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AN ECONOMETRIC INPUT-OUTPUT MODEL
OF THE WEST GERMAN ECONOMY

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ABSTRACT

This paper describes an econometric input-output model of the economy of the Federal Republic of Germany having 51 sectors, together with a forecast made using the model. Most of the data for the model comes from the Rheinische-Westfalische Institut fur Wirtschaftsforschung in Essen. The model presented here is now part of the INFORUM system of dynamic input-output models.

Equations have been estimated to explain 46 categories of consumer expenditure, investment demands (plant and equipment separated) for 34 industries, exports for 51 industries, imports and inventory change for 51 industries. Equations to forecast input-output coefficients have been estimated. Forecasts of prices and incomes have not been made and are now left as future work.

INTRODUCTION

This is a report on the construction of a dynamic econometric interindustry model of the West German economy. The basic purpose of the model is to make projections for the West German economy, year-by-year for approximately ten years ahead, of industrial output, employment, investment, and other components of final demand within the structure of an everchanging input-output table. Structural change over the past 15 years has been carefully examined in the construction of the model. At present, the model lacks a price and income side; this is a research topic for the future.

This model, which is now part of the INFORUM system of dynamic input-output forecasting models, has been successfully linked with those of the U.S.A., Canada, France and Belgium (see Almon and Nyhus (1981) and INFORUM (1981)).

Section I describes the general structure of the model and the results that are available. Section II describes the data and its preparation. Section III shows the model's equations for each of the final demand components, labor productivity and input-output coefficient change. Section IV explains the specific assumptions used in the model and the results of the forecast.

