

DEMOCRACY VERSUS OLIGARCHY

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Taking Stock

- Lecture 1:
 - Institutions matter.
 - Social conflict view, a useful perspective on understanding the choice of institutions
 - Inefficient institutions may be preferable for the politically powerful.
- Lecture 2:
 - Elites may block development, depending on their motivations (factor price manipulation versus rent extraction).
 - Different political regimes produce different results.

This Lecture

- Investigate the **comparative long-run dynamics** under different political regime.
- Historical facts:
 - ‘**Reversal of Fortune**’ in colonial cases.
 - **Rise and Decline** of oligarchic societies (Venice, Dutch Republic)
- Model offers an explanation for this pattern: **Oligarchies** are inefficient in the long run, as economic productivity and political power become less correlated.
- Leading up to the next lecture: If institutions are inefficient, how do they persist?
 - Study how oligarchies consolidate or democratize.

Motivation

- Many scholars: a pattern of **rise and decline**; previously advanced civilizations collapse, while others rise.
 - The declines of the Roman Empire, the Egyptian empire, the Chinese Empire.
 - The decline of Venice and Genoa and the rise of England and the Dutch Republic (and then the decline of the Dutch Republic).
 - The decline of Inca and Aztec empires and the rise of the civilizations in North America in the New World.
- Existing theories:
 - Building up of social rigidities (Olson).
 - Military over-expansion (Kennedy).

Approach

- A different perspective on the rise and decline.
- Main idea: Institutions are chosen by the elite for their own benefit. Under certain circumstances, institutions are appropriate (or only marginally costly), and may become more costly later.
- Thus a theory of the **interaction** between institutions and economic opportunities.
- Indirectly about:
 - the costs and benefits of the different economic (political) systems
 - the potential for change and **flexibility** within given institutional environments.

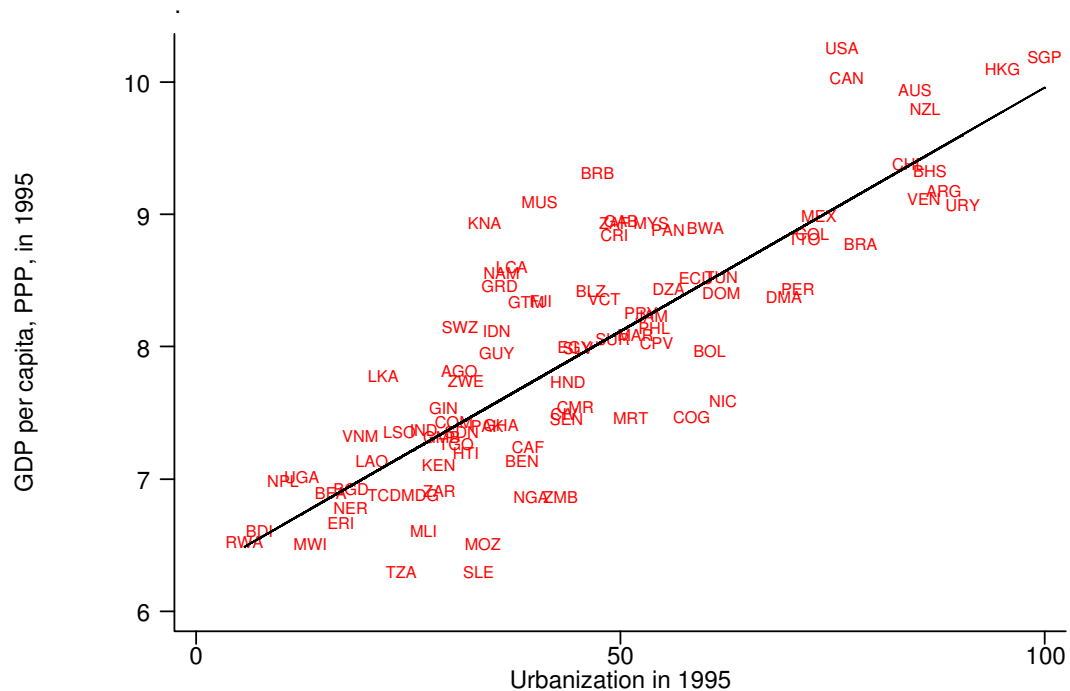
Plan of the Lecture

- Two examples of “rise and decline”.
 - Caribbean versus Northeast America (within a broader “reversal of fortune” among former European colonies).
 - Venice and Spain versus England and the Dutch Republic.
- A Model of **oligarchy versus democracy**.
 - Key trade-off between protecting the property rights of incumbents versus creating a **level playing field** for non-incumbents.
 - **Dynamic distortion** of oligarchy.

