Company Specific Influences on Investments in Environment Protection

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1. Introduction

“Sustainable development meets the needs of the present generation without compromising the ability of future generations to meet their own needs.”
(World Commission on Environment and Development, 1987)

In the context of sustainable development it is often referred to the “triple P”: profit, people and planet (Elkington, 1999). We are going to concentrate on the third P, “the planet”. Environment protection has been a big issue for a long time. That is why we want to analyse the companies that are investing in environment. In order to observe these investments we explore if the characteristics of a company like its total investments, the number of employees, the years and the industry sector as well as the federal state have an influence on their environmental investments behaviour. Therefore we use a panel regression over a time range from 1976 until 2000 with a dataset provided by the ifo Institute. Using this data we find that a company’s relative investments compared to its sales and its employees have an important positive influence on the investments in environmental protection. The interpretation of the years show that in the beginning of the nineties the investments were the highest which might be explained by the German reunification in 1989/1990.

The remainder of this paper is structured as follows. In section 2 we review the state of research on this topic and show our introductory issues. Section 3 presents the empirical part with our data and variables as well as our results and a critical valuation. Interpretation of the results and conclusions are given in Sections 4 and 5.
2. State of research and introductory issues

A lot of literature focuses on the effects of political events on environmental behaviour of firms. According to Anton et al. (2002) there is a trend in public policy towards promoting voluntary action and pollution prevention.

A growing belief in the need to provide flexibility to firms and to lower the costs of environmental protection has led to increasing reliance by the U.S. Environmental Protection Agency (USEPA) on programs that encourage voluntary actions to control pollution. These initiatives include the development of firm-structured Environmental Management Systems (EMS’s) and international certification programs that set standards for environmental management, such as the International Standards Organization (ISO). EMS’s represent an institutional change in the management of corporations and an internally motivated effort to introduce an environmental self-regulation by firms. Consumers, investors, and future litigation risk factors influence the quality of EMS’s and indirectly reduce emissions (Anton et al., 2002).

Masurel (2007) distinguishes between two aspects of motivation to invest voluntarily in environmental protection: pressure from the external environment and free choice by the entrepreneurs. He also refers to the latter as the main incentive.

The 33/50 programme was a big project of the Environmental Protection Agency in the US in 1988. Its aim was to reduce certain chemicals and releases by 33% till 1992 and by 50% by 1995. In the end the goal was even achieved one year before the deadline, in 1994. This programme was voluntary, so the companies participated due to their own decision. A lot of research was done on this project, mainly on the incentives that drove the firms to take part in that programme. Khanna and Damon (1999) found that the companies were motivated by rational economic self-interest. Public recognition and technical assistance offered by the programme as well as the potential to avoid liabilities and high costs of compliance in the future under political regulations were the main reasons to participate in the programme. They also show that voluntary programmes are likely to be less effective, when they don’t have a backstop of a political mandatory regulation.

We, however, are interested in firm specific characteristics and their influence on investments in environmental protection. Considering that one example is the following paper that focuses on investments in energy efficiency. Decano and Watkins (1998)
investigate if characteristics of firms matter for investments in energy efficiency. As announced above the U.S. Environmental Protection Agency has instituted voluntary programmes for pollution prevention. The joining firms are able to take advantage of the EPA’s technical expertise. In Decano’s and Watkin’s paper joining the EPA’s Green Lights programme is the parameter for investments in energy efficiency. The decision to join Green Lights is a signal of a firm’s willingness to undertake energy conservation investments. They found out that company specific characteristics are associated with Green Light membership. The membership is positively correlated with good performance by firms and with industry sectoral and regional characteristics.

Uhlmann and Berger (1986) also use a data set of the ifo Institute in their empirical work “Investitionsverhalten und Unternehmensgröße”. They investigate the general investment behaviour of firms and not specifically the investments in environmental protection. Unfortunately the time series of our dataset begins in 1976 and their research was done in 1986 and includes the years from 1977 till 1982. They found out that sales of a company assume a bigger rule for small companies than for large companies. For small companies the challenge of financing investments is a greater problem than for big ones. The investments of large firms, in contrast, depend on the expected demand rather than on financing them. Moreover, they often have a high technological standard already.

