election as of January 1, 2017. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

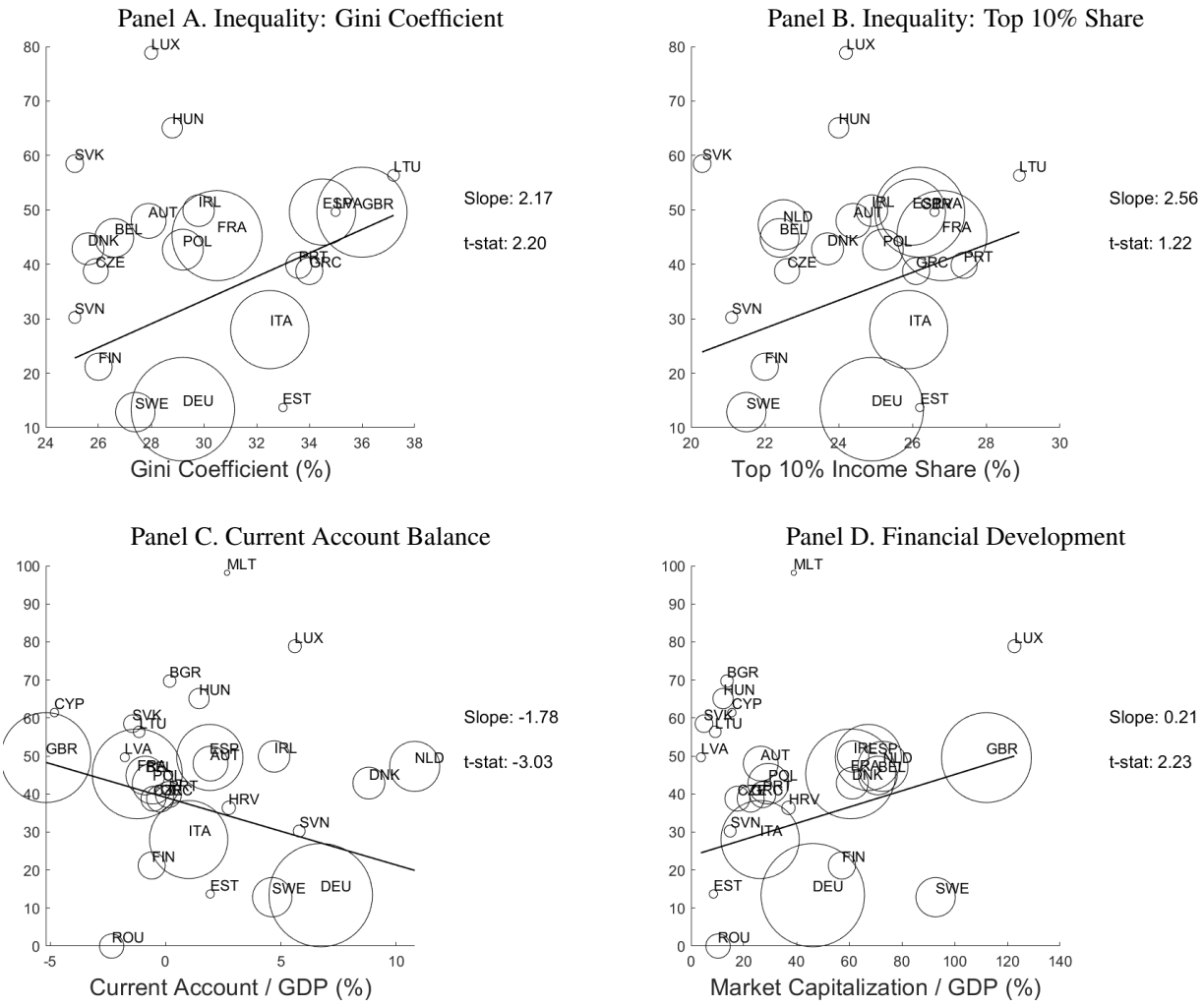

Figure A12. Vote Share of Anti-Immigrant Parties: National Elections Only. Excluding the U.S. This figure plots the election vote share of the parties we classify as anti-immigrant, in percent. For each country, we use the most recent national parliamentary election as of January 1, 2017. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

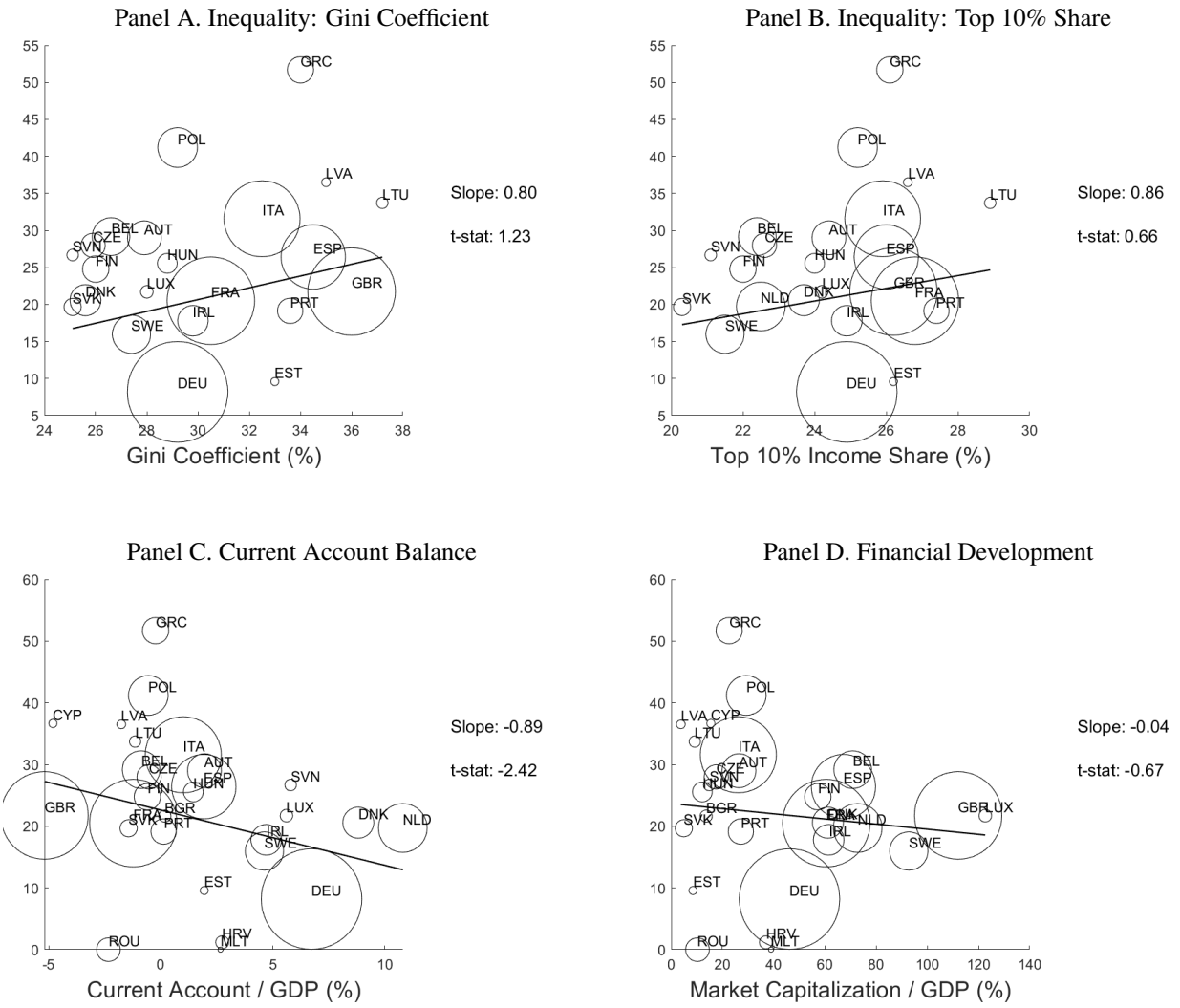

Figure A13. Vote Share of Anti-Elite Parties: National Elections Only. Excluding the U.S. This figure plots the election vote share of the parties we classify as anti-elite, in percent. For each country, we use the most recent national parliamentary election as of January 1, 2017. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

