Web appendix for

"Persistence and Change in Culture and Institutions under Autarchy, Trade, and Factor Mobility"

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A. Data appendix

Reciprocity (Herrmann et al., 2008): The indicator is the level of cooperation sustained in a multi-period public goods game with an option for members (anonymously) to impose a cost on one or more other members of the group (at a cost to themselves) once their contributions to the public good were revealed. The experiment was implemented in a sample of 15 countries. We regard this as the best available cross national measure of the behavioral pattern we term reciprocity for two reasons: it is based on actual behavior with real monetary costs and benefits (rather than a survey) and it captures both good will towards fellow contributors and hostility towards those who would exploit the cooperativeness of others.

Intensity in routine tasks (Costinot et al., 2011): Building on Autor et al. (2003), who distinguish between routine and non-routine occupations, the index developed by Costinot et al. corresponds to the average task routineness in each 3-digit NAICS sector. Task routineness is measured using the 'importance of making decision and solving problems' in each task according to the U.S. Department of Labor's Occupational Information Network (O*NET). The intensity in tasks across sectors is measured using the share of employment of 6-digit occupations in the Bureau of Labor Statistics (BLS) Occupational Employment Statistics (2006).

Trade data (Feenstra et al., 2005): Data refer to 2000 (World Trade Flows Database, 2000).

Revealed omparative advantage (authors' computation): Following Costinot (2009), we estimate the equation: $y_{ij}^k = a_{ij} + f_j^k + g_i x^k + \varepsilon_{ij}^k$, where y_{ij}^k is logarithm of exports from country i to country j in sector k (3-digit NAICS), a_{ij} is the exporter-importer fixed effect, f_j^k is the importer-sector fixed effect, g_i is the exporter fixed effect, x^k is the intensity in routine tasks of sector k, and ε_{ij}^k is the idiosyncratic error term. Our measure of comparative advantage in routine intensive goods is given by the OLS estimate of g_i. Trade data are originally in SITC Rev 2 classification, and converted to NAICS using Feenstra-Lipsey's concordance tables (http://www.nber.org/lipsey/sitc22naics97/).

GDP per capita (World Bank, 2012): Data refer to 2000.

Sample: *Exporters* include all countries for which Herrmann et al. (2008) index is available: Australia, Belarus, China, Denmark, Germany, Greece, Korea Rep., Oman, Russian Fed., Saudi Arabia, Switzerland, Turkey, Ukraine, UK, USA. *Importers* include the 35 largest importing countries accounting for more than 90% of world imports: Areas NES, Argentina, Australia, Austria, Belgium-Lux, Bermuda, Brazil, Canada, Chile, China, China HK SAR, Czech Rep, Denmark, Egypt, Finland, France, Germany, Greece, Hungary, Indonesia, Iran, Ireland, Israel, Italy, Japan, Korea Rep., Kuwait, Malaysia, Mexico, Netherlands, New Zealand, Nigeria, Norway, Philippines, Poland, Portugal, Russian Fed., Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, UK, USA, United Arab Em., Venezuela. *Sectors* include all the 3-digit NAICS manufacturing categories for which a measure of routineness is available (with the exclusion of petroleum and coal products): food products (311); beverage and tobacco products (312); textile mills (313); textile product mills (314); apparel (315); leather and allied products (316); wood products (321); paper products (322); printing and related support activities (323); chemicals (325); plastics and rubber products (326); nonmetallic mineral products (327); primary metals (331); fabricated metal products (332); machinery, computer and electronic products (333); electrical equipment, appliance, and components (335); transport equipment (336); furniture and related products (337); miscellaneous products - medical equipment and other supplies, other miscellaneous (339).

B. Mathematical appendix

B1. Autarchic economy

LEMMA 1: *The costs of deviation from the FE match, Δ_0^{firm} and Δ_0^{work}, (a) are positive and (b) increase with C_N, for both firms and workers. Corresponding costs of deviation from the PR match, Δ_1^{firm} and Δ_1^{work}, (a') are positive and (b') increase with C_L and decrease with C_N, for both firms and workers.*

PROOF: *Parts (a) and (a').* $\Delta_0^{firm} > 0$ by the first inequality in Assumption 2, $\Delta_0^{work} > 0$ by the fact that profits are positive; $\Delta_1^{firm} > 0$ by Assumption 1, and $\Delta_1^{work} > 0$ by the second inequality in Assumption 1. *Parts (b) and (b').* Proofs are evident by inspection of (8).

