Riding the Waves: Geographic Diversification and Bank Responses to Local Funding Shocks

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Abstract

How resilient are banks to local funding shocks? We exploit a segment of Chinese wealth management products (WMPs) funded locally but backed by national assets, allowing us to isolate banks' strategic responses to local funding pressures. Using city-level inflation to characterize investor demand shift, we find that banks pass through approximately 60% of these shocks to WMP yields. Large, geographically diversified banks respond more actively, by raising yields and contracting issuance in shock-hit markets more sharply than smaller banks. They then hedge by expanding the issuance of lower-yield WMPs in unaffected regions. Our findings reveal that for large banks, geographic diversification is not a tool for passive insulation but a mechanism enabling active, high-frequency liability management through their internal capital markets.

Keywords: Bank Liability Management; Geographic Diversification; Internal Capital Market; Local Inflation
JEL: G21; E31; E44

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1 Introduction

A stable banking sector provides essential liquidity to the real economy, insuring firms and households against shocks (Diamond & Dybvig, 1983; Diamond & Rajan, 2000; Gorton & Pennacchi, 1990; Holmström & Tirole, 1998). However, the resilience of this function critically depends on banks' funding stability. While a vast body of literature examines how banks respond to aggregate shocks, far less is known about how they manage idiosyncratic and localized shocks. This gap raises a fundamental question for liability management strategy: do banks passively absorb regional funding pressures, or do they utilize their geographical footprint as an internal capital market to reallocate resources across regions and mitigate these disturbances actively?

Answering this question poses a formidable empirical challenge. The quantities and prices of banks' fundraising are equilibrium outcomes jointly determined by demand and supply. Changes may stem from shifts in investors' willingness to supply funds, or from fluctuations in local investment opportunities that affect banks' incentives to raise and allocate capital on the asset side. To identify the strategic response to funding shocks, we require a setting in which investor-side demand shifts can be observed, that is, by construction, orthogonal to the banks' asset-side considerations.

In this paper, we provide an empirical characterization of bank responses to local funding shocks, exploiting a unique Chinese setting that helps overcome this identification challenge: single-city wealth management products (WMPs) and their exposure to regional variations in inflation. While the assets backing bank WMPs are typically invested in nationwide portfolios, single-city WMPs are funded exclusively by households within a specific city. This structure creates a crucial geographic mismatch that allows us to identify funding cost changes arising from local investor demand shifts, as changes in local economic conditions are, by design, orthogonal

to the asset performance of banks [1]. As our primary source of local demand shifts, we focus on city-level inflation, which is a particularly suitable shock for two reasons. First, it directly erodes the real returns of local investors, creating a prominent incentive for households to demand higher nominal yields on their investments (Cieslak and Pflueger, 2023). Moreover, the substantial and persistent cross-sectional variations in local inflation rates allow us to identify within-bank analysis with power, examining how a given bank deploys its branch networks to manage regional disparities in funding costs.

We begin by exploring WMP yield responses to local inflation shocks, defined as monthly deviations from city-specific 36-month moving averages. Baseline results suggest that heightened local inflation shocks significantly increase the expected yield of newly issued single-city WMPs, consistent with rational households demanding higher nominal returns to preserve their real wealth. The coefficient of inflation shock is 0.60, indicating an economically significant pass-through rate of 60% from local inflation shocks to the nominal yields of WMPs. In addition, our specification includes a rich set of controls for WMP characteristics to ensure that contract terms and local bank presence do not drive the estimated yield responses. More importantly, we include bank$\times$year-month and bank$\times$city$\times$year fixed effects. These controls ensure that our estimate is identified purely from within-bank-city variation over time: how a given bank adjusts its WMP yield in a specific city in response to inflation shocks after netting out time-invariant bank-city characteristics and any contemporaneous nationwide shocks affecting the bank as a whole.

We run a battery of tests designed to address potential alternative explanations to substantiate the strong yield response to inflation-induced shifts in investor demand. First, to ensure that our results are not driven by a correlated local asset-side channel, we show that the effect holds within WMPs that explicitly restrict investing in loans after controlling for monthly local asset returns

1. We use "bank" and "shadow bank" interchangeably throughout the paper, since commercial banks in China conducted the vast majority of shadow banking activities .

and housing price indices. Second, to confirm that the effect is a broad-based household finance phenomenon, we show that the yield response is not sensitive to the exclusion of WMPs available to institutional investors, principal-guaranteed products, or those issued in megacities. In addition, our finding holds when using realized yields, confirming that the observed response reflects a true adjustment in bank funding costs, rather than a mere advertising strategy. These tests collectively reinforce our interpretation of the yield response as a robust feature of the funding channel.

To provide definitive evidence for the investor demand channel, we conduct two additional tests that link the yield response directly to variations in investor demand and bank funding needs. First, we show the inflation-induced yield increase is more pronounced in cities with more financially sophisticated populations, consistent with more financially literate households being more sensitive to real returns. Second, we exploit a regulatory event that directly constrained banks' primary funding channel. When the deposit rate ceiling tightens, banks' ability to compete for deposits is constrained, thus increasing their dependence on WMP to fund investment activities. We find that during this period, WMP yields respond more strongly to local inflation shocks. This result is particularly powerful because the regulatory constraint on deposit competition is largely disconnected from WMPs' asset performance, providing strong evidence that these yield adjustments are a key component of banks' uninsured liability management strategy.

Having established the baseline pass-through of local inflation to WMP yields, we explore the strategic heterogeneity of banks behind this response. Theory predicts that large, geographically diversified banks should be the least responsive to local demand shocks due to market power and passive resilience afforded by their diversified funding base. We test this prediction by comparing the responses of China's Big Six state-owned banks, who possess substantial market power and extensive geographical reach[2], against those of smaller, regional banks. The empirical results show

2. Big Six state-owned banks are the largest commercial banks in China, including Industrial and Commercial Bank of China(ICBC), China Construction Bank (CCB), Agricultural Bank of China (ABC) , Bank of China (BOC), Bank

the opposite: the Big Six banks exhibit a yield elasticity more than three times that of other banks, and this heightened sensitivity is even more pronounced in competitive local markets. This finding strongly suggests that the large banks leverage their geographical scales not for passive insulation, but for active hedging via their internal capital markets. Nevertheless, the Big Six's yield response is a more nuanced strategy that varies with market conditions. We find the yield elasticity is significantly attenuated in cities where they possess a dominant market share, suggesting that the Big Six exploit market power where feasible while also competing aggressively using their national footprint.

The finding of the Big Six respond more aggressively on price raises a natural follow-up question: how do banks adjust along the extensive margin? First, we examine the local issuance of single-city WMP and find a significant decline in the shocked city, a contraction that is particularly pronounced among the Big Six banks. The combination of larger yield increases and sharper issuance declines among the Big Six suggests a strategic substitution away from the expensive markets. We then find two forms of banks' cross-regional hedging. In response to inflation shocks in one city, the Big Six banks significantly expand the issuance of single-city WMPs in unaffected regions with lower yield. Moreover, they increase their issuance of more lower-yield nationwide and multi-region WMPs, effectively tapping into their broad funding base to smooth aggregate costs. These powerful reallocation effects among the Big Six demonstrate the operation of a sophisticated internal capital market. Geographical diversification enables banks to actively adjust their regional fundraising in response to uneven investor demand shocks.

This paper contributes to three strands of literature. First, our study speaks to the literature on the liability-centric view of banking, with a particular focus on how banks adapt to changes in funding conditions. Banks are exposed not only to market-wide funding shocks (Gorton &

of Communications (BoCom), Postal Savings Bank of China (PSBC).

Metrick, 2012; Iyer et al., 2014; Khwaja & Mian, 2008; Loutskina & Strahan, 2009) but also to shocks that are not market-wide (Acharya et al., 2024; Gilje et al., 2016; Paravisini, 2008). The extant literature largely examines how these funding shocks propagate to the asset side, altering banks' lending behavior and, in turn, affecting real economy (Gilje et al., 2016; Iyer et al., 2014; Khwaja & Mian, 2008; Paravisini, 2008). For example, Gilje et al. (2016) leverage liquidity windfalls from shale discoveries to show that branch networks shape the spatial transmission of funding shocks: shale-exposed banks receive fund inflows and expand lending in non-boom counties, but only where they operate branches and mainly through hard-to-securitize loans.

In contrast to the lending-focused perspective, our paper takes a step back, in the spirit of Drechsler et al. (2017, 2021), by asking a more primitive question: before funding shocks affect the asset side, do banks adjust the liability side itself to absorb or mitigate these shocks? Our study breaks new ground by providing evidence that, when faced with localized funding shocks orthogonal to asset-side disturbances, banks actively leverage geographic diversification to reallocate liabilities across regions. Importantly, this internal reallocation of funding is not merely a crisis-driven response but a recurring feature of geographically diversified banks' normal-times strategy. This emphasis on liability management, rather than downstream lending effects, provides a complementary angle to existing theories of bank fragility and expands our understanding of how banks maintain resilience when confronted with shifts in local investor demand.

Second, this paper connects to the macroeconomic literature on how inflation changes drive macroeconomic fluctuations (Akerlof, 2007; Akerlof et al., 1996). Existing studies primarily adopt either a macro-level perspective, analyzing aggregate economic factors (Justiniano et al., 2013; Lucas, 1973), or a micro-level perspective, focusing on enterprises and households (Braggion et al., 2024; Brunnermeier et al., 2025; Coibion et al., 2020; Schnorpfeil et al., 2023). In contrast, the role of financial intermediaries in transmitting inflation shocks has received comparatively less atten-

tion.[3] A recent exception is Agarwal and Baron (2024), which exploits national inflation variation and cross-state differences in reserve requirements to isolate a credit channel operating through regulated banks. Two important gaps remain in this literature. First, little is known about how banks respond to regional inflation shocks; second, the mechanisms through which regional inflation shocks propagate across markets remain largely unexplored. Our paper addresses these gaps by examining how regional inflation shocks affect banks' fundraising, and how banks effectively deploy their internal capital markets to transmit these shocks across regions.

Third, our study relates to the literature on banks' geographic diversification, which can have nuanced effects. While diversification can mitigate banks' exposure to localized idiosyncratic shocks (Doerr and Schaz, 2021; Goetz et al., 2016), it also creates internal capital markets that allow resources to be shifted across subsidiaries, potentially facilitating the transmission rather than containment of local shocks (Campello, 2002; Houston et al., 1997). A growing body of work shows that multi-region banks can propagate local liquidity shocks (Cetorelli and Goldberg, 2012; Gilje et al., 2016), or amplify the real effects of region-specific natural disasters (Rehbein and Ongena, 2022), primarily through asset-side channels such as lending. In contrast, we demonstrate that geographic diversification can directly facilitate banks' liability management: large, multi-region banks actively leverage their geographical footprint to actively absorb and reallocate fundraising across regions, thereby stabilizing their funding sources and enhancing resilience to inflation-driven local shocks.

The remainder of the paper is organized as follows. Section 2 describes the institutional background on WMPs in China, with a focus on single-city WMPs. Section 3 presents the baseline results on how local inflation shocks affect single-city WMP pricing, along with mechanism tests and robustness checks. Section 4 examines banks' responses to changes in funding costs. Sec-

3. Earlier work has explored the impact of nationwide inflation on the development of banking at the country level (Boyd et al., 2001; De Nicoló et al., 2005).

tion 5 analyzes how exposure to local inflation shocks influences banks' overall operations and performance. Section 6 concludes.

2 Institutional Background

This section provides institutional context on bank-issued Wealth Management Products (WMPs) in China, with a focus on single-city WMPs, which provide a unique setting for our analysis.

2.1 Wealth Management Products in China

Functioning as less-regulated products issued by traditional banks, WMPs have constituted the largest component of China's shadow banking sector since 2014, exerting significant influence on the Chinese economy (Acharya et al., 2024; Hachem, 2018; Huang et al., 2023). By the end of 2017, over 250,000 WMPs had been issued, raising roughly USD 24.5 trillion in total. WMPs are broadly accessible and attract retail investors across the wealth distribution—from ordinary depositors to high-net-worth individuals.[4]

From retail investors' perspective, WMPs are widely perceived as deposit-like instruments, given their similarities with bank deposits. This perception arises from three key features. First, like deposits, WMPs are marketed as low-risk vehicles with predictable returns. Second, despite lacking formal deposit insurance, WMPs have maintained a flawless principal payment record, regardless of their principal-guaranteed or principal-floating status. Third, and crucially, the distribution of WMPs through licensed commercial banks and their affiliates reinforces their deposit-like status by implying de facto guarantee from banks.

By contrast, from the issuing banks' viewpoint, WMPs differ significantly from bank de-

4. Retail-targeted WMPs account for 67% of all outstanding WMP balances.

posits. Three distinctions stand out. First, unlike deposits that have long been subject to stringent regulatory oversight, including deposit rate ceiling and loan-to-deposit ratio (LDR) requirements[5], WMPs operate largely outside these constraints. Second, WMPs offer structural flexibility: issuance terms per product can be customized to match banks' liquidity needs. Third, their short maturities (typically three to six months) expose them to acute rollover risk, as proceeds are often channeled into long-term investments.

On the asset side, WMPs exhibit broad investment flexibility across multiple asset classes, such as equities, bonds, derivatives, etc. By end-2017, regulatory reports show that 68% of outstanding WMP funds have been allocated to standardized assets, such as money market products, foreign exchange[6]. Importantly, the vast majority of these standardized assets are nationwide in scope, rather than tied to local markets. This feature is central to our identification strategy: it allows us to treat the asset side as effectively uniform across locations, thereby attributing any cross-sectional variation in WMP issuance to funding-side responses to localized shocks.

That said, we acknowledge the opacity of asset allocation prior to the 2018 asset management reform[7]. In the pre-reform era, WMPs frequently engaged in off-balance-sheet investments through complex and multi-layered intermediation structures—a practice that obscured true portfolio exposures and invited widespread window dressing. However, talks with industry experts suggest that the aforementioned regulatory statistics on the share of nationwide standardized assets, while imperfect, are broadly consistent with actual practices at the time. This lends credibility to our argument that WMP asset portfolios are predominantly composed of nationwide assets.

5. The LDR restriction caps the amount of loans banks can extend to 75% of their deposit base.
6. This figure comes from the Banking Wealth Management Registration and Custody Center.
7. The People's Bank of China, the China Banking and Insurance Regulatory Commission, the China Securities Regulatory Commission, and the State Administration of Foreign Exchange jointly issued the "A Guidance on Regulating Asset Management Business of Financial Institutions" in April 2018, outlining a series of multi-facet regulatory details for WMPs.

2.2 Single-City Wealth Management Products

Although most WMPs are designed for nationwide distribution, a subset is explicitly restricted to specific regions or even individual cities, commonly referred to as regional or single-city WMPs. While both nationwide and regional WMPs can invest in similar asset classes, their key difference lies in the source of funds: nationwide WMPs raise capital from investors across the country, whereas regional WMPs rely solely on local investors. Figure 1 plots the monthly issuance of single-city WMPs from 2007 to 2017 and shows a persistent expansion of this market over time.

