Expecting More Tomorrow

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Abstract

We study how employees respond to an expected and permanent salary increase. In standard economic models, agents would spend more before the salary increase and, potentially, utilize short-term unsecured debt. We first conduct a large-scale representative online survey and find that the reported anticipatory spending and borrowing responses to an expected and permanent salary increase is limited. Next, we use anonymized information on income, spending and account balances from a German bank to analyze by how much employees actually expand their spending and borrowing ahead of a permanent salary increase of at least 3% from the same employer. Consistent with the survey data, we find that the majority of employees wait until the actual salary increase before expanding their spending by any measurable amount. Furthermore, borrowing does not seem to be affected by the expected salary increase even though the bank offers overdraft facilities. By combining transaction-level consumption data with survey evidence, we show that consumption remains closely tied to realized income rather than expected permanent income changes, with little corresponding adjustment in borrowing behavior.

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1 Introduction

Standard models of intertemporal consumption behavior, which build on the life-cycle / permanent income hypothesis (LC/PIH), suggest that consumers smooth consumption based on their expected long-term income rather than their current income. A permanent and fully expected salary increase would lead consumers to increase their consumption immediately upon becoming aware of the increase unless they are constrained in their borrowing.[1]

We first present the results of a large-scale representative online survey conducted together with YouGov.[2] We find that the reported anticipatory spending responses to expected and permanent salary increases are limited. For realized salary increases, i.e., respondents reported to have experienced a salary increase in the last 12 months, the overwhelming majority of respondents reported no change in spending prior to receiving the first higher salary payment. Even among those who experienced large salary increases of at least 10% and were informed at least four weeks in advance, anticipatory adjustments remain low. The stated responses under a hypothetical but otherwise comparable salary increase scenario closely mirror the observed behavior.

Thus, across both realized and hypothetical settings, anticipatory spending does usually not occur and, when it does, is predominantly financed through existing savings rather than increased borrowing. Reliance on short-term unsecured credit, including overdraft facilities, is limited even in scenarios featuring large, predictable income gains. Taken together, the survey evidence suggests that the absence of anticipatory spending responses is not primarily driven by

[1] Buffer stock models also predict that consumers facing a positive, permanent income shock increase their consumption immediately. Even if they may choose to have a buffer against future income fluctuations, that buffer would be present before the expected salary increase, or to pay down debts, unless they are credit constrained.

[2] The survey is based on online interviews with members of the YouGov panel who had agreed to participate in advance. A total of 3,851 employed individuals in Germany were surveyed between November 24 and December 5, 2025. The sample was quota-based with respect to age, gender, region, and industry.

lack of information or credit access but instead reflects a broader tendency for households to postpone consumption adjustments until income increases are actually received.

We then turn to anonymized information on income, spending, account balances and overdraft usage from a German bank to analyze what fraction and by how much employees actually expand their spending and borrowing ahead of a permanent salary increases of at least 3% from their current employer. Building on the survey results and given that the German labor market is very rigid, we argue that most employees know about the increase at least a month in advance. According to the LC/PIH, they should start increasing their consumption even before the increase takes effect, anticipating the higher salary in the future. If they do not have available liquidity, then employees should borrow using overdrafts, which is a common form of unsecured debt used in Germany.[3]

In the bank account data, we find that the majority of employees wait until the actual salary increase before expanding their spending by any measurable amount. Short-term unsecured borrowing does not seem to be affected by the expected salary increase either. Since it is common practice that banks in Germany grant their customers an overdraft facility amounting to twice or three times their monthly income liquidity constraints are unlikely to explain this result.

Our paper contributes to the extant literature documenting that consumption is excessively sensitive to current income, rather than expected long-term income. Studies that look at consumption responses to expected permanent wage increases are Shea (1995), who use households from the Panel Study of Income Dynamics (PSID) who are likely governed by union contracts to show that consumption responds only marginally to expected permanent salary in-

[3]Banks commonly, provide overdraft facilities at least two or three times employee's regular salaries. There is no discrete overdraft fee, and interest, currently at around 10% per annum, is charged on a quarterly basis given the exact amounts and days the overdraft facility is used.

creases. Because (Attanasio and Weber, 1995) criticize the PSID consumption data, we build on this work by using a more accurate measure for consumption, derived from bank transactions, in combination with survey evidence. In addition, we extend the existing literature by analyzing borrowing responses alongside consumption.