The questions we want to answer with our following research are: What kind of company invests more in the protection of our environment? The small ones or the large ones? Which industry sectors invest the most? And also, when where the environmental investments very high or very low?
3. Empirical Part

3.1 Research design and sample

Our empirical analysis is based on a dataset called Business Investment Panel from the Economics & Business Data Center by cooperation of the LMU Munich and theifo Institute for Economic Research. The Business Investment Panel is composed of the ifo Investment Test, which provides information for over 5590 German companies.

Our dependant variable is expenditure for environment protection (environ_investments). According to the ifo Investment Test the companies were asked to indicate the “investments in environment protection last year in 1000 DM”. These expenditures are asked in the test until 2000. That’s why our sample contains data from 1976 till 2000.

According to the questionnaire explanations these expenditures include waste disposal, water and air pollution control, as well as noise abatement\(^1\).

For a start the following are used as explanatory variables: “total revenue last year” measured in 1000 DM, “number of employees last year” (in the regression called employees) and “total investment last year” also measured in 1000 DM. We decided to use relative variables instead of absolute values for a better understanding and for more explanatory power. Therefore we generated a ratio variable (relative_investments) which are the total investments divided by sales. This variable stands for the relation of total investments per sales.

Furthermore “year”, “federal state” and “industry sector” are added as dummy variables. “Federal state” and “industry sector” are categorical variables with the realisations Schleswig-Holstein, Hamburg, Niedersachsen, etc. and the different industry sectors as it is announced in the classification of industry branches by the Federal Bureau of Statistics in Germany.

The original data set contains over 200000 observations. Unfortunately, there is a lot of data that cannot be used for our regression. The first criterion the data must fulfil is to contain data for our dependent variable “expenditure for environment protection”. Missing observations in case of investments in environment protection imply that not all companies from our data set made declarations to environmental protection in the questionnaire. It does not say that their investments are zero, because we do have that kind of data as well.

\(^1\) See appendix for questionnaire
and we are going to look at these companies later on. 43735 observations don’t fulfil the announced criterion and are therefore dropped. It’s interesting that after we’ve dropped these observations the variable “federal state” has reduced to only eleven realizations. These eleven federal states are the former Western states in Germany. That means we cannot make any statements for East Germany because they did not make any statements on their environmental investments.

Our data set relies on the semi-annual survey of the ifo institute that asks the same companies repeatedly. Therefore it is reasonable to create a panel data set. An advantage of panel data is that we are able to observe the behaviour of the same companies over time. Panel data ignores effects that influence all companies in the same way like economic crises and it also ignores company specific effects that do not vary over time for the individual companies. Since our dependent variable is “investments in environment protection last year” we cannot use the spring and the autumn data because for both survey the variable has the same realization. That is why we drop the autumn data. After all, our panel dataset contains 34479 observations now.

For a general overview for our data, we first want to introduce some time series we made for our variables. In the graph one can see the total investments and the environmental investments. Both amounts are summed up for the particular years (as announced above both investments are measured in 1000 DM).
Additionally, the sales are shown in another diagram:

![Sales diagram](image)

It is interesting that total investments as well as environmental investments exhibit a great peak in the nineties (environmental investments really do exhibit a large peak, see page 13) but sales don’t behave the same way. For sales it seems to be a constant increase rather than a peak.

### 3.2 Implementation and results

Our basic model is a panel regression with environmental investments as the dependant variable controlling for relative investments, employees, federal states, years and industry sectors.

\[
\text{environ}_{\text{investments}}_{it} = \beta_0 + \beta_1 \text{relative}_{\text{investments}}_{it} + \beta_2 \text{employees}_{it} + \beta_3 \text{fedsta}_{it} \\
+ \beta_4 \text{year}_{it} + \beta_5 \text{industry}_{\text{sector}}_{it} + u_{it}
\]

We use random effects and no fixed effects. Due to this issue we implemented a Hausman-Test. Thus, we controlled for the standard errors of our explanatory variables. Besides the federal states none of them had a strong significant influence on the standard errors. Furthermore, the standard errors in the random effects model are a lot smaller than the ones in the fixed effects model, so we therefore decided to use random effects.

As one can see in the table below the relative investments have a statistically significant influence of 1071.554 on the investments in environment (on the 1% level). The number of
employees also has a positive sign. One more person in a company increases the investments in environment protection by 839 DM.

Moreover, Hamburg and Rheinland-Pfalz are significantly negatively correlated with investments in environment. We again need to stress the fact that there’s no data for East Germany, so the negative correlation of Hamburg und Rheinland-Pfalz might be totally different if we had Eastern states to compare it to.

