

The impact of improved transparency of foreign money transfers for consumers and SMEs

Final report

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Executive summary

The Government's vision is for the UK's financial services sector to be the most competitive and innovative in the world, delivering greater choice and value for consumers and businesses. A competitive and transparent financial services sector fosters innovation and economic growth, and is vital to ensuring that the UK economy delivers high quality products and services at efficient prices.

In the market for money transmission services involving foreign exchange (that is, sending money abroad), it has been suggested that lack of transparency from suppliers about the cost to customers is contributing to welfare losses to SMEs and consumers. For example, it has been argued that SMEs in the UK paid £3.96 billion in so called 'hidden fees' for foreign exchange transactions in 2015.ⁱ The Government is looking to establish whether lack of transparency or standardisation in how fees (including 'hidden fees', collectively now referred to as 'fees') for sending money abroad are presented is hindering effective competition in this space, and having a detrimental impact on the choices made by consumers. In addition, it is looking to build evidence on what type of disclosure about fees is most helpful to consumers in choosing the right product for them.

The Behavioural Insights Team (BIT) conducted an online experiment using our testing platform, Predictiv (www.predictiv.co.uk). The test comprised of a simulation in which participants were given a hypothetical scenario where they were asked to change some money from £GBP to \$US. Each participant could choose to stick with a particular option (combining an exchange rate with a fee and commission, which were sometimes set to zero) or to search for an alternative option with a different exchange rate, fee or commission combination.

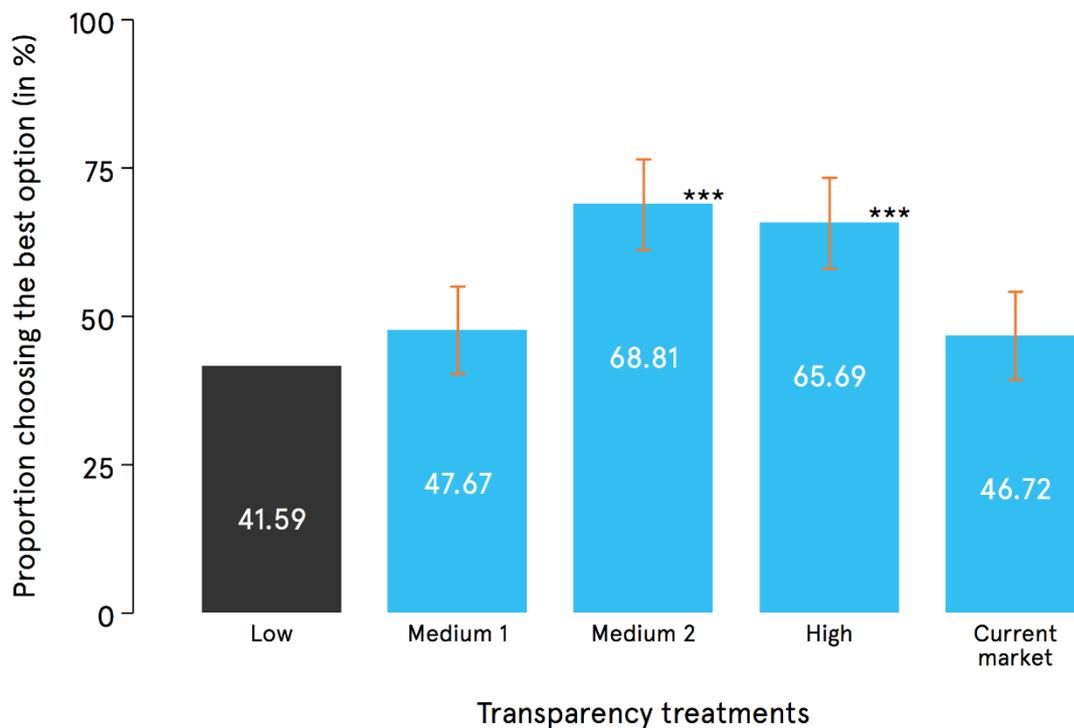
ⁱ Suppliers offer their services for a fee, which is usually broken down into a commission and a flat fee. On top of that the supplier offers an exchange rate, which may be different from the interbank exchange rate or rates offered by other providers. Since any opportunity cost the customer incurs from choosing one rate against another falls outside the officially stated charges (i.e. the commission and flat fee), it is sometimes known as a 'hidden fee'; MoneyMover (2016) Bank charges on international payments - An analysis of the UK SME market. Available at: <https://www.moneymover.com/media/uploads/files/UK-SME-International-Payments-Analysis-Full-Report.pdf>

In the scenario, there was always an option which was better than all the others. We wanted to see how easy it was for participants to pick out this best option when the information that they were given was presented or framed. There were five different conditions into which the participants were randomly assigned:

- ◆ **'Low Transparency'** which showed the exchange rate offered, the flat fee and the commission;
- ◆ **'Medium Transparency 1'** which included all the information in the Low Transparency condition, but then added information about the interbank exchange rateⁱⁱ (so that participants could see how much it differed from the exchange rate they had been offered);
- ◆ **'Medium Transparency 2'** which was the same as the 'Medium 1' condition, but explained how much the difference between the interbank and exchange rates meant in terms of pounds for every £1000 exchanged (e.g. 'this means you lose £20.10 for every £1000 you transfer');
- ◆ **'High Transparency'** which included all the information in 'Medium Transparency 2', but explained what the overall transaction would cost them in cash terms (e.g. 'You will be charged £X.XX').
- ◆ A **'Current Market'** scenario. This final condition provided participants with a mix of low and high transparency suppliers. We felt that this condition was more akin to current market information.

ⁱⁱ This is typically the rate banks exchange currency between each other, and the rate that you will find quoted in newspapers.

The graph below presents the headline figures.



N = 1,648

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

A number of conclusions can be drawn from these results.

- ◆ Conditions that express the interbank exchange rate in pound terms, or sum up the total fee are both effective formats in helping individuals make better decisions.
- ◆ However, the positive effects of this information are only apparent when it is applied consistently across the market.
- ◆ In a setting that is akin to current information provision in the market (i.e. where different options provide varied levels of transparency), fewer than half of the participants managed to select the best option out of a set of four.
- ◆ The positive effect of total fee information is significantly stronger for individuals without experience of sending money abroad.

