How do Stimulus Policies Move Firms' Expectations? Evidence from Chinese Micro and Small Enterprises*

Zhen Huo† Minghao Li‡ Zheng (Michael) Song§ Xiaohan Yang¶ Xiaobo Zhang‖

Abstract

How do stimulus policies shape firms' expectations and decisions? We answer this question using a high-frequency survey of Chinese micro and small enterprises linked to transaction-level outcomes. Exploiting the overlap between the 2024Q3 survey window and China's late-September 2024 stimulus announcements, we show that firms update their expectations rapidly: expected growth, inflation, and stock returns rise, while subjective uncertainty falls. Firms also become more optimistic about their own revenues and business prospects, are less likely to plan shutdown, and shift financing demand toward expansion. Beyond average effects, the announcement strengthens the synchronization between macro and micro expectations, weakens extrapolation from recent firm performance, and improves the alignment between expectations and subsequent realized outcomes. The results point to an expectations channel of stimulus transmission.

Keywords: stimulus policy, firm expectations, micro and small enterprises, uncertainty, policy transmission, China.

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†Department of Economics, Yale University. E-mail: zhen.huo@yale.edu.

‡National School of Development, Peking University. E-mail: mhli@nsd.pku.edu.cn.

§Department of Economics, The Chinese University of Hong Kong. E-mail: zheng.michael.song@gmail.com.

¶Department of Economics, The Chinese University of Hong Kong. E-mail: xiaohanyang@cuhk.edu.hk.

‖Guanghua School of Management, Peking University and International Food Policy Research Institute (IFPRI). E-mail: x.zhang@gsm.pku.edu.cn.

1 Introduction

How do stimulus policies move firms' expectations? This question lies at the core of macroeconomics. Policy interventions are intended not only to affect current financing conditions or disposable income, but also to alter beliefs about future demand, inflation, and business conditions. These expectation effects are central to many theories of policy transmission (e.g., Nakamura and Steinsson, 2018; Angeletos et al., 2021; Coibion et al., 2022).

Despite the central role of expectations, direct evidence on firms' belief formation remains limited, especially at high frequency and for the majority of small firms, which are often most exposed to fluctuations in demand and confidence (Davis et al., 1996). Existing work has largely focused on asset prices, professional forecasters, or households. Much less is known about how ordinary firms update their macroeconomic expectations in response to policy announcements, and especially about whether those policy shocks also change firms' expectations about their own business conditions. This gap matters because the relevant expectations for real decisions are often not only about aggregate outcomes such as GDP or inflation, but also about firm-level outcomes such as orders, revenues, prices, costs, and financing needs.

This paper studies how firms' expectations respond to a major stimulus episode. We focus on China's unanticipated stimulus policy announcement in late-September 2024, which occurred in an environment of weak demand, persistent disinflationary pressure, and growing concern that growth was undershooting official objectives. On September 24, the People's Bank of China announced monetary support measures. On September 26, a top-level *Politburo* meeting delivered strongly expansionary policy signals. Additional measures followed shortly thereafter. Financial markets reacted immediately, with Chinese equity indices rising sharply. The announcements therefore provide a salient and well-timed policy shock for studying whether and how firms revise their beliefs.

To study how firms updated their beliefs around this policy shock, we use the *Online Survey of Micro-and-Small Enterprises in China* (OSOME), a repeated cross-sectional survey jointly conducted by Peking University and Ant Group, and administered on one of the biggest mobile payment platforms, Alipay. Since 2020, the survey has collected rich information on Chinese micro and small enterprises, including business conditions, financing, and owner characteristics. Beginning in late 2023, the survey also began eliciting

expectations about both macroeconomic outcomes and firms' own business conditions. Respondents report expectations for GDP growth, CPI inflation, housing prices, stock market performance, orders, revenues, employment, prices, wages, and input costs, together with an explicit "uncertain" option. Because the 2024Q3 survey was conducted sequentially over a narrow window that straddled the late-September announcements, we can compare firms surveyed just before and just after the policy shock.

This setting has three advantages. First, it provides unusually high-frequency evidence on firms' beliefs during a real-world major policy event. Second, it covers a segment of firms that is typically underrepresented in conventional datasets: micro and small businesses, including many self-employed and unregistered firms. These firms are economically important, highly exposed to fluctuations in demand and financing conditions, and plausibly especially sensitive to changes in macroeconomic sentiment. Third, because the survey is conducted on Alipay, respondents can be linked to subsequent transaction records, allowing us to examine whether policy-induced changes in expectations are associated with subsequent realized business performance.

We document five sets of results. First, firms' macroeconomic expectations respond rapidly and in a direction consistent with stronger aggregate demand. Expectations of stock market performance rise sharply, closely tracking the contemporaneous equity-market rally. Expected GDP growth and CPI inflation also increase, while subjective uncertainty falls. By contrast, expectations about housing prices and loan interest rates move much less. This pattern suggests that the announcements primarily shifted beliefs about short-run demand and macroeconomic sentiment, rather than immediately changing views about the property market or firms' effective borrowing costs.

Second, the policy shock improves firms' expectations about their own business conditions and their planned actions. Expected revenue rises significantly, and expected order growth increases especially among firms that report insufficient demand as their main current challenge. Expected output price growth rises, while expected operating-cost growth falls. Firms also become less likely to plan shutdown and more likely to seek financing for expansion. These responses indicate that firms did not interpret the stimulus merely as a financial-market event. They also viewed it as news about their own prospective operating environment.

Third, the announcement strengthens the synchronization between macro and micro expectations. After the policy shock, firms' expectations about their own orders become

more strongly associated with their beliefs about aggregate GDP growth, and firms' expected own-price changes become more strongly associated with their beliefs about aggregate inflation. The policy intervention therefore does not simply move each expectation in parallel. It changes how firms organize their beliefs, making macroeconomic signals more salient for their assessment of firm-level outcomes.

Fourth, firms' expectations become more aligned with subsequent realized performance. Using matched Alipay transaction data, we show that expected revenues and expected orders predict subsequent realized outcomes in all quarters, but the relationship becomes especially strong during the policy-announcement episode. We also find that the announcement weakens firms' extrapolation from current business conditions. Before the announcement, firms appear to rely heavily on recent revenue and order growth when forecasting future performance. After the announcement, revenue expectations become less mechanically tied to current revenue growth. A natural interpretation is that the stimulus provided a salient common signal about future demand, reducing firms' reliance on their own recent performance as a forecasting anchor.

Fifth, we study firms' pricing decisions through a survey-based price-setting regression. Realized price changes are primarily associated with firm-level cost and demand conditions: changes in input prices, wages, and orders. Province-level GDP growth and CPI inflation have little additional explanatory power once these firm-level conditions are included. At the same time, firms' current price changes become more closely aligned with their expected future price changes after the announcement. This result complements the synchronization evidence: the policy shock increased the connection between current pricing decisions and forward-looking pricing plans, while firm-level fundamentals remained central.

Taken together, the results point to an expectations channel of stimulus transmission. The announcement shifted firms' beliefs along multiple margins at once: it raised expectations about aggregate demand and inflation, reduced subjective uncertainty, improved firms' outlook for their own revenues and prices, and changed planned business actions. It also altered the structure of beliefs. After the announcement, macro expectations became more tightly connected to firm-level expectations, and firms' own forecasts became more informative about subsequent realized performance. In this sense, the stimulus did not simply make firms more optimistic on average; it changed how they interpreted the macroeconomic environment and mapped aggregate signals into firm-level decisions.

Related Literature. This paper relates to several strands of the macroeconomics literature. First, we contribute to the literature on the transmission of macroeconomic policy shocks and policy announcements. A large body of work studies how monetary and fiscal shocks affect asset prices, output, and inflation, often using high-frequency identification around policy announcements (Nakamura and Steinsson, 2018; Gertler and Karadi, 2015; Ramey and Zubairy, 2018; Bauer and Swanson, 2023a,b). More recently, this literature has emphasized the informational content of policy announcements, showing that policy shocks can move expectations by revealing information about the economic outlook. While most of this work focuses on financial markets or professional forecasters, we provide direct evidence on how firms—especially small firms—update both macroeconomic and firm-level expectations in response to a major stimulus episode. Our results suggest that policy announcements affect not only aggregate expectations, but also how firms translate macro signals into their own business outlook.

Second, we contribute to the literature on expectation formation and information frictions. A large empirical and theoretical literature documents sluggish and incomplete updating of expectations, consistent with models of sticky information, rational inattention, or dispersed information (Woodford, 2003; Coibion and Gorodnichenko, 2012, 2015; Angeletos and Huo, 2021; Angeletos et al., 2021). Our findings highlight an important complementary margin: when policy shocks are large, salient, and economically relevant, firms can update expectations rapidly and in a coordinated way. Moreover, we show that policy announcements can increase the internal coherence of beliefs by strengthening the relationship between macroeconomic expectations and firm-level expectations. In this sense, the key question is not only whether expectations adjust, but also how they are structured and how strongly macro signals are mapped into firm-level beliefs.

Third, our paper contributes to the growing literature using survey data to study firms' expectations. Recent work has used firm surveys to analyze expectations about inflation, demand, and business conditions, and their role in decision-making (Coibion et al., 2018; Candia et al., 2021; Kumar et al., 2023; Afrouzi, 2024; Hajdini et al., 2025; Gagliardone et al., 2025). Relative to this literature, our contribution is threefold. First, we observe expectations at unusually high frequency around a well-defined policy event, allowing us to study expectation updating in real time. Second, we jointly observe expectations about macroeconomic conditions and firms' own outcomes within the same survey, which allows us to study the synchronization between macro and micro beliefs.

Third, by linking survey responses to subsequent transaction data, we can examine how the relationship between expectations and realized outcomes changes in response to policy shocks. This allows us to move beyond average expectation responses and study changes in the informational content of beliefs.

Finally, we contribute to the literature on small firms and entrepreneurial activity in China. Micro and small enterprises account for a large share of employment and economic activity but are often underrepresented in conventional datasets, particularly because informal and unregistered firms are difficult to capture. The OSOME survey provides a rare high-frequency window into this segment of the economy, covering both registered and unregistered businesses and linking survey responses to transaction-level data. This feature is particularly important in the Chinese context, where weak demand, deflationary pressure, and fragile confidence have been central macroeconomic challenges. Our findings suggest that expectation channels may be especially relevant for these firms, which are highly sensitive to changes in perceived demand and business conditions (Kong et al., 2022; Cong et al., 2024).

Taken together, our results complement existing work by providing new micro-level evidence on how policy announcements shape expectations, how those expectations are organized across macro and micro dimensions, and how they relate to subsequent economic outcomes.

Outline. The rest of the paper proceeds as follows. Section 2 describes the survey, the expectation measures, and the matched transaction data. Section 3 reports the main results on macro expectations, micro expectations, business plans, the synchronization of beliefs, weakened extrapolation, and firms' price setting. Section 4 concludes.

2 Data

This section describes the data used in the analysis. Our empirical setting combines a high-frequency survey of Chinese micro and small enterprises with administrative transaction records from Alipay. The data are well-suited to our question for three reasons. First, they directly measure firms' expectations about both aggregate economic conditions and their own business outcomes. Second, they contain rich information on firm

characteristics, operating conditions, financing constraints, and business plans. Third, survey respondents can be linked to both historical and subsequent transaction records, allowing us to relate expectations to realized firm performance.

We first describe the survey design and sample coverage, then present summary statistics and the construction of the expectation measures used in the empirical analysis.

2.1 OSOME Survey

Our primary data source is the *Online Survey of Micro-and-Small Enterprises in China* (OSOME), a quarterly repeated cross-sectional survey jointly conducted by Peking University and Ant Group. The survey is administered through Alipay, one of China's largest digital payment platforms, and has been fielded quarterly since 2020Q3. In each wave, respondents are randomly drawn from "active" merchants on the platform, yielding repeated cross-sections of roughly 6,000 micro- and small-business owners per quarter.[1] This sampling frame gives the survey broad coverage of entrepreneurial activity on the platform, especially among small merchants that are typically difficult to observe in conventional firm datasets.

The resulting sample covers the lower end of the firm-size distribution. As shown in Appendix Figure A.1, most respondents are self-employed or operate with only a few workers; the average business in the sample creates about 4.2 jobs. Business scale is similarly modest: average quarterly revenue is RMB 121,000 (approximately USD 17,800), but the distribution is highly skewed toward subsistence-oriented businesses serving local consumer markets. The median respondent reports quarterly revenue below RMB 25,000 (approximately USD 3,680), about 30 percent report negative profit margins, and another 20 percent are approximately breaking even. The sample is also service-intensive. Appendix Figure A.2 shows that more than 80 percent of respondents operate in services, nearly 10 percent in construction or manufacturing, and the remaining 8 percent in agriculture, forestry, animal husbandry, or fishery. Within services, the largest subsectors are retail, lodging and catering, and wholesale. Overall, the OSOME captures small, locally oriented businesses that are likely to be especially sensitive to changes in consumer

[1] An "active" MSME is defined as a merchant that, over the previous twelve months, had transactions in at least three months, completed more than 90 transactions, and recorded total transaction value above RMB 2,000, approximately 270 U.S. dollars. Alipay reached 1.2 billion monthly users in 2019 and is one of the two dominant mobile payment platforms in China, together with WeChat Pay (Klein, 2020). See also http://www.xinhuanet.com/english/2019-10/01/c_138440413.htm and https://www.techinasia.com/wechat-cashless-china-data.

demand, financing conditions, and business confidence.

Although the average business in the OSOME is smaller than firms covered in the economic census or standard enterprise surveys, the sample is similar to the economic census among comparable categories of businesses. In particular, Appendix Figure A.3 shows that the OSOME sample closely matches the census in its industry and employment distributions for comparable business categories. Alipay also confirmed that the respondent sample is representative of active platform merchants in terms of transaction volume.

