JUMS

Online-Appendix

„Blessing or Curse? The Influence of Neobrokers on the Investment Behavior of Young Investors"

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Appendix

Questionnaire

Neobroker – Curse or Blessing?

Dear Participant,

thank you for your interest in the survey conducted as part of the research of the Chair of Digital Finance at the Technical University of Munich. This study will assess the impact of neobrokers on retail investors' investment behavior. The survey complies with the data protection regulations of the GDPR and takes about 10 minutes. All answers are anonymous and will be used for scientific purposes only. Please answer each question based on your own experience, there are no "right or wrong" answers.

Thank you very much for your support!

If you have questions, please contact max.janussek@tum.de

Information about the project:
In recent months, neobrokers have enjoyed great popularity. In this context, neobrokers are defined as a new generation of online brokers that significantly reduce the trading range and the scope of services in contrast to traditional banks in order to focus on a specific area. In most cases, neobrokers appear primarily in the form of a mobile application. The following survey analyzes, among other things, the structure of the applications as well as the various interaction options within the neobrokers. The resulting findings will then provide the basis for a research paper to be elaborated.

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Do I have to participate?
No. Your participation is voluntary and can be terminated at any time. You will not suffer any disadvantages in the event of non-participation or premature termination.

Is it possible to draw conclusions about my person?
Your answers will be collected anonymously and used exclusively for the purposes of this study. Anonymized data can not be assigned to any individual person. When published in a scientific context, the data will not reveal who participated in this research.

Profiling in the sense of Art. 4 No. 4 DSGVO does not take place. Since no personal data is collected, a data protection impact assessment pursuant to Art. 35 DSGVO is not required for the processing.

1. Declaration of Consent *

   Mark only one oval.

   ⬭ I agree to participate in the survey regarding "Neobroker - Curse or Blessing?"

General Information

In the following section, you will be asked general, demographic questions.

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2. Please indicate your gender. *

   Mark only one oval.

   ⬭ Female

   ⬭ Male

   ⬭ Prefer not to say

   ⬭ Other: _____

3. Please enter your age. *

   Mark only one oval.

   ⬭ Under 18 years old

   ⬭ 18 - 24 years old

   ⬭ 25 - 34 years old

   ⬭ 35 - 44 years old

   ⬭ 45 - 54 years old

   ⬭ Over 55 years old

4. What is the highest degree or level of education you have completed? *

Mark only one oval.

- ( ) Secondary School Diploma (Hauptschulabschluss, Realschulabschluss)
- ( ) High School Diploma (Abitur or equivalent)
- ( ) Bachelor's Degree
- ( ) Master's Degree
- ( ) Ph.D. or higher
- ( ) Trade school diploma (Berufsschulabschluss)
- ( ) Prefer not to say
- ( ) Other: _____

5. What is your current employment status? *

Mark only one oval.

- ( ) Student
- ( ) Employed full-time
- ( ) Employed part-time
- ( ) Self-employed
- ( ) Unemployed
- ( ) Retired
- ( ) Unable to work

6. What is your annual household income? *

Mark only one oval.

- ( ) Below 10.000€
- ( ) 10.000€ - 50.000€
- ( ) 50.000€ - 100.000€
- ( ) 100.000€ - 150.000€
- ( ) Over 150.000€
- ( ) Prefer not to say

The following section contains the questions used by Lusardi and Mitchell to measure financial literacy. Answering these questions is optional and applies to a variety of financial concepts. If you answer these questions, you will be able to view your results after submitting the survey.

7. Suppose you had 100€ in a savings account and the interest rate was 2 % per year. After 5 years, how much do you think you would have in the account if you left the money to grow?   1 point

Mark only one oval.

◯ More than 102€

◯ Exactly 102€

◯ Less than 102€

◯ Do not know

8. Imagine that the interest rate on your savings account was 1 % per year and inflation was 2 % per year. After 1 year, how much would you be able to buy with the money in this account?   1 point

Mark only one oval.

◯ More than today

◯ Exactly the same

◯ Less than today

◯ Do not know

9. Please tell me whether this statement is true or false. "Buying a single company's stockusually provides a safer return than a stock mutual fund."   1 point

Mark only one oval.

◯ True

◯ False

◯ Do not know

In the following section you will be asked questions about your experience with trading financial instruments. The term neobroker usually refers to mobile applications that significantly reduce the trading range and scope of services in contrast to traditional banks in order to focus on a specific area. In comparison to direct and branch banks, these applications usually incur significantly lower or no costs and offer low-threshold access to stock trading.

10. Do you have any points of contact with financial markets? *

Please check all that apply.