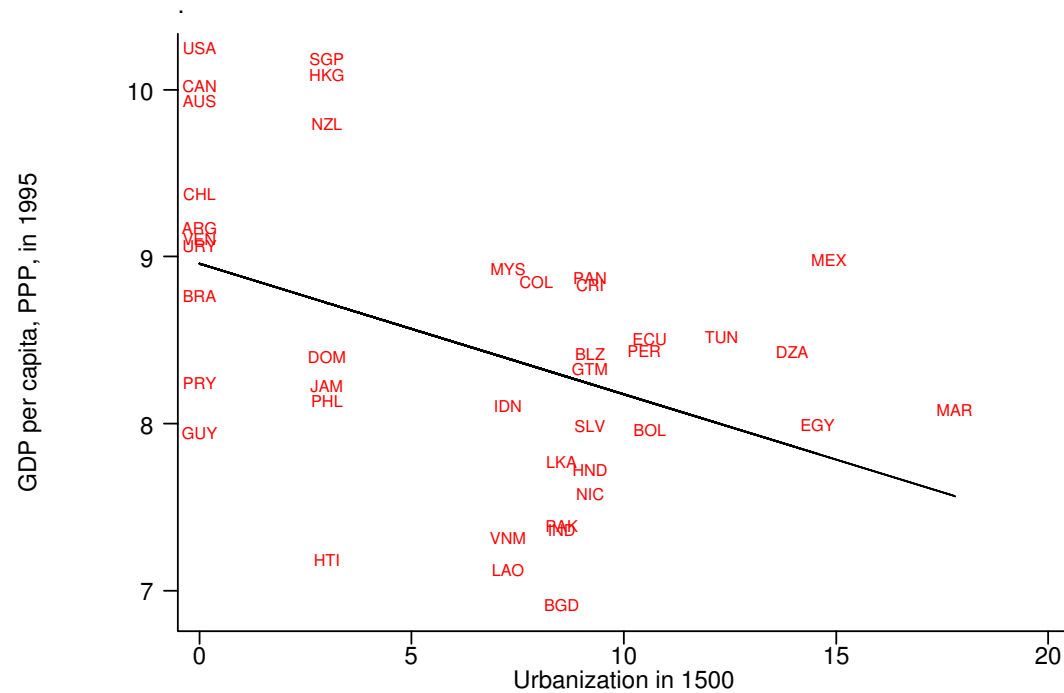
The Reversal of Fortune

- Use of urbanization and density of population before European colonization as a proxy for income per capita and how advanced pre-colonial civilizations are.
- Robust **negative** relationship between income today and urbanization in 1500 among the former colonies.
- Robust **negative** relationship between income today and log population density in 1500.
- Not due to any geographic variable, or identity of colonial power.
- When urbanization and population density both included, **population density is the main determinant**.

Urbanization and income today



Reversal since 1500 (1)



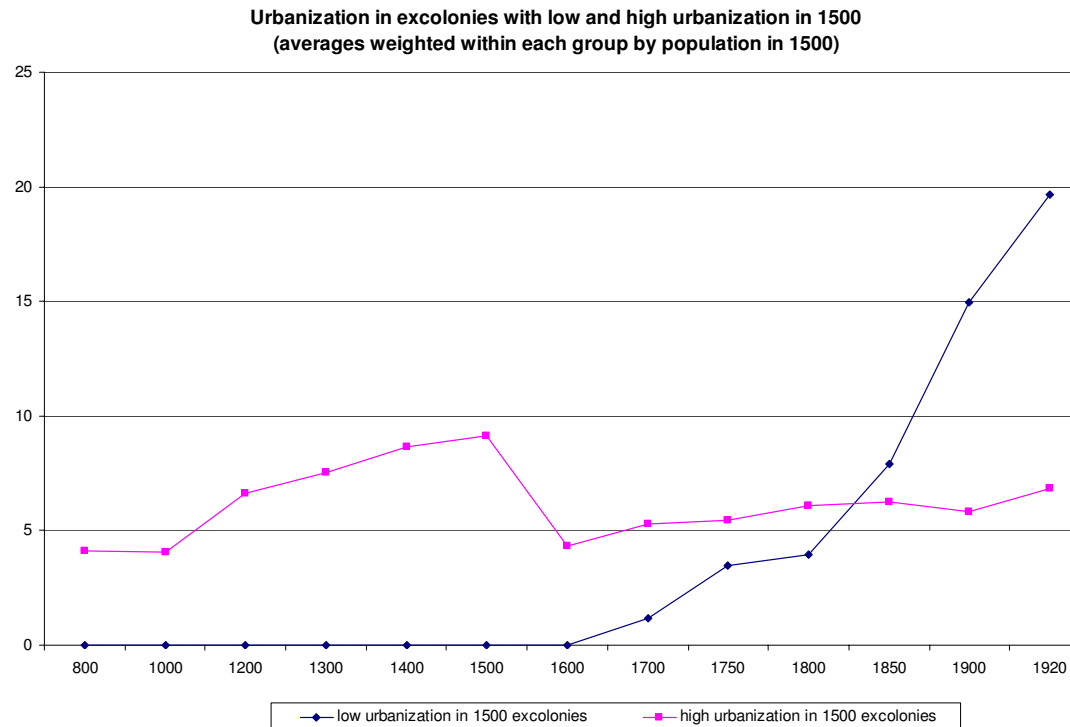
Reversal since 1500 (2)