Additionally, the literature primarily examined expected or unexpected, immediate, and transitory increases or shortfalls in income. Agarwal and Qian (2014) look at unexpected changes in income, Fuster et al. (2021) ask individuals what they would do with a transitory windfall, Baugh et al. (2021) and Parker and Souleles (2019) look at expected but transitory windfalls from tax refunds, Hsieh (2003) and Kueng (2018) look at the Alaskan fund payouts, Fagereng et al. (2021) use lottery payments, and Stephens Jr (2004), Baker (2018), and Pettinicchi and Vellekoop (2019) look at expected job losses, which are transitory negative shocks. Ganong et al. (2020) look at income shocks, but not necessarily expected ones. Ganong and Noel (2019) and Ganong et al. (2022) look at spending during unemployment spells. Gelman et al. (2020), and Baker and Yannelis (2017) look at government shutdowns. (Gelman et al., 2014) and Olafsson and Pagel (2018) look at regular salary payments. Jappelli and Pistaferri (2014), and Christelis et al. (2019) look at unexpected transitory income changes and Parker et al. (2013), and Parker and Souleles (2019) look at economic stimulus payments and tax rebates. Christelis et al. (2015) look at consumption during the Great Depression. Cullen et al. (2005) look at home energy shocks. Finally, Aydin (2022) looks at shocks to credit limits.

There is an extant theoretical literature documenting that housholds' consumption is determined by their expected permanent income, most notably, Friedman (1957), Hall (1978), Deaton (1992), Zeldes (1989), and Carroll (1997). While models of rational inattention (Reis (2006), Luo (2008), Gabaix (2016))

can potentially explain the lack of anticipation effects, they are inconsistent with respect to the natural salience of a salary increase of larger magnitudes. An alternative model which rationalizes our findings is Addoum et al. (2018) who argue that consumers feel the license to spend only at the arrival of income.

The remainder of this paper is structured as follows. Section 2 provides an overview of the data we use. Section 3 states our empirical strategy. Section 4 shows survey as well as regression results from the bank account data and Section 5 concludes.

2 Data

2.1 Survey Data

We first present the results of a large-scale, representative online survey conducted together with YouGov. The survey is based on online interviews with members of the YouGov panel who had consented to participate in advance. A total of 3,851 employed individuals in Germany were surveyed between November 24 and December 5, 2025. The sample was quota-based with respect to age, gender, region, and industry.

The survey elicits detailed information on the incidence, size, and advance notice of permanent salary increases. This information allows us to assess employees' expectations about future income and to evaluate whether households adjust spending and borrowing behavior in anticipation of higher income.

Table 1 summarizes the main demographic characteristics of the survey sample. The sample is broadly balanced by gender and is concentrated among prime-age and older workers, with nearly 85% of respondents aged 35 or above. Monthly net income is widely distributed, with the majority of respondents earning between EUR 1,500 and EUR 3,500. Overall, the sample closely reflects the

core working population in Germany, making it well suited for studying behavioral responses to anticipated and permanent income changes in a rigid labor market environment.

Table 1: Sample Characteristics

	Count	Share (%)
Panel A: Gender		
Male	2,099	54.51
Female	1,752	45.49
Panel B: Age		
18–24 years	41	1.06
25–34 years	538	13.97
35–44 years	1,071	27.81
45–54 years	1,060	27.53
55 years and older	1,141	29.63
Panel C: Monthly Net Income (EUR)		
Less than 500	23	0.60
500 to less than 1,000	131	3.40
1,000 to less than 1,500	308	8.00
1,500 to less than 2,000	538	13.97
2,000 to less than 2,500	717	18.62
2,500 to less than 3,000	567	14.72
3,000 to less than 3,500	414	10.75
3,500 to less than 4,000	294	7.63
4,000 to less than 4,500	161	4.18
4,500 to less than 5,000	115	2.99
5,000 to less than 10,000	192	4.99
10,000 or more	34	0.88
No personal income	3	0.08
No answer	354	9.19
Total	3,851	100.00

Notes: This table reports summary statistics for the survey sample. The survey was conducted online in cooperation with YouGov between November 24 and December 5, 2024, and includes 3,851 employed individuals in Germany aged 18 and above. The sample is quota-based with respect to age, gender, region, and industry. Percentages may not sum to 100 due to rounding.

Table 2 reports the incidence and sources of permanent salary increases over the past 12 months. A majority of respondents report having received a permanent salary increase, most commonly as part of "regular salary adjustments"

while increases driven by promotions or job changes are substantially less frequent.

Table 2: Permanent Salary Increases in the Last 12 Months

Response category	**Count**	**Share (%)**
Yes, as part of a regular salary adjustment	1,791	46.51
Yes, due to a promotion	301	7.82
Yes, due to a job change	120	3.12
No	1,639	42.56
Total	3,851	100.00

Notes: This table reports responses to the question whether respondents received a permanent salary increase in the past 12 months and the source of the increase. Salary increases include regular salary adjustments, promotions, and job changes. Percentages are computed relative to the full survey sample of 3,851 respondents and may not sum to 100 due to rounding.

Conditional on having received a salary increase, Table 3 summarizes the magnitude of the increase. Salary increases are typically moderate in size, with most respondents reporting increases below 10%, while larger increases are comparatively rare.