LEMMA 2: *The critical fractions, ω^* and ϕ^*, both (a) increase with C_N and (b) decrease with C_L.*

PROOF: *Part (a).* Using the first of (9), it is readily proved that $\partial\omega^*/\partial C_N > 0$ *iff* $bC_N > w$, which is true by the first inequality in Assumption 2, and that $C_L > C_N$, by inequality (3); using the second of (9) it is also shown that $\partial\phi^*/\partial C_N > 0$ *iff* $\{[b + \alpha(1 - b)]C_L - \delta\} - bC_N + b(C_N - w) > 0$, which is true by the second inequality in Assumption 1 for positive profits. *Part (b).* $\partial\omega^*/\partial C_L < 0$ and $\partial\phi^*/\partial C_L < 0$ are straightforward.

LEMMA 3: *(a) The states (0,0) and (1,1) are stationary and evolutionarily stable in the unperturbed dynamics described by (6)-(10). (b) The state (1,1) Pareto-dominates (0,0).*

PROOF: *Part (a).* See the explanation in the text. *Part (b).* Workers have higher payoffs in the PR match because $\{[b+\alpha(1-b)]C_L-\delta\}>w$, which is true by the fact that $\{[b+\alpha(1-b)]C_L-\delta\}>bC_N$, by the first inequality in Assumption 1, and that $bC_N>w$, by the second inequality in Assumption 2. Likewise, employers have higher payoffs in the PR match because $(1-b)C_L>C_N-w$, by the second inequality in Assumption 2. Thus, (1,1) is Pareto-superior to (0,0).

B2. Trade integration

LEMMA 4: *Under trade, country 0 will specialize in the production of (and will export) the transparent good, while country 1 will specialize in the production of (and will export) the opaque good.*

PROOF: Inequality (13) ensures that country 0 has a comparative advantage in the production of the transparent good and country 1 has a comparative advantage in the production of the opaque good, hence complete specialization follows directly from the linearity of the two production possibility frontiers. Trade follows from complete specialization and the assumption of identical demand functions across countries.

LEMMA 5: *In country 0 (country 1), after trade and specialization in the t-good (o-good) production, the value of production in terms of the composite basket (a) increases in the prevailing FE (PR) match, that is $\tilde{C}_N^0>C_N^0$ ($\tilde{C}_L^1>C_L^1$) and (b) decreases in the idiosyncratic PR (FE) match, that is $\tilde{C}_L^0<C_L^0$ ($\tilde{C}_N^1<C_N^1$).*

PROOF: *Part (a)*: Under autarchy, the FE (PR) match in country 0 (country 1) produces equal quantities of the two goods, with the resulting production of the composite bundle equal to $C_N^0=2Q_N^oQ_N^t/(Q_N^o+Q_N^t)=p_0^tQ_N^t$ ($C_L^1=2Q_L^oQ_L^t/(Q_L^o+Q_L^t)=p_1^oQ_L^o$). After specialization, this firm-worker pair devotes all its resources to the production of the t-good (o-good) obtaining a quantity Q_N^t (Q_L^o), part of which is then exchanged for the o-good (t-good). The resulting quantity of the composite bundle is equal to $\tilde{C}_N^0=\tilde{p}^tQ_N^t$ ($\tilde{C}_L^1=\tilde{p}^oQ_L^o$), which is greater than that obtained under autarchy by (13). *Part (b)*: Under autarchy, the PR (FE) match in country 0 (country 1) produces both (o- and t-) goods in equal quantity resulting in $C_L^0=2Q_L^oQ_L^t/(Q_L^o+Q_L^t)$ ($C_N^1=2Q_N^oQ_N^t/(Q_N^o+Q_N^t)$). Here trade has two effects. The first is specialization in the t-good (o-good) of which the PR (FE) pair produces an amount of Q_L^t

(Q_N^o). Were autarchy prices hypothetically to obtain, this production would command an amount of the composite bundle equal to $p_0^t Q_L^t = 2Q_N^o Q_L^t/(Q_N^o + Q_N^t)$ $(p_1^o Q_N^o = 2Q_L^t Q_N^o/(Q_L^o + Q_L^t))$, which is lower than $C_L^0 = 2Q_L^o Q_L^t/(Q_L^o + Q_L^t)$ $(C_N^1 = 2Q_N^o Q_N^t/(Q_N^o + Q_N^t))$ by (13). It is readily proved that the price effect partially offsets the negative specialization effect. The increase in the relative price of the t-good (o-good) implies that the product of the PR (FE) match Q_L^t (Q_N^o) now commands an amount of the composite bundle equal to $\tilde{C}_L^0 = \tilde{p}^t Q_L^t$ $(\tilde{C}_N^1 = \tilde{p}^o Q_N^o)$, which is greater than $p_0^t Q_L^t$ $(p_1^o Q_N^o)$ and lower than $C_L^0 = 2Q_L^o Q_L^t/(Q_L^o + Q_L^t)$ $(C_N^1 = 2Q_N^o Q_N^t/(Q_N^o + Q_N^t))$, again by (13).

