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Should one rely on professional exchange rate forecasts: An empirical analysis of professional forecasts for the #/US-$ rate

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¾

An empirical analysis of professional forecasts for the €/US-$ rate

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ABSTRACT

The study analyses the characteristics of professional exchange rate forecasts for the €/US-$ rate. The results indicate that the quality of forecasts produced by professional economists is rather poor and incompatible with the rational expectations hypothesis. This dismal result is according to our analysis attributed to the fact that professional forecasts are to a large extend influenced by actual changes in exchange rates. A reasonable explanation for this behaviour can be derived from the behavioural finance literature. According to the anchoring heuristic decision processes are often dominated by available pieces of information even if they are obviously of no relevance.

JEL Classification: F31, F47, G12, G15

Keywords: foreign exchange market, rational expectations, forecasts, behavioural finance, anchoring heuristic

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1 Introduction

Exchange rate expectations play a decisive role in open-economy macroeconomic models. They are also of pivotal importance for decision processes of financial market investors and of exporting or importing firms. According to economic textbooks such expectations are formed "rationally": it is assumed that the decision-makers obtain all relevant information and that they are able to process this input in an optimum way, i.e. by using an ideal macroeconomic exchange rate model. If this approach is correct, forecast errors are purely random, since they are caused by unexpected "news".

An obvious way for testing this hypothesis is an analysis of the forecasts that are produced by "professional forecasters", i.e. researchers that are employed by banks and other financial institutions. Such forecasts should come as close as possible to the ideal of rational expectations since they are produced by economists who have been selected by their employers because of their comparative advantage in the field of exchange rate economics. In fact, since the seminal contributions by Frankel and Froot, [1987] and Froot and Frankel, [1989] many other researchers have investigated the rational expectations hypothesis by using survey data. Overall, the results of these studies suggest a rejection of this hypothesis.

As such an analysis has been lacking for the €/US-$ exchange rate so far, our paper evaluates the forecasting performance of professional forecasts that are provided by Reuters, by Consensus Economics, and by the ZEW (Zentrum für Europäische Wirtschaftsforschung, Mannheim) Finanzmarkttest. As a main benchmark we use the simple forecasting rule of a random walk. In line with the existing literature for earlier periods we come to the conclusion that the quality of the forecasts produced by professional economists is rather poor and incompatible with the rational expectations hypothesis.

A possible explanation for this outcome can be derived from the behavioural finance literature. Due to the limitations in acquiring and processing information forecasters rely on relatively simple rules of thumb ("heuristics"). Our analysis shows that pro-

fessional forecasts - instead of being forward-oriented - are to a large extend influenced by actual changes in exchange rates. This outcome can be explained with the so-called anchor heuristic according to which decision processes are dominated by available pieces of information even if they are obviously of no relevance.

The results of our paper indicate that macroeconomic models for the open-economy are seriously flawed if they rely on the notion of rational expectations. In addition, financial investors as well as exporting or importing firms are well advised to use the forecasts provided by professional forecasters with utmost care.[1] A cheaper and more efficient, albeit also not very reliable, alternative is the simple random walk.

2 Are the professional market forecasts for the Euro/Dollar rate compatible with the rational expectations hypothesis?

Available forecasts for the €/US-$ exchange rate

Our analysis of professional forecasts is based on survey data provided by three different suppliers of financial data: Reuters, Consensus Economics and ZEW Finanzmarkttest.[2] The period under consideration starts in January 1999 and ends in March 2003. The available forecast horizons vary depending on the supplier and are summarised in Table 1.

[1] The poor forecasting performance of many companies has become evident in the recent appreciation phase of the Euro vis-à-vis the US-Dollar which had an immediate and often very strong negative impact on their profitability.

[2] Information about the suppliers of the survey data can be found on www.consensuseconomics.com, www.reuters.com and www.zew.de.

Table 1: Available forecast data

	Period	Forecast horizon
Consensus Economics	1999/1-2002/12	3, 12 and 24 months
Reuters	1999/1-2003/2	1, 3, 6 and 12 months
ZEW-Finanzmarkttest	1999/1-2002/12	6 months

Figure 1 (Reuters) and Figure 2 (ZEW and Consensus) show the survey data that were made at a given date for different time horizons. The spot €/US-$ exchange rate is taken from the IFS CD-ROM of the International Monetary Fund (IMF). Here we use the end-of-month values of the preceding month since the market forecasts are made at the end or the beginning of a month: for instance, the December one-month forecast for January is typically made at the end of November/beginning of December. Thus, we compare this value with the actual end of December spot rate.