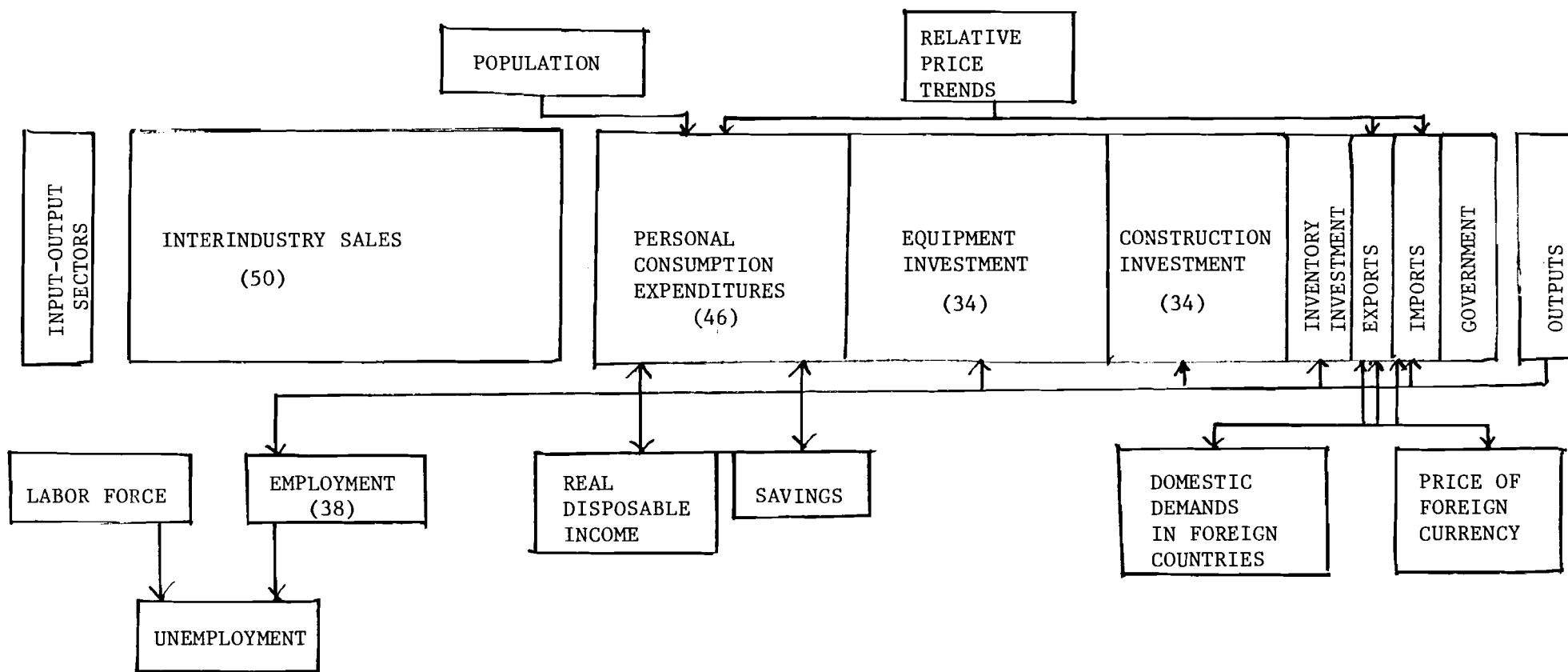
I. MODEL STRUCTURE

The major parts of the model are shown in Figure 1. Also shown are the principal functional connections in the model. The center block is the input-output table where some fifty-one industries are distinguished. This center block shows the sales of each sector to each of the others.

On the right-hand side is the final demand block, which shows the projection of 46 types of consumer expenditure, equipment investment for

FIGURE 1. The Model - major parts and principal functional connections

4



NOTE: Figures in parentheses show number of columns

34-industries (aggregates of the 51), the construction investment for these same 34 industries plus residential construction. Inventory investment, exports and imports, and government purchases for each of the 51 sectors are also estimated.

To the left of the center block are the sector outputs. The outputs, of course, are the sum of all sales including the negative sales imports; hence production here is domestic output. Productivity and employment for 38 different industries are distinguished here (again aggregates of the 51 sectors).

Estimates of the labor force, per capita disposable income, total government spending, foreign demand for German goods, the price of foreign currency (exchange rate) and relative price trends, are all exogenous in the model at this time. In Section IV, where a forecast result is shown, there will be more discussion of the exogenous assumptions.

Perhaps the most important element in the structure of the model is not visible in Figure 1, e.g. the numerous ways in which it is possible for the user to intervene in its workings. It is easy to modify or override the output of any behavioral equation in the model: one can add to what the equation produces; multiply by what it produces, or simply replace the equation altogether. Thus, the model is not just a forecasting model, but is designed from the start to make policy analysis easy.

The Model in Motion

The best way to understand the interworkings of the model is to follow it through the forecasting of one year.

We begin with assumptions for the population and real per capita disposable income. The personal consumption expenditure equations use the

above assumptions, together with relative price trends, to predict expenditure by consumer category. A bridge matrix will later transfer these demands by consumer category, i.e. butter, into demands for the products, i.e. dairy products, in the input-output table. Next, government demands by product are calculated. A constant structure of government spending is assumed.

Next we use project foreign demands (some derived from other models, e.g. France, U.S.A., Belgium and Canada; some by assumption, e.g. Netherlands, Italy and U.K.) and projected trends in domestic to foreign price ratios by product, in order to calculate the demand for exports by input-output sector. Foreign demands and relative German-to-foreign price trends are used to produce exports by input-output category.

Investment functions generate equipment and construction investment on the basis of past and present changes in output. There are equations relating imports to domestic demand and relative foreign-to-domestic prices. Other equations exist to calculate inventory change by product employing domestic use and stocks of inventory of the products.

The final demand projections are of great interest, particularly since they have a great effect on industrial structure.

When the final demands are ready, we then use the projected direct input-output coefficients -- the inputs of each product required to produce one unit of output. When these are ready, we begin the solution procedure known as the Seidel loop. Here, consumer demand for autos is converted into demand for steel, steel into mining, and mining into gasoline, etc. This continues until all demands for all products, directly or indirectly required to make the final goods, have been accounted for. Note that this process does not call for matrix inversion. At no time do we invert a matrix in the solution procedure. It is also to be noted that the whole process needs to be

repeated due to the dependence of investment and construction spending on current output. The extent of this dependence is relatively small and therefore we only need to repeat the process twice. A third cycle was performed but found to be unnecessary and is no longer performed

Product outputs are now ready and we are prepared to calculate employment. Labor requirements per unit of output are calculated on the basis of the level of output, its change and trends. We then multiply by output to get employment. Industry employment is then calculated and the result compared with that of the labor force. The difference between the two, unemployment, is then scrutinized. If this figure is unrealistically low, then per capita disposable income, government spending, and the price of foreign currency are examined and revised, in order to produce a larger economy, thus creating more employment.