When it comes to the years, there are much more interesting details to look at. Really striking is, that the beginning of the nineties have a significant positive influence. In the next chapter we are going to discuss possible reasons for the significant years.

The industry sector “petroleum processing” and the “chemical industry” also have a huge significantly positive influence on investments in environmental protection.

<table>
<thead>
<tr>
<th></th>
<th>investments in environment protection</th>
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<tbody>
<tr>
<td>relative investments</td>
<td>1071.554 (2.08)**</td>
</tr>
<tr>
<td>number of employees</td>
<td>0.839 (4.39)***</td>
</tr>
<tr>
<td>Hamburg</td>
<td>-723.8696 (2.52)**</td>
</tr>
<tr>
<td>Rheinland-Pfalz</td>
<td>-289.2548 (1.83)*</td>
</tr>
<tr>
<td>year 1990</td>
<td>374.343 (1.71)*</td>
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<tr>
<td>year 1991</td>
<td>459.771 (2.01)**</td>
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<tr>
<td>year 1992</td>
<td>664.680 (2.27)**</td>
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<tr>
<td>year 1993</td>
<td>554.465 (2.53)**</td>
</tr>
<tr>
<td>year 1994</td>
<td>414.097 (2.90)***</td>
</tr>
<tr>
<td>year 1995</td>
<td>466.190 (3.42)***</td>
</tr>
<tr>
<td>petroleum processing</td>
<td>9533.950 (4.17)***</td>
</tr>
<tr>
<td>chemical industry</td>
<td>4297.434 (2.92)***</td>
</tr>
<tr>
<td>electrical engineering</td>
<td>-1176.033 (2.82)***</td>
</tr>
<tr>
<td>N</td>
<td>34479</td>
</tr>
</tbody>
</table>

* p<0.1; ** p<0.05; *** p<0.01

This table shows only an extract of the effects of the dummy variables. See Table 1 in the appendix for more information.
For a deeper understanding of our variable “investments of environment protection” we also looked at its statistics.

```
. sum environ_investments, detail

--------------------------------------------------------
environ_investments
                       Percentiles Smallest
       1%           0            0
       5%           0            0
      10%           0            0    obs        34479
     25%           0            0   Sum of wgt.  34479
     50%           0            0  Largest     Mean  597.9513
     75%          20.69558      341658.4  Std. Dev.   6587.401
     90%          441.7231      345772.7   variance  4.34e+07
     95%          1455.877     371385.3   skewness  34.81356
     99%         10702.54      400626.1   kurtosis  1596.317
--------------------------------------------------------
```

As a consequence of the multiple companies stating “zero” as investments in environment the median is 0 meanwhile the mean is 597.95. Therefore we run a regression with these companies being dropped.

The coefficients are mostly similar to the regression without any environmental investments being dropped. It is noticeable that the coefficient of relative investments in this regression is a lot bigger than before. On the other hand the number of employees is still significantly positive but a little smaller than in the regression before. This means that for the companies that really do invest the ratio of total investments to sales is more important and the number of employees seems to be less important than for the sample of any companies independent of the fact if they invest or not.

The “production of pulp” industry also happens to be significant and positive after the “zero” observations being dropped. Moreover, Nordrhein-Westfalen is also significantly positive correlated with environmental investments.

All these results derive from the facts that in a sample with the observations = 0 being omitted the median as well as the mean are a lot higher. Thus, the coefficients are naturally higher, since there are no zero observations to lower them. That’s why we need to be careful with the explanatory power of this second model. We can conclude, however, that the companies that state “zero” investments in environment protection do not drive our results, since the signs of the influence of our variables remain the same.
### 3.3 Critical Valuation

After running the regression we can see what kind of influences these variables have and how significant they are. To raise the validity of our model we also controlled for diverse other variables. We added the prices for oil and electricity as well as CPI, GDP and the interest rates. It would have been possible that there might be influences of these variables on the behaviour of a firm’s investments in environment. We thought that with an increasing price for oil the investments in environment might increase as well since oil is a strong indicator for environmental pollution and when the price increases the companies might be more aware of this problem. One could assume that an increasing oil price might

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2 From OECD iLibrary, oil price from BP homepage
lead to higher investments because the companies think that lower pollution might in turn reduce oil prices.

