Economics Note: Investor Confidence

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SUMMARY

This note defines investor confidence as investors' willingness to engage in the investment opportunities and associated intermediation channels available to them based on their perception of risk and return.

- This note decomposes investor confidence into: 1) optimism about the "fundamental" risk and return of their investments, and 2) trust in protections provided to investors in financial markets against potential losses from expropriations by other market participants.
- A loss of welfare can arise from a deviation between investor trust and the true level of protections against expropriations or between investor optimism and the true level of "fundamental" risk and return. For example, investors may conduct insufficient due diligence or forego beneficial investments as a result of such distortions. Further study can help inform how regulations and outreach might impact perceptions about protections and thereby influence investor trust.

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I. Introduction

"Investor confidence" has been a long-standing subject of interest among financial market observers, participants, researchers, and regulators. This note sets forth an economic framework for understanding and analyzing two primary elements of investor confidence: 1) optimism regarding the risk and expected return inherent to securities issued by corporations and other entities; and 2) trust in protections against potential losses from possible expropriations by other market participants. After defining these elements, this note discusses the dynamics and measurement of investor trust, which academic research has shown to be an important contributor to investment behavior. The framework outlined below can potentially aid in designing research to further increase understanding of investor confidence, including how regulations might impact it.

II. Economic Framework for Investor Confidence

This note defines investor confidence as investors' willingness to engage in the investment opportunities and associated intermediation channels available to them based on their perception of risk and return. This note decomposes investor confidence into two components. The first component is called "investor optimism," meaning investors' perception of "fundamental" risk and expected return, i.e., the risk and return inherent to securities issued by corporations and other entities. This can include repayment risks associated with intermediaries and the issuing entities. This definition of investor optimism also includes the ability of investors and their advisors to make rational investment decisions, i.e., those that result in optimal benefit to investors.

The second component of investor confidence is "investor trust," meaning investors' perception of the risk and potential losses from possible expropriations by other market participants. Specifically, investor trust reflects perception of exposure to harm from theft, fraud, and other violations of legal protections by issuers and intermediaries (e.g., accounting manipulations, insider trading, security price manipulations). Trust is shaped by an individual's experiences and is a factor that affects consumer decisions in relationships with different types of service providers, including for example doctors, auto mechanics, or investment advisers. Several research studies have found that greater trust both at the individual and national levels is related to higher levels of investment and participation in the stock market. For example, direct or indirect experience with an instance of abuse can degrade a person's

² An example of this use of the term "investor confidence" comes from the State Street Investor Confidence Index, which is based on reported holdings of equity securities by institutional investors. See: http://www.statestreet.com/ideas/investor-confidence-index.html.

³ In this note, we define expropriations as those that violate standards established by law or regulation. Other forms of corporate mismanagement, such as empire building, lie outside of our definition.

⁴ For example, Georganakos & Pasini (2011) find a relationship across European countries between stock market participation and generalized trust in relationships as measured in the world values survey. Guiso, Sapienza, and

trust. Giannetti and Wang (2016) find that revelation of corporate fraud in a US state decreases investment in the stock market by residents of that state. Their findings indicate that publicizing fraud can diminish investor trust.

By the definition put forth in this note, investor confidence is based on investors' perception of the attractiveness of their investment opportunities in terms of perceived risks and expected returns pertaining both to the prospects of issuers and the prospect of expropriation by other market participants. This perception may or may not reflect the true risk and return of their selected investment or of the financial market as a whole. This note refers to any deviation between the perceived and actual return/risk of investments as a "distortion" in investor confidence, which may stem from distortions in investor optimism, trust, or both. Any distortion in confidence results in a loss of investor welfare as it causes investors to deviate from their optimal investment allocation given the true level of risk and return. Investors who overestimate expected returns will receive an insufficient return to compensate for their assumed risk. Alternatively, if they overestimate their investment risk or uncertainty, investors may forego valuable investment opportunities (e.g., abstaining from the stock market). These potential distortions could also impact issuers' access to capital, and result in the lack of funding to viable investment projects in the economy, or subsidize projects that would not otherwise receive funding if their true prospects were appropriately disclosed.

