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Abstract

Many attribute the global financial crisis (GFC) to the ethical values of the people involved, financial services professionals (FSPs) such as stockbrokers or fund managers. The crisis-of-ethics debate is important, concerning one of the main policy challenges of our times, but is based on popular lore and anecdotes rather than systematic evidence. We assess the crisis-of-ethics account of the GFC by systematically analyzing the self-enhancement and self-transcendence values of FSPs vis-à-vis the general population and testing for patterns of variation that would implicate FSPs' values in the GFC. Employing pre-crisis data allows for an unbiased assessment. Results reveal only minor differences in values between FSPs and the general population, too small to support the crisis-of-ethics thesis by objective standards. We conclude that the financial system would not have fared better had we had a different breed of FSPs. Rather, situational forces can induce severe disregard for the welfare of others, also in people with ordinary, decent values. The implication is that fixes to the financial system can only come from improved regulatory design.

Keywords: Values; Situationist ethics; Financial system; Global financial crisis; Crisis of ethics JEL codes: D63, G01, G02, Z13

1. Introduction

Adam Smith is often quoted to say, "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest." This quote is from Smith's *Wealth of Nations* (Smith, 1776 [2000], pp. 23-24)], but elsewhere Smith (e.g., 1762 [1982]), the founding father of economics but a moral philosopher back in the day, emphasizes the role of values in the functioning of market systems. Nowadays, many consider the global financial crisis (GFC) that began in 2007 to be, more than anything else, a crisis of ethical values—a view that we refer to simply as the crisis-of-ethics thesis. In 2010, the World Economic Forum conducted a poll reaching over 130,000 respondents (World Economic Forum, 2010). Of the respondents, 68% agreed that the GFC is "also a crisis of ethics and values," while only 19% did not. Many professional commentators, not to mention politicians, similarly find that the GFC has "ethic proportions" (e.g., Bogle, 2009; Jenkins and Jones, 2009; Madrick, 2010), as do investigative committees, seating Nobel laureates and other renowned (academic) experts (Financial Crisis Inquiry Commission, 2011; Stiglitz et al., 2010).

Our concern here is that the important debate on the values or ethics of financial services professionals (FSPs) as a chief ailment of the financial system is being conducted on an exceedingly weak evidentiary basis. Improving the financial system is one of the main policy challenges of our times. Fundamentally, malfeasances by FSPs such as stockbrokers or fund managers (Madrick, 2010; Friedman, 2011; Reuters, 2011)—taking excessive risks or withholding information to pursue personal gain with extreme disregard for the welfare of others—cannot implicate FSPs' values in the GFC, however, as they do not indicate that ordinary people would behave more "ethically" under the same circumstances. Furthermore, the systematic evidence that has been brought forward to support the crisis-of-ethics thesis has turned out to be unfounded, notably, newspaper reports of psychopaths ruling Wall Street (Huffington Post, 2012; Hare, 2012).¹ In principle, the financial system could actually be in worse shape today had it been run by people randomly drawn from the general population.

2. Background and hypotheses

Our interest is in the personal values of FSPs, which we compare to the values of the general population to see whether the patterns of variation that we find implicate FSPs' values in the GFC. Values concern desired end states that transcend specific situations and provide the basis for judging and evaluation, directing people in selecting between alternative courses of action (Schwartz, 1992, p. 5). Values are more fundamental than, for instance, greed as being greedy is an instrument to achieving desired end states. As principle guidelines that shape individuals' behavior, the importance of values for social science and people and societies in general has long been recognized (Hitlin and Piliavin, 2004; Rohan, 2000).

The idea of studying the values of FSPs is not new. The global association of investment professionals (the Chartered Financial Analysts institute) has, on different occasions, commissioned survey studies of ethics in the investment profession (e.g., Veit and Murphy, 1992). These studies did not compare the values of FSPs to the values of the general population nor to the values of other occupations, however. More in line with the present research, in the past various other studies have actually compared the values of selected groups. The most relevant of these did not compare FSPs with other people or occupations but considered other interesting groups, for instance managers vis-à-vis business owners, manual workers and farm laborers (Inkeles, 1960) or managers vis-à-vis research scientists (Tagiuri, 1965). Most similar in spirit to our analysis is the large body of work on the effect of studying economics on individuals' values. Typically, these studies are rather critical of economics and business education, finding that students in these fields care less about fairness and more about personal gain than does the general population (Frank et al., 1996; Marglin, 2008; Marwell and Ames, 1981). As is, there is no empirical evidence on differences in values between FSPs and the general population that would support the crisis-of-ethics thesis.

Popular lore notwithstanding, theoretical expectations concerning the nature of values differences between FSPs and the general population are actually ambiguous. The crisis-of-ethics thesis has it that,

compared to the general population, FSPs value self-enhancement, meaning material wealth, status et cetera, substantially more (henceforth Hypothesis 1a or H1a) and that FSPs attach substantially less value to self-transcendence, meaning, inter alia, helping others and a concern for fairness and general wellbeing (Hypothesis 1b or H1b). Situationist ethics, finding that circumstances can drive people towards extreme behavior, offers an opposing view. Most famously, Milgram's experiments on obedience (Milgram, 1963) and the Stanford prison experiment by Zimbardo and collaborators (Haney et al., 1973; Zimbardo, 2013) have shown that situational forces can induce severe disregard for the welfare of others, also in people with ordinary, decent values.² Even when malfeasances are ubiquitous, there need not be anything special about the values of FSPs. Our empirical analysis of the values of FSPs vis-à-vis the general population considers this theoretical ambiguity. We do so by not only testing H1a and H1b but by also providing an explicit test of the corresponding null hypotheses (H0a and H0b) of no significant values differences between FSPs and the general population. We describe our empirical approach in the next section.