Taken together, these results provide a foundation for policy discussions about improving outcomes for consumers in the market for sending money abroad and increasing competition between suppliers in this market. However, it would be fruitful to further test these interventions for a wider range of options, including from suppliers that have more

similar offerings. In addition, it would be interesting to see if the positive effects of the total fee and exchange rate information can be retained while reducing the overall quantity of information given to consumers.

I. Background

Money transmission services involving foreign exchange are services used by both businesses and consumers to send money abroad and exchange it into a different currency.ⁱⁱⁱ In this market established financial institutions, including banks or money service businesses, compete alongside new money transfer operators. These suppliers offer their services for a fee, which is usually broken down into a commission and a flat fee. On top of that, the supplier offers an exchange rate, which may be different from the exchange rate that they use internally to make the deal. The firms may obtain these funds in wholesale markets, which price at or close to the interbank exchange rate^{iv}. When consumers agree to a deal against a different exchange rate, the supplier may keep the difference.

For example, to transfer GBP to USD, a UK bank could offer an exchange rate of 1.18 compared to the interbank rate of 1.23. This means that for every £1000 transferred, the consumer ‘loses’ \$50 compared to the position they would be in had they obtained the interbank exchange rate. Since this ‘loss’ to the consumer falls outside the officially stated charges (i.e. the commission and flat fee), they are sometimes known as ‘hidden fees’¹. In the UK, SMEs are estimated to have paid £3.96 billion in hidden fees for foreign exchange transactions in 2015².

It has been suggested that lack of transparency in the fee structure^v is one of the main contributors behind these welfare losses. The World Bank notes that the actual ‘charge’ consists of different elements, such as the commission and the exchange rate mark up.³ This makes the actual price a ‘shrouded attribute’ to consumers, where it is not clear which provider is offering the best deal⁴. This in turn contributes to a lack of competition in the market for money transmission services involving foreign exchange. In addition, there is evidence that ‘hidden fees’ disproportionately affect individuals with lower degrees of financial literacy⁵ as well as those in poverty⁶. This means that a reduction in overall charges through increased competition could especially stand to benefit vulnerable populations.

ⁱⁱⁱ This study looks specifically at foreign exchange when sending money abroad. Foreign exchange in this instance does not refer to wholesale markets, or exchanging currencies when not accompanied by a payment service (e.g. exchanging money for a trip abroad).

^{iv} This is the rate banks exchange currency between each other, and the rate that you will find quoted in newspapers

^v For the purposes of this paper, ‘fees’ has been used to refer to both fees such as commission and flat fee, and the welfare loss to the customer due to the difference between an exchange rate offered and the interbank exchange rate.

II. Aims

The Government's vision is for UK financial services to be most competitive and innovative in the world, delivering greater choice and value for consumers and businesses. A competitive and transparent financial services sector fosters innovation and economic growth, and is vital to ensuring that the UK economy delivers high quality products and services at efficient prices. To this end, the Government has taken significant action to improve competition in financial services, including:

- ◆ Putting competition at the heart of the regulatory system by embedding strong competition objectives in the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA), and asking both regulators to produce annual reports on how they are delivering against these objectives.
- ◆ Establishing the Payment Systems Regulator to help challenger banks access central payment systems on fair and equal terms.
- ◆ Legislating to allow the Bank of England to broaden access to payment systems, which will put payment institutions on a level playing-field with the banks.
- ◆ Substantially lowering barriers to entry for innovative financial services firms through the Innovation Hub and the Regulatory Sandbox.

It is therefore of interest to the Government to establish whether lack of transparency or standardisation in how the cost to consumers of sending money abroad is presented is hindering effective competition in this space, and having a detrimental impact on the choices made by consumers. In addition, the Government is looking to build evidence on what type of fee structure disclosure is most helpful to consumers in choosing the right product for them.

We conducted an online Randomised Controlled Trial (RCT) to provide evidence on whether transparent fee structures allow consumers to make better choices. Specifically, we tested four ways of displaying the fee structure in foreign exchange and evaluated how it impacts consumers' decision-making quality. In addition, we used another condition to look at whether standardisation in the fee disclosure affects decision-making.

We did this by running a controlled online experiment using BIT's testing platform, Predictiv^{vi}. The test was comprised of a simulation where participants were asked to exchange £950 into as many \$US as possible and were randomly presented with different fee structure conditions. This set-up allows us to draw causal links between fees and choices. The specific nature of the test allows us to control for alternative explanations that can drive people's decisions in the field, which enables us to see whether individuals are actually making better choices under alternative fee structures and assess possible explanations behind such an effect.

The specific questions that the different conditions in the Predictiv test aim to answer are:

- ◆ **Rationality:** Are people making suboptimal decisions in foreign exchange transactions?
- ◆ **Transparency:** Does decision-making quality improve with more transparency in the fee structure?
- ◆ **Standardisation:** How is decision-making quality affected by (lack of) consistency in fee disclosure formats between different suppliers?

^{vi} Predictiv is an online testing platform that runs Randomised Controlled Trials to understand behaviour and evaluate different ways to change it. The platform runs tests with a large pool of participants, drawn from a group of over 200,000 adults across the UK. Predictiv tests focus on key drivers of behaviour, such as comprehension of a product, or simulate a decision that people make in real world situations. Participants are divided into groups and randomly allocated different stimulus material, such as information about foreign exchange fees.

III. Improving fee transparency

Economic theory suggests that suppliers with low information disclosure would not be able to sustain themselves in the presence of high-quality suppliers who present their fee structure clearly⁷. However, experimental evidence by Jin, Luca, and Martin suggests that this unravelling does not happen to the extent that economic theory predicts, because consumers are insufficiently sceptical that suppliers who do not disclose all necessary information are indeed offering a bad deal⁸. What this means is that a supplier with an obscure fee structure may still be chosen even if one or several other cheaper suppliers disclose their fees clearly.

Another explanation for customers' suboptimal decision making could be that the decision is sufficiently complex that participants make errors in their calculation about the total fee.⁹ Some suppliers fail to disclose the margin they make on the exchange rate they offer and, for consumers, inferring the exact costs (comparative to other providers) requires some calculation. In addition, consumers are often presented with other information, such as a 0% commission or 'no fixed fee' advertisements that can draw their attention and compound the complexity of the cost calculation. These factors make it more likely that suppliers with obscure fee structures survive in the market, but also that the presence of alternatives with full disclosure may not be sufficient to shift consumer decisions and improve outcomes.

