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Geography, skills or both: What explains Fed watchers' forecast accuracy of US monetary policy?

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ABSTRACT

The paper shows that there is a substantial degree of heterogeneity in the ability of Fed watchers to forecast U.S. monetary policy decisions. Based on a novel database for 268 individual professional forecasters since 1999, the average absolute forecast error of FOMC decisions varies 5–10 basis points between the best and worst-performers across the sample. This heterogeneity is found to be related to both the skills of analysts – such as their educational and employment backgrounds – and to geography. In particular, forecasters located in regions which experience more idiosyncratic economic conditions perform worse in anticipating monetary policy. This evidence is indicative that limited attention and heterogeneous priors are present even for anticipating important events such as monetary policy decisions.

1. Introduction

Over the last two decades, a major evolution has taken place in the world of central banking towards a transparent conduct of monetary policy and away from a monetary policy that had often largely surprised the public. In light of this development, central banks have repeatedly stressed the importance of predictability of their decisions, which has indeed improved remarkably over time (e.g., Poole et al., 2002; Lange et al., 2003).

While much of the empirical work has focused on predictability based on the financial market consensus (Kuttner, 2001; Hamilton, 2009; Gürkaynak et al., 2007), others have documented the role of disagreement and heterogeneity among agents in forecasting monetary policy (Bauer et al., 2006; Swanson, 2006). The latter papers suggest that the increasingly transparent monetary policy of the Federal Reserve has not only led to a better prediction by financial markets in general, but is also reflected in more synchronized forecasts of monetary policy decision. Nonetheless, these papers also document that a remarkable degree of disagreement among forecasters about future central bank actions seems to persist.

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The literature suggests a number of factors that may generate disagreement among economic forecasters. Hong and Stein (2007), surveying the discussion on financial market forecasting, stress asymmetries in information availability and information processing. An example relating to information availability is the notion of "gradual information flow", where the arrival of information is staggered across agents. Examples relating to information processing include limited attention (where agents neglect or overweight information because of limits in their information processing capabilities) and heterogeneous prior beliefs (where agents receive the same information, yet interpret it differently).[1] Differences in information processing seem of particular importance in the area of monetary policy forecasts, where, as a rule, the relevant macroeconomic information governing central bank decisions, as well as all relevant central bank communication is available to all forecasters.[2]

The present paper focuses on the heterogeneity among forecasters of monetary policy decisions by the U.S. Federal Reserve, and its determinants. The paper is motivated by the fact, as we will show, that such heterogeneity is surprisingly high, even at a very short forecasting horizon. To understand this heterogeneity, we concentrate on forecaster asymmetries in information processing related to skills and geography. Given an abundance of potentially relevant data, a major challenge in forecasting monetary policy decisions is to make an appropriate selection of information and apply proper weights. Limited attention as well as heterogeneous priors can therefore easily generate disagreement. Both mechanisms suggest that *skills* have an important role to play, as better skilled forecasters devote the appropriate attention to the relevant signals, or have priors which more closely reflect the actual FOMC behavior.

Another important implication is that *geographical location* matters. This is because local information is salient, which, in the presence of limited attention might bias information processing and distract forecasters' attention from other signals. In addition, geographical location could influence priors, for instance, because the salience of local information shapes the analytical framework of forecasters or analysts with certain given skill sets cluster in particular localities. Our paper is also related to the literature on information and geography,[3] including Berger et al. (2009), who find evidence that geographic factors play a role for the predictability of ECB monetary policy decisions. The present paper is substantially wider in scope.[4]

The paper uses a novel dataset of 268 professional forecasters – covering many major investment banks, commercial banks and forecasting institutions – who are located across 98 cities in 15 countries, for FOMC decisions between February 1999 and September 2005. The dataset is very rich, containing not only each forecaster's survey expectations for FOMC decisions, but also information about the individual's forecasts of the macroeconomic releases for other variables, such as inflation and economic activity. Moreover, the data includes information related to analysts' skills, e.g. the type of institution, his or her position within that institution, employment record and educational background. We combine this dataset with information about the economic conditions specific to the region in which each individual is located.

As a key stylized fact, the degree of heterogeneity in the forecast performance across individuals is large: after grouping forecasters by performance over the full sample period, the absolute forecast error by the group of the 10% of the worst forecasters is 5 basis points (b.p.) higher than that of the best decile of analysts, when measured across all FOMC meetings. This difference rises to 10 b.p. when analyzing only those FOMC meetings that had some degree of heterogeneity across forecasters. This is of the same order of magnitude we have found for the heterogeneity of forecasts of ECB monetary policy decisions (Berger et al., 2009) and given the frequency of forecasters' participation cannot be the result of pure chance. This level of heterogeneity is non-negligible from a financial market point of view, as it suggests that forecasters could be wrong by 25 basis points every fifth FOMC meeting or nearly twice a year. Such a performance can lead to sizable financial losses, especially if we assume that the forecasters' institutions have taken corresponding positions in financial markets (after all, the mere fact that financial institutions typically devote substantial resources to their Fed-watching activities suggests that there are possibly large returns to be gained from accurate forecasts of monetary policy).

Interestingly, the observed differences in forecasting ability are mirrored in financial market data—a finding that should be of relevance to monetary policy-makers. We show that the larger the observed heterogeneity of monetary policy expectations, the higher is financial market volatility. This suggests that a thorough analysis of the impact of monetary decisions

[1] Hong et al. (2007) develop a model where financial market participants simplify a forecasting problem by selecting a small subset of the available data, and provide empirical support for the model's predictions. Further evidence in favor of limited attention of investors is provided, e.g., in Hirshleifer and Teoh (2003) and Peng and Xiong (2006). Other studies have provided evidence in favor of heterogeneous priors, (e.g., Harris and Raviv, 1993; Kandel and Pearson 1995; Diether et al., 2002). Focusing on economic forecasting, Mankiw et al. (2004) provide evidence that the nature of information (in the form of "sticky information") can explain disagreement in surveys of inflation expectations. See D'Amico and Orphanides (2008) for a discussion of the difference between disagreement and uncertainty.

[2] Monetary policy decisions are obviously largely made on the basis of expected future fundamentals. Differences in the ability of analysts to anticipate policy decisions may thus, in part, stem from differences in their ability to forecast future fundamentals. In our terminology, we refer to such differences as differences relating to the processing of information, rather than information asymmetries, since salient information for such forecasts are publicly available, yet analysts may weight and process them differently.

[3] One strand of this literature emphasizes the role of information asymmetries for international capital flows (e.g., Ahearne et al., 2004; Portes and Rey, 2005; Dvorak, 2005). A different strand stresses the importance of the geographic location of analysts in determining the profitability of investment (e.g. Coval and Moskowitz, 1999, 2001; Hau, 2001; Bae et al., 2008).

[4] First, our data set in the present paper includes much broader and better measures for geographic factors, in particular on regional economic conditions. Second, given that we are able to identify the individual forecaster rather than just the forecasting institution, we are in a position to condition on a different and much larger set of forecaster characteristics such as the skills of analysts, which allows us to draw much clearer conclusions about the role of information processing and the role central banks play in this process. Finally, while some might argue that a relatively new monetary region with a diverse historical and political background such as the euro area can be expected to (still) show some heterogeneity in beliefs, asking whether geography plays a role in the U.S. means setting the empirical bar significantly higher.