The survey collects detailed information on both entrepreneurs and their businesses. At the owner level, it records demographic and human-capital characteristics, including age, gender, and education. At the business level, it measures operating conditions such as changes in orders, sales, employment, prices, and costs, as well as financing conditions such as borrowing channels, borrowing costs, and credit limits. The questionnaire also includes modules on policy exposure, digitization, business confidence, and planned business actions.

A key advantage of the OSOME is that survey responses can be linked to respondents' subsequent transaction records on Alipay. Although the survey is not a panel, this linkage allows us to follow cross-sectional respondents forward after the survey date and measure realized business performance using administrative transaction data. Given the broad penetration of mobile payments in China, these transaction outcomes provide a useful proxy for MSMEs' realized performance. This feature allows us to study not only how firms revise expectations around policy announcements, but also whether those expectations become more closely aligned with subsequent business outcomes.

2.2 Survey on Expectations

Starting in 2023Q4, the OSOME introduced expectation modules on both aggregate economic conditions and firms' own business outcomes. These modules are central to our analysis. They elicit quantitative expectations at high frequency for a broad set of macroeconomic outcomes, including GDP growth, CPI inflation, housing prices, stock market performance, and loan interest rates, as well as firm-level outcomes, including orders, revenues, employment, product prices, wages, input prices, and operating costs. Because the survey is administered through Alipay, these expectation measures can also be linked to respondents' transaction histories and subsequent realized business perfor-

mance. This combination allows us to study not only how MSMEs update beliefs, but also how macroeconomic expectations, firm-level expectations, subjective uncertainty, and realized outcomes are connected within the same empirical setting.

The expectation questions have three useful design features. First, respondents choose from interval-valued ranges rather than reporting point forecasts, as shown in Appendix Table B.1. This format is well suited to online implementation and reduces the reporting burden for small-business owners. In the empirical analysis, we use the midpoint of each interval as our baseline measure of expected outcomes. Second, each question includes an explicit "uncertain" option. We use this response to construct a direct indicator of subjective uncertainty, capturing cases in which respondents are unwilling or unable to state a directional forecast. Third, the survey elicits macro and micro expectations in parallel. This joint design is important because the expectations relevant for firms' decisions are not only beliefs about aggregate GDP or inflation, but also beliefs about their own demand, prices, costs, and employment.

Baseline Expectations. Table 1 and Figure 1 summarize MSME owners' expectations from 2023Q4 to 2026Q1. The baseline picture is one of weak demand, deflationary pressure, and elevated uncertainty. Median expected GDP growth remains between 2.6 and 3.4 percent, consistently below the official growth target. Inflation expectations decline over time and are negative in most quarters. Expected house-price growth is even more pessimistic, remaining negative throughout the sample period and typically falling between -4 and -6 percent. By contrast, expected changes in loan interest rates are small and relatively stable. Uncertainty is also substantial: roughly 30-40 percent of respondents select the "uncertain" option for GDP growth, housing prices, and the stock market. Thus, weak macro expectations are accompanied by a high degree of subjective uncertainty.[2]

Firms' expectations about their own business conditions display a similar pattern. Expected growth in new orders and revenues is modestly positive in early 2024 but declines over the year, approaching zero or turning slightly negative by late 2024. Employment

[2]We compare this subjective measure with alternative second-moment measures of uncertainty in Appendix Figure A.4. It shows that respondents who directly choose "uncertain" in the normal expectation question tend to report wider subjective forecast intervals when asked to provide optimistic, most likely, and pessimistic scenarios in the 2024Q1 quarter. This pattern appears under both alternative constructions of uncertainty. Although the estimates are relatively imprecise, the direction is consistent across measures, suggesting that the direct "uncertain" response captures meaningful subjective uncertainty rather than only non-response or inattention.

expectations are weaker: after hovering near zero in early 2024, expected employment growth becomes negative from 2024Q3 onward. At the same time, expected operating-cost growth remains positive, although it moderates from its 2023Q4 level. These patterns point to a squeeze in expected business conditions: demand expectations weaken, hiring expectations remain subdued, and expected costs rise faster than expected orders and revenues.

Price expectations reinforce this interpretation. Since late 2024, MSMEs' expected growth in their own product or service prices has fallen into negative territory, while wage expectations have also declined. Expected raw-material price growth remains positive throughout the sample, though its magnitude narrows over time. More recently, we have observed a renewed rise in raw-material price expectations, possibly reflecting concerns about oil price pressures triggered by the U.S.–Iran conflict. Taken together, the micro expectations suggest persistent demand weakness and firm-level deflationary pressure, even as some input-cost pressures remain.

Joint Distribution of Macro Expectations. Panel (a) of Figure 2 shows that GDP and CPI expectations are positively correlated. MSME owners who expect stronger GDP growth also tend to expect higher CPI inflation. This relationship is informative because the sign of the output–inflation comovement helps distinguish how respondents perceive the source of macroeconomic fluctuations. A positive relationship is consistent with a demand-side interpretation: stronger expected demand raises both expected output growth and expected inflation. A supply-side interpretation would instead tend to imply a weaker or negative relationship between the two.

This positive comovement is not unique to MSME owners. A similar pattern appears among employees of MSMEs in the OSOME supplementary survey, as shown in Panel (b), and it is also consistent with the positive historical association between GDP growth and inflation in Chinese macroeconomic data (Panel c). These patterns suggest that respondents' expectations are economically coherent: they do not report macro forecasts mechanically or independently, but instead organize their beliefs around a demand-side view of the economy. This feature is important for our empirical analysis because the late-September stimulus announcements occurred in an environment of weak demand and deflationary pressure. If firms interpret macroeconomic conditions through this demand-side lens, then a salient stimulus announcement may simultaneously raise ex-

pected growth, raise expected inflation, reduce uncertainty, and improve expectations about firms' own business prospects.

3 Responses to Stimulus

The late-September 2024 stimulus episode unfolded against a backdrop of pronounced deflationary pressure in the Chinese economy. The property market remained in a deep downturn, consumer confidence was fragile, and incoming macroeconomic data repeatedly fell short of expectations, raising concerns that the official growth target might be at risk. Against this backdrop, policymakers rolled out a new round of unusually forceful support measures in quick succession. On September 24, China's central bank, the People's Bank of China (PBoC), announced forthcoming monetary support measures. On September 26, a top-level *Politburo* meeting released strongly positive policy signals. On September 27, reserve requirement ratios and interest rates were lowered (Appendix Figure A.5). Additional fiscal support was signaled in early October, although the follow-up measures were later viewed by markets as less aggressive than initially anticipated.

Financial markets responded sharply to this sequence of policy actions. Investor sentiment turned markedly more optimistic, and the equity market rallied strongly as expectations of broad-based support improved. However, part of this initial enthusiasm faded when subsequent fiscal measures fell short of elevated market expectations, contributing to a partial correction in stock prices. Importantly, the OSOME 2024Q3 survey was conducted precisely during this sequence of announcements and market reassessments. This timing provides a useful setting for examining how micro and small business owners updated their expectations and adjusted their decisions in response to a major macroeconomic stimulus shock.

Rapid Response of Consensus Expectations. After the stimulus announcements, MSMEs' expectations adjusted quickly and in a clearly directional manner. The most immediate response appears in stock market expectations. In Figure 3, we show that as the realized Shanghai and Hong Kong stock indices surged following the September 24 PBoC measures and the September 26 Politburo meeting, respondents' 12-month expectations for the SSE Composite Index also rose sharply. This pattern suggests that small business owners rapidly incorporated the new policy signals into their beliefs about future financial conditions. The increase in expected stock performance closely tracked

the realized market rally, indicating that respondents were not only aware of the policy shift but also interpreted it as a meaningful improvement in the near-term macroeconomic outlook. Consensus forecasts on other macro indicators also respond quickly to this shock, as shown in Appendix Figure A.6.

At the same time, the share of respondents selecting the "uncertain" option for future stock market outcomes declined noticeably after the stimulus announcements. In our setting, this measure captures not the width of an individual forecast interval, but rather the probability that a respondent is unwilling or unable to state a directional expectation at all. The post-announcement decline in this uncertainty measure, therefore, suggests that the stimulus package reduced ambiguity about the short-run trajectory of financial markets. Consistent with this interpretation, uncertainty tends to move negatively with both realized stock returns and the average level of expected market performance: when markets rose sharply, and expectations became more optimistic, fewer respondents chose "uncertain."

These patterns point to an important distinction between short-run policy responses and the broader medium-run outlook. The stimulus announcements clearly improved sentiment and reduced uncertainty in the immediate aftermath of the policy shift, especially regarding financial market prospects. However, this improvement should not be interpreted as evidence that underlying business conditions had fundamentally recovered. As shown in the broader survey data, MSMEs continued to face weak demand, subdued hiring intentions, and persistent concerns about prices and growth. In this sense, the stimulus appears to have generated a strong short-run confidence effect, while leaving longer-run structural challenges largely unresolved.

Changes in Individual-level Expectations. We begin by estimating the immediate effect of the policy announcement on firms' expectations using the following specification:

$$\mathbb{E}_i[\Delta y_i^{t+1}] = \beta \cdot \mathbb{1}\left(T_i \geq c\right) + \gamma X_i + \text{FE} + \mu_i \ . \tag{1}$$

Here, $\mathbb{E}_i[\Delta y_i^{t+1}]$ denotes respondent i's expectation, reported in the survey, about the change in outcome y over the following period. Depending on the specification, y may refer to macroeconomic outcomes such as GDP growth, CPI inflation, housing prices, stock market performance, and interest rates, or to firm-level outcomes such as new orders, revenue, employment, prices, and costs. The indicator $(\mathbb{1}(T_i \geq c))$ equals one if

respondent i completed the survey on or after the policy announcement on September 26th, 2024, and zero otherwise (see also Appendix Figure A.7). Accordingly, β captures the discrete change in expectations after the announcement, conditional on observed characteristics and fixed effects.

The vector X_i includes a rich set of respondent- and firm-level controls, such as business owner characteristics, registration status, firm size, and other baseline business conditions. The fixed effects absorb systematic differences across cities and industries, thereby helping isolate the within-period discontinuity associated with the announcement timing. Under the identifying assumption that, absent the policy announcement, respondents interviewed just before and just after the cutoff would have had similar expectations on average, the coefficient β can be interpreted as the reduced-form effect of the policy announcement on expected future outcomes.

The regression results in Table 2 show that the policy announcement led to a clear upward revision in several macro expectations, although the effects were far from uniform across outcomes. Most strikingly, expected stock market performance increased sharply after the announcement: the coefficient on *Post* is 7.945 and statistically significant, implying a 7.945-percentage-point increase in respondents' expected 12-month stock market growth rate after the policy announcement. A regression discontinuity design (RDD) is also shown in Panel (a) of Appendix Figure A.8. Expectations of GDP growth and CPI inflation also rose after the policy shock. The estimated increase is 0.280 percentage points for expected GDP growth and 0.597 percentage points for expected CPI inflation, with both effects statistically significant, suggesting that respondents interpreted the stimulus as improving aggregate demand conditions and reducing near-term deflationary pressure. Column (6) shows that, among respondents without salient financing pressure, the policy announcement led to a significant downward revision in expected loan interest rates. One possible interpretation is that these respondents were more likely to update their beliefs in line with the monetary-easing signal. By contrast, firms facing financing pressure may perceive their borrowing costs as sticky, due to credit constraints, risk premia, or relationship-lending conditions, and therefore may not expect policy easing to translate into lower effective borrowing rates.

These results indicate that the stimulus primarily shifted beliefs along dimensions most directly related to short-run sentiment and aggregate demand. The strongest response appears in stock market expectations, followed by more moderate increases in

interest rates, expected GDP growth, and inflation, while expectations regarding housing remained comparatively sticky. This pattern is consistent with the interpretation that the announcement improved confidence and macro sentiment in the short run, but did not fully alter views about more persistent structural weaknesses in the economy.

The policy announcement also shifted MSMEs' expectations at the micro level. As shown in Table 3, on the demand side, although expected order growth is not statistically significant in the full sample, it increases by a much larger 0.755 percentage points among the subsample of firms that report "*insufficient demand*" as their main current challenge (Column 2). This suggests that the policy package most strongly improved demand expectations for firms that were initially more demand-constrained. Expected revenue growth also rises significantly, by 0.476 percentage points, consistent with a broad-based improvement in firms' perceived near-term business outlook.

The employment-related results point to a modest easing in labor-market tightness rather than an expansion in hiring plans. Expected employment growth itself does not change significantly after the announcement. At the same time, in the subsample of firms that do not report hiring difficulty in the survey ("no hard to hire" in Column 5), the probability of expecting employment growth increases by 0.254 percentage points and is statistically significant. This pattern suggests that the policy announcement may have raised employment expectations only among firms that were not constrained by hiring frictions, while leaving overall hiring plans largely unchanged.

The results on cost and price expectations further indicate that firms perceived the policy shock primarily through a demand-reflation channel. Expected growth in operating costs declines by 0.341 percentage points after the announcement, while expected output price growth rises by 0.804 percentage points and expected wage growth rises by 0.154 percentage points, both statistically significant. By contrast, expected input price growth shows no significant change. Taken together, these estimates suggest that the policy announcement improved firms' expected sales and output pricing conditions without generating a comparable increase in input cost pressure. In other words, the post-announcement revision in micro expectations appears to reflect stronger expected demand and a partial alleviation of deflationary pressure, rather than a broad-based rise in production costs.

Heterogeneity in Responses. Figure 4 further examines whether the expectation response to the stimulus differs across firms with different characteristics. Panel (a) shows that the upward revision in stock market expectations is broad-based but highly heterogeneous. The response is more pronounced among unregistered self-employed businesses, service-sector firms, smaller firms, college-educated owners, and online merchants. In contrast, the estimates are weaker and less precise for manufacturing firms, larger firms, and non-online businesses. This pattern suggests that the stimulus was perceived more strongly by firms that are smaller, more flexible, and more directly exposed to consumer demand and market sentiment.

