

Deposit Insurance: Believers and Doubters*

Utpal Bhattacharya

Hong Kong University of Science and Technology

ubhattac@ust.hk

Thomas Johann

University of Mannheim

johann@uni-mannheim.de

Benjamin Loos

University of New South Wales

b.loos@unsw.edu.au

Tilman Rochow

tilmanrochow@gmail.com

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We uncover polarized beliefs about the credibility of deposit insurance using data from a large fintech company that offers “guaranteed” Euro term deposits from European banks. Choosing between countries, 11% of their German investors, "Believers," always choose the highest rate, whereas 67%, "Doubters", never do. Choosing within a country, most investors choose the highest rate. Doubters are older, have less trust in the European Central Bank, and live in the former East Germany. We explain these results with a model where Believers trust the deposit insurance of all countries, but Doubters invest only in countries whose deposit insurance they trust.

KEYWORDS: deposit insurance; term deposit; risk-free rate; polarization

JEL CODES: G11, G12, G15, G21, G41, G5

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"Where there is light, there is shadow." - Japanese Proverb

I. Introduction

Polarization is a significant issue of our times. We have sharp political divides, racial divides, ethnic divides, religious divides, income divides, job opportunity divides, urban-rural divides, education divides and so on.¹

This paper asks whether trust in institutions is polarized as well. Specifically, do we observe polarized investment behavior in insured term deposits which may reveal, implicitly, polarization in beliefs about the credibility of deposit insurance?² If there are few search or other transaction costs or financial literacy concerns that impede switching, do we see a group of investors who always invest in term deposits that offer the highest return, but another group of investors, who never do? The answer in this paper is Yes.

We obtain customer data from a large European fintech company that provides its retail customers access to “guaranteed” term deposits from partner banks in various European countries. This company is an intermediary that operates using a publicly available online platform. These term deposits are protected by deposit insurance for up to EUR 100,000 per depositor per bank according to EU guidelines. Investors on this platform are not allowed to invest more than EUR 100,000 with one bank.³ In our data, savers have never suffered any losses due to a bank default. This makes these term deposits basically a “risk-free” simple product in the spirit of Gilkeson, et al (2000).

The term deposits are presented in descending order of interest rates on the platform. Information about the banks and their countries is available upon a click. The explanation of deposit

¹ See, for example, Katz and Kearney (2006), Goos, Manning, and Salomons (2009), and Boxell, Gentzkow, and Shapiro (2024). Edmans (2024) argues that polarization is a consequence of information being processed through biased cognitive filters (e.g. confirmation bias). Increasing divisions are amplified by selective acceptance and rejection of evidence based on prior beliefs, not necessarily by facts themselves.

² The belief in a country’s deposit insurance scheme is related to broader notions of trust in banks, institutions, or macroeconomic conditions in that country. This paper cannot isolate the source of these beliefs. We, therefore, assume that belief in a country’s deposit insurance is a summary statistic of these more macro beliefs. It should be noted, however, that whatever the source, we document that these beliefs are polarized.

³ Ghosh, Limodio and Nats (2025) show that bunching changes when the DI threshold changes in India, suggesting that the threshold is very important.

insurance is made very salient. Investments into different banks and products are easy as one account with the fintech allows customers to invest with all banks on the platform.⁴ Therefore, little financial literacy is required to choose between these simple financial products. This contrasts with selecting the highest interest rate deposit product from single bank offerings (cf. Deuflhard, Georgarakos and Inderst, 2019) where teaser rates are only available for new customers and require opening separate bank accounts.

We find polarization in product choices. If the choice is between all countries at a point in time, an average investor faces a choice set of 22 products. We find that 11% of investors seem to trust deposit insurance and regard these products as riskless – the Believers – and always choose the product that offers the highest interest rate, but 67% – the Doubters – never do. These numbers are larger than the benchmark choices a random investor would make. This suggests a bi-modal distribution in demand. However, once a country is chosen, most investors choose the highest interest rate paying product within that country.

We also examine the choices over time. When the choice is across countries, we find that investors who chose the highest interest rate in the beginning may not do so in their later choices, and investors who did not choose the highest interest rate in the beginning, may do so in their later choices, but eventually there seems to be a convergence to the 11% Believers and 67% Doubters. There is polarization across countries. On the other hand, when the choice is within a country, it seems that there is a convergence to 100% within-country Believers. There is no polarization within a country.

Who are the Believers and the Doubters? We find that the average Doubter is older, has less trust in the European Central Bank (ECB), and lives in the former East Germany. Though the ECB *does not* guarantee bank deposits, more trust in the ECB may mean a greater belief that the ECB will ultimately come to the rescue, as it happened with Greece beginning 2009. In our sample period, Doubters hesitate more, where hesitation is defined as the gap in days between the first time they deposit money on the platform and the time of their first investment. Doubters also tend to invest in term deposits with shorter maturities.

⁴ Lu et al (2024), using novel transaction-level data from over a million U.S. depositors, find that depositors shift their deposits across bank accounts more actively when the payment technology linked to their accounts is more efficient.

We develop a simple model of market segmentation to explain this surprising finding – polarization across countries, but no polarization within a country.

In our model, “Believers” have full faith in the deposit insurance of all countries, but “Doubters” prefer to invest only in countries whose deposit insurance they trust. Believers, therefore, always choose the highest interest rate amongst all countries as they consider all term deposits to be risk-free, whereas Doubters choose the highest rate from their trusted country. There is a unique matching equilibrium. The risky banks in the less trusted countries offer higher interest rates and the Believers, who behave as if they are risk-neutral, match with them. The safer banks in the more trusted countries offer lower interest rates and the Doubters, who are risk-averse, match with them. In equilibrium, the inter-country dispersion of interest rates in equilibrium is large and there is polarization between Believers and Doubters, but more interestingly, since even Doubters choose the highest interest in their trusted countries, the intra-country distribution in interest rates is lower for the more trusted countries. Though there are many other potential reasons for within-country interest rate dispersion, like differences in monetary policy pass-through or other country-specific factors, the above testable implication, if true, suggests that trust in a country’s deposit insurance is an important factor.

We formally test the above implication of our model. We find significant variation in interest rates for the same maturity, in the same currency (Euros) across and within countries. Inter-country differences average 100 basis points, with some reaching 175 basis points. Intra-country differences average 50 basis points, and it is less for countries whose deposit insurance is more trusted, both in the cross-section (panel regressions) and in the time series (staggered event studies around credit events in treatment countries).

We then test the other empirical implications of our model. How do Believers and Doubters choose? Which types of banks cater to these two groups? What determines the flow into bank deposits?

When the choice is between countries, we find that deposits from higher-rated countries, which generally offer lower interest rates, are more appealing to Doubters. This is intuitive as the country would be the ultimate backstop if the insurance scheme should fail, and Doubters have doubts about the credibility of deposit insurance in lower rated countries. In contrast, we find that Believers go for the highest interest rate from the lower-rated countries. Interestingly, when the choice is within a country, lower rated banks (on average they offer higher interest rates) are more likely to be chosen, and this effect exists for both Believers and Doubters. This again suggests the importance of country-level deposit insurance.

We now probe the supply side. We find banks in higher-risk countries tend to offer higher interest rates. Within a country, high-risk banks tend to offer higher interest rates. While this is not surprising, our most interesting finding here is that some banks consistently provide high rates while others do not, suggesting a persistent bi-modal distribution in supply. This finding is consistent with the polarized matching equilibrium of our model: the high-interest rate banks come from more risky countries, and they cater to Believers, whereas the low-interest rate banks come from less risky countries, and they cater to Doubters. Curiously, these results remain after controlling for publicly available risk factors, suggesting a behavioral interpretation as well: Believers have only monetary preferences, whereas Doubters also have some non-monetary preferences (like taste-based likes or dislikes for some countries).

How important is it for a bank to offer the highest interest rate to attract funds? It is very important. Offering the highest interest rate for a product increases the ratio of investors that invest in this term deposit by 20% if the choice is across countries and by an impressive 58% if the choice is within a country.⁵ Interestingly, offering the highest interest rate paying product has no significant effect on country choice if there are no Believers present. This finding corroborates the main implication of our model: Believers choose term deposits with the highest interest rates offered by banks from more risky countries, but the Doubters choose term deposits with lower interest rates offered by banks from less risky countries. Within a country, the response of Believers and Doubters are both positive when interest rates are raised.

As deposit guarantee schemes exist on a country level, we tacitly assume throughout our paper that investors first choose a country and then a bank within that country. We formally test this assumption using a sequential logit model. The test confirms all our previous findings. More importantly, the model fit stats (Log Likelihood, AIC, BIC) confirm that the sequential decision approach better fits the data than a one stage product choice model, indicating that investors follow this approach to narrow their decision problem.

The theoretical rationale for providing deposit insurance, a mechanism to ensure confidence in the financial system and prevent bank runs, was first provided by Diamond and Dybvig (1983).

⁵ This ratio for bank i is defined as $(\text{Number of investment decisions for bank } i\text{'s term deposit of maturity } m \text{ in month } t) / (\text{Number of investment decisions in month } t \text{ for maturity } m)$.

Anginer and Demirguc-Kunt (2018) review the economic costs (the moral hazard that occurs when insured banks take on excessive risks) and benefits of deposit insurance. They highlight the importance of institutions and specific design features for how well deposit insurance schemes work in practice. Deposit insurance schemes are quite opaque about what happens if banks fail.⁶ In the global financial crisis in 2008, generalized guarantees (by e.g. Angela Merkel) were necessary to stop fear spreading through the financial system. Ultimately, providing deposit insurance that needs to be backed up by a generalized guarantee can threaten sovereign solvency as in the case of Ireland (Allen et al. (2011)). Calomiris and Jaremski (2016), after a critical survey of the U.S. history of deposit insurance, conclude that deposit insurance serves more the private interest of banks rather than the public interest of financial stability. Though these views differ as to the rationale for the existence of deposit insurance, they do agree that deposit insurance increases the flow of funds into deposits because risk is lower. Empirical evidence supports this conjecture (see, for example, Huizinga and Nicodeme (2002), Iyer and Puri (2012), Karas et al (2013), Gatti and Oliviero (2018), Martin et al (2018), Fecht et al (2019), Peia and Vranceanu (2019), and Bonfim and Santos (2023)).

The results of our paper are in line with the findings of the European Commission's Eurobarometer surveys from 2013 to 2018 that document heterogeneity in the level of trust in the European Central Bank. The contribution of our paper is that we are the first paper, to the best of our knowledge, to infer heterogeneity in beliefs by observing the actual choices of depositors. This polarization in beliefs has significant wealth implications and policy implications even in our setting with low interest rates and rather simple products.

II. Institutional Background & Data

The European fintech company we work with offers its customers access to a selection of term deposits. The term deposits are offered by banks from several European countries. The platform caps the level of term deposits at EUR 100,000 per bank and investor. Therefore, the deposits are virtually riskless because bank savings are protected by up to EUR 100,000 per depositor per bank through deposit insurance schemes according to EU guidelines.

⁶ https://ec.europa.eu/commission/presscorner/detail/en/memo_14_296. See Allen et al. (2011) for a review of deposit insurance during the 2008 global financial crisis: “if bank runs are linked to a fall in asset values, providing deposit insurance can be very costly and, as the case of Ireland has shown, can even threaten sovereign solvency.”

Deposit insurance in the European Union (EU) is provided by a variety of national deposit guarantee schemes (DGS). A process of harmonization of these schemes was started by the European Central Bank (ECB) in 1994 and was significantly amended in 2014 (EU Directive 1994/19/EC, 2009/14/EC, and 2014/49/EU.) By 2024, all reserves held in each country's deposit guarantee fund must equal at least 0.8% of all deposits covered.⁷ The countries whose banks offer term deposits on the fintech's platform, even non-EU countries like U.K. or Bulgaria, already fulfill this requirement. Further, in the case of bank default, the fintech provides support for the client. None of the banks in our sample have defaulted in our sample period.

The actual guarantee is implemented on a country level as each country has its own implementation regulations and deposit insurance guarantee scheme.⁸ Trust in the "guarantee", therefore, varies with an individual's trust in the country's deposit insurance scheme to honor the guarantee. Trust in the ECB indirectly matters as well because the ECB led the harmonization of the Deposit Guarantee Scheme of various countries. Further, more trust in the ECB means a greater belief that the ECB will ultimately come to the rescue, as it happened with Greece beginning 2009.

After setting up an account with the fintech company, customers deposit funds from their banks to a platform reference account. They can then select a term deposit offered by a partner bank from a "menu" displayed on the publicly available online platform and then transfer the money from their platform reference account to the partner bank without having to open additional accounts. A customer can invest Euro 1,000 or more in any partner bank at any time. The maximum cumulative investment per bank is EUR 100,000 in line with the maximum amount covered by the deposit insurance scheme. Term deposit offerings in this "menu" are by default sorted in descending order of offered interest rates and can be filtered by country rating and maturity. Also, customers can easily access a short fact sheet on the offering partner bank, usually informing them about the country and the bank rating.

⁷ The FDIC had a Deposit Reserve Ratio (DRR) of 2% during our sample period. Given an insured amount of USD 250,000 per depositor, US and EU ratios are relatively comparable (<https://www.fdic.gov/resources/deposit-insurance/deposit-insurance-fund/dif-fund.html>)

⁸ Details and data of the deposit guarantee schemes for each country can be found at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/deposit-guarantee-schemes-data>

To summarize, all deposits offered on the platform are insured, search costs for the highest interest rate paying products are zero on this platform, and any European customer can invest in the term deposit subject to opening an account with the fintech company. This lack of friction implies that rational decision makers should only care about bank default risk if they do not believe in deposit insurance and/or if they believe but anticipate a disutility from the potential disruption of a bank's default.⁹ Therefore, our data is ideally suited to answer our research questions as search costs and financial sophistication needed to select the best product are negligible as compared to selecting the best term deposit product from single bank offerings (cf. Deuflhard, Georgarakos and Inderst, 2019). No investor has suffered any loss up to today, and in case a credit event occurs, the fintech company promises to support customers to recover their money.

Figure I depicts the size of the choice set available to investors at a given point in time for different maturities. The period is from January 2014 to February 2018. Investors can choose between the following maturities (in months): 3, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 72, 84, 120. However, the 6, 12, 24, 36-months maturities make up 62% of the products available and 94% of all investments. For clarity, we only depict these prominent maturities in Figure I. The menu is rather small in the beginning with only one available product in 2014. The available choice set then increases steadily over time.

