November 18, 2021

| Trading time | | | | | | | |
|----------------|----------|----------|----------|----------|----------|--|--|
| | (1) | (2) | (3) | (4) | (5) | | |
| VARIABLES | (TOBIT) | (TOBIT) | (TOBIT) | (TOBIT) | (TOBIT) | | |
| | | | | | | | |
| Gamified | 3.21*** | 3.15*** | 3.09*** | 3.14*** | 3.16*** | | |
| | (5.87) | (5.50) | (5.45) | (5.72) | (5.59) | | |
| High risk | -6.22*** | | -6.14*** | -6.25*** | -6.13*** | | |
| | (-13.43) | | (-13.26) | (-13.46) | (-13.26) | | |
| Quiz score | 0.85 | | | 0.86 | 0.85 | | |
| | (1.41) | | | (1.47) | (1.42) | | |
| Age | -2.67*** | | | | -2.66*** | | |
| _ | (-4.95) | | | | (-4.93) | | |
| Gender: Female | -1.71 | | | | -1.71 | | |
| | (-1.39) | | | | (-1.39) | | |
| Round | -2.10*** | | | -2.12*** | | | |
| | (-7.30) | | | (-7.36) | | | |
| Constant | 33.60*** | 30.06*** | 32.86*** | 32.90*** | 33.55*** | | |
| | (34.57) | (38.47) | (38.60) | (38.74) | (34.59) | | |
| Observations | 4 765 | 4 780 | 4 780 | 4 780 | 4 765 | | |

4,765 4,780 4,780 4,780 4,765

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

| Marke | et crash in | dicator | |
|-------|-------------|---------|-----|
| (1) | (0) | (2) | (4) |

| | (1) | (2) | (3) | (4) | (5) |
|----------------|----------|---------|---------|----------|----------|
| VARIABLES | (OLS) | (OLS) | (OLS) | (OLS) | (OLS) |
| | | | | | |
| Gamified | 0.03** | 0.03** | 0.03** | 0.03** | 0.03** |
| | (2.25) | (2.27) | (2.27) | (2.30) | (2.24) |
| High risk | 0.15*** | | 0.15*** | 0.15*** | 0.15*** |
| | (11.13) | | (11.26) | (11.26) | (11.13) |
| Quiz score | -0.01 | | | -0.01 | -0.01 |
| | (-0.99) | | | (-0.86) | (-0.99) |
| Age | -0.03*** | | | | -0.03*** |
| | (-3.77) | | | | (-3.77) |
| Gender: Female | -0.02 | | | | -0.02 |
| | (-1.22) | | | | (-1.22) |
| Round | -0.03*** | | | -0.03*** | |
| | (-4.08) | | | (-4.04) | |
| Constant | 0.27*** | 0.33*** | 0.26*** | 0.26*** | 0.27*** |
| | (20.69) | (34.10) | (23.61) | (23.49) | (20.75) |
| | | | | | |
| Observations | 4,765 | 4,780 | 4,780 | 4,780 | 4,765 |
| R-squared | 0.03 | 0.00 | 0.03 | 0.03 | 0.03 |

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| | (1) | (2) | (3) | (4) | (5) |
|--------------------------|----------|----------|----------|----------|----------|
| VARIABLES | (Tobit) | (TOBIT) | (TOBIT) | (TOBIT) | (TOBIT) |
| | | | | | |
| Gamified | 3.21*** | 3.14*** | 3.07*** | 3.14*** | 3.16*** |
| | (5.89) | (5.50) | (5.46) | (5.74) | (5.62) |
| $Game \times Quiz score$ | -1.30** | -1.25** | -1.21* | -1.08* | -1.45** |
| | (-2.24) | (-1.99) | (-1.95) | (-1.81) | (-2.43) |
| High risk | -6.22*** | | -6.15*** | -6.24*** | -6.12*** |
| | (-13.42) | | (-13.28) | (-13.45) | (-13.25) |
| Quiz score | 1.49** | 1.43** | 1.43** | 1.38** | 1.57** |
| | (2.19) | (2.07) | (2.12) | (2.07) | (2.29) |
| Age | -2.66*** | | | | -2.65*** |
| | (-4.94) | | | | (-4.92) |
| Gender: Female | -1.72 | | | | -1.72 |
| | (-1.39) | | | | (-1.39) |
| Round | -2.08*** | | | -2.10*** | |
| | (-7.22) | | | (-7.31) | |
| Constant | 33.59*** | 30.05*** | 32.86*** | 32.90*** | 33.55*** |
| | (34.62) | (38.61) | (38.81) | (38.78) | (34.64) |
| | | | | | |
| Observations | 4,765 | 4,780 | 4,780 | 4,780 | 4,765 |