Panel (b) reports the corresponding heterogeneity in GDP growth expectations. Compared with the stock market response, revisions in GDP expectations are much more muted. Most subgroup estimates are statistically insignificant, with only limited evidence of stronger responses among corporate enterprises and college-educated owners. It suggests that the policy shock immediately improved financial-market sentiment among MSMEs, but this optimism did not translate equally into stronger expectations about real economic growth.

Then we turn to firms' micro-level expectations about their own business conditions. Panel (c) shows that the response of revenue expectations is considerably more mixed. The overall estimate is primarily driven by smaller firms, which show relatively more positive responses, consistent with their greater sensitivity to short-run changes in market sentiment and local demand. By contrast, some groups, especially corporate enterprises and larger firms, appear to revise revenue expectations downward. One interpretation is that these firms may be more exposed to persistent demand weakness or may view the stimulus as insufficient to immediately reverse weak business conditions.

Panel (d) examines firms' expectations about their own prices. The estimates are generally positive but modest. The clearest positive responses appear among unregistered self-employed businesses and service-sector firms, suggesting that the policy shock may have slightly eased deflationary pressure for more flexible and demand-sensitive firms. However, the limited response among most other groups indicates that firms did not expect a strong or immediate pass-through from the stimulus to their own pricing power.

Micro Expectations on Future Plans Improve. The policy announcement appears to have affected not only expectations but also firms' intended business actions. To exam-

ine this channel, we replace the dependent variable in specification (3) with respondents' self-reported business plans for the following quarter. Column 1 of Table 4 shows that the probability of planning to shut down declines by 3.2 percentage points after the announcement. This magnitude is economically meaningful, given that the average rate of reporting planned shutdown is nearly 33 percent, and suggests an immediate reduction in business pessimism at the extensive margin.[3] Appendix Figure A.10 also suggests that shutdown probability declined after the policy shock across most firm groups. The reduction is especially significant among self-employed businesses, firms with fewer employees, service-sector firms, online businesses, and college-educated owners. The policy appears to have particularly reduced shutdown intentions among smaller and more vulnerable businesses. At the same time, cash flow improves significantly: the coefficient in Column 2 indicates a 0.338-month increase in the corresponding measure, consistent with a more optimistic assessment of near-term operating conditions. Importantly, firms also report a significant increase in demand for financing. As shown in Column 3, the post-announcement effect on financial demand is positive and statistically significant, implying that improved expectations translated into a stronger willingness to seek external funding.

The composition of financing purpose further suggests that this increased demand for finance was primarily expansionary rather than defensive. In Column 4, the probability of reporting expansion as the intended purpose of financing rises by 9.9 percentage points after the announcement. By contrast, there is no significant change in financing for debt repayment in Column 5, while the probability of financing for real-estate-related purposes declines in Column 6. This pattern indicates that the policy shock encouraged firms to orient financing plans toward business expansion rather than balance-sheet repair or property investment.

Taken together, these results suggest that the policy announcement was transmitted beyond beliefs and into concrete economic plans. The post-announcement improvement in macro and micro expectations was accompanied by a lower likelihood of exit, stronger expected cash flow, greater financing demand, and a reallocation of intended borrowing

[3] A consistent RDD plot is also shown in Panel (a) of Appendix Figure A.9. Panel (b) documents a strong relationship between revenue expectations and firms' business adjustment plans. Firms with optimistic revenue expectations are more likely to plan expansion than shutdown. By contrast, pessimistic and uncertain firms are substantially more likely to report shutdown plans. Notably, uncertainty appears to be associated with even more severe business adjustment than pessimism, consistent with the effect on investment (Tian et al., 2025).

toward expansionary uses. This pattern is consistent with a confidence channel through which stimulus policies not only shift expectations, but also affect the planned operating and financing decisions of MSMEs.

Enhanced Synchronization of Macro and Micro Expectations. The policy announcement appears to have strengthened the synchronization between firms' macro and micro expectations. Panel (a) of Figure 5 shows that the relationship between expected GDP growth and firms' own order expectations becomes markedly steeper after the announcement. Before the announcement, the correlation between the two is positive but relatively weak. After the announcement, firms with more optimistic GDP expectations also report much stronger expected order growth, suggesting that aggregate and firm-level demand expectations became more tightly aligned. In other words, the stimulus not only shifted the level of expectations, but also made firms' assessments of their own business prospects more closely track their views of the broader macroeconomy.

A similar pattern emerges for prices. Panel (b) indicates that the relationship between expected CPI growth and firms' own price expectations becomes substantially more positive after the announcement. Prior to the policy shock, the correlation is weak and even slightly negative, implying that firms' own pricing outlook was only loosely connected to their inflation expectations. After the announcement, however, firms expecting higher CPI inflation also tend to expect faster growth in the prices of their own products or services. This suggests that the stimulus helped reconnect firm-level pricing beliefs with broader macroeconomic inflation expectations.

This pattern is also reflected in the quarter-by-quarter coefficient estimates. Specifically, we estimate the slope in Figure 5 separately for each quarter, as follows:

$$\mathbb{E}_i[\Delta \text{Order}_i^{t+1}] = \beta_{\text{order-gdp},t} \cdot \mathbb{E}_i[\Delta \text{GDP}^{t+1}] + \gamma X_i + \text{FE} + \mu_i \tag{2}$$

$$\mathbb{E}_i[\Delta \text{Price}_i^{t+1}] = \beta_{\text{price-cpi},t} \cdot \mathbb{E}_i[\Delta \text{CPI}^{t+1}] + \gamma X_i + \text{FE} + \mu_i \ , \tag{3}$$

and plot the resulting coefficients in Figure 6. The synchronization between GDP expectations and firms' own order expectations remains positive throughout the sample, but strengthens notably during the policy-announcement period, stays relatively elevated in the following quarter, and then moderates afterward. A similar dynamic emerges for the relationship between CPI expectations and firms' own price expectations. Although the magnitude is smaller overall, the association likewise becomes stronger around the an-

nouncement window, remains relatively elevated in the subsequent quarter, and weakens later on. These results suggest that the comovement between macro and micro beliefs intensified most clearly around the policy shock, with some persistence beyond the immediate announcement period.

These results indicate that the policy announcement increased the internal coherence of firms' beliefs across macro and micro dimensions. Rather than updating each expectation in isolation, firms appear to have formed a more integrated view of the economy after the announcement, as stronger expected aggregate growth was increasingly associated with stronger expected demand at the firm level, and higher expected inflation was increasingly associated with higher expected output prices. This enhanced synchronization is consistent with a policy-induced coordination of beliefs, through which macroeconomic signals became more salient for firms' own business outlook.

Micro Expectations Are Better Aligned with Realized Performance. To examine whether the policy announcement also strengthened the link between firms' expectations and subsequent performance/realizations, we next estimate the following specification, quarter by quarter:

$$\Delta y_i^{t+1} = \beta \cdot \mathbb{E}_i[\Delta y_i^{t+1}] + \gamma X_i + \text{FE} + \mu_i \ , \tag{4}$$

where Δy_i^{t+1} denotes realized business performance in the following quarter, measured using matched individual-level Alipay transaction data, and $\mathbb{E}_i[\Delta y_i^{t+1}]$ is the firm's contemporaneous expectation of that outcome reported in the survey. Since the survey itself is administered on the Alipay platform, we are able to link cross-sectional survey responses to respondents' subsequent transaction records on the same platform. This feature allows us to observe realized business outcomes after the survey. Given the widespread use of mobile payments such as Alipay in China, and the relatively stable share of mobile payments in income (Bian et al., 2023), the resulting year-on-year changes in transaction-based measures provide a useful proxy for the realized performance of MSMEs. The coefficient β thereby captures the extent to which micro-level expectations are synchronized with subsequent realized performance in each quarter. All specifications control for owner characteristics (age, gender, education), business registration type, industry, and city fixed effects. The 2024Q3 sample includes only respondents surveyed after the policy announcement on September 26. An unconditional binned scatter plot is presented in

Appendix Figure A.11.

Figure 7 shows that this synchronization strengthened significantly during the policy-announcement period. In all quarters, firms' expectations for their own revenues and orders positively predict realized performance in the following quarter, indicating that micro expectations contain meaningful information about subsequent business outcomes. However, the predictive relationship becomes especially strong in the third quarter of 2024, the quarter in which the late-September policy announcement occurred. The estimated coefficients for both expected revenue growth and expected order growth rise substantially relative to earlier and later quarters, suggesting that firms' beliefs became more tightly aligned with realized short-run performance during this episode.

This pattern is consistent with the interpretation that the stimulus announcement not only shifted the level of expectations, but also improved their informational content. During the announcement period, firms' assessments of their near-term business prospects appear to have become more closely connected to actual subsequent outcomes, possibly because the policy shock provided a salient and common signal about future demand conditions. In this sense, the policy announcement enhanced synchronization along two dimensions: it increased the coherence between macro and micro expectations, and it also strengthened the mapping from micro expectations to realized firm performance.

Policy Announcements Weaken Firms' Extrapolation. We next examine whether firms extrapolate from their current business conditions when forming expectations about future performance. Let Δy_i^t denote firm i's realized growth in revenue or orders in 2024Q3, and let $\Delta y_i^{t+1} - \mathbb{E}_i[\Delta y_i^{t+1}]$ denote the corresponding forecast error, defined as realized growth in the following period minus the firm's expectation. We estimate

$$\Delta y_i^{t+1} - \mathbb{E}_i[\Delta y_i^{t+1}] = \beta \Delta y_i^t + \widetilde{\beta} \times \text{Post} \times \Delta y_i^t + \gamma X_i + \text{FE} + \varepsilon_{i,t+1}, \tag{5}$$

where Post is an indicator for respondents surveyed after the September 26 policy announcement. All estimates include a comprehensive set of controls X_i, along with city and industry fixed effects. The coefficient β captures the relationship between current realized growth and subsequent forecast errors before the announcement, while $\widetilde{\beta}$ measures how this relationship changes after the announcement. A negative estimate of β indicates extrapolation: firms experiencing stronger current growth subsequently have lower forecast errors, meaning that their expectations are high relative to realized future

outcomes.

Table 5 reports the results for revenue and orders. The estimates first show clear evidence of extrapolation. In the full sample, current revenue growth is negatively associated with future revenue forecast errors, with a coefficient of -0.266. The same pattern holds for orders: current order growth predicts lower future order forecast errors, with a coefficient of -0.188. These estimates imply that when firms form expectations, they place substantial weight on contemporaneous business performance, extrapolating recent revenue and demand conditions into the future.

The strength of this extrapolative pattern declines after the policy announcement, especially for revenues. As the pooled specification shows, the interaction between current revenue growth and the post-announcement indicator is positive and statistically significant, indicating that the negative relationship between current growth and future forecast errors weakens after the announcement. For orders, the post-announcement interaction is also positive, though marginally insignificant.

Columns (2) and (4) further augment the specification by controlling for firms' macroeconomic expectations and their interaction with the post-announcement indicator. The coefficients on $\mathbb{E}[\Delta\text{GDP}] \times \text{Post}$ are negative for both revenue and orders, suggesting that the relationship between macroeconomic optimism and forecast errors becomes more negative after the policy signal. Since forecast errors are defined as realized outcomes minus expected outcomes, this pattern implies that, after the announcement, firms with more optimistic GDP expectations also report higher own-firm expectations. Meanwhile, the interaction between current own-firm performance and *Post* remains positive, indicating a weaker reliance on contemporaneous revenue or order growth. These results suggest a reweighting in expectation formation that, after the policy announcement, firms place less weight on extrapolating from their own demand conditions and more weight on aggregate macroeconomic expectations.

These results complement the earlier evidence on synchronization and predictive accuracy. Before the policy announcement, firms' expectations appear to be more strongly shaped by their own recent performance: firms with strong current growth are relatively optimistic, while firms with weak current growth are relatively pessimistic. After the announcement, revenue expectations become less mechanically tied to current revenue growth. One interpretation is that the stimulus announcement provided a salient common signal about future demand conditions, reducing the extent to which firms relied

on their own recent performance when forecasting future outcomes. In this sense, the announcement did not merely shift the average level of expectations; it also changed the information set that firms appeared to use when forming expectations.

Firm-Level Price Setting. We next examine how firms' realized price changes are related to their expected price changes, firm-level cost and demand conditions, and aggregate macroeconomic conditions. Motivated by the logic of the New Keynesian Phillips Curve, we estimate

$$\Delta p_{it} = \beta \mathbb{E}_{it}[\Delta p_{i,t+1}] + \alpha_1 \Delta \text{Micro}_{it} + \alpha_2 \Delta \text{Macro}_{\text{province},t} + \epsilon_{it}, \tag{6}$$

where Δp_{it} is firm i's realized price change in 2024Q3. The vector ΔMicro_{it} includes changes in the firm's own input prices, wages, and new orders, which proxy for contemporaneous marginal-cost pressures and demand conditions. The vector $\Delta \text{Macro}_{\text{province},t}$ includes official quarterly province-level GDP growth and CPI, providing aggregate counterparts to the firm-level variables. The term $\mathbb{E}_{it}[\Delta p_{i,t+1}]$ measures the firm's expected own-price change over the next quarter. This specification, therefore, allows us to compare the explanatory power of three forces: firm-level fundamentals, aggregate macroeconomic conditions, and firms' forward-looking price plans.

Table 6 reports the results. The first pattern is that realized price changes are primarily associated with firms' own cost and demand conditions. In the full sample, price growth is strongly and positively related to changes in input prices, wages, and new orders. These relationships are economically meaningful and statistically significant both before and after the policy announcement. By contrast, province-level GDP growth and CPI inflation are not statistically significant. This pattern suggests that firms' realized price adjustments are driven mainly by firm-specific marginal-cost and demand pressures rather than by contemporaneous aggregate macroeconomic conditions. This result is consistent with findings in Gagliardone et al. (2025), which shows that current inflation is primarily explained by firms' marginal costs.

