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An Empirical Study based on the German
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Abstract

This paper investigates the attitudes towards the Euro and their changes over time in Germany by using longitudinal micro data from the German Socio Economic Panel Study (SOEP). We observe that a large part of the German population was worried about the new currency before its implementation. Individual changes of worries can be explained by theories of self-perception and cognitive dissonance. According to these theories, concerns should diminish after the Euro notes and coins are distributed. In contrast, the theory of reactance predicts an increase, while the theories of attitude changes as learning processes offer both its increase and decrease. The latter seems to be the most suitable explanation for the development of concerns about the Euro. We discover that problems with the handling of the new money and the time of questioning are strong predictors. The time pattern goes hand in hand with the time of press coverage on price rises. As worries are connected with problems in handling the new money, future member states of the European Monetary Union should prepare their population in a better manner than the existing member states did.

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1. Introduction

Since January 2002, twelve member states of the European Union (EU) have introduced the notes and coins of the Euro. Only Denmark, Sweden and the United Kingdom rejected membership of the European Monetary Union (EMU) and consequently haven't introduced the new currency yet. Citizens of the participating states have been reminded every day since the introduction of the new currency that they live in the EU and that political decisions in Europe are not merely declarations of intent.

Money is more than just a medium of exchange, a store of purchasing power or a factor of evaluation. It brings to mind, and goes hand in hand with, the symbolic identification of a nation in terms of subjectively felt togetherness. However, so far there isn't a European national state in existence and the Euro has to get by without being identified with a unified and real country. Nevertheless, it is expected that the implementation of the Euro promotes the formation of a European identity.

European-wide polls show that the acceptance to the new currency differs between the states (European Commission, 2001, 2002). The lowest proportion of people being in favour for the Euro is observed in those countries which are not participating in the EMU (Denmark, Sweden and the UK). However, acceptance is also low in Germany and Finland. Both countries belong to the group of countries which receive their national identity primarily through their economic and political system.¹ In contrast, there is a much higher proportion of people accepting the Euro in such states in which the national identity is strongly defined by cultural dimensions. Italy and Greece belong to these countries (Müller-Peters, 1998, p. 709; Pepermans and Verleye, 1998, p. 687ff.).

German history shows why the economic system is so important for national identity. One consequence of the Second World War is that flags and hymns are problematic symbols of

¹ According to the Theory of Social Identity (Tajfel and Turner, 1979) people obtain their social identity primarily by dimensions where they come off better. Therefore, national pride is also generated by issues where citizens of one state are better off compared to those of another.

identification for a lot of Germans. Instead the German Mark developed into a national symbol which expressed the economic recovery and prosperity (Helleiner, 1998). Even for residents of the German Democratic Republic the German Mark was a good to aspire to as it indicated freedom and wealth.

Nevertheless, the Germans seemed to quickly distance themselves from the German Mark after the Euro notes and coins were issued in January 2002. Instead of the expected 'Euro-phobia' it came apparently to a 'Euro-phoria' in the first weeks following the introduction of the legal tender. However, once a lively discussion about price increases in the context of the currency reform had emerged, the worries concerning the Euro returned. By spring 2000, the Germans were once again the Europeans with the lowest acceptance of the Euro (European Commission, 2001, 2002). Whether the price increases were real or only part of a subjective feeling of inflation (Jonas et al., 2002) is not important. If individual information and experience about a social object is weak, social knowledge which is communicated by mass media can determine attitudes (Meier and Kirchler, 1998, p. 757). If people believe that prices are higher due to the introduction of the Euro, they therefore develop reasons to become concerned about the Euro.

There are not only cross-national differences in the acceptance which can be traced back partly to a national identity, but there are also great variations within a country. Therefore we look at the individual factors influencing the attitudes towards the Euro. We concentrate on one country only, namely Germany, because there has been only low acceptance of the Euro there and a national-wide, representative Panel-Study with data on this topic exists.

2. Previous research and theoretical background

Attitudes are an important social-psychological construct with a wide theoretical tradition (Allport, 1954; Chaiken and Stangor, 1987). They are positive or negative evaluations of objects. Attitudes can be affective or cognitive and they can determine the behaviour of

individuals too. Attitudes are mainly the result of cognitive information processing. So they can reflect short-term positive or negative emotions or long-term beliefs which are determined by knowledge or general beliefs as part of socialisation processes and experiences in the past.

2.1 Knowledge and general beliefs influence the concerns towards the Euro

The existing literature on attitudes towards the Euro reveal two dominant factors influencing this attitude, namely the extent of knowledge and general beliefs (see for example Müller-Peters, 1998; Müller-Peters et al., 1998a; Müller-Peters et al., 1998b; Müller-Peters et al., 1998c; Pepermans and Verleye, 1998; Isengard and Schneider, 2002; Meier-Pesti and Kirchler, 2003).

The information level is crucial in building up an attitude as consequences can be evaluated better. The literature states that highly informed people have a more positive attitude towards the Euro. This is the case even if they are not personally convinced by the Euro, and they are able to cope with the situation better, something which cannot be altered. This case is called secondary control (Rothbaum et al., 1982).²

However, Luna-Arocas et al. (2001) discovered that in Spain and Portugal, it is not only well informed individuals who are in favour of the Euro, but also those with poor knowledge on the new currency and the European Union. They explain this due to the fact that the process of changing the currency is more advanced by pro-Euro attitudes than by the information level of the citizens. In addition, support for the Euro is determined more by European identity than by economic expectations or knowledge. For this reason, there is no difference between informed and uninformed individuals supporting the Euro because European identity overlaps other predictors such as information level or economic expectations.