Table 3: Approximate Percentage Increase in Monthly Net Salary

Response category	**Count**	**Share (%)**
Less than 3%	706	31.92
3% to less than 10%	1,011	45.71
10% to less than 15%	294	13.29
15% or more	81	3.66
Don't know / no answer	120	5.42
Total	2,212	100.00

Notes: This table reports the self-reported magnitude of permanent salary increases among respondents who indicate having received a salary increase in the past 12 months. Percentages are computed relative to the subsample of respondents reporting a salary increase (N = 2,212). "Don't know / no answer" indicates respondents who were unable or unwilling to quantify the size of the increase. Percentages may not sum to 100 due to rounding.

Table 4 shows that salary increases are typically anticipated well in advance. A majority of respondents report learning about the increase at least four weeks

before the higher salary is paid.

Table 4: Advance Notice of Salary Increases

Response category	**Count**	**Share (%)**
Less than 2 weeks	277	12.52
2 to less than 4 weeks	542	24.50
4 to less than 8 weeks	496	22.42
8 weeks or longer	664	30.02
Don't know / no answer	233	10.53
Total	2,212	100.00

Notes: This table reports respondents' self-reported advance notice of permanent salary increases, measured as the time between learning about the increase and the receipt of the higher salary payment. Percentages are computed relative to the subsample of respondents reporting a salary increase (N = 2,212). Percentages may not sum to 100 due to rounding.

Taken together, Tables 2, 3, and 4 document three key features of salary increases in our sample. First, permanent salary increases are common and predominantly arise from regular salary adjustments rather than job changes or promotions. Second, while most increases are moderate in size, a non-negligible share of employees experiences economically meaningful income gains. Third, and crucially for our analysis, salary increases are typically anticipated well in advance. These patterns imply that expected and permanent income changes are both salient and predictable for a large fraction of employees, providing a clean setting to study whether households adjust spending and borrowing behavior in anticipation of higher future permanent income.

2.2 Bank account data

We complement our survey data with anonymous transaction-level bank data from German consumers on income (i.e., credit transfers incl. cash deposits) and spending (i.e., direct transfers, direct debits, card transactions including cash withdrawals), as well as the main account balance and overdraft availability. We also observe certain demographics (i.e., age-group and gender).

We identify employer-employee pairs using credit transfer patterns in the following procedure: First, we filter all credit transfers in our sample and only keep transfers that are labeled as a salary by the categorization engine of the bank. Then we leverage anonymized information on the originator of the salary transfers to aggregate salary transactions on a monthly originator-beneficiary level. We define a salary increase from the same employer, if the salary of an employer-employee pair in the current month is at least 3% higher than in the previous month of the same pair. To ensure its permanent nature we further require the salary to be at least 3% higher in each of the five months following an increase than in each of the five months before the increase.

Table 5 provides summary statistics for monthly income, spending, and balances as well as spending relative to income and overdraft availability as well as usage. The median monthly income of our sample is 4,226€ which is slightly above official statistics which indicate an average household income of 3,726€.[4]

Around a third of users have overdrafts enabled and around 12% of user-month pairs had an overdraft during the month. The negative balance indicator equals one if the balance on the main account is below zero on average during the month. This is less likely at around 7% of user-month pairs whereas the indicator that the balance was negative at any point during the months, i.e., the user had an overdraft, is around 12%. [5] We can also see that salary increases are quite high on average, with a mean of 34% and a median of 21%. This is mainly due to bonus payments, which often accompany regular salary increases.

[4]The official statistics stem from the German Income and Consumption Survey in 2018.

[5]This is consistent with survey evidence that 8.8% of people have a current overdraft and 46% of people occasionally use overdrafts from ING-DiBa in 2018. See `https://www.asscompact.de/nachrichten/konsum-auf-dispo-oder-rate-das-kreditverhalten-der-deutschen`.

Table 5: Summary statistics

	Mean	Standard deviation	Median	5th percentile	25th percentile	75th percentile	95th percentile
Spending (monthly)	7,336.02	24,364.06	4,160.00	1,036.00	2,532.00	7,181.00	21,495.00
Salary (monthly)	2,766.92	6,290.68	2,468.00	0.00	136.00	3,693.00	6,665.00
Income (monthly)	7,357.45	24,576.98	4,226.00	1,123.00	2,739.00	7,014.00	21,400.00
Monthly spending relative to income	2.58	458.18	0.99	0.45	0.82	1.15	1.83
Percentage increase in salary	0.34	0.63	0.21	0.04	0.11	0.37	1.00
Balance	12,020.88	60,388.43	3,495.00	-1,432.00	907.50	12,142.50	50,637.08
Overdraft enabled	0.31	0.46	0.00	0.00	0.00	1.00	1.00
Overdraft	0.12	0.33	0.00	0.00	0.00	0.00	1.00
Negative balance indicator	0.07	0.26	0.00	0.00	0.00	0.00	1.00
Any negative balance during month	0.12	0.33	0.00	0.00	0.00	0.00	1.00
Observations (months) per user	42						
Number of users per month	35,000						
Observations (total)	1,470,000						

Notes: All spending, income and balance numbers are in Euros, winsorized at the right tail 1% level, except the negative balance indicator.