The Timing and Nature of the Reversal

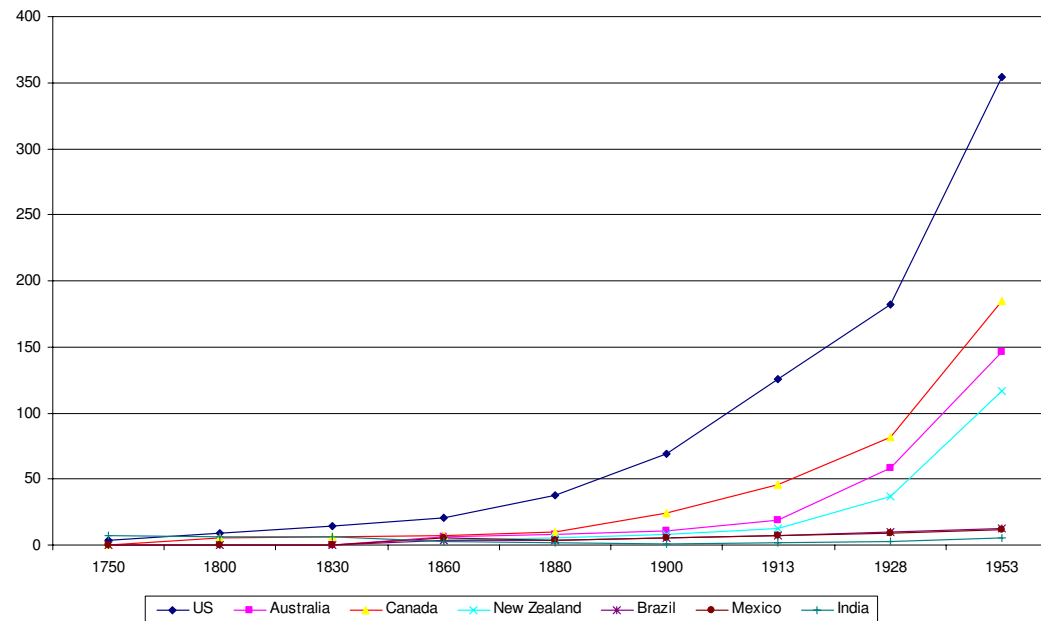
- When did the reversal take place?
- Not when the Europeans plundered the previously rich societies or killed of their populations.
- In the 19th century, and intimately related to [industrialization](#).

When did the reversal happen?



The nature of the reversal: industrialization

Industrial Production Per Capita, UK in 1900 = 100
(from Bairoch)



Example: Plantation Versus Industrialization

- The Caribbean Plantation societies in the 17th and 18th centuries initially prosperous, but then falling behind Northeastern United States.
- Caribbean plantation societies rich from sugar. Highly oligarchic societies, dominated by the richest plantation owners. Supported by repressive political institutions.
- Relatively efficient for production and processing of sugar for the plantation owners. But **no room for change**.
- In contrast, the more “democratic” Northeast U.S., more flexible to take advantage of new economic opportunities.
- In fact, 19th century growth in the U.S., fueled by **industry** and entrepreneurs **not part of the elite**.

Institutions and Industrialization

- Whether a society has institutions supporting private property or extractive institutions may matter much more when new technologies require broad-based economic participation.
- Industrialization is such a process, requiring investments from **a large number of agents** who were not previously part of the ruling elite.
- Thus, institutional differences will matter much more during **the age of industry**.
- In the data, strong **interaction** between institutions and industrialization, i.e., during the age of industry.
- Reason why the reversal took place in 19th century.