² Primary control is present if in fact control can be exercised. In order to produce a person-environment-congruence or to reduce dissonance it is sufficient if secondary control is exercised on cognitive level. Thereby own motives and goals of the given situation are adapted.

The other main factor influencing personal attitudes are general beliefs, as new things have to be integrated into the existing system of beliefs as they influence openness to new situations. Different socialisation processes and experiences in the past may lead to different general beliefs and cultures, and therefore they produce differences in thinking, feeling and acting (Schwartz, 1997).

Life satisfaction influences the ability to deal with innovations. Happier individuals find it is easier to adapt to new situations. In addition, people with more optimistic life attitudes are more open concerning social, political or economic change (see Müller-Peters et al., 1998c, p. 670).

2.2 Theories on attitude change: learning process, self perception, reactance and dissonance

The question of what causes a change in attitudes towards the Euro can be explained by different social-psychological theories (see for example Osgood et al., 1957; Chaiken and Stangor, 1987) These changes are conceptualised as a result of a learning process, of a perception process or of adapting cognitions.

According to the theory of attitude changes as a result of learning process, the process is a function of the admission of message contents and their reinforcement (Hovland et al., 1953; Staats, 1968). This approach permits both increasing acceptance and increasing refusal after the implementation. In the case of the implementation of the Euro, the media reports first transmitted positive and then negative message contents. This should be relevant for constituting an opinion.

Bem (1972) attributes changes of attitudes to a process of self perception, whereby people judge their behaviour from their attitudes under certain circumstances. This is particularly the case if internal references are weak and no pronounced knowledge is present. If this theory is to apply to the concerns towards the Euro, then a necessary precondition is that people have

no firm opinion on the Euro. The observed behaviour of quickly getting rid of the old German Mark would lead from the daily behaviour ('I pay with Euro instead of German Mark') to a positive attitude ('I like the Euro because I have no problems with paying with it').

Furthermore there are approaches which attribute attitude changes to cognitive processes.

Under cognitions we understand all of a person's thoughts, i.e. opinions, value attitudes, knowledge or beliefs. We discuss two theories out of this approach which lead to different predictions about the attitudes towards the former German currency and the Euro: on the one hand the theory of cognitive dissonance and on the other hand the theory of reactance.

The theory of cognitive dissonance implies that people aspire to a balanced cognitive system (Festinger, 1957). The relations of cognitions among themselves can be either relevant (content is coherent) or irrelevant (content is incoherent). Relevant relations can be consonant or dissonant. Cognitive dissonance is generated for example if one shows behaviour which is inconsistent with one's own opinion. An aversive feeling will be generated, as well as the motivation to avoid or eliminate this. If the shown behaviour is not reversible, then the preferred kind of dissonance reduction is to adapt the opinion to the behaviour. The implementation of the Euro develops dissonance if people reject the new currency. As one can only escape this situation by emigration, the cost-effective way of reducing cognitive dissonance is to change the attitude.

On the contrary, according to the theory of reactance (Brehm, 1966), individuals aspire to behave freely. If their freedom of choice is threatened or does not exist any more psychological reactance emerges. In this case people attempt to recover the endangered or lost liberty by upgrading the threatened or eliminated alternative and devaluating the forced alternative (Brehm, 1976). This cognitive restructuring process is motivated by resistance against liberty restriction and not adapting to conformity. In the case of the Euro individuals could not decide about its introduction, and found their personal decision freedom threatened. Consequently, they should refuse the Euro and enhance the previously valid German Mark.

According to the theories of self-perception and cognitive dissonance, the concerns about the Euro should decrease after its introduction. The first assumption is that individuals evaluate the Euro positively because they use it every day, while the second states that individuals cannot change the situation and that cognitive dissonance can only be diminished by adapting to institutional conditions. Following the theory of reactance we expect that the concerns towards the Euro will increase after the introduction of the new bank notes and coins because people feel that their freedom has been reduced and react defiantly. Only theories conceptualising attitude changes as a result of learning processes offer the possibility of explaining both a reduction and an increase of concerns towards the Euro. Thereby message contents such media reports, personal experience through travelling abroad and the acceptance in the social environment are important.

3. Data

The German Socio-Economic Panel Study (SOEP) is an interdisciplinary longitudinal study of private households in Germany. Since 1984 the representative analysis has collected data on different topics such as working biographies, education, income, demographic developments, health, use of time, as well as satisfaction and values. The panel design of the SOEP provides representative longitudinal micro data for individuals, households and families. This sort of survey makes it possible to analyse individual changes of attitudes (SOEP Group, 2001).

Concerns towards different areas such as job security or environment protection have been part of the survey from the very beginning. Since 1999 - the year in which the European Monetary Union started - the SOEP has asked about people's concerns towards the Euro. There are three response categories: very concerned, somewhat concerned or not at all

concerned. In 2002, additional questions were asked about the expected advantages and disadvantages of to the single currency.³

In our analysis we use the highest school attainment,⁴ the use of internet⁵ and political interest⁶ as indicators for the level of knowledge. They cover education, access to information and the observation of political debates.