3. Empirical approach

3.1. Data

3.1.1. Values

To bring our hypotheses to the data, we conceptualize individuals' values using the framework of human values developed by Schwartz and collaborators (Schwartz, 1992; Schwartz and Bilsky, 1987, 1990) and operationalize them using his Portrait Values Questionnaire (Schwartz et al., 2001). Schwartz's framework of universal human values, which is the standard values framework in psychology, revolves around ten basic value constructs that cover the complete spectrum of human motivations (Figure 1). These basic values are placed in a circle (often referred to as a circumplex) where adjacent values are seen as being compatible, while values that are not compatible are placed opposite each other.

For our analysis, we utilize the basic values of Power, Achievement, Universalism and Benevolence. These four basic values feed into two higher-order subdimensions, namely Self-Enhancement (Power and Achievement) and Self-Transcendence (Benevolence and Universalism). Self-Enhancement and Self-Transcendence, in turn, form one of the two main values dimensions, namely Self-Enhancement vs. Self-Transcendence (SEST) (Figure 1). We test our hypotheses using individuals' scores on both the four basic values and on the Self-Enhancement, Self-Transcendence and SEST values, for a total of seven dependent variables. The description of the basic values is that Power refers to social status and prestige, control or dominance over people and resources; Achievement refers to understanding, appreciation, tolerance and protection for the welfare of all people and for nature; and Benevolence refers to preservation and enhancement of the welfare of people with whom one is in frequent personal contact (Schwartz et al., 2001).

<< Insert Figure 1 about here >>

The Portrait Values Questionnaire consists of 21 items all in the same format and using a Likerttype answer scale that ranges from 1 to 6. A potential issue with the items in the Portrait Values Questionnaire is that certain respondents may systematically understate or overstate certain values, for instance, because they focus on only one end of the answer scale. If we interpret these ratings as a direct reflection of their values, we would discover that among these respondents some people attach little value to everything, while others have great appreciation of just about everything. We follow the recoding protocol developed by Schwartz and correct for response artifacts such as these through ipsatization, meaning that, for each item in the questionnaire, we detract the individual's mean score on all values items combined.³ This way, we obtain standardized values measures with scores indicating how weak or strong a value is relative to the other values. If an individual scores above zero on one basic value, it indicates that, on average, this value is stronger than the other basic values. In the event of a negative score, the opposite holds true, and the value is comparatively less strong than the other basic values.⁴

<< Insert Table 1 about here >>

This recoding protocol applies to basic values. Self-Enhancement and Self-Transcendence values scores are constructed as means of raw values items scores, meaning they have theoretical minimums and maximums of 1 and 6. SEST scores, in turn, are obtained by detracting an individual's Self-Enhancement score from his/her Self-Transcendence score and can, therefore, range from -5 to +5. For our analysis, we consider only individuals with non-missing data on the seven values measures of interest (Self-Enhancement, Power, Achievement, Self-Transcendence, Universalism, Benevolence, and SEST). Table 1 presents the range of scores as actually encountered in the values data and other descriptive statistics for our sample.

3.1.2. Data collection

In designing our research, we encountered a significant challenge. Crisis-of-ethics stories have become so common that we cannot reasonably expect post-GFC measures of FSPs values to be unbiased. This problem rules out simply conducting behavioral experiments to assess how FSPs behave more or less ethically than do samples of people drawn randomly from the population. In fact, any systematic attempt to compare the values of FSPs and the general population in the wake of the GFC faces extreme difficulties in making sure that the data obtained are unbiased. We discovered a solution in employing values survey data collected before the beginning of the GFC, in the period 2002-2006. These data have been collected as part of the European Social Survey or ESS (Jowell and Central Co-ordinating Team, 2007) and provide us with complete values measures for 120,668 respondents, representing populations from 29 countries and covering over 150 nationalities. Both the framework of human values by Schwartz and the ESS values data have been widely validated (e.g., Bilsky et al., 2011; Davidov et al., 2008). The

website of the ESS, http://www.europeansocialsurvey.org, provides more information about the survey and the data set.

3.1.3. Classification of financial services professionals (FSPs)

Our main independent variable is a dummy variable indicating whether the individual is an FSP or not. To classify individuals as FSP or not we use detailed data on occupation as measured through four-digit codes from the International Standard Classification of Occupations (ISCO).⁵ We apply restrictive criteria, classifying only actual professionals and people higher-up on the corporate ladder as FSPs and not support staff. The four occupational categories that we classify as belonging to the financial services industry are: (i) Finance and sales associate professionals (ISCO 3410), (ii) Securities and finance dealers and brokers (ISCO 3411); (iii) Business services agents and trade brokers (ISCO 3420); and (iv) Trade brokers (ISCO 3421). We have 414 individuals classified as FSP in our sample.