[Insert Figure 1 About Here]

Prior to 2014, it was common for regional branches, of both large national banks and smaller regional banks, to independently design, issue, and manage these regional products.[8] Delegating authority to regional branches to design, issue, and manage regional WMPs serves two strategic purposes. First, regional branches possess superior knowledge about local market conditions, allowing for product customization that aligns with specific demands and risk profiles of local customers. This boosts customer loyalty and improves risk management, a key advantage for large, nationwide banks that must balance the operational complexity of navigating heterogeneous markets. Second, operational autonomy at the branch level strengthens accountability and fosters greater responsiveness. Empowered local units are incentivized to broaden client base, boost retention, and adapt offerings in real time without central approval delays. This flexibility thus allows banks to seize opportunities and maintain a competitive edge.

To further refine these rationales, we show that cities issuing single-city WMPs tend to have larger GDP and population, more advanced financial development, and stronger fiscal capacity than cities without such products (See Panel B of Table A1 in the appendix). These patterns underscore

8. Banks issuing single-city WMPs tend to be larger and more reliant on retail deposits than corporate ones. Their lower deposit and loan growth is consistent with their larger size. See Panel A of Table A1 in the appendix for details.

the importance of local market and institutional conditions, particularly financial infrastructure and economic development, in shaping product issuance. These features correlate strongly with the size and sophistication of the customer base, reinforcing the need for tailored financial products. They also highlight the critical role of local environments in shaping single-city WMP markets, an aspect we explicitly account for in the empirical analysis.

[Insert Figure 2 About Here]

The branch-level design and issuance of single-city WMPs naturally lead to substantial pricing variation, as products are tailored to local economic conditions. Consistent with this, Figure 2 shows wide dispersion in the interquartile range of expected yields across single-city WMPs. The dispersion is even more pronounced for products issued by the Big Six state-owned banks, likely reflecting their more geographically dispersed branch networks and the greater discretion granted to local branches by bank headquarters. Another notable pattern is that, while other banks offer a yield premium on single-city WMPs relative to their nonlocal products, the Big Six banks do not exhibit such a premium (See Table A2 in the Internet Appendix). This is consistent with their dominant market position and strong brand recognition, which reduce their need to attract customers by offering higher yields.

3 Local Inflation Shocks and Single-City WMP Pricing

Leveraging the unique setting of single-city WMPs in China, where the geographic mismatch helps to isolate demand-side effects, we first examine how the pricing of WMPs responds to local inflation shocks.

3.1 Data, Variable Construction, and Summary Statistics

Our data comes from several sources. The first dataset concerns WMP contracts, obtained from the Wind database, a leading Chinese financial data vendor. The Wind database offers detailed information on each WMP contract, including the issuing bank, eligibility requirements for investors, maturity, expected annual return, minimum investment threshold, preservation ratio, and investment range. Within all Chinese WMPs, we apply two filters: (i) restrict the sample to WMPs issued before 2018, to avoid the impact of the 2018 asset managment reform; (ii) limit the sample to single-city WMPs.

The filtered sample includes 24,570 single-city WMPs, issued between 2008 and 2017. Panel A of Table 1 presents the summary statistics for WMP features. The average expected return of single-city WMPs is 4.692%, with an average maturity of approximately 4 months.[9] The WMP return is notably higher than the contemporaneous one-year deposit rate, ranging from 2% to 4.14% during the sample period. The positive yield spread accounts for the widespread popularity of WMPs among Chinese households. Over half of WMPs set the minimum investment threshold at 50,000 RMB, while some targeting wealthier households require an initial investment of 10 million RMB. About 10% of the single-city WMPs offer principal guarantees.

[Insert Table 1 About Here]

We obtain city-level characteristics at the year-month frequency from the National Bureau

9. The expected annual return is reported here, rather than the realized return. The realized return of WMP provides an ex-post evaluation of the financial product, which can be influenced by factors such as market conditions and the bank's status after WMP issuance. Our research focuses on how local inflation influences the pricing at issuance, net of ex-post market fluctuations. The issuance pricing more accurately reflects banks' responses to local household demand, making the expected return a more suitable variable for our analysis. Banks either report expected return as a fixed rate or specify a range. In the latter case, we use the upper bound as the expected return, following Ma and Zhang (2024). Notably, over 95% of WMPs end up paying a realized return equal to the expected upper bound, justifying our assumption. We also rerun our analysis based on the restricted sample with realized yield information. Results remain robust. See Table A6 in the Internet Appendix.

of Statistics of China (NBS), with related summary statistics shown in Panel B of Table 1.[10] We restrict the sample to the 69 cities with at least one single-city WMP issuance throughout the sample period. Inflation is captured by the Consumer Price Index (CPI henceforth), and the average inflation rate is 2.455%, with a standard deviation of 1.951%. The primary source of variation in our analysis stems from cross-sectional differences in local inflation. Panel (a) of Figure 3 depicts the distribution of local inflation over the sample period, validating the empirical design.

To isolate the shock component of local inflation and absorb time-invariant city characteristics, we use the one-period lagged local inflation surprise as the main independent variable. The surprise is defined as the difference between the current CPI and its 36-month rolling average, capturing deviations from the local long-run inflation trend.[11] Panel (b) of Figure 3 plots the distribution of the local inflation shock. The interquartile range is approximately 120 bps, indicating ample variation to support the empirical analysis. Following Braggion et al. (2023), we apply the inverse hyperbolic sine transformation to the residualized inflation shock to mitigate the influence of outliers.[12]

[Insert Figure 3 About Here]

Panels C and D provide bank-level analysis, reporting statistics on WMP issuance and banks' operational status. The analysis is restricted to the 58 banks that have issued single-city WMPs

10. We follow the literature in extracting inflation data from the NBS (Chang et al., 2016; Chang et al., 2025; Chen et al., 2016). While some studies (e.g., Nakamura et al. (2016)) note that the official CPI series tend to be smoother than alternative inflation measures constructed in a modified method, they also document a high degree of correlation between the two. This suggests that, despite potential limitations, the NBS data offer a reasonably accurate source for local inflation exposure in our setting.

11. We use inflation shocks rather than raw inflation to capture the unexpected component. The shock is obtained as the residual from a rolling-window regression that includes city, year, and month fixed effects. We also test alternative windows. Columns (1) - (3) in Table A5 present the results using 12-month, 24-month, and 60-month windows, respectively. The results remain robust across these alternative window specifications.

12. The inverse hyperbolic sine transformation reduces the impact of extreme values while accommodating negative observations. Our findings are robust to using raw inflation, its transformed version, or the raw local inflation shock. Results are reported in Tables A3 and A4 in the Internet Appendix.

during the sample period. Panel C shows that, on average, banks issue 3 single-city WMPs per month, although the distribution of WMP issuance is right-skewed. Panel D presents summary statistics on bank's balance-sheet data, obtained from the China Stock Market & Accounting Research (CSMAR) database and Wind. The issuing banks cover the majority of big banks and smaller city commercial banks in China. These bank-level data will be used to explore the impact of local inflation shocks on bank performance in subsequent sections.

3.2 Local Inflation Shocks and WMP Pricing

As outlined in Section 2, wealth management products (WMPs) provide banks with a less regulated way of raising household funding. For single-city WMPs, funding is sourced exclusively from households within a specific city, while the investments are primarily allocated to nationwide assets such as money market products, foreign exchange, and commodities. This creates a risk mismatch: local economic risk on the debt side versus national economic risk on the asset side. This mismatch enables us to isolate the demand-side channel through which local inflation shocks affect bank funding cost.

To examine the impact of local inflation shocks on the pricing of single-city WMPs, we employ the following model:

$$Yield_{ibct} = \alpha\ Inflation\ Shock_{c(t-1)} + Controls + + \phi_{bt} + \eta_{bcy} + \varepsilon_{ibct} \tag{1}$$

Indices i, b, c, t, and y denote the WMP contract, bank, city, year-month, and year, respectively. The dependent variable, $Yield_{ibct}$, is the log expected yield of single-city WMP i issued by bank b in city c during year-month t. The key independent variable is the one-period lagged local inflation shock, and the coefficient α measures the sensitivity of WMP pricing to this shock.

We include WMP-related variables to control for WMP characteristics: (i) Maturity: Longer-maturity WMPs typically offer higher yields to compensate for illiquidity; (ii) Investment threshold: some WMPs set a lower bound for the investment value, and WMPs with higher minimum investment thresholds should offer higher yields. (iii) Preservation ratio: some WMPs specify the percentage of guaranteed principal. WMPs offering a higher proportion of guaranteed principal are considered safer, and thus, their associated yields should be lower due to reduced risk.

In addition to WMP features, different banks may offer different yields due to their varying investment skills, liquidity management styles, and market power. To account for bank-specific factors, we include bank $\times$ year-month fixed effects, capturing all time-varying impacts at the bank level. Additionally, to control for city-level characteristics that may interact with bank features (e.g. time-varying bank branch characteristics), we include bank $\times$ city $\times$ year fixed effects. The remaining variation is at the city $\times$ year-month level, and we control for regional financial development by including the number of bank branches in each city at each month-end.

We expect the key parameter of interest α to be significantly positive. As the asset side is tied to national economic conditions, absorbed by the year-month fixed effects, the relationship between local inflation shocks and the expected yield of single-city WMPs must stem from demand-side responses of households. Higher past inflation shocks raise households' expectations of future inflation (D'Acunto et al., 2023; Malmendier and Nagel, 2016). In a simplified consumption-based asset pricing framework, households face a trade-off between consumption today and investing today for future consumption. Higher inflation expectations indicate lower purchasing power and decreased consumption in the future. Thus, households would only invest in financial assets that compensate for the elevated inflation shock, thus explaining the expected positive α.

[Insert Table 2 About Here]

Table 2 presents the regression results. Column (1) includes only the bank $\times$ year-month and

bank $\times$ city $\times$ year fixed effects, with no additional control variables. The coefficient on local inflation shock is positive and significant at the 1% level. The log-log transformation indicates that a 1 percent increase in local inflation shock raises the WMP expected yield by 0.6 percent. Column (2) adds controls for WMP characteristics (Maturity, Log(Initial Amount), and Preservation Ratio) and the number of bank branches in each city at month-end. Including these controls has little effect on the coefficient of local inflation shock, and the results remain robust.

Columns (1) - (2) use the whole universe of single-city WMPs, assuming that single-city WMPs primarily invest in nationwide assets. Nevertheless, given the less-regulated nature of WMPs and the potential connections between bank branches and local economic entities, it is plausible that WMP funds may instead flow to local enterprises through bank loans. When WMPs invest in local assets, their underlying portfolios become exposed to local economic risk factors, complicating the isolation of household responses on the pricing of financial products.

To address this concern, we extract investment-range information from WMP prospectuses and exclude single-city WMPs that are allowed to invest in bank loans or are structured as trust products, which may implicitly channel funds to local enterprises. This step removes roughly 16,000 WMPs from the sample. Column (3) shows that, within this restricted sample, a 1% increase in the local inflation shock raises expected WMP yields by 1.82%. Discussions with industry practitioners indicate that banks may intentionally obscure actual investment targets by listing "Others" in the investment range. We therefore further exclude single-city WMPs without a clearly defined investment scope. As shown in Column (4), the results remain robust, and the coefficient becomes even larger.

Despite these efforts, the possibility of the investment range being deliberately obfuscated made analysis based on this piece of information susceptible. As a further test, we control for local asset performance using the value-weighted stock returns and the notional-weighted average

coupon rates of newly issued bonds of local firms in the same city. To account for potential provincial economic linkages, we also broaden the definition of "local firms" to include those located in the same province. As reported in Columns (5) - (6), our baseline estimates remain largely unchanged after including these controls, reinforcing the interpretation that local inflation shocks affect local WMP yields primarily through household demand channel, rather than changes in the payoff of the underlying asset portfolios.

Finally, the geographical distribution of single-city WMP issuance is skewed, with megacities dominating the market. These cities differ from smaller ones in several key respects: they are significantly more financially developed, have a more financially literate population, and exhibit more intense banking competition. In addition, bank branches in megacities typically exhibit greater strategic importance and enjoy stronger decision-making authority. To ensure that our findings are not driven solely by the unique characteristics of megacities, but rather reflect a broader and more generalizable pattern, we exclude Beijing, Shanghai, and Guangzhou from the sample. Column (7) reports the results based on this restricted sample. Although the sample size drops by more than one-third, the results remain robust.

Taken together, our findings show that bank funding costs increase in response to higher local inflation shocks. Because the underlying asset portfolios of single-city WMPs are tied to nationwide, rather than local, economic risks, this pattern indicates that households demand higher compensation for financial investments when facing elevated local inflation. Banks, in turn, respond to these shifts in investor demand by offering higher returns, thereby raising their funding costs.

3.3 Event Study: Regulatory Constraints on Deposit Ceiling Rate

Bank deposits and WMPs serve as substitutes in household funding allocation. Accordingly, the responsiveness of WMP pricing to household demand should be influenced by conditions in the deposit market. During our sample period, deposit rates were tightly regulated, with deposit ceilings that were almost always binding, significantly limiting banks' ability to adjust rates. In contrast, the WMP sector remained largely unregulated. Therefore, when the deposit ceiling is lowered—further constraining banks' flexibility in setting deposit rates—the WMP sector becomes relatively more prominent, and its pricing should become more sensitive to household demand.

[Insert Table 3 About Here]

Figure A1 illustrates the time series changes in deposit ceiling rates. During our sample period, the ceiling rate declined steadily from November 2014 to October 2015, stabilizing at 1.5% thereafter.[13] To ensure a stable pre-event ceiling rate, we restrict the sample to July 2012 through October 2015, defining November 2014 to October 2015 as the post-event period. We construct a dummy variable, *Deposit Ceiling Decline*, which equals one for the post-event period and zero otherwise. As a lower deposit ceiling increases reliance on WMP funding, we expect banks to become more responsive to household demand, implying a significantly positive coefficient of the interaction term between $Inflation\ Shock$ and *Deposit Ceiling Decline*.

Table 3 present the empirical results. In line with our expectations, banks become more responsive to household demand shifts induced by local inflation shocks during periods of tighter deposit ceiling regulation. For a sharper comparison, column (2) further restricts the sample to the 10 months before and after November 2014—the onset of the deposit ceiling decline—and the

13. Figure A1 also plots the average WMP yield over time, showing that it does not decline as sharply as the deposit ceiling rate from November 2014 to October 2015. This suggests that the reduction in the deposit ceiling is more likely driven by regulatory changes rather than shifts in market conditions.

results remain robust.

Using a regulatory change to the deposit rate ceiling as an exogenous shock, we show that the sensitivity of WMP pricing to local inflation shocks increases when deposit-market regulation tightens. This pattern is consistent with banks catering more strongly to household demand in the WMP market when their pricing flexibility in the competitive deposit market is constrained.