Figure 1: Reuters market forecasts

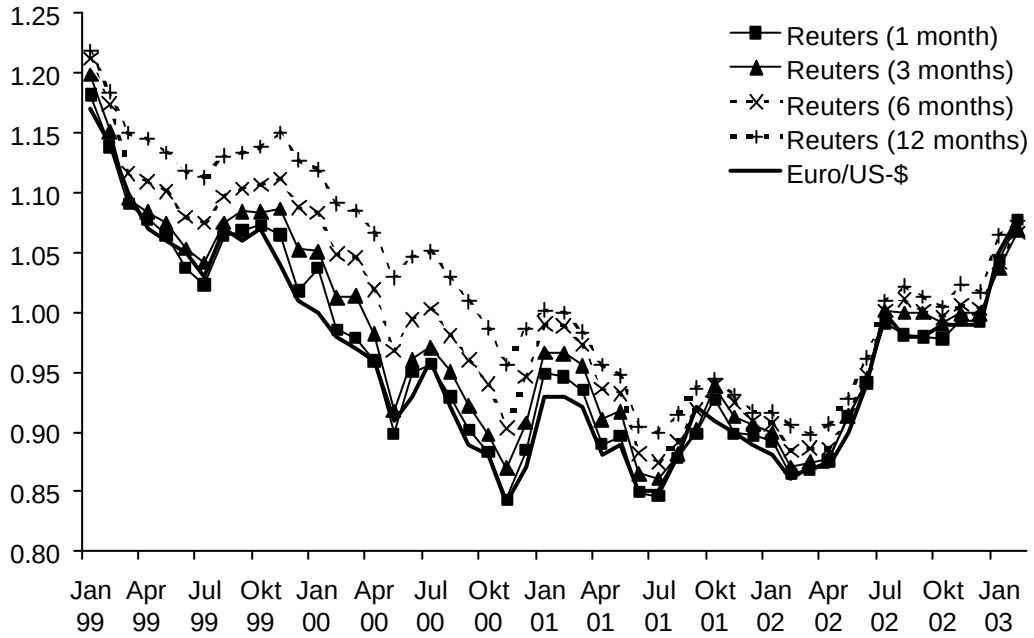
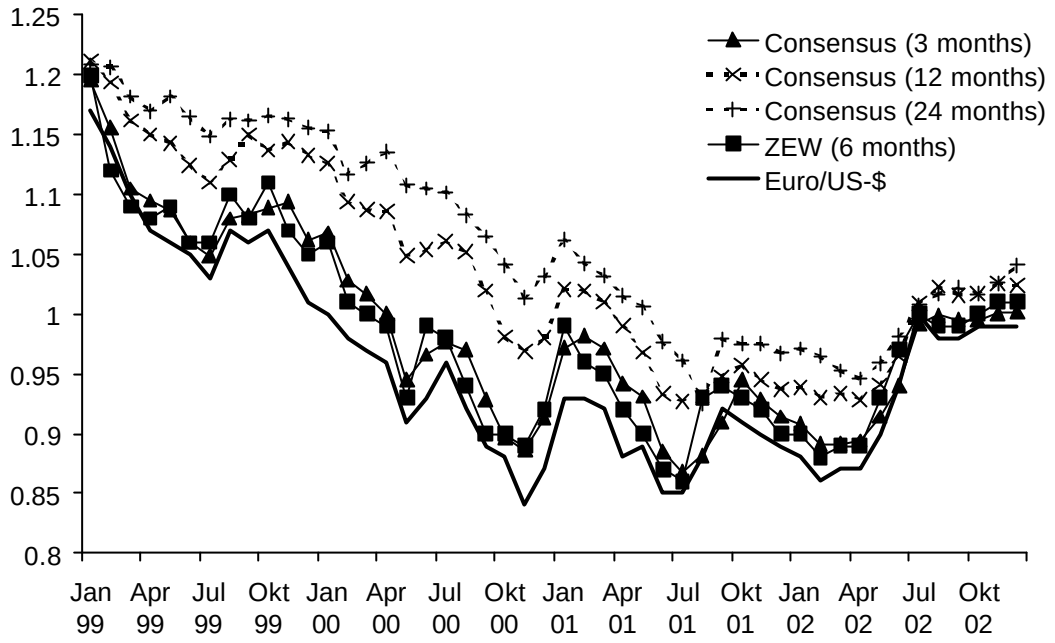


Figure 2: Consensus-Economics and ZEW-Finanzmarkttest market forecasts



The rational expectations hypothesis for the €/US-$ market forecasts

According to the rational expectation hypothesis (REH) expectations errors (ξ_{t+1}) conditioned on the available information set (Ω_t) are purely random,

$$x_{t+1} = S_{t+1} - E\left(S_{t+1} \middle| \Omega_t\right), \qquad \text{with } x_{t+1} \sim \left(0, s^2\right) \tag{1}$$

where S denotes the nominal spot exchange rate and E is the rational expectations operator. This unbiasedness hypothesis implies that under REH forecasts errors are expected to be zero, i.e. they fluctuate randomly so that ex post no systematic deviations of the actual spot rate from the expected rate should be observed.

Already a simple graphical analysis makes clear that the professional forecasts are difficult to reconcile with REH (see Figure 3 and 4). Instead of fluctuating randomly, the forecasts exhibit systematic deviations. Until Spring 2002 almost all forecasts were too optimistic for the Euro, after that date they were too pessimistic.