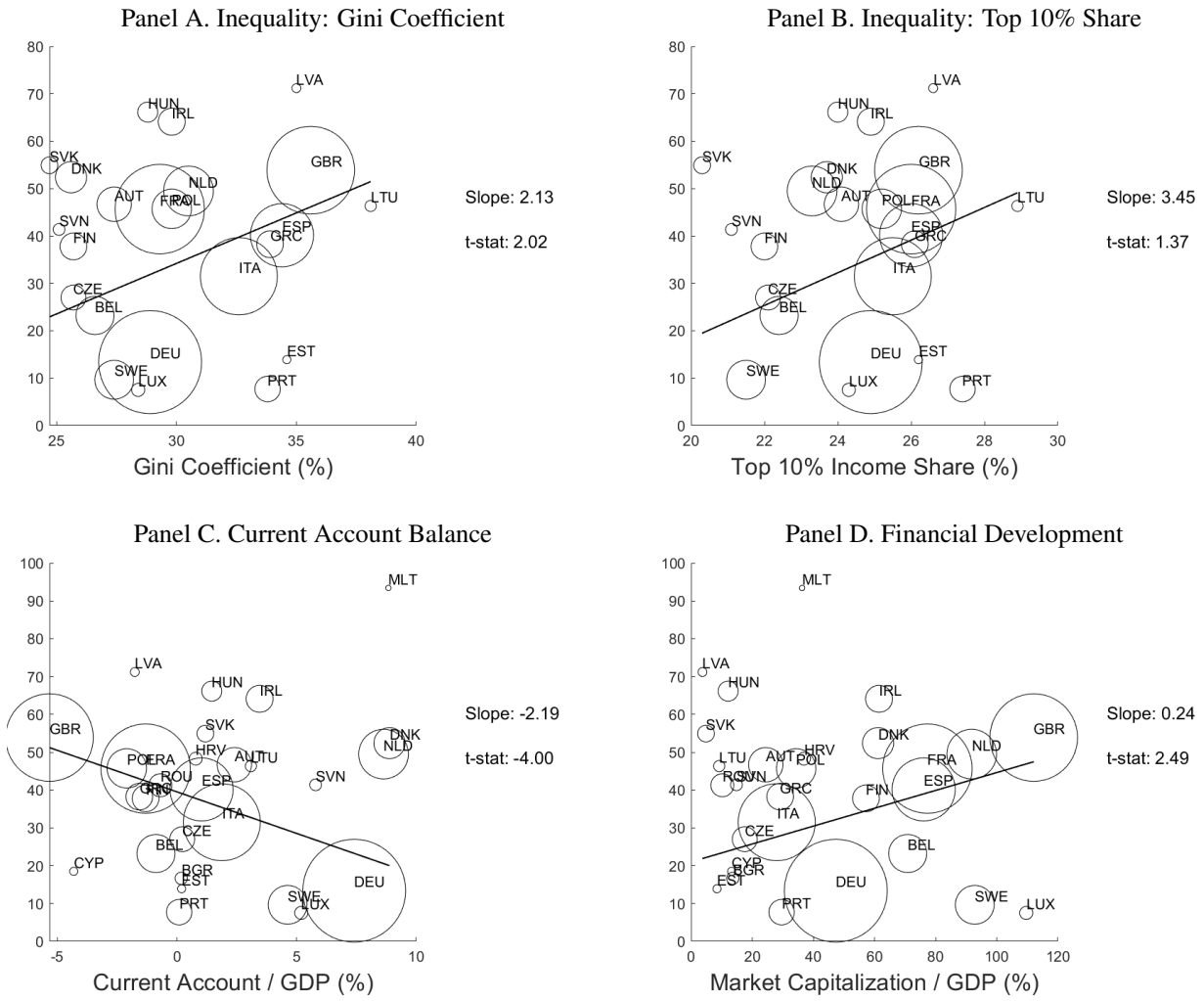

Figure A14. Vote Share of Nationalist Parties: European Parliament Elections Only. Excluding the U.S. This figure plots the election vote share of the parties we classify as nationalist, in percent. For each European country, we use its May 2014 European Parliament election. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

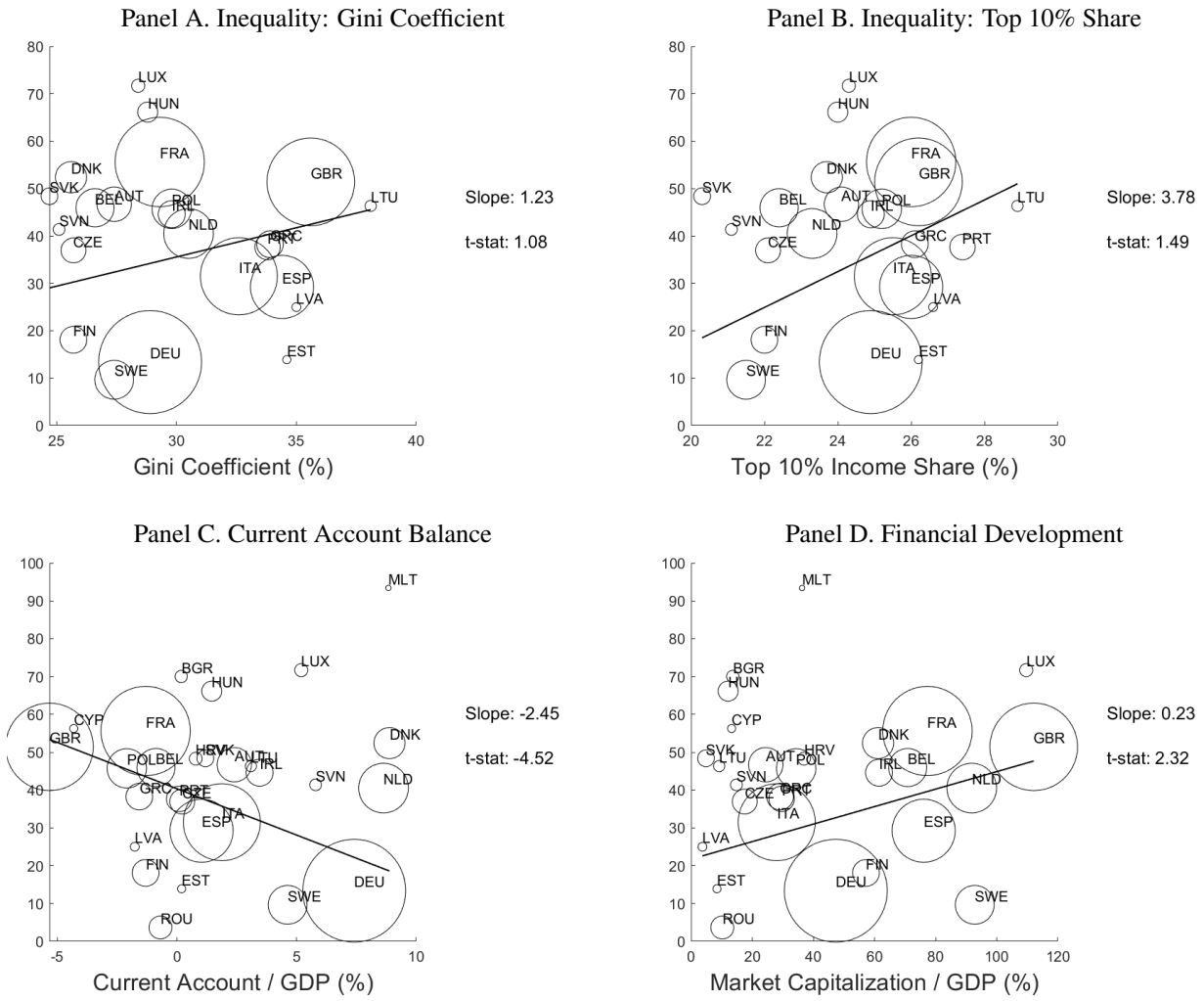

Figure A15. Vote Share of Anti-Immigrant Parties: European Parliament Elections Only. Excluding the U.S. This figure plots the election vote share of the parties we classify as anti-immigrant, in percent. For each European country, we use its May 2014 European Parliament election. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

