

Information Externalities of Corporate Earnings Disclosures:

Evidence from MSME Procurement Decisions

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Public Firm Disclosures Generate Real Externalities

长华化学 (301518) 披露2025年度业绩预告, 1月20日股价上涨5.45%

证券之星 2026年01月20日 22:35 上海

Changhua Chemical (301518) released its 2025 earnings forecast, projecting a **53.75%–87.91%** year-to-year (YoY) net profit growth, which coincided with a **5.45% stock price increase** on January 20, 2026.

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BUSINESS • EARNINGS

ASM International Shares Rise as Sales Beat Expectations, Boosted by AI Demand

Citi analysts expect consensus earnings for 2026 to increase at least 10%

By [Najat Kantouar](#) [Follow](#)

April 22, 2026 4:52 am ET



Aa



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ASM International's Q1 sales outperformed consensus forecasts, fueled by AI demand, leading to a sharp **8.2% intraday stock price gain**.

Public firm disclosures generate real externalities — but do they reach the smallest enterprises?

What we know

- Earnings releases transfer information within industries (Foster, 1981)
- Public firm presence improves private firm investment efficiency (Badertscher, Shroff & White, 2013)
- Richer peer disclosure lowers cost of capital (Shroff, Verdi & Yost, 2017)
- Disclosures affect employees, job seekers, and consumers

The open question

- Prior work focuses on public or financially sophisticated firms
- MSMEs are the backbone of most economies — yet understudied
- No evidence on whether MSMEs actually read and respond to earnings disclosures
- Data constraint: MSMEs have no public financials and daily data is scarce

Example: Earnings Forecast—Significant Increase in Net Profit

SAIC Motor Corporation Limited | 2025 Annual Performance Forecast

Key Earnings Highlights:

- The Company forecasts 2025 net profit attributable to shareholders of **RMB 9.0–11.0 billion**, representing a **438%–558% YoY increase** (a rise of RMB 7.3–9.3 billion).
- The non-recurring profit-adjusted net profit is expected at **RMB 7.0–8.2 billion**, a **229%–251% YoY increase**.

Main Drivers of the Change:

- **Core Business Growth:** Strong wholesale sales volume of 4.5075 million units in 2025, up 12.32% YoY.
- **Base Effect from 2024 Impairment:** 2024 results were suppressed by a RMB 7.874 billion asset impairment charge at a joint venture.
- **Non-Recurring Gain:** A RMB 5.178 billion one-time gain from the 2024 equity transfer and capital increase of JSW MG Motor India.



Example: Earnings Forecast—Expected Loss

Air China Limited | 2025 Annual Performance Forecast

Key Earnings Highlights:

- The company forecasts a **net loss of RMB 1.3–1.9 billion** for 2025.
- After adjusting for non-recurring items, the expected loss widens to **RMB 1.9–2.7 billion**.

Main Drivers of the Change:

- **Operational Performance:** The company describes ongoing efforts to optimize operations, control costs, and improve efficiency amid stable macroeconomic and industry conditions.
- **Accounting Treatment:** As required by accounting standards, the company reviewed and reversed part of its deferred tax assets at the balance sheet date.
- **Reported Outcome:** Despite positive operational narratives, the company forecasts a net loss for the period.



AIR CHINA

中國國際航空公司

Research Question

Do micro, small and medium-sized enterprises adjust their procurement decisions in response to nearby public firms' earnings-forecast disclosures?

Direction & Magnitude

Do MSMEs buy more after positive surprises?

Mechanism

Does information asymmetry and MSME capability drive the response?

Sophistication

Can MSMEs distinguish genuine from inflated forecasts?