3 Methodology

We first aggregate the data to the calendar month level. We then estimate the effects of the salary increase by running the following regression

$$Y_{i,month} = \sum_{k=-5}^{+5} \beta_k \times I_i(Raise_{month+k}) + \delta_{mofy} + \eta_i + \varepsilon_{i,month} \qquad (1)$$

where $Y_{i,month}$ equals the outcome variable of interest, i.e. spending, balances, or negative balance indicator. $Raise_{i,month}$ is an indicator that is equal to 1 if employee i got a raise at time $month + k$ and that is equal to 0 otherwise. The β_k coefficients thus measure by how much the outcome variables deviate from the average in the months surrounding the salary increase. δ_{mofy} and η_i equal month-of-year and individual fixed effects. Standard errors are clustered at the individual level.

We employ a stacked regression design using never-treated individuals as

controls, i.e., for each month in which at least one employee received a salary increase, we form a stack of the employees with a salary increase and compare them with the control group. We also restrict to looking at the first salary increase of each individual and cut the data at the plus/minus five-months marks around the salary increase. Unit and calendar fixed effects are then interacted with the stack variable. We use absolute outcomes for the continuous variables winsorized at right tail 1% level.

4 Results

4.1 Survey data

We now turn to the analysis of how employees adjust spending behavior in response to salary increases, distinguishing between realized and hypothetical but well-defined salary increases.

4.1.1 Realized salary increases

We first analyze spending and borrowing behavior among respondents who report having received a permanent salary increase in the past 12 months. Table 6 summarizes self-reported spending adjustments prior to the receipt of a higher salary payment. The dominant response is no change in spending behavior: more than 80% of respondents report that their expenditures remained unchanged before the higher salary was paid. Only a small minority report increasing spending in advance, and decreases in spending are similarly rare. Overall, these results indicate limited anticipatory adjustment of consumption in response to realized and mostly expected permanent salary increases.

Table 6: Spending Adjustments Prior to the First Higher Salary Payment

Response category	**Count**	**Share (%)**
Yes, increased substantially	28	1.27
Yes, increased somewhat	198	8.95
No change	1,785	80.70
Yes, decreased somewhat	121	5.47
Yes, decreased substantially	27	1.22
Don't know / no answer	53	2.51
Total	2,212	100.00

Notes: This table reports responses to the question whether respondents adjusted their spending before receiving the first higher salary payment associated with a permanent salary increase. Percentages are computed relative to the full survey sample of 2,212 respondents and may not sum to 100 due to rounding.

Table 7 summarizes how respondents who increased spending prior to receiving a higher salary financed these adjustments. The most common financing source is existing savings, reported by about half of respondents. A smaller but economically meaningful share relied on short-term credit, primarily through overdraft facilities, while borrowing from other sources such as family, friends, or credit cards is less common. Overall, these results suggest that even among the minority of employees that engage in anticipatory spending, adjustments are predominantly financed through internal liquidity rather than increased borrowing.

Table 7: Financing of Anticipatory Spending Adjustments

Financing source	**Count**	**Share (%)**
Used savings	115	50.88
Overdrew checking account (overdraft credit)	61	26.99
Borrowed money (e.g., friends, family, credit card)	36	15.93
Other sources	34	15.04
Don't know / no answer	23	10.18
Respondents	226	

Notes: This table reports how respondents financed spending adjustments made prior to receiving the first higher salary payment. The sample is restricted to respondents who report having increased their spending in advance of a realized salary increase (N = 226). Respondents could select multiple financing sources; therefore, shares do not sum to 100. Percentages are computed relative to the subsample size.

To circumvent the argument that the salary increase is not large enough or anticipated Table 8 focuses on a subsample of employees who experienced large and well-anticipated salary increases. More specifically, we focus on employees who received a permanent salary increase of at least 10% and were noticed at least 4 weeks prior. Even in this group, anticipatory spending adjustments remain limited. Nearly three quarters of respondents report no change in spending prior to receiving the higher salary payment. While the share of respondents reporting increased spending is 10 percentage points higher than in the full sample, it remains a clear minority. Overall, these findings indicate that even sizable and predictable permanent salary increases do not lead most employees to adjust spending in advance.

Table 8: Spending Adjustments Prior to Large and Anticipated Salary Increases

Response category	**Count**	**Share (%)**
Yes, increased substantially	9	4.52
Yes, increased somewhat	32	16.08
No change	146	73.37
Yes, decreased somewhat	9	4.52
Yes, decreased substantially	3	1.51
Total	199	100.00

Notes: This table reports self-reported spending adjustments prior to receiving the first higher salary payment. The sample is restricted to respondents who report (i) having received a permanent salary increase of at least 10% and (ii) having learned about the increase at least four weeks in advance (N = 199). Percentages may not sum to 100 due to rounding.