It seems straightforward that more information should help consumers make better choices. Indeed, there are number of positive examples in other markets where more information has been helpful in changing consumer decisions and increasing competition among businesses. Jin and Leslie evaluate the introduction of health inspection ratings on the front of restaurant shop windows in Los Angeles¹⁰. They find that 81% of consumers report to have seen the cards and that 90% approve of them. Among those that have seen the cards, 88% consider it in their dining decisions. The authors find that this is borne out in the restaurant revenue data, where after 1 year, a restaurant that improved its rating from a B to an A saw an increase in sales by 5.7%.

However, there are also examples where information actually had a negative effect on financial decision-making. Lacko and Pappalardo evaluate the effects of disclosure on how much a broker receives in financial compensation when issuing a mortgage loan¹¹. The researchers conducted a controlled experiment with 500 consumers to evaluate the accuracy of cost comparisons on a hypothetical consumer loan choice. They found that most consumers were not able to correctly pick out the loan that was less expensive. Importantly, however, they found that the information about the financial compensation actually shifted people's choices

to worse loans. Consumers were now choosing loans where the compensation to the broker was low but had a higher repayment level, meaning that they were selecting products that were more expensive for them overall.

Behaviourally, the key element is to make sure that any additional information that is given actively helps people to make better decisions. In a field experiment with a national chain of payday loan stores, researchers introduced information that was believed to help consumers make better decisions about taking out a loan¹². One group of customers received information that compared the Annual Percentage Rate (APR) of the loan to the typical APR for a credit card or car loan. Another group of customers received the costs of the loans in dollars over time (i.e., the amount of \$ it would cost in interest payments to hold the loan for 1 month, 2 months, etc). The latter intervention reduced the likelihood of borrowing in the future by 10%, whereas the APR intervention did not move borrowing at all.

IV. Testing different disclosure formats

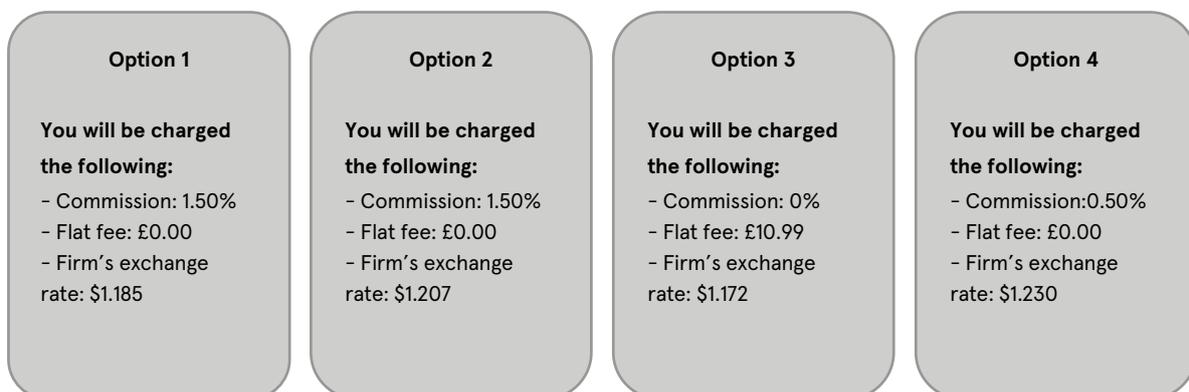
Previous work suggests that it is not just about providing more information, but as much about what kind of information is given and whether it aligns with how people are already thinking about the costs and benefits of a product or service. In this trial we evaluate four different disclosure formats that vary both the type of information as well as its consistency to determine what supports consumers most in making better decisions in the money transmission context.

We introduce these four conditions as well as the baseline setting below. It is important to note that we are using a layered approach in this trial, where each transparency condition introduces another piece of information on top of the previous iteration. This way we can get a clear sense of the additional impact each new item of information is having.

Transparency

Most of the current suppliers in the market provide information about the flat fee and commission for the transaction. In addition, they provide an exchange rate. Figure 1 provides an example of various options with this disclosure format, which we used as the baseline for our trial.

Figure 1: A set of options with low transparency in fees (Low Transparency condition)

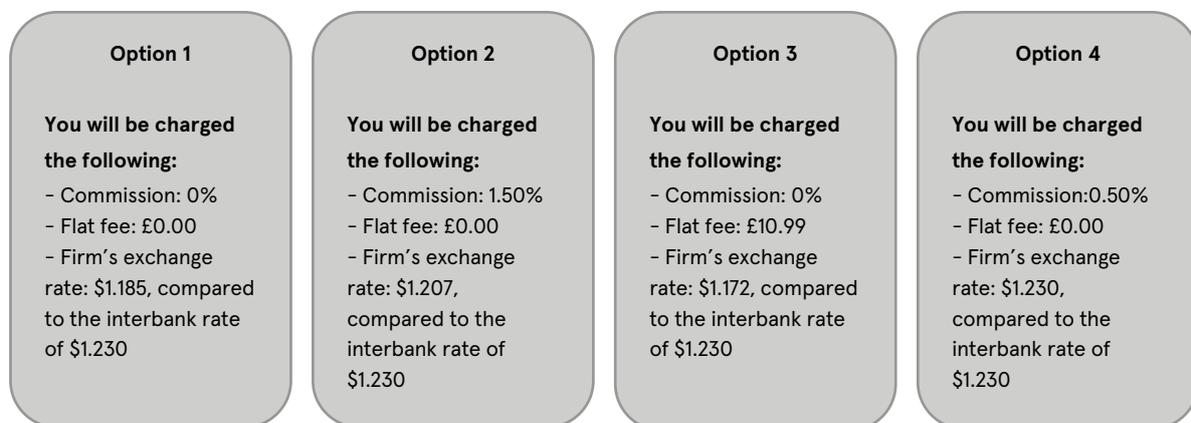


Against this baseline, we consider three possible options that can increase awareness and comprehension of the underlying fees that consumers are charged.

1. Disclosing the interbank rate

Since suppliers can, in addition to flat fees and commission, make money on the difference between the exchange rate they buy at and the exchange rate they offer consumers, we introduce the interbank exchange rate as an additional piece of information (called ‘Medium 1 Transparency’ in the test). This should make it easier for consumers to notice that there is a difference between the rate that they are being quoted and what the banks use themselves to make the deal. Potentially it also makes it easier for consumers to pick an exchange rate that is most favourable (i.e., closest to the interbank rate). Figure 2 gives an example of what this information format looks like.