We combine mandatory disclosure events with high-frequency administrative data to study real effects

Setting	China: quasi-mandatory earnings forecast regulation → timing of disclosure events
Data	Administrative VAT invoice data from a Chinese fintech → daily procurement activity of 66,616 MSMEs
Design	Short-window around forecast release dates → mitigates reflection problem (Manski 1991)
Key finding	1 SD increase in earnings surprise → 1.27% rise in daily MSME procurement in following 7 days
Extensions	MSMEs ignore inflated forecasts; procurement adjustments predict subsequent sales growth

China's mandatory earnings-forecast system creates standardized, exogenous disclosure events

1998

CSRC advises profit warnings for large losses (voluntary)

2000

SSE/SZSE: pre-loss within 2 months of fiscal year-end

2001

Key reform: $\geq 50\%$ change in profit \rightarrow mandatory warning within 30 days

2006

Shenzhen: 'loss-to-profit' shift added to mandatory triggers

Today

Three conditions: (1) net loss, (2) loss \rightarrow profit, (3) profit $\Delta \geq 50\%$

Key advantage: disclosure timing is exogenously regulated \rightarrow plausibly unanticipated by MSMEs

Earnings forecasts reduce demand uncertainty and should prompt procurement adjustment by MSMEs

Information channel

- Public firms' EFs reveal forward-looking demand conditions
- MSMEs lack analyst coverage & forecasting systems
- Positive EF surprise → infer stronger downstream demand
- Real-options: reduced uncertainty lowers option value of waiting (Dixit & Pindyck, 1994)

Frictions that may attenuate response

- Limited financial expertise to parse earnings releases
- Long-term supplier relationships restrict short-run flexibility
- Financing constraints prevent rapid procurement adjustments

Hypothesis: Local MSMEs' procurement increases (decreases) following positive (negative) earnings surprises — an information–expectation channel, not a financial-market mechanism.

Administrative VAT invoice data provide daily procurement activity for 66,616 MSMEs (2019–2022)

VAT Invoice Data (MSME side)

- Source: proprietary data from a leading Chinese fintech firm
- MSMEs authorize access to tax records for credit assessment
- Includes: product descriptions, quantities, amounts, invoice dates
- Complemented by business registration & quarterly income tax filings
- Coverage: 100,000+ MSMEs across diverse industries & regions

66,616

MSMEs

1,603

EF events

Disclosure Data (public firm side)

- Public firm earnings forecasts: CSMAR / WIND databases
- Analyst consensus: all forecasts 90 days to 1 day before EF date
- Earnings surprise = (management EF – analyst consensus) / consensus
- For multi-firm city-days: value-weighted by market cap
- Period: 2019–2022 | 1,603 EF events | 66,616 MSMEs

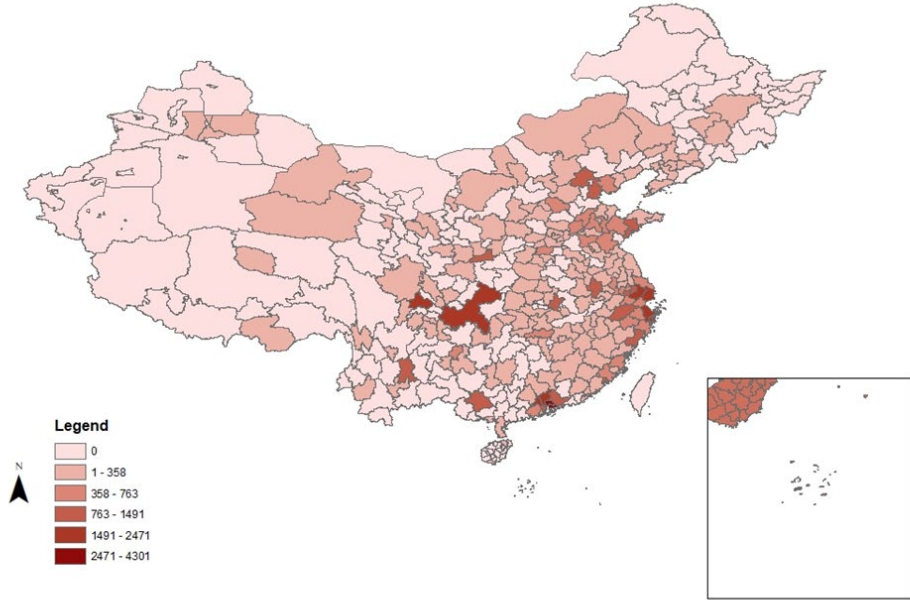
7.07M

Daily obs.