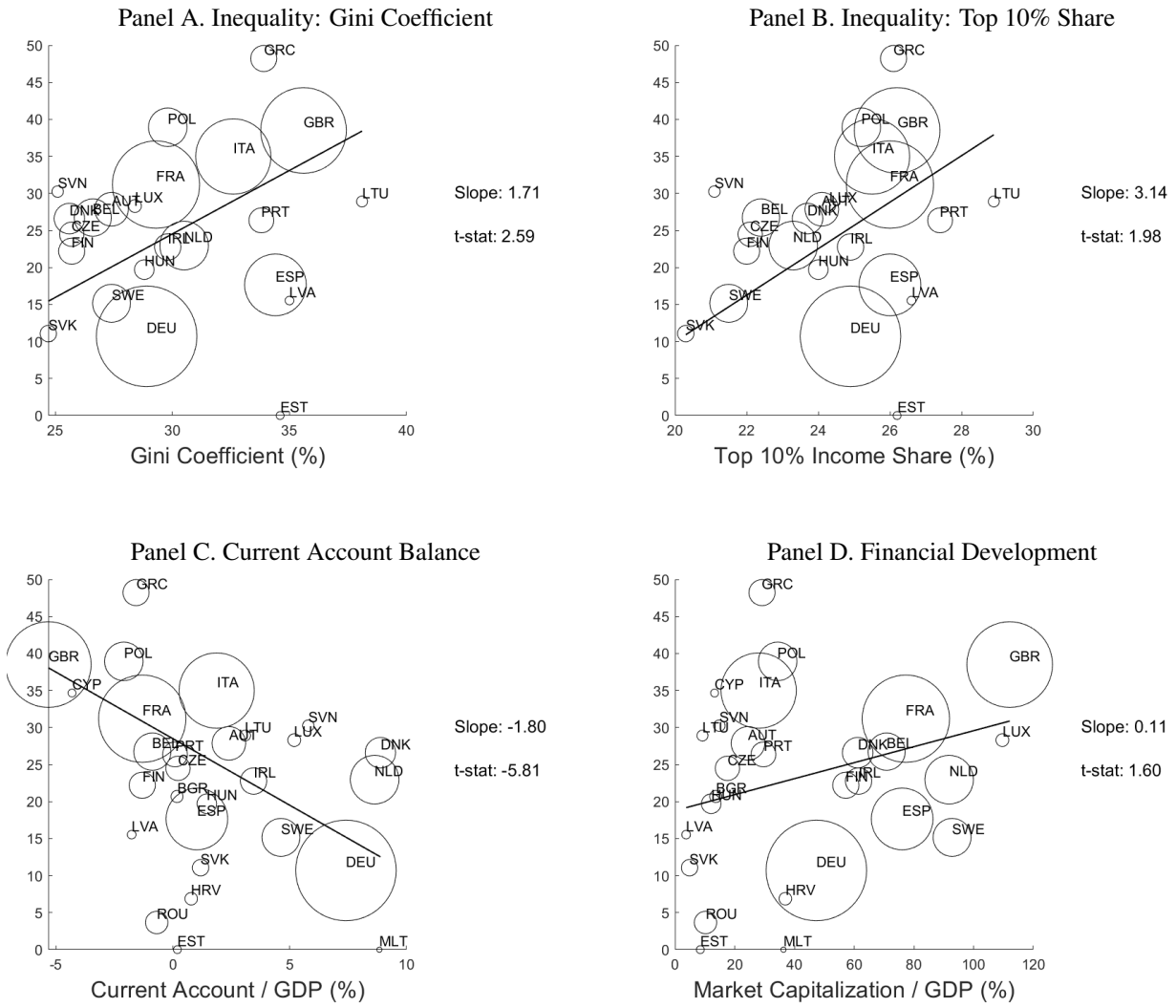

Figure A16. Vote Share of Anti-Elite Parties: European Parliament Elections Only. Excluding the U.S. This figure plots the election vote share of the parties we classify as anti-elite, in percent. For each European country, we use its May 2014 European Parliament election. The vote share is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

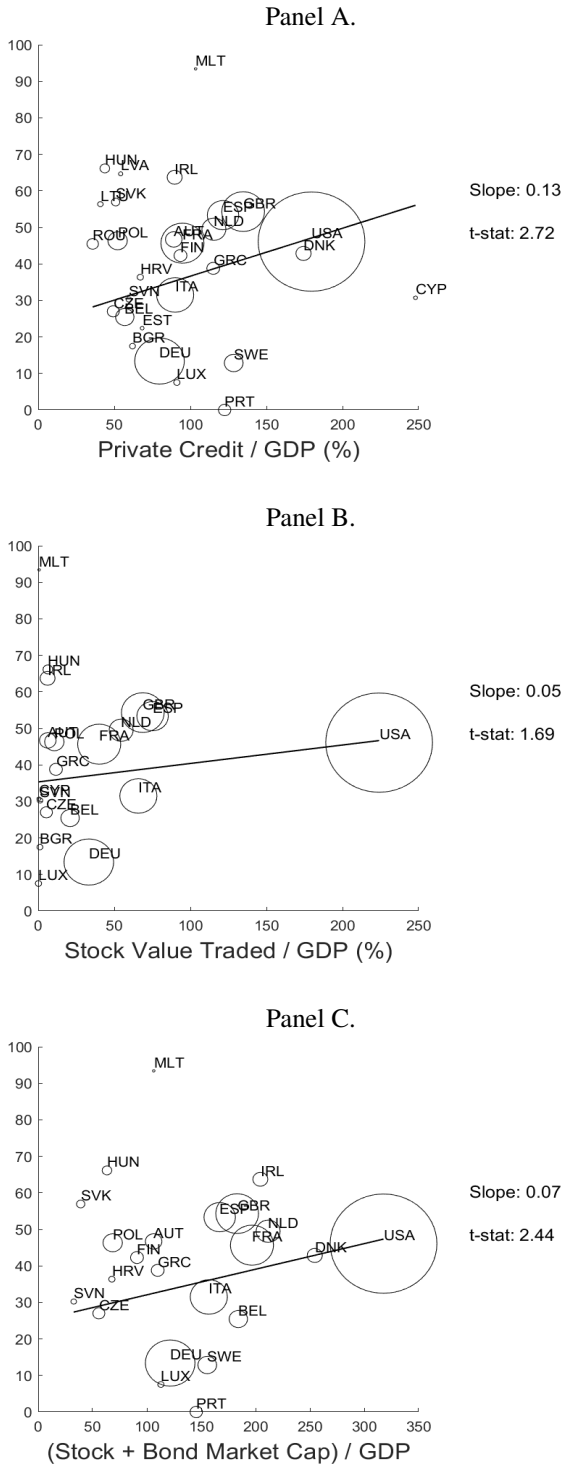

Figure A17. Vote Share of Nationalist Parties: Other Measures of Financial Development. This figure plots the election vote share of the parties we classify as nationalist, in percent. The vote share is plotted against three alternative country-level measures of financial development: private credit to GDP (Panel A), stock market trading volume to GDP (Panel B), and the sum of stock and bond market capitalizations to GDP (Panel C). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

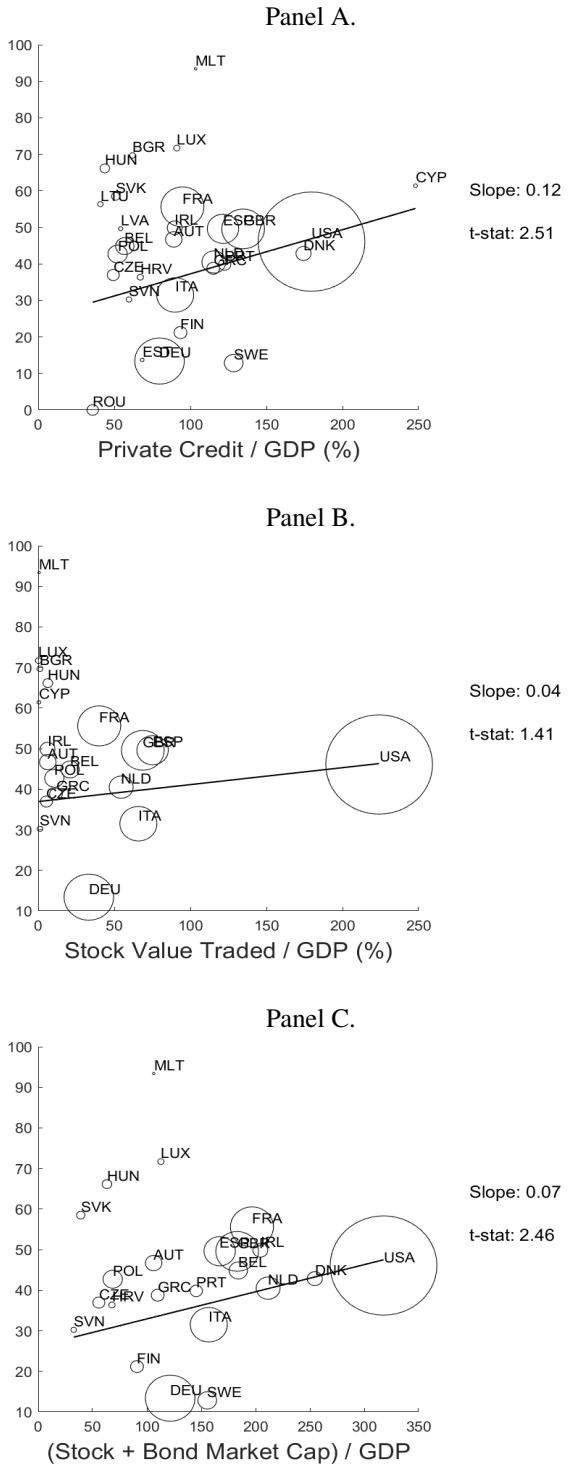

Figure A18. Vote Share of Anti-Immigrant Parties: Other Measures of Financial Development. This figure plots the election vote share of the parties we classify as anti-immigrant, in percent. The vote share is plotted against three alternative country-level measures of financial development: private credit to GDP (Panel A), stock market trading volume to GDP (Panel B), and the sum of stock and bond market capitalizations to GDP (Panel C). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