There are instances in which regulatory actions can affect the level of fundamental risk and return in the economy, such as through actions and regulations that affect financial stability and that could spill over into the macro economy. These actions could also affect optimism if investors are aware of them and anticipate their qualitative effect. Similarly, other regulatory activities, such as various types of investor protections against potential market misconduct through inspections, surveillance, and enforcement activities, as well as rules related to market abuse and disclosure, can affect investor trust. Trust is also influenced, for example, by actions intended to mitigate excessive fees or misconduct arising from conflicts of interest, and restrict the activities of "bad actors" in the financial markets. 5

Importantly, a distortion in investor trust may reflect a misestimate of the true level of investor protections present in the economy. In particular, investors might underestimate the likelihood of abuse because of a lack of information available about the frequency and nature of abuses. Or, they may rely excessively (although in some instances appropriately) on word-of-mouth referrals for financial intermediaries and not conduct sufficient independent due diligence. 6 Indeed, the 2009 FINRA National Financial Capability Study found that only 15% of clients checked their financial advisor's background or

Zingales (2008) have found that generalized trust and trust in specific financial institutions predict stock market investment, controlling for risk aversion and optimism.

⁵ This is not to say that these activities only affect trust. These activities may also affect fundamental risk and return and thereby optimism as well. For example, certain nominal investor protections may have unintended consequences such additional costs for intermediaries which could impede capital from flowing from investors to firms.

 $^{^6}$ The Dodd-Frank Section 917 Financial Literacy Study found that 80% of clients i dentified their financial advisor through personal or professional referral. See: https://www.sec.gov/news/studies/2012/917-financial-literacystudy-part3.pdf.

credentials with a state or federal regulator. While better education of these risks and associated protections may mitigate abuses, (over)publicizing their propensity might lead to overestimation of their likelihood if, for example, the abuses are sensationalized by the media. It is possible that investors may exaggerate the occurrence of such abuses because hearing about them can lead to availability bias: the tendency to overestimate the occurrence of events that can be readily recalled. 8 Whether information about market abuses and enforcement actions causes trust to increase or decrease will depend largely on the manner in which the message conveyed. The impact of different types of messaging on trust is an important issue for future research as we discuss at the end of this note. In summary, either underestimating or overestimating the true risk of fraud or market abuse (i.e., excessive trust or mistrust) can be costly to investors. Specifically, it may unknowingly expose them to the risk of loss or cause them to be overly cautious in foregoing valuable investment opportunities.

III. **Measuring Investor Trust**

There are various ways in which investor trust can potentially be measured. One standard survey method is by asking respondents their level of trust in specific or general relationships and institutions on a numerical (e.g., 1-7) scale. Another potential method (which has yet to be utilized) could assess an individual's estimate of the incidence of fraud or misconduct in financial markets and among financial intermediaries. ⁹ This method might allow for the assessment of whether trust is too high or too low, provided some rational benchmark value for this incidence can be observed.

All existing studies measuring trust do so using a numerical scale (typically 1-7). For example, there are several surveys that attempt to capture investors' trust in financial professionals, institutions, and markets, such as the RAND American Life Panel and the FINRA National Financial Capability and Investor Studies. 10 Those two surveys offer one-time snapshots of trust. 11 In addition, Cerulli Associates produce

⁷ See: http://www.usfinancialcapability.org/downloads/NFCS 2009 Natl Full Report.pdf.

⁸ See Bettman (1979), Kahneman and Tversky (1982), and Tversky and Kahneman (1973).

⁹ This method conforms to the definition of trust from Guiso, Sapienza, and Zingales (2012): "We define trust as the subjective probability individuals attribute to the possibility of being cheated. This subjective probability is partly based on objective characteristics of the financial system (the quality of investor protection, its enforcement, etc.) that determine the likelihood of frauds such as Enron and Parmalat. But trust also reflects the subjective characteristics of the person trusting. Differences in educational background rooted in past history (Guiso, Sapienza, and Zingales (2004)) or in religious upbringing (Guiso, Sapienza, and Zingales (2003)) can create considerable differences in levels of trust across individuals, regions, and countries."