LEMMA 6: *Trade integration increases the cost of deviating from the status quo convention in country 0 (country 1) for firms and workers respectively, that is* $\tilde{\Delta}_0^{firm} > \Delta_0^{firm}$ $(\tilde{\Delta}_1^{firm} > \Delta_1^{firm})$ *and* $\tilde{\Delta}_0^{work} > \Delta_0^{work}$ $(\tilde{\Delta}_1^{work} > \Delta_1^{work})$.

PROOF: It follows from Lemma 1 and Lemma 5.

LEMMA 7: *Trade integration increases the critical fractions of innovating R-workers (E-workers) and P-contracting (F-contracting) firms sufficient to escape the status quo convention in country 0 (country 1), that is, for transitions induced by respectively workers and firms,* $\tilde{\omega}_0^* > \omega_0^*$ $(1-\tilde{\omega}_1^* > 1-\omega_1^*)$ *and* $\tilde{\phi}_0^* > \phi_0^*$ $(1-\tilde{\phi}_1^* > 1-\phi_1^*)$.

PROOF: It follows from Lemma 2 and Lemma 5.

THEOREM 1: *If agents are sufficiently rational, trade integration decreases the probability of escaping the status quo convention, that is, for transitions induced by respectively workers and firms,* $\tilde{\mu}_0^{work} < \mu_0^{work}$ $(\tilde{\mu}_1^{work} < \mu_1^{work})$ *and* $\tilde{\mu}_0^{firm} < \mu_0^{firm}$ $(\tilde{\mu}_1^{firm} < \mu_1^{firm})$.

PROOF: Using equations (11)-(12), we have:

$$\lim_{\beta\to\infty} \frac{\tilde{\mu}_j^h}{\mu_j^h} = \frac{\frac{z!}{(z\tilde{q}_j^h)!(z-z\tilde{q}_j^h)!}}{\frac{z!}{(zq_j^h)!(z-zq_j^h)!}} \lim_{\beta\to\infty} \frac{(\tilde{\sigma}_j^h)^{z\tilde{q}_j^h}}{(\sigma_j^h)^{zq_j^h}} \frac{(1-\tilde{\sigma}_j^h)^{z-z\tilde{q}_j^h}}{(1-\sigma_j^h)^{z-zq_j^h}},$$

where Δ_j^h is the cost of deviation from the *status quo* convention in country j $(j = 0, 1)$, q_j^h is the fraction of deviants in population h sufficient to escape the basin of attraction of the *status quo* convention $(q_0^h = \omega_0^*$ $(q_1^h = 1 - \omega_1^*)$ if $h = work$, $q_0^h = \phi_0^*$ $(q_1^h = 1 - \phi_1^*)$ if $h = firm)$ and $\sim$ above the variable denotes trade. Omitting the constant term, and using equations (10), the above limit can be rewritten as:

$$\lim_{\beta\to\infty} \frac{\left(\frac{1}{1+e^{\beta\tilde{\Delta}_j^h}}\right)^{z\tilde{q}_j^h}\left(1-\frac{1}{1+e^{\beta\tilde{\Delta}_j^h}}\right)^{z-z\tilde{q}_j^h}}{\left(\frac{1}{1+e^{\beta\Delta_j^h}}\right)^{zq_j^h}\left(1-\frac{1}{1+e^{\beta\Delta_j^h}}\right)^{z-zq_j^h}} = \lim_{\beta\to\infty}\frac{(1+e^{\beta\Delta_j^h})^{zq_j^h}}{(1+e^{\beta\tilde{\Delta}_j^h})^{z\tilde{q}_j^h}} = \lim_{\beta\to\infty}\frac{(e^{\beta\Delta_j^h})^{zq_j^h}}{(e^{\beta\tilde{\Delta}_j^h})^{z\tilde{q}_j^h}},$$

that, after defining $y \equiv e^{\beta}$ and for finite z, can be solved as

$$\text{(B1)} \qquad \lim_{\beta\to\infty}\frac{\tilde{\mu}_j^h}{\mu_j^h} = \lim_{y\to\infty}\frac{(y^{\Delta_j^h})^{zq_j^h}}{(y^{\tilde{\Delta}_j^h})^{z\tilde{q}_j^h}} = \begin{cases} 0 \text{ iff } \Delta_j^h q_j^h < \tilde{\Delta}_j^h \tilde{q}_j^h \\ 1 \text{ iff } \Delta_j^h q_j^h = \tilde{\Delta}_j^h \tilde{q}_j^h \\ \infty \text{ iff } \Delta_j^h q_j^h > \tilde{\Delta}_j^h \tilde{q}_j^h \end{cases}$$