Table 9 summarizes how respondents with large and well-anticipated salary increases financed their anticipatory spending adjustments. As in the broader sample, the most common financing source is existing savings, reported by more than half of respondents. A smaller but non-negligible share relied on short-term credit, primarily through overdraft facilities or borrowing from other sources. Overall, even among employees facing sizable and predictable per-

manent salary increases, anticipatory spending adjustments are predominantly financed through internal liquidity rather than increased borrowing.

Table 9: Financing of Anticipatory Spending for Large and Anticipated Salary Increases

Financing source	**Count**	**Share (%)**
Used savings	22	53.66
Overdrew checking account (overdraft credit)	10	24.39
Borrowed money (e.g., friends, family, credit card)	9	21.95
Other sources	6	14.63
Don't know / no answer	3	7.32
Respondents	41	

Notes: This table reports how respondents financed spending adjustments made prior to receiving the first higher salary payment. The sample is restricted to respondents who (i) experienced a permanent salary increase of at least 10%, (ii) learned about the increase at least four weeks in advance, and (iii) report having adjusted their spending prior to the salary increase (N = 41). Respondents could select multiple financing sources; therefore, shares do not sum to 100. Percentages are computed relative to the subsample size.

4.1.2 Spending Responses to Hypothetical Salary Increases

To isolate anticipatory spending behavior under controlled expectations, we next focus on respondents who did not experience a salary increase in the past 12 months. These respondents were presented with the following hypothetical scenario:

> *"Suppose your monthly net salary is expected to increase permanently by 10–15% in approximately eight weeks. Would you adjust your spending before receiving the first higher salary payment? (For example, with a monthly net salary of EUR 2,500, a 10% increase corresponds to approximately EUR 250.)"*

This hypothetical scenario mirrors the key features of realized salary increases observed in the data: the increase is permanent, sizable, and anticipated well in advance. Responses therefore provide insight into stated spending intentions in the absence of liquidity constraints or realized income changes.

Table 10 reports stated spending intentions under a hypothetical but well-defined salary increase scenario. The dominant response mirrors the pattern observed for realized salary increases: the vast majority of respondents indicate that they would not adjust spending prior to receiving the higher salary payment. Only a small minority report an intention to increase spending in advance, while intended spending reductions are similarly rare. Overall, these stated responses suggest that even when income increases are framed as sizable, permanent, and anticipated, most households do not plan to adjust consumption ahead of the actual increase.

Table 10: Hypothetical Spending Responses to an Anticipated Salary Increase

Response category	**Count**	**Share (%)**
Yes, increased substantially	9	0.55
Yes, increased somewhat	130	7.93
Yes, decreased somewhat	45	2.75
Yes, decreased substantially	21	1.28
No change	1,313	80.11
Don't know / no answer	121	7.38
Total	1,639	100.00

Notes: This table reports stated spending intentions in response to a hypothetical salary increase scenario. The sample is restricted to respondents who did not experience a salary increase in the past 12 months (N = 1,639). Respondents were asked to imagine a permanent increase in monthly net salary of 10–15% occurring in approximately eight weeks and to indicate whether they would adjust spending prior to receiving the first higher salary payment. Percentages may not sum to 100 due to rounding.

Table 11 reports when respondents who intend to increase spending under the hypothetical salary increase scenario would begin doing so. Even within this selected group, anticipatory behavior is concentrated close to the receipt of the higher salary payment: more than half report that they would increase spending only in the week of the first higher salary. Only a small minority indicate that they would adjust spending several weeks in advance. Overall, these responses suggest that even when households plan to increase consumption in response to

anticipated income gains, such adjustments are typically delayed until shortly before the income is realized.

Table 11: Timing of Anticipatory Spending Adjustments under a Hypothetical Salary Increase

Timing of spending increase	**Count**	**Share (%)**
Immediately (about 8 weeks before)	12	8.63
4 to less than 8 weeks before	9	6.47
2 to less than 4 weeks before	13	9.35
1 to less than 2 weeks before	23	16.55
In the week of the first higher salary payment	72	51.80
Don't know / no answer	10	7.19
Total	139	100.00

Notes: This table reports the timing of intended spending increases among respondents who, under the hypothetical salary increase scenario, indicate that they would increase spending prior to receiving the first higher salary payment. The sample is restricted to respondents who stated an intention to increase spending in advance (N = 139). Percentages may not sum to 100 due to rounding.