II. DATA

The Economic Research Institute for Rhineland-Westfalia in Essen, F.R.G., prepared input-output tables in current and 1970 prices for the years 1962-1975 (RWI, 1979). These data were the primary source of most of the calculations. Employment and investment by industry data came from detailed national accounts (Statistisches Bundesamt, 1980). The investment matrix was drawn from a 1972 matrix prepared by the German Institute for Economic Research in Berlin (Baumgart, 1976). Only modifications to the above data base will be discussed below.

Only minor changes to the RWI tables were made:

- (1) Most of the government sales were moved from intermediate to final demand sales. Only government production necessary to supply the government's sales to private consumption (presumably government

publications such as maps, statistical yearbooks, etc.) were left in the intermediate column.

- (2) Row 51 contains investment subsidies. It has no column or row intermediate entries.
- (3) Imports were treated as a final demand column of negative entries. Thus, the row sums are now domestic production.
- (4) The RWI row for secondary production (Kuppleproduktion) was allocated back to the primary sector. A new sector, Row 50, contains domestic production of natural gas, which is produced in Germany as a byproduct of other processes.

The sum of the industry investment did not match the total equipment investment. The difference, approximately one percent, was due to some slight statistical definitional differences and probably, later, to revisions in the national accounts data. The differences, however, were small.

The investment matrix, on the other hand, had many, more substantial, differences. The DIW matrix contained flows for construction while only flows of investment goods were desired. Matches were made between the 57 branches of the DIW and the input-output rows of the RWI table. Matches were also made between the DIW matrix and the detailed national accounts series of investment by purchaser. Starting with the DIW matrix, we produced an investment matrix which showed the national account industries as columns and the RWI sectors as rows. A RAS procedure was used to ensure compatibility. This is an area where further work needs to be done.

III. EQUATION FORMULATION AND ESTIMATION

A. Personal Consumption Expenditures

There are numerous forms of consumption functions in existence. For use

in input-output work, one of the most useful forms is that developed by Almon (1979) which has the following major properties:

- homogeneity of degree zero in all prices and income
- commodities should be complements for some goods and substitutes for others.
- asymptotic consumption pattern depends, as income increases, on relative prices. The system requires that we list our commodities by group and subgroup, i.e.

<u>Group</u>	<u>Subgroup</u>
Transportation	Public, Private
Food	Protein, non-protein, Beverages, Tobacco

The form of the equation for good i in group G and subgroup S is:

$$C_i = [b_{1i} + b_{2i}t + b_{3i}(y/\bar{p}) + b_{4i}A(y/\bar{p})] \left(\frac{p_i}{p_S}\right)^{-\lambda_S} \left(\frac{p_i}{p_G}\right)^{-\lambda_G} \left(\frac{p_i}{\bar{p}}\right)^{-\lambda_0} \quad (1)$$

where

C_i = consumption per capita in constant prices of good i in year t

y = disposable income per capita in current prices in year t

p_i = the price index of good i year t.

$$p_S = \left(\prod_{j \in S} p_j^{s_j} \right)^{\frac{1}{s}} \quad , \quad p_G = \left(\prod_{j \in G} p_j^{s_j} \right)^{\frac{1}{s_G}} \quad (2)$$

$$\bar{p} = \prod_{\text{all } j} p_j^{s_j}$$

where s_j is the budget share of commodity j in the base year, and

$$s_S = \sum_{j \in S} s_j \quad ; \quad s_G = \sum_{j \in G} s_j \quad ; \quad \sum_j s_j = 1 \quad (3)$$

and b 's and α 's are parameters to be estimated statistically.

Note that b_3 was not estimated but rather, econometrically, we first estimated the income elasticity of each product. Since the b_3 's are directly obtainable from the individual elasticity estimates (elasticity - $\frac{\partial C}{\partial y} \frac{y}{C} = b_3 \frac{y}{C}$), we then summed the b_3 's to see how close we were to the correct total expenditure in 1975 (the base year). Since our sum was low, all of our individual estimates of b_3 were scaled upwards by 11 percent in order to match the correct total spending rate. Why should we resort to such a method when empirical estimation is so obvious? Two reasons both econometric, are put forward. The first is that income and time are generally very colinear and hence we would have significant problems in pinpointing the exact effects of each. The second is that income development plays a major role in forecasting. However, the level of income encountered in the forecast was never experienced in the past. Hence we could estimate income parameters that fit well historically, but forecast poorly. Our "hand-picked" coefficients could certainly be improved by referring them to cross-section data where much greater ranges of income could be studied. That work must be left to others.