As indicators for general beliefs we use the expected life satisfaction in five years time, long lasting party preferences, and regional and national origin. Instead of the current life satisfaction we use the expected life satisfaction, as it contains a future orientation.⁷ It is assumed that individuals who believe that they will be happy with their life in five years time have a more optimistic attitude towards life and therefore evaluate the Euro in a more positive manner.⁸

Political interest is an aspect which reflects the level of political information. In contrast, the permanent party preference expresses political convictions and ideologies. Similar to religious identity, party identification represents a core component of the definition of individuals. The acceptance of the Euro should differ according to party preferences: voters of extreme right-wing parties should refuse the Euro, while those of the liberal parties should accept it.⁹

³ Recent questionnaires are available at <http://www.diw.de/english/sop/service/fragen/index.html>.

⁴ The variable highest school attainment is differentiated into three dummy variables for individuals with none or low, intermediate and high qualification. The last one contains individuals with a maturity certificate. Those who are still in school belong to a fourth dummy variable.

⁵ People who report that they use the internet either for private or professional reasons are coded as 1, otherwise 0.

⁶ Four categories are available for political interest: not at all, not so much, much and very much. We captured each category by a dummy variable.

⁷ The question on expected life satisfaction in 5 years time is measured by an eleven-point scale, with 0 for totally unhappy and 10 for totally happy. In our analysis we construct four dummy variables, for expecting to be unhappy (categories 0 to 4), ambivalent (category 5), happy (categories 6 to 9) and totally happy (category 10).

⁸ Müller-Peters (2001, p. 38f.) figured out that countries in which people are satisfied higher than average rather reject the Euro compared to countries in which satisfaction is below the average in EU comparison. There the Euro is rather endorsed. On the other hand a reversed picture is reflected on the individual level per country. The more satisfied individuals are, the larger the acceptance of the new currency and vice versa.

⁹ We construct for each party preference a dummy variable. It should be noticed that nearly half of the respondents report that they don't have any affiliation to a party.

National and regional origin is not a general belief in the sense of definition.¹⁰ Nevertheless, it can be assumed that we can observe origin-specific attitudes towards the Euro which depend on socialisation and cultural influences. The feeling of losing national autonomy, as well as that of dependence on other European states regarding money issues could influence the attitudes towards the new currency (Jonas et al., 2002, p. 148).

The German Mark shouldn't be a national symbol for foreigners and in addition,¹¹ those from the EU should see direct advantages of the single currency.

4. Results

4.1 The development of concerns towards the Euro

First we look at the extent of concerns towards the Euro and on their development over a period of time (cf. Fig. 1). The proportion of individuals with concerns was 60% in 1999, in the following two years they were somewhat higher (68% and 67%). A sharp decline is observable for the year Euro notes and coins became means of payment (52%). If we differentiate between those who are somewhat and very concerned, we can see that the rates of somewhat concerned individuals have nearly been stable over the years (from 40% in 1999 to 37% in 2002). However, the proportion of very concerned individuals is halved from the year 2001 to 2002.

Insert Fig. 1 about here

The time series can only show distributions over time, but not what went on before. It might be that when reporting concerns the answers are unreliable and arbitrary. Therefore we report individual changes from one year to the next. We concentrate on individual changes from

¹⁰ General beliefs of individuals are acquired attitudes and opinions. In contrast, nationality is determined primarily by birth (if it is not changed due to convictions or political reasons).

2000 to 2001, when we observed a stable distribution in Fig. 1, and from 2001 to 2002, when we found a reduction in the proportion of very concerned individuals in the cross-sectional comparison.

In Table 1, upper panel, we see that individuals reporting no concerns in 2000 often do so in 2001 (65%) too, and are unlikely to report strong concerns (8%). A comparable pattern is found for very concerned individuals. 60% of them give the same answer in the following year, 30% of them switch to some concerns, and only 10% don't report any more concerns. The given answers are not so stable for the middle category 'somewhat concerned'. Half of the individuals report the same category in the following year, one quarter report not having any and one quarter stronger concerns.

Insert Tab. 1 about here

If we look at the individual changes of being concerned before and after the implementation (cf. Table 1, lower panel) we can see a particularly high stability of individuals being not concerned in 2001 (77%). On the other hand, we observe that concerns are reduced from 2001 to 2002. Nearly half of the individuals from the middle category still report the same in the following year, but the division of the rest is completely different to what we previously observed (2000 to 2001). Now we have a high proportion who are no longer concerned, but only a small fraction with higher concerns. This comparison shows that concerns are not driven by a random process.

4.2 What are the concerns towards the Euro?

There is a high correlation between the extent of the more general concerns towards the Euro and the expected advantages or disadvantages (cf. Fig. 2). 88% of those people not concerned

¹¹ We construct four dummy variables: one for West Germans, one for East Germans, one for foreigners with an

about the Euro believe that the single currency promotes the European unity. However, only 29% of those individuals do if they have very strong concerns. People with some concerns take up a middle position with 61% expecting a positive effect on the process on European unification.

Insert Fig. 2 about here

A similar pattern can be observed if we look at the correlation between concerns and the expectations of economic advantages due to the new currency: The stronger the concerns, the lower the percentage of people expecting economic advantages. However, in all cases the figures on expecting economic advantages are remarkably lower compared to the item on European unity. This means that individuals connect the new currency with political changes rather than with economic changes.

If we look on the items covering disadvantages, the correlation is reversed. Increasing concerns go hand in hand with stating negative consequences due to the Euro. The item ‘sad about losing the German Mark’ is an emotional statement. The proportion of individuals affirming this answer is 28% if they have no concerns towards the Euro. However, individuals with strong concerns approve this emotional loss by 92%. A high percentage of those with some concerns are sad about losing the old currency too (72%).