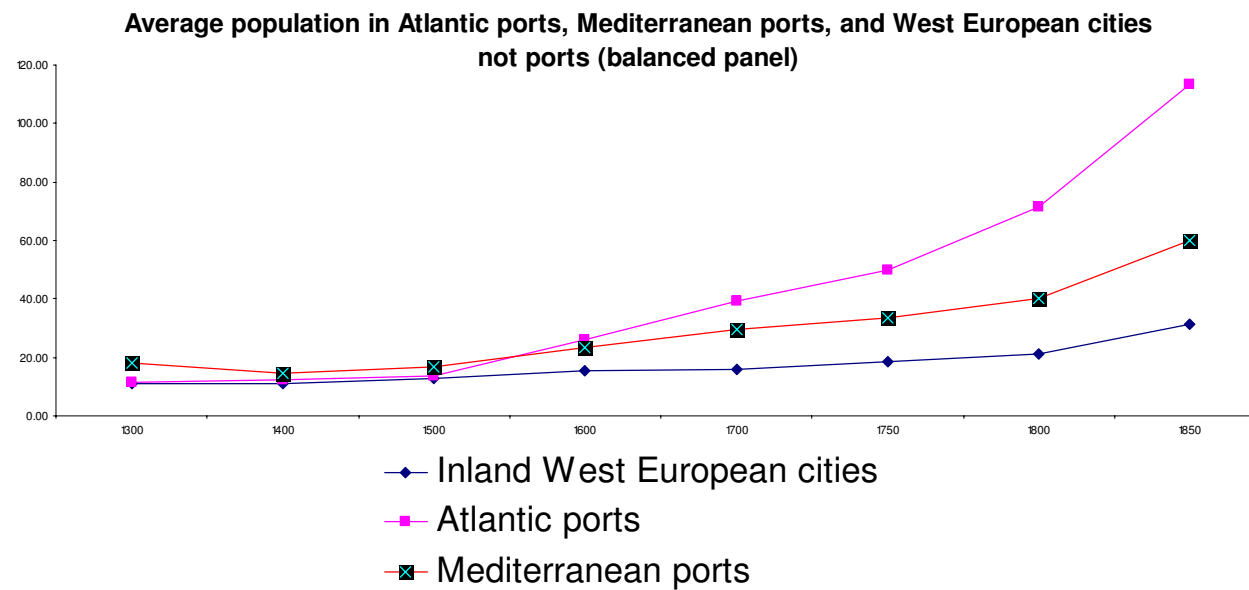
Rise of Europe

- Western Europe grows faster than Eastern Europe and Asia after 1500 using either urbanization rates as proxy for income or Maddison's estimates for GDP.
- When we break things out into Atlantic vs. non-Atlantic Western Europe, almost all of the faster growth is driven by growth in Atlantic nations
 - Belgium, Britain, Denmark, France, Ireland, the Netherlands, Portugal and Spain.
- Pattern of “European reversal”.
- Same pattern when we look at city growth.

Rise of Europe (continued)

- The timing of takeoff of various Atlantic ports consistent with timing of involvement in Atlantic trade by individual countries.
- Among Atlantic countries, early growth in Spain and Portugal, but short lived.
- Major growth in Britain and Dutch Republic.
- Why?
 - Major shock: **Atlantic trade opportunities.**
- But also related to **institutional change** in Britain and Dutch Rep.

The rise of constitutional regimes: a major shock



Interpretation

- Caribbean plantation economies did well initially because they provided the right incentives to **the major asset holders** in society, the plantation owners.
- Similar to Venice in the 15th century or even to Spain after the discovery of the New World.
- But long-run growth requires a process of “**creative destruction**” with new entrance and new blood coming in. Difficult when the regime dominated by **incumbents**.
- Thus industrialization more likely in Northeast U.S.
- Also, beneficial institutional change more likely **when incumbents weaker**; e.g., in England and the Dutch Republic but not in Spain.

Rise and Fall of Oligarchy: The Dutch Republic

- Economic outcomes: From Golden Age to stagnation.
- Institutional framework: Politically decentralized.
- deVries and van der Woude (1995):
 - “the economy’s early 17th-century “boom” period saw the municipal governments competing with one another to attract craftsmen and traders of all sorts.”
- Over the long run, regulations tighter:
 - “Thereafter, certainly after mid-century, tighter regulations became the norm. In the eighteenth century, these regulations often amounted to outright protectionism, intended to regulate the local labor market to the advantage of the settled citizenry.”

Power of the Guilds

- Restrictions became more pervasive with time.
 - ‘[M]agistrates tended to encourage guild formation in previously unorganized occupations in order to facilitate the maintenance of an orderly and peaceful urban society. In Amsterdam, for example, the number of guilds doubled in the century after the Revolt, by which time a third of the city’s adult male labor force were guild members.’

Power of the Guilds (continued)

- These organizations restricted [entry](#).
 - ‘The guilds offered their members a degree of protection from the competition of an overstocked trade by granting their children favored access to protected occupations.’
- Which proved costly to the Republic in the long run.
 - The ‘monopolistic exploitation of municipal and provincial autonomy, with its myriad impediments to trade, added costs to transactions of every kind. While this market fragmentation was not unusual in the Europe of 1600, by 1750 it had begun to acquire an antique patina.’

Ingredients of Model

- Construct a simple theoretical model to emphasize and clarify the trade-offs.
- Consider an economy where agents enter entrepreneurship or production work.
 - Heterogeneity in entrepreneurship.
 - Entrepreneurial talent imperfectly correlated over time.
- Two types of policy distortion:
 - Redistributive taxation with incentive costs.
 - Entry barriers protecting incumbents.

Trade-off Between Oligarchy and Democracy

- Entry in democracy, sclerosis in oligarchy.
- Lower investment in democracy.
- Worse allocation of talent in oligarchy.
- Democracy more equal, oligarchy more unequal (lower wages higher profits).
- Oligarchy gets worse over time as the comparative advantage of incumbents gets worse.
- Oligarchy and democracy creating different types of distortions.
- But long-run growth may be slower in oligarchy because of dynamic costs of entry barriers.