It is a property of these functions that the elasticities with respect to p_i of the demand for all goods not in the same group with i are the same, say η_i^S . Likewise, the elasticities with respect to p_i of all other goods in the same subgroup with product i are the same, say η_i^S , as are all the elasticities within the same group but not in the subgroup (if any), say η_i^G . Finally, the elasticity of its own price is different. The statistical

estimates of these three or four elasticities (depending on whether or not a group has subgroups) are shown in Table 1, which also shows the income elasticities, the time coefficients (a_2) as a percentage of the value of C_i in the last year of data, the average absolute percentage error (AAPE), and the autocorrelation of the residuals (RHO). The price elasticities shown in the table must be read in the following way. The first, labeled "own" is the elasticity of a commodity's demand with respect to its own price. The next, labeled "group" is the elasticity of the demand for other items in the same group -- but not in the same subgroup -- with respect to the commodity price. The third elasticity, the one labeled "subgroup" is the elasticity of other items in the subgroup with respect to the commodity's price. A positive (negative) value of group or subgroup elasticity indicates substitution (complementarity) within group or subgroup. The fourth elasticity, labeled "general", shows the elasticity of all other commodities with respect to the commodity's price.

The Food group illustrates the working of the system. All items were substitutes. In the Beverages and Tobacco subgroup, however, the items are complements to each other.

B. Investment and Construction Equations

Investment data for 34 industries, separating plant and equipment, enable us to study the essentials of investment behavior; the capital output ratio and the pattern of the lag between increases in outputs and the increase in capital stock they stimulate.

The investment equation formulates gross investment on the sum of replacement plus expansion investment.

$$V = gk \bar{Q}_t + k \sum_{i=0}^2 w_i \Delta Q_{t-1} \quad (4)$$

TABLE 1.

Sector	subgroup	commodity	income elasticity	food		price elasticities			zspe	rho
				time in % of last yr.	own	group	subgroup	general		
1	2	fleischwaren	1.111	-1.4	-0.703	0.155	0.194	0.020	1.4	0.63
2	2	fischwaren	0.289	-1.0	-0.877	0.009	0.010	0.001	3.1	0.75
3	2	eier	0.445	-2.1	-0.874	0.011	0.013	0.001	2.3	0.33
4	2	milch, kaese	0.333	1.2	-0.929	0.049	0.059	0.006	1.2	0.37
5	3	butter	0.333	-5.5	-0.932	0.014	0.022	0.002	4.0	0.74
6	3	speisefette	0.333	-0.8	-0.934	0.013	0.020	0.002	3.0	0.33
7	3	brct, backwaren	0.111	1.2	-0.839	0.074	0.115	0.010	1.7	0.64
8	3	kartoffeln	0.	-2.3	-0.945	0.006	0.009	0.001	11.5	0.14
9	3	gemuese	0.333	0.7	-0.924	0.019	0.030	0.003	1.5	0.21
10	3	obst	0.333	-1.4	-0.920	0.022	0.034	0.003	2.2	0.50
11	3	zucker	0.445	0.8	-0.900	0.035	0.054	0.005	1.4	0.52
12	3	sonst.nahrungsmittel	0.445	1.2	-0.934	0.013	0.020	0.002	2.2	0.40
13	4	alkoholfr.getraenke	0.778	1.2	-0.458	0.030	-0.030	0.004	3.0	0.54
14	4	kaffee, tee	0.667	-0.1	-0.447	0.019	-0.019	0.002	3.8	0.42
15	4	alkohol.getraenke	1.111	-1.2	-0.535	0.107	-0.107	0.014	1.4	0.54
16	4	tabakwaren	0.	1.4	-0.481	0.053	-0.053	0.007	2.3	0.74

Sector	subgroup	commodity	income elasticity	clothing		price elasticities			zspe	rho
				time in % of last yr.	own	group	subgroup	general		
17		kleidung	1.000	-0.4	-0.231	-0.232		0.028	1.8	0.73
18		schuhe	0.889	-3.2	-0.036	-0.037		0.004	4.4	0.85

Sector	subgroup	commodity	income elasticity	housing		price elasticities			zspe	rho
				time in % of last yr.	own	group	subgroup	general		
19		mieten	1.111	0.1	-0.257	0.011		0.034	2.4	0.67
20		elektrizitaet	1.445	0.8	-0.266	0.002		0.006	7.9	0.82
21		gas	1.556	0.4	-0.267	0.001		0.002	22.3	0.88
22		kohlen	0.	-21.8	-0.269	0.000		0.001	9.9	0.49
23		heizoel	0.667	1.4	-0.267	0.001		0.004	4.9	0.59