3.4 Liability-side Heterogeneity: Household Financial Sophistication

Changes in the required return of single-city WMPs are shaped by households' responses to local inflation shocks. Thus, the financial literacy of local households, which influences the perception of inflation shocks and the understanding of its linkage with the nominal return on financial products such as WMPs (Lusardi and Mitchell, 2023), should play a role in shaping the yield response. Financially literate households are more capable to recognize how inflation erodes real wealth and accordingly demand higher nominal returns to offset this loss (Bianchi, 2018; Braggion et al., 2024).

[Insert Table 4 About Here]

To measure the financial literacy of local households, we rest on two proxies: the percentage of people employed in the finance industry and the local average wage level. Table 4 presents the regression results. Columns (1) and (2) examine the differential impacts of local inflation on WMP yield in regions with high and low financial populations. As anticipated, we observe a significantly larger increase in WMP yield in regions with a higher proportion of people working in the finance industry. The heterogeneous outcomes are further confirmed in column (3) using interaction terms. Additionally, more economically developed regions, which tend to have a higher proportion of financially literate individuals, exhibit consistent results based on the local average wage.

The heterogeneity analysis echoes the baseline findings, demonstrating that local inflation shocks raise the funding cost for banks, as households demand higher returns. This effect is more pronounced in regions with higher financial literacy.

3.5 Robustness Checks and Further Tests

The baseline analysis indicates that higher local inflation shock exposure leads to a higher local WMP yield. In this subsection, we provide additional robustness checks to further validate these findings and sharpen the underlying channel.

First, a potential confounder arises from the correlation between local inflation and housing prices, which may cloud the interpretation of our findings. While our study centers on inflation, a related paper, Ma and Zhang (2024), examines how housing prices affect financial institutions' funding costs using a similar setting. Although inflation is a broader concept that encompasses housing price dynamics, and our paper emphasizes the geographic spillover of local shocks through internal capital markets, a high correlation between local inflation and housing prices could blur the distinction and potentially weaken the unique contribution of our findings. To address this, we control for both local inflation and housing prices using two indices: the 70-city index by the National Bureau of Statistics (HPI1) and the 100-city index by Zhongzhi Research Institute (HPI2). Table A5 in the Internet Appendix shows that inflation remains a robust predictor of WMP yields.

Second, WMPs with principal guarantees must be recorded on the balance sheet, whereas those without guarantees are typically kept off balance sheet. Off-balance-sheet products can be priced more flexibly in response to local household demand. We therefore split single-city WMPs into guaranteed and non-guaranteed products. Table A5 in the Internet Appendix shows that the baseline effect is concentrated among WMPs without principal guarantees.

Lastly, our baseline findings should reflect a household finance phenomenon, with the effects

being stronger for WMPs that restrict investment to retail customers. Compared with local households, institutional investors are less exposed to local economic shocks and have greater capacity to diversify them. Consequently, their required yields should be less sensitive to local conditions. We divide the sample based on institutional-investor eligibility, and the subsample results align with this prediction, as reported in Table A5 in the Internet Appendix.

In summary, our findings remain robust to alternative specifications, and are more pronounced for WMPs without principal guarantees and for those ineligible for institutional investment.

4 Bank Responses

The preceding section establishes our core finding: banks increase the yields on their single-city WMPs in response to local inflationary shocks, a reaction driven by shifts in household funding demand. However, this average effect raises a more fundamental question in banking: what strategic factors determine the magnitude and nature of a bank's response to such a shock?

In this section, we begin by developing a conceptual framework that yields competing predictions based on a bank's local market power versus its capacity for adjustment through geographic diversification. We then empirically test this framework by examining the cross-sectional variation in bank pricing strategies. We explore three interrelated outcomes in the extensive margin: (i) changes in local single-city WMP issuance, (ii) adjustments in the pricing and issuance of single-city WMPs in other regions, and (iii) changes in the pricing and issuance of non-local WMPs. The following subsections examine each of these response mechanisms in detail.

4.1 A Conceptual Framework for Bank Responses

A bank's pricing response to a local funding shock is shaped by two primary and potentially countervailing characteristics: its local market power and degree of geographic diversification.

First, standard models of imperfect competition predict that banks with greater local market power should exhibit lower price elasticity. In less competitive markets, banks can leverage their captive customer base to absorb a larger share of funding cost shocks, which predicts a more muted yield response. The market power mechanism is analogous to the logic of the deposit channel of monetary policy transmission, where banks with market power are slower to adjust deposit rates in response to changes in the federal funds rate (Drechsler et al., 2017).

Second, the effect of geographic diversification, which we define as operating a network of branches across a large number of economically distinct regions, is theoretically ambiguous, because it enables two opposing channels. On one hand, diversification can provide passive resilience by insulating a bank from localized shocks. For a bank with a geographically diversified funding base, a cost shock in any single city has a limited impact on its aggregate funding costs. This reduces the incentive for the bank to react aggressively, thereby predicting a lower yield elasticity. This view aligns with the literature that emphasizes how geographic diversification stabilizes bank funding costs and reduces overall balance sheet risk (Doerr and Schaz, 2021; Goetz et al., 2016).

On the other hand, a diversified geographic footprint facilitates the operation of an internal capital market, enabling banks to pursue an active hedging strategy. As documented in the literature on multimarket banks, firms can strategically reallocate resources across internal units to exploit local differences and smooth firm-wide performance (Campello, 2002; Gilje et al., 2016). In our setting, a bank can actively substitute away from a city experiencing a local inflationary shock by increasing issuances in other unaffected regions. This ability to access cheaper funding sources within its own network gives the bank greater strategic flexibility, allowing it to compete more

aggressively on prices in the shocked city if it chooses. Thus, the active hedging channel predicts a higher yield elasticity for geographically diversified banks.

These competing theoretical predictions create clear tension. Both market power and the passive resilience view of diversification suggest that large, diversified banks should be less responsive to local shocks. By contrast, the active hedging view suggests that they should be more responsive. In the following sections, we leverage our unique setting to disentangle these mechanisms by examining how yield responses vary with local market competition, bank market share, and the interaction between bank type and market structure.

4.2 Heterogeneity Analysis: Local Banking Competition and Bank Type

4.2.1 The Role of Local Banking Competition

We begin by examining whether banks' yield responses vary with the intensity of local market competition. When local banking competition is more intense, investors face a wider array of options, and are more likely to demand higher returns in the face of inflation shocks. On the supply side, competitive pressure compels banks to respond more actively to investor demand in order to avoid losing funding. Therefore, WMP pricing should be more sensitive to local inflation shocks in more competitive markets.

[Insert Table 5 About Here]

We measure local banking competition using the Herfindahl-Hirschman Index (HHI), which is calculated based on the number of bank branches. A city is classified as highly competitive if its HHI falls within the bottom decile. Columns (1)–(3) of Table 5 present the subsample analyses based on the competition intensity. As expected, WMP yields rise more sharply in response to local inflation shocks in cities with greater competition. The statistical significance of this difference

is confirmed by the p-value of the between-group coefficient and significant interaction term in Column (3). This result establishes a baseline pattern: competitive pressure intensifies banks' pricing responses.

4.2.2 How do Large, Diversified Banks Respond?

Next, we examine whether large, geographically diversified banks exhibit differential responses to local inflation shocks compared to smaller, regional banks. Our focus is on Big Six state-owned banks, which possess the most extensive branch networks and significantly greater market power (Allen et al., 2012; He and Wei, 2023; Song and Xiong, 2018). Columns (4)-(6) of Table 5 reveal that the yield response of WMPs issued by the Big Six banks to local inflation shocks is markedly stronger than that of other banks.

This finding presents a notable puzzle. Conventional theories of market power and passive resilience afforded by diversification would predict that the Big Six, given their dominant market positions and diversified branch networks, would exhibit less sensitivity to local shocks. Our results strongly indicate that the active hedging channel identified in our framework is in play. However, this prompts a more nuanced question: is this high average elasticity a uniform strategy, or do the Big Six strategically deploy their flexibility to compete aggressively in certain markets while leveraging their market power in others? We proceed to disentangle these mechanisms by analyzing how the Big Six's response varies with local market conditions.

To directly assess the extent to which Big Six banks engage in active hedging based on market conditions, we conduct regressions incorporating three-way interaction terms between inflation shocks, an indicator for a WMP issued by Big Six banks, and two measures of market competitiveness. The positive and significant coefficient of the three-way interaction term in column (7) of Table 5 indicates that the yield response of the Big Six banks is more pronounced in more com-

petitive cities compared to other banks. Furthermore, column (8) of Table 5 examines whether the Big Six's local market share interacts with their hedging strategy by interacting the share of total branches of Big Six banks in a city with their yield responsiveness. The negative coefficient of this interaction suggests that Big Six banks attenuate their price response when they possess greater market power.

Taken together, these findings provide strong support for our conceptual framework and paint a cohesive picture of bank strategy. Generally, the heightened yield elasticity in more competitive markets aligns with the standard market power channel, confirming that banks compete more aggressively when they must. More importantly, our results allow us to resolve the central tension regarding geographic diversification. The uniformly high responsiveness of the Big 6, particularly in competitive markets, is inconsistent with the passive resilience story. Instead, it demonstrates the dominance of the active hedging channel, in which diversified networks empower them with strategic flexibility. Finally, the fact that this yield elasticity is moderated when the Big 6 banks possess local market power confirms that both forces are at play. These banks are not just passive beneficiaries of diversification; they are sophisticated actors who leverage their internal capital markets to compete where necessary while simultaneously exploiting local market power where possible.

4.3 Bank-side Responses along the Extensive Margin and Spillover Effects

The conceptual framework and the bank-side heterogeneity tests indicate that the responsiveness of WMP pricing to local inflation shocks reflects the active hedging behavior of large, geographically diversified banks. Their broader geographic footprint enables them to substitute away from regions facing funding shocks by raising funds in unaffected areas. The heterogeneity tests confirm that more diversified banks exhibit stronger pricing responses, consistent with their

greater strategic flexibility.

In this subsection, we provide additional evidence on the extensive margin and on spillover effects, offering more direct support for this active-hedging mechanism.

4.3.1 Responses along the Extensive margin

The active-hedging channel posits that banks avoid raising funds in regions experiencing elevated funding costs and instead substitute toward funding from unaffected areas. We begin by examining adjustments along the extensive margin, documenting how local inflation shocks influence total fundraising from single-city WMPs.

Before diving into the empirical analyses, two caveats are worth noting. First, the data only captures realized WMP issuance, which reflects the equilibrium outcome of both household demand and bank supply. On one hand, faced with higher funding costs, banks may reduce fundraising by curbing local WMP issuance, thereby limiting local WMP supply. On the other hand, despite higher yields, some households may still find the returns on single-city WMPs insufficient, leading to a decrease in demand. As both supply and demand factors may drive a reduction in single-city WMP issuance, it is difficult to differentiate between these factors without data on issuance failures, which are unfortunately unavailable. We acknowledge this limitation and focus on successful issuance, which still enable us to explore how total single-city WMP funding responds to local inflation shocks.

Second, to assess how local inflation shocks affect banks' fundraising through single-city WMPs, it would be ideal to examine the total RMB volume raised. However, issuance-size information is largely missing. We therefore focus on changes in the number of single-city WMPs issued. In Table A7 of the Internet Appendix, we use the upper bound of the reported issuance size as a proxy for WMP size, and the results remain robust despite the substantially smaller sample.

Taking these two caveats into account, we explore how WMP issuance responds to local inflation shocks using the following model:

$$NewIssue_{bct} = \beta\ Inflation\ Shock_{c(t-1)} + Controls + \phi_{bt} + \eta_{bc} + \rho_{cy} + \varepsilon_{bct} \tag{2}$$

where b, c, t, y stand for bank, city, year-month and year, respectively. The main dependent variable is the count of single-city WMPs issued by bank b in city c during year-month t. We use Poisson regression, as the dependent variable is a count variable (Chen and Roth, 2024; Cohn et al., 2022). The key independent variable is the local inflation shock, as previously defined. To control for the bank, city, and bank-branch characteristics, we include bank $\times$ year-month, bank $\times$ city, and city $\times$ year fixed effects.[14] Additionally, to account for local financial development, we include the number of bank branches in each city at month-end as a control variable.

[Insert Table 6 About Here]

Table 6 presents the empirical results. As expected, columns (1)-(2) show that higher exposure to local inflation shocks reduces WMP issuance. A one percentage increase in local inflation shock leads to a reduction of 0.06 in the issuance of single-city WMPs, which represents approximately 6% of the standard deviation of the dependent variable. Column (2) includes the control variable and the results remain robust.[15] At this stage, the decline in single-city WMP issuance can be attributed to both the bank's reluctance to borrow at a higher cost and households' reduced

14. Note that the fixed effects in the extensive margin analysis differ from those in the intensive margin analysis due to sample differences. In the intensive margin analysis, each observation represents a unique WMP contract, while in the extensive margin analysis, each observation corresponds to the number of WMPs issued by each bank in each city during each month. The richer variations in the intensive margin analysis allow for the inclusion of a more detailed combination of fixed effects.

15. Considering that local inflation shocks may also affect the characteristics of the local WMPs issued, we include additional control variables to address this concern in column (1) of Table A4 in the Internet Appendix. Specifically, we control for the average maturity and preservation ratio for the issued WMPs. Results remain robust.

willingness to invest in financial products that become less attractive relative to inflation. Regardless of the specific interpretation, the finding indicates that WMP issuance decreases in response to heightened local inflation shocks.

Columns (3)–(5) further break down the results by bank type. The Big Six state-owned banks not only raise WMP yields more aggressively in response to local inflation shocks, but also exhibit a more pronounced decline in funding from local single-city WMPs. This pattern is more consistent with banks reducing the supply of single-city WMPs in regions facing higher local inflation shocks than with a demand-side explanation in which households become reluctant to invest, given that the Big Six have been the most active in increasing single-city WMP yields.

Taken together, we find a significant decline in the issuance of single-city WMPs in regions experiencing high local inflation shocks. More importantly, consistent with the active-hedging mechanism, this reduction is more pronounced for large, diversified banks, which also raise single-city WMP yields more aggressively in response to local inflation shocks. These results indicate that such banks retreat from affected regions. In the next two subsections, we show how they offset the associated funding shortfall by increasing fundraising in unaffected areas.

4.3.2 The Role of Internal Capital Market: Spillover Effect in Unaffected Regions

The Big Six banks' puzzling responses, raising single-city WMP yields while reducing issuance following local inflation shocks despite their dominant market position, suggest that adjustments within the focal market alone do not fully explain their behavior. Their nationwide branch networks and universal recognition enable them to leverage internal capital markets and diversify geographically in the face of local funding shocks. This, in turn, points to the possibility of cross-regional spillover effects. We therefore begin by examining how local inflation shocks affect single-city WMPs issued in unaffected cities.

Before turning to the empirics, we clarify a seemingly conflicting pattern: how can the branch-level design and issuance of single-city WMPs, as described in Section 2.2, coexist with bank-level funding transmission? More specifically, if local branches design and issue single-city WMPs independently, why would they respond to economic conditions in other regions? The key lies in the bank's internal capital market. Headquarters adjust the fund–transfer price (FTP) to guide branch behavior, effectively exposing each branch to shocks faced by other parts of the bank. Through this mechanism, branches react not only to local fundamentals but also to conditions in other regions.

