



## Fear of finance:

A report into the body's stress reaction to financial terminology

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## Introduction

Whether we realise it or not, money management and financial planning play a key part in most of our lives. From receiving pocket money as a child, to saving for a wedding or planning for a pension, financial behaviours are integral to growing up and growing old. Yet, despite this, money management, investments and financial behaviours are often negatively perceived within society.

Whilst anecdotal evidence is widely available, studies conducted to date are yet to explore the driving forces behind the anxiety, stress and fear often felt when facing up to our finances.

Barclays Smart Investor, the bank's "do-it-yourself" investing platform and i2 media research limited at Goldsmiths University of London, joined forces to create a first-of-its kind study to explore the phenomenon of financial and investment fear.

The research aimed to gain a deeper understanding of our emotional and self-reported physiological reactions to financial and investment terminology, and shed light on the role that emotions play when such language is used. Through doing so, the investigation outlines the potential barriers to investing that exist amongst the British public.

Here, we present our findings from the study, conducted with over sixty participants at the i2 media research laboratory at Goldsmiths University of London, in August 2019.

## Research Methodology

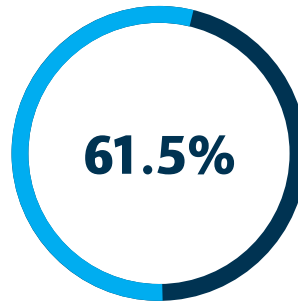
The Barclays study implemented a bespoke adaptation of the Emotional Stroop Test (EST), which measures information processing speed when naming the ink colour of different words. Words which trigger an emotional response are likely to produce slower reaction times compared to neutral words.

Participants were presented with over 100 colour-word combinations of both neutral terms such as 'institute', 'sandpaper' and 'pencil' and investment/financial terms such as 'asset management', 'stockbroker' and 'ISA'. They were then tasked with identifying the ink-colour of each word. Response times and error rates were measured and compared to infer which words induced the strongest emotional responses.

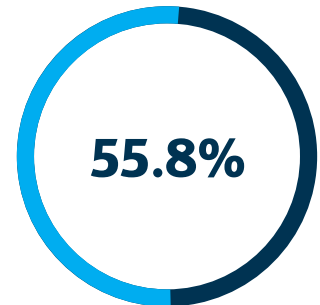
Alongside the experiment, participants completed a psychometric questionnaire to test their self-reported attitudes, behaviours and emotional responses to finance/ investments, and provide a measure of the physiological impact of facing up to financial terms.

## Results

The results showed that:



of participants took longer to respond to financial terms, compared to neutral terms



of the sample were slower to respond to investment terms

The top 10 financial and investment terms that produced the slowest reaction times, indicating the most intense stress reactions are:

WORD	RESPONSE TIME (SECONDS)
Stockbroker	0.809159607
Asset Management	0.788745217
Investment Risk	0.786161839
Investment ISA	0.784328297
Bond Fund	0.783540515
FTSE	0.779500024
Direct Debit	0.769783371
Mortgage	0.769238394
Insurance	0.76386052
Equities	0.763827306