Figure 3: Expectations errors of the Reuters market forecasts

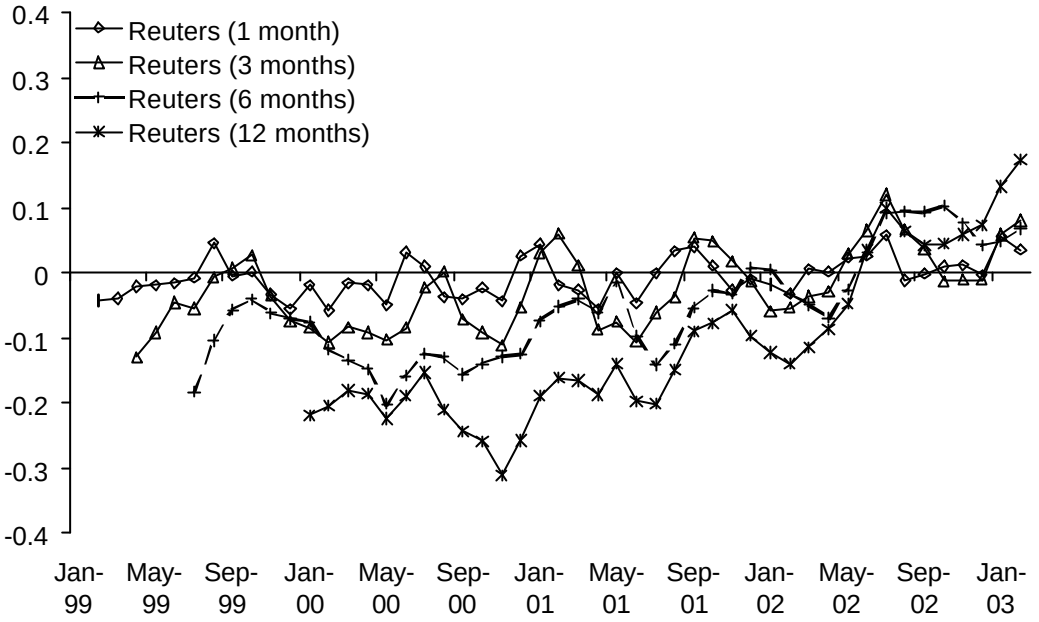
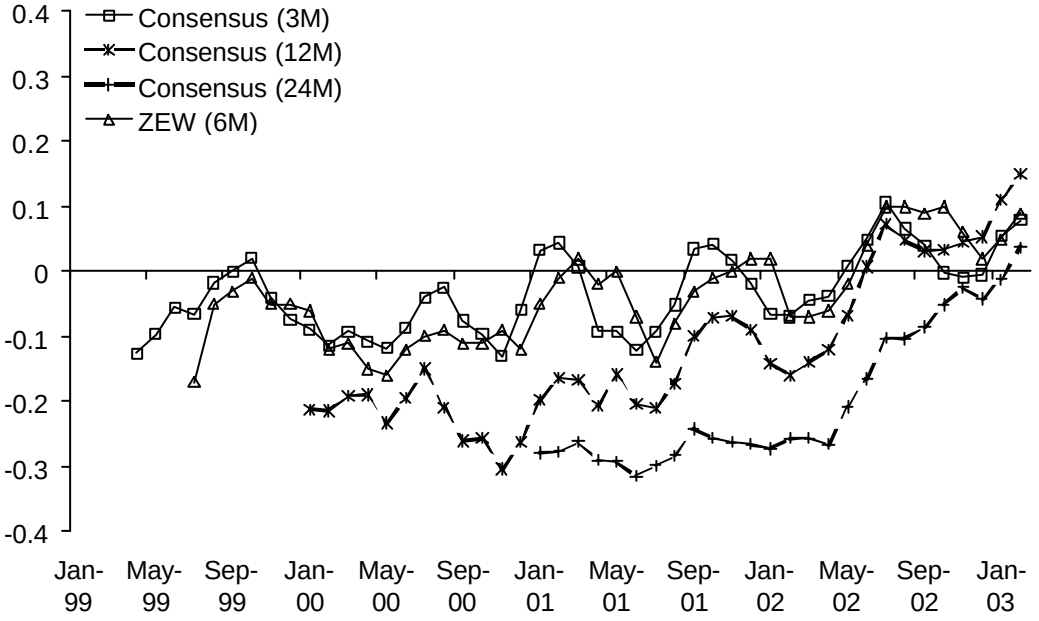


Figure 4: Expectations Errors of the Consensus Economics and ZEW Finanzmarkttest Market Forecasts



The unbiasedness hypothesis can be tested econometrically by regressing the actual change in the spot exchange rate on the expected change according to the professional forecasts. Thus, the null hypothesis of unbiasedness implies that it is possible to decompose S_{t+h}-S_t as

$$S_{t+h} - S_t = a + b\left(E_t S_{t+h} - S_t\right) + e_{t+h} \qquad (2)$$

where $\alpha = 0$, $\beta = 1$ and ε_{t+h} has mean zero and is uncorrelated with E_tS_{t+h}-S_t (see Cavaglia et al., [1994], p. 327). Table 2 reports the results of the estimation for each market forecast and for each available forecast horizon via ordinary lest squares (OLS). The standard errors for the 3, 6, 12 and 24 month market forecasts are derived by applying the Newey and West, [1987] estimation procedure that allows for heteroscedasticity in the error terms.[3] For an evaluation of the joint null hypothesis of $\alpha = 0$ and $\beta = 1$, we carry out a Wald Test. The corresponding F-statistics are also reported in Table 2.

For all market forecasts the results indicate that the null hypothesis of unbiasedness should be rejected. While the α coefficients are almost close to zero, the β coefficients depart significantly from one. The Wald-Test suggests that for none of the market forecasts the joint hypothesis of $\alpha = 0$ and $\beta = 1$ can be maintained.

[3] Hansen and Hodrick, [1980] demonstrate that, when the forecast horizon is longer than the observational frequency, the forecast error ε_{t+k} will be serially correlated. This can be corrected by using the Newey and West, [1987] estimation procedure (see Cavaglia et al., [1994], pp. 327).