1

Sector	subgroup	commodity	income elasticity	home goods & servi		price elasticities			zspe	rho
				time in % of last yr.	own	group	subgroup	general		
24	3	moebel	1.111	-0.2	-0.751	0.881	0.128	0.018	2.4	0.29
25	8	haushaltsmaschinen	1.889	-2.6	-0.838	0.348	0.051	0.007	1.9	0.47

26	8	delethafte waren	1.667	-3.1	-0.867	0.148	0.022	0.003	1.3	0.25
27	8	tzpeten	0.889	0.5	-0.871	0.120	0.018	0.002	2.1	0.30
28	9	haushalts dienstleistungen	0.889	2.9	-1.622	0.179	-0.106	0.004	10.0	0.95
29	9	scrst. haushaltsferung	0.889	-0.3	-1.638	0.206	-0.122	0.004	1.6	0.60
30	9	reparat	0.222	3.2	-1.531	0.025	-0.015	0.001	9.9	0.55

Osector	subgroup	commodity	income elasticity	transportation time in % of last yr.	own	price elasticities		general	size	rho
						group	subgroup			
31	11	kraftfahrzeuge	1.445	-0.2	-0.077	-0.008	-0.140	0.012	8.5	0.71
32	11	benzin	1.222	1.6	-0.015	-0.004	-0.078	0.007	7.8	0.68
33	11	rep. und dienst kfz	0.778	1.3	-0.037	-0.006	-0.100	0.003	4.3	0.62
34	12	fremde verkehrsleistungen	0.445	-1.0	-0.440	-0.005	0.515	0.003	2.7	0.74
35	12	nachrichtenubermittlung	0.889	1.2	-0.763	-0.002	0.156	0.003	7.1	0.88

36	36	gesundheit - wren	0.445	0.7	-0.083	-0.089	0.004	0.004	2.0	0.66
37	36	gesundheitspflege	0.445	1.7	-0.197	-0.203	0.005	0.005	1.7	0.71

Osector	subgroup	commodity	income elasticity	culture time in % of last yr.	own	price elasticities		general	size	rho
						group	subgroup			
38	15	ruckfunk-, fernseh, etc.	1.667	-1.3	-0.563	-0.081	0.147	0.003	2.8	0.53
39	15	bildung	1.334	-0.8	-0.585	-0.068	0.125	0.003	3.4	0.57
40	15	buecher, zeiturgen, etc.	1.111	0.2	-0.463	-0.135	0.247	0.005	2.4	0.79
41	15	scrst. waren, bil.	1.111	0.3	-0.640	-0.039	0.070	0.002	1.9	0.43
42	16	unterricht and forschung	3.334	-7.9	-0.123	-0.048	-0.071	0.002	3.9	0.52
43	16	kunst, sport	2.778	-5.3	-0.029	-0.111	0.165	0.005	3.3	0.27

44	44	vehahren, betraege	1.111	0.5	-1.295	0.057	0.001	0.001	6.2	0.71
45	44	persoenliche ausstattung	1.778	-1.9	-1.199	0.153	0.004	0.004	3.1	0.68
46	44	sonstige dienstleistungen	1.111	0.3	-0.482	0.870	0.022	0.022	1.8	0.38

where

V = gross investment

g = replacement capital stock ratios

k = capital output ratio

w_i = lag weight

\bar{Q}_t = smoothed output = $.5Q_t + 3Q_{t-1} + 2Q_{t-2}$

In the first term, $k\bar{Q}_t$ approximates the current capital stock and g is the rate of its replacement. In the second term $k\Delta Q_t$ shows the amount of capital needed to accommodate the output expansion in year t and w_i shows the fraction of that capital bought in the i^{th} year after t .

We constrain the sum of the lag weight, s_i 's, to unity by setting $w_2 = 1 - \sum_{i=0}^1 w_i$. Thus, the actual regression equation estimated is

$$V = k(g\bar{Q}_t + \Delta Q_{t-2}) + kw_0(\Delta Q_t - \Delta Q_{t-2}) + kw_1(\Delta Q_{t-1} - \Delta Q_{t-2}) \quad (5)$$

Here we must reiterate that we are only trying to get the essentials and that the fits of the regression equations could be improved.