Rich variations in local inflation shocks across different cities (See Figure 1) thus allow banks to implement a cross-region hedging. When a higher local inflation shock raises funding costs and reduces funding in one city, banks may actively respond by lowering yields and increasing WMP issuance in other, unaffected cities. The ability to reallocate funding activity across regions enhances banks' resilience to local economic shocks.

We empirically test the cross-region spillover effects on local WMPs using the following model:

$$Yield_{ibct}(NewIssue_{bct}) = \beta Res_Inflation\ Shock_{bct} + Controls + FEs + \varepsilon_{ibct}(\varepsilon_{bct}) \tag{3}$$

The main independent variable is the residualized local inflation shock exposure of bank b in city c by year-month t. For each bank in each year-month, we first identify the cities where the bank has issued any single-city WMPs over the past 36 months. The local inflation shock exposure is the average local inflation shock across these cities.[16] This measure reflects the bank's total

16. We use a simple average of local inflation shocks in the main analysis rather than a number-weighted exposure measure. The short maturity of WMPs introduces noise into the calculation of banks' exposure across cities. For example, over a 36-month window, a bank may roll over a one-month single-city WMP in City 1 thirty-six times but issue a three-month WMP in City 2 only twelve times. Although the total funding obtained from the two cities is the same, a number-weighted measure would mechanically assign City 1 three times the importance of City 2. For

exposure to local inflation shocks resulting from the issuance of single-city WMPs. To account for potential comovement of local inflation shock across cities, we regress the bank-level local inflation shock exposure on the inflation shock in the focal city, and use the residual as a proxy for cross-region inflation hedging potential.[17]

[Insert Table 7 About Here]

Table 7 presents the regression results on the geographical spillover effect of local inflation shocks. Panel A shows the changes in WMP pricing in response to the bank's residualized average local inflation exposure. In contrast to the baseline findings, a higher inflation shock in other cities significantly reduces the yield of WMPs issued in the focal city. Specifically, a 1 percent increase in inflation shock exposure in other cities leads to a 2.2 percent decline in single-city WMP yield. This result aligns with the geographical hedging motive: banks offset the increased funding cost caused by higher local inflation shocks by lowering funding costs in unaffected cities. It is important to note that the residualized bank-level local inflation exposure is orthogonal to the inflation shock in the focal city. Therefore, changes in WMP pricing cannot be attributed to varying local household demand, but rather to bank-side responses.

Cross-region hedging is more feasible for the big state-owned banks, which possess both significant market power and a well-established presence across the country. Columns (3) and (4) further differentiate between the Big Six state-owned banks and other banks. As anticipated,

robustness, we also try a weighted local inflation shock exposure measure, taking both the the number of single-city WMPs and the importance of the city for the bank into account. Specifically, For bank b in city c, the bank-city weight is $BranchShare_{bct}WMPNum_{bc(t-36,t-1)}$. $BranchShare_{bct}$ is the ratio of the number of bank b branches in city c over the total number of bank branches of bank b, which captures the importance of city c for bank b. $WMPNum_{bc(t-36,t-1)}$ is the number of single-city WMPs issued by bank b in city c during the past 36 months. Tables A8 and A9 in the Internet Appendix present results based on the weighted measure.

17. Rather than simply excluding the focal city when computing the local inflation shock exposure, we use a residualized approach. This is because, even if the focal city's inflation shock is excluded, there may still be inflation comovement across cities. Such comovement would contaminate the interpretation of the parameter β, whereas the residualized approach mitigates this issue.

the negative impact of residualized local inflation shock exposure is primarily observed in the local WMPs issued by the Big Six state-owned banks. This finding also helps explain why these banks, despite their substantial market power, respond more strongly to local inflation shocks by increasing local WMP yields. They can afford to do so because they mitigate inflation risk by securing WMP funding at lower costs in unaffected regions.

Panel B examines the response of local WMP issuance to residualized local inflation shocks. Previously we show that, when faced with a higher local inflation shock, banks raise less funding from local WMPs. However, the results in Panel B suggest that banks offset this funding loss by increasing issuance in other unaffected cities. Specifically, a one standard deviation increase in inflation exposure from other cities leads to a 5% increase in the number of single-city WMPs.

Similarly, the impact of cross-region hedging depends on the bank's market power. Columns (3) and (4) differentiate between the Big Six state-owned banks and others. The increase in WMP funding in response to inflation shock in other cities is notably more pronounced for the big banks. Considering the results in Panel A, these findings suggest that the Big Six banks respond more acutely to local inflation shocks, because they compensate for the reduced local funding by securing additional funding at lower costs from other unaffected cities. The increase in WMP funding accompanied by a lower yield further supports the view that the changes in WMP funding are primarily driven by supply-side decisions, as demand-side changes would typically predict lower funding for lower yields.

Table 7 complements the previous findings by offering an explanation on how banks deal with local inflation shocks. A higher local inflation shock raises the cost of issuing local WMPs, prompting banks to reduce local funding and substitute it with more affordable funding from other unaffected cities. This indicates that financial intermediaries essentially engage in a form of transfer payment, subsidizing households in high-inflation cities at the expense of those in unaffected

regions.

4.3.3 The Role of Internal Capital Market: Spillover Effect in Nonlocal WMPs

Focusing on local WMPs, the geographical spillover effect suggests that banks actively hedge against local inflation shocks by issuing more single-city WMPs at lower rates in unaffected cities. Beyond the single-city WMP market, another potential spillover channel is that exposure to local inflation shocks may prompt banks to shift between local and nonlocal WMPs.

Although industry insiders are vague about the exact determinants of this choice, we conjecture that the trade-off between local and nonlocal WMPs operates as follows. Local branches can leverage their familiarity with the local customer base to design products that cater to local preferences, strengthening customer loyalty and potentially benefiting the bank's broader business. Local WMPs may also involve lighter filing and approval procedures, allowing for more flexible issuance. In contrast, issuing nonlocal WMPs enables banks to access a broader investor base and raise more funds. The trade-off between local and multi-region WMPs thus lies in balancing deeper local customer engagement and operational ease against the ability to scale up fundraising across regions.

[Insert Table 8 About Here]

Table 8 investigates how a bank's exposure to local inflation shocks influences the pricing and issuance of nonlocal WMPs. The main independent variable is the bank's exposure to local inflation shocks, measured as the average local inflation shock in cities where the bank has issued any local WMP over the past 36 months. Panel A focuses on the pricing effects, and the whole sample analysis in column (1) reveals an insignificant relationship between multi-region WMP pricing and the bank's local inflation shock exposure.

Columns (2) and (3) further differentiate between the Big Six state-owned banks and others. Consistent with the geographical spillover effect, a higher exposure to local inflation shocks leads to a decrease in the yield of multi-region WMPs issued by the Big Six banks, resonating with the cross-region hedging hypothesis. Depending on the investor base, multi-region WMPs could be further divided into nationwide WMPs and others. Columns (4) - (6) show that the decrease in WMP yield is more prominent for nationwide WMPs issued by the state-owned banks.

Panel B examines the issuance of nonlocal WMPs instead. Consistent with the hypothesis that higher local inflation shocks make nonlocal WMPs more attractive, we find that the state-owned banks issue significantly more nonlocal WMPs. Further decomposition of the WMP types reveals that both nationwide and multi-region WMPs increase in response to higher local inflation shock exposure. No similar effects are observed for nonlocal WMPs issued by banks other than the Big Six state-owned banks, potentially due to weaker investor trust and smaller market power.

Taken together, we explore two channels of local inflation shock spillover, offering insight into how banks manage rising funding costs under higher local inflation shocks. First, banks operating across multiple regions may create a cross-region hedge against local inflation shocks. Consistent with this, higher inflation shocks in other cities result in significantly lower local WMP yields and higher single-city WMP issuance, with the cross-region hedging providing banks with protection against local shocks. Second, banks may shift between different types of WMPs. As local WMPs become more expensive due to higher local inflation shocks, banks raise more funding at lower rates by issuing nonlocal WMPs. The effectiveness of these cross-region and cross-type hedges depends on the bank's market power, with state-owned banks exhibiting significantly stronger spillover effects.

5 Bank Performance: A Coarse Appraisal

Local inflation shocks raise banks' financing costs, prompting them to engage in cross-regional hedging based on divergent inflation trends across cities. The key question, however, is whether this hedging strategy fully insulates banks from local inflation shocks, or do such shocks unfavorably deteriorate bank operations and performance?

We address these questions in two steps, employing a bank-level empirical framework. Our main independent variable captures a bank's exposure to local inflation shocks through its activity in the single-city WMP market. Specifically, in each month, we construct exposure as the average local inflation shock across cities where the bank has issued any local WMPs over the preceding 36 months.

It is important to note that banks may be exposed to local inflation shocks through multiple channels, including deposit-taking and loan issuance. While our measure of local inflation shock takes the bank's exposure to the single-city WMP market into account, it does not fully isolate this channel from others. As such, the analysis presented here does not seek to causally identify the effect of local inflation through the WMP market alone, but rather aims to offer suggestive and preliminary evidence on the broader impact of local inflation exposure.

[Insert Table 9 About Here]

In the first exercise, we examine how local inflation shocks affect a bank's overall WMP yield and issuance. Panel A of Table 9 present the estimated results, where the overall WMP yield is the average expected yield across all WMPs, and overall issuance is the total number of WMP issued in each year-month. Columns (1) and (2) present results for yields of single-city WMPs and all WMPs, respectively. While our baseline results suggest that the yields of single-city WMPs increase with local inflation shocks, this relationship becomes attenuated at the bank

level. Likewise, Columns (3) and (4) reveal that the decline in single-city WMP issuance is largely offset by increased issuance of multi-region products, leaving total issuance unchanged.

We next ask whether local inflation exposure affects bank performance. Since only annual bank performance data are available, we construct a bank-year panel and compute the annual average of monthly local inflation shock exposures for each bank. Consistent with the attenuated response in overall WMP pricing and issuance, we find no significant effects on bank profitability, as measured by net interest margin (NIM) and return on equity (ROE).[18]

However, a notable caveat emerges: while average contemporaneous profitability remains unaffected, profitability volatility increases significantly, suggesting that current resilience may come at a hidden cost, for example, introducing additional risks. Two mechanisms may account for this pattern. First, cross-regional hedging may inadvertently reflect a form of transfer payment within bank, whereby stronger branches cross-subsidize weaker ones (Rajan et al., 2000; Scharfstein and Stein, 2000). For instance, raising WMP yield in unaffected regions to compensate for local inflation shocks elsewhere can constrain liquidity management flexibility in these areas, ultimately reducing their capacity to absorb future disturbances and increasing earnings volatility. Second, banks facing compressed margins may broadly pivot toward riskier business strategies, a shift that could give rise to more volatile earnings.

In summary, we provide preliminary evidence on the effects of local inflation shocks at the bank level. Cross-regional hedging appears to insulate, at least to some extent, banks from local shocks, as average WMP yields, total WMP issuance, and current profitability remain unresponsive to local inflation shock exposure. However, a lingering concern is the heightened volatility of future profitability, suggesting potential costs associated with the internal hedging strategy.

18. The substantially smaller number of observations in Panel B compared to Panel A is due to two factors: (i) data frequency differences. Panel A uses quarterly data, whereas Panel B relies on annual data; and (ii) more importantly, the dependent variables in Panel B, namely NIM and ROE, are derived from banks' financial statements, which are not publicly available for many banks.

6 Conclusion

This paper examines how shadow banks adapt to shifts in investor demand triggered by local inflation shocks. Exploiting the unique setting of single-city WMPs to isolate demand-side variation, we find that banks respond to local inflation shocks by raising yields and curtailing issuance. These responses are notably pronounced in cities with higher financial literacy or more intense competition in the banking sector.

An intriguing pattern emerges when local financing costs rise: banks engage in cross-regional hedging by exploiting the geographic dispersion of inflation shocks. By deploying internal capital markets, they shift issuance toward unaffected cities through issuing more single-city WMPs at lower rates in these areas, and increasingly turn to nationwide and multi-region WMPs to pool funding across locations. This strategic reallocation allows banks to buffer localized funding pressures, mitigating the impact of non-systemic shocks and enhancing their resilience to region-specific financial stress during normal times.

Our findings shed light on a subtle yet powerful mechanism through which shadow banks, operating beyond conventional bank regulations, adapt their liabilities in response to geographically uneven inflation shocks. By reallocating funding across regions via internal capital markets, these institutions demonstrate a form of micro-level agility that cushions local imbalances. Yet, this same flexibility creates new fault lines: regional disturbances no longer remain local but can ripple through the broader financial system. In bridging the literature on shadow banking and geographic diversification, our study highlights the critical role of internal capital markets which simultaneously enhance institutional adaptability and embed new pathways for systemic contagion. These dynamics call for renewed attention to the spatial dimensions of financial intermediation, offering fresh insights into how decentralized financial systems absorb or amplify economic shocks during non-crisis periods.

References

Acharya, V. V., Qian, J. Q., Su, Y., & Yang, Z. (2024). Fiscal Stimulus, Deposit Competition, and the Rise of Shadow Banking: Evidence from China. *Management Science*.

Agarwal, I., & Baron, M. (2024). Inflation and Disintermediation. *Journal of Financial Economics*, *160*, 103902.

Akerlof, G. A. (2007). The Missing Motivation in Macroeconomics. *American Economic Review*, *97*(1), 5–36.

Akerlof, G. A., Dickens, W. T., Perry, G. L., Gordon, R. J., & Mankiw, N. G. (1996). The Macroeconomics of Low Inflation. *Brookings Papers on Economic Activity*, *1996*(1), 1–76.

Allen, F., Zhang, C., & Zhao, M. (2012). China's Financial System: Opportunities and Challenges.

Bianchi, M. (2018). Financial Literacy and Portfolio Dynamics. *Journal of Finance*, *73*(2), 831–859.

Boyd, J. H., Levine, R., & Smith, B. D. (2001). The Impact of Inflation on Financial Sector Performance. *Journal of Monetary Economics*, *47*(2), 221–248.

Braggion, F., Von Meyerinck, F., & Schaub, N. (2023). Inflation and Individual Investors' Behavior: Evidence from the German Hyperinflation. *Review of Financial Studies*, *36*(12), 5012–5045.

Braggion, F., Von Meyerinck, F., Schaub, N., & Weber, M. (2024). *The Long-term Effects of Inflation on Inflation Expectations* (tech. rep.). National Bureau of Economic Research.

Brunnermeier, M., Correia, S., Luck, S., Verner, E., & Zimmermann, T. (2025). The Debt-Inflation Channel of the German (Hyper-)Inflation. *American Economic Review*, (Forthcoming).

Campello, M. (2002). Internal Capital Markets in Financial Conglomerates: Evidence from Small Bank Responses to Monetary Policy. *Journal of Finance*, *57*(6), 2773–2805.

Cetorelli, N., & Goldberg, L. S. (2012). Liquidity Management of US Global Banks: Internal Capital Markets in the Great Recession. *Journal of International Economics*, *88*(2), 299–311.