RMB 91.9K

Avg daily purchase

Administrative VAT invoice data provide daily procurement activity for 66,616 MSMEs (2019–2022)



Notes: This figure presents the city-level distribution of micro, small, and medium-sized enterprises (MSMEs) in China.

Administrative VAT invoice data provide daily procurement activity for 66,616 MSMEs (2019–2022)

Industry (Industrial Classification for National Economic Activities)	MSMEs		All firms	
	Frequency	Percent (%)	Frequency	Percent (%)
Manufacturing	23,643	35.49	4,047,228	12.17
Wholesale and Retail Trade	18,243	27.39	10,197,183	30.65
Construction	7,673	11.52	2,722,407	8.18
Transportation, Storage, and Postal Services	3,531	5.30	939,056	2.82
Leasing and Business Services	3,041	4.56	4,609,109	13.85
Scientific Research and Technical Services	2,793	4.19	2,117,795	6.37
Information Transmission, Software, and IT Services	1,370	2.06	1,695,873	5.10
Resident Services, Repairs, and Other Services	728	1.09	901,638	2.71
Agriculture, Forestry, Animal Husbandry, and Fishery	543	0.82	272,350	0.82
Accommodation and Catering Services	508	0.76	711,948	2.14
Real Estate	330	0.50	1,042,264	3.13
Culture, Sports, and Entertainment	191	0.29	223,244	0.67
Water Conservancy, Environment, and Public Facility Management	99	0.15	223,244	0.67
Electricity, Heat, Gas, and Water Production and Supply	89	0.13	135,796	0.41
Mining	70	0.11	51,605	0.16
Health and Social Work	47	0.07	337,213	1.01
Education	42	0.06	817,923	2.46
Financial Services	29	0.04	107,575	0.32
Public Administration, Social Security, and Social Organizations	1	0.00	1,520,454	4.57
Others	3,645	5.47	0	0.00
Total	66,616	100	33,267,885	100

Notes: Firms in China cover all firms in China's secondary and tertiary industries, excluding primary-sector establishments. Data are obtained from the *2023 China Economic Census Yearbook*.

Short-window stacked DID around earnings-forecast dates mitigates the reflection problem

$$\ln(\text{Purchase})_{i,j,t,s} = \alpha_1 \text{Earnings Surprise}_{j,t} \times \text{Post}_{t,s} + \alpha_2 \text{Post}_{t,s} + \beta_{i,s} + \gamma_t + \varepsilon_{i,j,t,s} \quad (1)$$

$\ln(\text{Purchase})_{i,j,t,s}$: Daily procurement of MSME i in city j on day t associated with earnings forecast event s .

$\text{Earnings Surprise}_{j,t}$: Market-cap weighted average of firm-level earnings surprise for all public firms headquartered in city j announcing on day t . Firm-level earnings surprise is defined as the difference between management forecast and analyst consensus, scaled by the absolute consensus forecast.

$\text{Post}_{t,s}$: An indicator variable equaling 1 for the [+1, +7] day window following the announcement, and 0 otherwise.

Fixed Effects

- MSME-by-earnings forecast event fixed effects ($\beta_{i,s}$): Controls for all time-invariant firm characteristics within each event window and event-specific shocks.
- Year-month-day fixed effects (γ_t): Accounts for day-specific macro-shocks and common seasonality.

The final sample comprises a high-frequency panel of **7.07 million** MSME-event-day observations (**66,616 MSMEs**) across **1,603 distinct earnings forecast events** from 2019 to 2022.