Given Lemma 6 and Lemma 7, we know that, for respectively workers and firms, $\Delta_0^{work}\omega_0^* < \tilde{\Delta}_0^{work}\tilde{\omega}_0^*$ $(\Delta_1^{work}(1-\omega_1^*) < \tilde{\Delta}_1^{work}(1-\tilde{\omega}_1^*))$ and $\Delta_0^{firm}\phi_0^* < \tilde{\Delta}_0^{firm}\tilde{\phi}_0^*$ $(\Delta_1^{firm}(1-\phi_1^*) < \tilde{\Delta}_1^{firm}(1-\tilde{\phi}_1^*))$. Hence, we can conclude that there exists $\bar{\bar{\beta}}$ such that for $\beta > \bar{\bar{\beta}}$ it must be that, for respectively workers and firms, $\tilde{\mu}_0^{work} < \mu_0^{work}$ $(\tilde{\mu}_1^{work} < \mu_1^{work})$ and $\tilde{\mu}_0^{firm} < \mu_0^{firm}$ $(\tilde{\mu}_1^{firm} < \mu_1^{firm})$.[32]

LEMMA 8: *The tariff rates which induce, respectively, firms and workers to implement a transition from the inferior FE to the superior PR convention are given by* $\theta_\omega^* = b\tilde{C}_N/w - 1$ and $\theta_\phi^* = \tilde{C}_N/w - 1$.

PROOF: Denoting by θ the import tariff on the opaque goods in country 0, the after-tariff quantity of the composite bundle available under trade is $\tilde{C}_N/(1+\theta)$. Using this and equating equations (9) to zero, we have: $b\tilde{C}_N/(1+\theta_\omega^*) - w = 0$ and $\alpha[\tilde{C}_N/(1+\theta_\theta^*) - w] = 0$, which give equations (14) in the text.

B3. Factor market integration

For simplicity, in this section, we consider autarchic goods markets, in which case each firm, either in the pool or in the national markets, produces a single unit of the composite basket. As is proven below our results would remain unaltered

[32] Since ω_j^* and ϕ_j^* could be any two numbers in the unit interval, we incur an integer problem. To avoid notational clutter, in the text we have assumed that z is large enough that $z\omega_j^*$ and $z\phi_j^*$ are integers. To handle the problem explicitly, we could define $z\omega_j^+$ and $z\phi_j^+$ as the least integers greater than or equal to, respectively, $z\omega_j^*$ and $z\phi_j^*$. If we then replace $z\omega_j^*$ and $z\phi_j^*$ with, respectively, $z\omega_j^+$ and $z\phi_j^+$ in equations (11)-(12), Lemma 7 would imply that $\tilde{\omega}_j^+ \geq \omega_j^+$ and $\tilde{\phi}_j^+ \geq \phi_j^+$. It easy to prove that conditions $\Delta_j^{work}\omega_j^+ < \tilde{\Delta}_j^{work}\tilde{\omega}_j^+$ and $\Delta_j^{firm}\phi_j^+ < \tilde{\Delta}_j^{firm}\tilde{\phi}_j^+$ for Theorem 1 to be valid still hold. Analogous reasoning shows that Theorem 2 also holds under explicit consideration of integers.

if trade integration were to be considered instead (see below). In what follows we report proofs for our results considering country 0 (*FE status quo* convention). Our analysis could be easily extended to country 1 (*PR status quo* convention).

First, we define the country probability difference of matching P-firms and R-workers. In the neighborhood of the FE convention, the probability of an employer being paired with a reciprocal employee conditional to being resident, respectively, in country 1 and in country 0 is $\lambda(1-\sigma_0)+(1-\lambda)[s_0\sigma_0+s_1(1-\sigma_0)]$ and $\lambda\sigma_0+(1-\lambda)[s_0\sigma_0+s_1(1-\sigma_0)]$, where s_0 and s_1 are the relative sizes of the two countries. The difference between the two is $\lambda(1-2\sigma_0)$, which, for β sufficiently large (σ_0 going to zero), can be approximated by λ. Similar expressions are readily found for the corresponding country difference in the probability of an employee being paired with a Partnership.