We can observe a similar pattern for expecting disadvantages for Germany in general and a decrease in stability of private investments due to the single currency. However, the figures are smaller for the statement on private investments. We have already observed lower percentages for the statement on economic advantages. These findings on attitudes towards the Euro depending on economic expectations are in line with those found for the Netherlands

(van Everdingen and van Raaij, 1998), but nevertheless there are dimensions which are more pronounced.

Up to now we have only shown the development of the concerns and what goes hand in hand with the concerns towards the Euro in Germany. In the next chapter we want to know what influences the concerns in the year 2001. Following this we will look for reasons behind the loss and development of concerns from 2001 to 2002.

4.3 Determinants of concerns towards the Euro

To test what influences the concerns we assumed an ordered logit model¹² as the dependent variable has three categories - none, somewhat and strong concerns towards the Euro. Positive regression coefficients indicate stronger concerns, negative ones lower or no concerns. The results for being concerned in 2001 are reported in model 1 (cf. Table 2).

Insert Table 2 about here

We can see that those with a higher educational qualification¹³ are less concerned about the implementation of the Euro compared to individuals with middle or low qualification.

However, there is a slight probability that young people still attending school may be concerned.

The influence of political interest is not consistent. Individuals with high levels of interest in politics are less concerned than those who only have little interest. However, the regression coefficient for individuals with a high level of interest is not significant. People who have no interest whatsoever have the lowest concerns. This is comparable to the results mentioned

¹² See Winship and Mare (1984) for details of regression models with ordinal variables.

¹³ The variable highest school level differentiates between individuals with no formal school leaving certificate and those who graduated only from obligatory school (lowest category). Then we have individuals with intermediate general qualification (middle category) and the highest category including people with minimum maturity certificates. A fourth category contains those who are still in school.

above for Spain and Portugal. Here, the suspicion that inexistent political interest leads to an unconcerned attitude towards the Euro is obvious.

The third factor describing level of knowledge is internet usage.¹⁴ Individuals using modern media are less concerned about the new currency compared to people not using internet. In Table 3 we provide an example of how the level of knowledge influences the probability of being concerned. Therefore we calculate the probability of being somewhat or very concerned for a person with special characteristics (46 year-old man from West Germany etc.) using model 1. If this person has a low level of education and doesn't use the internet, he has a probability of 77% for having concerns. However, if this person is highly educated, the probability decreases to 66%. If this 'hypothetical' person uses the internet, the probability decreases again to 59%.

Insert Table 3 about here

We return again to model 1 and look at the variables indicating general beliefs. Those who are expecting to be happy or even totally happy in five years time are significantly less concerned about the future currency than those who are ambivalent on this topic. On the other hand, people who have a pessimistic attitude towards the future have stronger concerns.

Next we look at the political affiliation; our reference group is the Social Democrats (SPD).¹⁵ Affiliates of the other mass party, the Christian-Democrats (CDU) have a few more concerns than the Social Democrats. Individuals with a party preference for the Socialist party (PDS, former East German Communists) don't differ from the Social Democrats. People with a long-lasting party preference for the Liberal Democratic Party (FDP) and for the Green Party (Grüne) are less worried compared than the Social Democrats. In contrast, supporters of the extreme right-wing parties (e.g. DVU) have a significantly higher probability of being

¹⁴ Using the internet includes all individuals who state that they use internet either privately or professionally.

concerned. These results are not surprising as the Liberals are in favour of a free trade-market, while supporters of the Green Party are often post-materialists who are interested in the political project of Europe and supporters of the extreme right-wing parties believe that the new currency is not compatible with their understanding of the national state.

For national and regional origin we can observe large differences in the degree of concerns.¹⁶

We can observe that Germans, and especially East Germans, are more concerned about the Euro than foreigners. Furthermore, foreigners coming from an EU country are less concerned than other foreigners. Both groups have a lower attachment to the German Mark and EU foreigners have direct advantages by travelling and transferring money to their home country (except those from Denmark, Sweden and the United Kingdom). But there are also strong differences between German citizens. East Germans are much more concerned about the Euro than West Germans. They got the 'desired' German Mark in 1990, but their vision of a rapid economic boom has not been achieved. On the contrary, there are high unemployment rates within East Germany, as well as movement of labour in the direction of West Germany.

Again we give some examples in Table 4. Here we look at the influence of origin and ethnicity on having concerns – independently of the extent - and on having strong concerns towards the Euro (for a person with specific characteristics). If the person originates from East Germany, he has a probability of 85% to be somewhat or strongly worried. A comparable West German person is 8%-points less likely to have concerns, while an EU foreigner is nearly 20% less likely to have concerns. If we calculate the probabilities of having only strong concerns, we reveal the same pattern although the distances are greater. A West German is 14%-points less likely to have strong concerns than an East German one and a EU foreigner 25%-points. The distance between West Germans and EU foreigners remain in both cases the same.

¹⁵ Nearly every second person has no party preference.

Insert Table 4 about here

Finally, we consider income position, gender and age. We found that people who are in the highest income quartile have a minor risk of being concerned than individuals with middle incomes.¹⁷ However, there is no significant effect for the lowest income group observable. Men have a lower probability of being concerned about the new currency than women. This pattern is well known through research on concerns, anxiety and anomy. The age effect is somewhat awkward. In bivariate analyses we found a positive correlation between age and concerns, but controlling for other variables such as ‘still in school’ changes the effect.