Understanding Rise and Decline of Nations

- oligarchy less harmful initially, even encouraging investment because less redistribution away from major producers.
- but harmful as comparative advantage of oligarchs disappears.
- oligarchy particularly harmful when new technologies shift investment opportunities from insiders to newcomers.
- oligarchy less flexible than democracy

Model

- Infinite horizon economy, with the unique non-storable good, y .
- Preferences

$$U_0^j = E_0 \sum_{t=0}^{\infty} \beta^t c_t^j, \quad (1)$$

- Assume each agent dies with a small probability ε , consider the limit of this economy with $\varepsilon \rightarrow 0$.

Model (continued)

- Choice between entrepreneurship and production work.
- Entrepreneurial talent $a_t^j \in \{A^L, A^H\}$ with $A^L < A^H$.
- Either already own an active firm, or set it up (costly when there are entry barriers).
- Each agent starts period t with entrepreneurial talent $a_t^j \in \{A^H, A^L\}$, and $s_t^j \in \{0, 1\}$ which denotes the individual possesses an active firm.
- Agent with $s_t^j = 1$ member of the elite.
- Each agent takes the following decisions: $c_t^j, e_t^j \in \{0, 1\}$.
- If $e_t^j = 1$, then he also makes investment, employment, and hiding decisions, k_t^j, l_t^j and h_t^j .

Model (continued)

- Three policy choices: a tax rate τ_t on firms, lump-sum transfer, T_t , and a cost B_t to set up a new firm (pure waste).
- Production function for talent a_t^j :

$$\frac{1}{1-\alpha} (a_t^j)^\alpha (k_t^j)^{1-\alpha} (l_t^j)^\alpha,$$

- To simplify assume that $l_t^j = \lambda$, and that entrepreneur himself can work in his firm as one of the workers.
- Denote: $b_t \equiv B_t/\lambda$.

Model (continued)

- Denote the wage rate by $w_t \geq 0$.
- Profit function (without hiding):

$$\pi \left(\tau_t, k_t^j, a_t^j, w_t \right) = \frac{1 - \tau_t}{1 - \alpha} (a_t^j)^\alpha (k_t^j)^{1-\alpha} (l_t^j)^\alpha - w_t l_t^j - k_t^j, \quad (2)$$

- With hiding:

$$\tilde{\pi} \left(\tau_t, k_t^j, a_t^j, w_t \right) = \frac{1 - \delta}{1 - \alpha} (a_t^j)^\alpha (k_t^j)^{1-\alpha} (l_t^j)^\alpha - w_t l_t^j - k_t^j \lambda.$$

- Thus

$$\tau_t \leq \delta,$$

Model (continued)

- Labor market clearing: $\int_0^1 e_t^j \lambda dj = \int_{j \in S_t^E} \lambda dj \leq 1$, where S_t^E is the set of entrepreneurs at time t .
- For agents with $s_t^j = 0$, setting up a new firm may entail an additional cost B_t because of entry barriers.

Model (continued)

- Law of motion of individual states:

$$s_{t+1}^j = i_t^j, \quad (3)$$

$$a_{t+1}^j = \begin{cases} A^H & \text{with probability } \sigma_H & \text{if } a_t^j = A^H \\ A^H & \text{with probability } \sigma_L & \text{if } a_t^j = A^L \\ A^L & \text{with probability } 1 - \sigma_H & \text{if } a_t^j = A^H \\ A^L & \text{with probability } 1 - \sigma_L & \text{if } a_t^j = A^L \end{cases},$$

- Stationary distribution fraction of high-productivity agents:

$$M \equiv \frac{\sigma_L}{1 - \sigma_H + \sigma_L}.$$

- Assume $M\lambda > 1$.

Model (continued)

- Timing of events:
 1. Entrepreneurial talents, $[a_t^j]$, are realized.
 2. The entry barrier for new entrepreneurs B_t is set.
 3. Agents make occupational choices, $[e_t^j]$.
 4. Entrepreneurs make investment decisions k_t^j .
 5. The labor market clearing wage rate, w_t , is determined.
 6. The tax rate on entrepreneurs, τ_t , is set.
 7. Entrepreneurs make hiding decisions, $[h_t^j]$.
- where $[a_t^j]$ shorthand for the mapping
 $\mathbf{a}_t : [0, 1] \rightarrow \{A^L, A^H\}$, etc.

Analysis

- Economic equilibrium: subgame perfect equilibrium given a policy sequence $\{b_t, \tau_t\}_{t=0,1,\dots}$.