INSERT Figure I: Products Available ABOUT HERE

The fintech company shared data with us for a random subset of customers from January 2014 to February 2018. Table I documents the filtering process of this data. We first drop all interactions on the platform that are unrelated to an explicit investment decision (these include deposits into/withdrawals from the reference account, and interest and principal payments at maturity of the product¹⁰). As only 6% of customers are non-German and we have little demographic data for those

⁹ According to harmonized DGS rules, funds should be transferred to customers within 7 days of a bank defaulting without the customer having to apply for it.

¹⁰ We do use those transactions to verify the accuracy of the contract, e.g., the interest paid should be consistent with the characteristics of the chosen contract.

customers, we drop all transactions from non-German customers. Next, we remove transactions of customers that at any point in time had negative reference account balances. While these negative account balances might usually be explained by short timing mismatches, we want to make sure that all transactions are valid. Next, we remove transactions in products that are not Euro-denominated to avoid any currency risk affecting our results. Finally, to avoid bank financing for short-term liquidity needs, we drop all overnight contracts from our sample; the shortest possible investment horizon kept in our sample is three months. The filtering procedure results in a data set that includes about 15,000 transactions of nearly 5,000 customers.

INSERT Table I: Filtering ABOUT HERE

Table II provides some descriptive statistics on these customers. The median customer is about 56 years old. 65% of customers are male. Most customers are either employed in the private sector or retired.¹¹ 40% of customers tend to trust in the ECB, though this measure varies a lot across regions, age groups and time.¹² The median maturity of term deposit chosen by customers is one year (the mean is 1.5 years). The median customer invests 20,000 Euros per investment (mean is 31,0000 Euros per investment). The investment amount is bounded by the platform’s minimum investment amount of 1,000 Euros and a maximum of 100,000 Euros. While the median customer invests 2 times using the platform (the mean is 3 times), some customers are much more active.

INSERT Table II: Customer Demographics ABOUT HERE

The banks that offer deposits on the platform usually do not have any retail branches or business, neither in Germany nor in their home country. One of the main reasons to offer deposits

¹¹ Profession data is more granular than shown in Table II. We have subsumed various professions into broader categories. We also have very detailed information on the industry the customer works in.

¹² Trust in ECB is measured by matching customers to survey participants of the European Commission’s Eurobarometer surveys from 2013 to 2018. In those surveys people are asked (at least twice a year) “Please tell me if you tend to trust it or tend not to trust it?: The European Central Bank.” We collect data from an average of 1551 survey participants across 12 surveys and match them based on region and age to the customers in our dataset.

on this platform is that banks can obtain funding without having to establish a branch network or rapport with customers. Therefore, these banks can be considered relatively unknown to investors. Table III shows some summary statistics for the banks that offer term deposits and the countries of their location. Most banks offer products with multiple maturities. The average number of products per bank is 4.8. The four most prominent maturities (6, 12, 24, and 36 months) are part of this choice set. The market share column in Table III is sorted by EUR weighted investment share (averaged per day and then over time). Sorting by the transaction weighted investment share would result in a very similar distribution since average investment amounts are very similar across countries. In aggregate, banks from Portugal, France, Austria, Sweden, Italy, Bulgaria and UK receive most investments, but their market shares vary over time.

INSERT Table III: Country/Bank Characteristics ABOUT HERE

We obtain daily country ratings given by Fitch, Moody's and S&P from Refinitiv Bank ratings. Bank Tier 1 ratios are manually collected from the respective bank's investors' relations page, the homepages of the three rating agencies and Bureau Van Dijk's BankFocus database. We then transfer those ratings into a numeric score based on a matching table provided by Trading Economics¹³. On a given day, we average the scores from the three rating agencies, and then average over the sample period.

Country ratings are rather stable over time. They range from 100 (AAA) for Germany and Sweden to 50/55/58 (BB+/BBB-/BBB) for Portugal/Bulgaria/Italy, respectively, which translates into an expected annual default rate of about 1% for these last three countries.¹⁴

Bank ratings are not available for all banks in our sample. Banks on the platform are usually comparatively small, unlisted and oftentimes have no retail focus.¹⁵ These types of banks often

¹³ <https://tradingeconomics.com/country-list/rating>

¹⁴ <https://www.spglobal.com/ratings/en/research/articles/210407-default-transition-and-recovery-2020-annual-global-corporate-default-and-rating-transition-study-11900573>

¹⁵ Banks in our sample have less employees (1319 vs. 1533), are smaller (1.5 vs 4.4 billion market cap) than the average European bank. Only 20.5% of our banks are listed and only about 50% do have a retail branch. Among those 50%, retail business is usually not the focus of the bank.

leverage the fintech platform to gain access to financing via customer deposits without having to build their own infrastructure. The average bank in our sample has total net assets of about 9.5 billion EUR.¹⁶ Median bank ratings lie between 65 (BBB+) for German banks and 30/25/25 (CCC+/B-/B) for Portugese/Latvian/Lithuanian banks, respectively. Bank ratings vary considerably across banks within a country but are rather stable across time for a given bank¹⁷. As an alternative bank risk measure, we obtain the banks' Tier 1 Capital Ratios as defined by the Basel III accord from *Bureau Van Dijk's BankFocus* database. The Tier 1 Ratio is defined as $Tier\ 1\ Ratio = \frac{Tier\ 1\ Capital}{Total\ Risk\ Weighted\ Assets}$, with Tier 1 Capital being defined as a bank's equity capital and disclosed reserves, and Total Risk Weighted Assets being defined as all of the bank's assets weighted by their respective credit risk (weighting scales for different asset classes are defined in coordination with the regualting authority). The larger the Tier 1 Ratio, the more capital a bank has to withstand financial distress and, therefore, is regarded as less risky. Basel 3 regulations require a minimum Tier 1 ratio of 6%. All banks in our sample, for which we have information on Tier 1 ratios, easily fullfill this criterion.

An important observation in Table III are the market shares of various countries. Portugal has the highest market share (18.3%). The market share of Germany, the home country of our investors, is a miniscule 1.83%. It suggests that in our period, where interest rates offered by bank deposits in Germany were near zero, home bias was trumped by the higher interest rates offered by other countries.

INSERT Figure II: Country Market Shares ABOUT HERE

Panel A of Figure II depicts the market shares of the countries, which for a country X are calculated monthly as the total EUR-amount invested with all the banks in X divided by the total Euro-amount invested in that month in all countries. It can be seen that these country market shares

¹⁶ Compared to that, the average European bank in the Bureau Van Dijk's BankFocus database has a TNA of EUR 24.8 billion. Deutsche Bank is about 150 times larger than the average bank in our sample.

¹⁷ The average bank rating in our sample is 45. The within country standard deviation of 16.26, but the within bank standard deviation is only 1.28.

vary over time. Even countries that have a relatively small average market share over our sample period sometimes have the highest share in a given month.

Panel B of Figure II zooms into Portugal (as it is the country with the highest average market share in our sample). It shows that those months of large market shares for Portugal are related to products from Portuguese banks offering the highest or at least very favorable interest rates. For example, whenever the gap between the highest 1-year maturity interest rate offered by Portuguese banks and the overall highest 1-year maturity interest rate offered is negative, market shares of Portuguese banks drop. However, when the gap is zero – this implies that a Portuguese bank is offering the highest interest rate – market shares for Portuguese banks go up. The correlation between a country’s market share and the above mentioned 1-year interest rate gap measure is 43.8% across all countries.¹⁸ This evidence shows that investors do reach for yield in these products.

III. Polarization in Demand

For each investor in our sample, we calculate the fraction of decisions for which the investor picked the highest interest paying product. The ratio for investors who always picked the highest interest paying product will be 1, whereas the ratio for investors who never picked the highest interest paying product will be 0. Figure III, Panel A, shows the histogram of this ratio when the choice is between all countries. Figure III, Panel B, shows the histogram of this ratio when the choice is within a country.

INSERT Figure III: Histogram of Ratio of Choosing the Highest Interest Rate Product ABOUT HERE

The red bars in Figure III, Panel A, show that 67.3% of investors never invest in the highest interest paying product. We call them Doubters. In contrast, only 10.9% of investors always go for the highest interest rate paying product. We call them Believers. About 22% of investors end up somewhere in between those two extremes.

¹⁸ The correlation is 41.4% for 6-months products, 43.8% for 12-months products, 28.2% for 2-year products and 39.1% for 3-year products.

Given the choice problem of investors, such a distribution may arise naturally. Our average decision maker had to decide on an average between 22.8 different products; on average only 1.2 of those products did offer the highest rate.¹⁹ An agent picking randomly would thus not pick the highest interest rate paying product in about 95% ($=1 - 1.2/22.8$) of the cases. To obtain an appropriate benchmark, we do a bootstrap to see how this distribution would look if all investors acted randomly in all their investment decisions. This bootstrapped distribution is shown by the green bars in Figure III, Panel A. We see more investors always picking the highest interest paying product in the actual data compared to the random decision makers. We also see more investors never picking the highest interest rate paying deposit in the actual data compared to the random decision makers. We conclude that our polarization is real: Believers and Doubters appear more frequently than in the randomly simulated distribution.

Figure III, Panel B, shows the histogram of this ratio when the choice is within a country. Now we see that most investors always choose the highest interest rate product. This suggests that there is no polarization within a country.

We now test whether our surprising finding – polarization across countries, but no polarization within countries – is true across time as well. If our hypothesis on the existence of Doubters (Doubters believe that deposit insurance will cover all losses in the event of default only for a few countries) and Believers (Believers believe that deposit insurance will cover all losses in the event of default for all countries) is correct, these revealed perceptions about the credibility of deposit insurance should be persistent over time for an individual. Figure IV, Panels A1, A2 and A3 show the persistence of the choice, when the choice is between all countries. Figure IV, Panels B1, B2 and B3 show the persistence of the choice when the choice is within a country.

We cluster investors by the number of investment decisions made in our sample period. For each investment decision made in a specific cluster, we then calculate the ratio of investors who picked the highest interest rate paying product in their first decision, their second decision, and so on. All panels in Figure IV show these probabilities for investors that made up to 6 investment decisions. In square brackets, we provide the number of investors that fall into a specific cluster. Decision on the

¹⁹ The number 1.2 is a non-integer because, in rare cases, more than one product offers the highest interest rate.

x-axis indicates the respective decisions in chronological order. “% highest” shows the fraction of investors who went for the highest interest rate paying product in this specific decision.

INSERT Figure IV: Persistence of Investor Decisions (amongst investors who make more than one decision) ABOUT HERE

We first analyze choice across all countries. In Figure IV, Panel A1, we focus on the sample of customers who went for the highest interest rate paying product in their first decision (Initial Believers), and in Figure IV, Panel A2 we focus on the sample of customers who did not go for the highest interest rate paying product in their first decision (Initial Doubters). In Figure IV, Panel A3, we combine both groups and show the investor-weighted average for all investors.

Initial Believers (Initial Doubters), by definition, start at a rate of 100% (0%) probability of choosing the highest interest rate paying product with their first choice and can only worsen (improve) this probability as they make further decisions. Interestingly, most of the change happens with their second decision.²⁰ While only about 10% of previous Doubters switch to the highest interest rate paying product, about 50% of previous Believers become Doubters. After the second decision, those probabilities stay rather stable for both groups on a slightly downwards sloping trajectory. Even though the gap between both groups diminishes over time, they never close.

Panel A3 in Figure IV shows that amongst investors who make more than one decision, the likelihood of picking the highest interest rate paying product decreases (increases) with successive investment decisions by Initial Believers (Initial Doubters). These are raw numbers; we should compare them to their random counterparts. The reason is that as the number of investment options increase over time, the probability of choosing the highest interest rate product does decline for the random investor. An initial Believer by our definition could thus be an actual Believer or someone who came to the market at a time where there were very few products available. Panel A3 in Figure IV, therefore, also shows us the path of the random Believer/Doubter. We see that Initial Believers are systematically picking high-interest rate products (always staying above the random benchmark)

²⁰ See Koestner et al (2017) for a summary of the retail investor learning literature.

suggesting that, on average, it seems to be a deliberate choice to pick the high-interest rate product, while Initial Doubters investment outcomes are not significantly different from those of the random investor. The figure does suggest a convergence to the 11% Believers and 67% Doubters. There is polarization across countries.

We next analyze choice within a country. In Figure IV, Panel B1, we focus on the sample of customers who went for the highest interest rate paying product in the respective country of investment in their first decision (Initial Believers), and in Figure IV, Panel B2 we focus on the sample of customers who did not go for the highest interest rate paying product in their first decision (Initial Doubters).²¹ In Figure IV, Panel B3, we combine both groups and show the investor-weighted average of all investors. Panel B3 in Figure IV also shows us the path of the random Believer/Doubter within a country.

We notice from Panel B3 in Figure IV that when the choice is within a country, both initial Believers and Doubters eventually converge to choosing the highest interest rate product. Therefore, when the choice is within a country, it seems that there is a convergence to 100% Believers. There is no polarization within a country.

We have established that there are two types of investors, Believers and Doubters. Who are they? Table IV addresses this question.

INSERT Table IV: Believer Traits ABOUT HERE

We run a probit regression that uses the Believer dummy as a dependent variable. Note that this is a very strict definition of a Believer as it does not allow the investor to pick a product different from the highest interest rate paying product even once in the entire sample period.²² Knowing that the number of investments over time drives down the likelihood of being a Believer (see Panel A, Figure IV), we run the regression with transaction fixed effects, i.e. only comparing investors with the same number of investments to each other. Also, as there were less products available in the early days

²¹ We use across country Believers (Doubters) – the A panels in Figure IV. Note that this is not the same as the within country Believers (Doubters) – the B panels in Figure IV.

²² In untabulated results, we also relaxed this assumption and defined Believers as investors that pick the highest interest rate paying product in more than 90/80/70/60/50 per cent of their investments. Results stay very similar.

of the platform, we know that early adopters would have a higher likelihood of being classified as a Believer. We thus control for the average likelihood of picking the highest interest paying product for each investor. In summary, we are comparing investors with the same number of investments and the same ex-ante probability of picking the highest interest rate paying product.

Against this background, we find that Believers tend to be younger, have more trust in the European Central Bank, are less likely to live in the former East Germany. Believers hesitate less, where hesitation is defined as the gap in days between the first time an investor deposits money on the platform and the time of his first investment. Finally, Believers tend to invest in term deposits with longer maturities. Since the results may be affected by the number of decisions an investor makes, we run the regressions where the investor makes 4 or more decisions. Further, if the investor has only one product to choose from, the investor will mechanically choose the highest rate product, and so we run the regressions dropping these choices. Our results are robust to these alternate specifications.

IV. A Model

In this section, we present a simple model of investor and bank behavior. Wherever possible, we simplify the setup to enhance tractability and clarity. The goal is not to contribute to the theoretical literature on deposit insurance and bank runs, but rather to develop a conceptual framework to explain the above puzzling facts and derive further testable hypotheses.

