REGULATION OR REPRESSSION?
ECONOMIC EFFECTS OF THE 2000 TOKYO BANK TAX

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Motivation & Goals
- Governments with a large amount of debt frequently find it attractive to raise revenue from the financial sector, especially in developing world (e.g., Giovannini and de Melo, 1993; Roubini and Sala-i-Martin, 1995).
- A combination of reserve requirements, inflation, and depressed interest rates is frequently used to reduce the real burden of government debts.
- Taxation of financial institutions is also relatively cheap; it bypasses administrative fixed costs associated with alternative taxation strategies including income or value-added taxes (e.g., Gordon and Levinsohn, 1989).
- Such „financial repression“, however, hampers the development of financial market and economic growth (e.g., Roubini and Sala-i-Martin, 1992). We use the Tokyo Municipality Government’s 2000 “Bank Tax” as a natural experiment to assess the economic impacts of taxing financial institutions. Specifically, we ask:
  - Did the tax negatively affect the entire banking sector by removing incentives for growth?
  - Did the tax decrease overall market value for firms dependent on taxed banks?

This project is also related to a large literature on reserve requirements and their economic impacts (Loungani and Rush, 1995).

Historical Background
- Due to a long recession, tax revenue of local Japanese governments fell, prompting them to seek alternative sources of revenue.
- In February 2000, Tokyo Governor Shintaro Ishihara announced a plan for a new type of bank tax targeting only institutions with assets of more than 5 trillion yen.
- The measure quickly gained support from politicians and citizens who considered banks as villains that had played an explicit role in the financial crisis of the 1990s.
- The Tokyo plan seemed to set precedent for taxing a specific subsection of a market based on external standards. (some banks feared that other local governments would follow Tokyo’s lead)
- Despite passing easily, Ishihara’s plan spawned lawsuits from over 20 major banks and was repealed by the Tokyo High Court in 2003 due to violation of equity provisions.

We define six dates in the history of the bank tax to study as shifts in information available to the market. We include in parentheses the expected effect of each event on bank value:
- **February 7, 2000** Official announcement of tax (negative)
- **March 23, 2000** Approval of tax by Finance Assembly (negative)
- **October 18, 2000** Filing of lawsuit against tax (negative)
- **March 26, 2002** Tokyo District Court ruling against tax (positive)
- **January 30, 2003** High Court ruling against tax (positive)
- **September 17, 2003** Banks agree to $234.4b settlement (positive)

We collect:
- Daily stock prices for each of the 99 banks listed on the Tokyo Stock Exchange between November 1, 1999 and December 26, 2003 (100 days before the first event and 100 days after the last event).
- Daily prices of the Nikkei-225 portfolio (left) as a proxy to control for average market performance.

Method
Following the analysis of MacKinlay (1997), a standard market-model event study will not produce meaningful results because the event windows are identical for all firms. Thus, we follow techniques employed by Schipper and Thompson (1983), Salinger (1992), and Imai and Bonin (2007) in estimating a multivariate equation with the following form:

\[
\ln(R_t) = \alpha + \beta \ln(M_t) + \sum_{j=1}^{T} \gamma_j F_{it} + \epsilon_t
\]

where
- \(R_t\) is the change in stock price for firm \(i\) on day \(t\)
- \(M_t\) is the change in the market index Nikkei-225 for day \(t\)
- \(F_{it}\) is a dummy variable equaling one if day \(t\) is in the date of interest \(j\) and zero otherwise.

This equation represents a system with a cross-equation equality restriction for the excess logged returns coefficient \(\gamma_j\). This coefficient estimates the average daily abnormal returns (as a percentage) associated with date \(j\).

We estimate by fixed-effects OLS with white robust standard errors adjusted to account for contemporaneous clustering.

Results
- We test the significance of the cumulative abnormal return (CAR) by a simple joint-probability F-test where the null hypothesis is that the sum of \(\gamma\) terms in a window around each event equals zero.

P-values:
- **3-Day Window**
  - Tax announcement: 0.0000
  - Passing of tax: 0.0000
  - Filing of lawsuit: 0.0000
  - First court ruling: 0.0000
  - High court ruling: 0.0000
  - Lawsuit settled: 0.0000

- **5-Day Window**
  - Tax announcement: 0.0000
  - Passing of tax: 0.0000
  - Filing of lawsuit: 0.0000
  - First court ruling: 0.0000
  - High court ruling: 0.0000
  - Lawsuit settled: 0.0000

Conclusions
- With few exceptions, CAR estimations for banks are highly significant and follow expectations in sign, illustrating that changes in financial regulation strongly affect public confidence in institutions.
- Both taxed and untaxed banks saw decreased returns with the announcement and introduction of the tax, and increased returns with its removal (taxed banks saw more dramatic changes). This could suggest that by targeting the most profitable banks, the tax decreased incentives for growth among smaller institutions.
- Firms with more connection to taxed banks suffered more from the tax’s introduction, indicating that the tax limited the efficiency of financial intermediation.

Further Tasks
- Determine why the Tokyo high court ruling yielded negative returns (bank expectations higher than outcome?)
- Explore further the relationship between bank and firm value. Specifically, why did firm value drop with the abolishment of the tax (prediction of replacement taxes?)

References