- Equilibrium investments:

$$k_t^j = (1 - \tau_t)^{1/\alpha} a_t^j \lambda. \quad (4)$$

$$\Pi \left(\tau_t, w_t \mid s_t^j, a_t^j \right) = \frac{\alpha}{1 - \alpha} (1 - \tau_t)^{1/\alpha} a_t^j \lambda - w_t \lambda. \quad (5)$$

- Tax revenues:

$$T_t = \tau_t \frac{(1 - \tau_t)^{\frac{1-\alpha}{\alpha}}}{1 - \alpha} \lambda \sum_{j \in S_t^E} a_t^j, \quad (6)$$

Analysis (continued)

- Who will become an entrepreneur?
 1. **Entry equilibrium** where all entrepreneurs have $a_t^j = A^H$.
 2. **Sclerotic equilibrium** where agents with $s_t^j = 1$ become entrepreneurs irrespective of their productivity.
- An entry equilibrium will emerge only if the net gain to a high-skill non-entrepreneur of incurring the entry cost and setting up a firm (at a given wage) is positive.
- This net gain takes into account the future benefit of becoming an elite protected from competition (as a function of future entry barriers etc.).
- Determined by simple dynamic programming.

Analysis (continued)

- Let the value function of a worker of type z as a function of the sequence of future policies and equilibrium wages, $(\mathbf{p}^t, \mathbf{w}^t)$:

$$W^z(\mathbf{p}^t, \mathbf{w}^t) = w_t + T_t + \beta CW^z(\mathbf{p}^{t+1}, \mathbf{w}^{t+1}), \quad (7)$$

where the continuation values from time $t + 1$ onwards are:

$$CW^z(\mathbf{p}^{t+1}, \mathbf{w}^{t+1}) = \sigma^z \max \{ W^H(\mathbf{p}^{t+1}, \mathbf{w}^{t+1}), V^H(\mathbf{p}^{t+1}, \mathbf{w}^{t+1}) - \lambda b_{t+1} \} + (1 - \sigma^z) \max \{ W^L(\mathbf{p}^{t+1}, \mathbf{w}^{t+1}), V^L(\mathbf{p}^{t+1}, \mathbf{w}^{t+1}) - \lambda b_{t+1} \}.$$

- These incorporate optimal occupational choice from time $t+1$ onwards.

Analysis (continued)

- Similarly, for a current entrepreneur

$$V^z(\mathbf{p}^t, \mathbf{w}^t) = w_t + T_t + \Pi^z(\tau_t, w_t) + \beta CV^z(\mathbf{p}^{t+1}, \mathbf{w}^{t+1}), \quad (8)$$

- Define the *net value* of entrepreneurship as a function of an individual's skill a and ownership status, s ,

$$NV(\mathbf{p}^t, \mathbf{w}^t \mid A^z, s) = V^z(\mathbf{p}^t, \mathbf{w}^t) - W^z(\mathbf{p}^t, \mathbf{w}^t) - (1 - s)\lambda b_t,$$

where the last term is the entry cost for agents with $s = 0$.

$$NV(\mathbf{p}^t, \mathbf{w}^t \mid A^H, s_t^j = 1) \geq NV(\mathbf{p}^t, \mathbf{w}^t \mid a_t^j, s)$$

and

$$NV(\mathbf{p}^t, \mathbf{w}^t \mid a_t^j, s) \geq NV(\mathbf{p}^t, \mathbf{w}^t \mid A^L, s_t^j = 0).$$

Analysis (continued)

- Therefore, high-skill incumbents remain entrepreneurs and low-productivity workers never become entrepreneurs.
- Whether low-productivity incumbents remain entrepreneurs depends on taxes, wages and entry barriers.

Analysis (continued)

- Define entry equilibrium wage such that

$$NV \left(\mathbf{p}^t, [w_t^H, \mathbf{w}^{t+1}] \mid a_t^j = A^H, s_t^j = 0 \right) = 0.$$
- So

$$w_t^H \equiv \frac{\alpha}{1 - \alpha} (1 - \tau_t)^{1/\alpha} A^H - b_t + \frac{\beta (CV^H (\mathbf{p}^{t+1}, \mathbf{w}^{t+1}) - CW^H (\mathbf{p}^{t+1}, \mathbf{w}^{t+1}))}{\lambda},$$

- Similarly, sclerotic wage is

$$w_t^L \equiv \frac{\alpha}{1 - \alpha} (1 - \tau_t)^{1/\alpha} A^L + \frac{\beta (CV^L (\mathbf{p}^{t+1}, \mathbf{w}^{t+1}) - CW^L (\mathbf{p}^{t+1}, \mathbf{w}^{t+1}))}{\lambda}.$$

Analysis (continued)

- An entry equilibrium only when

$$w_t^H \geq w_t^L. \quad (9)$$

Analysis (continued)

- Therefore, in equilibrium $w_t^e = w_t^H$.
- Define fraction of high-productivity entrepreneurs:

$$\mu_t = \Pr \left(a_t^j = A^H \mid e_t^j = 1 \right) = \Pr \left(a_t^j = A^H \mid j \in S_t^E \right)$$

- Since no entry barriers initially, $\mu_0 = 1$.
- Law of motion of μ_t :

$$\mu_t = \begin{cases} \sigma_H \mu_{t-1} + \sigma_L (1 - \mu_{t-1}) & \text{if (9) does not hold} \\ 1 & \text{if (9) holds} \end{cases} .$$

(10)

Political Equilibrium

- Consider two simple extreme political regimes:
 1. Democracy: the policies b_t and τ_t are determined by majoritarian voting, with each agent having one vote.
 2. Oligarchy (elite control): the policies b_t and τ_t are determined by majoritarian voting among the elite at time t .
- Focus on Markov perfect equilibria.