Figure 2: A set of options with interbank exchange rate information (Medium 1 Transparency condition)



Since the interbank exchange rate is largely independent of the individual transaction being made, consumers would not be required to log in to their online banking account or enter the amount they want to transfer before they can be given this information.

2. Adding a sentence to express the difference to the interbank rate in pound terms

While disclosing the interbank rate may help attentive and sophisticated consumers in realising that they are getting a bad deal, it is perhaps not enough for consumers across the board. In the 'Medium 2 Transparency' condition we add a sentence that expresses the difference to the interbank rate in pound terms. Specifically, it reads 'this means you lose £xx for every £1000 you transfer'. The exact amount is calculated based on the difference between the firm's exchange rate and the interbank rate.

Figure 3: A set of options with interbank exchange rate information and sentence in £ (Medium 2 Transparency condition)

Option 1	Option 2	Option 3	Option 4
<p>You will be charged the following:</p> <ul style="list-style-type: none"> - Commission: 0% - Flat fee: £0.00 - Firm's exchange rate: \$1.185, compared to the interbank rate of \$1.230. (This means you lose £36 for every £1000 you transfer) 	<p>You will be charged the following:</p> <ul style="list-style-type: none"> - Commission: 1.50% - Flat fee: £0.00 - Firm's exchange rate: \$1.207, compared to the interbank rate of \$1.230. (This means you lose £18.70 for every £1000 you transfer) 	<p>You will be charged the following:</p> <ul style="list-style-type: none"> - Commission: 0% - Flat fee: £10.99 - Firm's exchange rate: \$1.172, compared to the interbank rate of \$1.230. (This means you lose £47.15 for every £1000 you transfer) 	<p>You will be charged the following:</p> <ul style="list-style-type: none"> - Commission: 0.50% - Flat fee: £0.00 - Firm's exchange rate: \$1.230, compared to the interbank rate of \$1.230. (This means you lose £0.00 for every £1000 you transfer)

3. Providing the total fee

An ambitious example of what full disclosure may look like includes total ‘fee’ information, which breaks each charge down into a pound fee as well as sums the different fees up into a total figure at the top. It provides additional support for consumers in removing the need for any calculation around charges. Figure 4 shows what this looks like for the four options in test.

Figure 4: A set of options with total fee information (High Transparency condition)

Option 1	Option 2	Option 3	Option 4
<p>You will be charged £34.76, consisting of:</p> <ul style="list-style-type: none"> - Commission: £0.00 (0%) - Flat fee: £0.00 - Exchange rate fee: £34.76. <p>Firm’s exchange rate: \$1.185, compared to the interbank rate of \$1.230. (This means you lose £36.59 for every £1000 you transfer)</p>	<p>You will be charged £32.01, consisting of:</p> <ul style="list-style-type: none"> - Commission: £14.25 (1.50%) - Flat fee: £0.00 - Exchange rate fee: £17.76. <p>Firm’s exchange rate: \$1.207, compared to the interbank rate of \$1.230. (This means you lose £18.70 for every £1000 you transfer)</p>	<p>You will be charged £55.79, consisting of:</p> <ul style="list-style-type: none"> - Commission: £0.00 (0%) - Flat fee: £10.99 - Exchange rate fee: £44.80. <p>Firm’s exchange rate: \$1.172, compared to the interbank rate of \$1.230. (This means you lose £47.15 for every £1000 you transfer)</p>	<p>You will be charged £4.75, consisting of:</p> <ul style="list-style-type: none"> - Commission: £4.75 (0.50%) - Flat fee: £0.00 - Exchange rate fee: £0.00. <p>Firm’s exchange rate: \$1.230, compared to the interbank rate of \$1.230. (This means you lose £0.00 for every £1000 you transfer)</p>

Standardisation

A second component we are interested in evaluating is the importance of consistency in reporting. Currently, the money transmission market is characterised by a mixture of suppliers who provide their fees with varying levels of transparency.

Figure 5 gives an example of a mixture of Low and High Transparency suppliers (the 'current market' condition in the test). By comparing this directly to the Low and High Transparency conditions, we can draw conclusions about how relevant it is for suppliers to disclose their fees in a consistent manner.

Figure 5: An option set with mixed transparency suppliers (Current market condition)

Option 1	Option 2	Option 3	Option 4
<p>You will be charged the following:</p> <ul style="list-style-type: none"> - Commission: 0% - Flat fee: £0.00 - Firm's exchange rate: \$1.185 	<p>You will be charged the following:</p> <ul style="list-style-type: none"> - Commission: 1.50% - Flat fee: £0.00 - Firm's exchange rate: \$1.207 	<p>You will be charged the following:</p> <ul style="list-style-type: none"> - Commission: 0% - Flat fee: £10.99 - Firm's exchange rate: \$1.172 	<p>You will be charged £4.75, consisting of:</p> <ul style="list-style-type: none"> - Commission: £4.75 (0.50%) - Flat fee: £0.00 - Exchange rate fee: £0.00. <p>Firm's exchange rate: \$1.230, compared to the interbank rate of \$1.230. (This means you lose £0.00 for every £1000 you transfer)</p>

V. The trial

Predictiv

Predictiv is an online testing platform (www.predictiv.co.uk). It enables BIT and its clients and partners to use various online tests to understand behaviour and evaluate different ways to change it. The tests are specifically designed to capture key drivers that affect behavioural outcomes, such as comprehension of a letter or the belief about what other people are doing. Bespoke or more complex tests can also be designed jointly with BIT. For example, financial decision-making in particular lends itself well to short simulations of actual decisions, because participants can receive money based on their decisions.

The platform can run tests with a large sample of participants, drawn from a representative sample of over hundreds of thousands of adults across the UK. What is valuable about this approach is the ability to quickly and robustly conduct online tests with a large and broadly representative sample of UK adults in situations where it would take too long, be too complex, or too costly, to run a ‘real world’ experiment.

The foreign exchange simulation test

The test was a short simulation of a foreign exchange transaction in which participants were given £950 and were asked to transfer this to as many dollars as they could. Participants were financially compensated to take part in the tests. In addition to these standard incentives just to take part, they also received £1 for each \$30 they exchanged above \$1100^{vii}. Participants were first presented with a default option that they could use to make their transfer. On the next screen, they could choose to make the transfer with the default selection or search and choose one of three additional options instead. When searching the alternatives, information about the fee structure of these options was presented to the participant. The fee structure of the chosen option was implemented to calculate the earnings for the participant based on their decision, with a better deal translating to higher earnings.