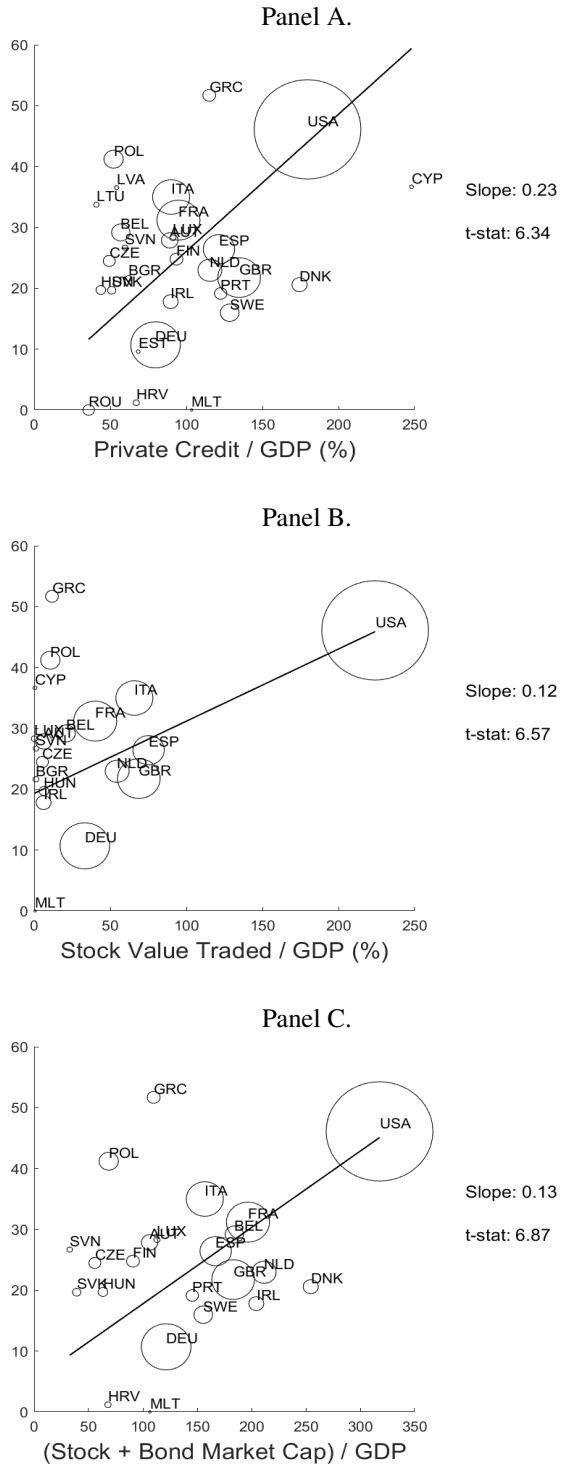

Figure A19. Vote Share of Anti-Elite Parties: Other Measures of Financial Development. This figure plots the election vote share of the parties we classify as anti-elite, in percent. The vote share is plotted against three alternative country-level measures of financial development: private credit to GDP (Panel A), stock market trading volume to GDP (Panel B), and the sum of stock and bond market capitalizations to GDP (Panel C). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

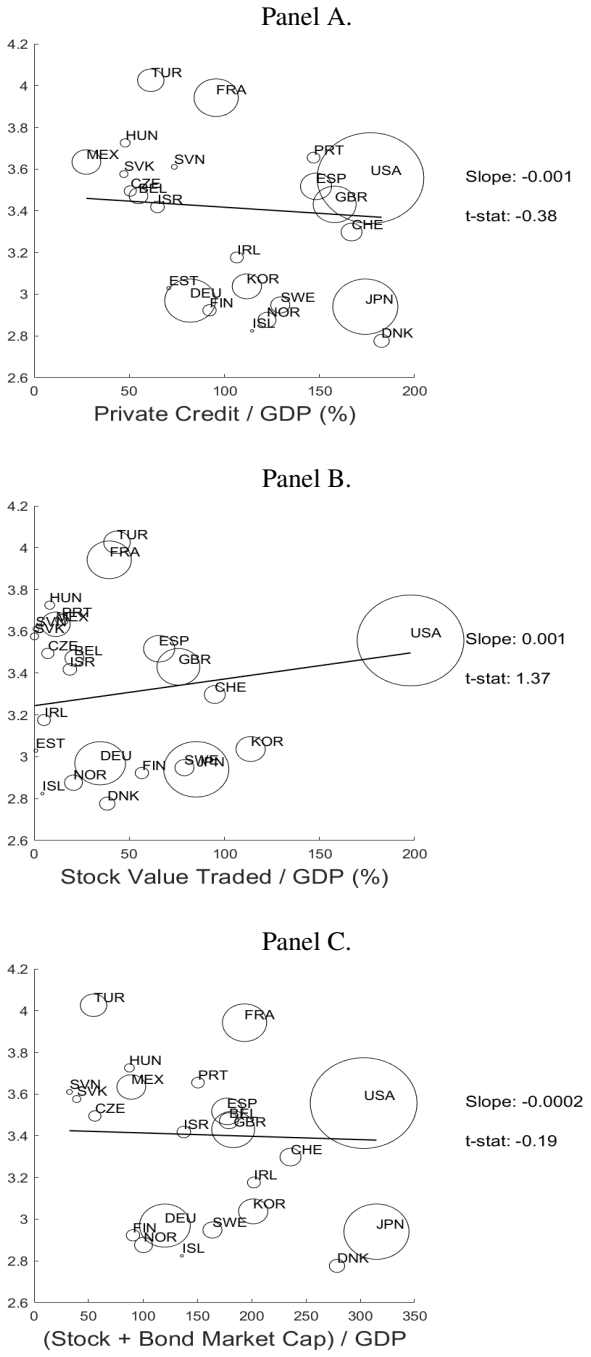

Figure A20. Support for Protectionism: Other Measures of Financial Development. This figure plots the extent to which the country's respondents in the 2013 ISSP survey agree with the statement "Country should limit the import of foreign products." The survey responses range from 1 to 5, with 5 indicating "agree strongly" and 1 "disagree strongly." The original scoring is in reverse but we flip it around so that a higher score indicates stronger support for protectionism. The country-level score is the average of all individual responses in the country. This score is plotted against three alternative country-level measures of financial development: private credit to GDP (Panel A), stock market trading volume to GDP (Panel B), and the sum of stock and bond market capitalizations to GDP (Panel C). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

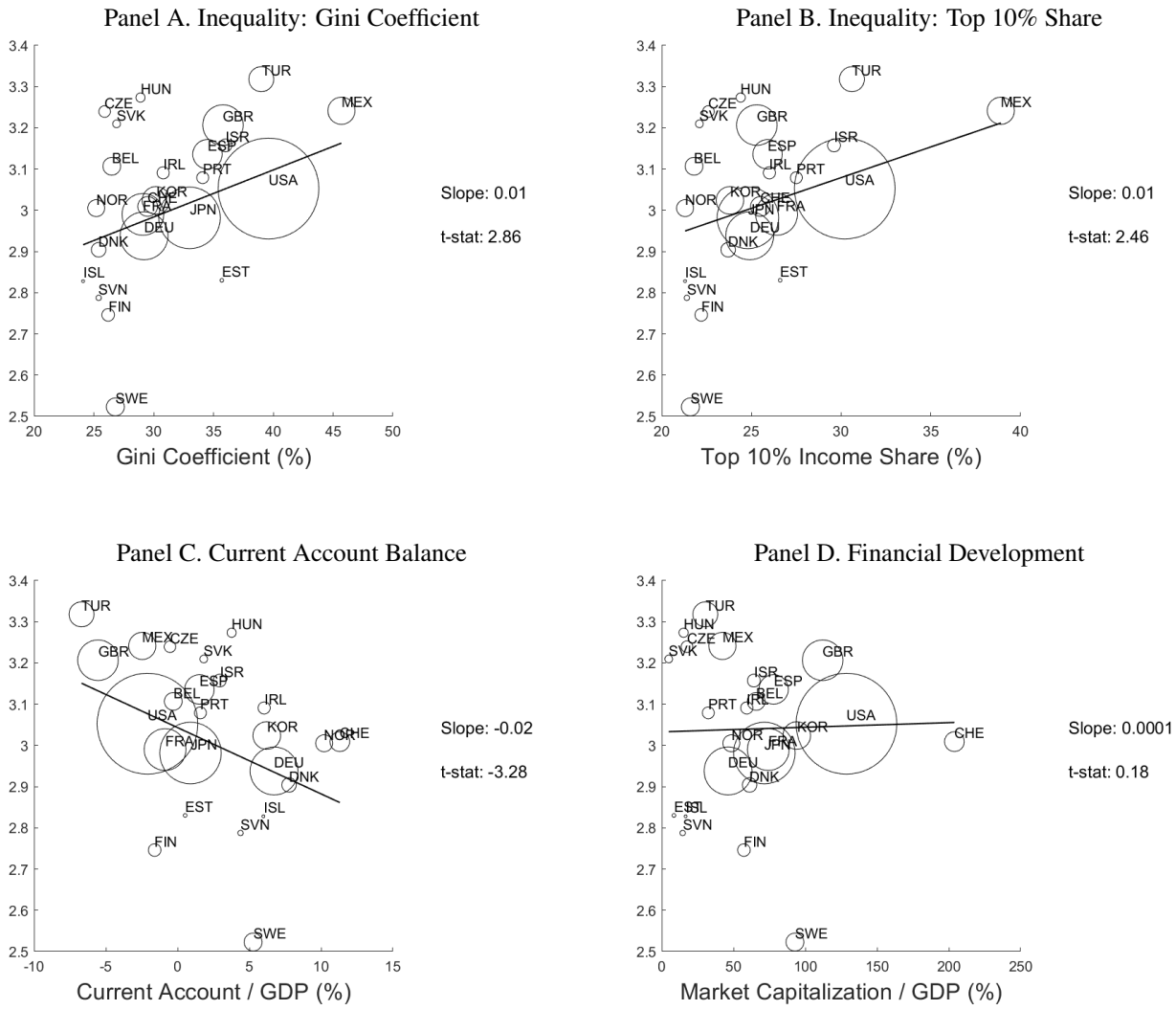

Figure A21. Support for Protectionism: Alternative Survey Question (2c). This figure plots the extent to which the country's respondents in the 2013 ISSP survey agree with the statement "It is important to have lived in a country for most of one's life." The survey responses range from 1 to 4, with 4 indicating "very important" and 1 "not important at all." The original scoring is in reverse but we flip it around so that a higher score indicates stronger support for protectionism. The country-level score is the average of all individual responses in the country. This score is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