There is no great variation of the GDP due to the fact that we’re only observing Germany. Besides, the influence of GDP might also be included in the year dummies or in other words if GDP is involved in the regression its coefficient absorbs some of the influences of the years. Eventually, the influence of GDP is not statistically significant and we therefore only include years in our regression. For CPI the same argumentation can be assumed. Interest rates might lower the investments in environmental protection since higher rates are more lucrative than investments in environment.

Anyway, none of the announced variables had a statistically significant influence on our dependant variable (Table 3 in the appendix). This being the case, we omitted these in our model.

Nevertheless there certainly are some other possible influences on the investments in environmental protection that we haven’t absorbed in our model. These influences lead to an omitted variable bias. A variable that is not included in the regression is an omitted variable if it has an influence on the environmental investments and if it is correlated with one of the explanatory variables. A possible omitted variable could be the ability of a company, the so-called know-how about investments of a company. Maybe a firm doesn’t have the opportunity to control its own pollution on the environment and therefore doesn’t even know what it has to do to protect the nature. Doubtless, there are differences between companies concerning their knowledge of environment pollution and protection. Therefore this factor might have a positive influence and could be correlated with our explanatory variable “industry sector”. It is not clear, though, if the correlation is positive or negative on the particular sectors. Another omitted variable might be the incorporation date of a company, because new founded companies could invest more in environmental protection since it is easier to use better technological and ecological standards from the outset than to modernize all fixtures. Or also the firm’s legal form could have a positive influence on the environmental investments. If the company is a limited liability company it implements that it doesn’t have to guarantee for all its actions and this in turn could influence environmental investments. Both, the legal form and the incorporation date might be positive correlated with the number of employees, because an older company might have more employees than a new founded
company. If the legal form is a limited liability company, it might hire more employees because it doesn’t have to guarantee for its total capital. Therefore our model is probably driven upwards and the real influences of our included variables might be lower.

Another critical point is the design of the questionnaire of the ifo Institute. We were not able to identify the reason but unfortunately the question about environmental investments was removed from the ifo Investment Test in 2000. It would be interesting how the investments behaviour changes since 2000, especially, because the issue of environment protection has become more and more important over the last years.
4. Interpretation

The coefficient of relative investments in our regression is 1071.554 (Table 1 in the appendix). To interpret this coefficient it’s necessary to remember the fact that this variable is a ratio between total investments and sales. Thus, the variable is a percentage amount. That’s why for the interpretation we first need to divide the coefficient by 100 so we can talk about a percentage change. It means that for a 1% increase of the ratio the investments in environmental protection increase by 10.71 DM and due to the fact that environment investments are measured in 1000 DM, it finally means that environmental investments increase by 10710 DM. It seems logical that if a company’s total investments compared to its sales increase the environmental investments rise as well.

In our model the employees and consequently the size of the particular company have a significant influence on the investments in environmental protection. If one more person is employed at a firm, the investments in environment rise by 0.839*1000 DM (Table 1). To find a reason for this influence seems to be quite easy. The more people are employed in a company the more it produces. And the more a firm produces the more it burdens the environment and the necessity of environmental investments grows steadily.

On the other hand it is surprising when we look at the empirical work of Uhlmann and Berger (1986). They cannot define an explicit significant correlation between the medial rate of general investments and the size of enterprise in their empirical work. The difference in these results can be explained in the following way:

They investigate the investment behaviour of firms as a function of the size of the particular firm. The differences between our and their data set are important. In our data set we have many large firms with many employees and the mean of employees is 1036. They use a smaller data set with only 5736 observations and moreover smaller companies.

Since we have larger companies (more employees) and more observations it leads to different results. Maybe the influence of employees rises with the companies being larger. Important to mention is that there is no general meaningful classification for the size of a company. Size could be measured in sales or employees or something totally different. Therefore it’s complicated to measure the “size of a company” on its investment behaviour.
A very interesting point is the variation of environment protection in the course of time. The first year in our sample is 1976. Environment protection has already played an important role earlier. For that reason we need to look at some historical facts. Since the beginning of the industrialization, interferences in the environment were growing and became a big issue in the 20th century, when a lot of environmental damage was caused (Freytag, 2006). Christian Pfister (1996) developed the thesis of the “1950ies Syndrome”, which predicates that from the fifties of the 20th century the consumption of resources, land consumption and GDP as well as the waste volume of industrial companies increased. Since then the consumer behaviour and the way of life changed substantially. Eventually, competition for environment protection started to play an important role in politics as it’s shown by the environmental political activities from the social-liberal coalition. The claim in the election campaign from Willy Brandt in 1961 was: “Blue sky above the Ruhr”. (Freytag, 2006)