Democracy

- Non-elites in the majority.
- Majoritarian voting: taxes will be chosen to maximize per capita transfers,

$$T_t(b_t, \tau_t) = \begin{cases} \tau_t \frac{(1-\hat{\tau}_t)^{\frac{1-\alpha}{\alpha}}}{1-\alpha} \lambda \sum_{j \in S_t^E} a_t^j & \text{if } \tau_t \leq \delta \\ 0 & \text{if } \tau_t > \delta \end{cases}, \quad (11)$$

where $\hat{\tau}_t$ is the tax rate expected by the entrepreneurs and τ_t is the actual tax rate set by voters.

- Since 0 profits, entry barriers will be chosen to maximize equilibrium wages, thus $b_t = 0$.
- Intuitively, entry barriers reduce labor demand and depress wages.

Democracy (continued)

Proposition 1 A democratic equilibrium always features $\tau_t = \delta$ and $b_t = 0$, and $e_t^j = 1$ if and only if $a_t^j = A^H$, and $\mu_t = 1$. The equilibrium wage rate is given by

$$w_t^D = \frac{\alpha}{1 - \alpha} (1 - \delta)^{1/\alpha} A^H,$$

and the aggregate output is

$$Y_t^D = Y^D \equiv \frac{1}{1 - \alpha} (1 - \delta)^{\frac{1-\alpha}{\alpha}} A^H. \quad (12)$$

- Perfect equality.

Oligarchy

- Policies determined by majoritarian voting among the elite.
- To simplify this talk, assume

$$\lambda \geq \frac{1}{2} \frac{A^H}{A^L} + \frac{1}{2}, \quad (13)$$

which ensures that low and high-skill elites prefer low taxes.

- Otherwise, low-skill elites side with the workers to tax the high-skilled elites.

Oligarchy (continued)

- Then entry barriers will be set

$$b_t \geq b_t^E \equiv \frac{\alpha A^H}{1 - \alpha} + \beta \left(\frac{CV^H - CW^H}{\lambda} \right). \quad (14)$$

so as to prevent entry.

Oligarchy (continued)

- Imposing $w_{t+n}^e = 0$ for all $n \geq 0$,

$$\tilde{V}^L = \frac{1}{1-\beta} \left[\frac{\alpha\lambda}{1-\alpha} \frac{(1-\beta\sigma^H) A^L + \beta\sigma^L A^H}{(1-\beta(\sigma^H - \sigma^L))} \right], \quad (15)$$

and

$$\tilde{V}^H = \frac{1}{1-\beta} \left[\frac{\alpha\lambda}{1-\alpha} \frac{(1-\beta(1-\sigma^L)) A^H + \beta(1-\sigma^H) A^L}{(1-\beta(\sigma^H - \sigma^L))} \right] \quad (16)$$

Oligarchy (continued)

- Using these equilibrium relationships, b_t will be:

$$b^E \equiv \frac{1}{1 - \beta} \left[\frac{\alpha \lambda (1 - \beta (1 - \sigma^L)) A^H + \beta (1 - \sigma^H) A^L}{1 - \alpha (1 - \beta (\sigma^H - \sigma^L))} \right]. \quad (17)$$

- Wages are zero and aggregate output is

$$Y_t^E = \mu_t \frac{1}{1 - \alpha} A^H + (1 - \mu_t) \frac{1}{1 - \alpha} A^L \quad (18)$$

where

$$\mu_t = \sigma_H \mu_{t-1} + \sigma_L (1 - \mu_{t-1})$$

with

$$\lim_{t \rightarrow \infty} Y_t^E = Y_\infty^E \equiv \frac{1}{1 - \alpha} (A^L + M(A^H - A^L)). \quad (19)$$

Oligarchy (continued)

Proposition 2 Suppose that condition (13) holds. Then an oligarchic equilibrium features $\tau_t = 0$ and $b_t = b^E$ as given by (17), and the equilibrium is sclerotic, with equilibrium wages $w_t^e = 0$, and fraction of high-skill entrepreneurs $\mu_t = \sigma^H \mu_{t-1} + \sigma^L (1 - \mu_{t-1})$ starting with $\mu_0 = 1$. Aggregate output is given by (18) and decreases over time starting at $Y_0^E = \frac{1}{1-\alpha} A^H$ with $\lim_{t \rightarrow \infty} Y_t^E = Y_\infty^E$ as given by (19).