Table 12 summarizes how respondents who intend to increase spending under the hypothetical salary increase scenario would finance these adjustments. Similar to realized behavior, the most frequently cited source is existing savings, followed by short-term credit through overdraft facilities. Borrowing from other sources, such as family, friends, or credit cards, is relatively uncommon. Overall, stated financing choices suggest that even intended anticipatory spending is primarily based on internal liquidity rather than reliance on external borrowing.

Table 12: Financing of Intended Anticipatory Spending under a Hypothetical Salary Increase

Financing source	**Count**	**Share (%)**
Would use savings	28	49.12
Would overdraw checking account (overdraft credit)	20	35.09
Would borrow money (e.g., family, friends, credit card)	5	8.77
Other sources	3	2.16
Don't know / no answer	6	4.32
Respondents	139	

Notes: This table reports intended financing sources for spending increases under a hypothetical salary increase scenario. The sample is restricted to respondents who indicate that they would increase spending prior to receiving the first higher salary payment (N = 139). Respondents could select multiple financing sources; therefore, shares do not sum to 100. Percentages are computed relative to the subsample size.

4.1.3 Summary of Survey Evidence

Across all survey specifications, anticipatory spending responses to expected and permanent salary increases are limited. For realized salary increases, the overwhelming majority of respondents report no change in spending prior to receiving the first higher salary payment. Even among those who experienced large salary increases of at least 10% and were informed at least four weeks in advance, anticipatory adjustments remain the exception rather than the rule. While the share of respondents reporting increased spending is somewhat higher in this subsample, most households still wait until the higher income is realized.

Stated responses under a hypothetical but otherwise comparable salary increase scenario closely mirror observed behavior. When asked to imagine a permanent and sizable salary increase occurring in approximately eight weeks, most respondents indicate that they would not adjust spending in advance. Among the minority who report an intention to increase spending, planned adjustments are typically delayed until shortly before, or even the week of, the first higher salary payment.

Finally, across both realized and hypothetical settings, anticipatory spending—when it occurs—is predominantly financed through existing savings rather

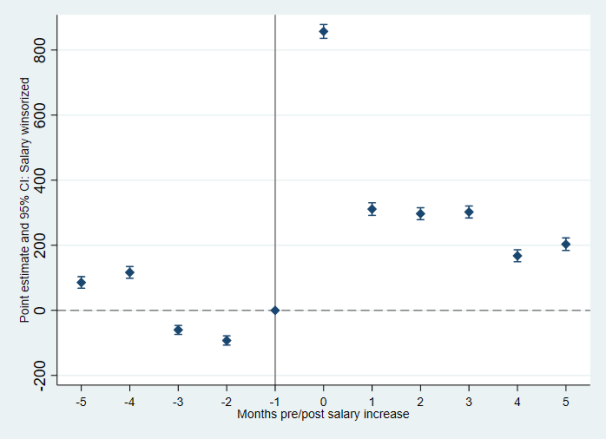
than increased borrowing. Reliance on short-term unsecured credit, including overdraft facilities, is limited even in scenarios featuring large, predictable income gains. Taken together, the survey evidence suggests that the absence of anticipatory spending responses is not primarily driven by lack of information or credit access, but instead reflects a broader tendency for households to postpone consumption adjustments until income increases are actually received.

4.2 Bank account data

Figures 1, 2 and 3 display the salary, spending, balance and borrowing responses of employees to salary increases. More specifically, they display the β_k coefficients and their 95% confidence intervals of regression equation 1.

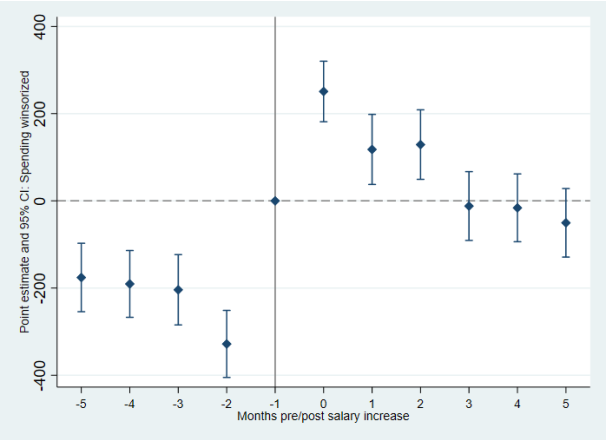
Figure 1 shows employee salaries, that, by construction, increase. Figure 2 shows that employee spending is quite stable in the months prior to the salary increase, but rises sharply in the month of the increase. In the following months spending decreases slightly, but remains above pre salary increase levels.

Figure 1: Impact of the salary increase on salaries



Notes: Stacked regression design, data aggregated to the calendar month-by-year level. Each stack corresponds to a month in which at least one user received a raise, controls are users that never got a raise. Data is cut at the plus/minus five-month mark. Data is winsorized at right tail 1% level.

