Elections in China

Monica Martínez-Bravo (CEMFI), Gerard Padró i Miquel (LSE), Nancy Qian (Yale), Yiqing Xu (MIT), Yang Yao (PKU CCER)

Nemmers Prize Conference for Daron Acemoglu

May 16, 2013
Big Questions

- Do local elections increase or decrease government public goods provision?
  - Increase: Better monitoring can lead to more willingness to pay taxes, more effort by leader in raising taxes, and can reduce corruption.
  - Decrease: Constrained by short run consumption demand of village leaders.
  - No effect: If the overall regime stays autocratic, local electoral reforms may be easily circumvented.

- How important is the pre-existing level of social capital in society for determining the effectiveness of elections?
  - Substitutes: Both social capital and elections (together with the power given to elected officials) help the aggregation of preferences and the organization of society in order to avoid the free-rider problem and enforce contributions.
  - Complements: Electoral accountability requires citizens to gather and disseminate information on government performance, and to turn out on election day with the collective interest in mind.
Big Questions

- Do local elections increase or decrease government public goods provision?
  - Increase: Better monitoring can lead to more willingness to pay taxes, more effort by leader in raising taxes, and can reduce corruption
  - Decrease: Constrained by short run consumption demand of village leaders
  - No effect: If the overall regime stays autocratic, local electoral reforms may be easily circumvented.

- How important is the pre-existing level of social capital in society for determining the effectiveness of elections?
  - Substitutes: Both social capital and elections (together with the power given to elected officials) help the aggregation of preferences and the organization of society in order to avoid the free-rider problem and enforce contributions.
  - Complements: Electoral accountability requires citizens to gather and disseminate information on government performance, and to turn out on election day with the collective interest in mind.
Existing Empirical Evidence

- The evidence is limited
  - The empirical evidence on democratization is mostly cross-country, and the results are mixed.
  - Within-country studies typically focus on certain aspects of democracy (e.g., term limits).
  - Recent studies on Chinese elections find effects on public goods and inequality, but have small samples and don’t examine mechanisms.
  - Empirical evidence on the interaction effect of social capital and elections is also quite limited.

- Main challenges to the empirical literature are:
  - Limited data availability on institutions, elections, public goods expenditures, social capital proxies
  - Exogenous variation in the introduction of elections
The evidence is limited

- The empirical evidence on democratization is mostly cross-country, and the results are mixed.
- Within-country studies typically focus on certain aspects of democracy (e.g., term limits).
- Recent studies on Chinese elections find effects on public goods and inequality, but have small samples and don’t examine mechanisms.
- Empirical evidence on the interaction effect of social capital and elections is also quite limited.

Main challenges to the empirical literature are:

1. Limited data availability on institutions, elections, public goods expenditures, social capital proxies
2. Exogenous variation in the introduction of elections
What we do

- The “Village Democracy Project“
  - Documents the history of political and economic reforms, and the economic well-being of rural residents during the post-Mao era
  - Use the introduction of rural elections to establish causal effects.

- A series of papers
  1. Establish that the elections were real.
  2. Examine the average effect of elections.
  3. Examine how the introduction of elections interacts with the pre-existing level of social capital (very preliminary).
Why China?

1. Stark and well-defined reform: previously appointed leaders are now elected
   - No change in other characteristics of the office
   - No change in checks and balances

2. Staggered timing of the introduction of elections, mostly driven by upper government decisions

3. Politically and socially stable context

4. Similar units of observation
   - 1-4 $\Rightarrow$ good for identification

5. Fiscally autonomous villages

6. Natural variation in social capital across villages, potentially plausible measures of social capital

7. Affected lives of 1 billion people.
Related Literature

- Large body of theoretical (e.g., Acemoglu and Robinson, 2001; Lizzeri and Persico, 2004) and empirical literature (e.g., Tavares and Wacziarg, 2001; Rodrik, 1999; Li et al., 1998; Reuveny and Li, 2003; Besley and Kudamatsu, 2006; Kudamatsu, 2011; Gil et al., 2004) on institutional reform.