Table 2: Test of unbiasedness for €/US-$ market forecasts

	a	b	F-statistic
Reuters			
1 month	-0.0011 (0.0045)	-0.1094 (0.3905)	5.0224 [0.0105]
3 months	0.0197 (0.0185)	-1.2879 (0.6508)	12.8853 [0.0000]
6 months	0.0417 (0.0352)	-1.1939 (0.6104)	17.8608 [0.0000]
12 months	0.0471 (0.0865)	-0.9710 (0.8861)	14.4626 [0.0000]
Consensus-Economics			
3 months	0.0166 (0.0181)	-0.7093 (0.4068)	15.6519 [0.0000]
12 months	-0.0104 (0.1006)	-0.1757 (0.8528)	17-4543 [0.0000]
24 months	-0.3369 (0.0593)	2.2034 (0.4756)	26.8417 [0.0000]
ZEW-Finanzmarkttest			
6 months	0.0128 (0.0272)	-0.8225 (0.5865)	9.1256 [0.0005]

Standard errors in parentheses; p-values in brackets.

3 Empirical evaluation of professional forecasts

In the following, we evaluate the accuracy of professional forecasts on the basis of various quantitative measures of forecasting accuracy, which are usually used for this purpose (see Moosa, [2000], pp. 336). In particular, we apply the THEIL's inequality coefficient, the coefficient of determination and the correlation coefficient. In addition, we also investigate the appropriateness of market forecasts as direction-of-change forecasts.

Measures of forecasting accuracy

THEIL's inequality coefficient measures the forecasting power of the market forecasts relative to a random walk model. It is defined as the ratio between the root mean squared error (RMSE) of the market forecasts and a driftless random walk:

$$\text{Theil's U} = \frac{\sqrt{\frac{1}{N-1}\sum_{t=1}^{N}\left(S_{t+1} - \hat{S}_{t+1}\right)^2}}{\sqrt{\frac{1}{N-1}\sum_{t=1}^{N}\left(S_{t+1} - S_t\right)^2}} \qquad (3)$$

where the spot exchange rate is denoted with S and the professional forecasts are marked with $\hat{S}$. If the forecasts perfectly predict future exchange rates, THEIL's inequality coefficient equals zero. If the forecasts have the same accuracy as a random walk, THEIL's inequality coefficient becomes one. Values of THEIL's inequality coefficient greater than one indicate that the performance of the professional forecasts is worse than the benchmark of a random walk.

Table 3 indicates that the quality of all professional forecasts is worse than a naïve random walk forecast since all values of THEIL'S inequality coefficient are larger than one. It is remarkable that the relative performance of the random walk increases with the length of the forecast horizon. As far as the quality of the three institutions is concerned, ZEW that only produces a 6-month forecast outperforms Reuters. The latter produces better forecasts than Consensus for the 3-month and the 12-month horizon for which forecasts from both institutions are available. According to this - rather incomplete - comparison one would obtain a ranking with ZEW as the best forecaster followed by Reuters and Consensus.

Table 3: THEIL's inequality coefficient for €/US-$ market forecasts

	Reuters	Consensus-Economics	ZEW-Finanzmarkttest
1 month	1.1059	--	--
3 months	1.1942	1.2729	--
6 months	1.3760	--	1.1823
12 months	1.4636	1.4924	--
24 months	--	1.5381	--

The next two measures of forecasting accuracy are taken from regression analysis. The correlation coefficient ρ measures the correlation between the actual exchange rate (S) and the forecasted exchange rate ($\hat{S}$). It is calculated as

$$r = \frac{\sum_{t=1}^{n}\left(S_t - \bar{S}\right)\left(\hat{S}_t - \bar{\hat{S}}\right)}{\sqrt{\sum_{t=1}^{n}\left(S_t - \bar{S}\right)^2 \sum_{t=1}^{n}\left(\hat{S}_t - \bar{\hat{S}}\right)^2}} \tag{4}$$

For the case that the actual spot exchange rate is perfectly anticipated, i.e. $S_t = \hat{S}_t$ for all t, the correlation coefficient ρ equals 1. If the actual spot exchange rate and the forecasts are totally unrelated, their covariance will be zero and therefore ρ equals 0. The coefficient of determination (R^2) measures the relationship between the sum of squares of errors and the sum of squares of deviations from the mean value of the exchange rate. It is calculated as

$$R^2 = 1 - \frac{\sum_{t=1}^{n}\left(S_t - \hat{S}_t\right)^2}{\sum_{t=1}^{n}\left(S_t - \bar{S}\right)^2} \tag{5}$$

where $\bar{S}$ is the actual mean value, which is given by

$$\bar{S} = \frac{1}{n}\sum_{t=1}^{n} S_t \tag{6}$$

For perfect forecasts, i.e. $S_t = \hat{S}_t$ for all t, the coefficient of determination (R^2) corresponds to one. Values of R^2 smaller than one indicate that the forecasts only explain a fraction of the variance of the actual spot exchange rate series. For instance the Reuters 1-month market forecast explains about 86 per cent of the variance of the actual spot exchange rate (see Table 4). The values of the correlation coefficients and the coefficients of determination demonstrate that again the market forecasts perform worse than the benchmark of naïve random walk forecasts. As far as the ranking of the three institutions is concerned, ZEW is again better than Reuters and Reuters again beats Consensus at the 3-month forecast, for the 12-month forecast the two institutions are almost identical.