Check all that apply.

☐ Yes, I have studied something related to finance (economics, finance, business administration, etc.).

☐ Yes, I work in the financial industry

☐ Yes, I educate myself about the financial markets in my free time

☐ No, I currently have no points of contact

Other: ☐ _____

11. How often do you inform yourself about financial markets and investment opportunities? *

Mark only one oval.

◯ Daily

◯ Weekly

◯ Monthly

◯ Yearly

◯ Never

12. Which of the following channels do you use to learn about financial markets and investment opportunities? *

Please check all that apply.

Check all that apply.

- [ ] Official media (news e.g. Tagesschau; magazines e.g. Wirtschaftswoche, etc.)
- [ ] Friends and Family
- [ ] Social media (e.g. Instagram, Twitter, Reddit, Clubhouse, Google search, etc.)
- [ ] Professional financial advisor
- [ ] I do not inform myself

Other: [ ] _____

13. Have you ever invested money and thus gained investment experience? *

Mark only one oval.

- ( ) Yes
- ( ) No
- ( ) Prefer not to say

14. How long have you been trading financial products? *

Mark only one oval.

- ( ) Never
- ( ) Less than 1 year
- ( ) 1 - 5 years
- ( ) 6 - 10 years
- ( ) 11 - 15 years
- ( ) Over 15 years
- ( ) Prefer not to say

15. How often do you buy and sell financial products on average? *

Mark only one oval.

- ◯ Almost Daily
- ◯ 2 - 3 times a week
- ◯ Once a week
- ◯ Once a month
- ◯ Once in 3 months
- ◯ Once in 6 months
- ◯ Less than once in 6 months
- ◯ Prefer not to say

16. How long is your average investment horizon? *

Mark only one oval.

- ◯ Less than 1 month
- ◯ 1 - 6 months
- ◯ 6 - 12 months
- ◯ 1 - 5 years
- ◯ More than 5 years
- ◯ Prefer not to say

17. Where have you already purchased financial products? *

Please check all that apply.

Check all that apply.

- ☐ Local branch bank (such as a savings bank)
- ☐ Direct bank (online broker such as DKB or Comdirekt)
- ☐ Neobroker (online broker in a reduced form such as Trade Republic or Scalable Capital)
- Other: ☐ _____

18. With which provider are you currently a user? *
Please check all that apply.

Check all that apply.

- [ ] Local branch bank
- [ ] Direct bank
- [ ] Neobroker
- [ ] I am currently not a user
- [ ] Prefer not to say
- Other: [ ] _____

19. Where could you imagine buying financial products? *
Please check all that apply.

Check all that apply.

- [ ] Local branch bank
- [ ] Direct bank
- [ ] Neobroker
- [ ] Prefer not to say
- Other: [ ] _____

20. On average, how much time would you spend reviewing the company professionally before buying a financial product? *

Mark only one oval.

	1	2	3	4	5	
Little	◯	◯	◯	◯	◯	Much

21. Have you already bought financial products without having reviewed them first? *

Mark only one oval.

⬭ Yes

⬭ No

⬭ Prefer not to say

22. What is particularly important to you when using a financial institution's online services? *

Please tick a maximum of 3 answers.

Check all that apply.

☐ Intuitive handling

☐ Appealing design

☐ Pictorial representations of information

☐ Fast buying and selling options

☐ User-friendly application environment

☐ Short loading and processing times

☐ High level of digitization

☐ Data security

☐ Low cost

☐ Simple opening of an account

☐ Good consultation

☐ Personal customer service

☐ Prefer not to say

Other: ☐ _____

23. How often do you use a financial institution's mobile apps? *

Mark only one oval.

- ⬭ Daily
- ⬭ 2 - 3 times a week
- ⬭ Once a week
- ⬭ Less than once a week
- ⬭ Prefer not to say

24. How important is it to you to be able to buy or sell a financial product quickly? *

Mark only one oval.

	1	2	3	4	5	
not important	⬭	⬭	⬭	⬭	⬭	very important

25. How much risk would you be willing to take to increase your chance of higher profits? *

Mark only one oval.

	1	2	3	4	5	
No risk	⬭	⬭	⬭	⬭	⬭	High risk

Neobroker

In the following section, you will be asked questions about your experience with neobrokers. Neobrokers are mostly mobile applications that significantly reduce the trading range and the scope of services in contrast to classic banks in order to focus on a special area. Compared to direct and branch banks, these applications usually incur significantly lower or no costs and offer low-threshold access to stock trading.