- Re-election incentives (e.g., Besley and Case, 1995; Besley and Coate, 2003; Dalbo and Rossi, 2008; Ferraz and Finan, 2011; Fujiwara, 2011; and Tyrefors and Pettersson-Lidbom, 2012).

- Interaction of social capital and formal democracy (Guiso and Pinotti, 2012; Nannicini et al., 2010).

- The association of social capital and economic performance (e.g., Algan and Cahuc, 2009, 2010; Guiso et al., 2004, 2011; Knack and Keefer, 1996; Tabellini, 2005)

- The role of culture on economic performance (see reviews by Guiso et al., 2006, and Fernandez, 2010).
Village Government

- Two bodies
  - Village Committee, headed by the Village Chief (VC)
  - Village Communist Party branch, headed by the Party Secretary (PS)

- Responsibility over:
  - Public goods provision
  - Income generating activities: Land Allocation, management of common property (enterprises)
  - Enforcement of upper-government policies, provision of justice, social peace...

- Banned from raising recurrent taxes: resort to *ad hoc* fees and tariffs
Electoral Reforms

- **Motivation:**
  - Public goods provision in rural China in the early reform era was almost non-existent
  - Increase village leader efforts

- **Reform:** the VC’s position moves from being appointed to being elected

- **Organic Law of Village Committees (OLVC):**
  - 3-year terms
  - VC must obtain more than 50% of votes
  - # Candidates > # Positions
  - Party can nominate candidates
Timing

- Some entrepreneurial province governments start experimenting in early 80s
- OLVC mandates elections in 1987
- Elections are implemented in a top-down manner
  - When provinces decide to move, they put pressure down on counties
  - Timing within provinces are quasi-random
- OLVC mandates open candidate nominations in 1998
Electoral Reforms

- A few more facts
  - No political parties allowed
  - Candidates are all local to the village
  - Authority not clearly delineated: VC is under the “guidance” of the PS
Data

- We merge two panels at the village and year level:
    - Code village administrative records
    - Village leader characteristics
    - Timing and implementation of elections, number of candidates, vote share, etc.
    - De facto power of leaders (signature rights)
    - Randomly chosen in 1986.

- Final sample: panel of 217 villages in 29 provinces (exclude Tibet and Xinjiang).
Data

- We merge two panels at the village and year level:
    - Code village administrative records
    - Village leader characteristics
    - Timing and implementation of elections, number of candidates, vote share, etc.
    - De facto power of leaders (signature rights)
    - Randomly chosen in 1986.

- Final sample: panel of 217 villages in 29 provinces (exclude Tibet and Xinjiang).
We merge two panels at the village and year level:

   - Code village administrative records
   - Village leader characteristics
   - Timing and implementation of elections, number of candidates, vote share, etc.
   - De facto power of leaders (signature rights)

2. **National Fixed-Point Survey (NFS)** from the Ministry of Agriculture.
   - Randomly chosen in 1986.

Final sample: panel of 217 villages in 29 provinces (exclude Tibet and Xinjiang).
Descriptive Statistics

- The average village has 400 households.
- By the end of sample, all villages have implemented elections.
- Top-down implementation
  - 66% of villages move together with other villages in county
  - 60% of villages within a province implement elections within 3 years of 1st recorded election
- Timing of elections within provinces are uncorrelated to the large number of variables in our data
- 38% turnover rate in first elections, 17% average
- 70% of funds for village-level public goods (e.g., irrigation, schools, electricity, roads & sanitation, environment, etc.) are provided by villagers.
- Elected leaders have significant *de facto* power – 66% of villages require VC signature on important decisions such as land allocation, village employment, government expenditure.
Descriptive Statistics

- The average village has 400 households.
- By the end of sample, all villages have implemented elections.
- Top-down implementation
  - 66% of villages move together with other villages in county
  - 60% of villages within a province implement elections within 3 years of 1st recorded election
- Timing of elections within provinces are uncorrelated to the large number of variables in our data
- 38% turnover rate in first elections, 17% average
- 70% of funds for village-level public goods (e.g., irrigation, schools, electricity, roads & sanitation, environment, etc.) are provided by villagers.
- Elected leaders have significant de facto power – 66% of villages require VC signature on important decisions such as land allocation, village employment, government expenditure.
Descriptive Statistics