Table 4: Correlation coefficient and coefficient of determination for the €/US-$ market forecasts

	Reuters	Consensus-Economics	ZEW-Finanzmarkttest	Random Walk
1 month	0.9294 (0.8639)	--	--	0.9412 (0.8857)
3 months	0.6851 (0.4694)	0.6622 (0.4386)	--	0.7485 (0.5603)
6 months	0.4686 (0.2196)	--	0.5092 (0.2593)	0.6011 (0.3613)
12 months	-0.3396 (0.1153)	-0.3347 (0.1120)	--	-0.1105 (0.0122)
24 months	--	-0.7392 (0.5465)	--	-0.5293 (0.2802)

Correlation coefficients and coefficients of determination (in parentheses)

Market forecasts as direction-of-change forecasts

Direction-of-change forecasts are of particular importance for financial market investors and for exporters and importers. This quality of professional forecasts can be evaluated on the basis of a comparison with a naïve coin flip (see Diebold and Lopez, [1996], pp. 256). The test is based on a 2 x 2 contingency table (see Table 5).

Table 5: 2 x 2 contingency table

	Actual change "up"	Actual change "down"	
Expected change "up	N_{11}	N_{12}	$N_{1.}$
Expected change "down"	N_{21}	N_{22}	$N_{2.}$
	$N_{.1}$	$N_{.2}$	N

The hit rate of the direction-of-change forecasts is given by the quotient $(N_{11} + N_{22})/N$. The actual exchange rate changes are defined as "up" if $\Delta S_{t+h} \geq 0$ and as "down" if $\Delta S_{t+h} < 0$. Correspondingly, expected exchange rate changes are defined as "up" if $\Delta \hat{S}_{t+h} \geq 0$ and as "down" if $\Delta \hat{S}_{t+h} < 0$. The null hypothesis of the test is that the entries in the contingency table are totally random so that the hit rate is

close to 50 %. The corresponding test statistic is according to Diebold and Lopez, [1996] given by

$$C = \sum_{i,j=1}^{2} \frac{\left(N_{ij} - \hat{E}_{ij}\right)^2}{\hat{E}_{ij}} \quad \text{with } \hat{E}_{ij} = N_{i\cdot} \cdot N_{j} \; / N \tag{7}$$

whereby C is under the null hypothesis $C \overset{d}{\rightarrow} c_1^2$ (see Schröder, [2002], pp. 459). Table 6 reports the hit rates and the test statistics for the available €/US-$ forecasts. It clearly shows that professional forecasts are poor predictors of the direction of exchange rate changes. For all forecasts the hit rate is below 50 % and all test statistics are insignificant on common levels.[4]

Table 6: €/US-$ market forecasts as direction-of-change forecasts

	Hit Rate	Test-Statistic
Reuters		
1 month	44.00%	0.6416
3 months	43.75%	0.0914
6 months	44.44%	0.7474
12 months	38.46%	--
Consensus Economics		
3 months	43.75%	0.7295
12 months	38.46%	--
24 months	37.4%	--
ZEW Finanzmarkttest		
6 months	46.67%	1.5295

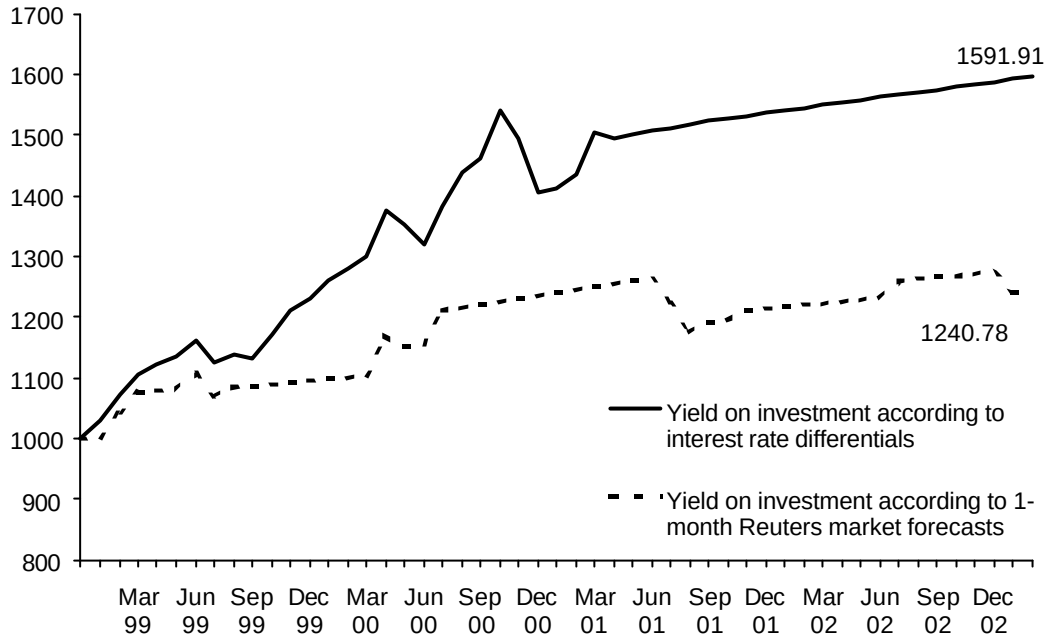
[4] The 10%- significance level is 2.7055. The test statistics of the Reuters 12-month forecasts and the 12- and 24-month Consensus forecasts could not be calculated due to the entries in the contingency table (see Schmidt, [2003], pp.33).

Summary of the empirical evaluation

In sum, the forecasting accuracy of professional forecasts for the €/US-$ exchange rate is rather low. They are unable to beat a naïve random walk forecast for any forecasting horizon as Theil's inequality coefficients of all market forecasts at all horizons are larger than one. What is worse, the forecasts are not able to identify the direction of future exchange rate changes, which is reflected by a hit rate of less than 50 %.