A 1 SD increase in earnings surprise raises MSME daily procurement by 1.27% in the post-disclosure week

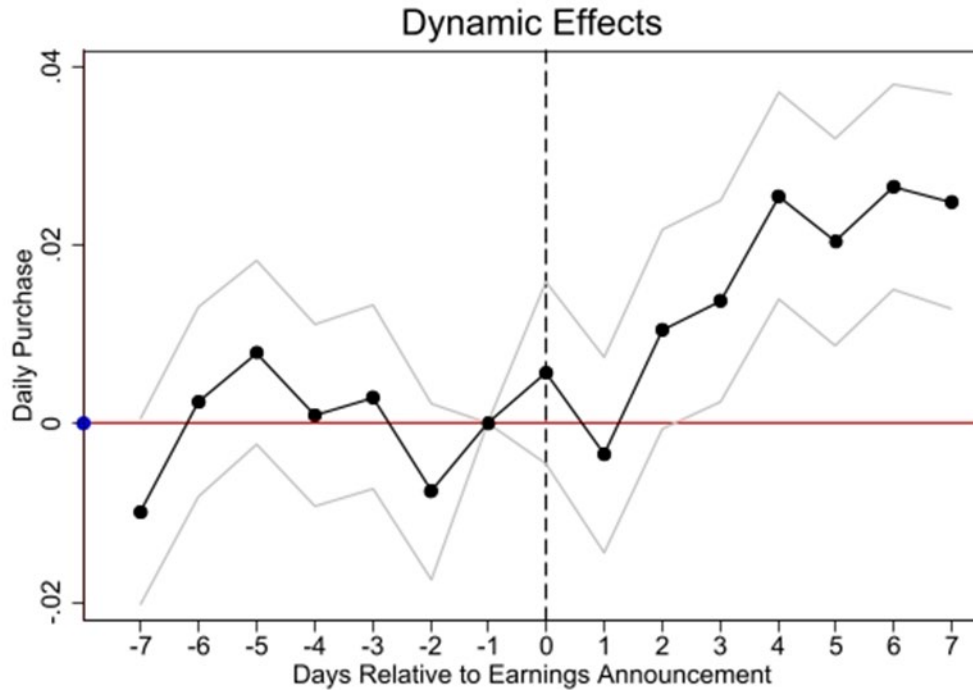
	(1)	(2)	(3)
	<i>Ln (Purchase)</i>	<i>Ln (Purchase)</i>	<i>Ln (Purchase)</i>
<i>Earnings Surprise*POST</i>	0.131*** (72.318)	0.016*** (8.830)	0.015*** (6.010)
<i>POST</i>	-0.112*** (-54.643)	0.002 (1.423)	-0.001 (-0.195)
<i>MSME FE</i>	No	Yes	No
<i>MSME*EF Event FE</i>	No	No	Yes
<i>Year*Month*Day FE</i>	No	Yes	Yes
<i>N</i>	7,071,084	7,071,084	7,071,084
<i>Adjusted R-Squared</i>	0.001	0.306	0.331

1. A one-standard-deviation increase in earnings surprise is associated with a **1.27% rise in daily MSME procurement.**

2. This translates to **RMB 8,170 in additional procurement per firm** over the 7-day post-announcement window.

3. Aggregating to China's 60 million MSMEs yields a spillover of **RMB 237 million per day per city-event.**

Procurement rises only after disclosure — no pre-trend — and scales with surprise magnitude



Key findings from event study:

- No significant pre-trend → parallel trends satisfied
- Effect becomes significant ~3 days post-event (time to convert information into invoices)
- Remains economically meaningful through day +7

95% CI bands suppressed for clarity. Omitted category: day -1. Source: Figure 2.

MSMEs respond more when the disclosing firm faces higher ex-ante information asymmetry

	(1)	(2)	(3)	(4)
	<i>Ln (Purchase)</i>	<i>Ln (Purchase)</i>	<i>Ln (Purchase)</i>	<i>Ln (Purchase)</i>
<i>Earnings Surprise*POST*Low Online Search</i>	0.039*** (7.341)			
<i>Earnings Surprise*POST*Low Media Coverage</i>		0.009* (1.891)		
<i>Earnings Surprise*POST*Low Analyst Coverage</i>			0.038*** (6.154)	
<i>Earnings Surprise*POST*Low Institutional Ownership</i>				0.029*** (5.810)
<i>Controls</i>	Yes	Yes	Yes	Yes
<i>MSME*EF Event FE</i>	Yes	Yes	Yes	Yes
<i>Year*Month*Day FE</i>	Yes	Yes	Yes	Yes
<i>N</i>	7,071,084	7,071,084	7,071,084	7,071,084
<i>Adjusted R-Squared</i>	0.331	0.331	0.331	0.331