All in all, the investments in environment protection rise from 1976 until 2000 that is the range from our sample. As a result we can say that the consciousness of environment protection got more important over time. There were the oil crises 1973/74 and again in 1979 and also the forest dieback in the seventies. Both scenarios of crises visualised that energy sources like oil are ultimate and that uncontrolled pollutant emissions cause damage on our environment. Patrick Kuppers (2003) explicates the “1970ies diagnosis”. He shows, especially with Swiss examples, that the consumption of resources is still not sustainable, but it came to an
advance of awareness in society that nature and environment are important and have to be protected essentially.

However, the statistically significant part of our sample is the beginning of the nineties. That surely doesn’t mean that it’s enough to look at these years only, since the consequences that are shown in our coefficients derive from the years before.

In the eighties the first substantiated studies about environment were written (Freytag, 2006). So back then, the people started to think about environmental protection fundamentally.

In 1986 the nuclear disaster happened in Tschernobyl and the whole world could see how important the environment and especially its protection are. The first world conference on environment and development took place in Rio de Janeiro in 1992. This conference stands for the growing political importance of environment protection.

Furthermore, very important for Germany, was the reunification of East and West Germany. This might be one of the most important points for the significant increase that are shown in our sample. The German reunification in 1989/1990 initiated an atmosphere of change in the country. The increasing investments in environment protection could derive from that feeling because the people might not only be profit orientated but also aware of the society and the environment they live in. In addition, environment pollution was a huge problem in the former DDR. Especially, in the end of the eighties the situation was dramatic. In 1988 the DDR with 17 million inhabitants emitted 30 times as much sulphur dioxide, 100 times as much dust, and three times as much carbon dioxide as Japan with over 120 million inhabitants. Thus, a reason for the significant increase of environmental investments of the Western states in the beginning of the nineties could be that the people wanted to compensate for the pollution of the Eastern states.

Since 1993 the coefficients reduce a little. They still are positive and significant but the amount decreases. This might be reasoned by the fact that influence the above announced explanation reduces. The need for compensation of the Western states might not be that significant a few years after the reunification.

Another explanation may be that according to the Federal Bureau of Statistics in Germany the use of renewable energies increased from 0.8% in 1991 to 3.5% in 2003. The

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3 German Federal Ministry for Environment
For further information see: http://www.umwelt-im-unterricht.de/hintergrund/umweltpolitik-der-ddr
accessed on 11.09.13
companies might see this as an investment in environment as well and therefore the necessity of investments like water and air pollution control decreases. The highly significant coefficient of chemical industry supports the general opinion. It is well known that the chemical industry is one of the frontrunners concerning environmental investments since these firms are also frontrunners in environmental pollution. For “petroleum processing” one can assume the same reasons as for chemical industry. More pollution leads to higher investments in environment protection or one could also conclude that these chemistry firms might have a guilty conscience and therefore want to silence that feeling. Moreover, the chemical industry has a lot more legal regulation as it can be seen on the homepage of the German Association of Chemical Industry⁴.

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⁴ For further information see: https://www.vci.de/Seiten/Startseite.aspx accessed on 11.09.13
5. Conclusion

The first and strongest inference that emerges from the analysis is that the characteristics of firms do influence the investments in environmental protection of a company. We presented several variables and came to the conclusion that relative investments, number of employees, years, federal state and industry sector all have an influence on our dependent variable. Besides the federal states the variables can be interpreted very well. An increase of employees, as a measure of the firm’s size, and the relative investments influence the environmental investments positively. When it comes to the years and the industry sectors there are positive and negative effects shown. A significant positive influence one can see in the nineties and in the chemical and petroleum processing industry sectors. To interpret the federal state is quite difficult because we only have data of the former Western states and almost all of the coefficients are statistically insignificant.

We also talked about omitted variables in our model, which could be the know-how of the particular company, the year of its incorporation or its legal form. Since we had no data, we unfortunately couldn’t control for these variables. Furthermore our data set only includes the years until 2000. So we weren’t able to observe the processing until know. Nevertheless our model offers over 34000 observations and we are able to control for 26 years.