This conclusion is also confirmed by a comparison of the investment returns depending on different exchange rate forecasts. Suppose that an European investor has 1000 € at the beginning of January 1999 and he can either invest his money on the European money market or the US money market for one month on a revolving basis. In this example, the investment on the US money market implies a risk of an unanticipated exchange rate change so that the investor has to forecast the future exchange rate. We assume that the investor can either form his forecast in accordance with the 1 month Reuters market forecasts or he use a naive random walk forecast. The latter implies that he neglects the exchange rate risk and only considers the interest rate differential between Euroland and USA. Figure 5 illustrates the value of the investment for both strategies. The investment based on the 1-month Reuters forecast is clearly worse than the investment based on the random walk. In the latter case the investor could have earned about 590 € while the investment based on the professional forecasts yields about 240 € only.

Figure 5: Investment returns depending on different exchange rate forecasts



4 A behavioural explanation for the poor forecasting performance of €/US-$ market forecasts

Topically oriented trend adjustment behaviour of market forecasts

Our results have shown that professional forecasts are a biased predictor of future exchange rates. An important cause for this dismal performance of market forecasts is a very strong impact of current exchange rate developments on exchange rate forecasts. This finding is illustrated by Figure 1 and 2, which show that the all forecasts move very much in line with the development of the actual spot rate. Thus, if the current €/US-$ exchange rate depreciates, analysts tend to reduce their forecasts for all horizons by about the current depreciation rate. Andres and Spiwoks, [1999] denote this regularity as a topically orientated trend adjustment behaviour (TOTA), which has the effect that forecasts can lose at worst their future-oriented characteristic. For an evaluation of the TOTA behaviour of professional forecasts Andres and Spiwoks, [1999] recommend the following coefficient:

$$TOTA\text{-}coefficient = \frac{R^2_{forecast,\ actual}}{R^2_{forecast,\ actual\text{-}h}} \tag{8}$$

where

$$R^2_{forecast;\ actual} = \frac{\left[\frac{1}{T-h}\sum_{t=h+1}^{T}\left(\hat{x}_t - \frac{1}{T-h}\sum_{t=h+1}^{T}\hat{x}_t\right)\left(x_t - \frac{1}{T-h}\sum_{t=h+1}^{T}x_t\right)\right]^2}{\left[\frac{1}{T-h}\sum_{t=h+1}^{T}\left(\hat{x}_t - \frac{1}{T-h}\sum_{t=h+1}^{T}\hat{x}_t\right)^2\right]\left[\frac{1}{T-h}\sum_{t=h+1}^{T}\left(x_t - \frac{1}{T-h}\sum_{t=h+1}^{T}x_t\right)^2\right]} \tag{9}$$

is the coefficient of determination for the actual exchange rate and the corresponding market forecasts and

$$R^2_{forecast;\ actual\text{-}h} = \frac{\left[\frac{1}{T-h}\sum_{t=h+1}^{T}\left(\hat{x}_t - \frac{1}{T-h}\sum_{t=h+1}^{T}\hat{x}_t\right)\left(x_{t-h} - \frac{1}{T-h}\sum_{t=h+1}^{T}x_{t-h}\right)\right]^2}{\left[\frac{1}{T-h}\sum_{t=h+1}^{T}\left(\hat{x}_t - \frac{1}{T-h}\sum_{t=h+1}^{T}\hat{x}_t\right)^2\right]\left[\frac{1}{T-h}\sum_{t=h+1}^{T}\left(x_{t-h} - \frac{1}{T-h}\sum_{t=h+1}^{T}x_{t-h}\right)^2\right]} \tag{10}$$

is the coefficient of determination for the forecast and the actual exchange rate at the time of the forecast formation. Values of the TOTA-coefficient smaller than one indicate that the forecasts exhibit a higher correlation with the actual exchange at the time of producing the forecast than with the exchange rate for which the forecast was made. Table 7 shows that the TOTA-coefficients for all available forecasts are below one. This indicates that – on average – market forecasts have a stronger relationship with past €/US-$ exchange rates than with the future €/US-$ exchange rate.

Table 7: TOTA coefficients

	Reuters	Consensus-Economics	ZEW-Finanzmarkttest
1 month	0.8781	--	--
3 months	0.4847	0.4613	--
6 months	0.2351	--	0.2702
12 months	0.1306	0.1261	--
24 months	--	0.6220	--

Psychological explanations for topically oriented trend adjustment behaviour of market forecasts

An important explanation for this behaviour of professional forecasters can be provided from a behavioural finance perspective. In this literature limitations in the acquisition and the processing of information play a predominant role. Especially in very difficult decision problems economic agents try to reduce the complexity of the world by using simple rules of thumb or "heuristics" which allow quick and efficient decisions even under high uncertainty (see Fiedler and Bless, [2001], p. 135). As Gigerenzer and Todd, [1999] have shown there are many heuristics, which provide a good compromise between economic rationality and an efficient use of scarce human cognitive resources. Of course, there are also circumstances where heuristics lead to systematically biased judgements (see e.g. Kahneman et al., [1999]).

There is no doubt, that forecasting exchange rates is a very complex and difficult task. On the one hand, no reliable macroeconomic models are available so that it is unclear which fundamental variables are relevant at all and which concrete impact they have on future exchange rates. On the other hand, the speculative nature of the foreign exchange market requires that an individual forecaster has to take into account the forecasts of other market participants who are confronted with the same problem. This problem was addressed already by Keynes, [1936]. Therefore, it is not astonishing that forecasters tend to rely on simple heuristics.