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| Trading | time |

| | (1) | (2) | (3) | (4) | (5) |
|------------------|---------------|----------|----------|----------|----------|
| VARIABLES | (Tobit) | (TOBIT) | (TOBIT) | (TOBIT) | (TOBIT) |
| | | | | | |
| Gamified | 2.14*** | 1.96*** | 2.06*** | 2.05*** | 2.14*** |
| | (2.93) | (2.59) | (2.81) | (2.72) | (2.93) |
| Game × High risk | 2.23*** | 2.35*** | 2.24*** | 2.31*** | 2.22*** |
| | (2.80) | (2.90) | (2.79) | (2.89) | (2.78) |
| High risk | -7.32*** | -7.29*** | -7.34*** | -7.27*** | -7.32*** |
| | (-12.53) | (-12.38) | (-12.47) | (-12.47) | (-12.52) |
| Quiz score | 0.84 | | 0.85 | 0.85 | 1.05* |
| | (1.41) | | (1.46) | (1.41) | (1.80) |
| Age | -2.67*** | | | -2.66*** | -2.65*** |
| | (-4.96) | | | (-4.94) | (-4.96) |
| Gender: Female | <i>-</i> 1.71 | | | -1.71 | |
| | (-1.39) | | | (-1.39) | |
| Round | -2.09*** | | -2.11*** | | -2.09*** |
| | (-7.28) | | (-7.34) | | (-7.28) |
| Constant | 34.13*** | 33.42*** | 33.43*** | 34.10*** | 33.35*** |
| | (34.40) | (37.73) | (37.93) | (34.38) | (38.29) |
| | | | | | |
| Observations | 4,765 | 4,780 | 4,780 | 4,765 | 4,765 |

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| Trad | ıng | time |

| | | mading in | | | | |
|-------------------------------|----------|-----------|----------|----------|----------|----------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| VARIABLES | (Tobit) | (Tobit) | (Tobit) | (Tobit) | (Tobit) | (Tobit) |
| | | | | | | |
| Gamified | 2.93*** | 2.82*** | 2.97*** | 2.82*** | 2.96*** | 2.84*** |
| | (4.81) | (4.51) | (3.93) | (3.60) | (4.94) | (4.58) |
| Game × Risky asset trader | 1.47 | 1.43 | | | | |
| | (1.06) | (0.98) | | | | |
| Risky asset trader | -1.08 | 0.15 | | | | |
| | (-0.66) | (0.09) | | | | |
| High risk | -6.23*** | -6.14*** | -6.22*** | -6.13*** | -6.22*** | -6.14*** |
| G | (-13.43) | (-13.26) | (-13.42) | (-13.23) | (-13.44) | (-13.26) |
| Quiz score | 0.83 | | 0.84 | | 0.87 | |
| | (1.39) | | (1.39) | | (1.45) | |
| Age | -2.69*** | | -2.60*** | | -2.70*** | |
| G | (-4.91) | | (-4.54) | | (-4.94) | |
| Gender: Female | -1.76 | | -1.64 | | -1.79 | |
| | (-1.42) | | (-1.33) | | (-1.44) | |
| Round | -2.10*** | | -2.10*** | | -2.10*** | |
| | (-7.31) | | (-7.31) | | (-7.32) | |
| Game \times Online trader | | | 0.49 | 0.69 | | |
| | | | (0.45) | (0.61) | | |
| Online trader | | | 0.14 | 2.49* | | |
| | | | (0.10) | (1.85) | | |
| Game \times Frequent trader | | | | | 1.44 | 1.42 |
| | | | | | (0.98) | (0.94) |
| Frequent trader | | | | | -1.41 | 0.12 |
| | | | | | (-0.76) | (0.06) |
| Constant | 33.83*** | 32.83*** | 33.49*** | 31.54*** | 33.87*** | 32.84*** |
| | (31.85) | (35.19) | (27.36) | (28.88) | (33.07) | (36.60) |
| | | | | | | |
| Observations | 4,765 | 4,780 | 4,765 | 4,765 | 4,765 | 4,780 |