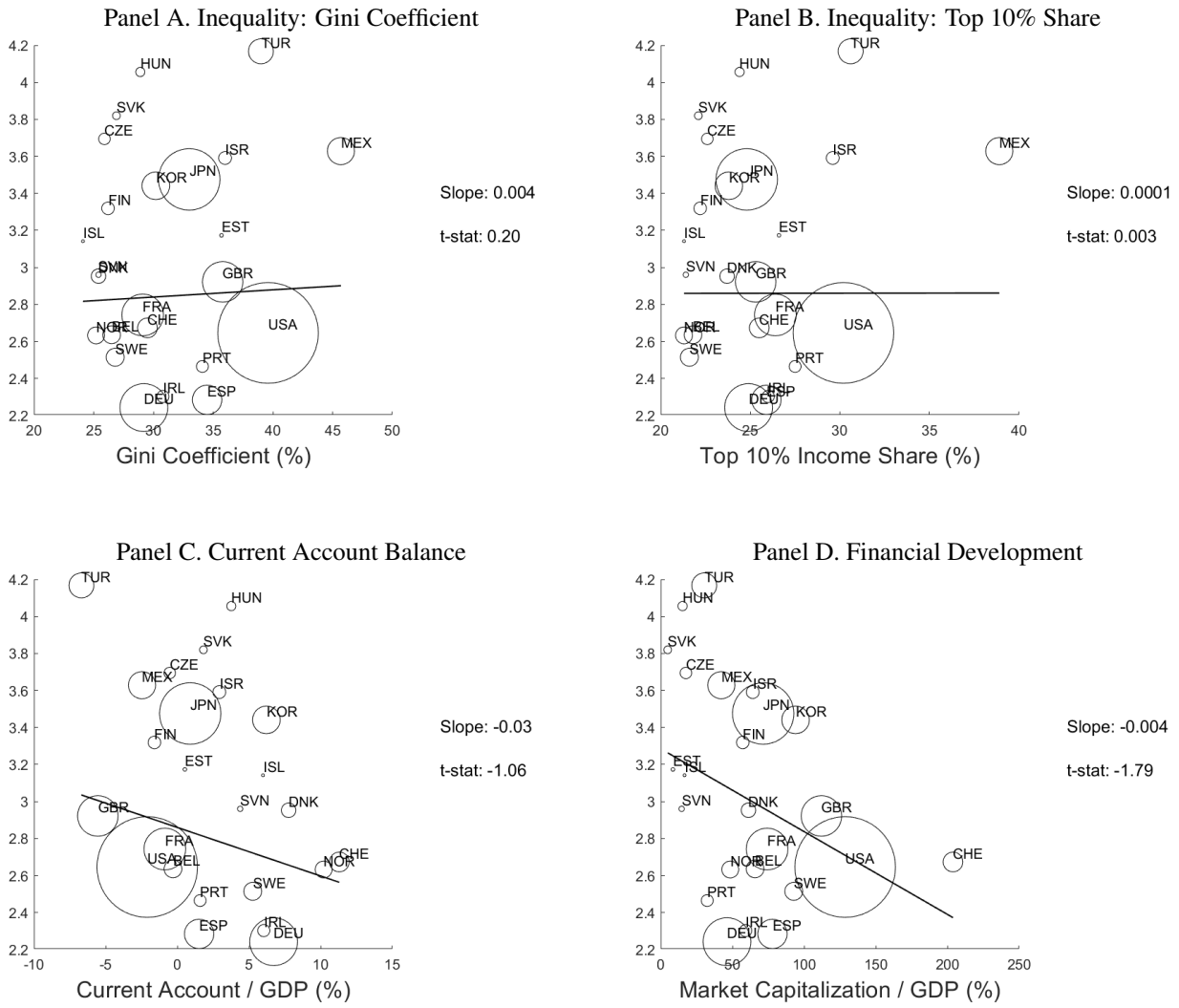

Figure A22. Support for Protectionism: Alternative Survey Question (5d). This figure plots the extent to which the country's respondents in the 2013 ISSP survey agree with the statement "Foreigners should not be allowed to buy land in country." The survey responses range from 1 to 5, with 5 indicating "agree strongly" and 1 "disagree strongly." The original scoring is in reverse but we flip it around so that a higher score indicates stronger support for protectionism. The country-level score is the average of all individual responses in the country. This score is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression.

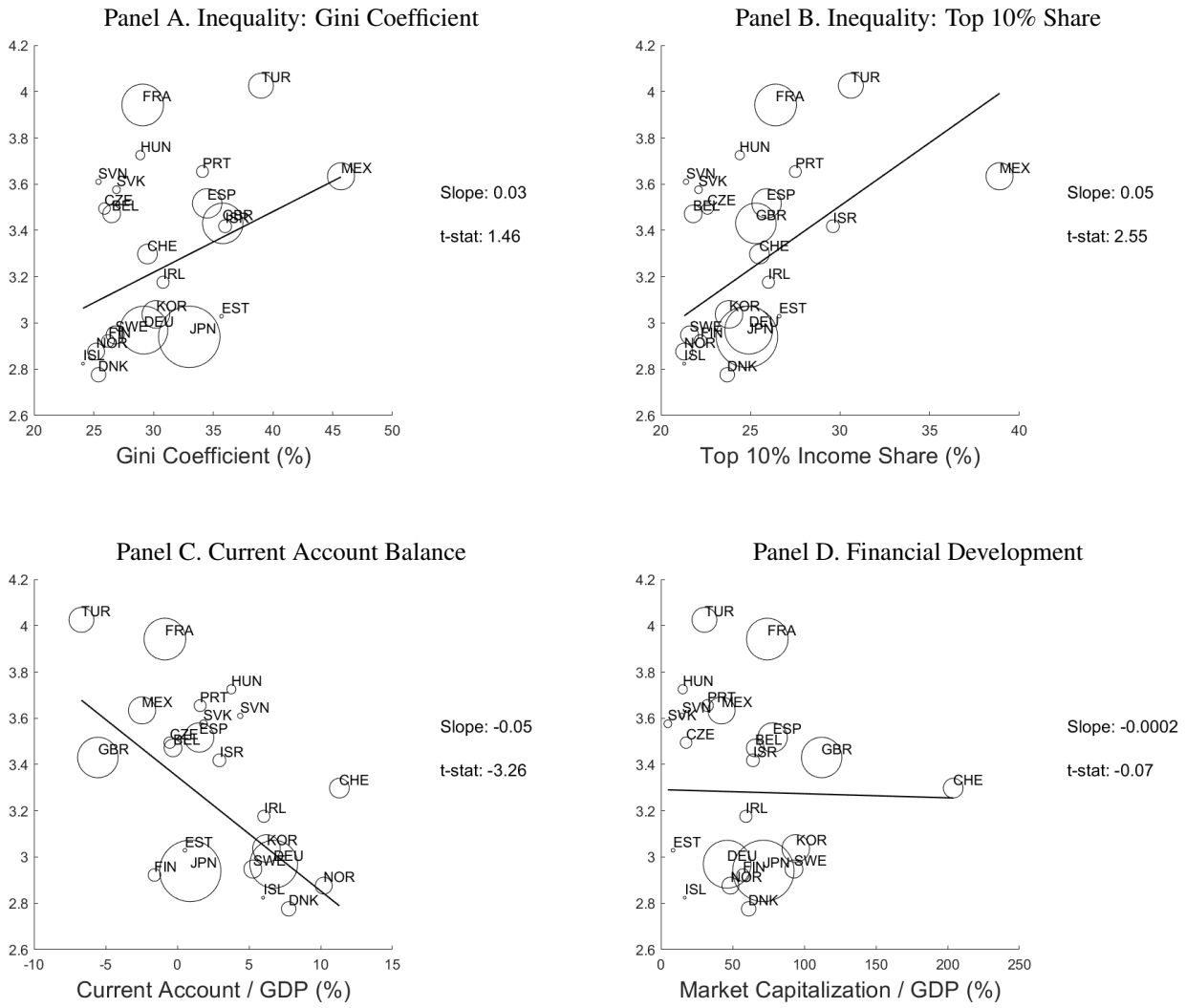

Figure A23. Support for Protectionism: Excluding the U.S. This figure plots the extent to which the country's respondents in the 2013 ISSP survey agree with the statement "Country should limit the import of foreign products." The survey responses range from 1 to 5, with 5 indicating "agree strongly" and 1 "disagree strongly." The original scoring is in reverse but we flip it around so that a higher score indicates stronger support for protectionism. The country-level score is the average of all individual responses in the country. This score is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