A very simple rule of thumb is the so-called anchoring heuristic. It implies that quantitative judgements are often biased towards an initial anchor, which has come to the mind of the decision maker implicitly or explicitly but which is often completely irrelevant for the decision problem. An example for this effect is provided by Tversky and Kahneman, [1974]. They asked test persons whether the percentage of African nations in the United Nations (UN) is higher or lower than an arbitrary number, which serves as an anchor. The test persons were divided into two groups; one group was given a value of 65% and the other a value of 10%. The results showed that the mean estimates were biased towards the specific anchor. For the "high-anchor group" (65%) the mean estimate was 45%, for the "low-anchor group" (10%) the

mean estimate was 25%. The effects of the anchoring and adjustment heuristic can also be identified in financial decisions (see Wärneryd, [2001], pp. 130).

In addition, Jacowitz and Kahneman, [1995] state that the anchoring effect depends on the degree of uncertainty about the decision process.[5] As already mentioned, one can assume that professional exchange rate analysts are confronted with a very high degree of complexity so that they are especially prone to anchor heuristics.

Thus, the dismal performance of exchange rate forecasts together with the strong impact of the current exchange rate on the forecasts could be explained by an anchor heuristic where changes in the spot exchange rate serves as a constitutional anchor for analysts, whereby the extent of the TOTA behaviour is related to the strength of the anchoring effect.

The influence of the anchoring heuristic can be analysed empirically by a comparison of forecast errors (FE) with the subsequent forecast revisions (FR). Forecast errors are defined as:

$$FE_t = \hat{S}_t^{t-h} - S_t \tag{11}$$

so that the forecast error reflects the difference between the at time t-h expected exchange rate for time t and the actual spot exchange rate at time t. The forecast revisions is defined as

$$FR_t = \hat{S}_{t+h}^{t-h} - \hat{S}_{t+h}^{t} \tag{12}$$

i.e. the forecast revision corresponds to the difference between the expected exchange rate for time t+h at time t-h and the expected exchange rate for time t+h at time t. If the forecasts are strongly influenced by the current exchange rate serving as an anchor, forecast revisions should be closely correlated to forecast errors. Figure 6 to 8 illustrate the forecast errors and the forecast revisions for the analysed

[5] For example, they demonstrate that the more judges were uncertain about their judgements, the more the numeric estimates were assimilated to the provided anchor (see Jacowitz and Kahneman, [1995] and Mussweiler and Strack, [2000]).

market forecasts. They show that forecast errors and forecast revisions are positively correlated.

Figure 6: Forecast errors and forecast revisions for 3- and 6-month Reuters market forecasts

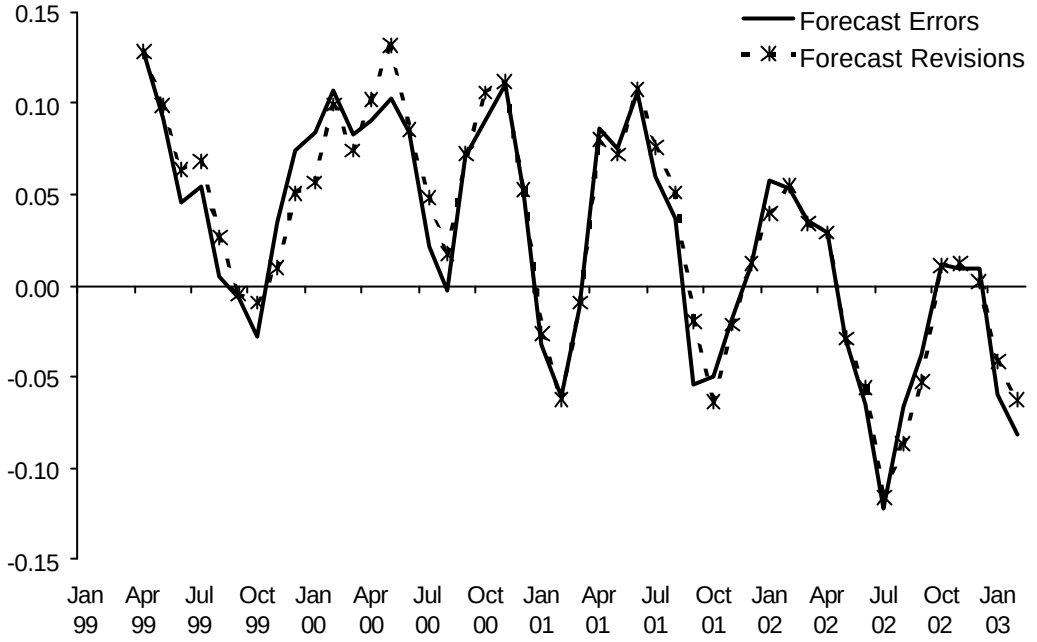


Figure 7: Forecast errors and forecast revisions for 6- and 12-month Reuters market forecasts