The available ISCO codes refer to the ISCO-88 framework (currently succeeded by ISCO-08). The ISCO codes 3410 and 3420 included in the ESS are not officially included in the ISCO-88 framework. The class of Finance and sales associate professionals and of Business services agents and trade brokers are included in ISCO-88, however, but referred to by three-digit ISCO codes: ISCO 341 and ISCO 342. The higher-order rubrics related to the four ISCO codes are ISCO 34 (Other associate professionals) and ISCO 3 (Technicians and associate professionals). ISCO codes pertaining to the financial services industry that we do not classify as FSPs include Finance clerks (ISCO 4122) and Bank tellers (ISCO 4212). The reason is that these codes do not concern *professionals* in the financial services industry but rather support staff.⁶

3.1.4. Other variables used in the statistical analyses

To check the robustness of some of our results and to extent our main analysis, we also consider some additional measures of individuals' characteristics. These are either available from the ESS data set or can be obtained using data from the ESS. The first additional variable that we consider is sex (0-1), where we

assign the score of 1 to males. A second dummy variable concerns age, whether a person is below (1, younger) or above (0, older) the mean age in the sample. A third dummy variable indicates whether a person is a manager, yes (1) or no (0). We further construct a measure of social status by combining the rank of a person's income in the country in which he or she lives with the rank of the same respondent's occupational status, also in the country of residence. The ESS questions respondents about their household's total net income. We calculate rank income as the percentage of respondents from the same country scoring lower on this income scale. Occupational status refers to the desirability of one's job. It is based on Ganzeboom and Treiman's (1996) sorting of ISCO-88 codes into the International Socio-Economic Index of Occupational Status (ISEI). ISEI scores range from 16 (e.g. Farmhand) to 90 (Judge). As with income, we calculate occupational status rank as the percentage of respondents from the same country with lower ISEI scores. The reason for examining rank and not the absolute scores is that social status is based on one's position in society and, therefore, has a strong hierarchical component. We apply factor analysis to the two percentile scores to deduce the measure of social status (factor loadings are equal to 0.816). Finally, we create a dummy variable called Low SEST where we assign respondents a score of 1 when their SEST score is more than one standard deviation below the mean of the sample and assign a 0 otherwise.

Table 1 again presents descriptive statistics. Compared to the complete sample, FSPs are more likely to be managers (39.8% vs. 30.0%) and have higher mean social status (0.872 vs. 0.000). These differences are consistent with our sample of individuals employed in the financial services industry consisting of professionals or people higher-up in the corporate hierarchy and not of support staff such as clerks.

3.2. Method

We statistically test H1a and H1b using a t-test with robust procedures (bootstrapped with 1000 repetitions). As probability theory does not allow one to accept a null hypothesis, we test hypotheses H0a

and H0b using an analysis of effect sizes instead (Cohen, 1988). This analysis involves applying objective standards to test for the (non-)triviality of values differences between FSPs and the general population (Cohen, 1988). In addition to comparing means, we also use regression analysis when assessing the robustness of our results. Notably, we estimate several models with an individual's values as the dependent variable and a dummy variable indicating whether the individual is an FSP and control variables as independent variables (see above and Table 1).

The standard measure of effect size in a comparison of means is Cohen's d, which is calculated by dividing the difference in means by the pooled variance of the two samples (Cohen, 1988). Cohen's d is not only widely used but also has clear interpretation for judging the (non-)triviality of any found effect. The classification of effect sizes is as follows: a "small" effect requires d > 0.2; a "moderate" effect requires d > 0.5; and a "large" effect requires d > 0.8 (Cohen, 1988).

Our data is not normally distributed. Therefore, we cannot make direct use of Cohen's d as this measure only applies to normally distributed data (Cohen, 1988). We use a two-step procedure instead. First, we calculate the Probabilistic Superiority measure, which is an alternative to Cohen's d for non-normal data (Grissom, 1994). Probabilistic Superiority denotes the probability that a randomly sampled score from one population outranks a randomly sampled score from another population. Transformations of how Probabilistic Superiority relates to Cohen's d are given in Grissom (1994). In the second step, we employ these transformations to derive Cohen's d and apply the known criteria for effect size for this measure. Mappings of standard cut-off points for small, moderate and large effect sizes measured in Cohen's d onto Probabilistic Superiority scores are as follows (Cohen, 1988; Grissom, 1994):

- No effect (d = 0): Probabilistic Superiority = 50%;
- Small effect (d > 0.2): Probabilistic Superiority > 55.62% or Probabilistic Superiority < 44.38%;
- Moderate effect (d > 0.5): Probabilistic Superiority > 63.82% or Probabilistic Superiority < 36.18%;
- Large effect (d > 0.8): Probabilistic Superiority > 71.42% or Probabilistic Superiority < 28.58%.