We controlled for a few more potential variables in the empirical part, which had no influence. To have another robustness check we ran a second regression with the companies that state “zero” as investments in environment protection being dropped. The results in this regression compared to our basic model remained the same. That means that these companies do not drive our results. Altogether, our model has a fairly good validity.

An environmental awareness survey, made by the German Federal Environmental Agency in 2012, shows how up to date the environmental topic still is. They investigated the valuation of the environment quality and its health burden, the personal willingness of engagement for the environment and the political aspect, as well as the conflict between environmental protection and social justice. The valuation of the environmental quality improved a lot during the nineties, which confirms our results. In the surveys from 2004 to

2006 there is a clearly decline to note but it increased again in 2012. Nevertheless there are still 30% who declare that the problem of environment pollution put a strain on them. 35% of the respondents state environment and climate protection as one of the most relevant problems in Germany. Consequently the environment takes the second place of political top subjects behind economic and finance politics (36%). Probably the most important issue is the conflict between environmental protection and social justice. 33% of the respondents claim to have more employment and social justice before looking after the environment and its protection in 2012.

As one can see in the survey, the problem of environment protection still isn’t solved. Environmental protection will remain one of the most discussed topics the next years. Too many German companies don’t invest anything or not enough in the environment and are too profit orientated rather than concerned about sustainability. Hopefully, the investments in environmental protection will keep increasing in the future.
6. References


## Table 1

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*R squared within* 0.1368

*N* 34479

* p<0.1; ** p<0.05; *** p<0.01
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<p>| R-squared                       | 0.1392               |
| N                               | 9686                  |</p>
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* p<0.1; ** p<0.05; *** p<0.01
Angaben für Standorte in den alten Bundesländern

(ohne Standorte in den neuen Bundesländern und Ost-Berlin und ohne Standorte im Ausland)

I. Allgemeine Angaben

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<td>1996</td>
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1) Bitte Erläuterungen beachten. Inbegriffen sind ferner das Geschäftsjahr von Kalenderjahr abweichen sollte.
2) Umsätze, die innerhalb des angeschriebenen Unternehmens von Werk zu Werk fließen, sind zur Vermeidung von Doppelzählungen auszulagern.

II. Investitionen in den Jahren 1995 und 1996

(Bilanzierte Zugänge an Sachanlagen)³

Art der Investitionen
(ohne getäuschte, gemietete und zur Vermeidung bestimmte Anlagen und Bauten)

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<td>davon: Investitionen für Umweltschutz²</td>
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<td>falls keine Investitionen für Umweltschutz, bitte eine &quot;0&quot; einsetzen</td>
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<tr>
<td>nachrichtlich: Selbstverpflichten Erzeugnisse, die zum Verleih (Leasing oder Miete) bestimmt sind</td>
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III. Investitionspläne 1997

- gemietete Investitionsgüter bitte unter VII eintragen -

(einschließlich des unter II gemeldeten Bestandes an bereits vergebenen Investitionsaufrägen)

1. Investitionen insgesamt
(einschl. 1.1. Bauinvestitionen)

a) Wir werden 1997 Investitionen durchführen
\[\begin{array}{ll}
\text{ja} & \text{nein}
\end{array}\]

b) Wertmäßig werden diese Investitionen im Vergleich zu den Investitionen von 1996 sein (vgl. oben unter II.)
\[\begin{array}{llll}
\text{größer} & \text{schätzungsweise um}^{3} & \text{%}
\text{etwa gleich groß} & \\
\text{kleiner} & \text{schätzungsweise um}^{3} & \text{%}
\end{array}\]

2. Investitionen in Betriebsbauten
(ohne Wohnungsbauten)

a) Wir werden 1997 Bauinvestitionen durchführen
\[\begin{array}{ll}
\text{ja} & \text{nein}
\end{array}\]

b) Wertmäßig werden diese Investitionen im Vergleich zu den Bauinvestitionen von 1996 sein (vgl. oben unter II.)
\[\begin{array}{llll}
\text{größer} & \text{schätzungsweise um}^{3} & \text{%}
\text{etwa gleich groß} & \\
\text{kleiner} & \text{schätzungsweise um}^{3} & \text{%}
\end{array}\]

Bitte wenden!

321
Erläuterungen zum Investitionstest Frühjahr 1997


Sollten einzelne Daten bis zu diesem Zeitpunkt noch nicht endgültig feststehen, ist dem Test mit vorläufigen Werten oder Schätzungen mehr Gehör zu geben, als mit genauen Angaben, die für die Aufbereitung der Ergebnisse zu spät eintreffen. Beantworten Sie bitte nach Möglichkeit sämtliche Fragen des Erhebungsbogens.