Second, we report the equations for the expected payoffs and the critical fractions.

Firms. The expected payoffs to employers implementing P- and F-contracts are

(B2)

$$\ddot{v}^P(\omega_0) = \lambda(1\text{-}b)[\omega_0 C_L^0+(1\text{-}\omega_0)C_N^0]+(1\text{-}\lambda)(1\text{-}b)\{s_1C_L^0+s_0[\omega_0C_L^0+(1\text{-}\omega_0)C_N^0]\},$$
$$\ddot{v}^F(\omega_0) = \lambda(C_N^0\text{-}w)+(1\text{-}\lambda)[s_1(C_N^0\text{-}w)+s_0(C_N^0\text{-}w)] = C_N^0\text{-}w.$$

By equating $\ddot{v}^P(\omega_0)$ and $\ddot{v}^F(\omega_0)$ and solving for ω_0, we obtain

$$\text{(B3)}\qquad \ddot{\omega}_0^* = \frac{\frac{(1-\lambda)s_1}{\lambda s_1+s_0}[(C_N^0-w)-(1-b)C_L^0]+(bC_N^0-w)}{(1-b)(C_L^0-C_N^0)}.$$

Workers. The expected payoffs to R- and E-employees are

(B4)

$$\ddot{v}^R(\phi_0)=\lambda\{\phi_0\{[b+\alpha(1\text{-}b)]C_L^0\text{-}\delta\}+(1\text{-}\phi_0)[w\text{-}\alpha(C_N^0\text{-}w)]\}+(1\text{-}\lambda)\{s_1\{[b+\alpha(1\text{-}b)]C_L^0+$$
$$\text{-}\delta\}+s_0[\phi_0\{[b+\alpha(1\text{-}b)]C_L^0\text{-}\delta\}+(1\text{-}\phi_0)[w\text{-}\alpha(C_N^0\text{-}w)]]\},$$
$$\ddot{v}^E(\phi_0)=\lambda[\phi_0bC_N^0+(1\text{-}\phi_0)w]+(1\text{-}\lambda)\{s_1bC_N^0+s_0[\phi_0bC_N^0+(1\text{-}\phi_0)w]\}.$$

By equating $\ddot{v}^R(\phi_0)$ and $\ddot{v}^E(\phi_0)$ and solving for ϕ_0, we obtain

$$\text{(B5)}\qquad \ddot{\phi}_0^* = \frac{\frac{(1-\lambda)s_1}{\lambda s_1+s_0}\{bC_N^0-\{[b+\alpha(1-b)]C_L^0-\delta\}\}+\alpha(C_N^0-w)}{\{[b+\alpha(1-b)]C_L^0-\delta\}-bC_N^0+\alpha(C_N^0-w)}.$$

Similar expressions could be found for $1-\ddot{\omega}_1^*$ and $1-\ddot{\phi}_1^*$. Below, we provide proofs of the results mentioned in the text.

LEMMA 9: *Factor market integration (a reduction in λ) decreases the cost of deviating from the status quo convention in country 0 (country 1) for firms and workers respectively, that is, $\ddot{\Delta}_0^{firm} < \Delta_0^{firm}$ ($\ddot{\Delta}_1^{firm} < \Delta_1^{firm}$) and $\ddot{\Delta}_0^{work} < \Delta_0^{work}$ ($\ddot{\Delta}_1^{work} < \Delta_1^{work}$).*

PROOF: *Firms.* In country 0, the cost of deviation from FE for employers, $\ddot{\Delta}_0^{firm}$, is given by $\ddot{v}^F(\omega_0 = 0) - \ddot{v}^P(\omega_0 = 0)$, where $\ddot{v}^F(\omega_0)$ and $\ddot{v}^P(\omega_0)$ are defined by equations (B2) with $\omega_0 = 0$. This difference decreases with the degree of factor market integration, $1 - \lambda$, because $C_L^0 > C_N^0$ (the intuition is that $\ddot{v}^F(\omega_0 = 0)$ is unaltered by factor market integration, while $\ddot{v}^P(\omega_0 = 0)$ is increased). *Workers.* The cost of deviation from FE for workers, $\ddot{\Delta}_0^{work}$, is given by $\ddot{v}^E(\phi_0 = 0) - \ddot{v}^R(\phi_0 = 0)$, where $\ddot{v}^E(\phi_0)$ and $\ddot{v}^R(\phi_0)$ are defined by equations (B3) with $\phi_0 = 0$. This difference decreases with $1 - \lambda$ because $[b + \alpha(1 - b)]C_L^0 - \delta > bC_N^0$ by the second inequality in Assumption 1 (the intuition is that both $\ddot{v}^E(\phi_0 = 0)$ and $\ddot{v}^R(\phi_0 = 0)$ are increased by factor market integration, but $\ddot{v}^R(\phi_0 = 0)$ is increased more). Analogous reasoning applies to costs of deviation from PR in country 1.