Baseline = 0.015. All coefficients on Earnings Surprise × Post × Heterogeneity indicator from Table 4. *** $p < 0.01$, ** $p < 0.05$.

more supplier-diversified MSMEs in the same industry respond most strongly

	(1)	(2)
	<i>Ln (Purchase)</i>	<i>Ln (Purchase)</i>
<i>Earnings Surprise*POST*More Suppliers</i>	0.036*** (7.491)	
<i>Earnings Surprise*POST*Same Industry MSMEs</i>		0.032*** (6.870)
<i>Controls</i>	Yes	Yes
<i>MSME*EF Event FE</i>	Yes	Yes
<i>Year*Month*Day FE</i>	Yes	Yes
<i>N</i>	7,071,084	7,071,084
<i>Adjusted R-Squared</i>	0.332	0.331

Baseline coeff. = 0.015. Coefficients on *Earnings Surprise × Post × Heterogeneity* from Table 5. SE clustered at MSME level.

Immediately, MSMEs raise the value per invoice

	(1)	(2)	(3)
	<i>Ln (#Purchase Invoices)</i>	<i>Ln (#Product Category)</i>	<i>Ln (Average Invoice Value)</i>
<i>Earnings Surprise*POST</i>	0.001	0.001	0.014***
	(1.046)	(1.355)	(6.562)
<i>POST</i>	-0.001*	-0.000	0.001
	(-1.734)	(-0.705)	(0.496)
<i>MSME*EF Event FE</i>	Yes	Yes	Yes
<i>Year*Month*Day FE</i>	Yes	Yes	Yes
<i>N</i>	7,070,943	6,895,804	7,070,943
<i>Adjusted R-Squared</i>	0.385	0.357	0.327

Results from Table 6 (daily) and Table A3 Panel A (weekly). Dependent variables: $\ln(\# \text{ invoices})$, $\ln(\# \text{ product categories})$, $\ln(\text{avg. invoice value})$.

Procurement adjustments concentrate in forward-looking production inputs: fixed assets and raw materials

	(1) <i>Ln (Purchase top5)</i>	(2) <i>Ln (Fixed Asset Purchase)</i>	(3) <i>Ln (Raw Material Purchase)</i>	(4) <i>Ln (Low Value Consumables Purchase)</i>	(5) <i>Ln (Service Purchase)</i>
<i>Earnings Surprise*POST</i>	0.006*	0.017*	0.018***	-0.012	0.003
	(1.914)	(1.879)	(5.053)	(-1.159)	(0.753)
<i>POST</i>	0.000	-0.004	0.001	-0.009	-0.005
	(0.082)	(-0.406)	(0.138)	(-0.902)	(-1.264)
<i>MSME*EF Event</i>					
<i>FE</i>	Yes	Yes	Yes	Yes	Yes
<i>Year*Month*Day</i>					
<i>FE</i>	Yes	Yes	Yes	Yes	Yes
<i>N</i>	2,896,656	555,636	2,926,171	481,124	3,058,570
<i>Adjusted R-Squared</i>	0.527	0.349	0.450	0.456	0.282

MSMEs respond to EFs by increasing forward-looking, production-oriented procurement — not routine spending. This pattern is consistent with earnings news conveying credible demand signals that prompt capacity adjustment.

Results from Table 7. Products classified using industry-specific keyword lists (Appendix D). Short window = days 1–7.

MSMEs distinguish genuine from inflated earnings forecasts — unlike households

Earnings Boost definition

- Type 1: EF is positive but subsequent realized earnings is negative
- Type 2: Forecasted earnings exceed realized earnings by >20%
- ~11.4% of EF events classified as boosted

Why can MSMEs detect inflated forecasts?