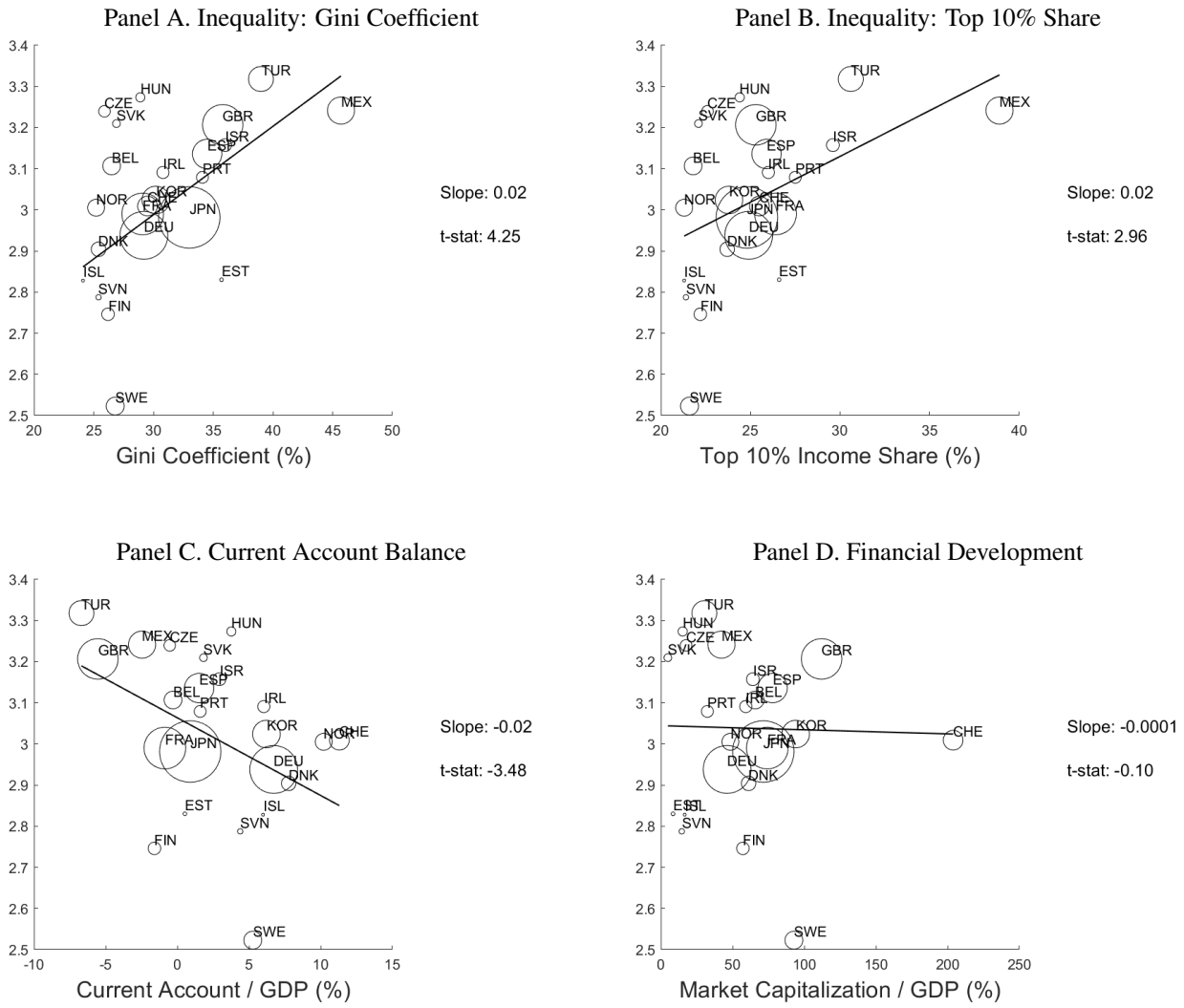

Figure A24. Support for Protectionism: Alternative Survey Question (2c). Excluding the U.S. This figure plots the extent to which the country's respondents in the 2013 ISSP survey agree with the statement "It is important to have lived in a country for most of one's life." The survey responses range from 1 to 4, with 4 indicating "very important" and 1 "not important at all." The original scoring is in reverse but we flip it around so that a higher score indicates stronger support for protectionism. The country-level score is the average of all individual responses in the country. This score is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

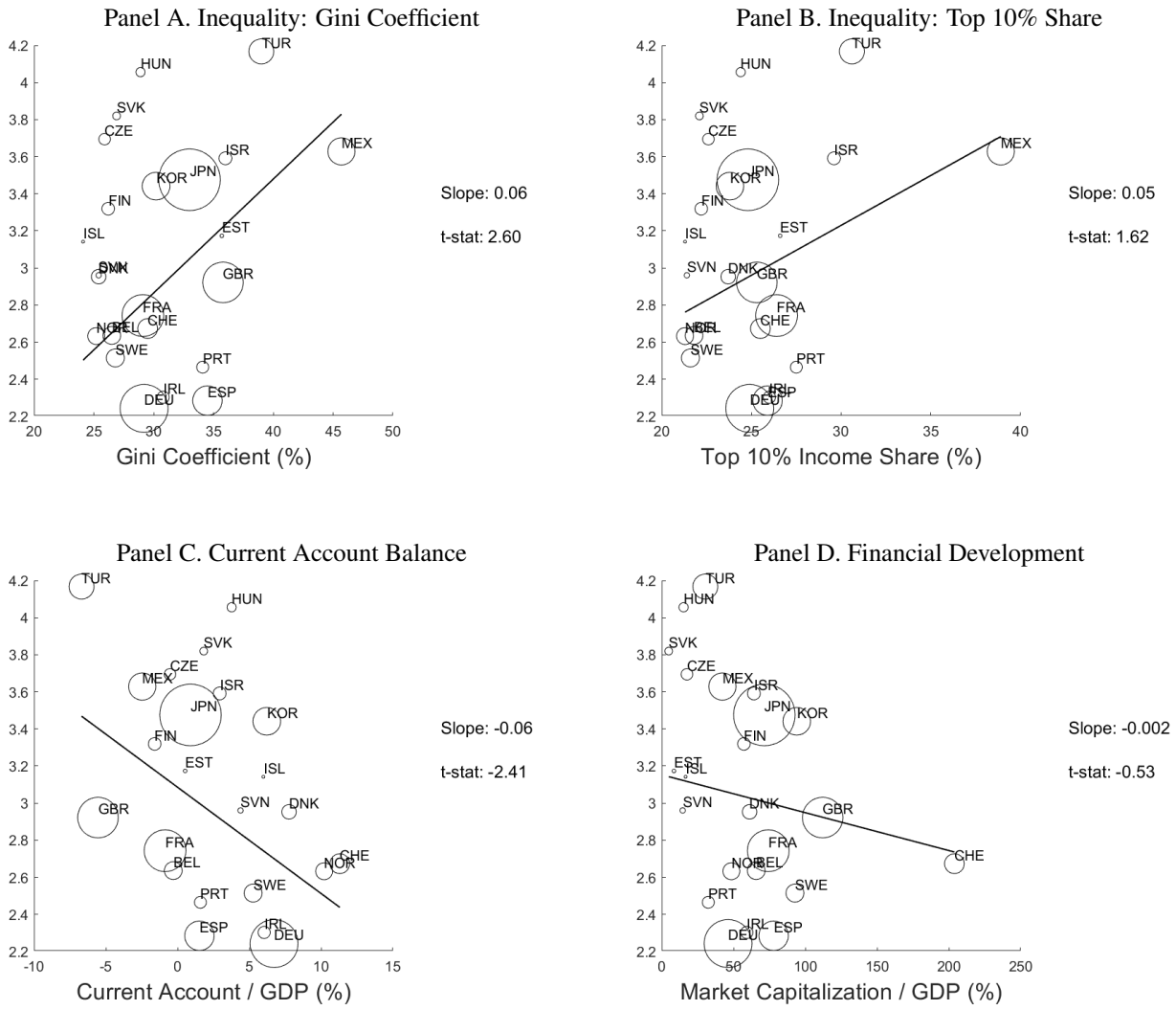

Figure A25. Support for Protectionism: Alternative Survey Question (5d). Excluding the U.S. This figure plots the extent to which the country's respondents in the 2013 ISSP survey agree with the statement "Foreigners should not be allowed to buy land in country." The survey responses range from 1 to 5, with 5 indicating "agree strongly" and 1 "disagree strongly." The original scoring is in reverse but we flip it around so that a higher score indicates stronger support for protectionism. The country-level score is the average of all individual responses in the country. This score is plotted against country-level measures of the Gini coefficient of disposable net income (Panel A), the share of income going to the top 10% of earners (Panel B), the current account balance as a fraction of GDP (Panel C), and the ratio of stock market capitalization to GDP (Panel D). The circle around each country's observation has an area proportional to the country's GDP. The slope and its t-statistic are from the GDP-weighted cross-country regression. The U.S. is excluded from the sample.

Table A1
Political Party Positions

This table reports the positions of all political parties in our sample along four dimensions related to anti-global populism: nationalism, attitudes toward immigrants and ethnic minorities, and the salience of anti-elite rhetoric. Each number in the table is the party's score on the scale of 0 to 10, with higher values indicating a more populist stance. Each party's scores are averaged across all experts evaluating this party in the 2014 Chapel Hill Survey.