LEMMA 10: *Factor market integration (a reduction in λ) decreases the critical fractions of innovating R-workers (E-workers) and P-contracting (F-contracting) firms sufficient to escape the status quo convention in country 0 (country 1), that is, for transitions induced by respectively workers and firms, $\ddot{\omega}_0^* < \omega_0^*$ $(1 - \ddot{\omega}_1^* < 1 - \omega_1^*)$ and $\ddot{\phi}_0^* < \phi_0^*$ $(1 - \ddot{\phi}_1^* < 1 - \phi_1^*)$.*

PROOF: *Firms.* $\ddot{\omega}_0^*$ is given by (B3) and ω_0^* is given by the first of (9). The two expressions only differ in the first term of the numerator of (B3), which is negative by the second inequality in Assumption 2. *Workers.* $\ddot{\phi}_0^*$ is given by (B5) and ϕ_0^* is given by the second of (9). The two expressions only differ in the first term of the numerator, which is negative by the second inequality in Assumption 1. Analogous reasoning applies to critical fractions in country 1.

Note that, if we considered goods market integration rather than autarchy, country 0 would specialize in the t-good production, while country 1 would produce the o-good only, and trade prices should be used in the above expressions. In this case, a plausible assumption is that when the production factors are matched in the pool, the product produced is determined by the nationality of the employer, consistent with a degree of product specificity of the physical assets of the employer (again, conclusions would not change were this hypothesis to be relaxed). Thus, the reciprocal worker would benefit even more from factor market integration, because if matched in the common pool she would produce the o-good in which her match has a comparative advantage. By contrast, the Homo economicus would lose from the o-good production, in which his match is relatively less productive. It follows that the worker's cost of deviation from FE and the critical fraction of workers sufficient to induce a transition to PR would decrease even more after integration of the factor market. (For employers, the above proofs would not change). *A fortiori*, Lemma 9 and Lemma 10 would be verified.

THEOREM 2: *If agents are sufficiently rational, factor market integration (a reduction in λ) increases the probability of escaping the status quo conven-*

tion in country 0 (country 1), that is, for transitions induced by respectively workers and firms, $\ddot{\mu}_0^{firm} > \mu_0^{firm}$ ($\ddot{\mu}_1^{firm} > \mu_1^{firm}$) and $\ddot{\mu}_0^{work} > \mu_0^{work}$ ($\ddot{\mu}_1^{work} > \mu_1^{work}$).

PROOF: Using the same methodology adopted for the proof of Theorem 1, it can be shown that

$$\lim_{\beta\to\infty} \frac{\ddot{\mu}_j^h}{\mu_j^h} = \begin{cases} 0 \text{ iff } \Delta_j^h q_j^h < \ddot{\Delta}_j^h \ddot{q}_j^h \\ 1 \text{ iff } \Delta_j^h q_j^h = \ddot{\Delta}_j^h \ddot{q}_j^h \\ \infty \text{ iff } \Delta_j^h q_j^h > \ddot{\Delta}_j^h \ddot{q}_j^h \end{cases} \tag{B6}$$

Given Lemma 9 and Lemma 10, we know that, for respectively workers and firms, $\Delta_0^{work}\omega_0^* > \ddot{\Delta}_0^{work}\ddot{\omega}_0^*$ ($\Delta_1^{work}(1-\omega_1^*) > \ddot{\Delta}_1^{work}(1-\ddot{\omega}_{1)}^*)$ and $\Delta_0^{firm}\phi_0^* > \ddot{\Delta}_0^{firm}\ddot{\phi}_0^*$ ($\Delta_1^{firm}(1-\phi_1^*) > \ddot{\Delta}_1^{firm}(1-\ddot{\phi}_1^*)$). Hence, we can conclude that there exists $\bar{\ddot{\beta}}$ such that for $\beta > \bar{\ddot{\beta}}$ it must be that, for respectively workers and firms, $\ddot{\mu}_0^{work} > \mu_0^{work}$ ($\ddot{\mu}_1^{work} > \mu_1^{work}$) and $\ddot{\mu}_0^{firm} > \mu_0^{firm}$ ($\ddot{\mu}_1^{firm} > \mu_1^{firm}$).