Setup

There are two countries $c \in \{1, 2\}$. In each country c there exists a continuum of banks of mass 1 (so total mass of banks is 2). Bank j is indexed by an idiosyncratic risk parameter ρ_j . For country 1 the risk parameter ρ_j has support $\mathcal{R}_1 = [0, 1/2]$, and for country 2 the risk parameter ρ_j has support $\mathcal{R}_2 = [1/2, 1]$, with f_c uniform on each interval. So, the banks in country 1 are ex ante safer than the banks in country 2.

Each bank j accepts deposits at date $t = 0$. A deposit of one unit finances a project that, if successful, returns gross $R_c > 0$ at date $t = 1$. We assume $R_2 > R_1$ (country 2 offers higher gross returns but, via ρ , also has higher risk). Whether a bank's project succeeds is determined by its risk parameter ρ . Conditional on success, the bank can pay depositors up to the realized project return. In the model banks are limited-liability entities and so depositors receive priority up to the available funds.

There is a continuum of potential depositors (investors) of unit mass. Each investor i chooses exactly one bank in which to deposit one unit at $t = 0$. Investor i is characterized by a risk-aversion

parameter $\gamma_i \in [0, \bar{\gamma}]$ with density $g(\gamma) > 0$. For tractability we often set $\bar{\gamma} = 1$ and take $g(\cdot)$ uniform.

Deposit insurance in country c may intervene if a bank fails. Investors differ in their **beliefs** about whether country c 's deposit insurer will pay in the event of bank failure. For investor i define the belief indicator $b_{i,c} \in \{0,1\}$: if $b_{i,c} = 1$ investor i believes deposit insurance in country c will fully compensate depositors in the event of bank failure; if $b_{i,c} = 0$ investor i believes the insurer in country c will not pay.²³ The $b_{i,c}$ indicators can be interpreted as either (i) subjective probabilities of payout, or (ii) rational beliefs formed from historical or informational differences that may e.g. arise from national credibility shocks or media narratives.

Banks simultaneously post gross deposit rates $r(\rho_j)$ as a function of their type ρ_j . Investors observe the full schedule of posted rates and choose one bank to maximize their expected payoff. We adopt the following reduced-form investor payoff:

$$U_i(r, \rho, c) = \begin{cases} r, & \text{if } b_{i,c} = 1, \\ r - \gamma_i \rho_j, & \text{if } b_{i,c} = 0. \end{cases}$$

This formulation nests the idea that when the investor trusts the insurer, the deposit is effectively risk-free (payoff equals the posted gross rate), while when the investor does not trust insurance, she internalizes exposure to bank risk and suffers a linear disutility proportional to ρ_j scaled by γ_i .

If a bank of type ρ_j attracts mass $n(\rho_j)$ of deposits, its ex-post profit is

$$\pi_j(\rho_j) = (R_c - r(\rho_j)) n(\rho_j).$$

Banks choose posted rates anticipating the demand function $n(\rho_j)$ generated by investors' utility maximization. Equilibrium is defined as a profile of rate schedules $r(\rho_j)$ and an allocation of investors to banks such that (i) given rate schedules, investors choose banks that maximize their U_i , (ii) given the induced demands, banks best-respond by choosing rate schedules to maximize their profits π_j (taking investor selection and other banks' schedules as given), and (iii) markets clear (each investor deposits exactly one unit).

²³ There exists a straightforward generalization to probabilistic beliefs $b_{i,c} \in [0,1]$ that we omit here for simplicity.

Regimes

We consider three benchmark regimes that differ in the belief structure $\{b_{i,c}\}$ across investors and countries.

Regime A — Full Belief (Universal Trust)

All investors believe that both countries' deposit insurance schemes will fully honor their guarantees:

$$b_{i,1} = b_{i,2} = 1 \forall i.$$

Hence, every investor treats all banks as risk-free and behaves as a risk-neutral depositor. Bank default risk and investor risk aversion are irrelevant for choice. This regime corresponds to an environment with *complete trust in the financial safety net* induced by periods of strong regulatory credibility or common supranational insurance (such as the joint EU deposit insurance).

Regime B — No Belief (Universal Doubt)

No investor believes in deposit insurance in either country:

$$b_{i,1} = b_{i,2} = 0 \forall i.$$

Investors fully internalize bank default risk. They choose among banks by trading off bank posted returns against perceived bank risk according to their risk-aversion parameter γ_i . This regime represents *pure risk-based market discipline*: depositors behave as if insurance is ineffective, and risk aversion alone drives sorting across banks and countries.

Regime C — Partial or Heterogeneous Belief (Segmented Trust)

Investor beliefs differ across individuals and countries. Let the investor population be partitioned into finite (or measurable) types $t \in T$, each characterized by a belief vector

$$\mathbf{b}^t = (b_1^t, b_2^t) \in \{0,1\}^2.$$

Type t investors share common beliefs about which country's insurance they trust. The population share of type t investors is μ_t , with $\sum_t \mu_t = 1$.

Thus, four belief types may exist:

- (1,1): believe both countries' insurance (fully trusting),
- (0,0): believe neither countries' insurance (fully doubting),
- (1,0): trust only country 1's insurance,
- (0,1): trust only country 2's insurance.

Regime C captures *cross-country heterogeneity in perceived credibility*. Depositors segment into submarkets according to which deposit insurance schemes they trust. This regime allows identification of belief-

driven behavior: differences in allocation or pricing that cannot be explained by individual risk aversion and/or bank risk may arise from variation in \mathbf{b}^t .

Equilibrium characterizations

Let the timing be as follows:

1. At $t = 0$, each bank j of type ρ_j in country c posts a gross deposit rate $r(\rho_j)$.
2. Investors observe all posted rates and choose one bank to maximize expected utility $U_i(r, \rho, c)$.
3. Deposits are allocated, projects are realized, and repayments occur at $t = 1$.

A **Bertrand equilibrium** consists of (i) rate schedules $r_c(\rho_j)$, (ii) a mapping from investor types (γ_i, \mathbf{b}_i) to chosen banks, and (iii) deposit masses $n_c(\rho_j)$, such that investors optimize given rate schedules and banks post optimal rates given induced demand.

For tractability, assume $f_c(\rho)$ and $g(\gamma)$ are uniform on their supports and that banks have unlimited capacity.

Regime A — Full Belief (Universal Trust)

All investors treat deposits in both countries as risk-free. Utility depends only on the posted rate:

$$U_i(r, \rho, c) = r.$$

Since all banks compete for a homogeneous pool of risk-neutral investors, standard Bertrand logic applies. So, each bank bids up the deposit rate until profits are driven to zero:

$$r_c(\rho_j) = R_c.$$

Given $R_2 > R_1$, all investors strictly prefer banks in the high-return (high-risk) country 2. In equilibrium, all deposit flows concentrate in country 2, and banks earn zero profit everywhere.

$$r^* = R_2, n_2 = 1, n_1 = 0, \pi_j = 0.$$

When deposit insurance is fully trusted everywhere, investors behave as if deposits are perfectly safe. Interest rate dispersion collapses to zero — both *within* and *across* countries. The only equilibrium determinant is the technological return R_c . Uniform rates and complete concentration of deposits in the high-return jurisdiction are a diagnostic of “belief-dominant” behavior, where perceived insurance credibility eliminates risk-based differentiation.

Hypothesis 1A: *When all investors fully trust deposit insurance everywhere ($\mathbf{b}_{i,1} = \mathbf{b}_{i,2} = 1$), all deposits flow to the product offering the highest rate, and investment is fully concentrated in the high-return country.*

Hypothesis 2A: Interest rate dispersion is zero. Posted rates equal the technological return of the high-return country ($r = R_2$), and rates are independent of bank risk.

Regime B — No Belief (Universal Doubt)

No investor trusts any deposit insurance scheme. All investors price risk explicitly:

$$U_i(r, \rho, c) = r - \gamma_i \rho_j.$$

Investors sort across banks to maximize expected utility. For a given country c , the indifference condition between two banks with $\rho_1 < \rho_2$ implies:

$$r_c(\rho_2) - r_c(\rho_1) = \gamma_i(\rho_2 - \rho_1).$$

Hence, depositors with higher risk aversion (γ_i) choose lower-risk banks (smaller ρ_j) with lower r , while less risk-averse investors accept choose higher risk banks (higher ρ_j) in exchange for higher r . Banks anticipate this sorting and set rates such that marginal investors are indifferent. In equilibrium, the deposit rate schedule is **strictly increasing** in bank risk:

$$\frac{dr_c(\rho_j)}{d\rho_j} > 0,$$

reflecting the risk premium required to attract less risk-averse investors. Within each country, interest rate dispersion is endogenous to the distribution of γ . If country-level returns R_c are not binding (i.e., not capped), both countries attract deposits, with safer banks capturing more risk-averse investors. The cross-country distribution of deposits depends on the relative supports \mathcal{R}_c and gross returns R_c . This regime corresponds to *pure risk-based pricing*. Interest rate variation compensates investors for bank-specific risk, and equilibrium sorting is driven solely by risk aversion, not beliefs.

Interest rate dispersion should be large, increasing in observed risk proxies of banks (e.g., credit ratings, default likelihood), and independent of country-level trust variables. Within-country allocation is smooth and risk-driven.

Hypothesis 1B: When no investor trusts deposit insurance ($b_{i,1} = b_{i,2} = 0$), within and across countries, investors allocate deposits based on the risk–return trade-off: safer banks (low ρ_j) attract highly risk-averse investors (high γ_i), while riskier banks (high ρ_j) attract less risk-averse investors (low γ_i).

Hypothesis 2B: Interest rate dispersion is large and systematically related to bank risk. Rates increase in bank risk ($\frac{dr}{d\rho} > 0$) as banks compensate risk-averse investors.

Regime C — Partial / Heterogeneous Belief (Segmented Trust)

Investors differ in their belief vectors $\mathbf{b}^t = (b_1^t, b_2^t)$, leading to **market segmentation** by belief type. Within each country, two investor segments coexist: **Believers** in that country ($b_c^t = 1$) treat deposits as risk-free and their behaviour mirrors Regime A: they compare rates only and induce Bertrand competition among banks targeting them. Banks serving Believers post $r_c = R_c$ and earn zero margins. **Doubters** in that country ($b_c^t = 0$) perceive risk and behave as in Regime B. Banks serving them post rate schedules $r_c(\rho)$ increasing in ρ , reflecting risk compensation. It can be shown that no equilibrium exists in which a bank can serve both Believers and Doubters. The reason is that a single bank/rate cannot satisfy both groups: if a bank sets $r = R_c$, it earns zero margin and cannot profit from serving Doubters; if it sets $r < R_c$, it loses all Believers. Therefore, in equilibrium, banks specialize: some serve Believers at $r = R_c$, others serve Doubters at $r(\rho) < R_c$.

Let the mass of Believers in country c be μ_c^B and Doubters $\mu_c^D = 1 - \mu_c^B$. Then the equilibrium rate distribution in country c has two distinct regions:

$$r_c(\rho) = \begin{cases} R_c, & \text{for banks targeting Believers (flat segment),} \\ \tilde{r}_c(\rho) \text{ increasing in } \rho, & \text{for banks targeting Doubters.} \end{cases}$$

The overall deposit allocation depends on both the **belief composition** μ_c^B and the **underlying risk distribution** $f_c(\rho)$. Therefore, partial trust generates a *hybrid equilibrium*: within each country, a cluster of banks offers identical high rates R_c to Believers (zero dispersion in that sub-market), while other banks compete for Doubters with risk-dependent pricing (positive dispersion in that sub-market).

Across countries, investors' cross-border flows depend on their belief vector. For instance, investors of type $(1,0)$ (trust only country 1) will remain in country 1 unless the risk-adjusted returns in country 2 exceed R_1 : Banks in country 1, facing the believing investor, post the maximal feasible rate $r_1 = R_1$. Banks in country 2 offer a rate schedule $r_2(\rho)$ that compensates for perceived risk ρ , increasing in ρ but bounded above by the country's technological return R_2 . The investor's expected utilities from depositing in either country are

$$U_{i,1} = R_1, \quad U_{i,2}(\rho_j) = r_2(\rho_j) - \gamma_i \rho_j.$$

The investor allocates to the country offering the higher expected utility. Hence, a believer in country 1 will switch to country 2 if and only if

$$\max_{\rho_j \in [1/2, 1]} \{r_2(\rho_j) - \gamma_i \rho_j\} > R_1.$$

This inequality states that the highest attainable **risk-adjusted return** in country 2 must exceed the “safe” rate in country 1. Even investors who believe in one country’s deposit insurance compare international options rationally. They remain in the trusted country as long as its safe rate R_1 dominates the *risk-adjusted* opportunities abroad. When the foreign country’s rates are sufficiently high, less risk-averse investors find it worthwhile to bear unprotected risk and move funds across borders. Consequently, **belief heterogeneity shapes but does not fully segment international deposit markets**: trusted countries retain the highly risk-averse clientele, whereas high-yield, less-trusted countries attract the risk-tolerant tail of the distribution.

Compared to regime B, interest rate dispersion exists but is attenuated in countries with high perceived credibility. The reason is that, though there exists a mix of flat (belief-driven) and sloped (risk-driven) segments in the rate distribution in each country, the former is higher than the latter in countries with high perceived credibility. And we have shown that there is no rate dispersion in the flat region, but there is rate dispersion in the sloped region. This provides a diagnostic test of **segmented trust** as **full trust** has no rate dispersion whereas **no trust** has equal rate dispersion in each country.

***Hypothesis 1C:** When investors hold heterogeneous beliefs about deposit insurance, markets segment by belief type: Doubters concentrate deposits in trusted countries; Believers and low risk-averse investors cluster in high-yield, untrusted countries.*

***Hypothesis 2C:** Interest rate dispersion exists but is attenuated in countries with greater investor trust. Higher deposit insurance credibility is associated with lower within-country rate dispersion and weaker correlation between rates and risk.*

The above model was designed to explain the crucial role of a country’s deposit insurance scheme to explain our surprising finding of polarization across countries but no polarization within countries. The reason is that investors have different views about the deposit insurance scheme of various countries. Believers trust the deposit insurance schemes of all countries, whereas Doubters trust the deposit insurance of only some countries. In equilibrium, Believers choose the less-trusted countries offering higher interest rates, whereas Doubters choose the more-trusted countries offering lower interest rates. So, we see polarization across countries. However, if they choose a country, both Believers and Doubters trust the deposit insurance scheme of that country, and we see no polarization within a country. This is Hypothesis 1C, which is not surprising, because our model was designed to deliver that.