Country	Party Abbreviation	Anti-Immigrant Score	Nationalist Score	Anti-Ethnic Minorities Score	Anti-Elite Score
Austria	fpo	9.89	9.4	8.8	8
Austria	gruene	1.67	1.6	1.4	4.8
Austria	neos	4	2.7	3	6.2
Austria	ovp	6.11	6.2	5.9	1.6
Austria	spo	4.44	4.1	4	2.3
Belgium	cvp	5.4	5.25	5.2	2
Belgium	ecolo	1.8	1	1.4	3
Belgium	fdf	4.4	4.5	4	4.6
Belgium	mr	6.2	3	5	1.6
Belgium	n-va	7.6	9	7	6.2
Belgium	pa-ptb	1.8	1	1.6	8.4
Belgium	pp	8.5	10	9	6.5
Belgium	ps	2.8	2.25	2	2.6
Belgium	psc-cdh	4.2	4.25	4.6	2
Belgium	pvv—vld	6.6	3	5.6	1.6
Belgium	sp	3.4	2.25	2.6	2.6
Belgium	vb	9.6	10	9.6	9
Bulgaria	abv	6.46	5.25	5.79	6.19
Bulgaria	ataka	9.38	9.82	9.87	9.47
Bulgaria	bbt	8.8	8	8.45	8.82
Bulgaria	dps	4.83	4.24	1.2	4.06
Bulgaria	gerb	6.27	5.06	4.73	4.94
Bulgaria	kzb—dl	6.2	5.12	4.93	4.06
Bulgaria	nfsb	9.13	8.81	8.93	8.38
Croatia	hdssb	7.5	8.56	8.44	6.78
Croatia	hdz	7.14	8.11	6.78	2.78
Croatia	ids	3	1.11	1.22	2.11
Croatia	sph	3.71	2.22	2.22	1.78
Cyprus	akel	3	3.5	2.5	6.5
Cyprus	diko	7	7.5	8	3.5
Cyprus	disy	6.5	4.5	6	3.5
Cyprus	edek	7	7.5	7	6.5
Cyprus	kinhma	8	8	8	4.5
Cyprus	kop	7	7	7	7.5
Czech Republic	ano	5.86	4.82	5	7.77
Czech Republic	cssd	4.33	5.08	4.69	1.5
Czech Republic	kdu-csl	7	5.08	5.75	2.46
Czech Republic	kscm	6.67	7.62	6.18	5.69
Czech Republic	ods	7.88	7.46	6.67	2.15
Czech Republic	sso	7.63	7.67	6.83	7
Czech Republic	sz	1.33	1.92	1.62	5.85
Czech Republic	top09	5	3.77	4.75	1.92
Czech Republic	usvit	9.4	9.23	9.62	9.46
Denmark	df	9.7	9.11	8	6.9

Country	Party Abbreviation	Anti-Immigrant Score	Nationalist Score	Anti-Ethnic Minorities Score	Anti-Elite Score
Denmark	en-o	1.6	2.6	1.38	5.9
Denmark	kf	7.1	7.1	6.38	2.5
Denmark	nla	4.1	4.56	5.13	3.13
Denmark	rv	2.6	2	3	1.1
Denmark	sd	5.5	4.8	5	2.8
Denmark	sf	2.8	3.2	3.13	2.9
Denmark	v	7.7	6.5	6.88	2.8
Estonia	eer	5.67	4.29	5	7.5
Estonia	ek	5	4.63	1.86	4.75
Estonia	ere	5.13	5.38	6.86	1
Estonia	ev	5.5	6.4	6.6	8.33
Estonia	irl	6.5	8.13	8.57	1.63
Estonia	sde—m	4.63	3.25	3.86	3.29
Finland	dl—vas	2.88	3.25	3.5	6.25
Finland	kd	6.14	7.13	5.71	2.25
Finland	kesk	5.63	6.75	5.5	3.75
Finland	kok	5.13	4.63	5	0.88
Finland	rkp-sfp	2.75	2.88	1.13	1.13
Finland	sp-p	9	9.25	9	9.13
Finland	ssdp	4.13	4.25	4.5	2.63
Finland	vihr	1.38	1.38	2.13	4.25
France	fn	9.8	8.82	9.91	9.55
France	pcf	3.6	4.64	3.3	6.64
France	ps	4.7	4.27	3.73	3.2
France	udf—md	6.33	5.5	5.44	5.3
France	ump—lr	7.6	7.36	7.36	3
France	v	2.1	1.55	1.4	5.36
Germany	afd	9.3	8.7	8.8	7.78
Germany	b90/gru	2.09	1.4	2.3	2
Germany	cdu	5.73	4.7	5.6	0.8
Germany	csu	7.45	6.6	7	2
Germany	fdp	3.6	3.4	4.13	0.9
Germany	li/pds	4	3.7	3.33	5.4
Germany	npd	9	9.89	10	9.11
Germany	pi	2.5	1.25	1.67	6.86
Germany	spd	3.91	3.3	3.5	1.3
Germany	tier	1	0	2	10
Greece	anel	9.11	9.22	9.11	9.22
Greece	kke	2.83	5.56	3.14	9.78
Greece	nd	8	7.44	8.22	2.33
Greece	pasok	4.33	3.67	4.33	2.78
Greece	syriza	2.22	3.11	2.11	8.56
Greece	tp	3.44	2.44	2.89	5.33
Greece	xa	10	10	10	10
Hungary	dk	2.8	1.64	3.29	4.5
Hungary	fi+kdnp	7.83	8.79	7.43	4.64
Hungary	jobbik	9.33	9.69	9	9.07
Hungary	lmp	3	3.62	2.85	7.43
Hungary	mszp	4.45	3.14	4.21	3.5
Ireland	ff	6	7.33	7.5	1.33
Ireland	fg	6.17	6.17	7.5	1.17
Ireland	green	4.17	3.17	2	5

Country	Party Abbreviation	Anti-Immigrant Score	Nationalist Score	Anti-Ethnic Minorities Score	Anti-Elite Score
Ireland	lab	5.17	4.67	3	1.5
Ireland	sf	5.2	8.17	3.5	8.2
Ireland	sp	5	3.5	0	8.8
Italy	fdl	8.75	9.4	8.75	6.25
Italy	fi-pdl	7.75	7.2	8.25	4
Italy	ln	9.5	9.6	9.75	8.8
Italy	m5s	4.25	3.8	5.67	10
Italy	ncd	7.5	6.6	7.5	2.2
Italy	pd	3.25	3.4	2.5	4.4
Italy	prc	1	2.25	1.33	9.33
Italy	svp	6	6.67	0.5	5
Latvia	lra	6.25	6.29	5.83	7.71
Latvia	na	8.71	9.75	8.78	5
Latvia	nsl	6.25	5	4.33	9
Latvia	s	4.71	3	1.44	7.38
Latvia	v	5.29	6.63	6.89	1.88
Latvia	zzs	6.29	7.38	6.89	5.5
Lithuania	dp	4.36	4.58	4.2	4.67
Lithuania	llra	6.17	6.75	1.25	6.27
Lithuania	lrls	3.73	3.33	3.18	1.5
Lithuania	lsdp	4.45	4.27	3.33	1.83
Lithuania	lvls	6.5	6.27	4.71	6.27
Lithuania	ts-lk	6.09	7.08	5.83	2
Lithuania	tt-ldp	6.45	7.75	6.17	7.5
Luxembourg	adr	6	4.5	4	5
Luxembourg	ar—adr	9.5	9	9.5	9
Luxembourg	csv	7.5	5.5	7	2.5
Luxembourg	dl	2	1	1.5	9
Luxembourg	dp	6.5	5.5	4.5	5
Luxembourg	greng	4.5	4	3	6.5
Malta	pl	8.5	6.75	5.75	3.33
Malta	pn	6.75	7	4.5	4.33
Netherlands	50+	5	6	5.5	5.8
Netherlands	cda	6.5	6.25	5.71	1.43
Netherlands	cu	3.75	6.29	4.71	2.14
Netherlands	d66	2.13	1.38	2.71	1.43
Netherlands	gl	1.13	1.38	1.86	1.71
Netherlands	pvda	4.13	4.25	3.71	1.29
Netherlands	pvdd	2.33	5	4.33	5
Netherlands	pvv	9.88	9.75	9.86	9.43
Netherlands	sp	4.38	6.25	4.5	6.57
Netherlands	vvd	7.5	5.88	5.86	1.71
Poland	pis	6.2	8.18	7.06	7.47
Poland	po	4	3.82	4	1.41
Poland	psl	6.38	6.41	5.56	2.41
Poland	razem	5.63	7.19	6.15	6.33
Poland	sld	3.33	3.06	3.19	2.82
Portugal	be	0.8	1.5	1.4	7.5
Portugal	cdu	2.5	4.83	3	7.5
Portugal	ps	4	4.17	4	2
Portugal	psd	6.8	5.83	6.2	0.5
Romania	pmp	4.6	4.92	4.86	4.38

Country	Party Abbreviation	Anti-Immigrant Score	Nationalist Score	Anti-Ethnic Minorities Score	Anti-Elite Score
Romania	pnl	4.14	4.94	4.56	2.86
Romania	psd	4.71	7.5	5.56	2.54
Romania	udmr	4.6	4.31	0.63	3.5
Slovakia	kdh	7.62	7.5	6.69	3.79
Slovakia	mh	5.36	3.79	1	3.5
Slovakia	mk	5	6	0.62	4
Slovakia	olano	7.36	7.08	6.5	8.5
Slovakia	s	6	5.5	6	5.75
Slovakia	sas	4.55	3.21	4.5	5.64
Slovakia	smer	6.46	6.79	7.31	3.71
Slovakia	sns	9.31	9.93	10	7
Slovenia	desus	4.5	4.75	4.75	4.5
Slovenia	lzj-ps	2.78	2.75	2.88	4.63
Slovenia	nsi	7.44	7.63	6.22	5.88
Slovenia	sds	7.8	8.11	7.22	6.63
Slovenia	sls	6.44	7	5.63	5
Slovenia	smc	3.5	3.71	3.89	4.71
Slovenia	zaab	2.78	3.38	3.25	4.25
Slovenia	zdle	1.22	1	0.67	6.75
Spain	ap-p	8.1	7.2	7.44	1.4
Spain	c-pc	6.25	5	6.17	6.33
Spain	cc	6.44	6.88	5.13	1.86
Spain	cdc	6.67	8.1	4.63	1.9
Spain	ehb	5.83	8.33	3.17	2.25
Spain	erc	3.67	8.3	2.38	4.22
Spain	p	1.4	6	2.67	10
Spain	pnv	6.44	8.4	4.25	1.9
Spain	psoe	3.6	4.3	4.11	3
Sweden	c	1.94	3	3.31	2.05
Sweden	fi	0.47	0.94	1.27	7.13
Sweden	fp	2.17	2.78	3.38	1.95
Sweden	kd	2.61	4.65	3.94	2.11
Sweden	m	2.61	3.89	3.88	1.74
Sweden	mp	0.56	1.17	1.63	3.58
Sweden	sap	2.33	3.33	3	1.95
Sweden	sd	9.78	9.78	9.81	8.89
Sweden	v	0.56	1.28	1.56	5.37
United Kingdom	con	8	7.33	5.14	2.17
United Kingdom	gp	2.14	1.17	1.17	7.67
United Kingdom	lab	5.43	4.17	2.71	4
United Kingdom	lib	4.29	3.17	2.14	3.17
United Kingdom	plaid	3	5.75	1	6.5
United Kingdom	snp	3.6	6.33	2	7.33
United Kingdom	ukip	10	9.83	8.43	9.29

A9. Evidence from the Brexit Referendum

Table A2 is the counterpart of the table presented in the paper except that it uses probit rather than logit estimation.