C. A positive degree of gain-sharing in both contracts

The two contracts considered in the text can be seen as the extreme points on a gain-sharing continuum. We show in this appendix that our results are robust to allowing a degree of gain-sharing in the 'Fixed-wage' contract. Suppose that, under a P- (F-) contract, the worker is paid a fixed-wage, w_P (w_F), plus a share of the output value, b_P, (b_F), Partnerships and Fixed-wage contracts in the text were obtained by setting, respectively, $b_P > 0$, $w_P = 0$ and $b_F = 0$, $w_F > 0$, but our results remain valid under the less restrictive assumptions that $b_P > b_F$ and $w_P < w_F$. In this case, profits are:

$$\pi^{firm} = \begin{cases} (1-b_P)C_j - w_P \text{ with } j = N, L, \text{ under } P, \\ (1-b_F)C_j - w_F \text{ with } j = N, L, \text{ under } F, \end{cases} \tag{C1}$$

whereas the workers' utilities are:

$$u^{work} = \pi^{work} + \alpha\gamma\pi^{firm} \text{ where}$$
$$\pi^{work} = \begin{cases} b_P C_j + w_P - \delta_j \text{ with } j = N, L, \text{ under a } P\text{-contract} \\ b_F C_j + w_F - \delta_j \text{ with } j = N, L, \text{ under an } F\text{-contract} \end{cases} \tag{C2}$$

where $\alpha > 0$ if the worker has reciprocal preferences, and $= 0$ otherwise; for Reciprocators $\gamma = 1$ or $= -1$ under a P-contract or an F-contract respectively; finally, $\delta_L = \delta$ and $\delta_N = 0$. Adopting (C1) and (C2), conditions for the two stationary stable states become:

ASSUMPTION 1': $0 < \delta - b_P(C_L - C_N) < \alpha(1 - b_P)(C_L - C_N)$;

ASSUMPTION 2': $(1 - b_P)C_N - w_P < (1 - b_F)C_N - w_F < (1 - b_P)C_L - w_P$.

Note that, by the first inequality in Assumption 2' and the fact that $C_L > C_N$ (equation (1) in the text), the R-workers supply L-labor to the P-contract but not to the F-contract. The E-worker, by contrast, always provides N-labor only, as it is guaranteed by the first inequality in Assumption 1'. Below we report proofs for Lemma 1 and Lemma 2 in the generalized framework. The proofs of all the other results in the paper are straightforward.

LEMMA 1: *The costs of deviation from the FE match,* Δ_0^{firm} *and* Δ_0^{work}*, (a) are positive and (b) increase with* C_N *for both firms and workers. Corresponding costs of deviation from the PR match,* Δ_1^{firm} *and* Δ_1^{work}*, (a') are positive and (b') increase with* C_L *and decrease with* C_N *for both firms and workers.*

PROOF: Costs of idiosyncratic type revision in the *FE* match and that in the *PR* match, for firms and workers, here become

$$\text{(C3)}\qquad \begin{aligned} \Delta_0^{firm} &= (b_P - b_F)C_N + (w_P - w_F) \text{ and} \\ \Delta_0^{work} &= \alpha[(1 - b_F)C_N - w_F], \\ \Delta_1^{firm} &= [(1 - b_P)C_L - (1 - b_F)C_N] + (w_F - w_P) \text{ and} \\ \Delta_1^{work} &= b_P C_L - \delta + \alpha[(1 - b_P)C_L - w_P]\} - b_P C_N. \end{aligned}$$

Parts (a) and (a'): $\Delta_0^{firm} > 0$ by the first inequality in Assumption 2', $\Delta_0^{work} > 0$ by the fact that profits are positive; $\Delta_1^{firm} > 0$ by Assumption 1', and $\Delta_1^{work} > 0$ by the second inequality in Assumption 2'**.** *Parts (b) and (b')*: Proofs are evident by inspection of (C3).