Comparison of Oligarchy and Democracy

- We always have that initially:

$$\frac{1}{1-\alpha}(1-\delta)^{\frac{1-\alpha}{\alpha}}A^H < Y_0^E = \frac{1}{1-\alpha}A^H.$$

- Will oligarchy fall behind democracy?
 - If (1) democratic taxes are low and not very distortionary; (2) selection of entrepreneurs is difficult, and (3) comparative advantage in entrepreneurship is important, then oligarchy ultimately worse than democracy:
 - Condition for this:

$$(1-\delta)^{\frac{1-\alpha}{\alpha}} > \frac{A^L}{A^H} + M \left(1 - \frac{A^L}{A^H} \right). \quad (20)$$

Comparison of Oligarchy and Democracy (continued)

- Workers always worse off in oligarchy than in democracy.
- What about entrepreneurs?
- High-skill entrepreneurs always better off. But

Proposition 3 If

$$\alpha\lambda \frac{(1 - \beta\sigma^H) A^L / A^H + \beta\sigma^L}{(1 - \beta(\sigma^H - \sigma^L))} < \left((\alpha(1 - \delta) + \delta) (1 - \delta)^{\frac{(1-\alpha)}{\alpha}} \right) \quad (21)$$

then low-skill elites would be better off in democracy.

- Low-skill entrepreneurs still willing to remain in entrepreneurship, however, taking equilibrium prices and future policies as given.

New Technologies

- At $t' > 0$ a new technology arrives.
- Productivity with new technology:

$$\frac{1}{1-\alpha} (\psi \hat{a}_t^j)^\alpha (k_t^j)^{1-\alpha} (l_t^j)^\alpha,$$

where $\psi > 1$

New Technologies (continued)

- Law of motion of \hat{a}_t^j orthogonal to a_t^j , and given by

$$\hat{a}_{t+1}^j = \begin{cases} A^H & \text{with probability } \sigma_H & \text{if } \hat{a}_t^j = A^H \\ A^H & \text{with probability } \sigma_L & \text{if } \hat{a}_t^j = A^L \\ A^L & \text{with probability } 1 - \sigma_H & \text{if } \hat{a}_t^j = A^H \\ A^L & \text{with probability } 1 - \sigma_L & \text{if } \hat{a}_t^j = A^L \end{cases}, \quad (22)$$

New Technologies (continued)

- In democracy, aggregate output jumps from Y^D to

$$\hat{Y}^D \equiv \frac{1}{1-\alpha} (1-\delta)^{\frac{1-\alpha}{\alpha}} \psi A^H.$$

- In oligarchy, elites will stay in entrepreneurship despite their worse comparative advantage
- For example, if $\psi A^L > A^H$, then aggregate output jumps to and remains at

$$\hat{Y}^E \equiv \frac{1}{1-\alpha} (\psi A^L + M(\psi A^H - \psi A^L)),$$

- Potential explanation for why oligarchic societies don't adjust well to new opportunities/technologies.

Towards Regime Dynamics

- Oligarchic societies may produce efficient institutions in the short run, but not in the long run, as the correlation economic power-political power goes down.
- If oligarchies are inefficient, how can they survive?
 - Need to study Regime Dynamics
 - From our theory of institutions, these are dictated by *conflict* between agents

Regime Dynamics

- Two cases to consider:
 1. Conflict within the elite—when low-skill elites worse off in oligarchy than in democracy (when condition (21) holds), they disband oligarchy when they become the majority within the elite.
 2. Conflict between classes over regimes—the elite prefer oligarchy and the citizens democracy; income distribution matters for regime dynamics; possibility of path dependence.

Regime Dynamics (continued)

- Suppose that, in oligarchy, current elite can legislate a permanent transition to democracy. Then

Proposition 4 Suppose (13) holds.

- If (21) does not hold, then for all t the society remains oligarchic.
 - If (21) holds, then the society remains oligarchic until date $t = \tilde{t}$ where $\tilde{t} = \min t' \in \mathbb{N}$ such that $\mu_{t'} \leq 1/2$ (whereby $\mu_t = \sigma^H \mu_{t-1} + \sigma^L (1 - \mu_{t-1})$ for $t < \tilde{t}$ starting with $\mu_0 = 1$). At \tilde{t} , the society transitions to democracy.
- The low-skill elites disband the oligarchy when they become the majority.

Conflict over Regimes

- Different set of issues arise when no smooth transition to democracy.
- Regime dynamics determined by political struggle between different groups/classes.
- More common in practice than the smooth transitions.
- The topic of the next lecture.

Summary and Extension

- Oligarchic institutions may be efficient in the short run, but tend to be less efficient in the long run.
- When does oligarchy transition to democracy?
- Two possibilities:
 1. Smooth transition to democracy because of within-elite conflict (small producers disbanding oligarchy).
 2. Conflict over regimes.
- Next lecture: Generalize the model, and study regime dynamics. When do we expect oligarchies to consolidate, repress, democratize?