The second pattern is that the role of expected future price changes becomes stronger after the policy announcement. Before September 26, the coefficient on expected own-price growth is positive but not statistically significant when firm-level micro controls are included. After the announcement, the coefficient becomes statistically significant and remains close to 0.107. Thus, firms' current price changes became more closely aligned

with their future pricing plans after the stimulus episode. This change is not driven by a weakening of firm-level fundamentals: input-price growth, wage growth, and order growth remain positive and significant after the announcement, with magnitudes similar to those in the pre-announcement sample.

These results suggest that the policy announcement changed the organization of firms' pricing decisions. In normal times, realized price changes appear to be anchored mainly in contemporaneous firm-level cost and demand conditions, with little independent role for aggregate macro conditions or forward-looking price plans. After the announcement, current and expected future price changes became more tightly connected, while firm-level cost and demand conditions remained central. This finding is consistent with the synchronization evidence above: the announcement made macroeconomic conditions more salient and increased the persistence of firms' pricing outlook, without displacing the importance of firm-level fundamentals.

4 Concluding Remarks

This paper studies how stimulus policy affects firms' expectations and decisions. Using a high-frequency survey of Chinese micro and small enterprises linked to transaction-level outcomes, we exploit the overlap between the 2024Q3 survey window and the late-September 2024 stimulus announcements. Our findings point to an expectations channel in the transmission of stimulus policy. Rather than operating solely through contemporaneous financing conditions or realized demand, policy announcements affect how firms interpret macroeconomic conditions and map those beliefs into decisions. In this sense, stimulus policy can influence real activity by coordinating expectations across firms and shaping their outlook on future demand and pricing.

More broadly, the results highlight the importance of understanding expectation formation at the firm level. In environments characterized by weak demand and elevated uncertainty, policies that shift beliefs may play a central role in economic stabilization. Quantifying the aggregate implications of these expectation-driven adjustments remains an important direction for future research.

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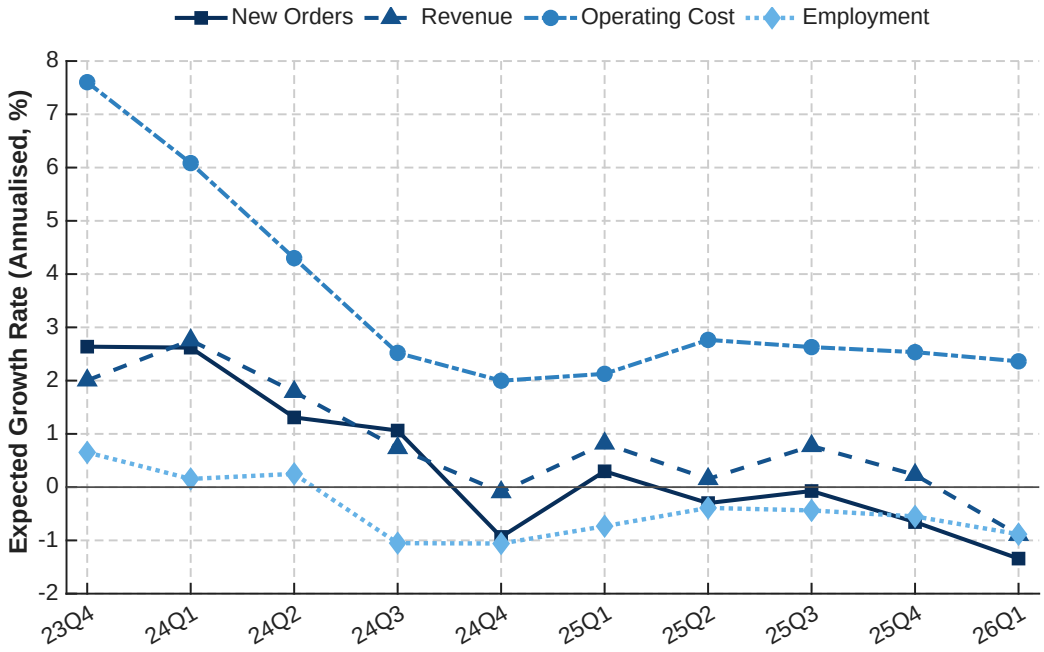
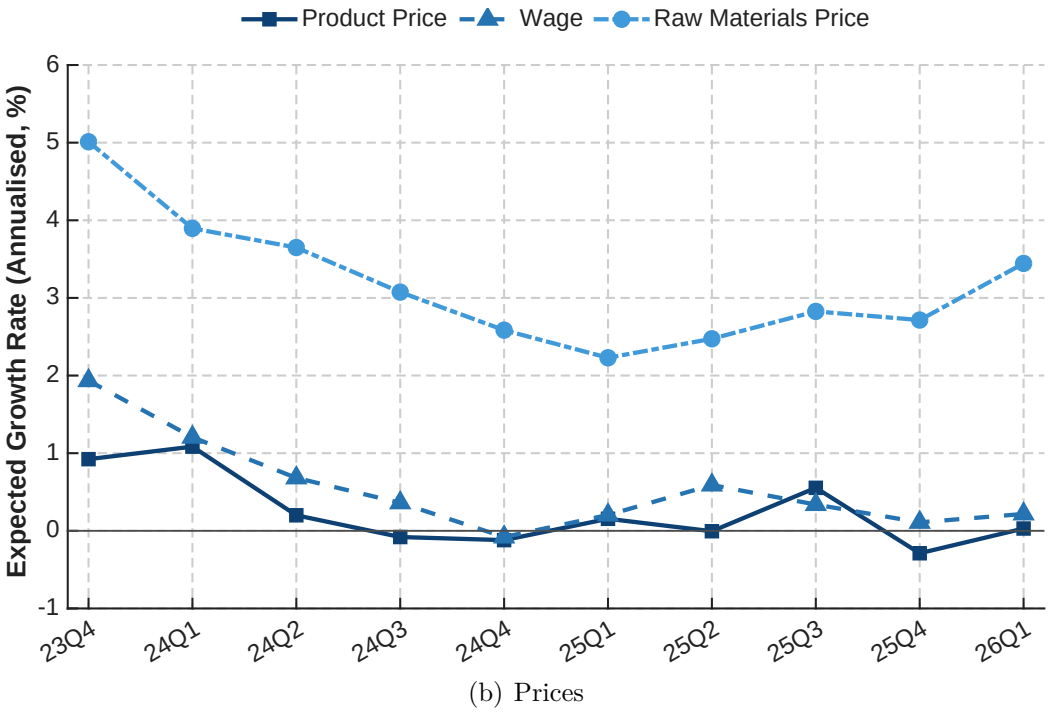
Figures



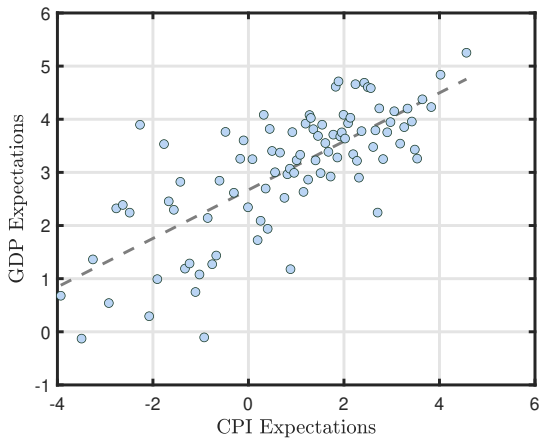
(a) Business Performance



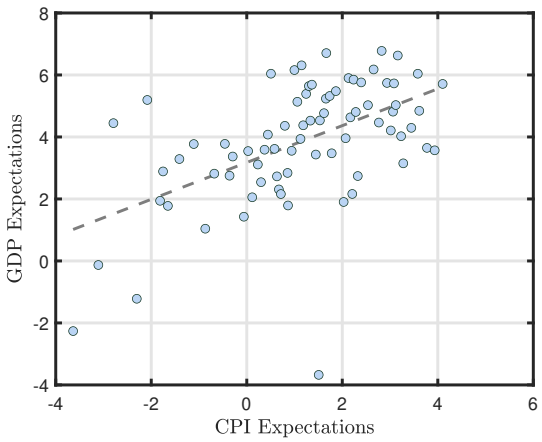
(b) Prices

Figure 1: Micro-level Expectations on Own Business

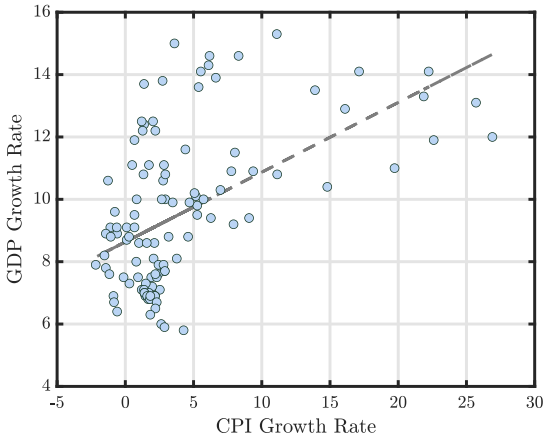
Data source: OSOME 2023Q4 to 2026Q1.



(a) Expectations of MSMEs



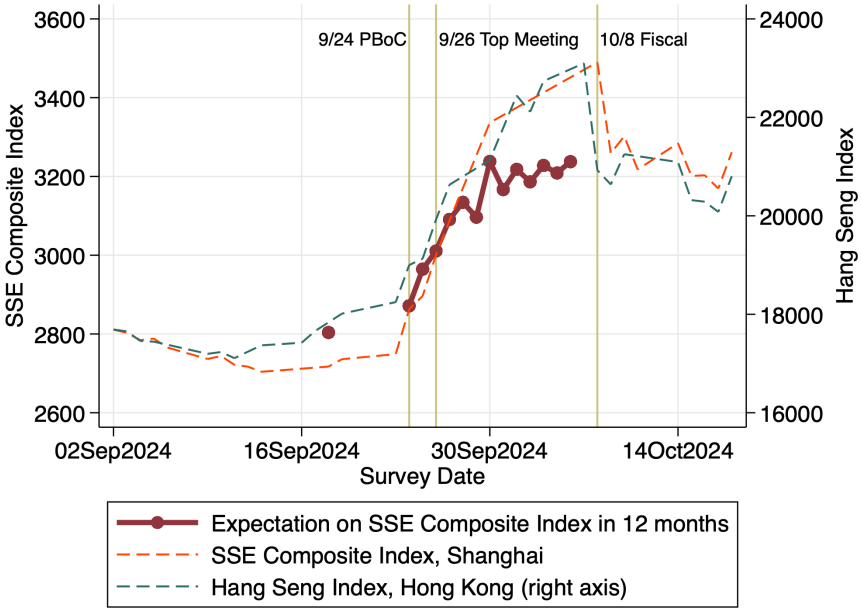
(b) Expectations of Employees



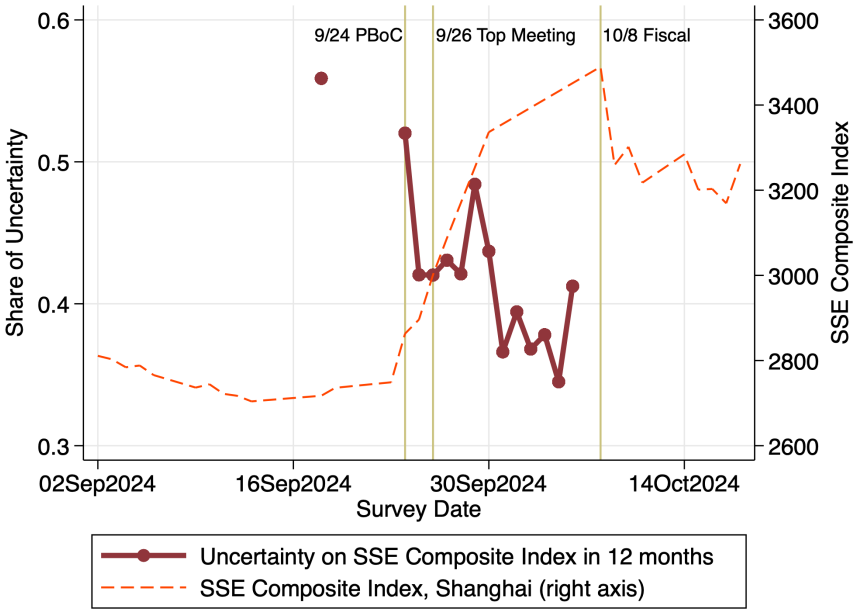
(c) China's Historical Data

Figure 2: Joint Distribution of Macro-level Price and GDP Expectations

Data source: OSOME 2024Q1 and CEIC.