LEMMA 2: *The critical fractions,* ω^* *and* ϕ^**, both (a) increase with* C_N *and (b) decrease with* C_L*.*

PROOF: Critical values (given by (9) in the text) become:
(C4)

$$\omega^* = \frac{(b_P - b_F)C_N + (w_P - w_F)}{(1 - b_P)(C_L - C_N)},$$

$$\phi^* = \frac{\alpha[(1 - b_F)C_N - w_F]}{\{[b_P + \alpha[(1 - b_P)]C_L - w_P] - \delta\} - (b_P C_N - w_P) + \alpha[(1 - b_F)C_N - w_F]\}}.$$

Part (a): Using the first of (C4), it is readily proved that $\partial\omega^*/\partial C_N > 0$ *iff* $(1 - b_P)C_L - (1 - b_F)C_N - (w_F - w_P) > 0$, which is true by the first inequality in Assumption 2', and that $C_L > C_N$, by inequality (3); using the second of (C4), it is also shown that $\partial\phi^*/\partial C_N > 0$ *iff* $(1 - b_F)[\{[b_P + \alpha[(1 - b_P)]C_L -$

$w_P] - \delta\} - (b_P C_N - w_P)] + b_P[(1 - b_F)C_N - w_F] > 0$, which is true by the second inequality in Assumption 1' for positive profits. *Part (b)*: $\partial\omega^*/\partial C_L < 0$ and $\partial\phi^*/\partial C_L < 0$ are straightforward.

D. A constant rate of idiosyncratic type revision

We show in this appendix that our results (Theorems 1 and 2) are robust to considering a fixed-rate of idiosyncratic type revision in the process described by equations (6)-(12) in the text.

THEOREM 1: *If agents are sufficiently rational, trade integration decreases the probability of escaping the status quo convention, that is, for transitions induced by respectively workers and firms,* $\tilde{\mu}_0^{work} < \mu_0^{work}$ *(*$\tilde{\mu}_1^{work} < \mu_1^{work}$*) and* $\tilde{\mu}_0^{firm} < \mu_0^{firm}$ *(*$\tilde{\mu}_1^{firm} < \mu_1^{firm}$*).*

PROOF: Assuming σ_0^h (σ_1^h) to be a constant (not depending on the cost of deviation) and following the same methodology adopted in Appendix B.2, we have that $\lim_{\beta\to\infty} \tilde{\mu}_0^h/\mu_0^h = 0$ ($\lim_{\beta\to\infty} \tilde{\mu}_1^h/\mu_1^h = 0$) *iff* $\omega_0^* < \tilde{\omega}_0^*$ ($1 - \omega_1^* < 1 - \tilde{\omega}_1^*$) and $\phi_0^* < \tilde{\phi}_0^*$ ($1-\phi_1^* < 1-\tilde{\phi}_1^*$), which is true by Lemma 7. Hence, there exists $\tilde{\bar{\beta}}$ such that with $\beta > \tilde{\bar{\beta}}$, for respectively workers and firms, we have $\tilde{\mu}_0^{work} < \mu_0^{work}$ ($\tilde{\mu}_1^{work} < \mu_1^{work}$) and $\tilde{\mu}_0^{firm} < \mu_0^{firm}$ ($\tilde{\mu}_1^{firm} < \mu_1^{firm}$).

THEOREM 2: *If agents are sufficiently rational, factor market integration (a reduction in* λ*) increases the probability of escaping the status quo convention in country 0 (country 1), that is, for transitions induced by respectively workers and firms,* $\ddot{\mu}_0^{firm} > \mu_0^{firm}$ *(*$\ddot{\mu}_1^{firm} > \mu_1^{firm}$*) and* $\ddot{\mu}_0^{work} > \mu_0^{work}$ *(*$\ddot{\mu}_1^{work} > \mu_1^{work}$*).*

PROOF: Assuming σ_0^h (σ_1^h) to be a constant (not depending on the cost of deviation) and following the same methodology adopted in Appendix B.3, we have that $\lim_{\beta\to\infty} \tilde{\mu}_0^h/\mu_0^h = \infty$ ($\lim_{\beta\to\infty} \tilde{\mu}_1^h/\mu_1^h = \infty$) *iff* $\omega_0^* > \ddot{\omega}_0^*$ ($1 - \omega_1^* > 1 - \ddot{\omega}_1^*$) and $\phi_0^* > \ddot{\phi}_0^*$ ($1-\phi_1^* > 1-\ddot{\phi}_1^*$) which is true by Lemma 10. Hence, there exists $\ddot{\bar{\beta}}$ such that for $\beta > \ddot{\bar{\beta}}$, for respectively workers and firms, we have $\ddot{\mu}_0^{work} > \mu_0^{work}$ ($\ddot{\mu}_1^{work} > \mu_1^{work}$) and $\ddot{\mu}_0^{work} > \mu_0^{work}$ ($\ddot{\mu}_1^{firm} > \mu_1^{firm}$).

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