- The average village has 400 households.
- By the end of sample, all villages have implemented elections.
- Top-down implementation
  - 66% of villages move together with other villages in county
  - 60% of villages within a province implement elections within 3 years of 1st recorded election
- Timing of elections within provinces are uncorrelated to the large number of variables in our data
- 38% turnover rate in first elections, 17% average
- 70% of funds for village-level public goods (e.g., irrigation, schools, electricity, roads & sanitation, environment, etc.) are provided by villagers.
- Elected leaders have significant *de facto* power – 66% of villages require VC signature on important decisions such as land allocation, village employment, government expenditure.
Descriptive Statistics

- The average village has 400 households.
- By the end of sample, all villages have implemented elections.
- Top-down implementation
  - 66% of villages move together with other villages in county
  - 60% of villages within a province implement elections within 3 years of 1st recorded election
- Timing of elections within provinces are uncorrelated to the large number of variables in our data
  - 38% turnover rate in first elections, 17% average
- 70% of funds for village-level public goods (e.g., irrigation, schools, electricity, roads & sanitation, environment, etc.) are provided by villagers.
- Elected leaders have significant de facto power – 66% of villages require VC signature on important decisions such as land allocation, village employment, government expenditure.
Descriptive Statistics

- The average village has 400 households.
- By the end of sample, all villages have implemented elections.
- Top-down implementation
  - 66% of villages move together with other villages in county
  - 60% of villages within a province implement elections within 3 years of 1st recorded election
- Timing of elections within provinces are uncorrelated to the large number of variables in our data
- 38% turnover rate in first elections, 17% average
- 70% of funds for village-level public goods (e.g., irrigation, schools, electricity, roads & sanitation, environment, etc.) are provided by villagers.
- Elected leaders have significant de facto power – 66% of villages require VC signature on important decisions such as land allocation, village employment, government expenditure.
Descriptive Statistics

- The average village has 400 households.
- By the end of sample, all villages have implemented elections.
- Top-down implementation
  - 66% of villages move together with other villages in county
  - 60% of villages within a province implement elections within 3 years of 1st recorded election
- Timing of elections within provinces are uncorrelated to the large number of variables in our data
- 38% turnover rate in first elections, 17% average
- 70% of funds for village-level public goods (e.g., irrigation, schools, electricity, roads & sanitation, environment, etc.) are provided by villagers.
- Elected leaders have significant de facto power – 66% of villages require VC signature on important decisions such as land allocation, village employment, government expenditure.
Descriptive Statistics

- The average village has 400 households.
- By the end of sample, all villages have implemented elections.
- Top-down implementation
  - 66% of villages move together with other villages in county
  - 60% of villages within a province implement elections within 3 years of 1st recorded election
- Timing of elections within provinces are uncorrelated to the large number of variables in our data
- 38% turnover rate in first elections, 17% average
- 70% of funds for village-level public goods (e.g., irrigation, schools, electricity, roads & sanitation, environment, etc.) are provided by villagers.
- Elected leaders have significant de facto power – 66% of villages require VC signature on important decisions such as land allocation, village employment, government expenditure.
Empirical Strategy

DD: Compare outcomes in villages before and after the introduction of elections, between villages that have already introduced to those that have not.

\[ Y_{vpt} = \beta E_{vpt} + \lambda N_{vpt} + \gamma_p t + \delta_v + \rho_t + \varepsilon_{vpt}. \]  

- Village \( v \), province \( p \), calendar year \( t \)
- All standard errors are clustered at the village level or province level.
- \( \beta \) is the effect of the introduction of elections.
- Identification Assumption: Conditional on the baseline controls, the timing of the first election is uncorrelated to other factors that can affect the outcomes of interest.
Empirical Strategy

DD: Compare outcomes in villages before and after the introduction of elections, between villages that have already introduced to those that have not.