Our model, however, offers us a (surprising) testable implication – Hypothesis 2C – that can be used to validate the model. We now formally test Hypothesis 2C.

V. Implication of Model: Interest Rate Dispersion

Hypothesis 2C states that interest rate dispersion exists but is attenuated in countries with greater investor trust. Specifically, higher deposit insurance credibility is associated with lower within-country rate dispersion and weaker correlation between rates and risk. We now test this.

The fintech firm offers a large menu of products from which investors can pick. Products can be differentiated by maturity, bank, country, and interest rate offered. Panel A of Figure V depicts the spread in interest rates offered between the products with the highest and the lowest interest rate for different maturities over time.²⁴ Those spreads are usually non-zero and substantially large. The average spread across all products across all countries is about 100 bps. The maximum spread reaches 175 bps. The average spread for products of one year maturity is 126 bps. Given an average interest rate of 1.90% for the highest interest rate paying product in this maturity, an investor can leave 66% ($=1.26\%/1.90\%$) of the return on the table when deciding to invest in a one-year term deposit. In Euro terms, this implies that the median investor, investing 20,000 Euros (see Table II) in a one-year term deposit would give up 252 Euros, which is a substantial fraction of the hypothetical interest earned.

INSERT Figure V: Dispersion in Interest Rates ABOUT HERE

Panel B of Figure V depicts the spread between the highest and the second highest interest rate in a particular maturity across countries. While much reduced, the gap of about 25 bps is still economically significant, considering that interest rates of term deposits in Germany in our period hardly crossed 1% and often touched 0%. This implies that if some investors always choose the highest interest rate and some never do (they may choose the second highest interest rate), the claim of polarization is still meaningful.

²⁴ The graph for a particular maturity begins as soon as at least two products are available for that maturity.

Investors might not only have preferences with respect to their investment horizon but also with respect to their investment country. Panel C of Figure V shows the within-country spread for one-year maturity products. For the one-year maturity, for the countries depicted in Panel C, the dispersion in intra-country interest rates ranked from the highest to the lowest is: Bulgaria, UK, Austria, Italy, Portugal, France, Sweden. It does seem that countries with more investor trust in their deposit insurance have lower dispersion in interest rates. We show this more formally in Table V and Table VI.

Table V presents the results of a panel regression. The dependent variable is either the interest rate spread ($=\max(\text{interest rate})-\min(\text{interest rate})$) – Column (1) in a country – or the standard deviation of interest rates in a country – Column (2). We control for the maturity of the deposits. Identification thus comes from the country cross-section.

**INSERT Table V: Intra Country Interest Rate Dispersion: Panel Regression ABOUT
HERE**

We find that that the relation between country rating and interest rate dispersion – measured either by the interest rate spread ($=\max(\text{interest rate})-\min(\text{interest rate})$) or the standard deviation of interest rates in a country – is significantly negative for all maturities. This is in line with Hypothesis 2C, which states the interest rate dispersion exists but is lower in countries with high trust.

Table VI presents the results of a simple staggered event study. We hand-collect events that presumably affected the trust in the deposit insurance of some but not all countries in our sample. Panel A of Table VI presents the list of these events. Direction indicates whether we suspect this event to have a positive/negative effect on trust. An asterisk(*) after the date indicates that we drop those events in an untabulated robustness check to this event study to avoid overlapping event windows. Results do not change qualitatively if we do so.

Panel B of Table VI presents the results of the event study. As event window, we use -60/+60 days around the event date. As the exact event date is often ambiguous, we drop days -7 to 7.²⁵

²⁵ Not dropping those days does not change our results.

Consequently, post-event (pre-event) dummy equals 1(0) for the days 8 to 60 (-60 to -8). We invert this dummy for events with a positive direction, such that the dummy always indicates a reduction in trust after these events. Treatment Country equals 1 for the countries mentioned as affected countries in Panel A in their -60 to +60 window around the country event and zero for all other countries in our sample. The dependent variable is either the interest rate spread ($=\max(\text{interest rate})-\min(\text{interest rate})$), the standard deviation of interest rates in a country, Country Rating (as in Table 3) or Fraction Doubters (the share of investors, who, based on their previous behavior are classified as doubters). We employ country-, event- and maturity-fixed effects. We employ country-, event- and maturity-fixed effects.²⁶

INSERT Table VI: Intra Country Interest Rate Dispersion: Event Study ABOUT HERE

We find that that after a negative credit event in a country, the country rating drops. This is in line with the assumption that these events are indeed negative signals to the countries' creditworthiness. But how do banks react to those events, even though bank credit ratings are unaffected by those events? We find that the interest rate dispersion –measured either by the interest rate spread ($=\max(\text{interest rate})-\min(\text{interest rate})$) or the standard deviation of interest rates in a country – increases. This is in line with Hypothesis 2C. Also, we find that the fraction of Doubters among the investors who invest in a treated country goes down significantly as they presumably switch to countries with higher levels of trust.

VI. More Results: Demand and Supply

A. Demand

We now ask why investors do not choose the highest interest rate paying product? To answer this question, we span the entire choice set at the point of decision making. We do not only look at the actual choice but also walk down roads not taken by investors.

²⁶ We verified that the parallel trends assumption holds by examining pre-treatment trends in the outcome variable, ensuring that treated and control groups followed similar trajectories prior to the intervention.

Suppose at a given point in time an investor could decide between N different term deposits of a particular maturity. He will pick one term deposit and not pick the other $N-1$ products for various reasons. We construct a dummy variable that equals 1 for the actual choice made and zero for the $N-1$ options. We do so for every decision made by an investor in our sample. We then run the following regression:

$$Choice_{i,d,o} = \alpha + \beta * ProductCharateristics_{d,o} + \theta_{i,d} + \varepsilon_{i,d,o} \quad (1)$$

Here investor i is making his decision d choosing from option o . $\theta_{i,d}$ represents an investor-decision fixed effect. Note that this fixed effect is very restrictive. Any unobserved investor characteristics and the market environment at the time of the decision are controlled for by this fixed effect. We are basically reducing the analysis to the question: Why did the investor, in this specific situation, pick this product(country) and not some other product(country)? The answer must have to do with differences in product or country characteristics.

INSERT Table VII: Determinants of Investor Choice ABOUT HERE

In Panel A of Table VII, we first focus on the country choice of investors. Why did the investor pick a product from country A and not countries B, C, or D? To answer this question, we collect all countries in which the investor could have invested in the specific decision-making situation and try to answer the question: what country characteristics drive the decision?

Specification (1) of Panel A of Table VII establishes the most important general finding that holds across all specifications: we find strong and highly significant results that show that investors, on average, care about deposit returns when choosing between countries. Specification (1) of Panel A indicate that a one percent differential in the average interest rate offered in a country makes it about 15% more likely that a product from that country is picked. Therefore, investors do reach for yield. Specification (2) tells us that deposits from higher rated countries (controlling for the lower delta interest rates) are more likely to be chosen. So, investors also care about country risk. While this seems intuitive, it might be surprising in a world where country deposit insurance is completely trusted.

Note that all the above conclusions are drawn in a setting with decision fixed effects. Unobserved investor characteristics, the economic situation and other omitted variables related to the decision environment thus cannot drive these results.

However, we also want to understand how investor traits and the decision environment shape market outcomes. Therefore, we turn off decision-fixed effects in specifications (3) to (8). In specifications (3) and (4), we confirm the positive relation between choice and interest rate offered/country rating. Additionally, we can show that picking the right country from a menu might be a complicated task. It is thus not surprising that we find that the likelihood of picking a specific country goes down with the number of countries in the choice set. On the other hand, the number of deposits offered in a country by various banks does not significantly influence the investor's choice.

Why are products with lower interest rates ever chosen? Specifications (5) – (8) shed light on this question. Part of the answer might be found in the dichotomy of investors. We thus control for various investor (like age, gender, employment status, investment experience, trust in the ECB, zip code) and investment characteristics (like investment amount, first investment dummy) as well as deposit maturity. More importantly, we split the sample into Doubters and Believers based on investors' previous transaction record. We find that the interest rate matters differently for previous Believers and Doubters (see specifications (5) and (6)). The effect of a one percent interest rate change on the likelihood of a product being chosen is reduced by about 6% (increased by 12%) in the presence of a Doubter (Believer). This difference is highly relevant, both statistically as well as economically. These findings are in line with hypothesis 1C.

In specifications (7) – (8) of Panel A we show that different investor types react very different to country ratings. We previously established that (overall) investors want to invest in better rated countries. However, the interaction terms in specifications (7) and (8) show that this relation only holds for Doubters. Believers go for lower-rated countries with higher interest rates. This is in line with the hypotheses from Regime C with Doubters (Believers) investors doubting (trusting) the deposit insurance of countries with relatively bad ratings and higher interest rates.

Next, in Panel B, we look at the analogous results but for the nested product choice of investors, i.e. which product is chosen assuming a certain country choice has already been made.²⁷ On the one hand, the complexity of the decision problem is already partly resolved, as country ratings and large interest rate differentials cannot influence the decision anymore. On the other hand, deciding between various banks, usually unfamiliar to the investor and oftentimes without available rating information, seems like a complex task.

Our model predictions are different for this second layer of the investment choice as opposed to the country choice. The results seem to be in line with these predictions. We notice that investors also care about interest rates on the within country level, but now the relevance of interest rates to investor choices is even more pronounced. A one percent differential in interest rates leads to a 100% higher probability of picking a product.²⁸ Interestingly, investors now generally opt for banks with lower ratings (who generally offer higher interest rates) as can be seen in specifications (2) and (4).

When we compare the behavior of Believers and Doubters, we see that their reaction towards interest rate changes is different (see specifications (5) and (6)). Now Doubters are more positive to interest rate increases than Believers. While this might seem surprising at first sight, it is completely in line with model predictions. Doubters usually end up in countries with a deposit insurance scheme in which they believe, i.e. they do not care about risk of the bank anymore and thus chase returns. This is confirmed by the interactions with bank ratings (see specifications (7) and (8)): Here, Doubters are more prone to go for low-rated banks than Believers, which again is something we would expect under model regime C.

In summary, both personal traits as well as the decision environment influence the propensity to choose the product offering the highest interest rate. Believers and Doubters behave fundamentally differently in the different stages of the decision process. When choosing a country, interest rates matter much less to Doubters than they do to Believers. After the country choice, when choosing a bank within a country, interest rates matter to Doubters as well.

²⁷ In the appendix, we show in a nested logit framework that this sequential decision process (first pick a country, then a product within that country) fits the data much better than a direct choice from all available products.

²⁸ Note that interest rate differentials are much smaller within country than across countries (see Figure III).

B. Supply

We run the following panel regression:

$$\text{InterestRate}_{i,c,b,t} = \alpha + \beta_1 * \text{riskfree}_t + \beta_2 * \text{CountryRisk}_{i,c,t} + \beta_3 * \text{BankRisk}_{i,c,b,t} + \gamma_M * \text{Maturity}_{i,t} + \varepsilon_{i,c,b,t} \quad (2)$$

The interest rate is offered for term deposit i . c is the country where the bank b offering the specific deposit is headquartered, and t denotes the day. Country and bank risk variables are described in Table III. As risk free rate, we use German 1 year government bond yields retrieved from Thomson Reuters Datastream. We always use maturity fixed effects based on the respective products maturity. In other specifications, we also use day, country, and bank fixed effects.

INSERT Table VIII: Determinants of Interest Rates Offered By Banks ABOUT HERE

The results are presented in Table VIII. Unsurprisingly, the interest rate offered is positively related to the risk-free rate. Also, the interest rate of term deposits is positively related to the maturity of the respective product. This implies that the term structure is upward sloping in our sample period.²⁹

We find that offered interest rates are negatively related to country and bank risk (as measured by bank rating or tier 1 ratio).³⁰ Better ratings imply lower default probability and so lower interest rates should be offered. However, it might be surprising that country and bank risks are relevant in our setting despite the guarantees. This suggests that some investors (the Doubters) do not believe in these guarantees, and banks adjust offered rates accordingly. Another equally plausible explanation for our finding could be that investors incur a disutility from the administrative formalities related to a bank's default, and banks must price that into their offerings. In specification (4), we use bank fixed effects together with multiple other explanatory variables. We notice here that some banks seem to

²⁹ Even though we only tabulate the coefficients for the 12-, 24- and 36-months products, the upward sloping term structure can also be confirmed looking at all available maturities.

³⁰ In untabulated results, we use rating dummies instead of the continuous rating score as independent variable. The general finding is confirmed by those regressions.

pay a premium of about 1% ($0.321 - (-0.602) = 0.923\%$) compared to other banks even if we control for day, maturity, and country.

Importantly, if our assumption on the existence of less risky vs. more risky banks is valid, we would suspect bank riskiness to be a rather stable characteristic. Consequently, banks offering relatively high/low interest rates compared to their peers, should continue to do so over time. Every day, we rank term deposits based on their interest paid within a given choice set (either same maturity or same maturity and same country). We then sort banks into quartiles based on their relative ranking in each day. Banks that pay a relatively low(high) interest rate on a given day would end up in the bottom (top) quartile. We then calculate the probability of a bank ending up in the same quartile or another one six months or twelve months later. If the interest rate was primarily a function of bank-fixed effects, banks should not switch between quartiles too often. But if it is a function of time-variant effects, like funding needs (see Ben-David et al 2017), we would see banks switching between quartiles often.

INSERT

Figure VI: Persistence of Deposit Interest Rates ABOUT HERE

Panel A of Figure VI presents the results for same maturity across all countries for a gap of 6 months. We find that the likelihood of staying in the same quartile is very high. This is especially true for the group of highest interest rate paying banks which, according to our interpretation, are the riskiest banks.³¹ This evidence supports the implications of the equilibrium of our model which suggests that high interest rates offered by more risky banks and low interest rates offered by less risky banks are persistent over time, suggesting a polarized supply in term deposits.

We now use the residuals of regression specification from column (4) of Table VIII instead of the raw interest rates offered by the different deposits.³² In other words, we sort by the unexplained component of the interest rate. As the specification in column (4) of Table VIII controls for the term

³¹ In untabulated results, we show that it is also true for a gap of 1, 1.5, 2, 2.5 and 3 years. We also see this if we compare banks only to banks from the same country.

³² Using residuals from other specifications does not change our results.

structure, the risk-free rate, country risk, bank risks, as well as country and day fixed effects, we would expect the residual to be pure white noise if the list of risk controls is comprehensive. We, however, see in Panel B of Figure VI that the residual seems to be stable over time as well. So, there must be some systematic differences between banks that are unrelated to publicly available risk factors. This allows a behavioral interpretation: Believers have only monetary preferences and preferred banks for them are banks that offer higher interest rates, whereas Doubters also have some non-monetary preferences (like taste-based likes or dislikes for some countries) and so banks from countries they like may offer lower interest rates.