4. Results

4.1. Values differences between FSPs and the general population

Values differences between FSPs and the general population are in the hypothesized direction (Table 2). However, only differences in SEST, Self-Enhancement and Achievement values are statistically significant at usual levels. What is more, effect sizes never reach above the objective threshold for being a small effect (Cohen, 1988; Grissom, 1994). These results lead us to accept the null hypotheses (H0a and H0b) that there are only trivial differences in the value that FSPs and the general population attach to selfenhancement and self-transcendence. This finding is strengthened when looking at variance explained (η^2) , which is small.

<< Insert Table 2 about here >>

4.2. Values differences in comparative perspective

A comparative perspective assists in obtaining a clearer understanding of the above findings, particularly where it concerns the found effect sizes. Table 3 repeats the analysis in Table 2 but for values differences between the sexes and between younger vs. older individuals. The nature of the sex and age differences in our sample are in line with previous research (e.g., Schwartz and Rubel, 2005). More importantly for our purposes, but also in line with prior research, sex and age differences are approximately twice as large as differences between FSPs and the general population. In addition, they account for a much higher percentage of variation in personal values, more than 5.2%, compared to the maximum 0.0034% for financial occupation. These findings confirm that values differences between FSPs and the general population are rather trivial.

<< Insert Table 3 about here >>

For a further comparative perspective, we examine the values of other occupational categories. Out of the 491 separate occupations present in our sample, 148 actually have lower SEST scores than FSPs have. These occupations include such unsuspected groups as Architects, town & traffic planners, Civil engineers, and Bakers, pastry-cooks & confectionery makers (Table 4, panel a). For Self-Transcendence and Achievement values we find similar results.⁷ As a general check, we also assess the SEST values of occupational categories known to have a high/low incidence of psychopathology (Dutton, 2012). The differences in mean values between these occupations—Nurses and Care workers scoring high, and Lawyers and Sales & marketing department managers scoring low on SEST values—are fully in line with the patterns for psychopathology reported by Dutton (2012) (Table 4, panel b).

<< Insert Table 4 about here >>

4.3. Robustness checks

4.3.1. Occupational categories and classifying FSPs

A first important issue to consider in assessing the robustness of the results in Table 2 is the classification of individuals as belonging to the group of FSPs. Perhaps the classification used for the main analysis somehow affects our findings on mean values differences between FSPs and the general population. To check the robustness of our results for classification choices, we redo our main analysis, changing our classification of FSPs and the general population in two ways. First, we expand our classification to include one additional ISCO category, namely Finance and sales associate professionals not elsewhere classified (ISCO 3419). Broadening our classification reassigns 619 respondents, increasing the total

number of FSPs to 1033. This broadening of the classification of FSPs works to lower the values differences between FSPs and the general population found earlier (Table 5, panel a).⁸

<< Insert Table 5 about here >>

Second, we apply a more narrow classification, only classifying respondents with ISCO codes 3411 (Securities and finance dealers and brokers) and 3421 (Trade brokers) as FSPs. This alternative classification leaves 196 FSPs in our sample. Values differences are now both more pronounced and less pronounced than before (Table 5, panel b) but still well below the cut-off point for being a small effect (Cohen, 1988; Grissom, 1994).

4.3.2. Controlling for individual characteristics

A chief limitation of the analyses in Table 2 is that they do not take into account the possibly confounding role of other individual characteristics. Other variables may be correlated with both values and financial occupation and ideally we control for such omitted variables. A growing literature finds a strong relationship between people's social status and their ethical values and behavior (Kraus et al., 2012; Piff et al., 2012). A particular concern, therefore, is that values differences between FSPs and the general population are biased if we do not control for differences in social status between these two groups. Table 6 presents regression results for values differences between FSPs and the general population, controlling for social status. Again, we focus on SEST, Self-Enhancement and Achievement values because values in these domains showed statistically significant differences between FSPs and the general population.

<< Insert Table 6 about here >>

In line with past research, results show that social status is associated with weaker SEST values and stronger Self-Enhancement and Achievement values. More importantly, controlling for social status significantly reduces values differences between FSPs and the general population, rendering the differences statistically insignificant at usual levels or even overturning initial differences. Hence, compared to their peers at similar levels in the corporate and societal hierarchy, the values of FSPs are not special at all. Of course, a possible explanation for this finding is that social status is not only a determinant of SEST, Self-Enhancement or Achievement values, but is also partly an outcome of these values. Such a bi-directional causal effect does not in any way detract from the conclusion that, when compared to their peers, there is nothing out of the ordinary about the values of FSPs, however.

4.4. Alternative testing of the crisis-of-ethics thesis

An alluring objection to our results takes issue with the general approach of gathering systematic evidence on the crisis-of-ethics thesis by looking at mean values differences. FSPs, on average, can have values much like everyone else. However, within the group of FSPs, there could also be a few "bad apples" (cf. Reuters, 2011), and perhaps the idea of a crisis of ethics revolves more around these bad apples than around the values of the average FSP. Many may remember the story of Nick Leeson, who, by an escalating series of risky trades, single-handedly caused the collapse of his employer, Barings Bank, the oldest merchant bank in London (Fay, 1997). With trades such as those of Leeson, one person can literally earn millions for a company (and for his/her colleagues). The idea of a crisis of ethics then questions whether the average FSP has done enough to keep the bad apples in check or gladly looked the other way, perhaps even actively supporting these colleagues in the latter's dubious dealings. Given our evidence on the average values of FSPs, the above idea of course begs the question of what motivated the average FSP to support their bad apple colleagues in the first place. Still, we want to move beyond anecdotal evidence, also on this count.

