The Cost of Regulatory Compliance in the US (Trebbi, Zhang, and Simkovic)

NBER CF Meeting, Fall 2023
Discussion, Josh White

Overview

- Questions
  1. What is cost of regulatory compliance across all firms?
  2. What is the relation between compliance costs and firm size?

- Methodology
  - Merge occupational task and wage data over 2002-2014
  - *RegIndex* based on establishment-level compliance jobs/tasks
  - Shift-share IV to disentangle requirements and enforcement

- Findings
  - Firms spend 1.3% of total wage bill on compliance
  - Compliance bill grows 1% annually to $79–104 billion in 2014
  - Non-monotonic relation with firm size: $\cap$ shape with medium sized firms bearing the largest cost
  - Tiering rules drives $\cap$ shape for small firms not lax enforcement

Discussion

- Key strengths
  - Asks two first order questions with policy implications
  - Novel measure of regulatory costs for all establishments
  - Results are intuitive and informative
- Outline of Remarks
  1. Importance, construction, and validation of *RegIndex*
  2. Relation between *RegIndex* and firm size
  3. Opportunities to strengthen the analysis

First Order Question For Policymakers: Direct Costs

- Regulations predominantly rely on a cost-benefit tradeoff
  - Understanding the labor costs of compliance is paramount
  - Estimating it for all firms is ambitious, but goes beyond studies analyzing industries or rule changes to reveal unexpected costs
- Why is this important?
  - Bad policy can harm aggregate output and productivity
  - Could aid policymakers in estimating labor costs of new rules
  - Cost estimates are usually prospective (ex ante)
  - Analogous to estimating project's NPV and just once
  - Retrospective (ex post) corrections to regulatory cost estimates are uncommon, partly due to data challenges

Challenge of Quantifying Regulatory Costs for All Firms

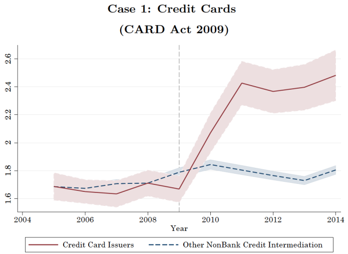
- Rules vary by industry and firms often operate in several
  - Exposed to many regulation sources: federal, state, local
- Regulators often provide exemptions or delays based on size
  - But exemption thresholds can be arbitrary and complicated
  - Regulators might enforce rules differentially based on size as it can easily boost enforcement statistics
  - Access to technology and economies of scale also differ by size
- Multifaceted nature of these factors make quantifying regulatory costs for <u>all</u> establishments profoundly challenging

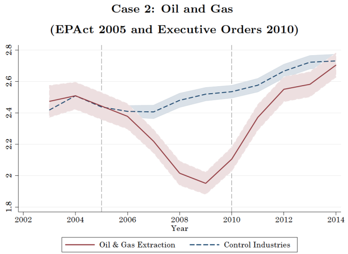
Novel Measure of Compliance Costs: *RegIndex*

- Calculate each occupation's regulation-task intensity and then value-weight it by O*Net's task importance per occupation
  - Great decision by authors or would falsely assume all tasks are uniformly distributed within occupations
- Sample over 3 million firm- and establishment-year observations in BLS's OEWS survey over 2002–2014
  - *RegIndex* is the portion of total labor cost in OEWS used for regulation-related tasks
- Strengths of *RegIndex* is that it allows analyses to
  1. Be performed at the establishment and firm level
  2. Be compared across industries and time
  3. Capture the intensive margins of compliance

Authors' Validation of *RegIndex*

1. Time-series of *RegIndex*-based compliance hours is 67% correlation with annual regulatory cost estimates from OIRA
2. *RegIndex* is lower in states that vote Republican
3. *RegIndex* respnose is directionally consistent around regulatory shocks to 4 industries when comparing affected firms to matched controls





Discussant's Additional Validation of Tasks

NLP of Tasks Using Non-Negative Matrix Factorization (N=5 topics)

No.	Topic	Keyword Examples	Coherence	% Cases
1	Ensure compliance Safety	Regulations; Compliance	0.410	0.2388
2	Ensure conformance standards	Products; Specification	0.441	0.1315
3	Compliance with codes	Codes; Applicable; Policies	0.353	0.0929
4	State and federal	State; Federal; Programs	0.324	0.0446
5	Regulatory agencies	Reports; Prepare; Agencies	0.314	0.0362

Source: `http://www.miaobenzhang.com/Regulation_Related_Tasks.xlsx`

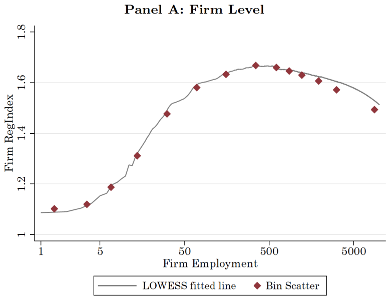
First Order Question For Policymakers: Size

- A benevolent regulator prioritizes the public good and works diligently to achieve outcomes that benefit society as a whole
  - Tiering regulation by size can help ease costs of compliance
- The SEC offers various size-based exemptions or delayed compliance, some for small and others for larger companies:
  - SRCs with $<$\$250m float or \$100m sales have less disclosure
  - EGCs with under \$1.235b sales at IPO receive a 5-year onramp
  - WKSIs $>$\$700m float benefit from instant shelf registration
- Leads to suboptimal growth evidenced by “bunching” under regulatory thresholds (e.g., Ewens, Xiao, and Xu, 2021)