^{vii} The conversion rate was set such that participants, on average, could earn a generous amount of money relative to other surveys that participants take on the platform. We also made sure that the difference in potential earnings was large enough that participants, in expectation, had an incentive to search alternatives. Specifically, the relative difference between the best option and the default option was 134% and this amount was 2.4 times what participants could earn taking a full 5-minute surveys, which was the average duration of our test.

Figure 6: Main choice screen in the baseline condition (Low Transparency)

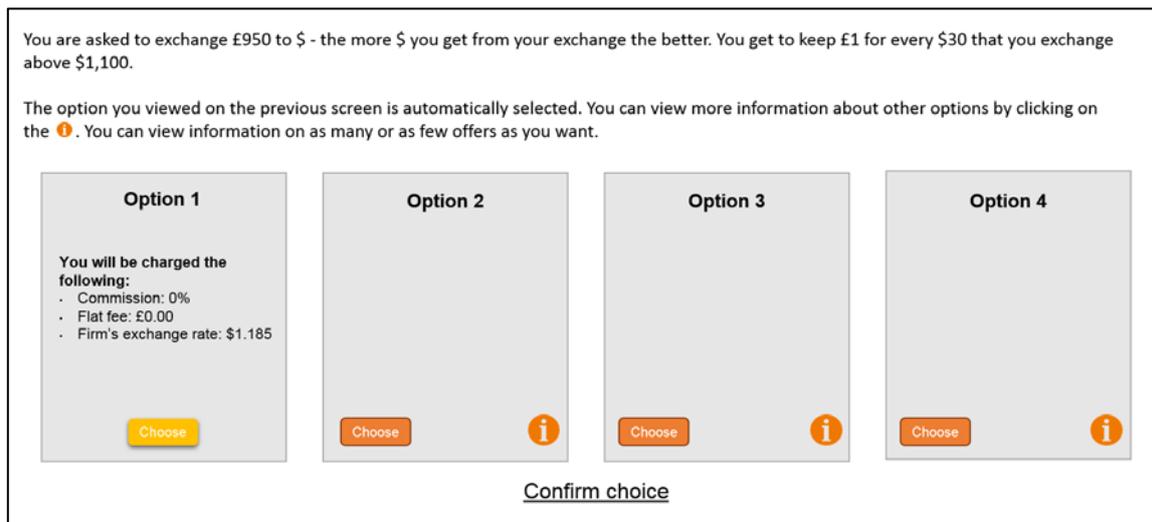
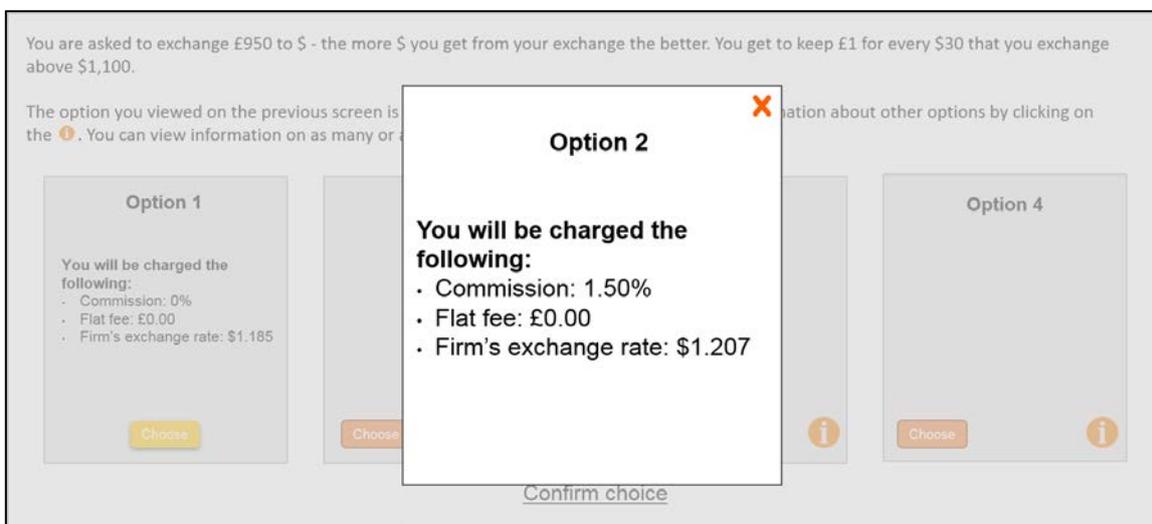


Figure 7: Screen that participants see when clicking on 'option 2' for more information about fees.



The options in the experiment reflected the offerings of actual suppliers in the market using the fee structure from online quote through their respective websites on January 6th, 2017. However, in order to control for the effect of brand information we gave the options generic labels (i.e. "option 1", "option 2") in the test. An overview of the different options and their corresponding fees is displayed in table 1.

Table 1: The options in the test with corresponding fee structure if selected by the participant and rank

Provider (blind to participants)	Flat fee	Commission	Exchange rate (sell)	Option rank (1 = worst; 4 = best)
1) Provider 1 (Default)	£0	0%	1.185	2
2) Provider 2	£0	1.50%	1.207	3
3) Provider 3	£10.99	0%	1.172	1
4) Provider 4	£0.00	0.50%	1.230	4

The test process

Trial participants were shown a page of instructions for the task, information about how much time they could expect to take completing it and how much they could earn for participating. They were then randomly allocated to see one of the five different versions of the fee structure. When comparing options on the main choice screen, participants could choose to search for alternatives by clicking on an information icon for a specific option. This then opened a pop-up box that provided the fee information for that option. There were no time restrictions for participants and they could evaluate as many or as few options as they wanted. After making their decision, participants were asked a couple of survey questions to capture their certainty about having selected the best option, how clear the fee information was, and whether they had previous experience with foreign exchange transactions.

After completing the questions participants were thanked for taking part, informed about their payment and the task ended. The trial ran until each transparency condition received at least 300 completed responses. In total, we had 1648 responses.