We now delve deeper into the supply side. The first question we ask is how important it is to offer the highest interest rate paying product for a bank. We have shown in the previous sections that investors (and especially Believers) are reaching for yield. The model implies that more risky banks might use this to attract Believers. We want to test this hypothesis by identifying the determinants of term deposit flow from investors to banks.

For every product, we aggregate the invested amount per month. However, using the invested amount as dependent variable has two major problems. The total amount invested per month across all deposits is an exponentially increasing (and highly fluctuating) number as we start our sample in the early days of the platform. Following these considerations, we will focus on a relative measure of term deposit flows – the fraction of flow going to a bank or country. Second, we specifically want to measure product attractiveness to investors. Imagine a situation with 11 investors where 2 term deposits are available. One of the investors has 10 Euros available, the others each have 1. If the rich investor goes for product A and all others choose product B, the resulting market share of 50% each would completely distort the fact that product B is far more attractive to investors. As we know from Table II that the buying power varies, we use a decision-weighted investment share instead of a Euro-weighted one. We call this measure Market Share. The market share of country i is defined as (Number of investment decisions in term deposits from country i of maturity m in month t)/(Number of investment decisions in month t for maturity m).³³

Table IX presents the results.

³³ We construct an analogous measure on a per bank instead of a per country level.

INSERT Table IX: Determinants of Bank Flows ABOUT HERE

Panel A of Table IX relates country characteristics to country inflows. Offering the highest interest rate paying products (on average across all products in this country) has a large impact on the ratio of investors that invest in the country; it increases market share by 20% (Specification (1)). Just increasing the interest offered by 1% increases market share by 23%. (Specification (2)).

While it is now clear that increasing the yield attracts flows, it is not yet clear which kind of investors react to this incentive. So, the second question we ask is whether the investor mix matters. We look at the investor base of a given month and construct a *Fraction Believers* variable that measures what share of the investors can be considered Believers given their past investments. We define a Believer as someone who only invested in highest interest rate paying products till that point in time in maturity m .³⁴ Note that this definition is backward looking, not considering the actual decision in month t , but only the investor's decisions until $t-1$. In specification (3), we find that offering the highest interest rate paying product has, if anything, a negative impact on country flows in the absence of Believers (-9%). We find that the entire effect comes from Believers being present. In other words, the belief in the deposit guarantee is a necessary condition for a positive relation between the highest interest rate offered and demand for the products of a specific country. In specification (4), we find that the positive relation between all offered interest rates and fraction of investors attracted is significantly reduced (halved) in the absence of Believers. We find that a one percent increase in the average interest rate offered by a country increases the market share of that country by 11.7% in the absence of Believers, but by 27.3%(=11.7%+0.5*31.2%) if 50% of market participants are Believers. This suggests the existence of two fundamentally different investor types who consider disjoint sets of variables when making their investment decisions. While Believers mainly care about the interest rate, Doubters seem to attribute a larger weight to other factors on the country level.

In Panel B of Table IX, we limit the choice set of investors to the products in their second-stage decision, i.e. we assume they already have decided on the country of investment and only choose from

³⁴ Results do not change if we relax this definition to investors that invest in the top 75% interest rate paying products.

products offered by banks residing in this country. Specifications (1) and (2) show that offering higher interest rates to attract investor flows is even more important on the within country level. Offering a 1% higher interest rate than the other banks in the country makes the within-country market share increase by 73%. Specifications (3) and (4) show that this relation is not driven by Believers being present. Higher interest rates within a country attract Believers and Doubters alike.³⁵

Again, findings are largely in line with regime C. Interest rates matter less when the choice is within countries; they seem to matter for Believers but not for Doubters. When the choice is within a country, interest rates matter a lot for both Believers and Doubters.

VI. The Sequential Decision

Since we tacitly assume throughout our paper that investors first choose a country and then a bank within that country, we formally test this assumption using a sequential logit test.

A sequential logit model is a way to capture step-by-step decisions rather than a single, one-shot choice. So instead of treating investment decisions as one singular choice from a large menu of many possible options, we break it into two stages: we hypothesize that investors first choose a country to invest in (Stage 1) and then pick a specific product from the chosen country (Stage 2).

At each stage, we use a logistic regression to estimate the probability of picking one option over another. By doing this sequentially, the model reflects how real decisions often unfold: you first narrow down your broad choices (here: countries) and then focus on more specific options (here: products) within the choice you made. The independent variables in both stages are naturally different from each other: While country risk and the average interest rate offered in each country are relevant in the first stage, bank risk and the actual product interest rates are relevant in the second stage.

The results of this model are given in the Appendix. The sequential logit confirms all our previous findings. As a baseline model, we estimate a simple one stage standard logit model. The model fit stats (Log Likelihood, AIC, BIC) confirm that the sequential decision approach better fits

³⁵ It is interesting to note that Larsen et al (2022) document that retail investors invest in deposits for precautionary reasons; they are insensitive to interest rates. A reason why their inferences differ from ours is that our design uses a change in interest rates as a primary independent variable (we see an effect) whereas their design checks whether flows are the same in different levels of interest rate tranches. It could also be that their investors are all Doubters; our results show that Doubters are relatively insensitive to interest rates.

the data as the one stage baseline model, indicating that investors follow the sequential approach to narrow their decision problem.

The coefficient estimates tell the same story as in our simple model. Specifically, in the first decision stage (country choice), all investor types care about the interest rate offered by the respective country. However, Believers are much more positive to interest rate differentials compared to Doubters. In the second decision stage (within country choice), interest rate sensitivities are stronger for both.

In summary, we can confirm that decisions of investors follow a two-step process.

VII. Conclusion

This paper revisits the classic literature on deposit insurance, a literature where the evidence is overwhelming that deposit insurance increases the flow of funds into deposits because risk is perceived to have decreased.³⁶ This result holds for the average investor. What about investors who are not average? The intuition in this literature suggests that the investor who trusts the deposit insurance to completely make good any loss given bank default – we call them the Believers – will perceive deposits to be riskless and will therefore go for the deposit offering the highest interest rate. Conversely, the investor who does not trust the deposit insurance to completely make good any loss given bank default – we call them the Doubters – will perceive deposits to be risky and will therefore not go for the deposit offering the highest interest rate but will go for deposits offered by their preferred banks (banks whom they trust/banks offering the best risk-return trade-off).

This motivates us to ask the following questions: do we see a group of investors who believe in the guarantee and always invest in term deposits that offer the highest return, but another group of investors, who never do? If so, who are these groups? How do they choose? Which types of banks cater to these two groups? What determines the flow into bank deposits?

The contribution of our paper, to the best of our knowledge, is that we are the first paper to infer extreme heterogeneity in beliefs by observing the choices of depositors. More importantly, we

³⁶ Research has shown that countries with explicit deposit insurance systems tend to experience higher levels of deposits compared to those without such systems. This correlation suggests that the presence of deposit insurance is associated with increased depositor confidence and a subsequent rise in the flow of funds into the banking system. See McCoy 2008 for a comprehensive review of the pluses and minuses of deposit insurance.

document a polarization in these beliefs. We find that 11% of investors regard term deposits as riskless – the Believers – and thus always go for the highest yield, but 67% – the Doubters – never do. The average Doubter is older, has less trust in the European Central Bank, and lives in the former East Germany. Beliefs are persistent on average: Believers tend to remain Believers, and Doubters tend to remain Doubters.

The larger message of our paper is that though the existence of deposit insurance is important, extreme heterogeneity in beliefs about the credibility of bank deposits exists, and this polarization in beliefs may have welfare and policy implications that are important.³⁷

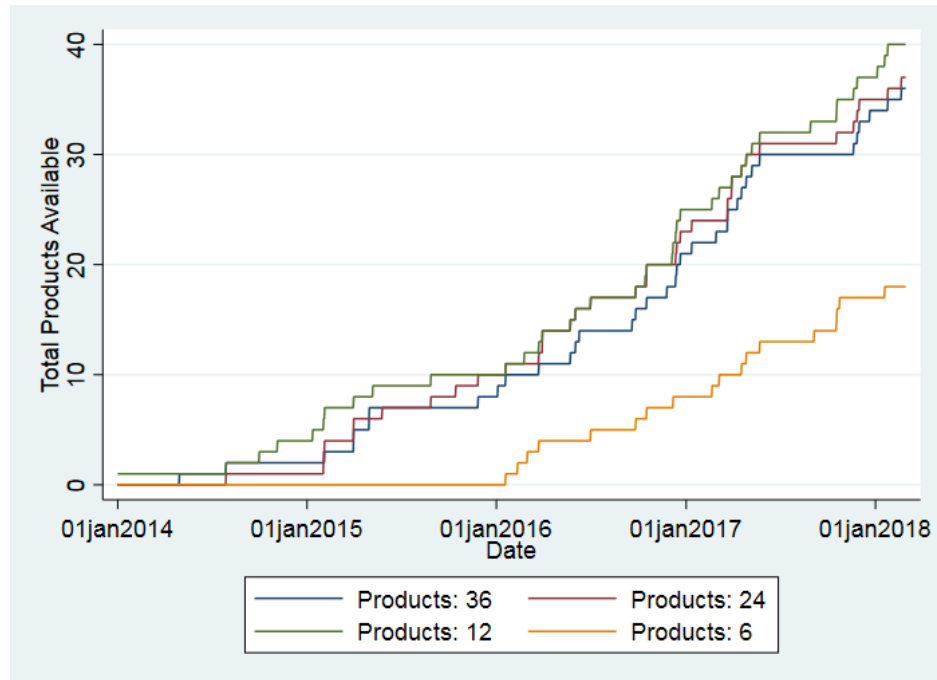
³⁷ Vats (2025) looks at financial heterogeneity of different firms and households based on their financial characteristics, like leverage, liquidity, and debt maturity. He shows that the impact of monetary policy is uneven because of this. We focus on the heterogeneity of beliefs about deposit insurance.

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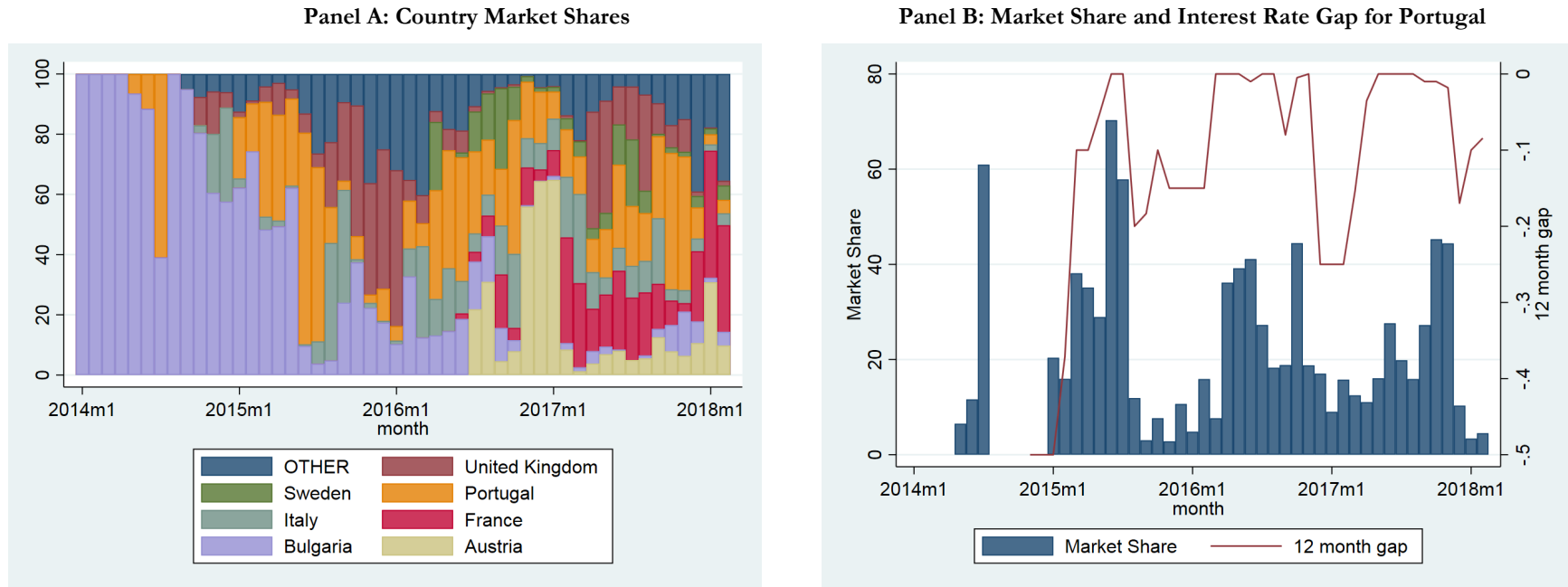
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Figure I: Products Available



Notes: This figure shows the number of term deposits of various maturities (6, 12, 24, and 36 months) available to investors from January 2014 to end of February 2018.