Table 2 shows the results for equipment investment. Table 3 shows the results for plant (construction) investment.

The columns of the tables show the results for each equation. Most are clear -- column "rho" is the auto correlation coefficient and the column "AAPE" is the annual average percentage error. The fits were remarkably good. Only five of the 34 industries had AAPS's above 25 percent; most were near 10 percent. Many of the capital output ratios were confusing -- why that of Iron and steel (12) is so low and that Office machines (14) so high, we cannot explain. Residential construction is, at present, exogenous.

TABLE 2. Results for Equipment Investment.

number	title	capital/output ratio(k)	w0	w1	w2	w3	rbarsq	rho	aape
1	land-,forstwirtschaft	0.302	0.278	0.329	0.392	0.	-0.090	0.86	27.5
2	elektrizitaet-,gas-,	1.090	0.093	0.300	0.607	0.	-1.220	0.82	20.0
3	bergbau	0.164	0.	0.066	0.664	0.270	0.140	0.67	21.0
5	meiheraloelverarbeitung	0.058	0.202	0.456	0.342	0.	-0.720	0.55	42.8
6	kunststoff und gummi	0.110	0.461	0.305	0.234	0.	0.170	0.65	23.6
8	feinkeramik,glas	0.099	0.266	0.425	0.309	0.	0.410	0.35	12.0
9	eisenschaffende indu	0.044	0.204	0.195	0.602	0.	-0.210	0.61	25.9
10	ne-metallerzeugung	0.128	0.114	0.027	0.858	0.	0.290	-0.03	31.0
11	giesserei	0.294	0.261	0.229	0.307	0.202	0.580	0.61	12.6
12	stahl	0.097	0.230	0.318	0.451	0.	0.420	0.16	19.3
13	maschinenbau	0.125	0.491	0.077	0.431	0.	0.550	0.01	13.8
14	bueromaschinen	0.182	0.541	0.444	0.015	0.	-0.450	0.72	45.7
15	strassenfahrzeuge	0.159	0.340	0.285	0.266	0.110	0.370	0.78	19.7
16	n.-str. fahrzeuge	0.101	0.135	0.541	0.325	0.	0.730	0.83	26.9
17	elektrotechnik	0.119	0.465	0.193	0.342	0.	0.850	0.48	8.7
18	feinmechanik,optik,u	0.120	0.442	0.368	0.191	0.	0.160	0.02	61.5
19	abm waren	0.119	0.088	0.533	0.090	0.290	0.690	0.75	10.2
20	holzbearbeitung	0.106	0.486	0.389	0.124	0.	0.770	0.38	9.1
21	papierverarbeitung	0.123	0.536	0.332	0.132	0.	0.060	0.69	32.8
22	druckerei	0.134	0.205	0.420	0.374	0.	0.600	0.30	16.5
23	lederzeugung	0.128	0.146	0.532	0.323	0.	0.750	0.34	17.2
24	textilgewerbe	0.112	0.318	0.346	0.246	0.089	0.700	0.61	11.0
25	bekleidungs-gewerbe	0.074	0.412	0.585	0.001	0.	0.230	0.82	24.0
26	ernaehrungs-gewerbe	0.113	0.341	0.	0.660	0.	-0.080	0.45	13.0
27	tabakverarbeitung	0.027	0.	0.305	0.488	0.203	0.290	0.49	30.6
28	baugerbe	0.071	0.034	0.623	0.342	0.	0.720	0.33	9.5
29	handel	0.278	0.385	0.203	0.192	0.220	-0.570	0.40	9.4
30	verkehr,nachrichtenu	0.795	0.407	0.015	0.354	0.224	-0.240	0.59	32.0
31	kredit und versicher	0.484	0.346	0.	0.654	0.	0.080	0.59	9.8
32	sonstige dienstleist	0.516	0.023	0.362	0.423	0.193	0.650	0.29	13.0
33	staat	1.780	0.605	0.036	0.180	0.179	-0.460	0.79	16.0
34	priv. organisation	0.911	0.520	0.480	0.	0.	-1.920	0.83	16.3

TABLE 3. Results for Plant (Construction) Investment.