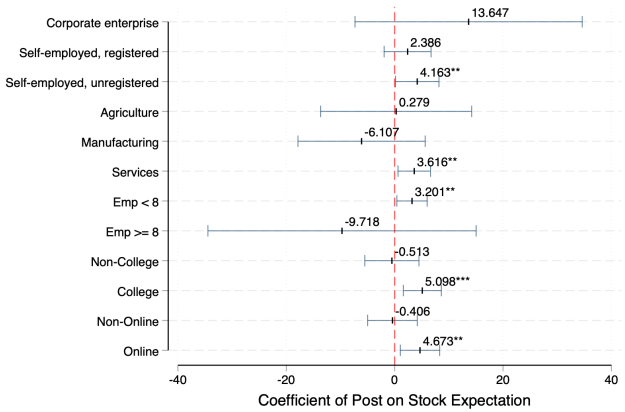
(a) Expectation Level on Stock Index



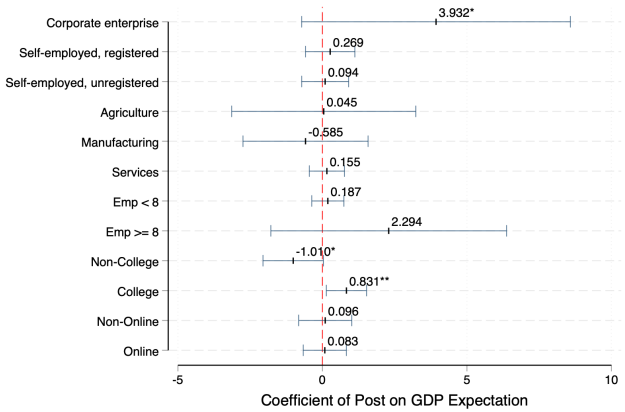
(b) Expectation Uncertainty on Stock Index

Figure 3: Expectation and Uncertainty toward Stock Index during the Announcement

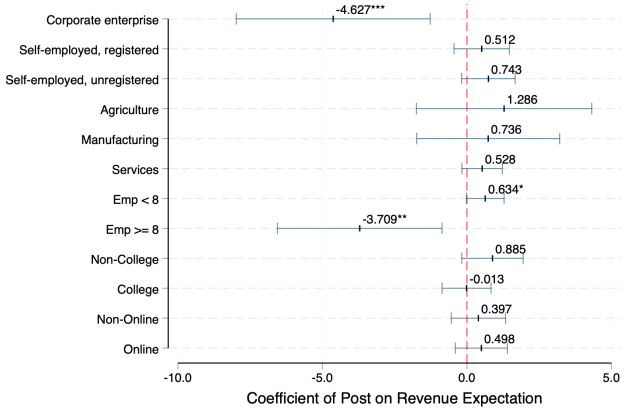
Data source: OSOME 2024Q3 and CEIC.



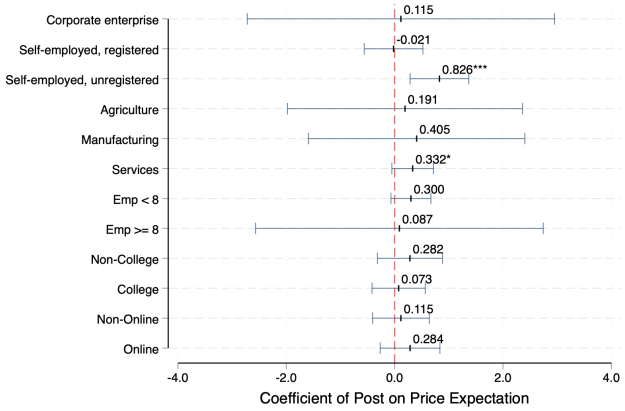
(a) Expectation on Stock



(b) Expectation on GDP



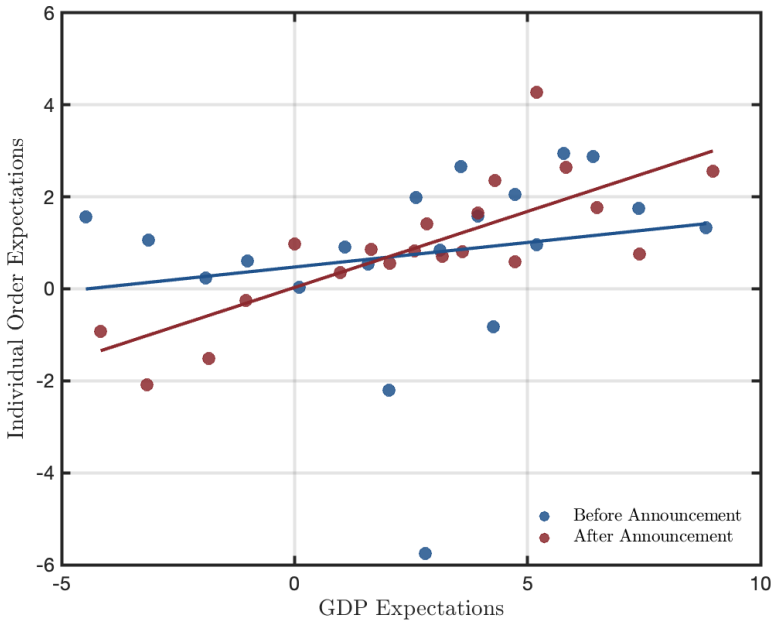
(c) Expectation on Revenue



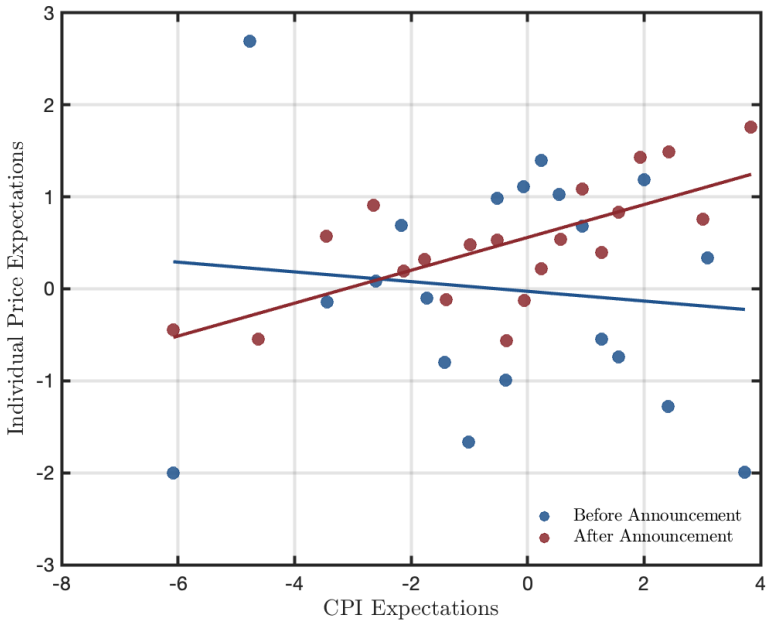
(d) Expectation on Own Price

Figure 4: Heterogeneous Expectation and Plan Responses to Stimulus

Data source: OSOME 2024Q3. All results are estimated using OLS regressions. All specifications include a comprehensive set of control variables (unless omitted automatically in the subsample), along with city and industry fixed effects. Robust Standard errors are reported. The point estimate and 95% confidence interval are plotted. Significance level: $^{*}p<0.1$ $^{**}p<0.05$ $^{***}p<0.01$.



(a) GDP *vs.* Own Order Expectations



(b) CPI *vs.* Own Price Expectations

Figure 5: Binned Scatters of Synchronization of Macro and Micro Expectations

Data source: OSOME 2024Q3. The figure presents a binned scatter plot, controlling for business owner characteristics, registration type, industry, and city fixed effects. The results are robust to extending the pre-announcement group to include 2024Q2 and the post-announcement group to include 2024Q4.

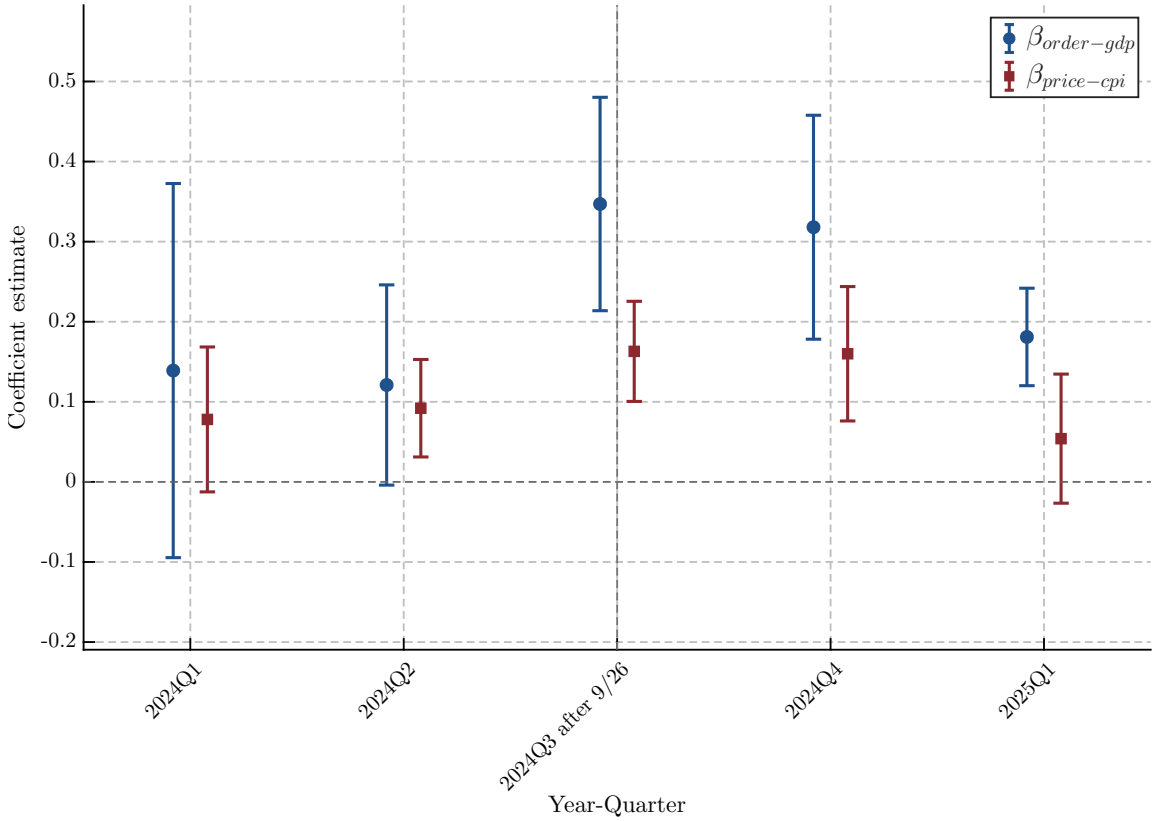


Figure 6: Synchronization of Micro and Macro Expectations

Data sources: OSOME 2024Q1 to 2025Q1. The 2024Q3 sample includes only respondents surveyed after the policy announcement on September 26. The figure plots coefficient estimates of firms' micro-level expectations about their own businesses on their macroeconomic expectations. Regression controls for business owner characteristics, registration type, industry, and city fixed effects. The 95% confidence intervals are shown.

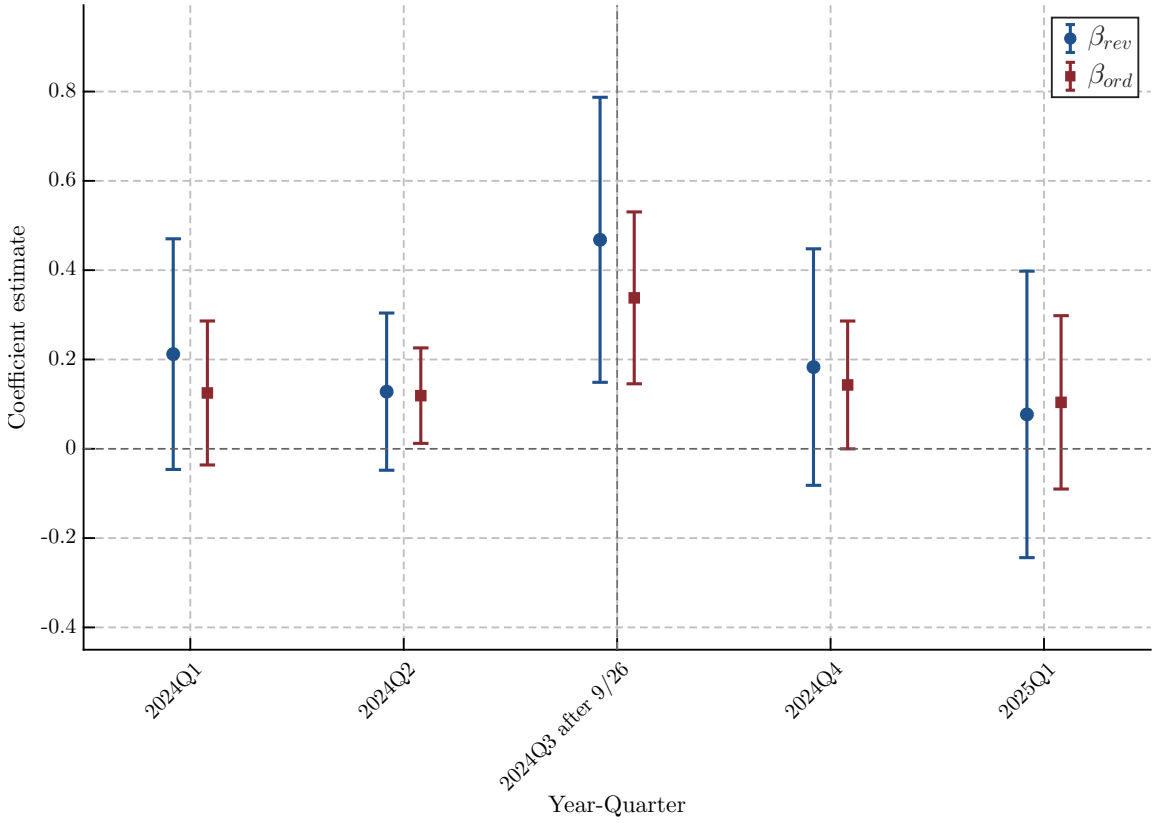


Figure 7: Synchronization of Micro Expectations and Realized Performance

Data sources: OSOME 2024Q1 to 2025Q1 and Alipay. The 2024Q3 sample includes only respondents surveyed after the policy announcement on September 26. The figure plots coefficient estimates of firms' micro-level expectations about their own businesses on realized performance in the following quarter, matched to individual-level Alipay online transaction data. Regression controls for business owner characteristics, registration type, industry, and city fixed effects. The 95% confidence intervals are shown.