| | Cha | nges of h | eart | | |
|----------------|----------|-----------|---------|---------|----------|
| | (1) | (2) | (3) | (4) | (5) |
| VARIABLES | (1) | (2) | (3) | (4) | (5) |
| | | | | | |
| Gamified | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| | (1.01) | (0.96) | (0.96) | (0.97) | (1.01) |
| High risk | -0.00 | | -0.00 | -0.00 | -0.00 |
| | (-0.17) | | (-0.10) | (-0.10) | (-0.17) |
| Quiz score | -0.00 | | | -0.00 | -0.00 |
| | (-1.05) | | | (-1.26) | (-1.27) |
| Age | -0.01*** | | | | -0.01*** |
| | (-3.57) | | | | (-3.58) |
| Gender: Female | 0.01 | | | | |
| | (0.68) | | | | |
| Round | -0.00 | | | -0.00 | -0.00 |
| | (-0.04) | | | (-0.04) | (-0.04) |
| Constant | 0.04*** | 0.04*** | 0.04*** | 0.04*** | 0.04*** |
| | (6.06) | (8.14) | (6.92) | (6.91) | (6.90) |
| | | | | | |

0.00 0.00 0.00 0 Robust t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4,780

4,780

4,780

0.00

4,765

0.00

4,765

Observations

R-squared

| | (1) | (2) | (3) | (4) | (5) |
|------------------------------|----------|---------|----------|----------|----------|
| VARIABLES | (Tobit) | (Tobit) | (Tobit) | (Tobit) | (Tobit) |
| | | | | | |
| Gamified | 3.91*** | 3.68*** | 3.72*** | 3.70*** | 3.92*** |
| | (3.91) | (3.58) | (3.74) | (3.72) | (3.92) |
| Game × Gamified rounds first | -1.33 | -0.88 | -1.09 | -1.06 | -1.35 |
| | (-0.78) | (-0.49) | (-0.64) | (-0.63) | (-0.79) |
| Gamified rounds first | 1.98 | 1.62 | 1.74 | 1.78 | 1.90 |
| | (1.37) | (1.09) | (1.19) | (1.23) | (1.32) |
| High risk | -6.23*** | | -6.24*** | -6.26*** | -6.22*** |
| | (-13.44) | | (-13.43) | (-13.46) | (-13.41) |
| Quiz score | 0.88 | | | 0.88 | |
| | (1.46) | | | (1.50) | |
| Age | -2.68*** | | | | -2.66*** |
| | (-4.97) | | | | (-4.92) |
| Gender: Female | -1.65 | | | | -2.07* |
| | (-1.34) | | | | (-1.73) |
| | | | | | |

Trading time

Robust t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

-2.40***

(-5.36)

32.58***

(26.37)

4,765

Round

Constant

Observations

-2.41***

(-5.37) 32.81***

(26.53)

4,765

-2.36***

(-5.30) 32.00***

(27.99)

4,780

-2.37***

(-5.30) 32.03***

(27.94)

4,780

-2.29***

(-5.02)

29.23***

(26.33)

4,780