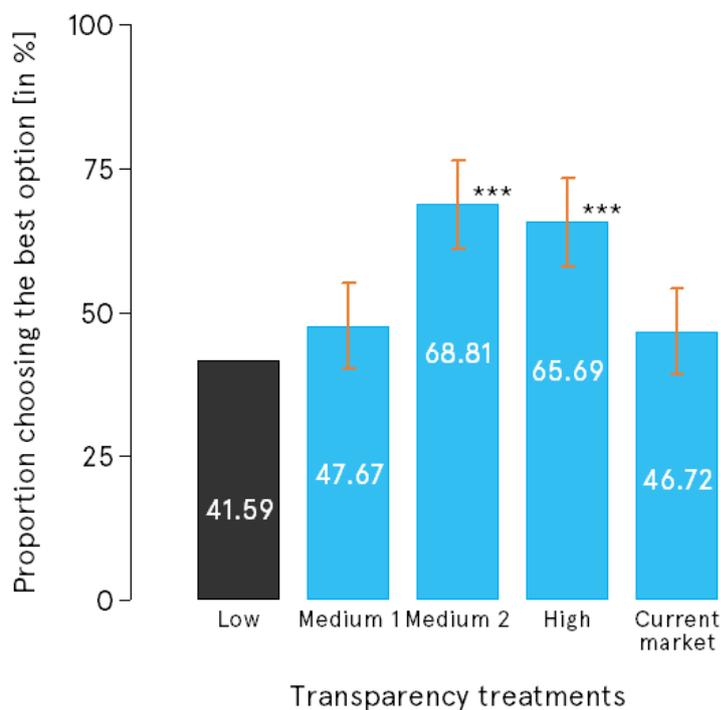
VI. Results

The primary outcome measure of the trial was the proportion of participants choosing the best option in the set (option 4 in this case). We also looked at the number of boxes opened to evaluate the level of searching that participants go through before making their decision. If the transparency conditions are effective, we would see upward movement on both of these measures compared to the Low Transparency (baseline) condition. In additional analysis, we also look at the relevance of demographic variables (e.g. age and income) and previous foreign exchange experience. Finally, we also look at whether the different transparency conditions shifted certainty about the choice made as well as clarity of information. Both of these measures are self-reported using survey questions.

Decision-making quality

Figure 8 shows the proportion of participants choosing the best option in the set across the different transparency conditions. In the Low Transparency (baseline) condition, we see that approximately 42% of participants select this option. This level is significantly better than chance (p -value <0.001), but is also significantly below the level that we would expect if everyone was choosing optimally.

Figure 8: Proportion of participants choosing the best option across conditions



N = 1648

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

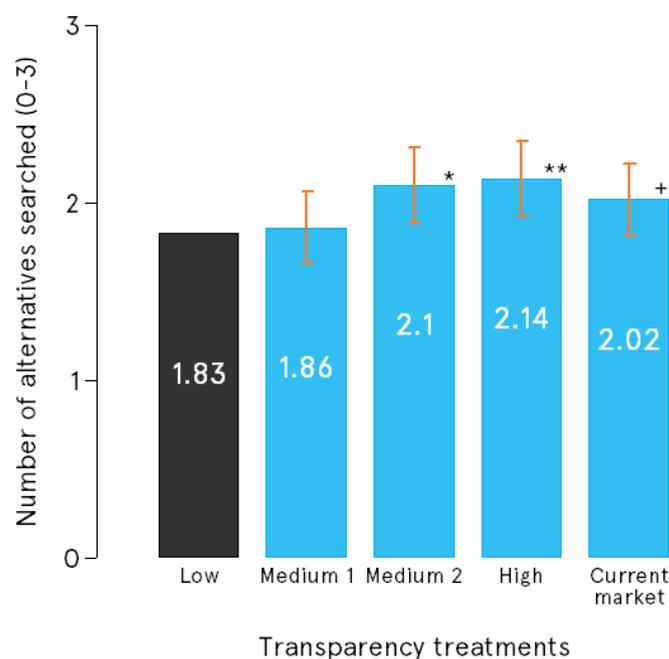
The Medium 2 Transparency condition (the interbank exchange rate alongside the sentence that expresses the difference between this and the rate offered in £ terms) and the High Transparency condition (which displayed the total fee in £ terms) significantly increased decision-making quality compared to the baseline. The Medium 2 Transparency condition increased the proportion of participants choosing the best option by roughly 27 percentage points and the High Transparency condition increased it by 24 percentage points. The impact of these two conditions are not significantly different from each other. Displaying the interbank rate alone (Medium 1 Transparency condition) increased quality by approximately 6 percentage points compared with the baseline condition, but we are not sufficiently confident that this difference did not occur by chance. The results from the regression analysis underlying these results can be found in appendix B.

Finally, the proportion of participants choosing the best option in the current market condition is not different from the low information condition. Since the current market condition includes a supplier with highly transparent fees, it is interesting to note that this is not effective on its own in increasing decision-making quality.

Searching for alternatives

Figure 9 displays the average number of alternatives that participants explored before making their decision. The number can range from zero (no search; participants only evaluate the default) to three (searching all available options). We see that participants explore more alternatives in the Medium 2 Transparency and High Transparency conditions, which supports the argument that the information provision is allowing them to make more informed decisions. An important caveat here is that we only find these significant increases in search when we compare the Medium 2 Transparency and High Transparency conditions to the Low Transparency condition, but not when we compare it to the current market condition. This means that we cannot conclusively say that compared to a setting with both high and low information suppliers we would see an increase in search activity if we move to a setting where all suppliers are highly transparent about their fees.