Chang, C., Chen, K., Waggoner, D. F., & Zha, T. (2016). Trends and Cycles in China's Macroeconomy. *NBER Macroeconomics Annual*, *30*(1), 1–84.

Chang, J., Wang, Y., & Xiong, W. (2025). Taming Cycles: China's Growth Targets and Macroeconomic Management. *Working Paper*.

Chen, J., & Roth, J. (2024). Logs with Zeros? Some Problems and Solutions. *Quarterly Journal of Economics*, *139*(2), 891–936.

Chen, K., Higgins, P., Waggoner, D. F., & Zha, T. (2016). China pro-growth monetary policy and its asymmetric transmission. *Working Paper*.

Cieslak, A., & Pflueger, C. (2023). Inflation and Asset Returns. *Annual Review of Financial Economics*, *15*(1), 433–448.

Cohn, J. B., Liu, Z., & Wardlaw, M. I. (2022). Count (and Count-like) Data in Finance. *Journal of Financial Economics*, *146*(2), 529–551.

Coibion, O., Gorodnichenko, Y., & Ropele, T. (2020). Inflation Expectations and Firm decisions: New Causal Evidence. *Quarterly Journal of Economics*, *135*(1), 165–219.

D'Acunto, F., Malmendier, U., & Weber, M. (2023). What Do the Data Tell Us about Inflation Expectations? In *Handbook of Economic Expectations* (pp. 133–161). Elsevier.

De Nicoló, G., Honohan, P., & Ize, A. (2005). Dollarization of Bank Deposits: Causes and Consequences. *Journal of Banking & Finance*, *29*(7), 1697–1727.

Diamond, D. W., & Dybvig, P. H. (1983). Bank Runs, Deposit Insurance, and Liquidity. *Journal of Political Economy*, *91*(3), 401–419.

Diamond, D. W., & Rajan, R. G. (2000). A Theory of Bank Capital. *Journal of Finance*, *55*(6), 2431–2465.

Doerr, S., & Schaz, P. (2021). Geographic Diversification and Bank Lending during Crises. *Journal of Financial Economics*, *140*(3), 768–788.

Drechsler, I., Savov, A., & Schnabl, P. (2017). The Deposits Channel of Monetary Policy. *Quarterly Journal of Economics*, *132*(4), 1819–1876.

Drechsler, I., Savov, A., & Schnabl, P. (2021). Banking on Deposits: Maturity Transformation without Interest Rate Risk. *Journal of Finance*, *76*(3), 1091–1143.

Gilje, E. P., Loutskina, E., & Strahan, P. E. (2016). Exporting Liquidity: Branch Banking and Financial Integration. *Journal of Finance*, *71*(3), 1159–1184.

Goetz, M. R., Laeven, L., & Levine, R. (2016). Does the Geographic Expansion of Banks Reduce Risk? *Journal of Financial Economics*, *120*(2), 346–362.

Gorton, G., & Metrick, A. (2012). Securitized Banking and the Run on Repo. *Journal of Financial Economics*, *104*(3), 425–451.

Gorton, G., & Pennacchi, G. (1990). Financial Intermediaries and Liquidity Creation. *Journal of Finance*, *45*(1), 49–71.

Hachem, K. (2018). Shadow Banking in China. *Annual Review of Financial Economics*, *10*, 287–308.

He, Z., & Wei, W. (2023). China's Financial System and Economy: A Review. *Annual Review of Economics*, *15*(1), 451–483.

Holmström, B., & Tirole, J. (1998). Private and Public Supply of Liquidity. *Journal of Political Economy*, *106*(1), 1–40.

Houston, J., James, C., & Marcus, D. (1997). Capital Market Frictions and the Role of Internal Capital Markets in Banking. *Journal of Financial Economics*, *46*(2), 135–164.

Huang, J., Huang, Z., & Shao, X. (2023). The Risk of Implicit Guarantees: Evidence from Shadow Banks in China. *Review of Finance*, *27*(4), 1521–1544.

Iyer, R., Peydró, J.-L., da-Rocha-Lopes, S., & Schoar, A. (2014). Interbank Liquidity Crunch and the Firm Credit Crunch: Evidence from the 2007–2009 Crisis. *Review of Financial Studies*, *27*(1), 347–372.

Justiniano, A., Primiceri, G. E., & Tambalotti, A. (2013). Is there a trade-off between inflation and output stabilization? *American Economic Journal: Macroeconomics*, *5*(2), 1–31.

Khwaja, A. I., & Mian, A. (2008). Tracing the Impact of Bank Liquidity Shocks: Evidence from an Emerging Market. *American Economic Review*, *98*(4), 1413–1442.

Loutskina, E., & Strahan, P. E. (2009). Securitization and the Declining Impact of Bank Finance on Loan Supply: Evidence from Mortgage Originations. *Journal of Finance*, *64*(2), 861–889.

Lucas, R. E. (1973). Some International Evidence on Output-Inflation Tradeoffs. *American Economic Review*, *63*(3), 326–334.

Lusardi, A., & Mitchell, O. S. (2023). The Importance of Financial Literacy: Opening A New Field. *Journal of Economic Perspectives*, *37*(4), 137–154.

Ma, C., & Zhang, S. (2024). Can Housing Booms Elevate Financing Costs of Financial Institutions? *Journal of Development Economics*, *167*, 103230.

Malmendier, U., & Nagel, S. (2016). Learning from Inflation Experiences. *Quarterly Journal of Economics*, *131*(1), 53–87.

Nakamura, E., Steinsson, J., & Liu, M. (2016). Are Chinese Growth and Inflation Too Smooth? Evidence from Engel Curves. *American Economic Journal: Macroeconomics*, *8*(3), 113–144.

Paravisini, D. (2008). Local Bank Financial Constraints and Firm Access to External Finance. *Journal of Finance*, *63*(5), 2161–2193.

Rajan, R., Servaes, H., & Zingales, L. (2000). The Cost of Diversity: The Diversification Discount and Inefficient Investment. *Journal of Finance*, *55*(1), 35–80.

Rehbein, O., & Ongena, S. (2022). Flooded Through the Back Door: The Role of Bank Capital in Local Shock Spillovers. *Journal of Financial and Quantitative Analysis*, *57*(7), 2627–2658.

Scharfstein, D. S., & Stein, J. C. (2000). The Dark Side of Internal Capital Markets: Divisional Rent-Seeking and Inefficient Investment. *Journal of Finance*, *55*(6), 2537–2564.

Schnorpfeil, P., Weber, M., & Hackethal, A. (2023). *Households' Response to the Wealth Effects of Inflation* (tech. rep.). National Bureau of Economic Research.

Song, Z., & Xiong, W. (2018). Risks in China's Financial System. *Annual Review of Financial Economics*, *10*(1), 261–286.

Figures and Tables

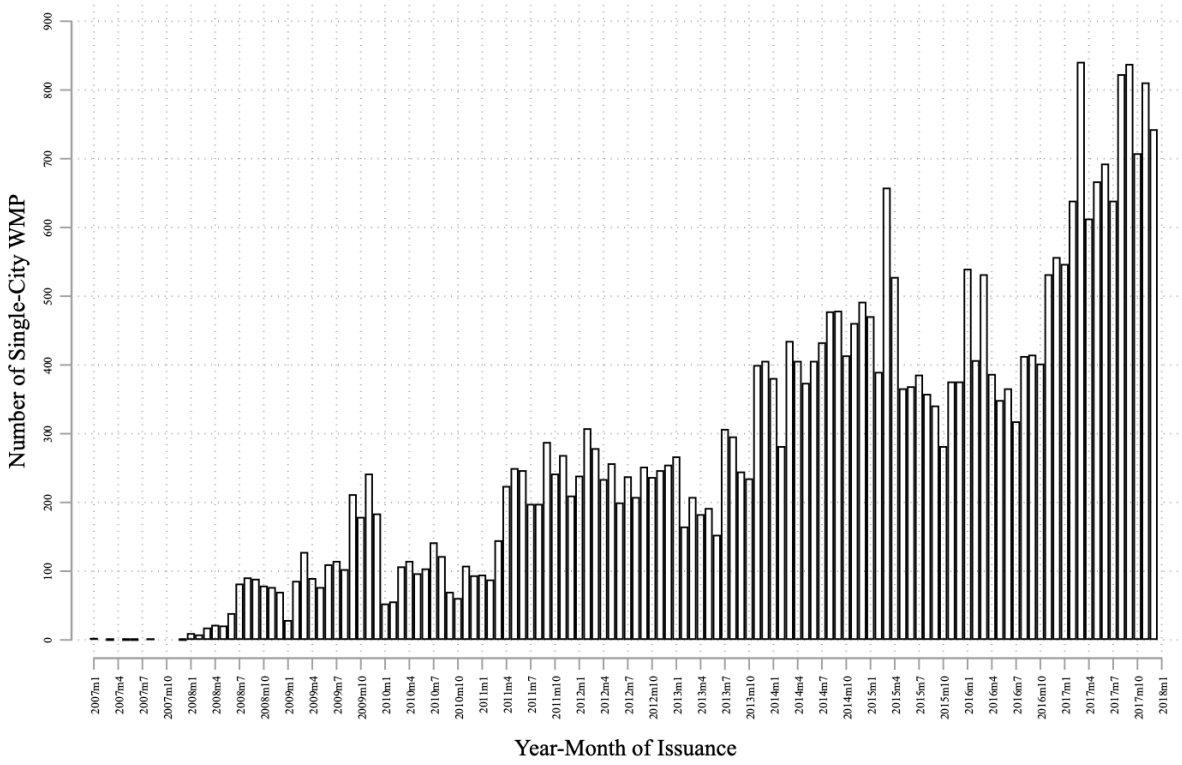


Figure 1: Distribution of Single-city WMPs

This figure presents the time-series distribution of single-city WMPs. We begin the analysis in 2007, as there were no recorded instances of single-city WMPs prior to that year.

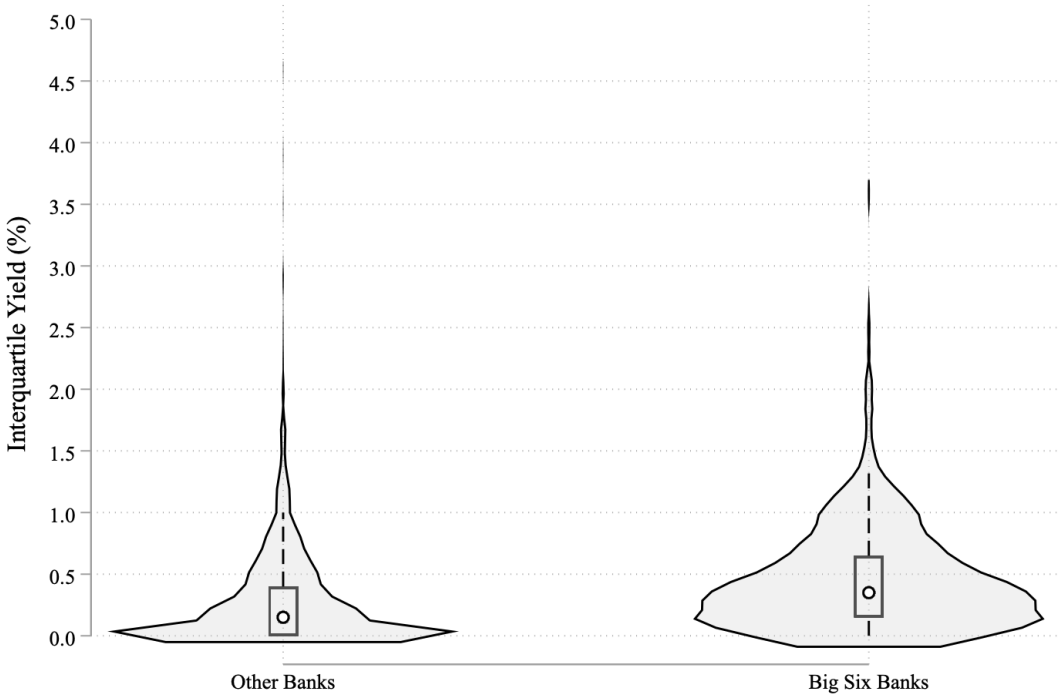
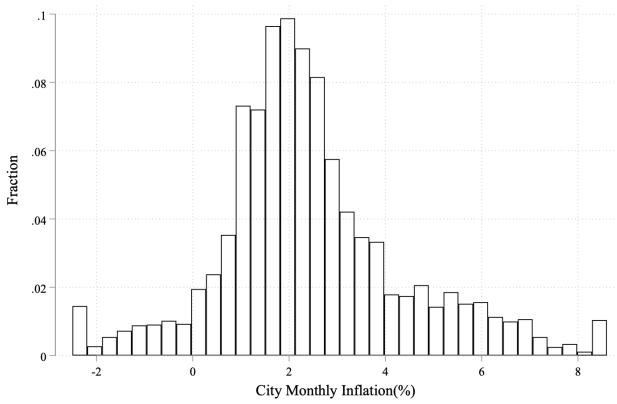
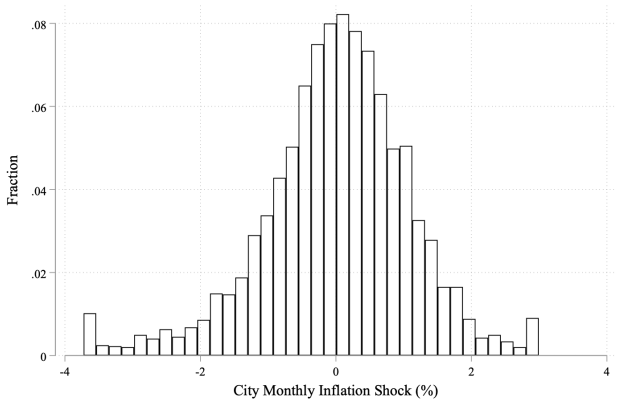


Figure 2: Yield Dispersion of Single-City WMPs for Big6 Banks and Others

This figure presents violin plots illustrating the dispersion of expected yields for single-city WMPs issued by Big 6 and other banks. For each bank in each year-month, we compute the interquartile range of expected yields across all single-city WMPs. We then plot the distribution of these interquartile ranges separately for Big 6 and other banks.



(a) Raw Local Inflation



(b) Local Inflation Shock

Figure 3: Distribution of Local Inflation and Inflation Shock

This figure presents the distribution of local inflation rates (panel (a)) and local inflation shocks (panel (b)) over the sample period.