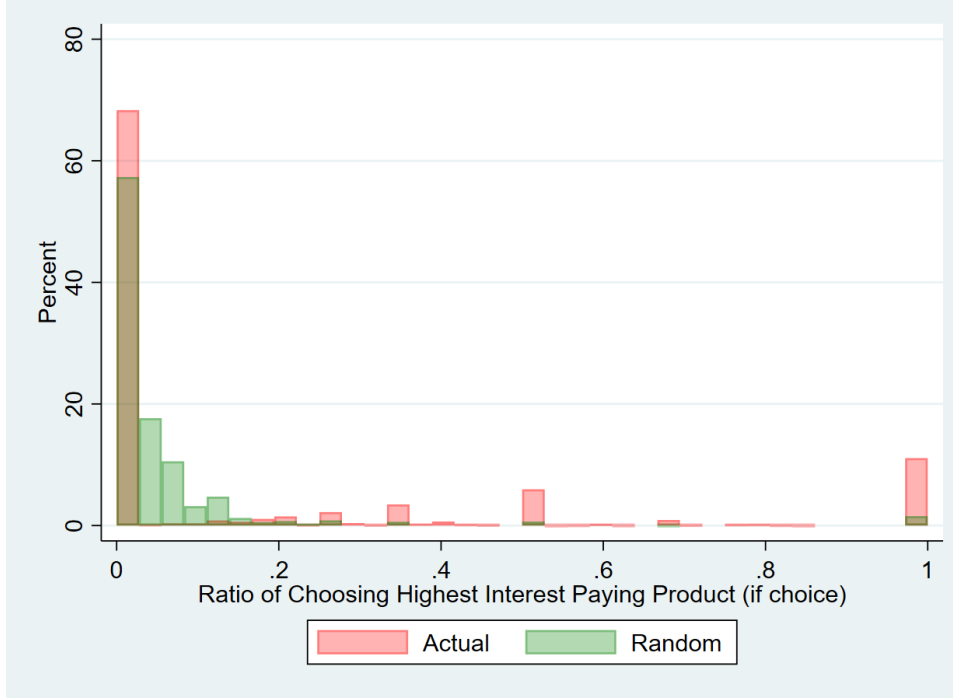
Figure II: Country Market Shares



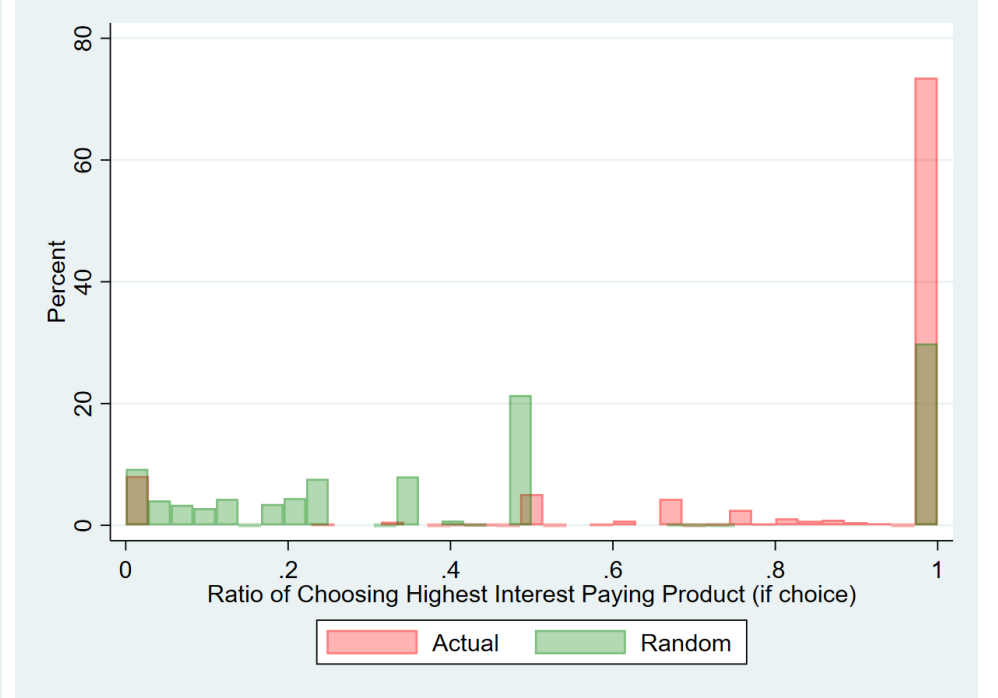
Notes: Panel A of this figure shows the market shares of the 7 countries that capture the highest investment flows over the time-series. All other countries (Poland, Germany, Latvia, Czech Republic, Croatia, Ireland, Estonia, Cyprus, Lithuania) are subsumed in the OTHER category. Market shares of each country X are calculated monthly as the total EUR-amount investment from banks in country X divided by the total Euro-amount investment in that month. Panel B shows the market share in blue for the most preferred market Portugal; the scale is in percent on the left axis. The gap between the highest interest rate offered by Portuguese banks for 1 year maturity products and the overall highest interest rate offered for 1 year maturity products is calculated and is shown in red; the scale is in percent on the right axis. This measure, by definition, has a maximum value of 0 percent.

Figure III: Histogram of Ratio of Choosing the Highest Interest Rate Product

Panel A: Across Countries



Panel B: Within Countries



Notes: Panel A of this Figure shows the histogram of ratio of choosing the highest interest rate product. The ratio of choosing the highest interest rate product (if there is a choice) is defined as $\frac{\text{number of decisions where the highest interest rate paying product was chosen (for choices with at least 2 products)}}{\text{number of investment decisions (with at least 2 products)}}$ for each investor. The histogram of this measure across all investors is depicted in red bars (*Actual*).

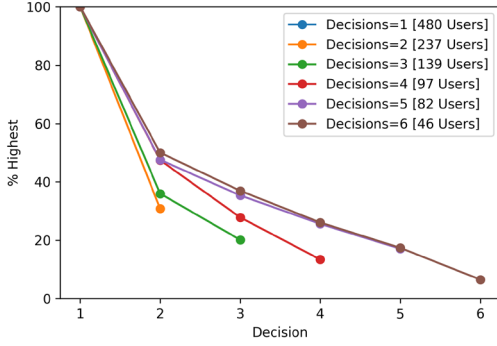
We then calculate the random probability of choosing the highest interest rate product (if choice) as $p = \frac{\# \text{ highest interest rate paying products}}{\# \text{ products}}$ for each investment decision. We then simulate the ratio of choosing highest interest rate paying (if at least 2 products available) for each investor based on these probabilities. The histogram of this measure across all investors is depicted in green bars (*Random*).

Panel B of this Figure shows the same distribution, but limits the choice set to the products offered in a single country.

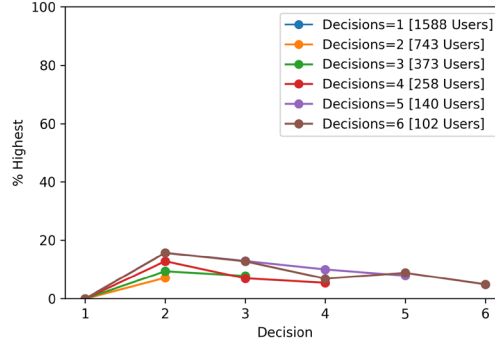
Figure IV: Persistence of Investor Decisions (amongst investors who make more than one decision)

A: Across Countries

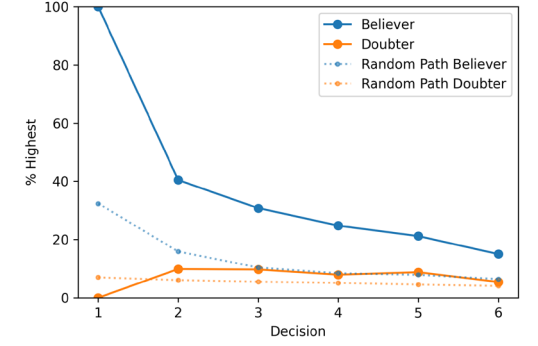
Panel A1: Initial Believers



Panel A2: Initial Doubters

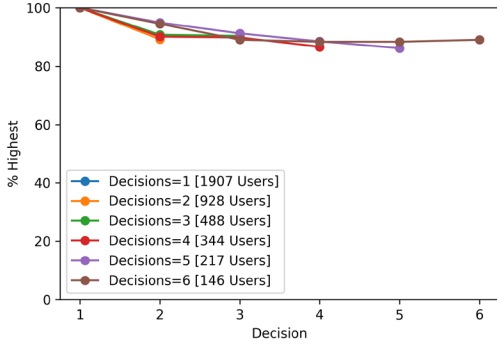


Panel A3: Initial Believers vs. Initial Doubters

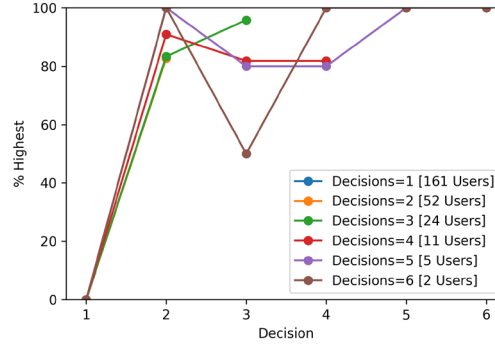


B: Within Countries

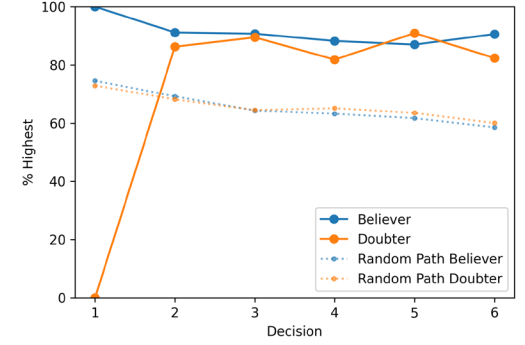
Panel B1: Initial Believers



Panel B2: Initial Doubters



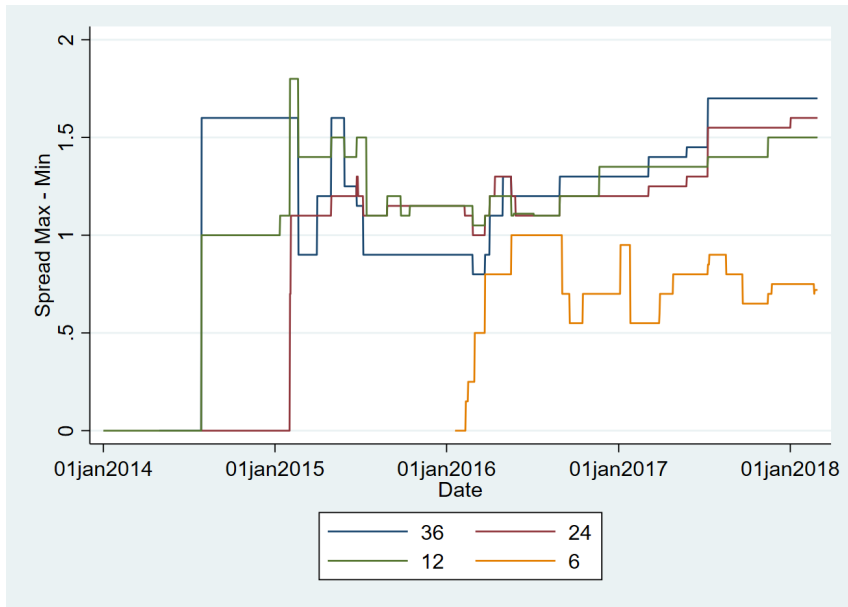
Panel B3: Initial Believers vs. Initial Doubter



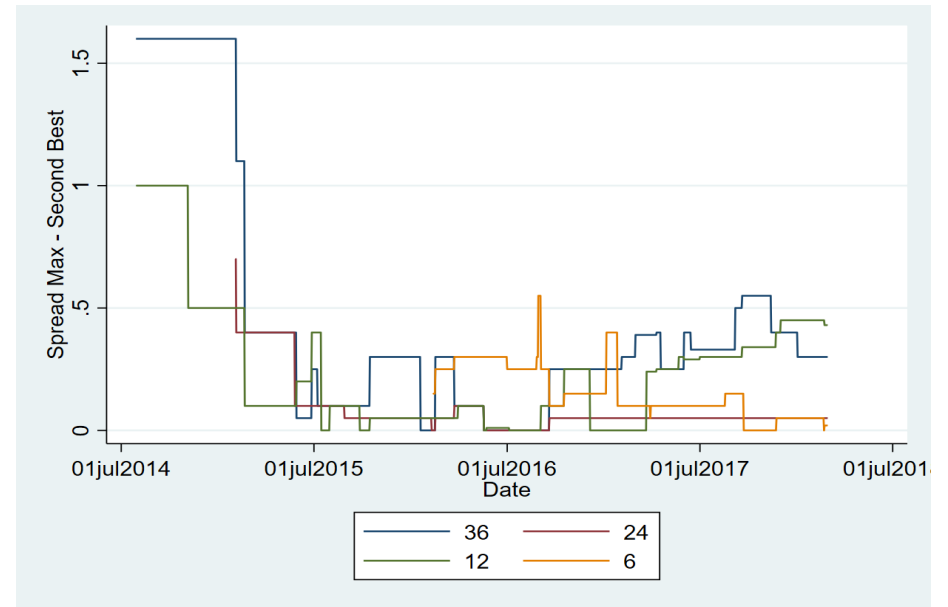
Note: For each investor we count the number of investment decisions made as *Decisions*. In *Panel A1* and *Panel A2* we split this sample by customers who went for the highest interest rate paying product in their first decision (*Panel A1*) and customers who did not go for the highest interest rate paying product in their first decision (*Panel A2*). In square brackets, we provide the number of investors that fall into a specific cluster. *Panel A3* shows the investor-weighted average of *Panel A1* vs *Panel A2*. *Decision* on the x-axis indicates the respective decisions in chronological order. *% Highest* shows the fraction of investors who went for the highest interest rate paying product in this specific decision. Also, in *Panel A3*, we plot the hypothetical fraction of investors picking the highest interest rate if investors acted randomly. *Panel B* shows the same statistics but limiting the choice set of investors to products from the country they ended up investing in.