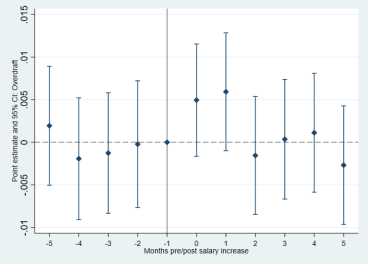
Figure 2: Impact of the salary increase on spending



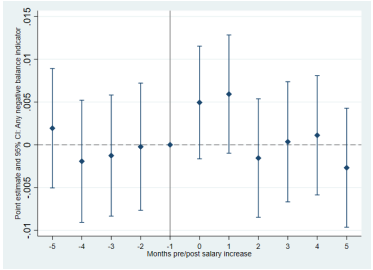
Notes: Stacked regression design, data aggregated to the calendar month-by-year level. Each stack corresponds to a month in which at least one user received a raise, controls are users that never got a raise. Data is cut at the plus/minus five-month mark. Data is winsorized at right tail 1% level.

Figures 3a and 3b show the impact of the salary increase on overdrafts and the negative balance indicator (any during the month) respectively. Both indicators are, for the most part, insignificant but all coefficients are tight estimates around zero. We can rule out an increase larger than 1% in the months before the salary increase. This is small given that all borrowers could use the bank's provided overdraft facilities (authorized and unauthorized) and it is not uncommon to do so.

Figure 3: Impact of the salary increase



(a) On overdrafts

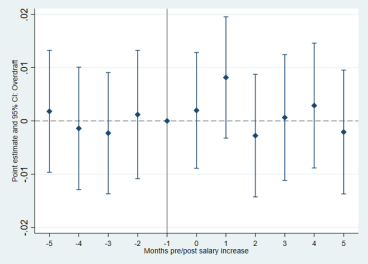


(b) On negative balance indicator (any during the month)

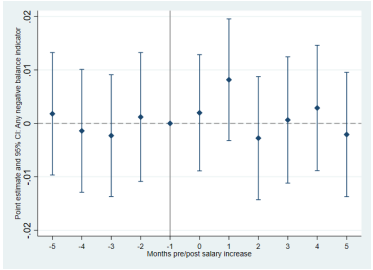
Notes: Stacked regression design, data aggregated to the calendar month-by-year level. Each stack corresponds to a month in which at least one user received a raise, controls are users that never got a raise. Data is cut at the plus/minus five-month mark. Individual and month-by-year fixed effects interacted with stack variable. Data is winsorized at right tail 1% level (if not the indicator variable).

Figure 4 and 5 show the stacked regression results for overdrafts and the negative balance indicator (any during the month) for the subsample of individuals with low income and below median balances. For this subsample, we do not find a change in overdrafts or the negative balance indicator (any during the month), tightly estimated to rule out increases or decreases of more than 1%, before or after the salary increase. Individuals appear to just respond proportionally to income in their spending. For the subsample of individuals with lower income, we also find tightly estimated zero coefficients for the overdraft or negative balance indicator (any during the month).

Figure 4: Impact of the salary increase: users with below median liquidity



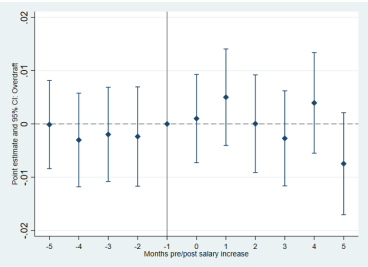
(a) On overdrafts



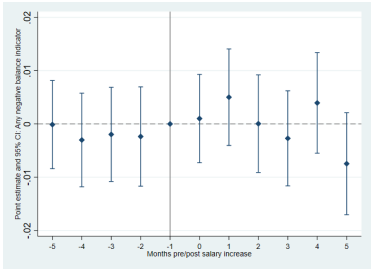
(b) On negative balance indicator (any during the month)

Notes: Stacked regression design, data aggregated to the calendar month-by-year level. Each stack corresponds to a month in which at least one user received a raise, controls are users that never got a raise. Data is cut at the plus/minus five-month mark. Individual and month-by-year fixed effects interacted with stack variable. Data is winsorized at right tail 1% level (if not the indicator variable). Subsample of individuals with below median balances.

Figure 5: Impact of the salary increase: users with below median income



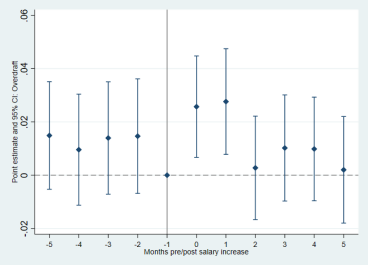
(a) On overdrafts



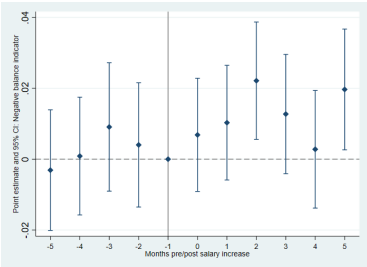
(b) On negative balance indicator (any during the month)

Notes: Stacked regression design, data aggregated to the calendar month-by-year level. Each stack corresponds to a month in which at least one user received a raise, controls are users that never got a raise. Data is cut at the plus/minus five-month mark. Individual and month-by-year fixed effects interacted with stack variable. Data is winsorized at right tail 1% level (if not the indicator variable). Subsample of individuals with below median income.