Opportunities

1. Labor costs and outsourcing
2. Measuring firm size
3. Mechanisms for large firm compliance cost reductions
4. Policy implications

Size-Dependent Regulatory Costs



- Based on mechanism tests, the authors' preferred story is that
  - Small firms benefit from regulatory tiering and lax enforcement
  - Large firms efficiently absorbing fixed compliance costs

Alternative Mechanism: Outsourcing

- Labor costs are only one component of regulatory costs
  - Outsourcing can be a cost-efficient means to meet compliance
  - Small firms might outsource compliance to tap into external expertise they lack in-house

- Do small firms outsource compliance more often?
  - Since the 1970s, federal agencies must conduct a cost-benefit analysis of certain regulations
  - As part of the Paperwork Reduction Act (PRA), agencies typically report the
    1. fraction of internal and external compliance hour per rule
    2. rate per hour to estimate the direct cost

Outsourcing Regulatory Services: Example 1

- Ex. 1: Proxy Voting Advice (2022, deregulation)

PRA Table 2. Decrease in Burden Hours Resulting from the Rescission of the Rule 14a-2(b)(9)(ii) Conditions and Related Safe Harbors

Number of Estimated Responses (A)†	Total Decrease in Burden Hours (B)††	Decrease in Burden Hours Per Response (C) = (B)/(A)	Decrease in Internal Hours (D) = (B) x 0.75	Decrease in Professional Hours (E) = (B) x 0.25	Decrease in Professional Costs (F) = (E) x $400
5,586	318,640	57	238,980	79,660	$31,864,000

- SEC estimates 75% decrease in internal compliance hours and 25% in outsourcing compliance (professional hours)

Source: https://www.sec.gov/files/rules/final/2022/34-95266.pdf

Outsourcing Regulatory Services: Example 2

- Ex. 2: Share Repurchase Disclosure (2023, more regulation)
- SEC estimated differential external vs. internal burden hours depending on the firm type, with some outsourcing 75%

PRA Table 7. Estimated Burden Allocation for the Affected Collections of Information

Collection of Information	Internal	Outside Professionals
Forms 10-K, 10-Q, and N-CSR	75%	25%
Forms 20-F and F-SR	25%	75%

- SEC estimates outsourcing costs at $400/hour through 2022, and $600 per hour since 2023

Source: `https://www.sec.gov/files/rules/final/2023/34-97424.pdf`

Outsourcing Regulatory Services: Example 3

- SIFMA survey of compliance costs

> Among the three categories of compliance-related spending, expenditures on staff were by far the greatest, accounting for 93.9% of the total. This was especially true for Large and Mid-sized Firms. In contrast, Small Firms tend to outsource many compliance-related activities that are routinely handled by larger firms with internal staff. As a result, staff-related costs are smaller and out-of-pocket costs increase significantly.

Figure 3b

Percent of Total Compliance-Related Spending

	Staff-Related[1]	Out-of-Pocket	Capital	Total
All Firms	93.9	2.8	3.3	100.0
Large Firms	94.3	2.1	3.6	100.0
Mid-sized Firms	96.1	3.1	0.8	100.0
Small Firms	81.5	13.4	5.1	100.0

[1] Staff costs include total compensation plus employee benefits and overhead

- Fraction of labor (94%) and size relation consistent with story
- But notes small firms outsource many compliance activities

Outsourcing Regulatory Services: Example 4

- The JOBS Act gave newly public smaller firms 5-years to comply with SOX 404(b)
- Lewis and White (2023) surveyed biotech executives exiting the on-ramp for SOX 404(b) compliance costs

F. Survey estimate of annual Section 404(b) compliance costs for biotech EGCs

Annual cost ($)	Audit Fee	External Consultants	Internal Labor	Total
Mean	412,143	192,000	203,750	807,893
Median	400,000	175,000	225,000	800,000

- Firms report spending a median of 50% on external auditors, 22% on external consultants, and 28% on internal labor

Measuring Firm Size

- Study uses the number of employees to gauge firm size
  - One of the key challenges with regulatory tiering is how to define small firms
  - Securities regulation uses float or revenue for exemptions
  - One could also define firm size by total assets
- Firms with few employees can also be "large" due to industry factors or vertical integration (outsourcing production)
  - Biotech startups often have few employees and zero revenue, but often achieve a large float due to takeover
  - Eidos Therapeutics had 45 employees, $2b market cap in 2019
  - Mattel generates $5.4b in revenue and has 34000 employees
  - Hasbro generates $5.8b in revenue and has 6500 employees
- If there are no data limitations, would help to see if cost-size relation remains with alternative size measures such as revenue

Other Suggestions

- Reasons why large firms could have lower regulatory costs could be further developed
  - Notes large firm could lower costs through lobbying
  - They also have the expertise and funding to sway rule-making
  - Their expertise is crucial in emerging tech areas where regulators require guidance on innovative complexities
  - Would like to see other tests to explain the drop-off in compliance costs for larger firms and establishments
- Policy implications
  - Often read that papers have policy implications, but these are rarely spelled out in detail (not limited to this paper)
  - Including a final section that clearly delineates the findings and implications of your study would be helpful for policymakers

Conclusion and Insights

- Important paper with two clear potential contributions
  1. Assess regulatory costs for all US establishments and firms using labor costs
  2. Document relation between size and compliance costs along with possible mechanisms

- Opportunities
  - Tease out some additional mechanisms, especially outsourcing
  - Sensitivity on using the number of employees as a size measure
  - Clarify implications for larger firms
  - Spell out policy implications

- Overall a great paper and I look forward to seeing it published!