Figure V: Dispersion in Interest Rates

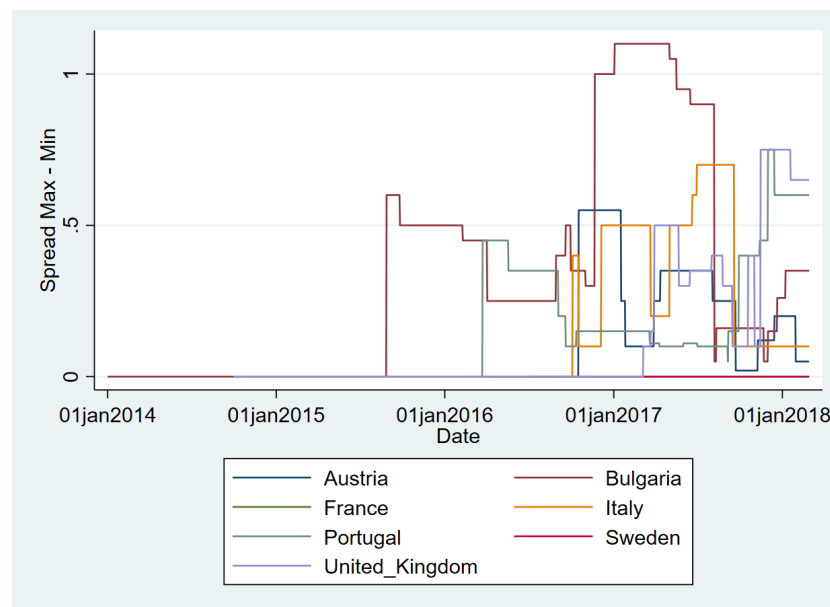
Panel A: Dispersion in Interest Rates Overall (Max - Min)



Panel B: Dispersion in Interest Rates Overall (Max - Second Highest Interest Rate)



Panel C: Dispersion in Interest Rates by Country (Max - Min) (maturity: 12 months)



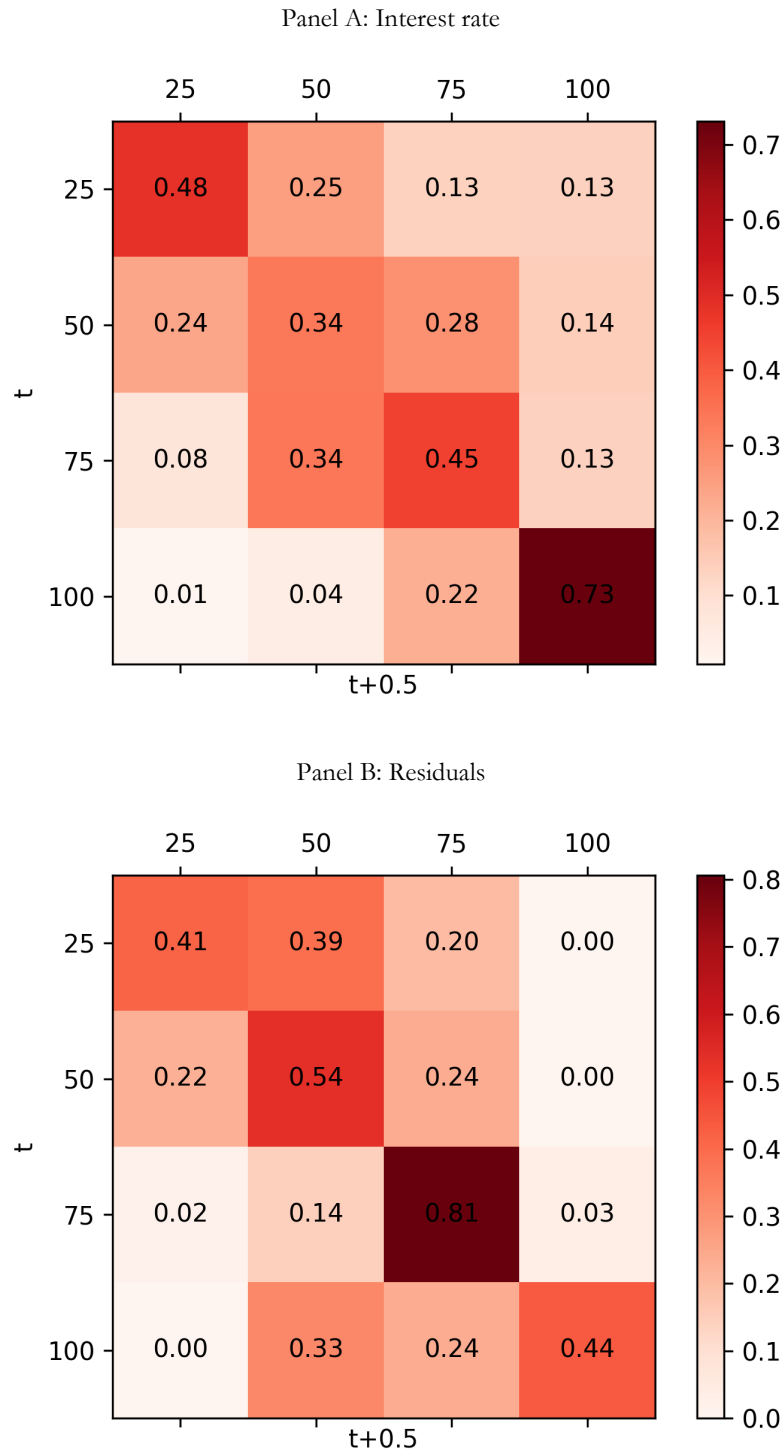
Notes: This figure plots the spread in returns of different term deposits over time.

Panel A defines the Spread as $Spread_{j,t} = Interest_{Max,j,t} - Interest_{Min,j,t}$, where $Interest_{Max/Min,j,t}$ is the maximum/minimum interest paid by a term deposit with a maturity of j month ($j \in \{6,12,24,36\}$) at day t .

Panel B defines the Spread as $Spread_{second,j,t} = Interest_{Max,j,t} - Interest_{Second,j,t}$, where $Interest_{Max/Second,j,t}$ is the maximum/second highest interest (this second highest interest can be identical to the maximum interest if two products pay the same return) paid by a term deposit with a maturity of j month ($j \in \{6,12,24,36\}$) at day t .

Panel C defines the Spread as $Spread_{c,j,t} = Interest_{Max,c,j,t} - Interest_{Min,c,j,t}$, where $Interest_{Max/Min,c,j,t}$ is the maximum/minimum interest paid by a term deposit from country c ($c \in \{Austria, Bulgaria, France, Italy, Portugal, Sweden, UK\}$) with a maturity of 12 months at day t

Figure VI: Persistence of Deposit Interest Rates Offered by Banks



Notes: This figure presents the empirical likelihoods of switching from one interest rate quartile i in time t to another interest rate quartile j within a given amount of time. Panel A shows the switch in 6 months for the same maturity across all countries; Panel B shows the switch in 6 months for the same maturity using the unforecasted rate (residuals in column (5) in Table IV).

Table I: Filtering

This table shows the number of transactions and investors after each filtering step. We first drop all interactions on the platform that are unrelated to an explicit investment decision (those include deposits to/withdrawals from the platform, and interest and principal payments at maturity). We only keep transactions from German customers. A customer is defined as German if neither his first nor his second nationality are non-German. Additionally, the customer must be born and currently taxed in Germany. We remove all transactions in which the customer invests before depositing money on his platform account and/or his investment leads to a negative account balance. We only keep Euro-denominated products and eliminate all overnight contracts.

	Transactions	Investors
Transactions to Partnerbank	19,950	5,649
German customers only	18,872	5,304
Remove transactions with negative balance	18,109	5,218
Only Euro denominated products	16,774	5,035
Drop overnight contracts	14,683	4,798

Table II: Customer Demographics

This table provides summary statistics on the sample of 4798 customers. *Age* is the mean age of customers at the point in time of their first transaction. *Male* is a dummy that equals 1 if the customer is male. *Profession: X* is a dummy that equals 1 if a customer indicated that he is working in the respective profession. Customers were only allowed to select one single profession. *Trust in ECB* is the fraction of survey participants who answered “Tend to trust” to the question “Please tell me if you tend to trust it or tend not to trust it?: The European Central Bank.” This question was asked in Eurobarometer surveys conducted by the European commission and matched by Bundesland and Age to our customer sample. *Term Structure Chosen* is the maturity (in months) of the products chosen by a customer. *Amount invested* is the amount invested by a customer per transaction. *Number of transactions* provides the number of investments made by a customer.

	Min	25%	Mean	50%	75%	Max	St.Dev.
Age	18.00	47.00	55.63	57.75	66.00	94.00	14.71
Male	0	0	0.65	1	1	1	0.48
Profession: Employed in Private Sector	0	0	0.43	0	1	1	0.50
Profession: Public Services	0	0	0.07	0	0	1	0.25
Profession: Self-Employed	0	0	0.09	0	0	1	0.28
Profession: Retired	0	0	0.32	0	1	1	0.47
Profession: Unemployed/Other	0	0	0.09	0	0	1	0.29
Trust in ECB	0.10	0.32	0.40	0.41	0.48	0.66	0.10
Term Structure Chosen	3.00	12.00	18.73	12.00	24.00	120.00	13.02
Amount Invested	1,000.00	10,000.00	31,008.06	20,000.00	45,000.00	100,000.00	28,477.98
Number of Transactions	1	1	3.04	2	4	57	3.64

Table III: Country/Bank Characteristics

This table provides descriptive statistics on the countries and banks in our sample. *#Banks/#Products* is the number of banks/products available for investment in each country. *Share* is the EUR-amount invested in the respective country divided by the total EUR-amount invested in % (averaged per day and then over time). *Country/Bank Rating* are transferred into a numeric rating score on a scale from 0 to 100 (AAA=100, D=0) based on a matching table provided by Trading Economics (<https://tradingeconomics.com/country-list/rating>) and then averaged across ratings from S&P, Fitch, Moody's. *Bank Tier 1 Ratio* is defined as $\frac{\text{Tier 1 Capital}}{\text{Total Risk Weighted Assets}}$ of the bank. We calculate the 25th, 50th and 75th percentile as well as the time-series mean for the last two variables.

	Share	#Products	Country Rating	Bank Rating				Bank Tier 1 Ratio			
	in EUR		Mean	25	Mean	50	75	25	Mean	50	75
Portugal	18.30	18	51	20	29	30	40	10	14	10	13
France	13.13	12	90								
Austria	12.77	10	95					15	17	16	16
Sweden	12.35	3	100					13	14	14	14
Italy	11.47	20	59	40	56	65	65	14	14	14	14
Bulgaria	10.09	11	55	35	35	35	35	20	21	20	22
United Kingdom	9.82	10	92					17	17	17	17
Poland	3.55	7	70	45	43	45	45	11	11	12	12
Germany	1.83	67	100	65	65	65	65	21	21	21	21
Latvia	1.75	5	70	25	25	25	25	12	13	14	14
Czech Republic	1.72	5	82	35	35	35	35	24	24	24	24
Croatia	1.13	13	45					15	15	15	15
Ireland	0.95	1	74	50	51	50	53	14	15	14	15
Estonia	0.55	7	82	40	40	40	40	16	16	16	16
Cyprus	0.37	3	45	38	38	38	38	20	20	20	20
Lithuania	0.22	4	70	25	25	25	25				

Table IV: Believer Traits

This table provides results of a probit regression with *Believer dummy* as dependent variable. *Believer dummy* is defined as 1 if the investor always went for the highest interest rate paying product in his choice set and 0 if he never did. *Random Probability* is defined as the average likelihood of an investor picking the highest interest rate paying product by choosing randomly. *Mean Amount Invested* is the respective investor's average investment amount in 100,000 Euros. *Maturity* is the average maturity of products invested in by this investor in months. *Male* equals 1 if the investor is male and zero otherwise. *Age* is the investors average age in years during our sample period and *East Germany* is a dummy that equals 1 if the investor lives in East Germany and zero otherwise. *Trust in ECB* is defined as in Table 2. Since we did not find significant differences between the classified professions, we pool them as *Employed* and define *Unemployed/Unclassified* dummy as 1. *Hesitation* is defined as the gap in days between the first time he deposits money on the platform and the time of his first investment. *Transaction FE* means that we only compare investors with the same number of investments to each other. If *Choice* equals 1, we drop decisions with only one product in the investor's choice set before determining the *Believer dummy*. If *Often* equals 1, we drop investors with less than 4 investment decisions. *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively. The average marginal effects and t-statistics (in parentheses) of the probit regression are shown.

	(1)	(2)	(3)	(4)
Random Probability	3.630*** (3.54)	2.079*** (3.22)	0.923** (2.41)	0.565* (1.70)
Mean Amount Invested	0.00267 (0.18)	-0.00283 (-0.20)	-0.0307 (-1.31)	-0.0390 (-1.42)
Maturity	0.00236*** (5.63)	0.00184*** (6.58)	0.00302*** (6.49)	0.00245*** (6.55)
Male	0.00875 (0.99)	0.00670 (0.85)	0.0103 (0.98)	0.00624 (0.62)
Age	-0.00147*** (-2.89)	-0.00130*** (-2.75)	-0.00172*** (-2.95)	-0.00146*** (-2.63)
East Germany	-0.0269** (-2.55)	-0.0189** (-2.07)	-0.0191* (-1.91)	-0.0156 (-1.61)
Trust in ECB	1.080*** (4.39)	0.783*** (3.98)	1.219*** (4.99)	1.009*** (4.34)
Retired	0.0336* (1.94)	0.0242 (1.56)	0.0387* (1.67)	0.0212 (1.12)
Unemployed/ Unclassified	-0.0148 (-1.37)	-0.0256*** (-3.19)	-0.0201** (-2.38)	-0.0218*** (-2.88)
Hesitation		-0.000181*** (-7.40)		-0.0000700*** (-4.19)
Observations	1556	1550	830	829
Transactions FE	Yes	Yes	Yes	Yes
Choice	No	No	Yes	Yes
Often	No	No	Yes	Yes
Pseudo R2	0.500	0.582	0.439	0.485

Table V: Intra Country Interest Rate Dispersion: Panel Regression

In this table we present the results of a panel regression. The dependent variable is either the *interest rate spread* ($=\max(\text{interest rate})-\min(\text{interest rate})$) or the *standard deviation of interest rates* in a country. *Country Rating* is defined as in Table 3. Additionally, we use maturity fixed effects. We use heteroskedasticity-robust standard errors. The t-statistics are shown in parentheses. *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	(1) Interest Rate Spread	(2) $\sigma_{Interest Rate}$
Country Rating	-0.00170*** (-23.69)	-0.00154*** (-28.75)
Maturity=12	0.0774*** (20.90)	0.0165*** (3.65)
Maturity=24	0.158*** (36.40)	0.0378*** (8.12)
Maturity=36	0.124*** (27.97)	0.0383*** (7.69)
Constant	0.232*** (39.28)	0.335*** (61.51)
Observations	37344	19405
R-squared	0.041	0.027
Adjusted R-squared	0.041	0.027

Table VI Intra Country Interest Rate Dispersion: Event Study

We run an event study with interest rate dispersion as the dependent variable for hand-collected events that presumably affected the trust in the deposit insurance of some but not all countries in our sample. *Panel A* presents the list of these events. Direction indicates whether we suspect this event to have a positive/negative effect on trust. An asterisk after the date indicates that we drop those events in an alternate specification to avoid overlapping events. *Panel B* presents the event study results. As event window, we use -60/+60 days. As the exact event date is oftentimes ambiguous, we drop days -7 to 7. Consequently, *post dummy* (*pre dummy*) equals 1(0) for the days 8 to 60 (-60 to -8). We invert the dummy for events with a positive direction, such that the dummy always indicates a reduction in trust after these events. Treatment Country equals 1 for the countries mentioned as affected countries in Panel A. The dependent variable is either the *interest rate spread* ($=\max(\text{interest rate})-\min(\text{interest rate})$), the *standard deviation of interest rates* in a country, *Country Rating* (as in Table 3) or *Fraction Doubters* (the share of investors, who, based on their previous behavior are classified as doubters). We employ country-, event- and maturity-fixed effects. We use heteroskedasticity-robust standard errors. The t-statistics are shown in parentheses. *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Event List