4.4 Changing attitudes towards the Euro

In order to look at changing concerns before and after the introduction of the Euro cash we estimate some logit models.¹⁸ We model the loss of, as well as the development of concerns. To illustrate the proceedings, we produced Fig. 3. First we look at individuals who were concerned in 2001. We construct a dummy-variable indicating whether these individuals lose their concerns (coded as 1) or not (coded as 0). Metaphorically speaking, individuals who lose their concerns are defined as a ‘mover’, while those who do not are defined as a ‘stayer’.

Insert Fig. 3 about here

In the estimated models 2 and 3 in table 2, a positive logistic regression coefficient indicates that it is more likely to be a ‘mover’, a negative one indicates that it is more likely to be a

¹⁶ We differentiate between Germans, separated for individuals living in East and West Germany, and foreigners. They are differentiated between foreigners from an EU country (also including the three states which are not participating) and from all other states.

¹⁷ We use needs-adjusted equivalence incomes and grouped them into four quartiles, but we only included the lowest and highest quartile in the regression model.

‘stayer’. Secondly, in model 4 and 5, we investigate what influences the change in becoming concerned from 2001 to 2002. Here the dependent variable is coded as 1, if someone develops concerns, and coded as 0 if a person has no concerns in both years. We can also define these as ‘mover’ and ‘stayer’. However, it should be noted that in the first case, movers have no concerns, while in the second they do. If we observe a positive sign for an independent variable in both models, we only have a high fluctuation. This would indicate a weakly pronounced attitude. If we observe a positive coefficient for moving from concerned to not concerned and a negative coefficient for moving from not concerned to concerned, then the total number of concerned individuals (with this characteristic) is lower in 2002 than in 2001. In models 2 and 4 we use the same variables as in model 1, and additionally the month of questioning. In models 3 and 5 we also include the difficulties in handling the new money and in converting prices from German Mark into Euros. First we discuss model 2, which looks at getting rid of one’s concerns towards the Euro. We observe that the higher the formal school attainment, the greater the probability of changing from being concerned in 2001 to not concerned in 2002. There is also a strong effect for people still in school. For this group the chances of losing the worries are significantly higher and the impact of political interest is not very pronounced. The probability of losing worries is only significantly higher for those who have a high level of interest in politics. Using the internet has a strong effect. Individuals who use this medium have are more likely to change, in contrast to people who don’t use the internet. The pattern of expected life satisfaction in 5 years time is similar to the one observed in model 1. Individuals who expect to be (totally) happy in the future have a higher probability of losing their concerns compared to the ambivalent group. In contrast, people who expect to be unhappy in five years have a higher probability of remaining concerned. Next we look at the influence of long-lasting party preference. People with a party preference for the extreme right-wing parties have a significantly higher probability of not giving up their

¹⁸ For details see Long, 1997, p. 50ff.

concerns compared to the supporters of the Social Democrats. In contrast, supporters of the Green Party have a higher probability of losing their concerns after implementation. The same applies for people without any party preference. There is no statistically significant effect for the supporters of the Liberal Democratic Party. However, we have to keep in mind that there is only a small number of cases which include people such as these.

People from East Germany and foreigners from outside the EU have a higher probability of remaining concerned than West Germans and EU foreigners. The effect on non-EU foreigners is astonishing at first glance; this is something that we will discuss later.

The month of questioning in 2002 is important for explaining changes of attitudes after the implementation,¹⁹ as the German media reported positively about the Euro at first, but suddenly turned to a critical coverage, especially on price rises. The probability of changing from being concerned to not concerned is at its highest in January. In the following month the probability of losing worries declines steadily. We illustrate this effect by calculating some probabilities for a more or less ‘hypothetical’ person (middle age, low-educated man etc.). We observe that the probability of abandoning concerns falls continuously from 34% in January to 22% in May (cf. Table 5). On the other hand, if we calculate the probability of becoming concerned by using the results of model 4 (not discussed yet), we have a steady rise from 24% in January to 47% in May.

Insert Table 5 about here

In model 3 we expand the set of variables, and in addition take into account the difficulties in handling the new money and converting prices. There are strong effects between continuing

¹⁹ As the SOEP interviews are face to face and the number of interviews is high, the field works takes a few months. Each interview month is covered by a dummy variable, except from those in June or later. They are summarised to one dummy, as the number of cases is low here and the interview may be given by individuals with low accessibility or willingness to provide information.

to be concerned about the Euro and having difficulties with the new money. Problems in handling the Euro impede the giving up of worries. There are also strong negative effects for the variables, indicating the conversion of prices from German Mark into Euros. However, the coefficients are somewhat smaller. Again, we exemplify the influence of these two indicators for a more or less fictitious person (cf. Table 6). If a person doesn't have any difficulties in handling the new money (but some in converting prices) he has a probability of 31% of giving up the concerns. If he has some difficulties the probability goes down to 18% and the probability of quitting his worries is very low, if he has great difficulties in handling the new money. The pattern and the figures for converting prices are comparable.

Insert Table 6 about here

If we compare the coefficients of the other variables included in model 2 and in model 3, they are fairly similar, albeit with some exceptions. There is no significant influence of political interest in model 3. This could be a hint at the fact that people with political interest are better informed on the Euro and can handle it much better. The other remarkable changes are those for origin. East Germans are still the ones who have the lowest probability of losing their concerns. The lowest concerns observable are for EU foreigners. Now they differ significantly from West Germans (in model 2 they doesn't). Other foreigners in models 2 and 3 are comparable with East and West Germans respectively. Controlling for handling causes these displacements. Simple cross tabulations reveal that both groups of foreigners have greater problems in handling the new currency. Not controlling for it produces negative biased effects for foreigners.