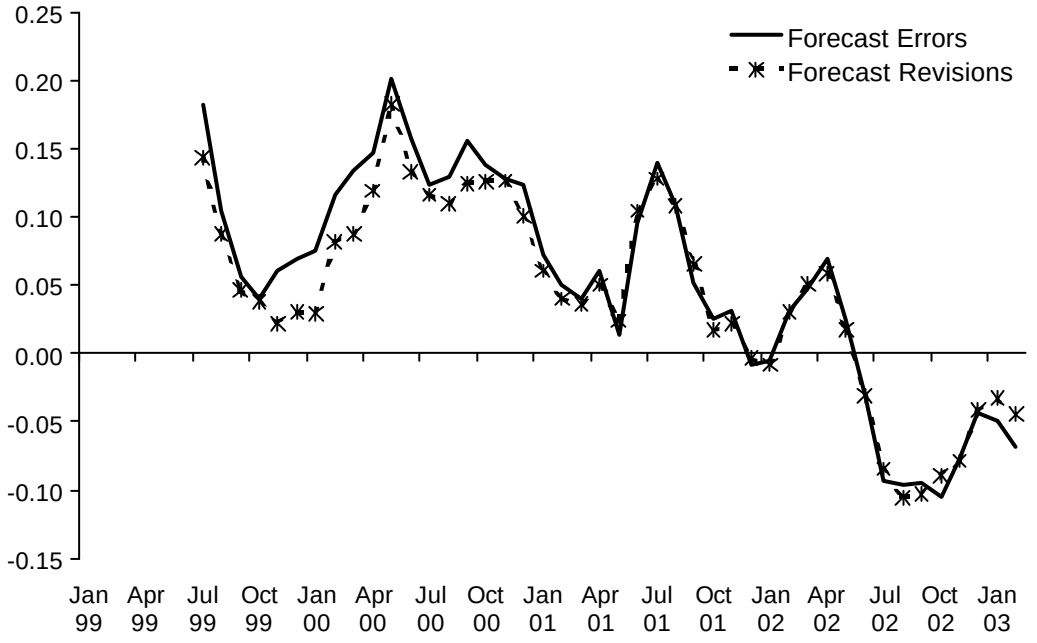
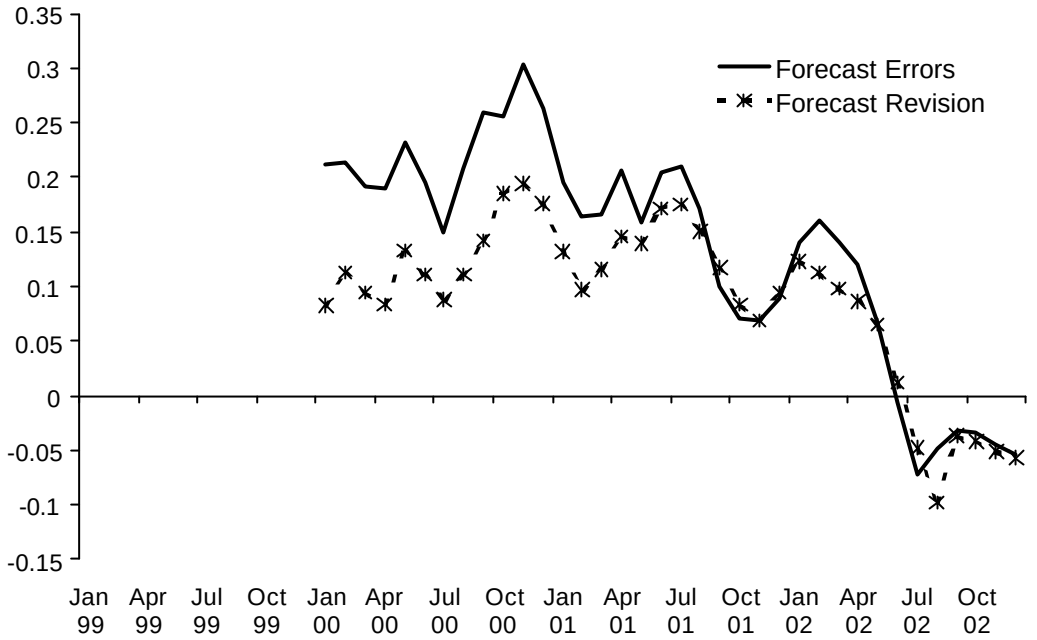


Figure 8: Forecast errors and forecast revisions for 12- and 24-month Consensus market forecasts



This is also confirmed by the corresponding values of the associated correlation coefficients and coefficients of determination, which are given in Table 8. All correlation coefficients are close to one and the values of the coefficients of determination indicate that the variance of the forecast errors can explain large parts of the variance of the forecasts revisions. Due to the overlapping nature of this analysis, it cannot be applied to the 1-month forecasts.

Table 8: Relationship between forecast errors and forecast revisions

	r	R^2
3- and 6- month Reuters market forecasts	0.9731	0.9469
6- and 12- month Reuters market forecasts	0.9825	0.9654
12- and 24- month Consensus market forecasts	0.9252	0.8559

5 Summary

The present study shows that professional exchange rate forecasts that are provided by Reuters, Consensus Economics and ZEW-Finanzmarkttest are of little use for financial market investors and exporting or importing firms. The analysis also indicates that the concept of “rational expectations” which plays a dominant role in macroeconomics is difficult to reconcile with the reality. If professional forecasters are unable to produced unbiased forecasts, it makes no sense to postulate “rational expectations” as a general method for the formation of expectations.

The paper explains the dismal performance of such forecasts with the strong impact of contemporaneous changes in the exchange rate on the expected exchange rate. This “topically oriented trend adjustment” indicates that exchange rate forecasts are to a large extend dominated by a so-called anchor heuristic. According to this concept, which plays an important role in the behavioural finance literature, agents tend to rely on available information if this is of no or little relevance for their decision problem. It is also stressed that the impact of this heuristic increases with the complexity of the decision context. For the case of exchange rate forecast one can assume that this complexity is very high.

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