26. In which of the following scenarios would you prefer a branch or direct bank over a neobroker? *

ETF stands for Exchange Traded Funds and is an exchange-traded index fund that tracks the performance of well-known market indices one-to-one. Please tick all that apply.

Check all that apply.

- [ ] Short-term investment (e.g. for quick profits)
- [ ] Speculative investment (e.g. in financial products, which receive high media attention)
- [ ] Long-term investment for asset accumulation (e.g. for future purchases such as a home)
- [ ] Set up a stock portfolio without much diversification (focus on 1 to 3 stocks)
- [ ] Long-term investment for your own retirement provision
- [ ] Continuous monitoring of share prices
- [ ] Setting up savings plans
- [ ] Investments in ETFs
- [ ] Prefer not to say

Other: [ ] _____

27. Which of these scenarios would you consider a neobroker for? *

Please check all that apply.

Check all that apply.

- [ ] Short-term investment
- [ ] Speculative investment
- [ ] Long-term investment for asset accumulation
- [ ] Set up a stock portfolio without much diversification
- [ ] Long-term investment for your own retirement provision
- [ ] Continuous monitoring of share prices
- [ ] Setting up savings plans
- [ ] Investments in ETFs
- [ ] Prefer not to say

Other: [ ] _____

28. What aspects do you associate with a neobroker? *

Please check all that apply.

Check all that apply.

- [ ] Intuitive handling
- [ ] Appealing design
- [ ] Pictorial representations of information
- [ ] Fast buying and selling options
- [ ] User-friendly application environment
- [ ] Short loading and processing times
- [ ] High level of digitization
- [ ] Data security
- [ ] Low cost
- [ ] Simple opening of an account
- [ ] Good consultation
- [ ] Personal customer service
- [ ] Prefer not to say

Other: [ ] _____

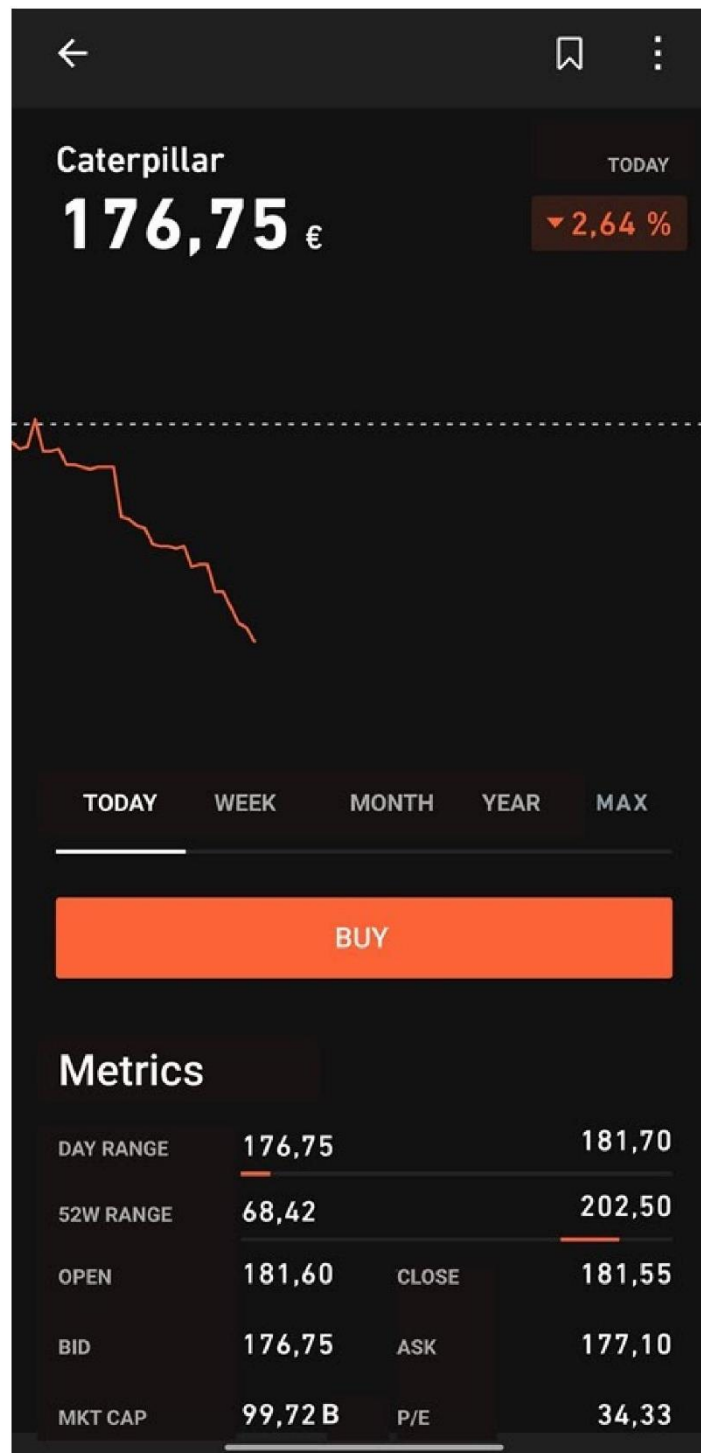29. Do you consider the offers of neobrokers trustworthy? *

Mark only one oval.