Table 1: Summary Statistics

This table presents the summary statistics. Panel A present the summary statistics for the single-city WMPs. $Yield(\%)$ is the promised annualized return of single-city WMPs specified in prospectuses. We also report the statistics on maturity ($Maturity\ (in\ month)$), minimum required investment ($Initial\ Amount\ (in\ 10\ thousands)$), percentage of principal guaranteed (*Preservation Ratio*), and an indicator variable for whether the WMP is issued by the Big Six state-owned banks (*Big* 6). Panel B focuses on the summary statistics of the key city-level features including local inflation (%), number of single-city WMPs, number of bank branches, the local housing price index provided by the National Bureau of Statistics of China (HPI1), and the 100-city China Real Estate Index (HPI2) constructed by Zhongzhi Research Institute. Panel C and D instead present bank level characteristics at year-month and year frequency. The year-month features include the number of single-city WMPs and all WMPs issued by each bank in each year-month. The yearly features cover banks' deposit taking, loan issuance, and balance sheet variables. Deposit-related variables include the total deposit volume, personal term deposit, and corporate term deposit, all presented in log. Loan-related variables include total loan volume (in log) and nonperforming loan ratio (NPLRatio). Other variables include return on equity (ROE), the standard deviation of ROE in the following three years, lagged total asset (in log), lagged debt to asset ratio, lagged dummy variable for whether the bank conducts deposit-taking and loan-issuance business in foreign currencies, lagged loan growth rate, lagged deposit market share, lagged asset growth rate, and lagged percentage of loans issued to top ten customers.

	Count	Mean	s.d.	p5	p25	p50	p75	p95
A. WMP Characteristics								
Yield (%)	24,570	4.692	0.933	2.880	4.200	4.800	5.300	6.000
Maturity (in month)	24,570	3.799	2.835	1.033	1.767	3.033	5.300	11.733
Initial Amount (in 10 thousands)	22,937	405.204	1698.409	5.000	5.000	5.000	10.000	1000.000
Preservation Ratio	22,293	19.884	40.220	0.000	0.000	0.000	0.000	102.950
Big 6	24,570	0.406	0.491	0.000	0.000	0.000	1.000	1.000
B. City YM Features								
Raw Local Inflation (%)	4,429	2.455	1.951	-0.600	1.400	2.200	3.300	6.300
Number of Local WMPs	4,429	4.570	7.691	0.000	0.000	1.000	5.000	22.000
Number of Branches (in thousand)	4,429	1.018	0.729	0.259	0.538	0.847	1.198	2.909
HPI1	3,622	4.883	7.954	-5.500	-0.300	3.600	8.300	20.100
HPI2	3,622	3.804	7.262	-4.800	-0.500	2.400	6.100	18.800
C. Bank-YM Features								
Number of Single-city WMPs	10,329	2.931	11.811	0.000	0.000	0.000	0.000	14.000
Number of All WMPs	10,329	36.306	63.649	1.000	4.000	15.000	36.000	165.000
D. Bank-Year Features								
Total Deposit (log)	627	26.118	1.732	23.918	24.862	25.652	27.163	29.808
Personal Term Deposit (log)	550	24.316	1.945	21.385	23.145	24.063	25.218	28.675
Corporate Term Deposit (log)	553	24.719	1.951	21.747	23.310	24.446	26.198	28.099
Total Loan (log)	629	25.661	1.792	23.357	24.363	25.194	26.741	29.340
NPLRatio (%)	617	1.230	1.110	0.330	0.760	1.100	1.510	2.350
ROE	608	0.163	0.058	0.068	0.125	0.164	0.197	0.260
ROE s.d.:[t,t+2]	542	0.021	0.018	0.003	0.009	0.016	0.029	0.055
Total Asset (log, lag)	558	26.420	1.753	24.137	25.131	25.973	27.532	29.979
Debt to Asset Ratio (lag)	558	0.935	0.018	0.903	0.927	0.938	0.946	0.959
Foreign Business (lag)	558	0.129	0.336	0.000	0.000	0.000	0.000	1.000
Loan Growth Rate (lag)	520	0.227	0.126	0.091	0.152	0.201	0.265	0.458
Deposit Market Share (lag)	558	0.017	0.041	0.000	0.001	0.002	0.010	0.144
Asset Growth Rate	539	27.560	18.734	8.311	15.575	23.558	33.538	63.728
Top10 Loan Share (%)	391	35.642	22.664	13.220	20.200	29.240	44.680	72.630

Table 2: Local Inflation Shocks and the Expected Yield of Local WMP

This table investigates the impact of local inflation shocks on the expected yield of local WMPs. The regression model is: $Yield_{ibct} = \alpha\, Inflation\ Shock_{c(t-1)} + Controls + \phi_{bt} + \eta_{bcy} + \varepsilon_{ibct}$. The dependent variable is the expected yield (%) of local WMP i issued by bank b in city c at time (year-month) t. The key independent variable is $Inflation\ Shock_{c(t-1)}$, representing the lagged inflation surprise, defined as the difference between the CPI for city c at year-month $t-1$ and the 36-month rolling average CPI. Control variables include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal (*Preservation Ratio*). To account for city-level time-varying factors, we also control for the number of bank branches (in log) in the city ($Log(BranchNum)$). Columns (1) - (2) use the whole sample of single-city WMPs, while column (3) and (4) exclude those eligible for investing in bank loans or structured as trusts, and WMPs with no clearly specified investment range, respectively. Columns (5)–(6) further address potential home bias in bank asset allocation by controlling for local stock (StockReturn) and bond (BondReturn) returns. In column (5), "local" refers to firms located in the same city, while in column (6), it refers to firms within the same province. For stock return, we use the value-weighted monthly return of local firms. For bond return, we use the average coupon rate of newly-issued bonds issued by local entities, weighted by notion amount. Column (7) excludes mega cities (Beijing, Shanghai, and Guangzhou). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	WMP Expected Yield (%)						
	All WMPs		Excld. WMPs (Bank Loan/Trust)	Excld. WMPs (No Clear Inv. Range)	Same City	Same Prov.	Mega Excld.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Inflation Shock	0.620***	0.588***	1.816***	1.316**	0.534***	0.510***	0.442**
	(0.223)	(0.168)	(0.561)	(0.570)	(0.184)	(0.181)	(0.170)
Maturity		0.010***	0.008**	0.021***	0.009***	0.010***	0.012***
		(0.002)	(0.004)	(0.008)	(0.002)	(0.002)	(0.002)
Log(Initial Amount)		0.003	0.009***	0.002	0.004*	0.004	0.002
		(0.003)	(0.002)	(0.008)	(0.002)	(0.002)	(0.002)
Preservation Ratio		-0.002***	-0.001*	-0.001**	-0.002***	-0.002***	-0.002***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Log(Branch)		-0.075	-0.101	-0.179	-0.007	-0.051	-0.086
		(0.140)	(0.284)	(0.302)	(0.195)	(0.154)	(0.143)
StockReturn					-0.029**	-0.036*	
					(0.012)	(0.020)	
BondReturn					-0.000	0.004	
					(0.002)	(0.002)	
Bank × Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank × City × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	24,580	22,011	6,023	4,921	20,586	21,546	14,716
Adj R^2	0.862	0.898	0.864	0.877	0.896	0.896	0.905

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city.

Table 3: The Role of Regulatory Constraint on Deposit Ceiling

This table investigates the heterogeneous impacts of local inflation shocks on single-city WMP pricing originating from changing regulatory environment. Focusing on deposit rate regulation, this table conducts event-study based on the continued decline in deposit ceiling rate starting from November 2014. The dependent variable is the expected yield (%) of local WMP i issued by bank b in city c at time (year-month) t. The independent variable of main interest is the lagged inflation surprise, defined as the difference between the CPI for city c at year-month $t-1$ and the 36-month rolling average CPI. *Deposit Ceiling Decline* is a dummy variable that equals one for periods after November 2014, and zero otherwise. In column (1), we restrict the sample to July 2012 - October 2015. The deposit ceiling stabilized at 3% from July 2012 to November 2014, constituting a stable pre-event period. It declined continuously from November 2014 to October 2015, and remained at 1.5% afterwards. We thus ends the sample in October 2015. Column (2) use an alternative sample period that includes 10 months both before and after November 2014. Control variables include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal (*Preservation Ratio*). To account for city-level time-varying factors, we also control for the number of bank branches (in log) in the city ($Log(BranchNum)$). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	WMP Expected Yield (%)	
	[2012.7,2015.10]	[-10M, 10M]
	(1)	(2)
Inflation Shock	0.122	-0.413
	(0.36)	(-1.26)
Inflation Shock × Deposit Ceiling Decline	1.061***	1.488***
	(2.99)	(4.10)
Controls	Yes	Yes
Bank × Year-Month FE	Yes	Yes
Bank × City × Year FE	Yes	Yes
No. of obs	7309	5350
Adj R^2	0.818	0.819

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city.

Table 4: The Role of Financial Sophistication of Households

This table explores how household financial sophistication, captured by local demographic and economic characteristics, affects the impact of local inflation shocks on the expected yield. In columns (1) - (3) and (4) - (6) we use the share of population employed in finance industry (*FinPop*) and the average wage level (*Wage*), respectively. We decompose the sample into two groups depending on whether *FinPop* (*Wage*) is among the yearly top tercile ($HighFinPop = 1$, $HighWage = 1$). Control variables include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement ($Log(Initial\ Amount)$), percentage of preserved principal (*Preservation Ratio*), and the number of bank branches (in log) in the city ($Log(BranchNum)$). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	WMP Expected Yield (%)					
	Financial Population (%)			Wage		
	High	Low	Whole Sample	High	Low	Whole Sample
	(1)	(2)	(3)	(4)	(5)	(6)
Inflation Shock	1.725*	0.188	0.395**	1.507*	0.415**	0.480***
	(0.688)	(0.181)	(0.172)	(0.687)	(0.174)	(0.174)
Inflation Shock × HighFinPop			0.738**			
			(0.299)			
Inflation Shock × HighWage						0.504*
						(0.269)
Bank × Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank × City × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	8,696	13,145	22,011	8,801	13,039	22,011
Adj R^2	0.903	0.902	0.898	0.898	0.906	0.898
p-value for between group coef test:		0.017			0.105	

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table 5: The Role of Banking Competition and Bank Type

This table investigates the heterogeneous impacts of local inflation shocks on single-city WMP pricing originating from banking competition measured by local banking competition intensity (Columns (1) - (3)), bank type (Columns (4) - (5)), and their interactive impacts. The dependent variable is the expected yield (%) of local WMP i issued by bank b in city c at time (year-month) t. The independent variable of main interest is the lagged inflation surprise, defined as the difference between the CPI for city c at year-month $t-1$ and the 36-month rolling average CPI. Columns (1) - (3) explore how local banking competition affects banks' responses, with competitiveness measured by the Herfindahl-Hirschman Index (HHI) based on the number of bank branches. The local banking industry is considered to be under intense competition if the local banking HHI falls within the bottom decile ($Intensive\ Competition = 1$). Columns (4) - (6) instead proxy competition pressure by bank type and categorize banks into the big six state-owned banks and others. Column (7) examines the interactive impacts of local banking competition and bank type. To estimate heterogeneous bank market power cross different regions, we calculate the share of big 6 branches within each city (Big6Share) and examine the interactive impacts of bank type and bank market power in column (8). Control variables include WMP contract characteristics such as maturity ($Maturity$), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal ($Preservation\ Ratio$). To account for city-level time-varying factors, we also control for the number of bank branches (in log) in the city ($Log(BranchNum)$). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	WMP Expected Yield (%)							
	Local Banking Competition			Bank Type			Bank Type & Competition	Bank Type & Market Power
	Intensive	Nonintensive	All	Big6	Others	All	All	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inflation Shock	0.733***	0.394**	0.459***	1.306***	0.245	0.317	0.403*	-1.364
	(3.31)	(2.28)	(2.92)	(0.327)	(0.205)	(0.203)	(0.210)	(1.420)
Inflation Shock × Intensive Competition			0.772***					
			(2.70)					
Inflation Shock × Big6						0.979**	0.628	6.644***
						(0.425)	(0.419)	(2.316)
Inflation Shock × Intensive Competition × Big6							1.086**	
							(0.459)	
Intensive Competition × Big6							0.022**	
							(0.011)	
Inflation Shock × Big6Share × Big6								-11.329**
								(4.446)
Big6Share × Big6								-1.042**
								(0.455)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank × Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank × City × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	4,311	17,513	22,003	7,757	14,254	22,011	22,011	22,011
Adj R^2	0.897	0.912	0.907	0.844	0.926	0.898	0.898	0.898
p-value for between group coef test:	0.218			0.007				

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table 6: Local Inflation Shocks and Single-city WMP Issuance

This table investigates the impact of local inflation shocks on the issuance of single-city WMPs. The regression model is: $NewIssue_{bct} = \beta\ Inflation\ Shock_{c(t-1)} + Controls + \phi_{bt} + \eta_{bc} + \rho_{cy} + \varepsilon_{bct}$. The dependent variable is the count of local WMPs issued by bank b in city c at time (year-month) t. Poisson regression is applied as the dependent variable is a count variable. The key independent variable is $Inflation\ Shock_{c(t-1)}$, representing the lagged inflation surprise, defined as the difference between the CPI for city c at year-month t and the 36-month rolling average CPI. Columns (1), (2), and (5) are based on the whole sample, while columns (3) and (4) restrict the sample to the big six state-owned banks and the remaining banks, respectively. We include the number of bank branches (in log) in the city ($Log(BranchNum)$) each month as the control variable. Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	Number of WMPs				
	All		Big6	Others	All
	(1)	(2)	(3)	(4)	(5)
Inflation Shock	-6.362**	-6.504**	-15.848***	-2.682	-2.829
	(2.771)	(2.797)	(4.272)	(2.669)	(3.411)
Inflation Shock × Big Six					-12.733***
					(3.911)
Controls	No	Yes	Yes	Yes	Yes
Bank × Year-Month FE	Yes	Yes	Yes	Yes	Yes
Bank × City FE	Yes	Yes	Yes	Yes	Yes
City × Year FE	Yes	Yes	Yes	Yes	Yes
No. of obs	23,206	23,206	4,748	16,448	23,206
Pseudo R^2	0.548	0.548	0.578	0.515	0.548
p-value for between group coef test:			0.008		

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table 7: Spillover Effect on Single-city WMPs in Unaffected Regions

This table explores how banks' exposure to local inflation shocks in other cities affects the expected yield (Panel A) and the issuance of local WMPs (Panel B). We regress the average local inflation shock in cities where the bank has issued local WMPs over the past three years against the local inflation shock in the focal city. The residual from the previous regression captures the banks' exposure to local inflation shocks in other cities. Columns (1) - (2) use the whole sample, while columns (3) and (4) focus on the big six state-owned banks and other banks, respectively. Poisson regression is applied in Panel B as the dependent variable is a count-like variable. Control variables in panel A include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal (*Preservation Ratio*). Panel B controls for the number of bank branches (in log) in the city ($Log(BranchNum)$) each month. The inclusion of fixed effects are detailed at the bottom of the panels.