Alle DM-Beträge (Umsätze, Investitionen usw.) bitten wir auf volle Tausend DM auf- oder abzurunden.

Ist ein getragter DM-Betrag gleich Null, setzen Sie bitte in jedem Fall eine c-eine «0» ein.

Alle Angaben beziehen sich auf das Gebiet der alten Bundesländer einschl. Westberlin, ohne Standorte in den neuen Bundesländern und im Ausland.


Allgemeine Angaben

Bitte beachten Sie den auf Ihrem Testbogen untenhalb der Kenn-Nummer eingetragenen besonderen Hinweis auf die Abgrenzung (z.B. »Angaben erbeten nur für Werk ...«). Falls Sie dort keinen Aufdruck finden, erbeten wir Angaben für Ihr gesamtes Unternehmen, d.h. für sämtliche Standorte in den alten Bundesländern einschl. Westberlin, ohne Standorte in den neuen Bundesländern und im Ausland.

Fachliche Abgrenzung »Eisenhaffende Industrie«

Einzubeziehen sind

- in Anlehnung an die amtliche Statistik folgende Bereiche: Hochöfen, Stahlwerke, Wärmetauwerke einschl. der Produktion nahtloser Stahlröhren sowie geschweißter Rohre und Thomas-Schacke-Verarbeitung
- Schmiede, Preß- und Hammerwerke
- Verkehrs- und Erhaltungsbetriebe sowie Kraftanlagen

Geben Sie bitte unter »Fertigungsschwierpunkten« den Fertigungszweig (Wirtschaftszweig bzw. Wirtschaftsgruppe) an, zu dem Ihr Unternehmen gehört, sowie die entsprechende neue Nummer zur amtlichen Statistik im produzierenden Gewerbe (WZ 93 - Klassifikation der Wirtschaftszweige, Ausgabe 1993).


Investitionen in den Jahren 1995 und 1996

Unter Bruttoläneinvestitionen sind Bruttozüge auf Sachanlagekonten einschließlich bereits verbuchter Zugänge an in Bau befindlichen Anlagen zu verstehen.

Dazu gehören:

- Betriebs- und Geschäftsgebäude (auch in Bau befindliche)
- Maschinen und maschinelle Anlagen (einschl. in Aufstellung bzw. Montage befindlicher)
- Selbstvertriebsanlagen (zu Herstellungskosten)
- Fahrzeuge, Werkzeuge, Betriebs- und Geschäftsausstattung

Im steuerlichen Sinne „ergänzungswerte Wirtschaftsgüter“ mit Anlagegecharakter (Lebensdauer über ein Jahr)

Dazu gehören nicht:

- Wohnungsbaubetriebe
- Unbebaute Grundstücke
- Gebrauchte oder gemietete Anlagen
- Beteiligungen
- Bezogene und selbstvertriebene Anlagen, die zur Vermietung bestimmt sind

Gemietete Anlagen bitten wir, unter Frage VII zu melden


Bei den Investitionen für Umweltschutz bitten wir, die Abgrenzung der amtlichen Erhebung laut Gesetz über die Umweltstatistiken zugrunde zu legen. Danach sind unter Umweltschutzinvestitionen folgende Ausgaben für die Bereiche Abfallbehandlung, Gewässerschutz, Lärmbekämpfung und Luftreinhaltung zu erfasen und insgesamt auszuweisen:

1. Zugang an Sachanlagen, die ausschließlich dem Umweltschutz dienen (ohne unbebaute Grundstücke und ohne gebrauchte oder erworbenen Anlagen)
3. Zugang an Sachanlagen für die Herstellung von Erzeugnissen, die bei Verwendung oder Verbrauch eine geringere Umweltbelastung hervorrufen. (Produktbezogene Umweltschutzinvestitionen aufgrund gesetzlicher und behördlicher Vorschriften bzw. Auflagen)

1) Unternehmen, die ein Sammelkonto in Bau befindliche Anlagen führen, melden bitte die Zugänge auf diesem Konto während des Berichtszeitraumes als einheitlichen Ausweisung auf, mit nicht jedoch (um Doppelzählungen zu vermeiden) die Umbuchungen von diesem Konto auf die endgültigen Anlagekonten.