

Financial Integration in Autocracies: Greasing the Wheel or More to Steal?

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Financial Integration and Growth

Kose et al. (2006):

- Little evidence for a systematic relationship between financial integration and growth
- A “Reappraisal”: Direct effects of financial integration on growth are overemphasized
- Potential **Collateral Benefits** via:
 - Development of domestic financial sector
 - Macroeconomic discipline
 - Improvement of institutions and better governance

Our Paper

Does financial integration lead to better institutions?

Financial Integration and Institutions

- The view that financial integration improves institutional quality might be too optimistic
- In a number of countries, the institutional quality has deteriorated despite of increasing capital inflows
- E.g. of 69 countries that experienced capital inflows almost 75% showed decline in institutional quality (Lane and Milesi-Ferretti 2006; Kaufmann et al. 2008)
- Most of these countries are non-democratic regimes

Our Approach and Results

- We assume a country which is ruled by an autocratic regime (*de jure* political power)
- The ruling elite designs economic institutions to maximize its own utility (Acemoglu and Robinson 2000, 2006; Acemoglu et al. 2005)
- Financial integration gives the ruling elite additional incentives to expropriate the non-elite
- Expropriation rate rises after liberalization, changing economic institutions for the worse
- Non-elite's net income and its *de facto* political power may rise or decline in the long-run

Related Literature

- Capital mobility leads to liberalization of the political regime (Acemoglu and Robinson 2006, Ch. 10; Rajan and Zingales 2003; Myerson 2009)
- Financial integration may have negative impact on the evolution of human capital and thereby on democracy (Bourguignon and Verdier 2005)
- The impact of capital mobility on institutions / policies is ambiguous depending on:
 - countries' capital endowment (Gourinchas and Jeanne 2005)
 - how foreign investments affect the income distribution (Albornoz et al. 2008)

Environment I

- Small open economy with perfect foresight
- Population consists of elite and non-elite group, both of size 1
- Two sectors:
 - “Traditional” labor-intensive sector (T)
 - “Modern” entrepreneurial sector (M)
- Political system: dictatorship by the elite

Environment II

- The elite generates rents by imposing a tax (τ) on the non-elite's income
- The level of τ stands for the extent of expropriation and therefore for the **weakness of economic institutions**
- The non-elite makes each period an occupational choice: either work in sector T or start up a firm in sector P
- For a start up, capital needs to be borrowed from abroad
- Financial integration as an exogenous decline in the interest rate

Production and Incomes

- Production function in the T -sector:

$$Y^T(t) = L(t)^\beta$$

- Revenues are equally shared among all workers:

$$w(t) = [1 - \tau(t)]L(t)^{\beta-1}$$

- Net profits per entrepreneur:

$$\pi^M(t) = (\alpha - R)[1 - \tau(t)]$$

α - exogenous productivity; R - exogenous interest rate

- A Decline in R : positive productivity shock

Occupational Choice

- Sequence of events: the elite first decides on τ , then occupational choice takes place
- Occupational choice: $w(t) = \pi^M(t)$
- Labor market equilibrium:

$$L(t) = A^{\frac{1}{\beta-1}}, \quad \text{with} \quad A \equiv \alpha - R$$

- Financial integration ($R \downarrow$) raises the number of entrepreneurs ($L \downarrow$) and causes more capital inflows

Elite's Income and GNI

- Expropriation is associated with deadweight costs
- Elite's income:

$$y^E(t) = A\tau(t) - \frac{c}{2}\tau(t)^2$$

c-economic costs of expropriation

- GNI as the sum of all agents income:

$$Y(t) = A - \frac{c}{2}\tau(t)^2$$

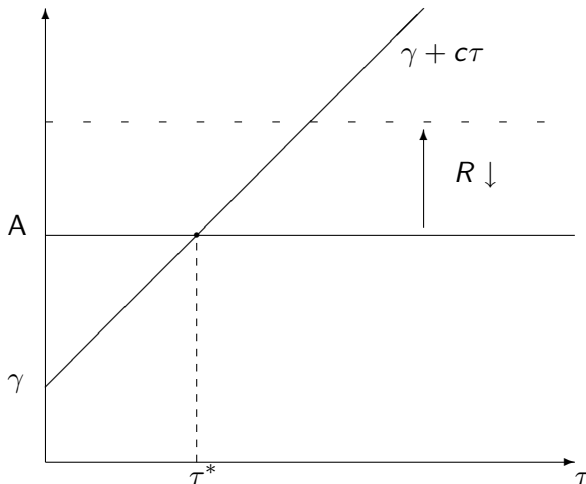
Exogenous Political Costs of Expropriation

- Elite's utility: linear function of income less *political costs* of expropriation:

$$U = A\tau - \frac{c}{2}\tau^2 - \gamma\tau$$

- γ : non-elite's *de facto* power to resist expropriation
- For now γ is constant and exogenous

Optimal Expropriation Rate and Financial Integration



Results in the Static Setting

- Financial integration raises the rate of expropriation
- Effect on incomes: GNI and entrepreneurs' profits increase
- “Efficiency-enhancing” influence of financial integration dominates the expropriation effect

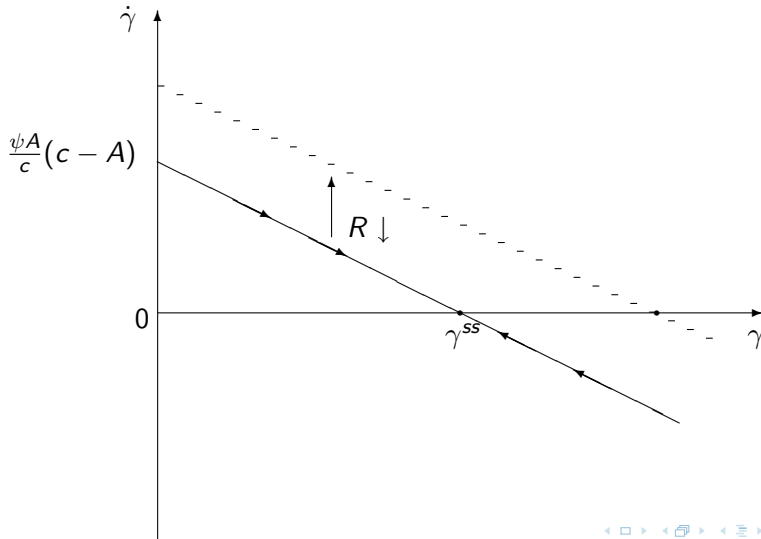
Endogenous Costs of Expropriation

- Now γ is endogenous and varies over time
- Political costs of expropriation depend on the non-elite's income

$$\dot{\gamma}(t) = \psi \pi^M(t) - \delta \gamma(t)$$

- $\psi \geq 0$ - how strong income is transformed into *de facto* political power
- $0 \leq \delta \leq 1$ - rate of “depreciation” of *de facto* political power
- *Myopic* elite: decision on τ is made without considering its influence on the accumulation of γ

Equilibrium with a Myopic Elite



Equilibrium with a Forward-Looking Elite

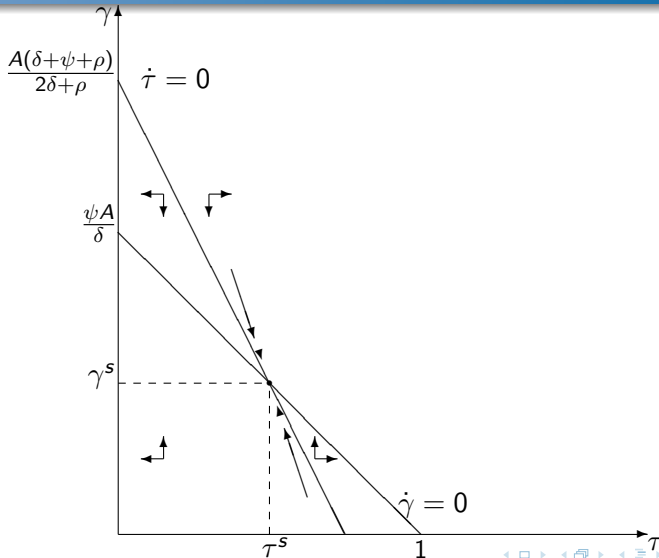
- *Forward-looking* elite takes into account how decision on τ affects non-elite's de facto political power
- Elite now maximizes:

$$\int_0^{\infty} e^{-\rho t} U^E[\tau(t), \gamma(t)] dt \quad \text{s.t.}$$

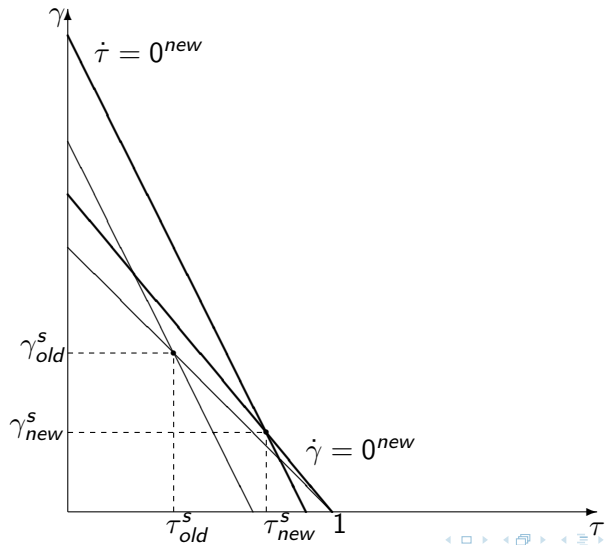
$$\dot{\gamma}(t) = \psi A[1 - \tau(t)] - \delta\gamma(t) \quad \text{and} \quad \gamma(0) \quad \text{given}$$

- Since γ declines in τ : additional motivation to expropriate the general population

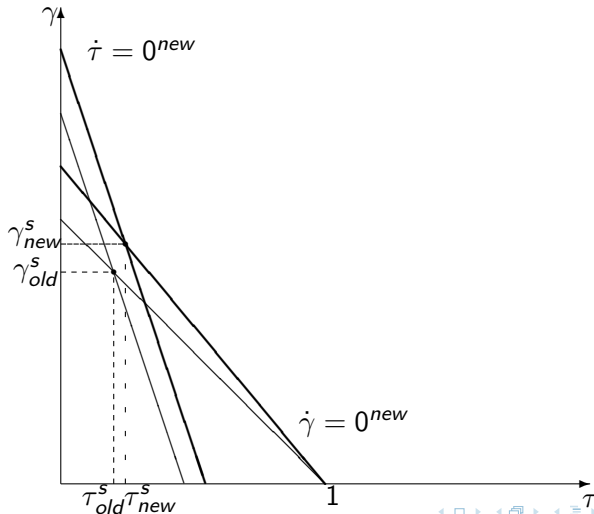
Steady State and Adjustment Path



Impact of Financial Integration



Impact of Financial Integration II



Results in the Dynamic Setting

- **Financial integration leads to a higher τ in the long-run**
- Elite expropriates additional efficiency gains caused by a reduced R
- Myopic elite:
 - Expropriation effect is weakened by the increase in the political power
 - “Overshooting” of expropriation
- Forward-looking elite:
 - More expropriation than in a static environment because of potential increase in γ
 - **Impact on political power γ in the long-run is not clear-cut**

Conclusions

- Results:
 - Financial integration **raises** the level of expropriation
 - Economic institutions change for the worse
 - However, the non-elite may get wealthier thereby also becoming more powerful
- Future work:
 - Different forms of investment (FDI vs PI)
 - Domestic capital accumulation
 - Empirical Analysis

Thank you!