Panel A.				
	Yield (%)			
	All		Big6	Others
	(1)	(2)	(3)	(4)
Residualized Local Inflation Shock Exposure	-2.072***	-2.219***	-4.798***	-0.989
	(0.722)	(0.614)	(1.452)	(0.658)
Maturity		0.009***	0.007***	0.012***
		(0.002)	(0.002)	(0.001)
Log(Initial Amount)		0.004	0.006***	-0.003
		(0.002)	(0.002)	(0.003)
Preservation Ratio		-0.002***	-0.002***	-0.002***
		(0.000)	(0.000)	(0.000)
Log(BranchNum)		-0.068	0.164	-0.162
		(0.142)	(0.148)	(0.173)
Bank × Year-Month, Bank × City × Year FE	Yes	Yes	Yes	Yes
No. of obs	24,167	21,610	7,757	13,853
Adj R^2	0.861	0.895	0.844	0.923
p-value for between group coef. test:			0.019	
Panel B.				
	Number of WMPs			
	All		Big6	Others
	(1)	(2)	(3)	(4)
Residualized Local Inflation Shock Exposure	14.269**	14.550**	37.333***	3.664
	(6.389)	(6.406)	(10.959)	(5.631)
Log(BranchNum)		-0.650	-1.991**	-0.112
		(0.783)	(0.982)	(1.199)
Bank × Year-Month, Bank × City, City × Year FE	Yes	Yes	Yes	Yes
No. of obs	22,497	22,497	4,708	15,824
Adj R^2	0.547	0.547	0.577	0.514
p-value for between group coef. test:			0.006	

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table 8: Spillover Effect on Nonlocal WMPs

This table explores how banks' exposure to local inflation shocks due to single-city WMP issuance affects the expected yield (Panel A) and the issuance (Panel B) of their nonlocal WMPs. The local inflation shock measure is the average inflation shock in cities where the bank has issued local WMPs over the past 36 months. Nonlocal WMPs are further decomposed into those with nation-wide coverage ($National = 1$) and the rest that cover more than one city ($Multi\text{-}region = 1$). Control variables in panel A include WMP contract characteristics such as maturity ($Maturity$), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal ($Preservation\ Ratio$). The inclusion of fixed effects are detailed at the bottom of the panels.

Panel A.						
	WMP Expected Yield (%)					
	Full	Big6	Other	Full	Big6	Other
	(1)	(2)	(3)	(4)	(5)	(6)
Local Inflation Shock Exposure	0.087	-5.613*	0.294	1.708*	-0.628	1.425
	(0.323)	(2.468)	(0.297)	(1.005)	(3.797)	(0.873)
Local Inflation Shock Exposure × National				-1.789*	-5.204	-1.253
				(1.058)	(3.342)	(0.932)
National				-0.047***	-0.052	-0.049***
				(0.015)	(0.042)	(0.011)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Bank × Year-Quarter, Bank × Month, Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	152,947	34,258	118,688	152,947	34,258	118,688
Adj R^2	0.808	0.763	0.829	0.809	0.765	0.829
p-value for between group coef test:		0.01				

Panel B.									
	Number of WMPs								
	All			National			Multi-region		
	Full	Big6	Other	Full	Big6	Other	Full	Big6	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Inflation Shock	2.887	24.518***	-0.175	0.589	26.728***	-2.593	3.967	22.397***	1.020
	(0.91)	(4.48)	(-0.06)	(0.18)	(5.46)	(-0.87)	(1.22)	(3.56)	(0.32)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank × Year-Quarter, Bank × Month, Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	6,457	659	5,798	5,772	634	5,138	6,457	659	5,798
Pseudo R^2	0.914	0.926	0.901	0.871	0.886	0.853	0.872	0.890	0.853
p-value for between group coef test:		0.034			0.004			0.07	

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table 9: Local Inflation Shock and Bank Performance

This table examines the effects of banks' exposure to local inflation shocks on overall WMP issuance and bank performance. Panel A focuses on WMP yield and issuance, using a bank-year-month panel. The key independent variable is the average inflation shock over the past 36 months in cities where the bank has issued single-city WMPs. Columns (1) - (2) examine the impact on average WMP yield, calculated as the average yield of all WMPs issued by the bank in a given month. Control variables include the average maturity, average minimum investment requirement, and the average percentage of preserved principal as control variables. Columns (3) - (4) instead investigate WMP issuance, measured by the number of WMPs issued in each year-month. Poisson regressions are applied. Odd columns restrict the sample to single-city WMPs, while even columns include all WMP types. Panel B explores the effect of inflation exposure on bank performance, using a bank-year panel. The dependent variables are net interest margin (NIM), return on equity (ROE), and the standard deviation of ROE over the next three years. The inflation exposure measure is the bank's average monthly local inflation shock within the year. Control variables—lagged by one year—include log total assets, debt-to-asset ratio, a foreign-currency business indicator, loan growth, deposit market share, and asset growth. The set of fixed effects used is reported at the bottom of each panel.

Panel A (Bank-Year-Month Panel): Average WMP Yield, and Total WMP Issuance				
	Average Yield (%)		Number of WMPs	
	Single-City WMPs	All WMPs	Single-City WMPs	All WMPs
	(1)	(2)	(3)	(4)
Average Local Inflation Shock	5.861	0.727	-24.986*	-3.315
	(9.349)	(3.469)	(12.903)	(3.374)
Controls	Yes	Yes	-	-
Bank × Year-Quarter FE	Yes	Yes	Yes	Yes
Bank × Month FE	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes
No. of obs	1,624	6,724	2,331	7,308
Adj R^2 (Pseudo R^2)	0.874	0.913	0.890	0.940
Panel B (Bank-Year Panel): Bank Profitability				
		NIM	ROE	ROE s.d.: [t, t+2]
		(1)	(2)	(3)
Average Local Inflation Shock		0.109	0.808	0.980***
		(1.41)	(1.01)	(3.59)
Controls		Yes	Yes	Yes
Bank FE		Yes	Yes	Yes
Year FE		Yes	Yes	Yes
No. of obs		235	503	436
Adj R^2		0.852	0.715	0.361

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by bank.

A Internet Appendix

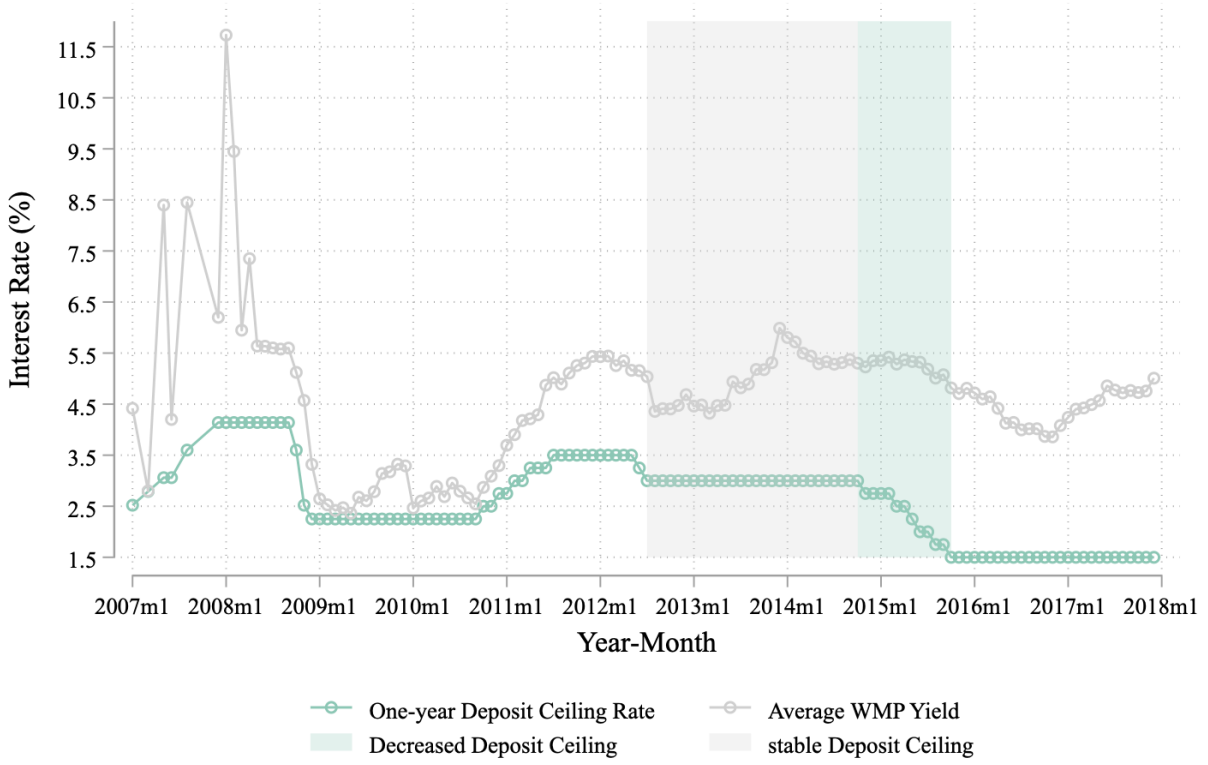


Figure A1: Deposit Ceiling Rate and Average WMP Yield

This figure depicts the one-year deposit ceiling rate (green line) and average WMP yield (grey line) from 2007 to 2017. The area shaded grey spans from July 2012 to October 2014, standing for periods with stable deposit ceiling rate. The area shaded green (November 2014 - October 2015) represents periods with declining deposit ceiling rate.

Table A1: Characteristic Comparison Between Groups

This table provides a statistical comparison on a set of characteristics between groups that have issued single-city wealth management products (WMPs) and those that have never issued such products. Specifically, *Local* refers to groups that have issued single-city WMPs during our sample period, while *Nonlocal* refers to groups where these products have never been issued. Panel A presents a comparison of time-varying characteristics across groups classified at the bank level. The variable *Big*6 indicates whether a bank is one of Big Six state-owned banks in China. $TotalAssets$ reflects the value of total assets held by the bank, while $TotalLoans$ refers to the total loans issued, and $TotalDeposits$ denotes the total value of gathered deposits. Within the deposit category, $RetailDepo$ represents the amount of personal deposits, and $CorpDepo$ indicates the amount of corporate deposits. All monetary variables are expressed in units of billion RMB. *DAR* stands for the deposit-to-asset ratio, and $RetailDepoShare$ captures the proportion of personal deposits within total deposits. Lastly, $LoanGrowth$ and $DepositGrowth$ denote the annual growth rates of loans and deposits, respectively. Panel B outlines the comparison of time-varying city characteristics. *GDP* represents the total economic output of the city, while $GDPGrowth$ captures its annual growth rate. *WageAvg* refers to the average annual wage in the city, and *GovExpense* and $FixInvest$ denote the total expenditures and fixed investments made by the local government, respectively. *Saving* and *Loans* represent the total city-level savings and outstanding loans. $Ind1Share$, $Ind2Share$, and $Ind3Share$ reflect the respective shares of the primary, secondary, and tertiary sectors in the city's economy. $Population$ and $PopDensity$ correspond to the total population size and population density, respectively. *PopFin* represents the proportion of the population employed in the financial sector.

Variables	Obs(Nonlocal)	Mean(Nonlocal)	Obs(Local)	Mean(Local)	MeanDiff	t-Value
A.Bank-Year Feature						
Big 6	1,277	0	1,644	0.069	-0.069	-9.751***
Total Assets	414	98.711	979	2,145.809	-2,000	-8.550***
Total Loans	408	29.931	834	654.587	-624.656	-7.380***
Total Deposits	403	46.272	805	990.114	-943.841	-7.436***
RetailDepo	295	14.507	661	477.426	-462.919	-5.648***
CorpDepo	293	35.668	662	604.072	-568.403	-7.210***
DAR	414	0.917	979	0.931	-0.013	-9.533***
RetailDepoShare	331	0.368	947	0.307	0.062	5.909***
LoanGrowth	375	0.220	935	0.202	0.018	2.159**
DepositGrowth	375	0.196	935	0.180	0.016	1.696*
B.City-Year Feature						
GDP	3,044	52.238	4,865	157.529	-105.291	-20.318***
GDPGrowth	2,450	12.331	3,865	11.807	0.524	0.968
WageAvg	2,769	27.463	4,390	30.075	-2.613	-4.457***
GovExpense	2,991	9.985	4,552	23.132	-13.147	-13.440***
FixInvest	2,783	283.901	4,526	685.080	-401.179	-16.384***
Saving	2,307	48.146	3,441	154.225	-106.079	-19.219***
Loans	1,975	52.477	2,940	313.589	-261.112	-17.979***
Ind1Share	2,882	21.371	4,573	14.565	6.806	27.357***
Ind2Share	2,881	44.160	4,573	47.956	-3.796	-13.943***
Ind3Share	2,881	34.467	4,576	37.454	-2.986	-13.523***
Population	3,168	308.216	5,050	453.129	-144.914	-21.801***
PopDensity	2,665	349.405	4,353	487.307	-137.903	-16.404***
PopFin	2,483	0.781	3,910	2.122	-1.340	-18.992***

Table A2: Yield Premium of Single-city WMPs

This table examines the yield premium of single-city WMPs over other multi-region WMPs. The dependent variable is the expected yield of WMP. *Dum_Single* is a dummy variable that equals one for single-city WMPs, and zero otherwise. Control variables include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement (*Log*(*Initial Amount*)), and percentage of preserved principal (*Preservation Ratio*). Columns (1)-(3) cover the whole sample, WMPs issued by the Big 6 banks, and those issued by other banks, respectively. To exclude time-varying bank-level features, we control for bank × year-month fixed effects in all columns.

	WMP Expected Yield (%)		
	Full Sample	Big6	Others
	(1)	(2)	(3)
Dum_Single	0.189***	-0.004	0.331***
	(3.10)	(-0.06)	(7.29)
Maturity	0.001***	0.001	0.001***
	(4.07)	(0.65)	(5.18)
Log(Initial Amount)	0.077***	0.072*	0.085***
	(4.38)	(2.51)	(4.24)
Preservation Ratio	-0.009***	-0.009***	-0.009***
	(-22.76)	(-8.78)	(-20.97)
Bank × Year-Month FE	Yes	Yes	Yes
No. of obs	311,420	79,472	231,948
Adjusted R^2	0.661	0.564	0.705

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city.

Table A3: Alternative Inflation Shock Measures and WMP Expected Yield

This table investigates the impact of local inflation shocks on the expected yield of single-city WMPs, using raw inflation (columns (1)-(2)), inverse hyperbolic sine transformed raw inflation (columns (3)-(4)), and untransformed inflation shock (columns (3)-(4)) as proxies for local inflation. The regression model is: $Yield_{ibct} = \alpha\ Inflation\ Shock_{c(t-1)} + Controls + \phi_{bt} + \eta_{bcy} + \varepsilon_{ibct}$. The dependent variable is the expected yield (%) of local WMP i issued by bank b in city c at time (year-month) t. The key independent variable is $Inflation\ Shock_{c(t-1)}$, representing the lagged inflation surprise. Control variables include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement (*InitialAmount*), and percentage of preserved principal (*PreservationRatio*). To account for city-level time-varying factors, we also control for the number of bank branches (in log) in the city ($Log(BranchNum)$). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

Panel A. WMP Expected Yield							
	WMP Expected Yield (%)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Inflation Shock	0.588***						
	(0.168)						
Raw Inflation		0.005***	0.005***				
		(2.80)	(3.00)				
Raw Inflation (Transformed)				0.553***	0.529***		
				(2.83)	(3.03)		
Inflation Shock (Untransformed)						0.620***	0.588***
						(2.79)	(3.50)
Maturity	0.010***		0.010***		0.010***		0.010***
	(0.002)		(5.98)		(5.98)		(5.99)
Log(Initial Amount)	0.003		0.003		0.003		0.003
	(0.003)		(1.35)		(1.35)		(1.34)
Preservation Ratio	-0.002***		-0.002***		-0.002***		-0.002***
	(0.000)		(-13.50)		(-13.51)		(-13.51)
Log(BranchNum)	-0.075		-0.076		-0.076		-0.075
	(0.140)		(-0.55)		(-0.55)		(-0.53)
Bank × Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank × City × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	22,011	24,581	22,012	24,581	22,012	24,580	22,011
Pseudo R^2	0.898	0.862	0.898	0.862	0.898	0.862	0.898

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city.