- MSMEs have local information advantage through supply chain linkages, industry networks, and regional ties
- Their livelihoods depend on real demand — stronger incentive to verify credibility than passive investors
- Contrast with households (Gipper et al., 2025), who respond to raw surprise magnitude

	(1)	(2)
	<i>Ln</i>	<i>Ln</i>
	<i>(Purchase)</i>	<i>Ln (Purchase)</i>
<i>Earnings Surprise*POST*Earnings Boost (A)</i>	-0.027*** (-4.452)	-0.055*** (-4.811)
<i>Earnings Surprise*POST (B)</i>	0.019*** (6.842)	0.017*** (6.951)
<i>POST*Earnings Boost</i>	-0.058*** (-8.802)	-0.033*** (-3.927)
<i>POST</i>	0.005* (1.937)	0.001 (0.345)
<i>P Value: (A)+(B)</i>	0.141	0.001***
<i>MSME*EF Event FE</i>	Yes	Yes
<i>Year*Month*Day FE</i>	Yes	Yes
<i>N</i>	7,071,084	7,071,084
<i>Adjusted R-Squared</i>	0.331	0.331

Procurement adjustments translate into subsequent sales growth — confirming real economic effects

	(1)	(2)
	<i>Ln (Sale <i>W</i>)</i>	<i>Ln (Purchase <i>W</i>)</i>
<i>Earnings Surprise*POST</i>	0.007*** (4.540)	0.019*** (10.433)
<i>POST</i>	-0.109*** (-42.813)	0.061*** (18.396)
<i>MSME*EF Event FE</i>	Yes	Yes
<i>Week of Year FE</i>	Yes	Yes
<i>N</i>	5,443,744	7,610,002
<i>Adjusted R-Squared</i>	0.455	0.419

Real Effects: Sales Performance

- **Magnitude: +0.59%** weekly sales per 1 SD surprise.
- **Monetary Impact: ~RMB 3,700 (USD 500)** per MSME/week.

Implications

- **Forward-looking:** Procurement shifts based on updated **demand expectations**.
- **Information Spillover:** Public disclosure enhances **economic efficiency** for MSMEs.

Six robustness tests confirm findings are not driven by benchmark choice, firm type, or geography

A

Alternative earnings benchmark

Replace analyst consensus with prior-year realized earnings → coeff. unchanged

B

Forecast optimism types

More optimistic EF → stronger MSME response (monotone relationship)

C

Surprise magnitude quintiles

Effect increases with surprise size → rules out mechanical or threshold effects

D

Exclude small-scale taxpayers

Only ~4% of sample; exclusion leaves inferences unchanged

E

Mandatory EF only

Restrict to January EFs and threshold-triggered disclosures → same results

F

Exclude mega-cities

Remove Beijing, Shanghai, Tianjin, Chongqing, Shenzhen → coeff. larger, info. more valuable in lower-marketization regions

Conclusions

Main Findings

- **Significant Spillover:** Public firm earnings forecasts drive real operational responses in downstream MSMEs.
- **Information Channel:** Responses are forward-looking and more pronounced in information-poor environments.
- **Extending the "Real Effects" Literature:** Moves beyond peer public firms to the vast, understudied MSME ecosystem.
- **Identification via Granular Data:** Leverages nationwide VAT invoices to overcome traditional data limitations in private firm research.

Policy & Economic Implications

- **Public Signals as a Public Good:** High-quality disclosure by public firms reduces information asymmetry for the broader economy.

Thank you!

Appendix

Evolution of China's Mandatory Earnings Forecast System

1998—Initial Guidance

- CSRC suggested firms with expected substantial losses to release profit warnings; **no clear deadline nor quantitative threshold** for performance changes, largely voluntary in nature.

2000

2000—Preliminary Regulation

- Shanghai & Shenzhen Stock Exchanges required loss-expecting listed firms to disclose warnings **within 2 months after fiscal year-end**; first clear rule on disclosure timing, but still lacking quantitative criteria.

2001—Pivotal Reform

- Mandatory forecast required if annual profit changes **exceed 50% year-on-year**
- ²⁰ First official definition of **material performance change**
- Disclosure deadline shortened to **30 working days** after fiscal year-end.