In models 4 and 5 we look at matters the other way round: being not concerned in 2001 to being concerned in 2002. The effects are in the same sense as those of models 2 and 3, as a

positive coefficient here leads to less people being concerned, and in models 4 and 5 a negative coefficient prevents people from becoming concerned. It should be accentuated that in models 4 and 5, the income effects are not only significant for the high income group (with a higher probability to stay in the group without worries), but also for the lowest income group. They have a higher probability to change their attitude from 2001 (not concerned) to 2002 (being concerned) compared to middle income groups. This may be due to the fact that real price increases and the discussion on this topic in the media hit the people with low income.

It is worth pointing out that the difficulties in handling the new money have a particularly strong influence on the concerns. In the fourth column of Table 6, we calculate the probabilities of becoming concerned with respect to difficulties in handling the new money. If 'our' person has no difficulties in this area, he has a probability of 31% of becoming concerned. If the same person has some difficulties, the probability rises to 49% and if they experience large problems the figure rises to 74%. Compared to this, the influence of converting prices (last column) is much lower.

4.5 Bringing together theories on attitude change and empirical results

As worries about the Euro decline from 2001 to 2002 (cf. Fig. 1) the theory of reactance - which implies an increase after the implementation of the Euro - is not plausible for explaining the attitude change in Germany. By looking at the development of the concerns within the year 2002 differentially, we see that they fell directly after the Euro notes and coins were distributed. However, this drop was only temporary (cf. model 3 and 5 in Table 2).

The theory of cognitive dissonance implies declining worries after implementation, because people want to abolish stress which emerges if they are still against the new currency. As the concerns don't fall steadily - and in fact we observe the opposite- this theory doesn't seem adequate. The same prediction can be traced by the theory of self-perception - but the

reasoning is different. If the attitude towards the Euro comes with little knowledge about the Euro, the new situation is real (Euro is official currency) and people act adequately (paying with Euros) then people infer from their behaviour to their attitude. We observed that people with difficulties in handling the new money continue to have or develop concerns. This is in line with the theory on self-perception, as problems impede a positive attitude. However, when controlling for this, there should be no significant effect on the later months on remaining and becoming concerned.

The strong decline of worries from 2001 to 2002 and the re-increase since February 2002 are hints at theories on attitude change as a result of learning processes. First, individuals with difficulties in handling the money are more concerned. Second, school attendance and internet usage, which are indicators of knowledge and access to information, influence the loss of concerns, as well as prevent concerns from being developed. Third, the re-increase of concerns run parallel to the change in press coverage.

5. Conclusion and outlook

The implementation of a single European currency - the Euro - is so far one of the biggest political projects enables the promotion of European unity. However, in some states acceptance is not high even after the implementation, e.g. as is the case in Germany.

However, it is necessary for the 'European idea' that the new currency is accepted. Otherwise the development of critical European resentments could be promoted.

Three existing members of the European Union currently remain outside the EMU. In May 2004, 10 Eastern European countries will become new members of the EU. It is foreseeable that at least some of them will join the EMU and consequently introduce the Euro notes and coins in the near future. To minimise the problems introducing the Euro it is worth looking at what has happened in those countries who introduced the Euro in January 2002. By relying on our empirical results we can provide some hints for reducing concerns in the population. One

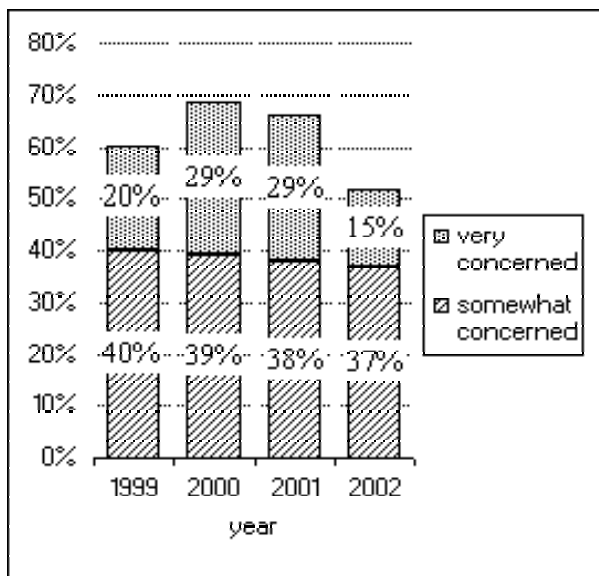
can hardly change general beliefs or the highest level of education achieved, but we see that people in Germany with better access to information are less often concerned about the Euro. We also found that difficulties in handling the new currency have a particularly strong influence on the concerns towards the Euro. Taking all of these factors in to account together, it seems that providing the population with more information could reduce the concerns. Additionally, the discussion about price rises in the German press suggests that a double pricing in the old currency and in Euros could be helpful. This should lead to a decrease in handling difficulties and consequently to lower concerns. Furthermore, it should prevent the real or only 'subjectively felt' price rises. Price rises indeed seem to have an influence on the concerns. We argued that the monthly pattern of remaining and becoming concerned in 2002 could be traced back to the media reports on price rises. Finally, we mentioned that the empirical analyses show that those who profit most from the new currency in Germany, i.e. EU foreigners, have lower concerns towards the Euro. However, the abolishment of the exchange rate and the opportunity for direct price comparisons are not only advantageous for EU foreigners, but also for Germans travelling into a country of the EMU. This advantage will be experienced by all individuals who are a citizen of an EMU country and travel or work in another one.