We define a bad apple as an individual who scores at least one standard deviation below the average SEST score for the whole sample (n=120,668). A logistic regression with the low-SEST dummy as the dependent variable and the dummy indicating whether someone is an FSP as the independent

variable shows that FSPs are indeed more likely to qualify as a bad apple (Table 7). The difference is small (2.4%), however, and not statistically significant at usual levels. Bad apples are not significantly more common among FSPs than they are among the general population, which is as expected given our results on mean values scores for FSPs and the general population.⁹

<< Insert Table 7 about here >>

For further completeness, we also look at "bad apple" dummies for the other six values measures. For the majority of values, the incidence of bad apples is higher among FSPs than among the general population (positive coefficient for the FSP dummy) (Table 7). This is not always the case, however, and there are no instances in which the observed differences are statistically significant at usual levels.

Of more direct concern than the incidence of bad apples is how FSPs, as a group, deal with these bad apples. We address this issue by examining the relationship between FSPs' SEST values and their managerial responsibilities as a way to gather systematic evidence that FSPs have deliberately organized themselves in a way that support(s)(ed) or at least facilitate(s)(d) individual FSPs to engage in shady business dealings that are lucrative for the group as a whole. If such a "grand scheme" exists, we expect that FSPs with low SEST values are more likely to fulfill leadership positions in their organizations. The dependent variable in this analysis is a dummy measure indicating whether a person is a manager (see above and Table 1). The key independent variable is the dummy variable indicating whether an individual scores low on SEST values (again see above). Results indicate that, rather than low SEST values helping the career of an FSP, low SEST values actually reduce the chance that someone becomes a manager in the financial services industry (Model 1 in Table 8). This finding is directly counter to the idea of a grand scheme among FSPs.

<< Insert Table 8 about here >>

For further evidence, we compare the effect of low SEST values on managerial responsibilities for FSPs with the effect of low SEST values on managerial responsibilities for people employed in other industries. The rationale is that, even if low-SEST FSPs are not awarded more responsibilities than high-SEST FSPs, the financial services industry as a whole might still be much more appreciative of low-SEST individuals than other industries are. If so, we can still make a case that there exists a grand scheme among FSPs. To assess whether the financial services industry indeed is comparatively more appreciative of low-SEST individuals, we add an interaction term to Model 1 in Table 8, showing the differential effect of SEST values on the likelihood of being a manager for FSPs vis-à-vis all other occupations. Results reveal that whilst low-SEST individuals are more likely to be managers in non-financial industries, they are actually less likely to be managers in the financial services industry (Model 2 in Table 8). The industry difference thereby is statistically significant at usual levels. This result again contradicts the more nuanced crisis-of-ethics thesis that suggests that the financial services industry is organized around facilitating bad apples.

Overall, we do not discover any indication of the existence of a grand scheme amongst FSPs in which bad apples are promoted to higher ranks or given more responsibilities for engaging in shady but lucrative business deals.

5. Conclusion

The main conclusion of our study is that values differences between financial services professionals (FSPs) and the general population are so trivial that the financial system would not have fared better had we had a different breed of FSPs.¹⁰ In the wake of the global financial crisis (GFC), questioning the values of FSPs has become something of an international pastime. Sweeping statements identifying FSPs' values as the main ailment of the financial system are regularly made with only anecdotal evidence to back up purported claims. We cannot readily observe the behavior of FSPs to determine how they behave less ethically than other people in the same situation do. Moreover, as FSPs are presently very much

aware that their values are being disputed, results from any behavioral experiment are bound to be highly biased. We have drawn on comprehensive values data collected before the crisis began in order to provide a systematic and unbiased assessment of the popular thesis that FSPs' values are distinctive in a way that implicates this group in the GFC. Contrary to popular lore, none of the evidence discovered provides outright support for the idea that FSPs' values are a key ailment of the financial system. This finding continues to hold in a range of robustness checks including changing the classification of individuals as FSPs. Moreover, some patterns of variation found within the group of FSPs actually contradict the widespread idea of FSPs' values as a key ailment of the financial system. Finally, there is nothing unethical about the values of FSPs once we take the social status of FSPs into account.

Our systematic evidence raises the level of debate on the GFC and its causes, but we think it should do more, namely, instill in policy makers and especially politicians the recognition that a change in values is not the way to fix the financial system. As FSPs' values do not stand out, fixes to the financial system can only come from a redesigning of regulation and accountability practices. A theoretical starting point for this paper has been the theory of situationist ethics, finding that situational forces can lead ordinary individuals to have extreme disregard for the welfare of others. Our finding that there is nothing special about the values of FSPs as a group resonates with this theory to suggest that regulatory reform needs to go down to the level of individuals and deal with individual-specific behavior. The challenge for regulation lies in what individuals can and will do under the "right" circumstances.

Endnotes

¹ The story was that 10% of Wall Street employees meets the clinical criteria for being a psychopath (compared to 1% in the general population). The main author of the study on which the media reported has pointed out several mistakes in the newspaper reports, however (Hare, 2012). For one, the percentage was lower (4%), and the study did not pertain to FSPs but to selected corporate executives.