Table A4: Alternative Inflation Shock Measures and the Issuance of Local WMPs

This table investigates the impact of local inflation shocks on the issuance of local WMPs using various versions of inflation shock. The regression model is: $NewIssue_{bct} = \beta\ Inflation\ Shock_{c(t-1)} + Controls + \phi_{bt} + \eta_{bc} + \rho_{cy} + \varepsilon_{bct}$. The dependent variable is the number of local WMPs issued by bank b in city c at time (year-month) t. Poisson regression is applied as the dependent variable is a count variable. The independent variable in column (1) is the inverse hyperbolic sine transformed local inflation shock used in the main text. In addition to the number of bank branches (in log) in the city ($Log(BranchNum)$) each month, we also control for the average maturity ($AvgMaturity$) and the average status of preservation ($AvgPreservation$) across all WMPs issued. The rest columns provide results using alternative inflation shock measures. The independent variables in columns (2) - (4), (5) - (7), and (8) - (10) are the CPI for city c in year-month $t-1$, the former with inverse hyperbolic sine transformation, and the difference between the CPI for city c at year-month $t-1$ and the 36-month rolling average CPI, respectively. We control for bank $\times$ year-month, bank $\times$ city, and city $\times$ year fixed effects in all columns.

	Number of WMPs									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Inflation Shock	-8.098***									
	(-3.12)									
Raw Inflation		-0.070**	-0.071**	-0.087***						
		(-2.53)	(-2.55)	(-3.41)						
Raw Inflation (Transformed)					-7.153**	-7.257**	-8.851***			
					(-2.53)	(-2.55)	(-3.41)			
Inflation Shock (Untransformed)								-6.005**	-6.132**	-8.098***
								(-2.19)	(-2.22)	(-3.12)
Log(BranchNum)	-0.919		-0.695	-0.902		-0.690	-0.896		-0.700	-0.919
	(-1.30)		(-0.96)	(-1.25)		(-0.95)	(-1.25)		(-0.98)	(-1.30)
AvgMaturity	0.250***			0.250***			0.250***			0.250***
	(22.28)			(22.25)			(22.25)			(22.28)
AvgPreservation	0.830***			0.831***			0.831***			0.830***
	(9.12)			(9.15)			(9.14)			(9.12)
Bank $\times$ Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank $\times$ City FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City $\times$ Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	23958	23978	23978	23978	23978	23978	23978	23958	23958	23958
Pseudo R^2	0.618	0.548	0.548	0.619	0.548	0.548	0.619	0.548	0.548	0.618

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city.

Table A5: Robustness Checks

This table presents the robustness checks on the impact of local inflation shocks on the expected WMP yield. Columns (1) - (3) present the results with the inflation shock variable calculated based on alternative rolling windows (12, 24, and 60 months). Columns (4) and (5) control for local housing price. We use two indices for the local housing price levels: the 70-city housing price index reported by the National Bureau of Statistics of China (HPI1, column (4)) and the 100-city China Real Estate Index (HPI2) constructed by Zhongzhi Research Institute (column (5)). Columns (6)–(7) present subsample results that split WMPs based on whether the contract includes any principal-guarantee terms. Columns (8)–(9) instead divide the sample according to whether institutional investors are eligible to purchase the product. Control variables include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement ($Log(Initial\ Amount)$), percentage of preserved principal (*Preservation Ratio*), and the number of bank branches (in log) in the city ($Log(BranchNum)$). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	WMP Promised Return (%)								
	Alternative Rolling Windows			Control for HPI		No Implicit Guarantee	With Implicit Guarantee	Institution-ineligible	Institution-eligible
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Inflation Shock				0.364*	0.347**	0.456***	-0.472	0.475***	-0.144
				(0.196)	(0.166)	(2.72)	(-1.37)	(2.89)	(-0.20)
Inflation Shock (12M)	0.449***								
	(0.150)								
Inflation Shock (24M)		0.597***							
		(0.172)							
Inflation Shock (60M)			0.544***						
			(0.154)						
HPI1				0.001***					
				(0.000)					
HPI1					0.082**				
					(0.036)				
Bank × Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank × City × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	22,011	22,011	22,011	20,632	18,328	17,714	4,022	19,906	2,216
Adj R^2	0.898	0.898	0.898	0.897	0.867	0.911	0.893	0.891	0.908

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city.

Table A6: Realized Yield of WMP

This table presents the main results using the realized yield instead of the expected yield of WMPs. Note that only a faction of the WMPs report the realized yield, which explains the much smaller sample size. Columns (1)-(2) presents the baseline analysis (see columns (1)-(2) in Table 2), focusing on how local inflation shocks affect the realized yield of single-city WMPs. Columns (3)-(7) instead examines the spillover effect of local inflation shocks on the realized yield of single-city WMPs issued by the same bank in other regions (corresponding to panel A of Table 7). Columns (8)-(10) reports the spillover effect on nonlocal WMPs, replicating the results in panel A of Table 8 using realized yield instead of expected yield. Control variables include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal (*Preservation Ratio*). Columns (1)-(7) also include the number of bank branches (in log) in the city ($Log(BranchNum)$). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	Realized Yield									
	Baseline Sample		Spillover on Other Local WMPs					Spillover on Nonlocal WMPs		
	All		All		Big6	Others	All	All	Big6	Others
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Inflation Shock	0.681***	0.451**								
	(3.19)	(2.66)								
Residualized Local Inflation Shock Exposure			-1.618**	-1.219*	-1.660	-1.160	-1.179*	0.440	-3.769*	0.664
			(0.777)	(0.657)	(2.467)	(0.709)	(0.692)	(0.461)	(1.816)	(0.490)
Residualized Local Inflation Shock Exposure × Big6							-0.307			
							(2.656)			
Bank × Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank × City × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	12,854	10,948	12,701	10,799	2,689	8,110	10,799	55,735	10,485	45,249
Adj R^2	0.865	0.899	0.873	0.910	0.856	0.928	0.910	0.863	0.836	0.867
p-value for between group coef test:					0.843				0.010	

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table A7: RMB Value of Local WMP Issuance

This table investigates the impact of local inflation shocks on the issuance RMB value of single-city WMPs. Due to the lack of data on the actual RMB amount of local WMPs, we use the upper limit of issuance size as a proxy for the actual size. Columns (1)-(2) replicate columns (1)-(2) in Table 6 using the total RMB value of single-city WMPs issued, instead of the number of single-city WMPs. Similarly, columns (3)-(8) and (9)-(11) replicate the spillover effect on other single-city WMP issuance and the issuance of nonlocal WMPs, as in panel B of Table 7 and 8. We include the number of bank branches (in log) in the city ($Log(BranchNum)$) each month as the control variable in columns (1)-(7). Details regarding the inclusion of fixed effects are provided at the bottom of the table.

	RMB Value of WMP Issuance									
	Baseline Sample		Spillover on Other Local WMPs					Spillover on Nonlocal WMPs		
	All		All		Big6	Others	All	All	Big6	Others
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Inflation Shock	-6.473**	-6.762**	17.416**							
	(-2.09)	(-2.08)	(7.667)							
Residualized Local Inflation Shock Exposure				18.109**	23.527**	13.814	5.608	3.777	-6.057	8.588
				(8.011)	(10.040)	(9.506)	(10.962)	(4.675)	(12.362)	(5.742)
Residualized Local Inflation Shock Exposure × Big6							29.277***			
							(9.632)			
Log(BranchNum)		-1.488		-1.438	-3.144**	0.217	-1.517			
		(-1.15)		(1.312)	(1.250)	(1.746)	(1.314)			
Bank × Year-Month, Bank × City, and City × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Bank × Year-Quarter, Bank × Month, Year-Month FE	No	No	No	No	No	No	No	Yes	Yes	Yes
No. of obs	17,449	17,449	16,956	16,956	4,099	11,056	16,956	4,846	618	4226
R^2 (Pseudo R^2)	0.630	0.631	0.628	0.628	0.647	0.589		0.978	0.959	0.974
p-value for between group coef test:					0.480				0.919	

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table A8: Spillover Effect on Other Single-city WMPs with Weighted Inflation Exposure

This table replicates Table 7 using a weighted local inflation shock exposure measure. We explore how banks' exposure to local inflation shocks in other cities affects the expected yield (Panel A) and the issuance of local WMPs (Panel B). For bank b in city c, the bank-city weight is $BranchShare_{bct}WMPNum_{bc(t-36,t-1)}$. $BranchShare_{bct}$ is the ratio of the number of bank b branches in city c over the total number of bank branches of bank b, which captures the importance of city c for bank b. $WMPNum_{bc(t-36,t-1)}$ is the number of single-city WMPs issued by bank b in city c during the past 36 months. The weighted local inflation shock measures integrates both the number of single-city WMPs and the importance of the city within the bank branch network. The weighted local inflation shock exposure is then: $\frac{\sum BranchShare_{bct}WMPNum_{bc(t-36,t-1)}InflaShock_{ct}}{\sum BranchShare_{bct}WMPNum_{bc(t-36,t-1)}}$. Again, to exclude the impact of inflation shock in the focal city, we regress the weighted local inflation shock exposure against the local inflation shock in the focal city. The residual from the previous regression captures the banks' exposure to local inflation shocks in other cities. Columns (1) - (2) use the whole sample, while columns (3) and (4) focus on the big six state-owned banks and other banks, respectively. Poisson regression is applied in Panel B as the dependent variable is a count-like variable. Control variables in panel A include WMP contract characteristics such as maturity (*Maturity*), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal (*Preservation Ratio*). Panel B controls for the number of bank branches (in log) in the city ($Log(BranchNum)$) each month. The inclusion of fixed effects are detailed at the bottom of the panels.

Panel A. Intensive Margin				
	WMP Expected Yield (%)			
	All		Big6	Others
	(1)	(2)	(3)	(4)
Residualized Local Inflation Shock Exposure	-1.384***	-1.288***	-1.903*	-0.818
	(-3.10)	(-3.37)	(-2.01)	(-1.63)
Maturity		0.009***	0.006**	0.011***
		(6.00)	(2.83)	(10.68)
Log(Initial Amount)		0.004	0.006***	-0.003
		(1.46)	(3.30)	(-1.30)
Preservation Ratio		-0.002***	-0.002***	-0.002***
		(-12.98)	(-8.80)	(-12.53)
Log(BranchNum)		-0.052	0.161	-0.150
		(-0.37)	(1.06)	(-0.85)
Bank-YM FE	Yes	Yes	Yes	Yes
Bank-City-Year FE	Yes	Yes	Yes	Yes
No. of obs	20302	20302	7305	12997
Adj R^2	0.893	0.893	0.837	0.924
Panel B. Extensive Margin				
	Number of WMPs			
	All		Big6	Others
	(1)	(2)	(3)	(4)
Residualized Local Inflation Shock Exposure	10.886**	10.949**	26.278**	0.066
	(2.04)	(2.07)	(2.14)	(0.01)
Log(BranchNum)		-0.198	-1.575	0.559
		(-0.27)	(-1.38)	(0.45)
Bank-YM FE	Yes	Yes	Yes	Yes
Bank-City-Year FE	Yes	Yes	Yes	Yes
No. of obs	17930	17930	4019	12167
Adj. R^2	0.542	0.542	0.573	0.502

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.

Table A9: Spillover Effect on Nonlocal WMPs and Weighted Inflation Exposure

This table replicates Table 8 using a weighted local inflation shock exposure measure. We explore how banks' exposure to local inflation shocks due to single-city WMP issuance affects the expected yield (Panel A) and the issuance (Panel B) of their nonlocal WMPs. For bank b in city c, the bank-city weight is $BranchShare_{bct}WMPNum_{bc(t-36,t-1)}$. $BranchShare_{bct}$ is the ratio of the number of bank b branches in city c over the total number of bank branches of bank b, which captures the importance of city c for bank b. $WMPNum_{bc(t-36,t-1)}$ is the number of single-city WMPs issued by bank b in city c during the past 36 months. The weighted local inflation shock measures integrates both the number of single-city WMPs and the importance of the city within the bank branch network. The weighted local inflation shock exposure is then: $\frac{\sum BranchShare_{bct}WMPNum_{bc(t-36,t-1)}InflaShock_{ct}}{\sum BranchShare_{bct}WMPNum_{bc(t-36,t-1)}}$. Nonlocal WMPs are further decomposed into those with nation-wide coverage ($National = 1$) and the rest that cover more than one city ($Multi\text{-}region = 1$). Control variables in panel A include WMP contract characteristics such as maturity ($Maturity$), minimum investment requirement ($Log(Initial\ Amount)$), and percentage of preserved principal ($Preservation\ Ratio$). The inclusion of fixed effects are detailed at the bottom of the panels.

Panel A. Intensive Margin						
	WMP Expected Yield (%)					
	Full	Big6	Other	Full	Big6	Other
	(1)	(2)	(3)	(5)	(6)	(7)
Local Inflation Shock Exposure	-2.505*	-8.152	-1.754	5.173	7.283*	1.808
	(-1.98)	(-1.91)	(-0.70)	(0.74)	(2.33)	(0.15)
Local Inflation Shock Exposure × National				-8.757	-15.805*	-4.826
				(-1.06)	(-2.50)	(-0.29)
National				-0.029	0.007	-0.048***
				(-1.62)	(0.20)	(-3.25)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Bank × Year-Quarter, Bank × Month, Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	116344	24788	91554	116344	24788	91554
Adj R^2	0.800	0.736	0.826	0.801	0.736	0.827
Panel B. Extensive Margin						
	Number of WMPs					
	All			Big6		
	All	National	Multi-region	All	National	Multi-region
	(1)	(2)	(3)	(4)	(5)	(6)
Local Inflation Shock Exposure	-7.700	-9.246	-5.823	8.621	5.750	11.427
	(-0.35)	(-0.46)	(-0.25)	(0.28)	(0.23)	(0.33)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Bank × Year-Quarter, Bank × Month, Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs	5268	4722	5268	548	531	548
Pseudo R^2	0.912	0.865	0.869	0.937	0.902	0.905

*, **, *** stands for significance at 10%, 5%, 1% level, respectively. T statistics reported in the parentheses below estimated parameters. Standard errors are clustered by city. The bottom row provides the p-values for between group coefficient tests.