Today

Key advantage: disclosure timing is exogenously regulated → plausibly unanticipated by MSMEs

Evolution of China's Mandatory Earnings Forecast System

2006—Standardized Rule Finalization

- Shenzhen Stock Exchange supplemented the criterion of **turning loss into profit**;
- Three unified mandatory disclosure triggers were formally established:

1. Annual net loss

2. Turn from loss to profit

3. Year-on-year profit fluctuation exceeding 50%

- Disclosure deadline: within **one month** after the fiscal year-end

2025 Earnings Forecast Disclosure

- As of Jan 31, 2026, **2,956** A-share listed companies (54%) have disclosed earnings forecasts.
- Positive forecast: 705
- Negative forecast: 420
- Continued loss: 987
- Turnaround (loss to profit): 374

Key advantage: disclosure timing is exogenously regulated → plausibly unanticipated by MSMEs

Data Source

Data Provider: A leading Chinese fintech firm; Data is obtained with MSMEs' authorization from their official tax records submitted to the **Chinese tax authorities**.

Core Data: Proprietary administrative transaction-level **VAT invoice data** from MSMEs' tax records.

- **VAT Invoices:** Granular transaction details: product descriptions, quantities, tax amounts, total values, and invoice dates.
- Business registration details (address, industry, registration date, etc.), quarterly corporate income tax filings, and quarterly financial statements submitted to tax authorities.

Comprehensive Dataset: 100,000+ MSMEs across all regions and industries.

Summary Statistics

	N	Mean	St.Dev	p25	Median	p75
Ln (Purchase)	7,071,084	8.558	2.694	6.177	8.388	10.723
-Purchase (in thousand RMB)	7,071,084	91.9	272.0	0.5	4.4	45.4
Earnings Surprise	7,071,084	-0.223	0.840	-0.170	-0.037	0.028
POST	7,071,084	0.491	0.500	0	0	1
#Online Search Volume (in thousand times)	7,071,084	6.754	7.689	2.469	4.641	8.191
#Media Coverage	7,071,084	5.520	10.440	0	2	7
#Analyst Coverage	7,071,084	8.984	8.385	3	6	13
Institutional Ownership (%)	7,071,084	42.5	22.9	23.6	42.1	60.0
MSME Age (in years)	6,562,429	7.6	5.2	4	6	11
MSME Size (in millions RMB)	6,149,533	16.618	30.709	2.001	6.057	16.412

The average (median) daily procurement of MSMEs in our sample is **91.9 (4.4) thousand RMB**. These firms have a median age of **6 years** and median total assets of **6 million RMB**.

Alternative Observation Windows: Financial Reporting Disclose

	(1)	Timeline
<i>Earnings Surprise*POST</i>	<u>Ln (Purchase)</u> 0.002 (0.204)	Jan–Apr Mandatory EF disclosures (our main tests)
<i>POST</i>	-0.004** (-2.157)	
<i>MSME*EF Event FE</i>	Yes	Jan–Apr Analyst revisions & market reactions
<i>Year*Month*Day FE</i>	Yes	
<i>N</i>	13,190,596	
<i>Adjusted R-Squared</i>	0.331	≤Apr 30 Audited annual report released

- Consistent with Ball & Shivakumar (2008): most price discovery occurs before the formal earnings release
- Reinforces our interpretation: it is the early, forward-looking EF that drives MSME behavior — not the retrospective audit

→

Little incremental info left
for MSMEs

This paper advances three strands of the disclosure and real-effects literature

1

Disclosure externalities reach the smallest firms

We extend Badertscher, Shroff & White (2013) and Shroff, Verdi & Yost (2017) from large/public firms to 60M+ MSMEs — showing accounting disclosures shape real decisions, not just capital allocation.

2

MSMEs are sophisticated information processors

Unlike households (Gipper et al., 2025), MSMEs distinguish genuine from inflated EFs using local information advantages — extending evidence on heterogeneous responses to financial reporting.

3

High-frequency administrative data identify real-time real effects

Among the first studies to use daily administrative transaction data to show that financial reporting influences real operations in near real time — overcoming aggregation and reflection-problem limitations of prior work.