Tables

Table 1: Summary of MSMEs' Macro Expectations in Each Wave

Expectations for the future 12 months:	**23Q4**	**24Q1**	**24Q2**	**24Q3**	**24Q4**	**25Q1**	**25Q2**	**25Q3**	**25Q4**	**26Q1**
GDP growth	3.0	3.4	3.0	2.8	2.9	3.0	2.6	2.9	3.0	3.2
% of uncertain			35.4%	34.7%	35.3%	32.6%	32.1%	34.2%	32.6%	33.8%
CPI change	1.3	0.9	0.5	-0.4	-0.5	-0.4	-0.6	-0.2	-0.3	-0.1
% of uncertain			29.9%	29.8%	28.8%	28.0%	26.8%	28.6%	27.8%	27.6%
Housing Price change	-3.3	-3.1	-5.4	-4.9	-4.8	-4.2	-5.7	-5.9	-5.8	-4.8
% of uncertain				32.3%	32.0%	29.8%	29.8%	30.6%	28.6%	31.0%
Loan Interest Rate change		-0.9	-0.9	-1.2	-0.9	-0.9	-1.0	-1.0	-1.1	-1.0
% of uncertain				14.1%	10.0%	12.3%	11.3%	11.5%	13.1%	28.6%
Stock: SSC Index				3,025	3,360	3,384	3,329	3,569	3,600	3,814
% of uncertain				40.3%	41.8%	35.8%	36.3%	35.4%	36.0%	37.8%

Data source: OSOME 2023Q4 to 2026Q1.

Table 2: Regressions of Policy Announcement on Macro Expectations

	(1)	(2)	(3)	(4)	(5)	(6)
	$\mathbb{E}_{it}[\Delta(\cdot)]$ on:					
	Stock%	GDP	CPI	House Price	Interest Rate	Interest Rate: no "fin. pressure"
Post	7.945***	0.280*	0.597***	0.340	0.038	-0.883***
	(1.129)	(0.131)	(0.159)	(0.562)	(0.047)	(0.282)
Control	Y	Y	Y	Y	Y	Y
FEs	Y	Y	Y	Y	Y	Y
Obs.	1,613	1,755	1,892	1,846	1,973	718
adj. R-sq	0.044	-0.008	-0.003	0.006	0.031	0.042

Data source: OSOME 2024Q3. All results are estimated using OLS regressions. The column "Interest Rate: no fin. pressure" restricts the sample to respondents who did not report financing as their main current cost-side challenge. Regression controls for registered type, employment, revenues, age, gender, along with city and industry fixed effects. The subsequent tables with control variables use the same set of covariates, unless otherwise specified. Robust Standard errors are reported. Statistical significance is indicated by $^{*}p<0.1$ $^{**}p<0.05$ $^{***}p<0.01$.

Table 3: Regressions of Policy Announcement on Micro Expectations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
					$\mathbb{E}_{it}[\Delta(\cdot)]$ on:				
	Order	Order: report low demand	Revenue	Employ	Employ: no "hard to hire"	Cost	Price	Wage	Input Price
Post	0.258	0.755**	0.476**	-0.176	0.254***	-0.341***	0.804***	0.154**	0.148
	(0.180)	(0.286)	(0.196)	(0.147)	(0.077)	(0.083)	(0.108)	(0.065)	(0.129)
Control	Y	Y	Y	Y	Y	Y	Y	Y	Y
FEs	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	4,126	2,183	4,240	4,435	3,235	4,333	2,144	2,232	2,177
adj. R-sq	0.004	0.008	0.003	0.007	0.012	-0.002	-0.011	-0.018	-0.025

Data source: OSOME 2024Q3. All results are estimated using OLS regressions. "Order: report low demand" refers to the subsample of respondents who identify insufficient demand as their main current business challenge. "Employ: no hard to hire" refers to the subsample that does not report labor shortage or hiring difficulty in the survey. All specifications include a comprehensive set of control variables, along with city and industry fixed effects. Robust Standard errors are reported. Statistical significance is indicated by $^{*}p<0.1$ $^{**}p<0.05$ $^{***}p<0.01$.

Table 4: Regressions of Policy Announcement on Micro Economic Plans

	(1)	(2)	(3)	(4)	(5)	(6)
	Economic Plans:					
	Shutdown	Cashflow	Fin. demand (in log)	Fin. Purpose:		
				Expand	Repay	Estate
Post	-0.032***	0.338***	0.228**	0.099***	-0.023	-0.014**
	(0.005)	(0.063)	(0.090)	(0.017)	(0.022)	(0.006)
Control	Y	Y	Y	Y	Y	Y
FEs	Y	Y	Y	Y	Y	Y
Obs.	5,197	5,197	2,513	1,500	1,500	1,500
adj. R-sq	0.028	0.027	0.088	-0.007	0.028	-0.019

Data source: OSOME 2024Q3. All results are estimated using OLS regressions. All specifications include a comprehensive set of control variables, along with city and industry fixed effects. Robust Standard errors are reported. Statistical significance is indicated by $^{*}p<0.1$ $^{**}p<0.05$ $^{***}p<0.01$.

Table 5: Weakened Extrapolation After Policy Announcements

	(1)	(2)	(3)	(4)
	Forecast Error: Revenue		Forecast Error: Order	
	Full sample	w/ Expectation	Full sample	w/ Expectation
$\Delta[\text{Revenue}]_{24Q3}$	-0.266^{***}	-0.324^{***}		
	(0.034)	(0.066)		
$\Delta[\text{Revenue}]_{24Q3} \times \text{Post}$	0.106^{**}	0.167^{**}		
	(0.036)	(0.068)		
$\Delta[\text{Order}]_{24Q3}$			-0.188^{***}	-0.247^{**}
			(0.057)	(0.106)
$\Delta[\text{Order}]_{24Q3} \times \text{Post}$			0.072	0.130
			(0.058)	(0.108)
$\mathbb{E}[\Delta\text{GDP}]$		2.905*		2.127
		(1.731)		(1.350)
$\mathbb{E}[\Delta\text{GDP}] \times \text{Post}$		-3.408^{*}		-2.505^{*}
		(1.753)		(1.363)
Control	Yes	Yes	Yes	Yes
FE	Yes	Yes	Yes	Yes
Adj. R-sq	0.062	0.061	0.032	0.021
Obs.	4,055	1,597	3,922	1,545

Data source: OSOME 2024Q3. All results are estimated using OLS regressions. All specifications include a comprehensive set of control variables, along with city and industry fixed effects. Robust Standard errors are reported. Statistical significance is indicated by $^{*}p<0.1$ $^{**}p<0.05$ $^{***}p<0.01$.

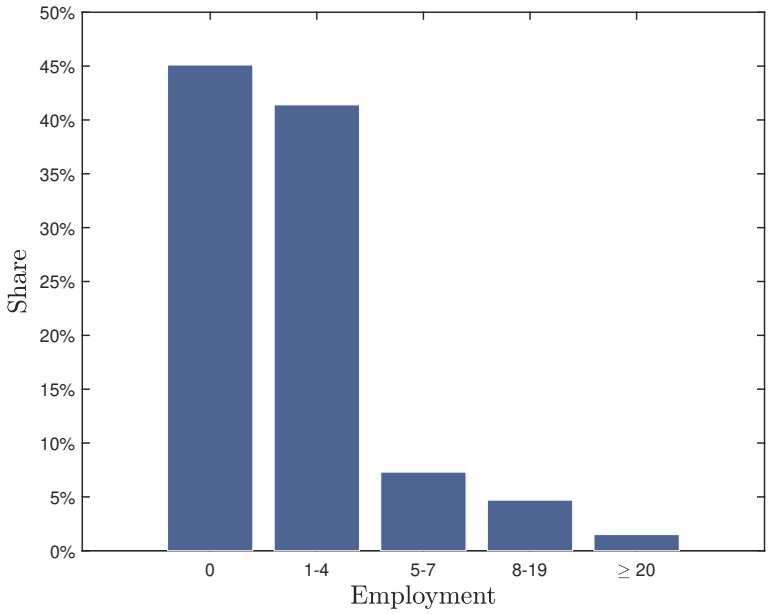
Table 6: Regression of Firms' Price Setting

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
					ΔP_{it}				
	Full	Before	After	Full	Before	After	Full	Before	After
$\mathbb{E}_{it}[\Delta P_{it+1}]$	0.103***	0.075	0.107***	0.180***	0.198***	0.179***	0.104***	0.072	0.107***
	(0.022)	(0.048)	(0.025)	(0.024)	(0.054)	(0.027)	(0.022)	(0.049)	(0.025)
$\Delta\text{GDP}_{\text{province},t}$				−0.079	−0.039	−0.117	−0.150	−0.212	−0.165
				(0.255)	(0.506)	(0.295)	(0.231)	(0.441)	(0.270)
$\Delta\text{CPI}_{\text{province},t}$				0.119	0.154	0.104	0.092	0.199	0.076
				(0.076)	(0.156)	(0.087)	(0.069)	(0.137)	(0.079)
Δ[own input prices]$_{it}$	0.225***	0.305***	0.206***				0.225***	0.314***	0.205***
	(0.028)	(0.057)	(0.032)				(0.028)	(0.057)	(0.032)
Δ[own wage]$_{it}$	0.373***	0.380***	0.357***				0.372***	0.373***	0.357***
	(0.033)	(0.065)	(0.039)				(0.033)	(0.065)	(0.039)
Δ[new orders]$_{it}$	0.095***	0.054**	0.112***				0.095***	0.054**	0.112***
	(0.013)	(0.026)	(0.016)				(0.013)	(0.026)	(0.016)
Control	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	1,649	389	1,260	1,649	389	1,260	1,649	389	1,260
adj. R-sq	0.211	0.288	0.196	0.039	0.062	0.037	0.211	0.289	0.195

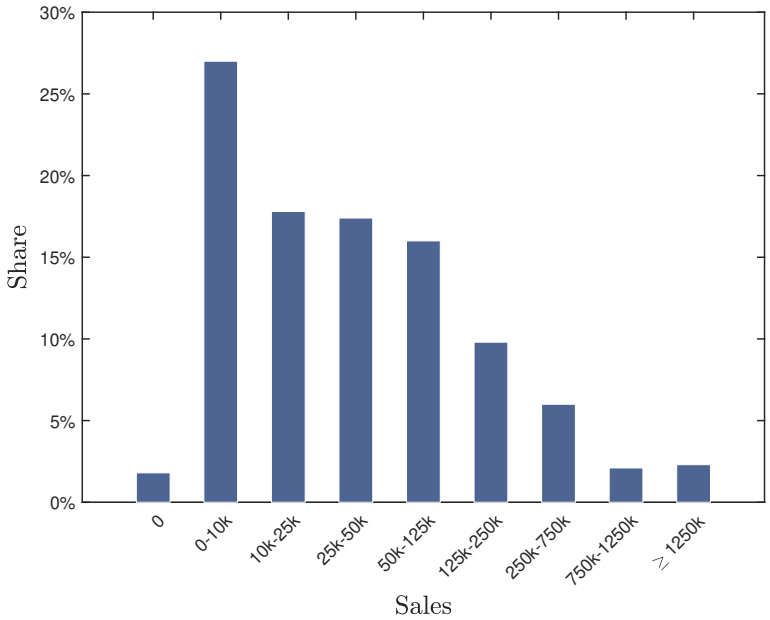
Data source: OSOME 2024Q3, CEIC. Realized GDP year-on-year growth is measured at the province-quarter level, while realized CPI year-on-year growth is measured at the province-month level. All results are estimated using OLS regressions. All specifications include a comprehensive set of control variables and city-tier dummy variables capturing city-rank categories, along with industry fixed effects. Robust Standard errors are reported. Statistical significance is indicated by *p <0.1 **p <0.05 ***p <0.01.

Online Supplemental Appendix

Appendix A Appendix Figures



(a) Employment Distribution



(b) Sales Distribution

Figure A.1: MSE Distribution: Employment and Sales

Data source: OSOME 2023Q4 to 2026Q1.