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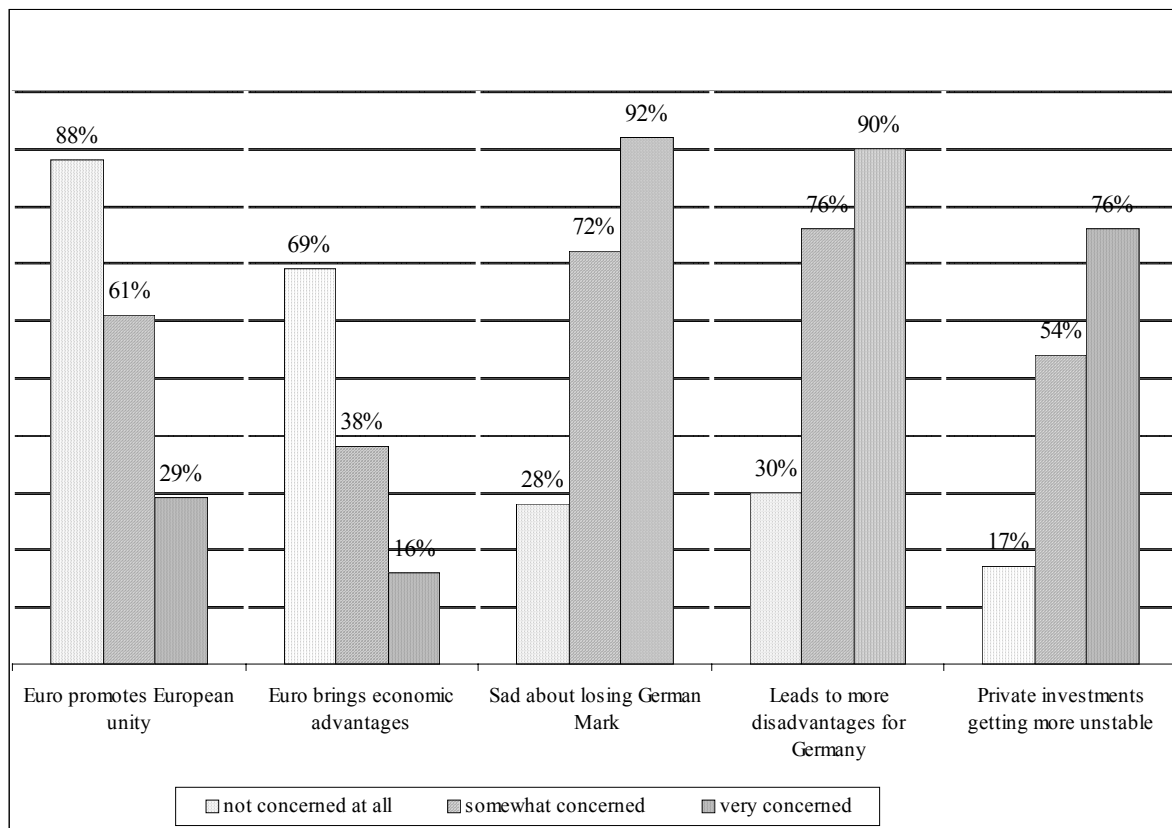
Fig. 1: Proportions of individuals concerned about the implementation of the Euro¹



¹ Weighted data.

Sources: SOEP 2002, own calculations.

Fig. 2: What kind of concerns are there towards the Euro.
 Expected advantages and disadvantages due to the implementation of the Euro¹



¹ Weighted data.
 Sources: SOEP 2002, own calculations.

Figure 3: Analysing changes of attitudes

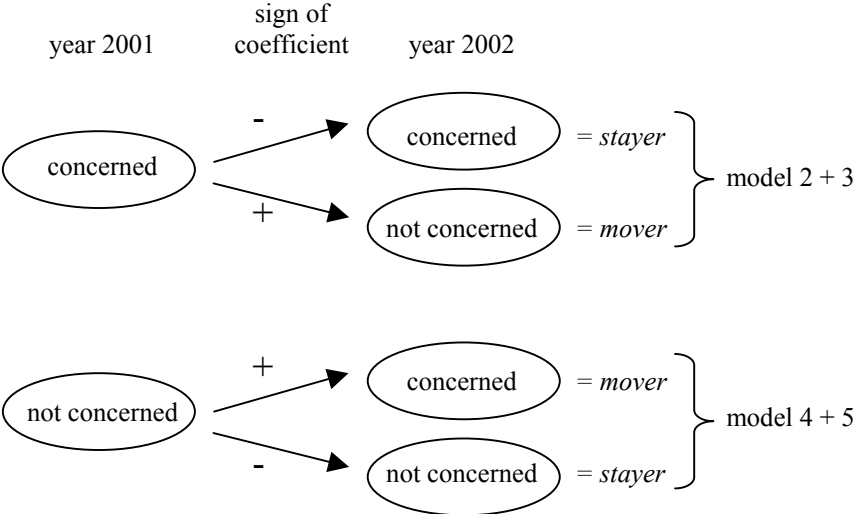


Table 1: Individual stability of concerns towards the Euro over years¹

concerned about €	in the following year			
in 2000	not at all	somewhat	very	<i>total</i>
not at all	65 %	27 %	8 %	100 %
somewhat	25 %	52 %	22 %	100 %
very	10 %	30 %	60 %	100 %
total	33 %	38 %	29 %	100 %
in 2001				
not at all	77 %	18 %	5 %	100 %
somewhat	43 %	46 %	10 %	100 %
very	23 %	46 %	32 %	100 %
total	49 %	37 %	15 %	100 %

¹ Longitudinal weighted data.