number	title	capital/output ratio	w0	w1	w2	w3	r barsq	rho	alpha
1	land-, forstwirtschaft	0.691	0.127	0.251	0.355	0.267	-2.000	0.54	13.1
2	elektrizitaet-gas-	1.203	0.112	0.186	0.703	0.	0.920	0.29	6.2
3	bergbau	0.430	0.	0.417	0.376	0.208	0.520	0.39	11.5
4	chemie	0.434	0.344	0.368	0.283	0.	0.190	0.20	12.2
5	mineraloelverarbeitung	0.339	0.	0.412	0.213	0.375	0.290	0.16	26.0
6	kunststoff und gummi	0.329	0.435	0.246	0.319	0.	0.630	0.22	0.
7	steinen und erden	0.631	0.417	0.367	0.216	0.	0.750	0.09	12.1
8	feinkeramik, glas	0.294	0.271	0.363	0.366	0.	0.710	0.70	13.3
9	eisenschaffende indu	0.199	0.283	0.101	0.616	0.	0.130	0.61	20.2
10	na-metallerzeugung	0.369	0.	0.034	0.966	0.	0.790	-0.33	13.0
11	giesserei	0.936	0.275	0.271	0.198	0.236	0.940	-0.14	4.9
12	stahl	0.160	0.502	0.104	0.265	0.130	0.750	-0.26	11.1
13	maschinenbau	0.266	0.502	0.059	0.439	0.	0.910	0.21	5.7
14	buermaschinen	1.085	0.317	0.317	0.236	0.130	0.340	0.55	15.6
15	strassenfahrzeuge	0.377	0.226	0.356	0.309	0.110	0.740	0.76	9.3
16	n.-str. fahrzeug	0.159	0.190	0.403	0.407	0.	0.260	0.77	25.4
17	elektrotechnik	0.312	0.443	0.275	0.111	0.170	0.840	0.72	26.3
18	feinmechanik/optik/r	0.223	0.297	0.369	0.016	0.318	0.720	0.73	10.6
19	ebm waren	0.237	0.455	0.077	0.463	0.	0.740	0.20	7.6
20	holzbearbeitung	0.196	0.621	0.379	0.	0.	0.810	0.09	9.4
21	papierherzeugung	0.380	0.602	0.366	0.031	0.	0.190	0.46	17.4
22	druckerei	0.333	0.406	0.334	0.128	0.072	0.740	0.05	8.7
23	lederzeugung	0.162	0.339	0.409	0.163	0.089	0.870	0.02	8.2
24	textilgewerbe	0.318	0.408	0.347	0.185	0.060	0.890	-0.23	4.3
25	bekleidungs-gewerbe	0.089	0.445	0.438	0.	0.117	0.840	0.56	7.4
26	ernaehrungs-gewerbe	0.264	0.400	0.134	0.396	0.070	0.360	0.45	8.2
27	tabakverarbeitung	0.087	0.150	0.356	0.494	0.	-0.420	0.69	12.9
28	baugerbe	0.207	0.351	0.590	0.	0.050	0.090	-0.13	25.2
29	handel	0.298	0.333	0.221	0.167	0.279	0.740	0.24	6.6
30	verkehr/nachrichtenu	1.018	0.219	0.214	0.033	0.535	0.630	0.66	12.0
31	kredit und versicher	0.155	0.	0.212	0.182	0.606	0.920	0.18	9.4
32	sonstige dienstleist	0.293	0.	0.285	0.318	0.397	0.600	0.65	28.1
33	staat	0.132	0.453	0.241	0.306	0.	0.950	0.20	4.7
34	priv. organisation	0.181	0.373	0.465	0.161	0.	0.300	0.86	7.3

C. Foreign Trade Equations

Merchandise Imports

The equation given below is similar to that used for the U.S.A., Canada, France and Belgium. Only a brief explanation and the empirical results are given here.

The equation form for each commodity (dropping commodity and time subscripts) is:

$$M = (a + bU)P^n \quad (6)$$

where

M is the volume of imports of the commodity

U is the domestic demand - output + imports - exports

P is the price term

$$P_t = \sum_{i=0}^5 w_i (P_f/P_d)_{t-i} \quad (7)$$

where

$$P_f = \sum_{m=1}^9 s_m P_{dm} E_m = \text{foreign price} \quad (8)$$

where

P_{dm} is the domestic price index in country m.

s_m is the share of imports from country m of total imports of the commodity

E_m is an index of the price of m's currency in DM

P_d is the domestic price index of the commodity in the FRG

m = Canada, U.S.A., Japan, Belgium, France, Italy, Netherlands, U.K.,
and the Rest of the World

w's are weights for lagged prices. The weights are derived from Nyhus (1975).