- ( ) Yes
- ( ) No
- ( ) Prefer not to say

30. How risky would you rate the following stock based on its line chart? (Version 1)
*

Source: Trade Republic

	1	2	3	4	5	
Low risk	◯	◯	◯	◯	◯	High risk

30. How risky would you rate the following stock based on its line chart? (Version 2)
*

Source: Trade Republic

Mark only one oval.

	1	2	3	4	5	
Low risk	◯	◯	◯	◯	◯	High risk

31. To what extent would the illustration influence your decision to trade the stock?
*

Mark only one oval.

- ( ) I am considering buying the stock
- ( ) I am considering selling the stock
- ( ) I am turning away from the stock as it seems too risky to me
- ( ) I am interested in this stock and trying to get more information
- ( ) I completely ignore this representation
- ( ) Other: _____

Below you can see another excerpt from a neobroker. This representation shows you the currently most popular stocks, as well as ETFs within this neobroker in a certain period of time.

Browse

Search stocks, ETFs, categories...

Popular Stocks
SHOW MORE

TINC Communications

MLP
Germany, Banking & Finance

Guangzhou Baiyunshan
China, Healthcare & Medicine, Pharma & Cosmetics

Sandfire Resources
Australia, Resources

Arista Networks
USA, Telecommunications, Savings Plan

Popular ETFs
SHOW MORE

MSCI Emerging Markets EUR (Acc)
Amundi, Large/Mid/Small Caps, Global, Savings Plan

Core MSCI World USD (Acc)
Lyxor, Large/Mid Caps, Global, Savings Plan

32. **What are your thoughts regarding the graphic above?** *
Please tick a maximum of 3 answers.

Check all that apply.

- ☐ Useful information display
- ☐ Clearly arranged
- ☐ Unstructured
- ☐ Helpful
- ☐ Good sorting
- ☐ Misleading
- ☐ Intuitive
- ☐ Significant
- ☐ Superfluous

Other: ☐ _____

33. **How would you react to above presentation of "Popular Stocks" etc.?** *

Mark only one oval.

- ◯ I am taking a closer look at the companies listed above to see if they fit into my investment strategy
- ◯ I try to invest quickly after reviewing the stocks, in one of the positions listed above, so as not to miss any opportunity
- ◯ I invest directly in one of the indicated stocks so as not to miss any opportunity
- ◯ I am glad for the representations and continue to follow to check which stocks are holding up in the list
- ◯ I look at the price performance of the respective stocks to find a good entry position
- ◯ I ignore the representations
- ◯ Prefer not to say
- ◯ Other: _____

34. **How helpful would you find it to find such a representation again within a depot provider?** *

Mark only one oval.

	1	2	3	4	5	
Not helpful	◯	◯	◯	◯	◯	Very helpful

Now you can see an image of a "Invite a Friend" action of a neobroker.

CLOSE

Invite a Friend.
Earn 30 €.

✓ **Share your personal invitation link**

Tell your friends about Trade Republic.

✓ **Your friends make their first trade**

They buy a first security for their new account.

✓ **You both receive a bonus**

You will receive 15 €. Your friends will receive 15 €.

Invite Friends Now

By sharing this link, you agree with our Terms of Service.

35. How would you react to this action? *

Mark only one oval.