² The situational forces that affect behavior are broad and carry substantial power in the opposite direction as well, leading people to care for others. An example is the study by Isen and Levin (1972), which examines the effect of positive mood on behavior. In their experiment, finding a dime in the coin return of a public telephone while making a call increased the percentage of people who spontaneously helped to pick up papers that were dropped in front of them from 4% (1 out of 25) to 87.5% (14 out of 16).

³ See Schwartz (2013) and http://essedunet.nsd.uib.no/cms/topics/1/4/4.html.

⁴ In the empirical analysis we find that individuals typically score negatively on Power and Achievement values and positively on Universalism and Benevolence values.

⁵ ISCO codes have been developed by the *International Labour Organisation* (ILO). See http://www.ilo.org/public/english/bureau/stat/isco/intro.htm for more information.

⁶ The higher-order rubrics for these two latter occupational categories are Clerks (ISCO 4) and Office clerks (ISCO 41) and Customer services clerks (ISCO 42).

⁷ We focus on SEST, Self-Enhancement and Achievement values because values in these domains show statistically significant differences between FSPs and the general population (see Table 2).

⁸ Compared to Table 2, there are more instances in which the values difference between FSPs and the public are statistically significant at usual levels, however. This is as expected given that the number of individuals classified as FSP is now higher (1033 vs. 414).

⁹ Indeed, in a way, we already considered the idea of bad apples by using bootstrapping procedures in our main statistical tests to account for the non-normality of our data.

¹⁰ Naturally, this conclusion does not absolve any individual FSP from personal responsibility in any wrongdoing nor is it meant to do so.

Abbreviations

ESS	European Social Survey
FSP	Financial services professional

GFC	Global financial crisis
ILO	International Labour Organisation
ISCO	International Standard Classification of Occupations
ISEI	International Socio-Economic Index of Occupational Status
SEST	Self-Enhancement versus Self-Transcendence values

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Table	1
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Sample Statistics.				
Variable	Mean	SD	Minimum	Maximum
Main dependents, n=120,668				
Self-Enhancement	3.545	0.988	1	6
Power	-0.865	0.892	-4.333	3.3
Achievement	-0.443	0.936	-4.176	3.25
Self-Transcendence	4.812	0.687	1	6
Universalism	0.585	0.641	-3.278	3.75
Benevolence	0.659	0.659	-3.6	3.476
SEST	1.268	1.126	-5	5
Main independent				
FSP (1=yes)	0.003	0.0585	0	1
Other independents				
Sex (1=male), n=120,507	0.460	0.498	0	1
Age, n=120,068	46.47	18.34	12	102
Young (1=age below average)	0.517	0.500	0	1
Social status (factor), n=75,715	0.000	1.000	-2.124	2.108
Other variables				
Manager (1=yes), n=107,227	0.300	0.458	0	1
Low SEST (1=yes), n=120,668	0.152	0.359	0	1
FSPs only $(n_F=414)$				
Manager (1=yes), n=412	0.398	0.490	0	1
Social status (factor), n=322	0.872	0.631	0.582	1.862
Low SEST (1=yes), n=414	0.155	0.362	0	1

Table 2

Value	Mean for FSPs (n _F =414)	Mean for general population (n _{GP} =120,254)	Difference FSPs vs. general population	Probabilistic Superiority	η^2
Self-Enhancement	3.637	3.544	0.092 ± 0.047	17 2200	0.0020%
[1,6]	{0.971}	{0.988}	(0.0519)	47.22%	0.0030%
Power	-0.802	-0.865	0.063 ± 0.041	17 56%	0.0017%
[-4.333,3.3]	{0.863}	{0.892}	(0.1369)	47.3070	0.001770
Achievement	-0.355	-0.443	0.088 ± 0.047	47 52%	0.0030%
[-4.176,3.25]	{0.954}	{0.936}	(0.0639)	47.3270	0.003070
Self-Transcendence	4.793	4.812	-0.020 ± 0.031	51 79%	0.0003%
[1,6]	{0.636}	{0.687}	(0.5105)	51.7770	0.000370
Universalism	0.547	0.585	-0.038 ± 0.032	51 58%	0.0012%
[-3.278,3.75]	{0.650}	{0.641}	(0.2388)	51.50 //	0.001270
Benevolence	0.628	0.659	-0.031 ± 0.030	51 60%	0.0007%
[-3.6,3.476]	{0.611}	{0.659}	(0.3077)	51.07%	0.000770
SEST	1.156	1.268	-0.112 ± 0.055	52 36%	0.0034%
[-5,+5]	{1.123}	{1.126}	(0.0420)	52.50 /0	0.003470

Values Differences Between Financial Services Professionals and the General Population.

Notes. Differences in means are followed by robust standard errors and indicated with ±. Two-tailed p-values for t-test are given in parentheses. Robust standard deviations are given in accolades. Sample minimums and maximums are given in square brackets. For the subdimensions and basic values, higher scores imply more emphasis on this value. A PS score of 47.22% (52.78%), the highest effect size found, implies a Cohen's d of almost 0.10, well below the threshold for a small effect (Grissom, 1994).