Sources: SOEP 2002, own calculations.

Table 2: Ordered logit model about being concerned in 2001 and logit models for changes in being concerned before and after implementation of the Euro

	model 1	model 2	model 3	model 4	model 5
	concerned in 2001	concerned in 2001 => not concerned in 2002		not concerned in 2001 => concerned in 2002	
highest school level (low)					
middle secondary qualification	-0,02	0,14**	0,11*	-0,24**	-0,20*
higher qualification	-0,50**	0,37**	0,35**	-0,68**	-0,68**
still in school	-0,83**	0,75**	0,70**	-0,75**	-0,73**
interested in politics (not so much)					
very much	-0,12	-0,01	-0,08	-0,19	-0,16
much	-0,08*	0,12*	0,07	-0,17*	-0,13
not at all	-0,15**	0,00	0,02	0,07	-0,14
using internet					
	-0,31**	0,23**	0,22**	-0,25**	-0,24**
expected life satisfaction in 5 years (ambivalent)					
unhappy	0,36**	-0,51**	-0,37**	0,77**	0,60**
happy	-0,36**	0,40**	0,39**	-0,31**	-0,25*
totally happy	-0,39**	0,69**	0,63**	-0,25	-0,15
long lasting party preference (social democrats, SPD)					
conservatives (CDU/CSU)	0,10*	-0,04	-0,09	0,21	0,30**
liberals (FDP)	-0,35**	-0,16	-0,25	-0,27	-0,23
green party (Grüne, B'90)	-0,64**	0,40**	0,50**	-0,38	-0,45*
socialist / former communists (PDS)	0,01	-0,05	-0,07	-0,10	0,03
right wing parties (DVU, REP)	1,56**	-1,53**	-1,48**	1,68**	1,66*
other parties	0,31*	0,12	0,25	0,24	0,29
no long lasting preference	0,13**	-0,11*	-0,14*	0,19*	0,29**
origin (West German)					
East German	0,57**	-0,34**	-0,38**	0,30**	0,37**
foreigner of the EU	-0,51**	0,19	0,26*	0,00	0,00
other foreigner	-0,35**	-0,32**	-0,15	0,30*	0,12
income position (2. + 3. quartile)					
lowest income quartile	-0,01	-0,08	-0,05	0,28**	0,23**
highest income quartile	-0,31**	0,12*	0,09	-0,41**	-0,34**
gender: men					
	-0,13**	0,18**	0,09*	-0,27**	-0,12
age (in years)					
	-0,005**	0,01**	0,01**	-0,02**	-0,02**
month of questioning (February)					
January		0,18**	0,13*	-0,26**	-0,24*
March		-0,15**	-0,14*	0,15	0,07
April		-0,33**	-0,31**	0,21	0,17
May		-0,43**	-0,38**	0,74**	0,68**
June and later		-0,48**	-0,49**	0,36**	0,31*
difficulties in handling the new money (not at all)					
great difficulty			-1,53**		1,88**
some difficulty			-0,74**		0,76**
difficulties in converting DM amounts into EURO (not at all)					
great difficulty			-1,10**		0,63*
some difficulty			-0,48**		0,61**
cut point 1	-1,53**				
cut point 2	0,24**				
constant		-1,50**	-0,97**	0,09	-0,47*
Number of observations	20852	12238	12238	5920	5920
Pseudo-R ² (Mc-Fadden)	0,05	0,04	0,10	0,09	0,15

Level of significance: * < 5 %; ** < 1 %.

Sources: SOEP 2002, own calculations.

Table 3: Examples of the influence of education and information access on being somewhat or very concerned about the Euro¹

internet	educational level	
	low	high
not using	77 %	66 %
using	71 %	59 %

¹ Probabilities calculated from model 1 for a 46year old, West German male with middle income, ambivalent future expectations, low political interests and without any party preference.

Table 4: Examples of the influence of origin and ethnicity on concerns toward the Euro in 2001¹

concerned	West German	East German	EU foreigner	other foreigner
somewhat or very	77 %	85 %	66 %	70 %
very	36 %	50 %	25 %	28 %

¹ Probabilities calculated out of model 1 for a 46 year old, low educated male with middle income, with ambivalent future expectations, who does not use the internet, who has little interest in politics and has no party preference.

Table 5: Examples of the influence of time on shifting concerns towards the Euro¹

	January	February	March	April	May
abandoning concerns	34 %	30 %	27 %	24 %	22 %
becoming concerned	24 %	29 %	33 %	34 %	47 %

¹ Probabilities calculated from models 2 and 4 for a 46 year old, low educated male with middle income, ambivalent future expectations, who does not use the internet, who has little interest in politics and has no party preference.

Table 6: Examples of the influence of difficulties in handling the new money and in converting prices from DM in Euro on shifting concerns towards the Euro¹

difficulties	abandoning concerns		becoming concerned	
	handling the new money ²	converting prices ³	handling the new money ²	converting prices ³
not at all	31 %	26 %	31 %	34 %
some	18 %	= 18 %	49 %	= 49 %
great	9 %	10 %	74 %	49 %

¹ Probabilities calculated out of model 3 and 5 for a 46 years old, low educated male with middle income, ambivalent future expectations, who does not use the internet, who has little interest in politics and has no party preference who gave his interview on February.

² Additionally, the man has some difficulties in converting prices.

³ Additionally, the man has some difficulties in handling the new money.