## Financial Fears

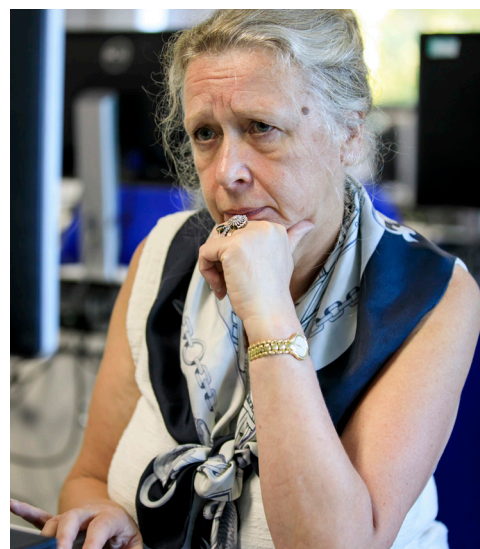
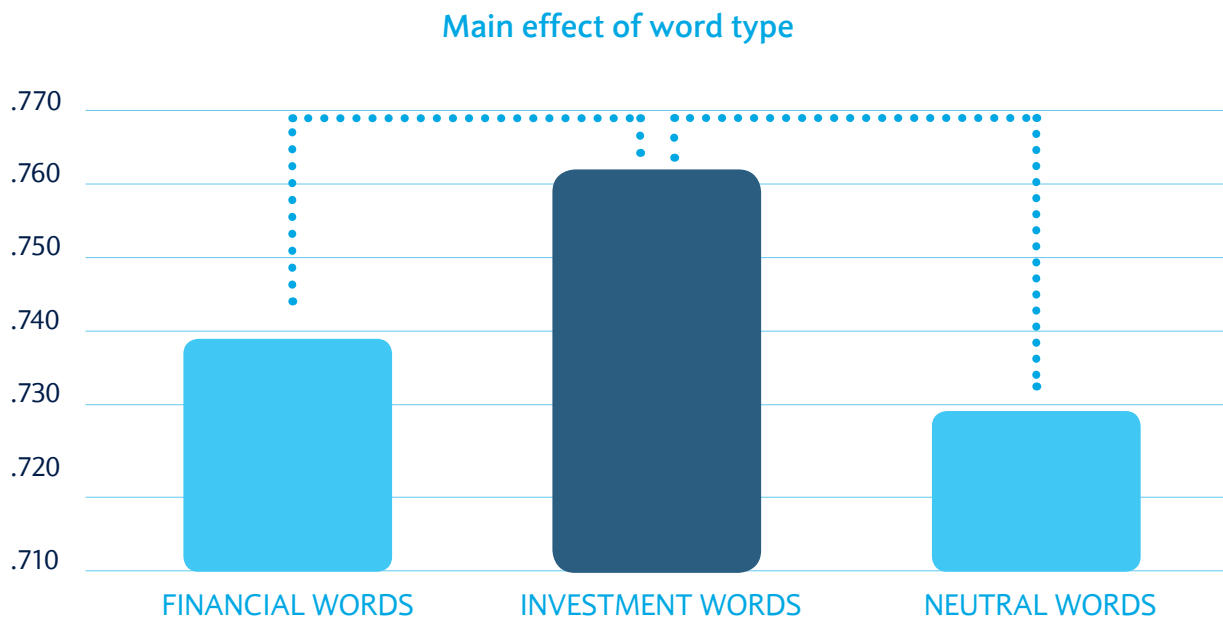
The Barclays experiment found that nearly two thirds (61.5%) of our sample of Brits may be susceptible to a stress response when faced with financial trigger words, indicated by increased response time and error rates when compared to neutral words.

56% of the sample were slower to respond to investment terms when compared with their reaction times to matched neutral words. This suggests that these words in particular could be perceived as threatening and, in turn, anxiety inducing.

Within the group of investment terms, those which produced the slowest reaction speeds on the EST were 'Stockbroker' (0.81s), 'Asset Manager' (0.79s) and 'Investment Risk' (0.79s) (see Graph 2). This suggests that these words were particularly threatening and could be the most anxiety provoking for participants.

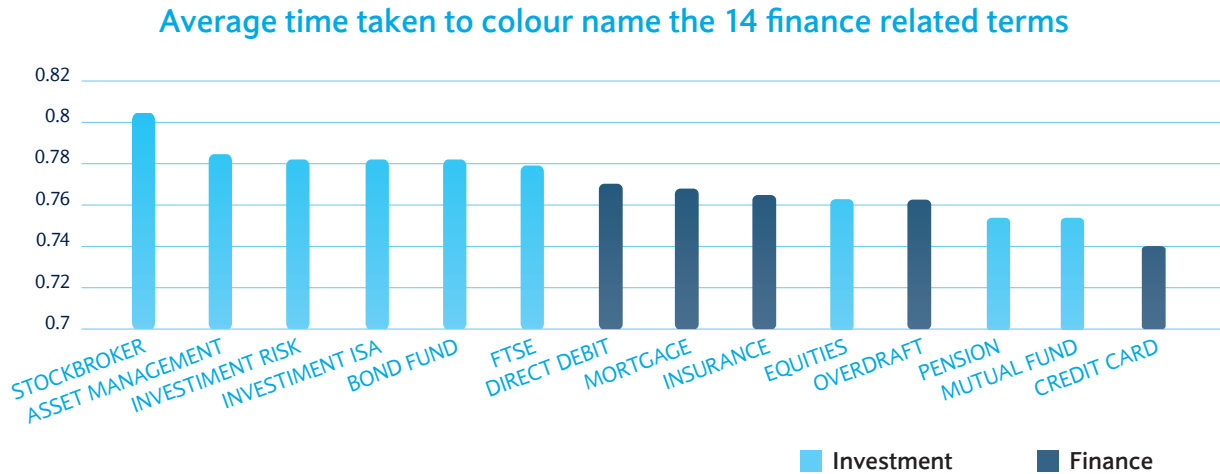
### Graph 1:

The effect of word type (finance, investment or neutral) on response time during EST



Graph 2:

The average reaction time to the top 10 slowest words from the EST



### Feeling the pressure

Participants in the study were also asked to self-report any changes in their physiology in response to the experiment. These are summarised as:



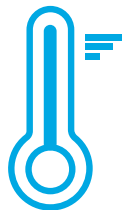
An increase in perspiration

**17.3%**



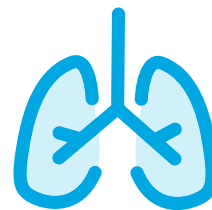
An increase in heart rate

**44.3%**



Increased body heat

**19.2%**



An increase in breathlessness

**11.5%**



Muscle twitches

**23.2%**

A third (29%) of participants agreed that exposure to investment words made them feel more anxious, and an even greater proportion (57.6%) reported that the prospect of investing their finances made them feel anxious. Interestingly, around 60% agreed that completing this experiment increased their motivation to learn more about finance and investment terminology.

### The gender and generational gap

Men in the study were found to experience stronger adverse reactions than women, taking an average of 3% longer to process investment terms. Despite this, an accompanying nationally representative omnibus survey found that it's women who have the least confidence when it comes to their finances, with 34% reporting they have no understanding of finance and investments compared to just 19% of men.

Surprisingly the younger cohort of participants (aged 18 – 26) in the lab experiment were able to process trigger terminology the fastest, suggesting a reduced stress reaction when compared to the older age group (27+) who took on average 3% longer per word.



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## Baffled Brits

The findings of the empirical study also correlated with further research conducted by Barclays, which showed that eight in 10 (86%) Brits are baffled by financial and investment jargon. To bring this to life, almost a third (29%) mistook a bull market – a market in which share prices are rising – for a place in Birmingham, whilst a fifth (21%) assumed it was a place that bulls are sold.

What's more, four-fifths (80%) admitted that managing their money is one of the most stressful areas in their life. 40% struggle to save each month, whilst 28% have no financial plan for their future and over one in 10 (11%) feel they're ill-equipped to develop one. Almost a fifth (17%) said they find even the thought of money totally nerve-wracking.

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## Stocks and Stress

The supporting research by Barclays also found almost three quarters (71%) of Brits do not feel confident enough to invest money in the stock market, and a quarter (23%) say they feel frightened at the thought.

The research also suggests that Brits interpret investing in the stock market as a particularly difficult skill to master, finding it harder to understand than computer coding (44%), ballroom dancing (29%), running a marathon (24%) and changing a car tyre (19%).

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## Conclusions

In conclusion, the study revealed that people feel stressed and anxious when faced with financial and investment terminology, compared to neutral words.

Investment terms were shown to be particularly stressful, with 'stockbroker', 'asset management' and 'investment risk' evoking the slowest response times and therefore being the most likely to provoke anxiety. This effect is most pronounced for those who already self-report as being financially anxious, with this cohort of participants taking the longest to respond.

It's clear that better education to increase people's understanding of financial and investment terminology could result in people (particularly those who are financially anxious) feeling more comfortable with investment and financial terms.



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## Methodology

Objective behavioural data (reaction time and errors) were collected using a computerised version of the EST. Participants were presented with the 28 finance and investment words and neutral words (shown in Table 2) in each of the 4 colours (red, green, yellow, blue) meaning that there were 112 stimulus trials per person. These objective behavioural metrics were backed up by a short self-report measure, completed by participants after the experiment. In addition to their demographics, participants were asked questions about their general level of financial anxiety (using the Financial Anxiety Scale [FAS], scored on a 4 point scale: Shapiro & Burchell, 2012), financial literacy, experience with financial products and services, and also how stressful they found taking part in the study.

At the end of the post-test survey, the assumed emotional valence of each word was checked to make sure that the neutral words were perceived as neutral, and the finance words were perceived as negative by this sample. This check confirmed that the neutral words were rated as more neutral and finance words were rated as more emotionally negative.

The supporting survey of 1,500 British adults was carried out by Ginger Comms Research in August 2019.

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## Sources

- Martin, M., Williams, R. M., & Clark, D. M. (1991). Does anxiety lead to selective processing of threat-related information? *Behaviour Research and Therapy*, 29(2), 147-160.
- Shapiro, G. K., & Burchell, B. J. (2012). Measuring financial anxiety. *Journal of Neuroscience, Psychology, and Economics*, 5(2), 92.
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