Table A2
Determinants of the Support for Brexit

This table reports the slope coefficients from a cross-sectional probit regression. The left-hand-side variable is the support for Brexit among the respondents to the British Election Survey. The right-hand-side variables are listed in the first column. The intercept is included in the regression. The t-statistics are in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Income	-0.06			-0.04			-0.03	-0.03
	(-27.26)			(-15.03)			(-7.90)	(-7.40)
Education		-0.79		-0.76			-0.38	-0.32
		(-61.22)		(-44.82)			(-12.60)	(-9.77)
WillingnessToTakeRisk			0.07	0.13			0.10	0.12
			(7.86)	(10.96)			(4.88)	(5.51)
LeftRight					0.26	0.27	0.26	0.24
					(49.92)	(43.01)	(36.19)	(31.76)
Religious					0.19	0.09	0.09	0.06
					(8.82)	(3.64)	(3.19)	(2.06)
InequalityBad					0.07	-0.02	-0.01	-0.005
					(3.05)	(-0.79)	(-0.43)	(-0.17)
PoliticiansFavorTheRich						0.17	0.15	0.17
						(10.69)	(8.55)	(9.22)
LawFavorsTheRich						0.06	0.04	0.05
						(3.63)	(2.04)	(2.31)
DoNotTrustExperts						0.46	0.40	0.39
						(38.49)	(28.61)	(26.57)
Minority								-0.31
								(-5.46)
Age								0.01
								(4.43)
Gender (Male)								-0.07
								(-2.34)
Feminist								-0.21
								(-11.65)
Observations	31095	40783	40890	25328	15631	13953	10838	10370
R^2	0.02	0.09	0.002	0.11	0.21	0.35	0.36	0.38

A10. Evidence from the Trump Election

Table A3 is the counterpart of the table presented in the paper except that it uses probit rather than logit estimation.

Table A3
Determinants of the Support for Trump

This table reports the slope coefficients from a cross-sectional probit regression. The left-hand-side variable is the support for Donald Trump in the November 2016 presidential election. Panel A controls for whether the survey respondent self-identifies as Republican; Panel B does not. The right-hand-side variables are listed in the first column. The intercept is included in the regression. The t-statistics are in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				Panel A. Controlling for Republican Dummy			
Republican	1.84	1.84	1.84	1.83	1.74	1.74	1.68
	(105.78)	(105.79)	(105.66)	(103.81)	(103.42)	(97.06)	(91.04)
Income	-0.01		0.03	0.06		0.06	0.05
	(-4.86)		(3.75)	(6.29)		(6.42)	(4.86)
Income^2		-0.001	-0.003	-0.003		-0.003	-0.002
		(-5.92)	(-5.06)	(-4.72)		(-4.19)	(-3.80)
Education				-0.16		-0.15	-0.14
				(-28.99)		(-27.72)	(-24.09)
Religious					0.23	0.22	0.26
					(38.52)	(33.19)	(37.73)
Minority							-0.70
							(-34.14)
Age							0.01
							(15.30)
Gender (Male)							0.32
							(21.03)
Observations	40445	40445	40445	40445	45209	40426	40426
R^2	0.32	0.32	0.32	0.33	0.34	0.35	0.40
				Panel B. No Control for Republican Dummy			
Income	-0.001		0.06	0.09		0.09	0.07
	(-0.28)		(7.32)	(10.41)		(10.37)	(8.21)
Income^2		-0.0003	-0.004	-0.004		-0.004	-0.003
		(-2.11)	(-7.61)	(-7.20)		(-6.24)	(-5.41)
Education				-0.17		-0.16	-0.15
				(-36.02)		(-33.37)	(-28.61)
Religious					0.33	0.31	0.36
					(60.05)	(53.49)	(58.57)
Minority							-0.91
							(-48.34)
Age							0.01
							(14.72)
Gender (Male)							0.28
							(20.50)
Observations	40456	40456	40456	40456	45222	40437	40437
R^2	0.00	0.0001	0.001	0.03	0.08	0.10	0.19

A11. Evidence from the Stock Market

According to Proposition 10, a continued increase in output before the election should lead to a rising global share of the U.S. stock market. We examine this prediction in the context of the 2016 U.S. presidential election. We obtain data on two monthly stock market return indices, for the U.S. and World-except-the-U.S., from Morgan Stanley Capital International. We invest $1 in both markets at the beginning of 2014, thus normalizing the global share of the U.S. market on January 1, 2014 to 50%. We track the performance of this hypothetical investment through 2017, updating the U.S. market share in light of the differential return performance of the U.S. and non-U.S. stocks. The market share we construct differs from the actual U.S. market share in two respects: the actual share reflects not only returns but also new equity issues and repurchases, and it is not exactly 50% on January 1, 2014. From the perspective of our model, the initial market share is irrelevant and neither issues nor repurchases appear. Therefore, the market share series constructed here is more suitable than the actual series for the purpose of testing our model.

Figure A26 shows the evolution of our U.S. market share series over time. The share increases steadily, from 50% in January 2014 to 57% in early 2017, ending at 56.2% in December 2017. In the context of our model, this increase reflects the growing strength of the global economy and, consequently, the rising probability of Trump winning the U.S. election. Trump announced his candidacy in June 2015, became the Republican nominee in July 2016, and won the election in November 2016. As his candidacy gained momentum, market participants updated their expectations and stock prices responded. Of course, this model-based interpretation ignores first-order determinants of stock prices such as macroeconomic fundamentals, corporate profits, and tax policy. There are many reasons why U.S. stocks outperformed non-U.S. stocks in 2014–2017. We do not claim that the mechanism highlighted by our model is the main reason, or even one of the main reasons. We simply conclude that the stock price evidence is broadly consistent with the model.

The event examined here, featuring the U.S. and RoW, closely matches our theoretical setting. Brexit would not match our setting from the asset pricing perspective. We have a two-country model, whereas the Brexit setting features not only the UK and the rest of the EU but also the rest of the world. Many agents who hold European stocks, such as American or Japanese investors, reside in neither the UK nor the EU. Therefore, in the Brexit setting, stocks are priced to a significant extent by agents who are absent from the model.

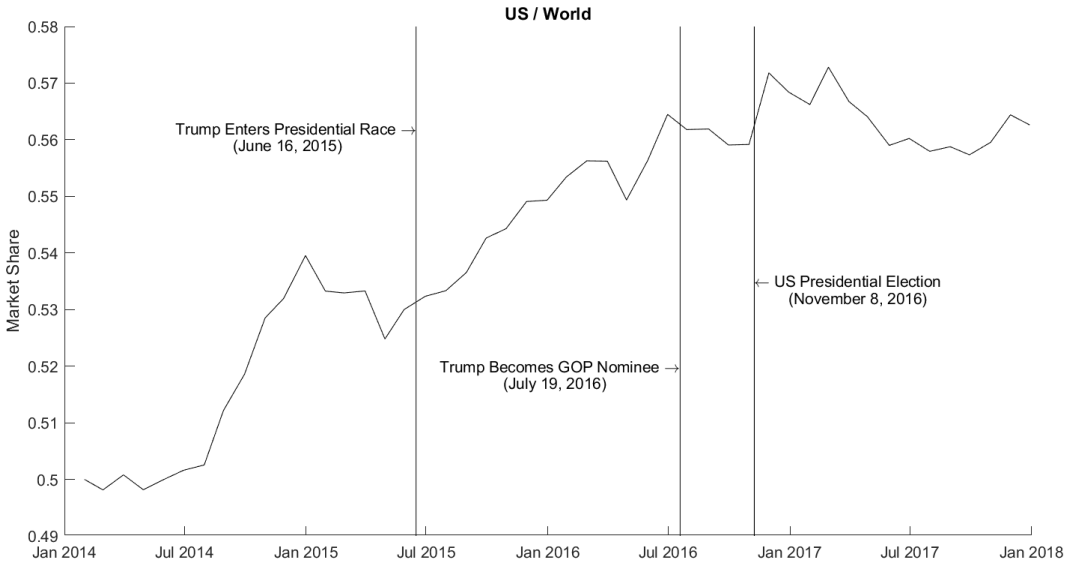

Figure A26. The U.S. Market Share. This figure plots the dynamics of the U.S. stock market's share of the global market capitalization. We normalize this share to 50% as of January 1, 2014 and update it monthly as a result of the differential return performance of the U.S. and non-U.S. stocks.

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