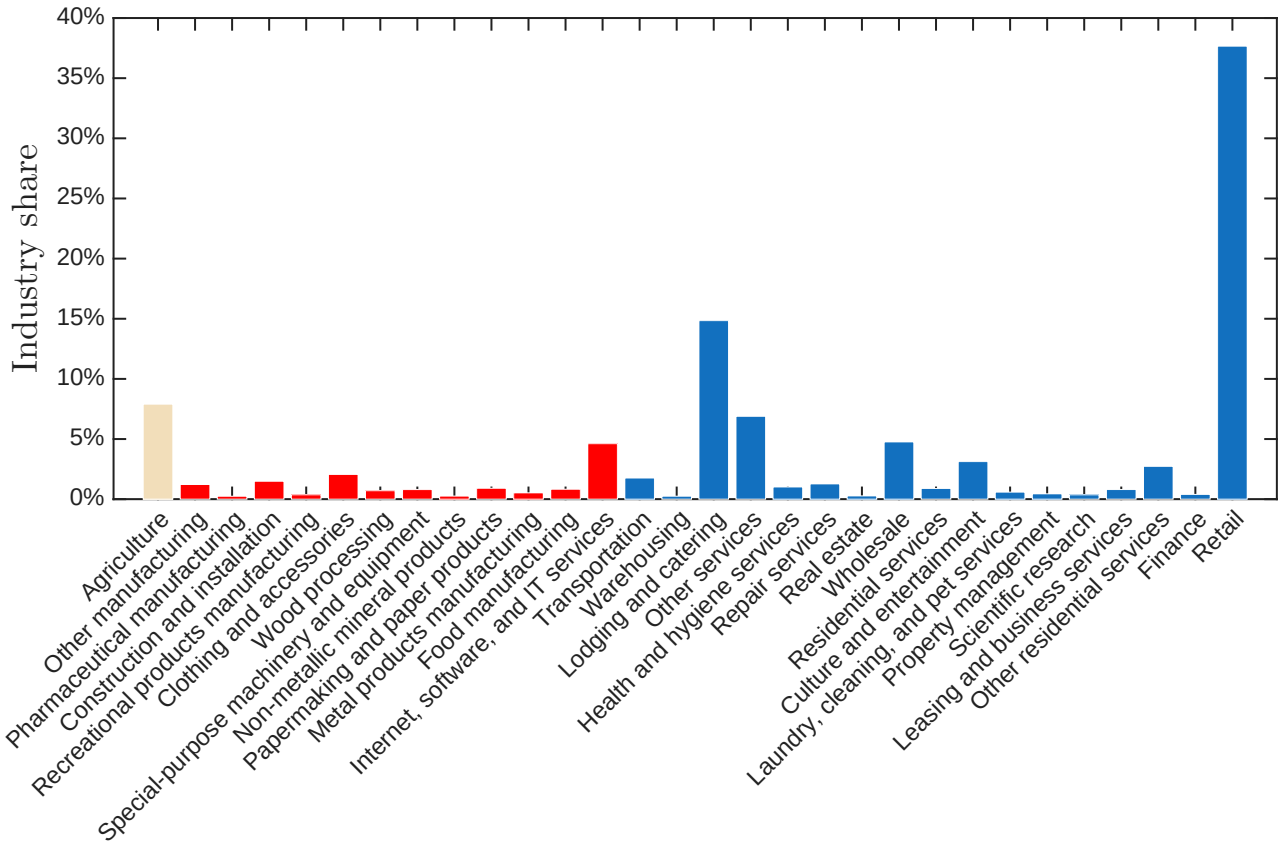
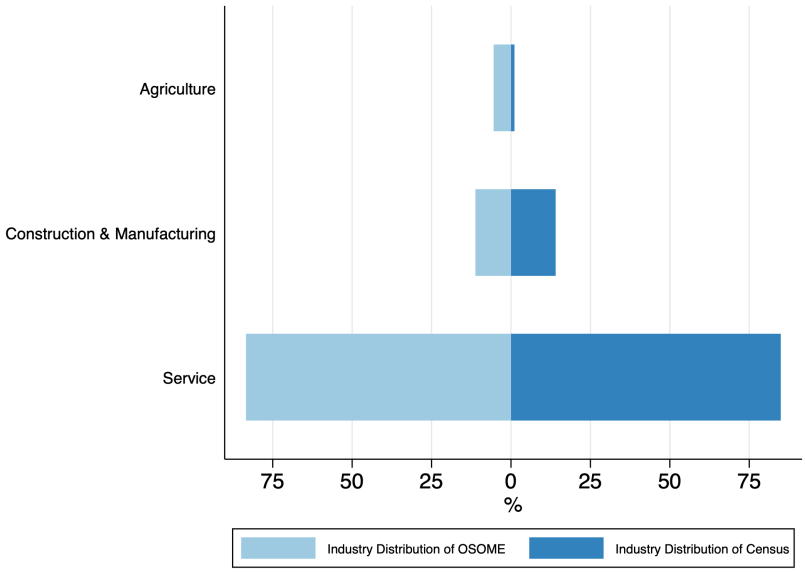
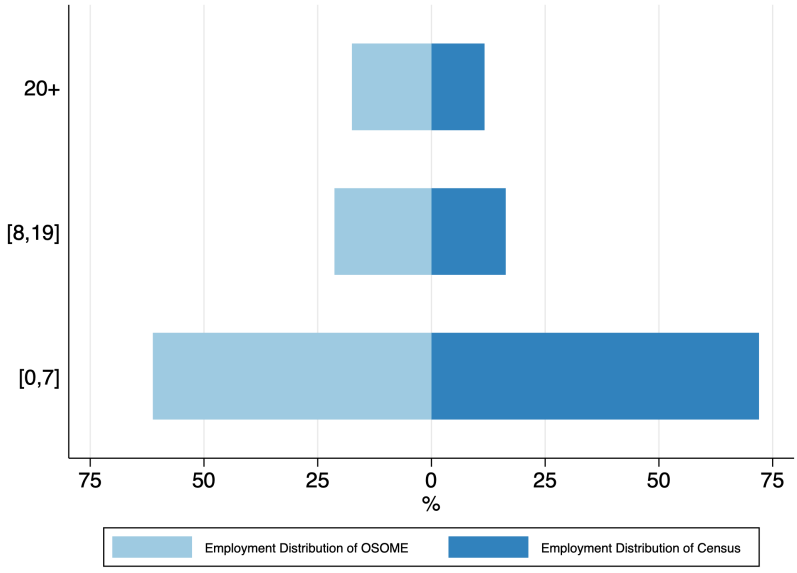


Figure A.2: MSE Distribution: Industry

Data source: OSOME 2023Q4 to 2026Q1.



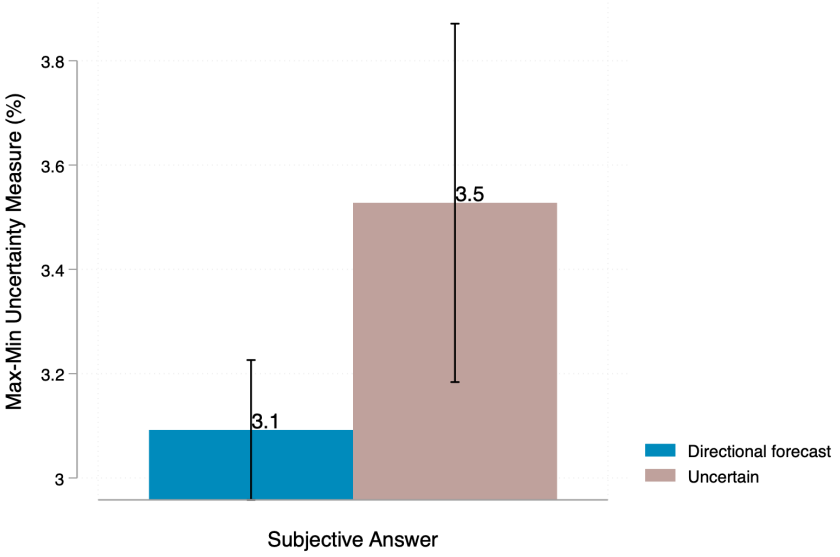
(a) Industry Distribution



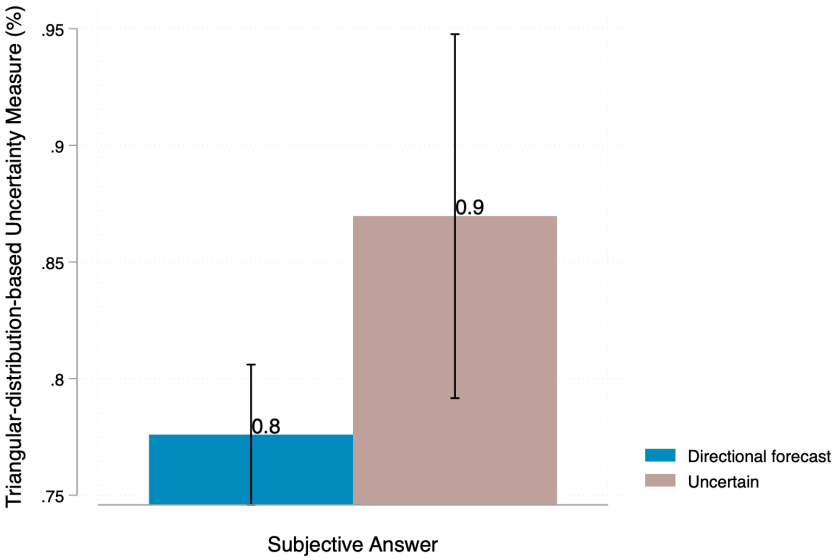
(b) Employment Distribution

Figure A.3: Industry and Size Distribution of the OSOME Sample and of the China Economic Census of 2018

The vertical axis presents three main industries in (a) and the intervals of firm size in terms of full-time employment in (b). The horizontal axis shows the fraction of SMEs in each industry or interval in the OSOME survey and the China Economic Census of 2018, respectively. Sub-figure (a) includes the corporate enterprises and registered self-employed businesses, and Sub-figure (b) only the corporate enterprises, corresponding to the samples in the Census.
Data source: OSOME, China Economic Census 2018.



(a) Max-Min Uncertainty



(b) Triangular-distribution-based Uncertainty

Figure A.4: Alternative Uncertainty Measures and Subjective Uncertainty

Data source: OSOME 2024Q1. In Panel (a), the max-min measure, defined as the distance between the optimistic and pessimistic scenarios, is larger for respondents reporting uncertainty. Panel (b) shows a similar pattern when uncertainty is measured by the standard deviation implied by a triangular distribution fitted to the three reported scenarios. The 95% confidence intervals are shown.

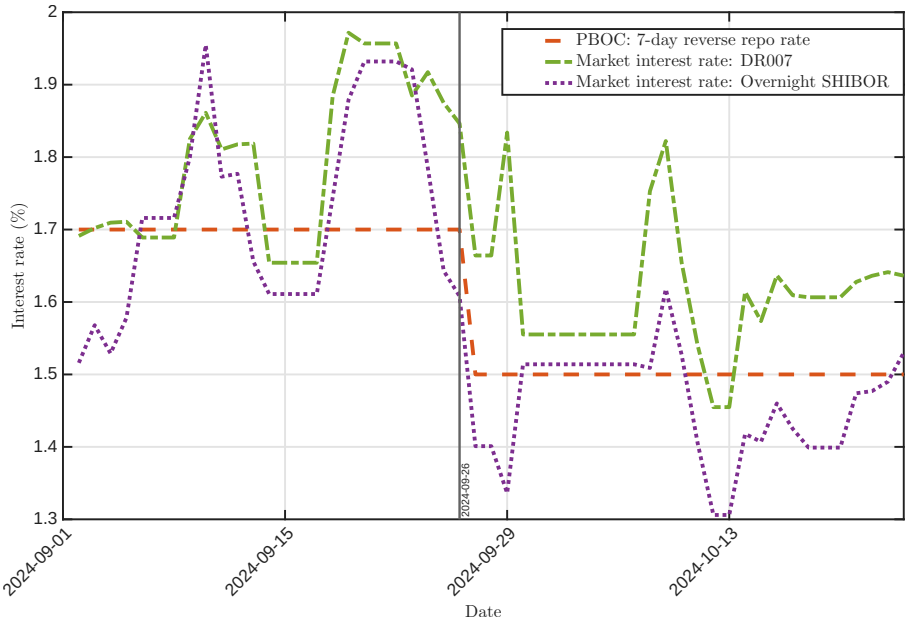


Figure A.5: Policy and Market Interest Rates during the Policy Announcement

Data source: CEIC.

$$\overline{\mathbb{E}_t}[\Delta y^{t+1}] = \beta \cdot \mathbb{1}(t \geq c) + \mu_t$$

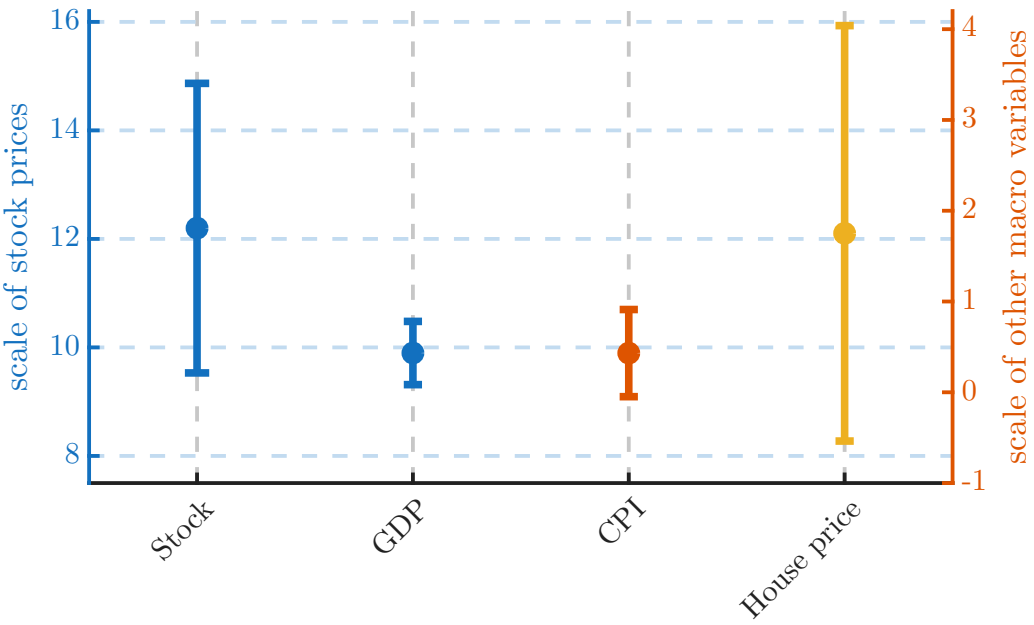


Figure A.6: Estimates on Response of Consensus Expectations

Data source: OSOME 2024Q3. The 95% confidence intervals are shown.