- ( ) I am happy about the opportunity and will show it to my friends
- ( ) I am happy about the opportunity and try to convince friends to make a trade
- ( ) I find the possibility interesting, but I am skeptical about the offer
- ( ) I completely ignore the possibility and will not tell anyone about it
- ( ) Other: _____

36. How do you feel when your friends have made the first trade and you all get the reward? *
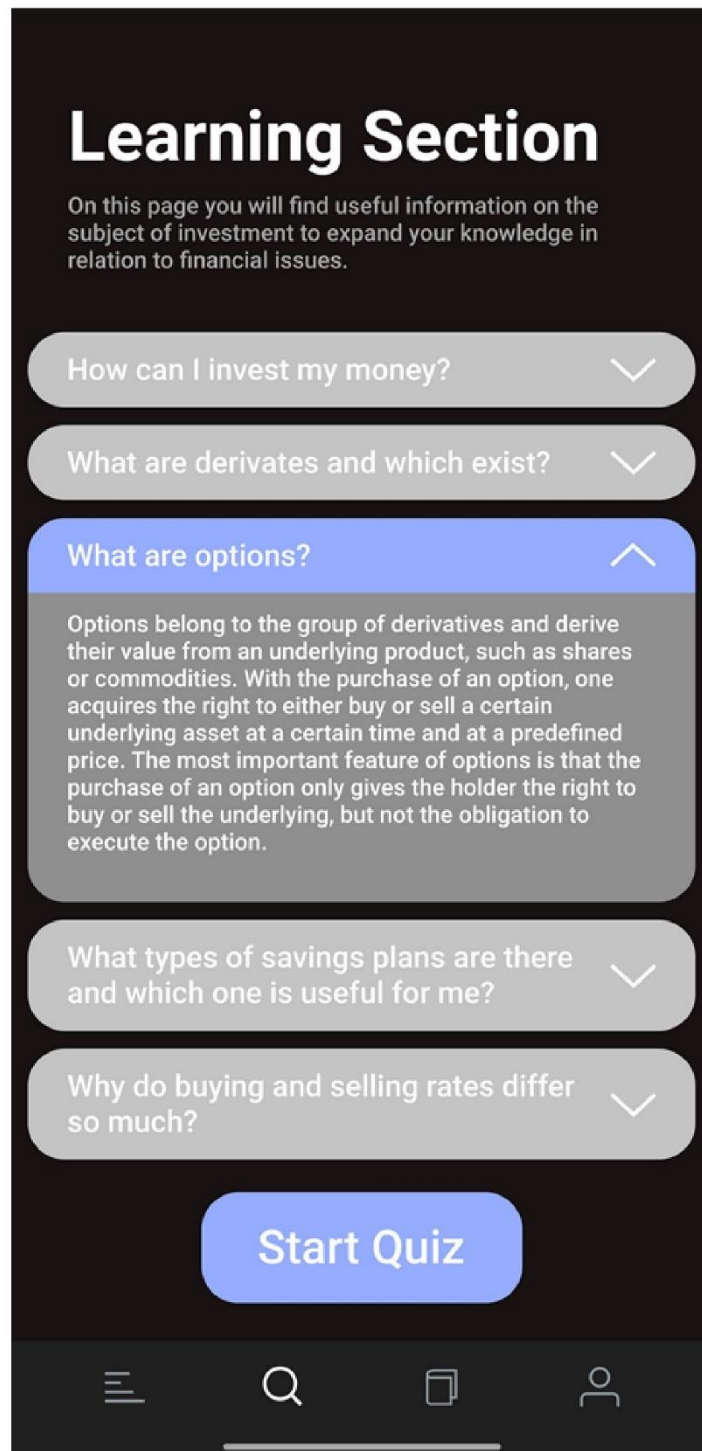
Please check all that apply.

Check all that apply.

- [ ] I am happy and satisfied
- [ ] I get a desire for more
- [ ] I encourage more friends to make their first trade on this neobroker
- [ ] I feel confirmed to have achieved something positive
- [ ] I remain skeptical and will not use this action again
- Other: [ ] _____

In the image below, you can see a possible representation of a learning section to impart knowledge about financial issues.

Learning Section

On this page you will find useful information on the subject of investment to expand your knowledge in relation to financial issues.

How can I invest my money? ⌄

What are derivates and which exist? ⌄

What are options? ⌃

Options belong to the group of derivatives and derive their value from an underlying product, such as shares or commodities. With the purchase of an option, one acquires the right to either buy or sell a certain underlying asset at a certain time and at a predefined price. The most important feature of options is that the purchase of an option only gives the holder the right to buy or sell the underlying, but not the obligation to execute the option.

What types of savings plans are there and which one is useful for me? ⌄

Why do buying and selling rates differ so much? ⌄

Start Quiz

37. How helpful would you find such a learning section in a Neobroker? *

Mark only one oval.

	1	2	3	4	5	
Not helpful	◯	◯	◯	◯	◯	Very helpful

38. How helpful would you find it to be able to test your acquired knowledge within this learning section in the form of a quiz?

Mark only one oval.

	1	2	3	4	5	
Not helpful	◯	◯	◯	◯	◯	Very helpful

Thank you very much!

If you are interested in the results of the study, email max.janussek@tum.de.