\[ Y_{vpt} = \beta E_{vpt} + \lambda N_{vpt} + \gamma_p t + \delta_v + \rho_t + \epsilon_{vpt}. \]  

- Village \( v \), province \( p \), calendar year \( t \)
- All standard errors are clustered at the village level or province level.
- \( \beta \) is the effect of the introduction of elections.
- Identification Assumption: Conditional on the baseline controls, the timing of the first election is uncorrelated to other factors that can affect the outcomes of interest.
### Dependents Variables: Ln Total Exp

<table>
<thead>
<tr>
<th></th>
<th>Total (1)</th>
<th>Villagers (2)</th>
<th>Non-Village (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dep. Var. Mean (not logged, 10,000 RMB)</td>
<td>14.28</td>
<td>9.77</td>
<td>4.42</td>
</tr>
<tr>
<td>Post 1st Election</td>
<td>0.272</td>
<td>0.309</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>(0.150)</td>
<td>(0.119)</td>
<td>(0.079)</td>
</tr>
<tr>
<td>Wild Bootstrap p-value</td>
<td>0.066</td>
<td>0.024</td>
<td>0.972</td>
</tr>
<tr>
<td>Observations</td>
<td>4,340</td>
<td>4,340</td>
<td>4,340</td>
</tr>
<tr>
<td>R²</td>
<td>0.191</td>
<td>0.171</td>
<td>0.188</td>
</tr>
<tr>
<td># of villages</td>
<td>217</td>
<td>217</td>
<td>217</td>
</tr>
<tr>
<td># of provinces</td>
<td>29</td>
<td>29</td>
<td>29</td>
</tr>
</tbody>
</table>
Timing Corresponds to Reform Pre-Trend Public Expenditure

\[ Y_{vpt} = \sum_{\zeta=-3}^{6} \beta_{\zeta} \chi_{vpt} + \lambda N_{vpt} + \gamma_p t + \delta_v + \rho_t + \varepsilon_{vpt}, \]  

(2)
Additional Results

- The increase in public expenditure corresponds to villagers’ demand
  - Expenditure on irrigation increases more in villages that rely more on farming (more household farmland)
  - Expenditure on education increases more in villages with more school age children
- Elections on average double local taxes paid by households for all households (insignificant)
  - Elections increase willingness to pay taxes
Robustness

1. Our results may capture cross-province variation, which is not random
   1. Control for province-level variables (e.g., GDP, rural GDP, growth)
   2. Control for the year of the first election in the province – results are unchanged.

2. The introduction of elections across villages within provinces may not be random
   1. No pre-trends
   2. Drop first and last implementers in each province.
   3. Control for pre-election averages of outcomes vars interacted with year FE.

3. Spurious correlations
   1. Control for village mergers, other policies, demographics, election procedures.
### Incentives or Leader Selection?

#### Ln Public Investment Financed by Villagers

<table>
<thead>
<tr>
<th>Panel</th>
<th>Equation</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Observations</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Post 1st Election</td>
<td>0.309</td>
<td>(0.119)</td>
<td>4,340</td>
<td>0.171</td>
</tr>
<tr>
<td></td>
<td>Observations</td>
<td>4,340</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R²</td>
<td>0.171</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Post 1st Election</td>
<td>0.349</td>
<td>(0.151)</td>
<td>3,920</td>
<td>0.177</td>
</tr>
<tr>
<td></td>
<td>Post 1st Election x 1st Election VC Change</td>
<td>-0.118</td>
<td>(0.279)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observations</td>
<td>3,920</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R²</td>
<td>0.177</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What is Social Capital?

- Social scientists have not yet converged on one definition
  - Putnam (1994): “features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions”.
  - Boix and Posner (1998): “a set of institutionalized expectations that other social actors will reciprocate co-operative overtures”.
  - Guiso et al. (2011): A proxy of social capital should be a voluntary organization, have no economic payoff for the individual that comes from just her participation, has no legal obligation to participate.
What is Social Capital?