Date	Event	Affected Countries	Type	Trust Channel	Direction
20.06.2014	Corporate Commercial Bank (KTB) collapse	Bulgaria	Bank failure	Major domestic bank failure	↓
03.08.2014*	Banco Espírito Santo (BES) resolution	Portugal	Bank failure	Major national bank failure and partial resolution	↓
26.10.2014	ECB Comprehensive Assessment & Stress Test results released	Italy, Austria, France, Germany, Portugal, Ireland	Supervisory disclosure	Revealed bank fragilities	↓
01.03.2015	Hypo Alpe-Adria resolution	Austria	Bank failure	Regional bank resolution	↓
29.06.2015	Greek capital controls and bank holiday	Portugal, Italy, Cyprus, France, Austria, Ireland, Germany	Sovereign/Banking crisis	Raised fear of contagion	↓
23.06.2016	UK Brexit referendum (Leave 51.9%)	United Kingdom	Political shock	Uncertainty over financial guarantees	↓
10.04.2017	Agrokor crisis	Croatia	Corporate crisis	Corporate governance and bank exposure risk	↓
06.06.2017*	Banco Popular Español resolution	Portugal, France	Bank resolution	First BRRD-style resolution; depositors protected	↑
29.06.2017*	Veneto Banca & Banca Popolare di Vicenza liquidations	Italy	Bank failures	Retail bondholder losses; local trust hit	↓
04.07.2017*	Monte dei Paschi di Siena (MPS) recapitalisation approved	Italy	State aid	Government intervention signals safety net	↑
13.02.2018*	ABLV Bank crisis	Latvia	Bank failure	Money-laundering allegations	↓
15.02.2018	Carillion collapse	United Kingdom	Corporate failure	Raised concerns about business banking exposure	↓

Panel B: Event Study

	StDev Interest Rate	Interest Rate Spread	Country Rating	Fraction Doubters
Treatment Country Dummy=1	0.0187*** (5.43)	0.0996*** (17.11)	-0.596*** (-15.16)	-0.0452 (-1.24)
Post Dummy=1	-0.00120 (-0.58)	0.0113*** (3.96)	0.0912*** (4.60)	0.0134 (0.91)
Post Dummy=1 # Treatment Country Dummy=1	0.0601*** (15.40)	0.137*** (22.07)	-0.681*** (-19.96)	-0.0763** (-2.17)
Constant	0.222*** (49.61)	0.0537*** (6.20)	97.61*** (1609.17)	0.391*** (10.19)
Observations	19102	33297	81872	32000
R-squared	0.626	0.455	0.982	0.193
Adjusted R-squared	0.625	0.454	0.982	0.185

Table VII: Determinants of Investor Choice

In this table we present the results of a regression that not only considers the decisions made but also the potential decisions investors could have made given the choice set at the point in time. The dependent variable is a dummy that equals 1 if the investor invested in this product from his choice set and zero otherwise. *Panel A* shows results for a country choice, i.e. the dependent variable is 1 if a product from a respective country is chosen. *Panel B* shows results for the within-country choice, i.e. the variable is one if a product from a choice set limited to the respective country is chosen. *Delta Interest* is defined as the interest paid by the respective product minus the interest paid by the product with the lowest interest in the investor's choice set. *Country and Bank rating* are defined as in Table 3. *Previous Believer/Doubter* equals 1 if the investor is a believer/doubter according to our definition. Believers/Doubters are determined based on all decisions made by the investor prior to the respective investment decision. We use maturity and country clustered standard errors. The t-statistics are shown in parentheses. *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

<i>Panel A: Choice Across Countries</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# Countries in Choice Set			-0.0127*** (-7.64)	-0.0125*** (-6.65)	-0.0137*** (-7.40)	-0.0137*** (-7.55)	-0.0135*** (-6.01)	-0.0134*** (-6.19)
Delta Interest	0.151*** (7.35)	0.193*** (8.81)	0.127*** (7.01)	0.161*** (8.07)	0.148*** (6.36)	0.118*** (7.52)	0.171*** (6.93)	0.156*** (8.64)
# Products in Country			0.00522 (1.95)		0.00546 (1.97)	0.00554 (1.99)		
Previous Doubter=1 # Delta Interest					-0.0576* (-2.75)		-0.0279 (-1.48)	
Previous Believer=1 # Delta Interest						0.124** (4.13)		0.0674* (2.43)
Country Rating		0.00178*** (6.20)		0.00147*** (5.21)			0.000931* (2.93)	0.00165*** (5.83)
Previous Doubter=1 # Country Rating							0.00146*** (7.77)	
Previous Believer=1 # Country Rating								-0.00260*** (-6.50)
Constant	0.00469 (0.41)	-0.153*** (-4.86)	0.163*** (14.41)	0.363*** (15.62)	0.164*** (14.50)	0.181*** (12.84)	0.400*** (15.25)	0.353*** (15.38)
Observations	160201	160201	160201	160115	157686	157686	157600	157600
R-squared	0.031	0.042	0.040	0.049	0.042	0.043	0.053	0.054
Adjusted R-squared	0.031	0.042	0.040	0.049	0.042	0.043	0.053	0.053
Decision-FE	Yes	Yes	No	No	No	No	No	No
Investment Controls	No	No	No	Yes	Yes	Yes	Yes	Yes
Investor Controls	No	No	No	Yes	Yes	Yes	Yes	Yes
Maturity FE	No	No	No	Yes	Yes	Yes	Yes	Yes

Panel B: Choice Within Countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# Products in Choice Set			-0.176*** (-21.07)	-0.125*** (-8.87)	-0.176*** (-20.94)	-0.175*** (-20.67)	-0.127*** (-9.43)	-0.126*** (-9.02)
Delta Interest	1.627*** (14.51)	0.987*** (13.94)	0.909*** (16.31)	0.785*** (6.55)	0.886*** (14.62)	0.921*** (17.32)	0.815*** (5.45)	0.787*** (6.96)
Previous Doubter=1 # Delta Interest					0.0643 (1.12)		-0.0795 (-0.92)	
Previous Believer=1 # Delta Interest						-0.168** (-4.06)		-0.000200 (-0.00)
Bank Rating		-0.0149*** (-19.72)		-0.0104*** (-12.30)			-0.00944*** (-10.36)	-0.0107*** (-14.01)
Previous Doubter=1 # Bank Rating							-0.00272*** (-5.42)	
Previous Believer=1 # Bank Rating								0.00428** (3.27)
Constant	0.277*** (18.12)	0.885*** (24.97)	0.866*** (80.34)	0.182 (0.14)	0.874*** (59.19)	0.860*** (81.80)	0.265 (0.21)	0.237 (0.19)
Observations	28347	8354	28347	8352	28345	28345	8352	8352
R-squared	0.427	0.400	0.369	0.361	0.370	0.370	0.363	0.363
Adjusted R-squared	0.427	0.400	0.369	0.358	0.370	0.370	0.360	0.359
Decision-FE	Yes	Yes	No	No	No	No	No	No
Investment Controls	No	No	No	Yes	Yes	Yes	Yes	Yes
Investor Controls	No	No	No	Yes	Yes	Yes	Yes	Yes
Maturity FE	No	No	No	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	Yes	Yes	Yes	Yes	Yes

Table VIII: Determinants of Interest Rates Offered by Banks

This table presents the results of a panel regression with the interest rate in percent offered for every term deposit in our sample being the dependent variable. *Risk-Free Rate* is the 1-year German Government Bond yield in percent. All specifications include maturity fixed effects. *Maturity* can be 3,6,12,18,24,30,36,42,48,54,60,72,84, or 120 months. For brevity, we only show the coefficients for the most popular deposits, the 12-, 24-, and 36-months term deposits. *Country/Bank Ratings* are “translated” into a numeric rating score on a scale from 0 to 100 (AAA=100, D=0) and then averaged across ratings from S&P, Fitch, Moody’s. *Bank Tier 1 Ratio* is defined as $\frac{\text{Tier 1 Capital}}{\text{Total Risk Weighted Assets}}$ of the bank. In some specifications, we apply day, bank or country fixed effects. Again, for reasons of brevity, we only show the minimum and maximum coefficient of the bank fixed effects. We use heteroskedasticity-robust standard errors. The t-statistics are shown in parentheses. *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)	(4)	(5)
Risk-Free Rate	2.076*** (62.23)	2.158*** (33.82)	1.113*** (18.53)	2.217*** (78.01)	1.002*** (90.42)
Maturity=12	0.406*** (48.90)	0.174*** (25.78)	0.240*** (36.97)	0.513*** (64.08)	0.304*** (49.95)
Maturity=24	0.563*** (67.53)	0.292*** (44.72)	0.403*** (57.68)	0.678*** (84.34)	0.435*** (69.13)
Maturity=36	0.658*** (78.79)	0.432*** (67.26)	0.449*** (62.20)	0.802*** (97.60)	0.500*** (71.70)
Country Rating	-0.00895*** (-141.33)				-0.0107*** (-4.56)
Bank Rating		-0.00971*** (-58.85)			
Bank Tier 1 Ratio			-0.00466*** (-9.27)		-0.00233*** (-4.53)
Maturity FE	Yes	Yes	Yes	Yes	Yes
Day FE	Yes	Yes	Yes	Yes	Yes
Bank FE	No	No	No	Yes	No
Country FE	No	No	No	No	Yes
Min(Bank Coef)				-0.602***	
Max(Bank Coef)				0.321***	
Constant	2.349*** (235.03)	2.388*** (198.34)	1.308*** (68.46)	1.699*** (138.60)	2.373*** (10.58)
Observations	58831	24639	28065	58831	28065
R-squared	0.661	0.662	0.609	0.781	0.671

Table IX: Determinants of Bank Flows

In this table we explain the market share of a given bank per month by several explanatory variables. *Panel A* shows the results across countries, whereas *Panel B* shows the results within a country. *Market share* of bank (country) *i* is defined as (Number of investment decisions for bank (country) *i*'s term deposit of maturity *m* in month *t*) / (Number of investment decisions in month *t* for maturity *m*). *Highest interest rate paying product(country)* is a dummy that equals 1 if the product(country) is the highest interest rate paying product(country) in its choice set and zero otherwise. *Interest Rate Delta* is defined as the interest paid by the respective product (country) minus the interest paid by the product (country) with the lowest interest in the investor's choice set. *Fraction Believers* is defined as $\frac{\text{Number of believers in month } t}{\text{Number of all Investors in month } t}$, with Believers being defined as someone who always chose the highest paying product till current decision in maturity *m*. We use heteroskedasticity-rust standard errors. The t-statistics are shown in parentheses. *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Across Countries

	Fraction (1)	Fraction (2)	Fraction (3)	Fraction (4)
Highest interest rate paying Country	0.201*** (8.67)		-0.0929** (-2.80)	
Interest Rate Delta		0.234*** (13.99)		0.117*** (4.49)
Fraction Believers			0.178* (2.29)	1.281*** (41.09)
Fraction Believers # Highest interest rate paying Country			0.907*** (11.06)	
Fraction Believers # Interest Rate Delta				0.312*** (4.32)
Constant	0.277*** (3.76)	0.425*** (5.09)	0.431*** (5.59)	0.304*** (3.65)
Observations	1713	1713	1744	1744
R-squared	0.188	0.223	0.366	0.319
Adjusted R-squared	0.161	0.197	0.342	0.293
Month-FE	Yes	Yes	Yes	Yes
Maturity-FE	Yes	Yes	Yes	Yes
Choice Set >=2	Yes	Yes	No	No

Panel B: Within A Country

	Fraction (1)	Fraction (2)	Fraction (3)	Fraction (4)
Highest interest rate paying Product	0.577*** (28.90)		0.655*** (21.00)	
Interest Rate Delta		0.728*** (16.20)		0.235*** (2.34)
Fraction Believers			0.104 (1.00)	0.796*** (13.82)
Fraction Believers # Highest interest rate paying Product			0.144 (1.34)	
Fraction Believers # Interest Rate Delta				0.290 (0.69)
Constant	0.116 (0.82)	0.433* (2.47)	0.277*** (6.38)	0.723*** (12.03)
Observations	1412	1412	1905	1905
R-squared	0.438	0.185	0.604	0.184
Adjusted R-squared	0.421	0.160	0.590	0.156
Month-FE	Yes	Yes	Yes	Yes
Maturity-FE	Yes	Yes	Yes	Yes
Choice Set >=2	Yes	Yes	No	No

APPENDIX

Sequential Logit - Determinants of Investor Choice

In this table we present the results of a sequential logit model regression that replicates the results from Table VI but combines Panels A and Panel B into one sequential logit model. The dependent variable is a dummy that equals 1 if the investor invested in this product from his choice set and zero otherwise. *Stage 1* models the country choice, i.e. the dependent variable is 1 if a product from a respective country is chosen. *Stage 2* shows results for the within-country choice, i.e. the variable is one if a product from a choice set limited to the respective country is chosen. *Delta Interest* is defined as the interest paid by the respective product minus the interest paid by the product with the lowest interest in the investor's choice set. *Country and Bank rating* are defined as in Table 3. *Previous Believer/Doubter* equals 1 if the investor is a believer/doubter according to our definition. Believers/Doubters are determined based on all decisions made by the investor prior to the respective investment decision. We use heteroskedasticity-robust standard errors. The t-statistics are shown in parentheses. *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	(Baseline)	(1)	(2)	(3)
Stage 1: Country Choice				
# Countries in Choice Set		-0.110*** (-49.21)	-0.114*** (-49.81)	-0.114*** (-50.10)
Delta Interest Across Countries		1.631*** (84.72)	1.471*** (53.75)	1.612*** (83.24)
Previous Believer			-0.284*** (-9.43)	
Previous Believer # Delta Interest Across Countries			0.280*** (7.26)	
Previous Doubter				0.0224 (0.14)
Previous Doubter # Delta Interest Across Countries				0.218 (1.09)
Delta Interest	1.497*** (83.02)			
# Products in Choice Set	-0.0290*** (-40.63)			
Constant	-2.683*** (-110.51)	-2.028*** (-65.58)	-1.803*** (-52.33)	-1.940*** (-61.77)

	<i>(Baseline)</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>
Stage 2: Product Choice				
# Products in Country	-1.225*** (-78.16)	-1.225*** (-78.09)	-1.225*** (-78.11)	
Delta Interest Within Country	7.670*** (56.36)	7.305*** (43.14)	7.664*** (56.09)	
Previous Believer		-0.151*** (-4.34)		
Previous Believer # Delta Interest Within Country		0.721*** (3.51)		
Previous Doubter			-0.149 (-0.81)	
Previous Doubter # Delta Interest Within Country			0.466 (0.54)	
Constant	2.339*** (68.18)	2.421*** (61.17)	2.341*** (68.19)	
Observations	323,238	323,238	318,482	318,482
Log Likelihood	-91,335.7	-103,365.2	-102,583.5	-102,638.4
AIC	182,677.4	206,742.4	205,187.0	205,296.8
BIC	182,709.4	206,806.5	205,293.6	205,403.5