Figure 9: The number of alternative options searched across conditions



Robustness checks

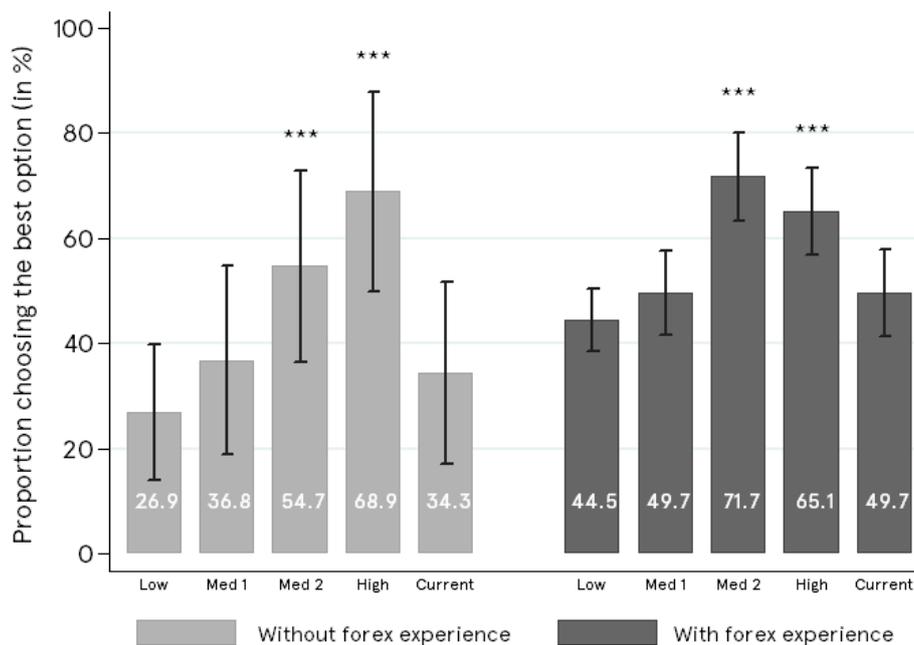
We conducted a series of robustness checks and find that the main results discussed above continue to hold. These checks include regression analyses where we use the rank of the chosen option (ranging from 1 (worst) to 4 (best)) as the outcome measure. This is more granular than the proportion of participants choosing the best option, since it can pick up improvements in the chosen option even when participants do not select the best one. In addition, we also include demographic covariates (age, gender, income, and education level) in the regressions to see if the results change. None of the covariates except education significantly affect decision-making quality. Participants with completed education do better by about 20 percentage points compared to participants without formal education. However, there are no clear differences across various levels of educational attainment. The regression results of these robustness checks are given in appendix B.

Additional analysis

Previous foreign exchange experience is important for decision-making quality: in the Low Transparency condition those with experience choose the best option in the set roughly 45% of the time, whereas those without experience do so 27% of the time. Figure 10 shows the accuracy rates for both groups across the different transparency conditions^{viii}. Both the Medium 2 Transparency and the High Transparency conditions are helpful for both groups of participants. However, the positive effect of the High Transparency condition is significantly stronger for those without forex experience.

^{viii} Note that the error bars for the group without forex experience are larger because this group is a minority of the total sample (17%).

Figure 10: Proportion of participants choosing the best option by transparency condition and whether the participant has previous forex experience



N=1648; *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Interestingly, we do not find any differences across the transparency conditions on self-reported clarity of information. Even though the choice outcomes tell us that the Medium 2 Transparency and High Transparency conditions are effective, participants do not report finding this information clearer than participants who receive fees with low transparency. We also asked participants how certain they felt that their chosen option was the best in the set. Only the Medium 2 Transparency condition significantly increases self-reported certainty levels compared to the baseline condition. It is worth adding that participants indicate relatively high levels of certainty about their decisions in the low information setting: on average, participants put themselves between 'neutral' and 'fairly certain' about their decision. Since people already seem quite confident about their choice in the Low Transparency condition, it is statistically more difficult to detect upward changes in a robust way.

VII. Discussion

In a controlled test environment, we evaluate whether increased information about fees in a foreign exchange transaction increases decision-making quality. Against a business-as-usual scenario where individuals are given information about the flat fee, commission and are quoted an exchange rate, we were able to increase decision-making quality by providing additional information. There are three dimensions around this main result that are worth discussing in detail.

More information is not helpful in all cases

We find that not all information about fees is equally helpful to individuals. Specifically, we find that giving only the interbank exchange rate did not significantly increase decision-making quality. However, the interbank rate together with a sentence that expressed this in pound terms (i.e., “this means you lose £xx for every £1000 you transfer”) saw an increase in the proportion of participants choosing the best option by 27 percentage points.

It is possible that information about the interbank exchange rate on its own is not informative because it requires some effort as well as basic numeracy to convert the difference between the interbank and quoted rate into an absolute number. When people decide which option to choose, most will use pounds rather than a percentage or a ratio¹³. As a result, information that aligns with this thinking is more helpful than information that does not. Likewise, using this information alongside the total fee also leads to a significant increase in decision making quality (by 24 percentage points). Participants also search significantly more options in both of these conditions, which suggests that these fee structures support individuals in making more informed decisions.

Total fee information disproportionately supports those without foreign exchange experience

Overall, individuals without previous foreign exchange experience are 18 percentage points less likely to choose the best option compared to those who have experience. The two conditions that performed best in the test (Medium 2 Transparency, disclosing the interbank exchange rate together with a sentence expressing the difference in pound terms; and High Transparency, providing the total fee) were effective for both of these groups. However, the positive effect of the total fee information is significantly stronger for those without experience. This suggests that different groups of individuals may benefit from different formats of disclosure. In follow-up work, it would be fruitful to understand whether foreign

exchange experience captures mere exposure to these types of decisions, or whether it is a proxy of some underlying characteristic, such as financial literacy.

Standardisation matters

A striking result from this test is that in the current market condition, where there are suppliers with both low and high transparent fee structures, we were able to detect a (not significant) 5 percentage point increase in decision-making quality relative to the Low Transparency condition. This is surprising because one of the suppliers gives the same information as in the High Transparency condition, which increases decision-making quality by 24 percentage points if this is provided by all suppliers in the market.

This suggests that a high transparency supplier is not sufficient on its own when most of the market is dominated by low transparency suppliers. This finding suggests that consistency in reporting, or standardisation, is important in driving home the benefits of fee transparency in foreign exchange transactions. A clear caveat around this result is that this conclusion is based on a market structure where one supplier is transparent and the other three are not. It would be useful to use further testing to evaluate whether a tipping point exists with half or the majority of suppliers being transparent about their fees, and whether it matters what the underlying quality of these suppliers is.

Limitations

This trial faces several limitations in providing evidence on whether fee structures in foreign exchange transactions can be improved. Most crucially, we obtained a perhaps surprising result where clear information about the total fee (High Transparency condition) did not significantly improve choices above the condition where participants were given the interbank rate as well as a sentence that helped them in interpreting this in £ terms (Medium 2 Transparency condition). We discuss several explanations that may lie behind this.

First, since we adopted a layered approach, where each additional transparency treatment included another piece of information, it is possible that individuals in the high transparency condition were simply presented with too much information. A number of studies find support for this notion of 'choice overload', where an excess of information in (complex) choice situations can lower engagement and decision-making quality¹⁴.