Women vs.	Men (n=120),507)		Age (n=120,068)	
Difference in means (men - women)	Probabilistic superiority	η^2	Value	Difference in means (young - old)	Probabilistic superiority	η^2
-0.384 ± 0.007 (0.0010)	59.84%	2.890%	SEST	-0.469 ± 0.006 (0.0010)	62.03%	4.338%
$0.254 \pm 0.006 \\ (0.0010)$	42.65%	1.636%	Self- Enhancement	$\begin{array}{c} 0.412 \pm 0.006 \\ (0.0010) \end{array}$	38.11%	4.349%
$\begin{array}{c} 0.215 \pm 0.005 \\ (0.0010) \end{array}$	43.01%	1.445%	Power	$\begin{array}{c} 0.172 \pm 0.005 \\ (0.0010) \end{array}$	44.46%	0.932%
$\begin{array}{c} 0.218 \pm 0.005 \\ (0.0010) \end{array}$	43.35%	1.354%	Achievement	0.430 ± 0.005 (0.0010)	36.79%	5.288%
-0.130 ± 0.004 (0.0010)	44.35%	0.893%	Self- Transcendence	-0.057 ± 0.004 (0.0010)	52.76%	0.170%
-0.148 ± 0.004 (0.0010)	56.58%	1.319%	Universalism	-0.188 ± 0.004 (0.0010)	58.50%	2.148%
-0.197 ± 0.004 (0.0010)	58.90%	2.225%	Benevolence	-0.137 ± 0.004 (0.0010)	56.27%	1.083%

Table 3Values Differences Between Men and Women, and Young and Old.

Notes. See Table 2. A PS score of 36.79% (63.21%) implies a Cohen's d of almost 0.48 (Grissom, 1994).

		Pan	nel a			Pan	el b	
Value	Mean for FSPs (n _F =414)	ISCO 2141: Architects, town & traffic planners (n=252)	ISCO 2142: Civil engineers (n=266)	ISCO 7412: Bakers, pastry-cooks & confectionery makers (n=394)	ISCO 223(0):Nursing & midwifery professionals (n=669)	ISCO 5139: Personal care, related workers not elsewhere classified (n=245)	ISCO 2421: Lawyers (n=253)	ISCO 1233: Sales & marketing managers (n=435)
SEST	1.156 {1.123}	1.109 {1.092}	0.988 {1.128}	1.068 {1.112}	1.577 {1.076}	1.657 {1.094}	0.902 {1.070}	0.873 {1.071}
Self-	3.637	3.795	3.813	3.626	3.374	3.288	4.049	3.889
Enhancement	{0.971}	{0.976}	{0.986}	{0.978}	{0.945}	{0.941}	{0.989}	{0.874}
Dower	-0.802	-0.827	-0.670	-0.838	-1.062	-1.097	-0.594	-0.652
TOWCI	{0.863}	{0.858}	{0.877}	{0.950}	{0.825}	{0.866}	{0.855}	{0.797}
Achievement	-0.355	-0.115	-0.198	-0.338	-0.561	-0.605	-0.098	-0.118
	{0.954}	{0.907}	{0.916}	{0.956}	{0.927}	{0.945}	{0.818}	{0.833}
Self-	4.793	4.904	4.801	4.694	4.951	4.945	4.952	4.762
Transcendence	{0.636}	{0.608}	{0.644}	<u>{0.758}</u>	{0.635}	{0.627}	{0.576}	<u>{0.645}</u>
Universalism	0.547	0.675	0.572	0.442	0.708	0.742	0.537	0.454
	{0.650}	{0.625}	{0.630}	{0.650}	{0.632}	{0.638}	{0.629}	{0.672}
Benevolence	0.628	0.587	0.522	0.540	0.852	0.913	0.588	0.540
Denevoience	{0.611}	{0.685}	{0.646}	{0.685}	{0.620}	{0.601}	{0.561}	{0.617}

Table 4Mean Values Scores for Selected Occupations.

Notes. Mean scores on SEST, Self-Transcendence, Universalism and Benevolence that are lower, and mean scores on Self-Enhancement, Power and Achievement that are higher than the mean scores of FSPs are in bold.