- Social scientists have not yet converged on one definition
  - Putnam (1994): “features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions”.
  - Boix and Posner (1998): “a set of institutionalized expectations that other social actors will reciprocate co-operative overtures”.
  - Guiso et al. (2011): A proxy of social capital should be a voluntary organization, have no economic payoff for the individual that comes from just her participation, has no legal obligation to participate.
Two Proxies for Village-Level Social Capital

- The presence of a **village temple** proxies for **high social capital**
  - Not specific to any religion, includes all villagers, provides physical venue for discussion and meeting, and holds fairs and festivals, provide public goods (Huang, 1998; Seldon and Perry, 2003)
  - Temples teach civic virtues of trust, moderation, compromise, reciprocity (e.g., Tocqueville, 1840) and increase democratic discussion (e.g., Olson, 1982).
  - The ability to create and sustain voluntary organizations depends on pre-existing norms of reciprocity (Boix and Posner, 1998)

- **Religious fragmentation** proxies for **low social capital**
  - Reported by the village leader to the NFS
  - Fractionalization index: Buddhism, Islam, Daoism, Christianity, atheism
Two Proxies for Village-Level Social Capital

- The presence of a village temple proxies for high social capital
  - Not specific to any religion, includes all villagers, provides physical venue for discussion and meeting, and holds fairs and festivals, provide public goods (Huang, 1998; Seldon and Perry, 2003)
  - Temples teach civic virtues of trust, moderation, compromise, reciprocity (e.g., Tocqueville, 1840) and increase democratic discussion (e.g., Olson, 1982).
  - The ability to create and sustain voluntary organizations depends on pre-existing norms of reciprocity (Boix and Posner, 1998)

- Religious fragmentation proxies for low social capital
  - Reported by the village leader to the NFS
  - Fractionalization index: Buddhism, Islam, Daoism, Christianity, atheism
Descriptive Statistics

- 33% of villages have a village temple.
  - Many are built in the 1980s
  - Highly correlated with the historical presence of a temple in the same county in 1820.
  - Funded and managed by villagers, village leaders participate in ceremonies and festivals

- We correct NFS reported religious population shares with the best available data from anthropologists.
  - Average religious fractionalization is 0.202.

- Both measures are uncorrelated with public goods expenditure before the introduction of elections.
- Neither measures are correlated with the timing of the introduction of elections.
33% of villages have a village temple.
- Many are built in the 1980s
- Highly correlated with the historical presence of a temple in the same county in 1820.
- Funded and managed by villagers, village leaders participate in ceremonies and festivals

We correct NFS reported religious population shares with the best available data from anthropologists.
- Average religious fractionalization is 0.202.

Both measures are uncorrelated with public goods expenditure before the introduction of elections.
- Neither measures are correlated with the timing of the introduction of elections.
Descriptive Statistics

- 33% of villages have a village temple.
  - Many are built in the 1980s
  - Highly correlated with the historical presence of a temple in the same county in 1820.
  - Funded and managed by villagers, village leaders participate in ceremonies and festivals
- We correct NFS reported religious population shares with the best available data from anthropologists.
  - Average religious fractionalization is 0.202.
- Both measures are uncorrelated with public goods expenditure before the introduction of elections.
  - Neither measures are correlated with the timing of the introduction of elections.
Descriptive Statistics

- 33% of villages have a village temple.
  - Many are built in the 1980s
  - Highly correlated with the historical presence of a temple in the same county in 1820.
  - Funded and managed by villagers, village leaders participate in ceremonies and festivals
- We correct NFS reported religious population shares with the best available data from anthropologists.
  - Average religious fractionalization is 0.202.
- Both measures are uncorrelated with public goods expenditure before the introduction of elections.
- Neither measures are correlated with the timing of the introduction of elections.
Estimating Equation

\[ Y_{vpt} = \alpha E_{vpt} + \beta (E_{vpt} \times T_{vp}) + \gamma (E_{vpt} \times R_{vp}) + \delta N_{vpt} + \lambda (N_{vpt} \times T_{vp}) + \pi (N_{vpt} \times R_{vp}) + \zeta_{p} t + \eta_{v} + \theta_{t} + \epsilon_{vpt}. \]  