Second, it is also possible that for the specific options we chose in this test, the High Transparency condition did not actually add much additional information. Specifically, the best

option in the set offers a better deal on both the exchange rate as well as the total fee. As a result, the option in the Medium 2 Transparency condition which tells participants that they face £0.00 in transfer fees already makes it clear to participants that they should choose this option. The total fee information therefore has limited additional benefit. If this explanation holds then the finding that the High Transparency condition is not more effective is somewhat of an artefact of the specific option chosen in this test. For example, if we had chosen a slightly less attractive option with a favourable exchange rate, but slightly higher fees, then it is possible that the total fee information would have provided new information to participants.

These caveats can be addressed in further testing where new conditions reduce the information in the High Transparency condition (e.g. including the total fee, but not the interbank rate or the £ sentence). Other conditions can also introduce more conflict across the attributes of the different options in the test to see if total fee information is more helpful in cases where differences between the options are smaller.

A final limitation of this trial is that we deliberately chose to make alternative options easily accessible to participants, so that we could compare how they responded to information across different options. In practice, consumers face more substantial search and switching costs when considering and choosing between alternative suppliers. For example, some banks require consumers to hold a current account before they can make a foreign currency transaction. For this reason, search costs seem a relevant behavioural dimension that we have not considered in this trial, but that should be part of future discussions.

VIII. Conclusion

In a simulation of a money transmission service involving foreign exchange where individuals are presented with information about the flat fee, commission and the exchange rate, less than half manage to select the best option out of a set of four. Information that expresses the interbank exchange rate in pound terms (Medium 2 Transparency condition), or sums up the total fee (High Transparency condition) are both effective formats in helping individuals make better decisions. In addition, it seems that the positive effects of this information only happen when it is applied consistently across the market. Finally, the positive effect of total fee information is significantly stronger for individuals without foreign exchange experience.

Taken together, these results provide a foundation for policy discussions about improving outcomes for consumers in foreign exchange transactions and increasing competition between suppliers in this market. However, it would be fruitful to further test these interventions for a wider range of options, including from suppliers that have more similar offerings. In addition, it would be interesting to see if the positive effects of the total fee and cost information can be retained while reducing the overall quantity of information given to consumers.

Annex A: Descriptive statistics

The table below gives an overview of how the participants in the test are distributed on main demographic variables (income, gender, age, and education). It also lists the overall search behaviour across the test in terms of number of alternative options that the participant viewed. Across the conditions, we see slight imbalance on gender. There are significantly more women in the Low Transparency condition compared to the other conditions. We account for this by including demographic covariates in the robustness checks of the analysis.

Table A1: Descriptive statistics

Variable	N	%
Income bracket	304	18%
Less than £10,000	446	27%
£10,000 – £19,999	663	40%
£20,000 – £39,999	235	14%
More than £40,000		
Gender		
Female	1022	62%
Male	626	38%
Age bracket		
18-24 years	240	15%
25-34 years	512	31%
35-44 years	438	27%
45-54 years	290	18%
55-64 years	138	8%
65+ years	30	2%
Education (highest obtained)		
None	32	2%
Secondary school	320	19%
Post-secondary	370	22%
Vocational	210	13%
Undergraduate	482	29%
Professional qualification	79	5%
Postgraduate	155	9%
Search (number of boxes opened)		
0 (no searching)	473	29%
1	99	6%
2	54	3%
3 (max)	1022	62%

Annex B: Regression results

Table B1: Regressions for main analysis

	Model 1	Model 2	Model 3	Model 4
	Probability of choosing the best option	Probability of choosing the best option	Probability of choosing the best option	Number of searched options
Low transparency	BASELINE	-.241 *** (.039)	-.051 (.038)	BASELINE
Medium transparency 1	.061 (.037)	-.180 *** (.038)		.031 (.104)
Medium transparency 2	.272 *** (.039)	.031 (.039)		.271 * (.108)
High transparency	.241 *** (.039)	BASELINE	.190 *** (.038)	.306 ** (.105)
Current market			BASELINE	.188 + (.105)
Constant	.416 *** (.027)	.657 *** (.028)	.467 *** (.026)	1.832 *** (.076)
N	1297	1297	972	1648
Adjusted R-squared	.051	.051	.039	.006

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table B2: Robustness regressions

	Model 1 Probability of choosing the best option	Model 2 Rank of chosen option (1=worst; 4=best)
Transparency condition		
Low transparency	BASELINE	BASELINE
Medium transparency 1	.070 (.038)	.086 (.074)
Medium transparency 2	.281 *** (.039)	.539 *** (.077)
High transparency	.245 *** (.039)	.464 *** (.077)
Current market	.056 (.038)	.119 (.075)
Income		
Below £10k	BASELINE	
£10-£20k	-.035 (.037)	
£20k-£40k	-.011 (.035)	
More than £40k	.001 (.045)	
Gender		
Female	BASELINE	
Male	-.032 (.025)	
Age		
18-24	BASELINE	
25-34	.044 (.039)	
35-44	.064 (.040)	
45-54	.031 (.044)	
55-64	-.050 (.053)	
65 and over	-.072 (.096)	
Education level		
None	BASELINE	
Secondary school	.181 * (.091)	
Post-secondary	.234 * (.092)	
Vocational	.200 * (.094)	
Undergraduate	.250 ** (.091)	

Professional qualification	.207 *	
	(.104)	
Postgraduate	.230 *	
	(.097)	
Constant	.219 *	2.892 ***
	(.104)	(.054)
N	1648	1648
Adjusted R-squared	.051	.045

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table B3: Regressions for additional analysis

	Model 1	Model 2	Model 3
	Probability of choosing the best option	Probability of choosing the best option	Probability of choosing the best option
Low transparency	BASELINE	BASELINE	BASELINE
Medium transparency 1		.060 (.037)	.099 (.093)
Medium transparency 2		.273 *** (.039)	.278 *** (.095)
High transparency		.239 *** (.039)	.420 *** (.099)
Current market		.055 (.038)	.074 (.090)
Previous forex experience	.176 * (.074)	.123 *** (.032)	.176 * (.074)
Medium 1 * forex experience			-.047 (.102)
Medium 2 * forex experience			-.006 (.104)
High * forex experience			-.213 * (.108)
Current market * forex experience			-.022 (.099)
Constant	.269 *** (.068)	.313 *** (.038)	.269 *** (.067)

N	315	1648	1648
Adjusted R-squared	.014	.052	.053
+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001			

Endnotes

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