Extension

- Political power of different groups
- Entrepreneurs may have more power than workers
- Capital market integration
 - pushes size of entrepreneurial class
 - dampening effect on expropriation
- Rate of expropriation may decline

Change in Capital Inflows and Institutional Quality in Selected Countries 1996-2004¹

Country	Relative Increase in Capital Inflows	Absolute Change in Control on Corruption	Absolute Change in Rule of Law	Average Democracy Index ²
Albania	1.51	-0.77	-0.77	5.11
Angola ^K	0.88	0.18	-0.24	-2.56
Armenia	1.84*	-0.13	0.01	2.56
Azerbaijan ^K	7.41	0.10	-0.10	-6.78
Bangladesh	0.34	-0.17	-0.83	6.00
Belarus ^K	5.14	-0.31	-0.01	-7.00
Bolivia ^K	1.03	-0.29	0.16	8.78
Brazil ^{K,JI}	0.95	-0.12	0.18	8.00
Burkina Faso	0.31	-0.27	0.15	-2.22
Chad ²	3.18	-0.26	-1.17	-2.00
Chile ^I	0.44	-0.06	0.11	8.56
Colombia	0.37	-0.15	0.28	7.00
Congo	0.25*	0.14	-0.08	-4.00
Costa Rica ^{II}	1.22	0.03	-0.25	10.00
Czech Republic ^{II}	13.23	-0.17	-0.22	10.00
Dominican Rep.	0.86	-0.02	-0.16	8.00
Ecuador	0.59	-0.30	-0.79	7.22
Equatorial Guinea ^{K,II}	3.56*	-0.05	-0.56	-5.00
Fiji ^I	0.79*	-0.27	-0.33	5.33
Guatemala	0.11	-0.09	0.47	8.00
Guinea ^K	0.08	0.28	-1.28	-1.00
Haiti	2.1*	-0.30	-0.39	1.86
Hungary ^{II}	2.76	-0.02	0.05	10.00
Israel ^{II}	0.08	-0.47	-0.64	9.67
Jamaica ^{II}	0.76	-0.24	-0.15	9.00
Kazakhstan ^{K,II}	1.47	-0.19	-0.22	-4.67
Kyrgyzstan	0.57	-0.19	-0.16	-3.00
Lebanon ^{II}	4.64	0.00	-0.32	n.a.
Macedonia	0.07	-0.08	0.59	7.00
Madagascar	0.07	0.84	-0.50	7.33
Malawi	0.52*	0.28	-0.30	5.44
Mali	0.21	0.39	-0.14	6.11
Moldovia	1.35	-0.52	-0.74	7.44
Myanmar	0.52	-0.31	-0.45	-7.11
Niger	0.36*	0.13	-0.51	1.44
Papua New Guinea	0.06	-1.07	-0.89	10.00
Paraguay	0.59	-0.57	-0.72	7.11
Peru	0.12	-0.05	-0.16	5.00
Philippines	0.20	-0.61	-0.22	8.00
Poland ^{II}	3.10	-0.24	-0.19	9.33
Romania ^{II}	11.61	-0.02	-0.02	8.11
Slovenia ^{II}	10.45	0.00	-0.05	10.00
Sudan ^K	0.27	0.12	-0.17	-6.67
Swaziland	0.08	-1.68	-0.61	-9.00
Tanzania	0.07	-0.02	0.43	0.11
Trinidad ^{II}	0.65	-0.61	-0.84	9.89
Turkey ^{II}	1.58	0.12	-0.18	7.11
Uganda	0.40	-0.09	-0.20	-4.00
Uzbekistan	36.8*	-0.36	-0.09	-9.00
Vietnam	0.49	0.12	-0.25	-7.00
Zimbabwe*	0.17*	-0.99	-1.12	-4.44

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