Figure 6: Impact of the salary increase/promotion: users with enabled overdrafts



(a) On overdraft indicator



(b) On negative balance indicator (any during the month)

Notes: Stacked regression design, data aggregated to the calendar month-by-year level. Each stack corresponds to a month in which at least one user got a raise, controls are users that never got a raise. Data is cut at the plus/minus five-month mark. Individual and month-by-year fixed effects interacted with stack variable. Data is winsorized at right tail 1% level (if not the indicator variable). Subsample of individuals with overdrafts enabled.

Figure 6 show the stacked regression results for overdrafts and the negative balance indicator (any during the month) for the subsample of individuals with overdrafts enabled. To summarize the results we see no spending, or borrowing response in anticipation of the salary increase.

5 Conclusion

This paper examines how employees adjust consumption and borrowing in response to anticipated and permanent salary increases, combining representative survey evidence with administrative bank transaction data from Germany. Across both realized and hypothetical salary increases, the survey shows little evidence of anticipatory spending, even for large and predictable income gains. When spending adjustments occur before income realization, they are typically financed through existing savings rather than borrowing.

Using transaction-level data, we find that employees largely postpone con-

sumption responses until the higher salary is actually received. Consistent with the survey evidence, we detect no increase in short-term unsecured borrowing ahead of the income realization, despite the widespread availability of overdraft credit. These findings suggest that limited anticipatory adjustment is unlikely to be driven solely by lack of information or access to liquidity.

Our results contribute to the literature documenting excess sensitivity of consumption to current income rather than expected permanent income. By combining high-frequency administrative consumption data with survey evidence and explicitly examining borrowing behavior, we provide robust evidence that even predictable and permanent income increases generate little anticipatory adjustment, reinforcing the view that realized income remains a central determinant of household consumption behavior.

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Appendix

A Survey Questionnaire

This appendix documents the survey questions and response options used in the analysis. The questionnaire was administered as part of an online survey conducted in cooperation with YouGov. Unless stated otherwise, questions refer to respondents' personal situation.

Salary Increases and Anticipation

1. *Have you received a permanent salary increase in the past 12 months? If you received multiple salary increases, please refer to the largest one.*

    - Yes, due to a promotion
    - Yes, due to a job change
    - Yes, as part of a regular salary adjustment
    - No

2. *By approximately what percentage did your monthly net salary increase as a result of the raise? (For example, with a monthly net salary of EUR 2,500, a 1% increase corresponds to about EUR 25, a 10% increase to about EUR 250, and a 15% increase to about EUR 375.)*

    - Less than 3%
    - 3% to less than 10%
    - 10% to less than 15%
    - 15% or more
    - Don't know / no answer

3. *Approximately how long before receiving the higher salary did you know that your salary would increase?*

    - Less than 2 weeks
    - 2 to less than 4 weeks
    - 4 to less than 8 weeks
    - 8 weeks or longer
    - Don't know / no answer

4. *Did you adjust your spending before receiving the first higher salary payment?*

    - Yes, increased substantially
    - Yes, increased somewhat
    - Yes, decreased somewhat
    - Yes, decreased substantially
    - No change
    - Don't know / no answer

5. *If you adjusted your spending before receiving the higher salary, how did you finance this adjustment? (Multiple answers possible.)*

    - I overdrew my checking account (overdraft credit)
    - I borrowed money (e.g., from friends, family, or via credit card)
    - I used savings
    - Other
    - Don't know / no answer

Hypothetical Salary Increase Scenario

1. *Suppose your monthly net salary is expected to increase permanently by 10–15% in approximately eight weeks due to a salary increase. Would you adjust your spending before receiving the first higher salary payment?*

   - Yes, increased substantially
   - Yes, increased somewhat
   - Yes, decreased somewhat
   - Yes, decreased substantially
   - No change
   - Don't know / no answer

2. *Approximately when would you start increasing your spending before receiving the first higher salary payment?*

   - Immediately (about 8 weeks before)
   - 4 to less than 8 weeks before
   - 2 to less than 4 weeks before
   - 1 to less than 2 weeks before
   - In the week of the first higher salary payment
   - Don't know / no answer

3. *If you were to increase your spending before receiving the higher salary, how would you finance this adjustment? (Multiple answers possible.)*

   - I would use savings
   - I would overdraw my checking account (e.g., overdraft credit)
   - I would borrow money (e.g., from family, friends, or via credit card)

- Other
- Don't know / no answer