- Village \( v \), province \( p \), calendar year \( t \),
- \( T_{vp} \) is 1 if a village has a village temple,
- \( R_{vp} \) is the religious fractionalization index,
- SE are clustered at the village level,
- \( \hat{\beta} > 0, \hat{\gamma} < 0 \) means that elections increase public goods more in villages with high social capital.
### Preliminary Interaction Effects

<table>
<thead>
<tr>
<th>Dependent Variable: Ln Total Public Goods Expenditure</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post 1st Election</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x Religious Fractionalization</td>
<td>-126.7</td>
<td>-162.9</td>
<td>-117.7</td>
</tr>
<tr>
<td></td>
<td>(61.15)</td>
<td>(68.46)</td>
<td>(51.16)</td>
</tr>
<tr>
<td>x Temple</td>
<td>49.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(23.09)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x Temple in 1820</td>
<td></td>
<td>17.29</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(13.92)</td>
<td></td>
</tr>
<tr>
<td>Post 1st Election</td>
<td>20.75</td>
<td>7.797</td>
<td>11.95</td>
</tr>
<tr>
<td></td>
<td>(9.400)</td>
<td>(4.681)</td>
<td>(6.827)</td>
</tr>
<tr>
<td>Observations</td>
<td>4340</td>
<td>4340</td>
<td>4340</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.117</td>
<td>0.124</td>
<td>0.119</td>
</tr>
</tbody>
</table>

Notes: All regressions control for post-open nomination and its interaction with religious fractionalization and the full set of baseline controls: religious fractionalization*year FE, the share of religious population*year FE, village population, province-year trends, village FE and year FE. The standard errors are clustered at the village level.
Robustness

Religious fractionalization and social capital may be correlated with other factors that influence the effectiveness of elections.

- Examine the data for the correlates of fractionalization and the presence of a temple: hilly, mountainous, family surname fractionalization, family surname polarization, the presence of a lineage group (an extended household with a family tree or ancestral temple), avg pre-election household income at the 10th, 50th and 90th percentiles, average pre-election Gini coefficient.

- Control for correlates in a time varying way by interacting each with year FE
Elections:

1. Total public goods expenditure by 27%
   - correspond to villager demands
   - Funded by villagers

2. Re-election incentives play an important role

3. Effects are heterogeneous: increases are larger in villages with high existing social capital

4. Other results (not presented): reduce the implementation of unpopular policies (e.g., One Child Policy, upper government expropriation of government land), increase redistribution, reduce corruption, no apparent effect on growth
Local elections provide significant benefits.

Democratizing can increase a government’s ability to raise money because citizens are more willing to pay if they can monitor the expenditure.

Local elections can be effective even if the central regime is not democratic.

Social capital seems to be an important pre-condition.

Comments and suggestions welcome – Thank you!
Local elections provide significant benefits.
Democratizing can increase a government’s ability to raise money because citizens are more willing to pay if they can monitor the expenditure.
Local elections can be effective even if the central regime is not democratic.
Social capital seems to be an important pre-condition.
Comments and suggestions welcome – Thank you!
Local elections provide significant benefits.

Democratizing can increase a government’s ability to raise money because citizens are more willing to pay if they can monitor the expenditure.

Local elections can be effective even if the central regime is not democratic.

Social capital seems to be an important pre-condition.

Comments and suggestions welcome – Thank you!
Local elections provide significant benefits.

Democratizing can increase a government’s ability to raise money because citizens are more willing to pay if they can monitor the expenditure.

Local elections can be effective even if the central regime is not democratic.

Social capital seems to be an important pre-condition.

Comments and suggestions welcome – Thank you!
Local elections provide significant benefits.

Democratizing can increase a government’s ability to raise money because citizens are more willing to pay if they can monitor the expenditure.

Local elections can be effective even if the central regime is not democratic.

Social capital seems to be an important pre-condition.

Comments and suggestions welcome – Thank you!