¹⁰ There are also a number of measures of investor optimism including the Yale Investor Confidence Index, Sentix Investor Sentiment Indices, and ZEW Investor Confidence Index. The State Street Confidence Index measures allocation to the stock market and consequently captures both optimism and trust.

 $^{^{11}}$ The RAND ALP wave MS189 from 2011 studies five separate components: trust in the stock market, banks, insurance companies, stock brokers, and investment advisors. The 2009 FINRA NFCS surveys participants for their trust in financial professionals as a single category, while the 2015 FINRA Investor Study surveys participants about their degree of worry about fraud, trust in regulators, and assessment of the fairness of financial markets.

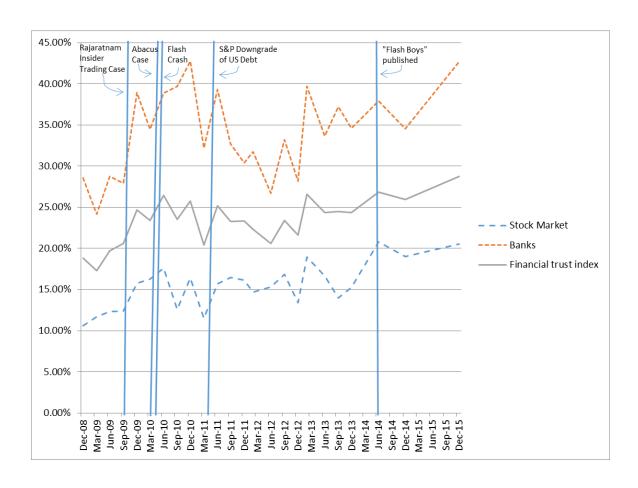
annual reports with data related to retail investor trust in financial services firms. Those survey results are available by intermediary and account type as well as by investor demographic characteristics. The "financial trust index" was developed and launched in December 2008 by Paola Sapienza and Luigi Zingales, professors of finance at Northwestern University and the University of Chicago, respectively. This measure is based on quarterly surveys of a nationally representative sample in which people are asked to rate their degree of trust in the stock market, large corporations, the government, banks, and other financial institutions. Subjects are also polled on a number of additional topics including their stock investments as well as their projections for the stock and housing markets.

Figure 1, below, shows the financial trust index data from the end of 2008 until the end of 2015 along with several significant market events. Index values increased after two prominent SEC enforcement cases and the flash crash of 2010. While the underlying indices (e.g., measuring trust in the stock market and banks) have exhibited substantial variation over time and indicate changing investor perceptions about the trustworthiness of the markets, these results do not identify the cause of these changes. For example, it is unclear whether changes in the index reflect anticipation of regulatory responses, the effect of unrelated economic events, or statistical error.

IV. Conclusion

This framework of "trust" and "optimism" can be used to guide research attempting to enhance understanding of investor confidence. Based on the discussion above, there are a number of open questions related to investor confidence and trust. First, are there research methods which can ascertain whether investor trust is too high or too low? As mentioned earlier, could a survey assess deviations in trust by assessing an individual's estimate of the incidence of fraud or misconduct relative to the observed incidence? This observed incidence can be measured by the rate of consumer complaints, official allegations, or sanctions for misconduct. In addition, how do investor optimism and trust react to financial market events and regulatory actions of various types including macroeconomic news, stock market disruptions and crashes, malfeasance in financial markets and enforcement actions, the introduction of new investor protections, etc.? How does this reaction depend on particular messaging and emphasis in communications? Additionally, how does this reaction vary by demographics in the general population and across investor classes (e.g., direct stock and bondholders, mutual fund investors, retirement plan participants, financial advisory clients, etc.)? As a related issue, what is the general awareness of financial market events and regulatory actions among the general population and these investor classes? Research designed to address these questions would assist in better understanding the impact of regulatory actions and communications on investor trust.

Figure 1: Financial Trust Index End 2008 - End 2015



Source: The data in Figure 1 comes from the financial trust index (http://financialtrustindex.org/).

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