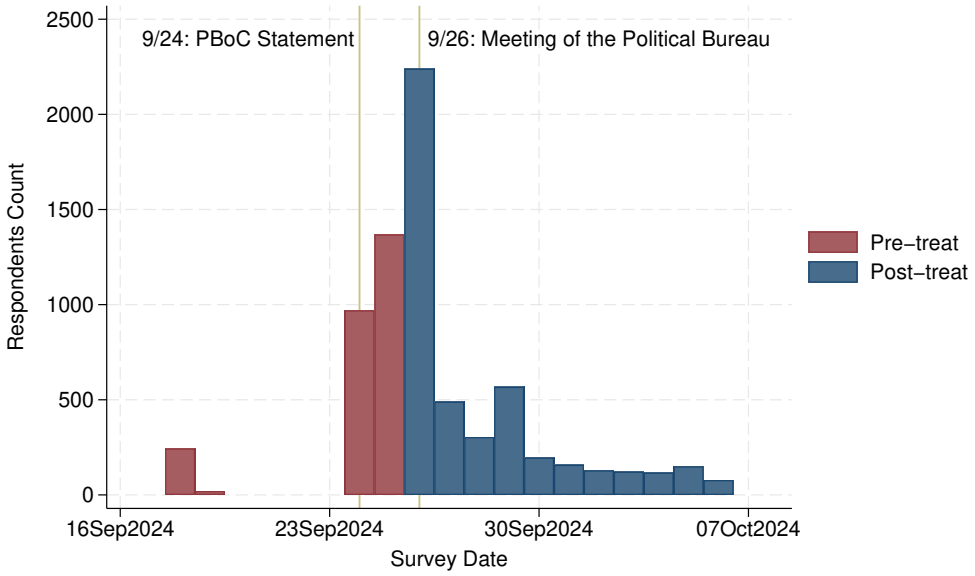
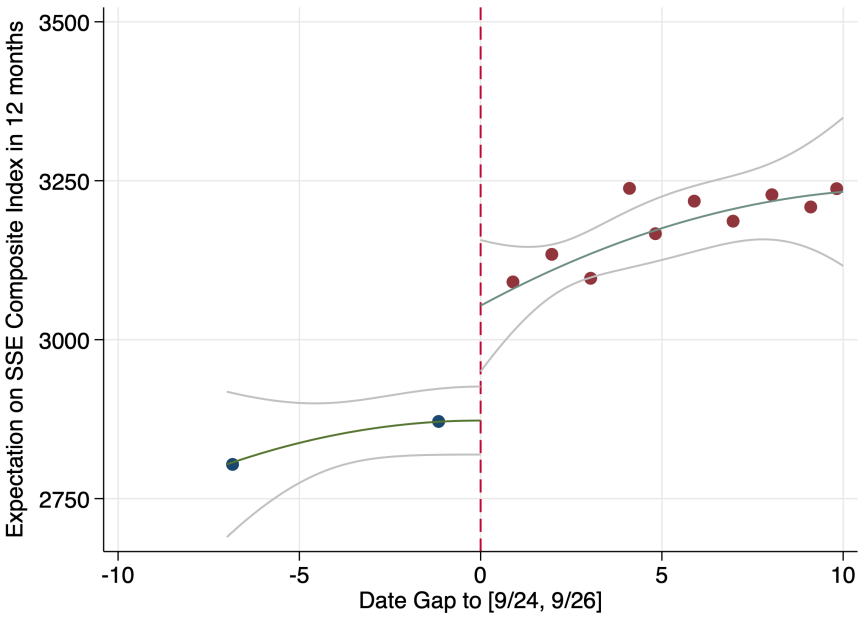
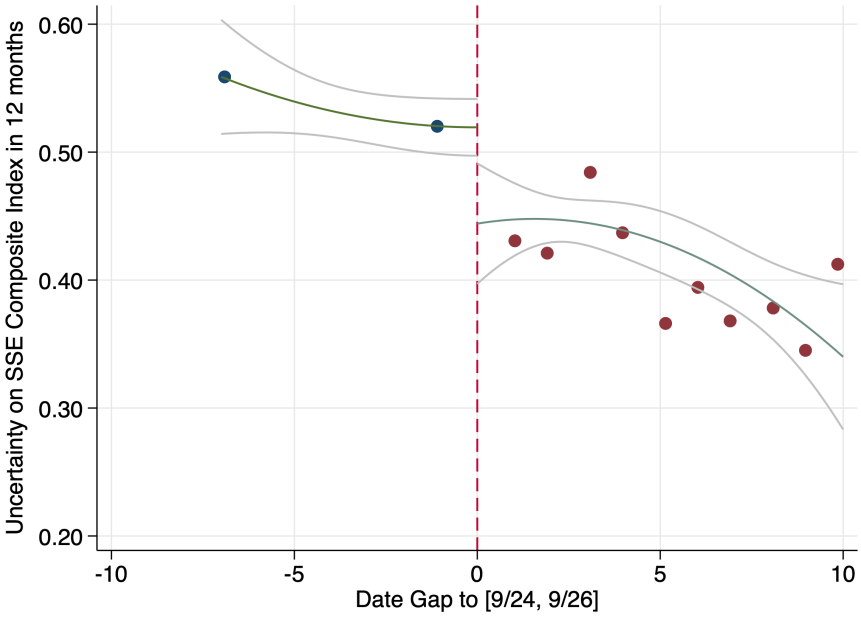


Figure A.7: Timeline of Survey Sample Collection

Data source: OSOME 2024Q3.



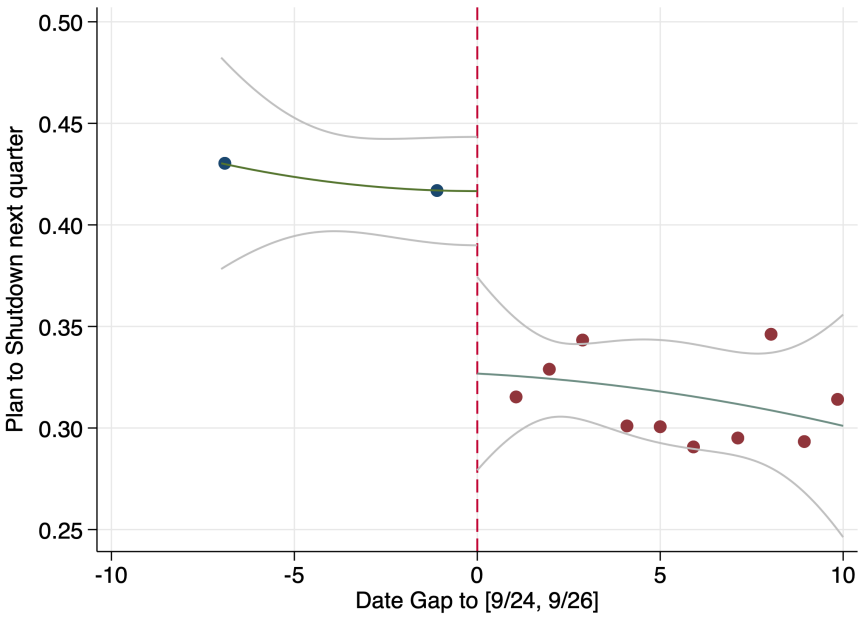
(a) Expectation on Stock Index



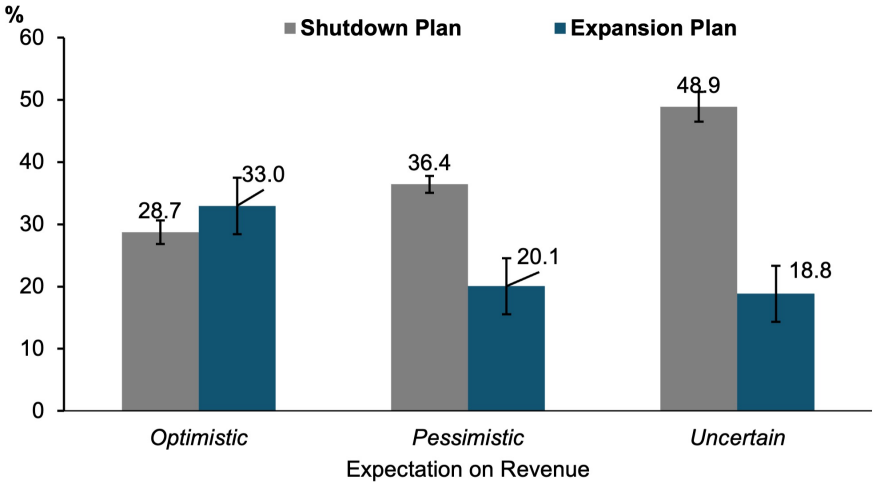
(b) Uncertainty on Stock Index

Figure A.8: Regression Discontinuity Design on Stock Index Expectation and Uncertainty

Data source: OSOME 2024Q3.



(a) Regression Discontinuity Design on Shutdown Plan



(b) Expectations and Shutdown Plan

Figure A.9: Regression Discontinuity Design on Shutdown Plan

Data source: OSOME 2024Q3. The point estimate and 95% confidence interval are plotted.

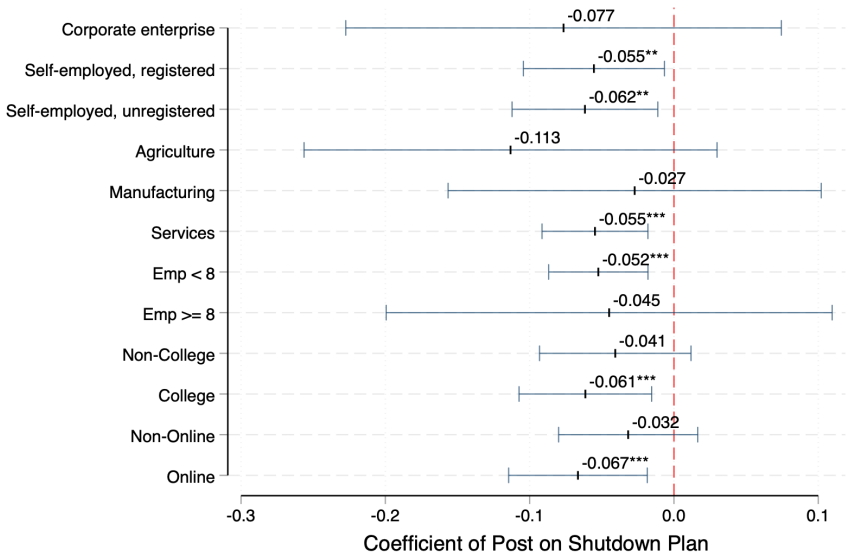
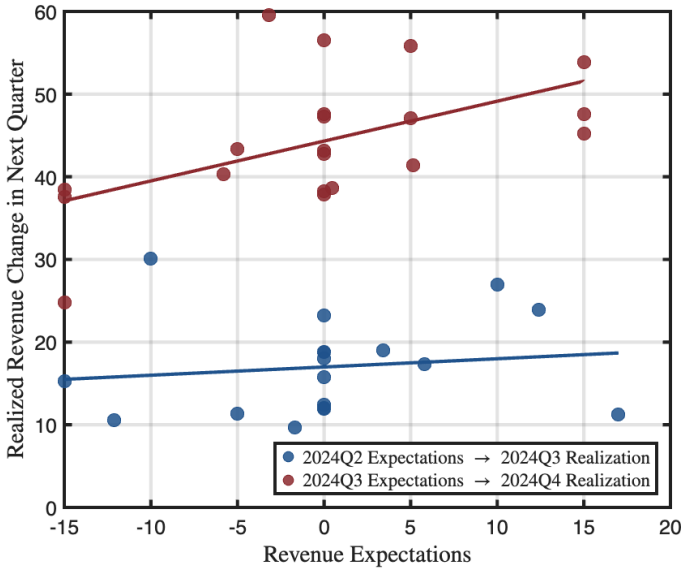
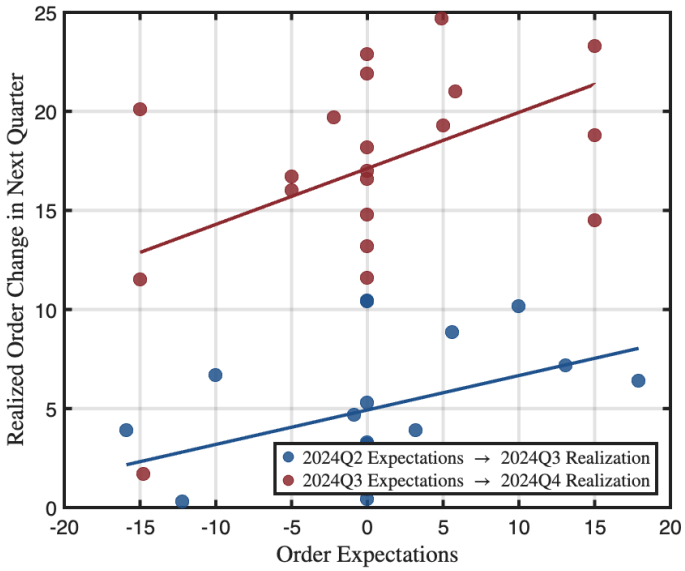


Figure A.10: Heterogeneous Response in Economic Plan

Data source: OSOME 2024Q3. All results are estimated using OLS regressions. All specifications include a comprehensive set of control variables (unless omitted automatically in the subsample), along with city and industry fixed effects. Robust Standard errors are reported. The point estimate and 95% confidence interval are plotted. Significance level: $^{*}p < 0.1$ $^{**}p < 0.05$ $^{***}p < 0.01$.



(a) Revenues



(b) Orders

Figure A.11: Individual Expectations and Realized Performance in Next Quarter

Data source: OSOME 2024Q2 to 2024Q3. The figure presents a binned scatter plot without controls.

Appendix B Appendix Tables

Table B.1: Templates for Expectation Questionnaires

Relative to the current quarter, how do you expect the following items to change in the next quarter?

	decrease $> 10\%$	decrease $< 10\%$	unchanged	increase $< 10\%$	increase $> 10\%$	uncertain
New orders						
Sales						
Operation cost						
Employment						

Relative to the current quarter, how do you expect the following items to change in the next quarter?

	decrease $> 5\%$	decrease $< 5\%$	unchanged	increase $< 5\%$	increase $> 5\%$	uncertain
Product price						
Average wage						
Raw material price						

What is your expectation on China's GDP growth rate in the next 12 months?

<-3	[-3,0]	[0,3]	[3,4]	[4,5]	[5,6]	[6,8]	>8	uncertain

What is your expectation on China's CPI growth rate in the next 12 months?

<-3	[-3,-2]	[-2,-1]	[-1,0]	[0,1]	[1,2]	[2,3]	>3	uncertain

What is your expectation on China's house price growth rate in the next 12 months?

<-15	[-15,-10]	[-10,-5]	[-5,-0]	[0,5]	[5,10]	[10,15]	>15	uncertain

What is your expectation on Shanghai Stock Exchange Composite (SSC) Index in the next 12 months?

<2200	[2200,2400]	[2400,2600]	[2600,2800]	[2800,3000]	[3000,3300]	[3300,3600]	>3600	uncertain