		Panel a: Broader		Panel b: Narrower classification				
Value	Mean for FSPs (n=1033)	Difference FSPs vs. general population	Probabilistic Superiority	η^2	Mean for FSPs (n=196)	Difference FSPs vs. general population	Probabilistic Superiority	η^2
SEST [-5,+5]	1.185 {1.174}	-0.083 ± 0.036 (0.0260)	51.74%	0.0046%	1.144 {1.224}	-0.124 ± 0.089 (0.1648)	53.13%	0.0020%
Self-Enhancement [1,6]	3.621 {1.007}	0.077 ± 0.031 (0.0150)	47.93%	0.0052%	3.604 {1.027}	0.059 ± 0.074 (0.4186)	47.58%	0.0006%
Power [-4.333,3.3]	-0.818 {0.886}	$\begin{array}{c} 0.047 \pm 0.028 \\ (0.0959) \end{array}$	48.50%	0.0024%	-0.809 {0.931}	$\begin{array}{c} 0.056 \pm 0.066 \\ (0.3856) \end{array}$	47.48%	0.0006%
Achievement [-4.176,3.25]	-0.372 {0.946}	0.072 ± 0.029 (0.0180)	48.00%	0.0050%	-0.388 {1.031}	$\begin{array}{c} 0.055 \pm 0.075 \\ (0.4525) \end{array}$	48.71%	0.0006%
Self-Transcendence [1,6]	4.806 {0.647}	-0.006 ± 0.020 (0.7652)	50.78%	0.0001%	4.748 {0.711}	-0.065 ± 0.050 (0.1958)	52.99%	0.0014%
Universalism [-3.278,3.75]	0.550 {0.672}	-0.035 ± 0.021 (0.0979)	51.02%	0.0025%	0.486 {0.672}	-0.100 ± 0.049 (0.0430)	54.39%	0.0039%
Benevolence [-3.6,3.476]	0.656 {0.616}	-0.003 ± 0.019 (0.8671)	50.32%	0.0000%	0.635 {0.628}	-0.023 ± 0.044 (0.6004)	51.20%	0.0002%

Table 5	
Values Differences Between FSPs and the General Population Using a Broader and Narrower Classification of FSI	Ps.

Notes. See Table 2. A Probabilistic Superiority score of 47.93% (52.07%) implies a Cohen's d of slightly more than 0.07 (Grissom, 1994) (Panel a). A Probabilistic Superiority score of 54.39% implies a Cohen's d between 0.15 and 0.16 (Grissom, 1994) (Panel b).

^	Depende	nt=SEST	Dependent=Self-Enhancement		Dependent=A	chievement
Intercept	1.347 ± 0.004 (0.0010)	1.343 ± 0.004 (0.0010)	$3.490 \pm 0.003 \\ (0.0010)$	$3.491 \pm 0.003 \\ (0.0010)$	-0.472 ± 0.003 (0.0010)	-0.471 ± 0.003 (0.0010)
FSP (0-1)	-0.140 ± 0.063 (0.0250)	-0.039 ± 0.059 (0.5125)	$\begin{array}{c} 0.100 \pm 0.053 \\ (0.0629) \end{array}$	-0.014 ± 0.054 (0.8032)	$\begin{array}{c} 0.085 \pm 0.053 \\ (0.1119) \end{array}$	-0.030 ± 0.052 (0.5305)
Social status	-	-0.115 ± 0.004 (0.0010)	-	0.130 ± 0.004 (0.0010)	-	0.131 ± 0.003 (0.0010)
R ² adjusted	0.0001	0.0109	0.0000	0.0179	0.0000	0.0199

Table 6
Financial Occupation and Social Status as Predictors of SEST, Self-Enhancement and Achievement Value

Notes. Estimated coefficients are followed by robust standard errors (bootstrapped with 1000 repetitions) and indicated with ±. Two-tailed p-values are given in parentheses. Number of observations is 75,715.

Table 7The Incidence of Bad Apples Among FSPs and the General Population.

Dependent	Coefficient for FSP dummy (0-1)	Nagelkerke R ²
Low SEST (0-1)	0.023 ± 0.137 (0.8531) [1.024]	0.0000
High Self-Enhancement (0-1)	0.048 ± 0.144 (0.7253) [1.049]	0.0000
High Power (0-1)	0.059 ± 0.130 (0.6653) [1.061]	0.0000
High Achievement (0-1)	0.133 ± 0.128 (0.2957) [1.142]	0.0000
Low Self-Transcendence (0-1)	-0.215 ± 0.157 (0.1608) [0.806]	0.0000
Low Universalism (0-1)	0.109 ± 0.133 (0.4106) [1.115]	0.0000
Low Benevolence (0-1)	-0.067 ± 0.143 (0.6294) [0.935]	0.0000

Notes. See Table 6. For Power, Achievement and Self-Enhancement, individuals received a dummy score of 1 if they scored more than one standard deviation above the sample mean. For Universalism, Benevolence and Self-Transcendence, individuals received a dummy score of 1 if they scored more than one standard deviation below the sample mean. Odds ratios in square brackets and bold. Number of observations is 120,668.

Table 8The Effect of Low SEST Values on the Likelihood of Being a Manager (0-1).

Dependent=Being a	Model 1	Model 2
manager (0-1)	(Sample with FSPs only)	(Complete sample)
Intercept	$-0.335 \pm 0.111 (0.0030)$	$-0.866 \pm 0.007 \ (0.0010)$
Low SEST (0-1)	-0.559 ± 0.300 (0.0589) [0.572]	0.129 ± 0.018 (0.0010) [1.137]
FSP (0-1)	-	0.532 ± 0.111 (0.0010) [1.702]
FSP * Low SEST	-	-0.688 ± 0.305 (0.0170) [0.503]
Observations	412	107,227
Nagelkerke R ²	0.0120	0.0009
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Notes. See Table 7.

Figure 1

The Framework of Universal Human Values.



Notes. Values included in the empirical analysis are in bold. Plusses and minuses indicate hypothesized differences between FSPs and the general population (H1a & H1b), with FSPs scoring higher (+) or lower (-) on the selected values.

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