Where estimates of the coefficient b were negative, a time trend equation was estimated. Its form is

$$\ln M = a + b \text{ time} + cP \quad (9)$$

In estimating the price parameter n, we started with an a priori value and then maximized the following utility function.

$$U = \bar{R}^2 - .05 \frac{||n - \text{apri}||}{||\text{apri}||} \quad (10)$$

Table 4 shows the results of the estimation. One can see that our a priori estimates were sometimes accepted and sometimes rejected. The demand elasticity is for the year 1975 only, and is not an average for the whole period. Assuming that domestic demand grows, the form of the equation has the property that the point elasticities of demand tend toward unity with the import fraction of domestic demand being the coefficient b. Using 1975 weights, the aggregate price elasticity was -.94 and the aggregate demand elasticity was 1.30.

Merchandise Exports

The form of the equation is identical but the meaning of the variables is different.

$$X = (a + bD)P^n \quad , \quad (11)$$

TABLE 4. Summary Import Regression Results

sector	price elasticities estimate	a priori	constant(a)	demand(b)	demand elasticity	rbarsq	75 imports
1landwirtschaft	-0.15	-0.50	13194.5 (2.27)	(0.118 1.86)	0.45	0.273	22377.
3gas	-1.00	-1.00	-511.7 (-4.11)	(0.158 11.97)	1.21	0.914	3061.
5kohlenbergbau	0.00	-0.50	-1931.9 (-4.11)	(0.127 7.72)	2.77	0.818	1273.
8chemie	-1.60	-2.00	-6012.2 (-4.90)	(0.288 16.20)	1.31	0.964	17595.
9mineraleol	-0.80	-1.80	-3709.3 (-2.82)	(0.433 13.00)	1.18	0.935	22097.
10kunststoffe	0.00	-2.00	-2573.0 (-3.88)	(0.255 9.03)	1.57	0.861	4664.
11steine und erden	-0.70	-1.00	-805.0 (-2.49)	(0.129 10.21)	1.29	0.921	3075.
12glas	-1.00	-1.00	-1616.6 (-16.29)	(0.327 31.02)	1.79	0.987	2107.
13stahl und eisen	0.00	-1.80	-5853.4 (-3.07)	(0.146 7.46)	1.60	0.808	10159.
14nicht-eisen metall	-0.80	-2.00	-161.8 (-0.16)	(0.362 6.57)	1.02	0.800	7762.
15gessereien	-2.00	-2.00	-304.8 (-4.58)	(0.057 9.30)	1.82	0.926	432.
16stahlbau	-2.00	-2.00	-963.0 (-5.97)	(0.093 9.55)	2.35	0.908	900.
17nicht-str. fahrz9.	-0.20	-2.50	-442.6 (-1.82)	(0.386 12.05)	1.12	0.916	3795.
18maschinenbau	-0.80	-2.00	-7272.3 (-8.27)	(0.284 17.77)	1.73	0.972	10482.
19strassenfahrzeuge	-2.50	-2.50	-4144.9 (-5.72)	(0.243 13.37)	1.49	0.925	10189.
20reparaturen	-1.00	-2.00	-60.7 (-1.32)	(0.005 2.57)	1.76	0.519	61.
21datenverarbeitung	0.00	-2.00	-91.2 (-0.84)	(0.506 24.97)	1.03	0.980	3329.
22elektrotechnik	-1.60	-2.00	-4488.5 (-7.15)	(0.257 19.91)	1.39	0.970	12765.
23feinmechanik	-1.20	-2.00	-915.5 (-5.23)	(0.346 17.46)	1.27	0.970	3050.
24ebm-waren	-2.00	-2.00	-1243.9 (-2.93)	(0.193 12.77)	1.25	0.940	6047.
25holz	-0.90	-1.00	164.0	(0.033)	0.96	0.914	3975.

20papier und pappe	-1.50	-1.50	(0.37)	(7.78)	1.42	0.932	6283.-
			-2364.7	0.305			
			(-3.38)	(11.41)			
27druckereien	-1.50	-1.50	15.7	0.049	0.98	0.894	988.
			(0.12)	(5.99)			
29textilien	-1.70	-1.00	-8387.7	0.511	1.72	0.960	12534.
			(-5.43)	(13.34)			
			-9150.9	0.463	2.20	0.961	7785.
30bekleidung	-1.00	-1.00	(-10.25)	(14.71)	1.44	0.934	9600.
			-4115.5	0.168			
31nahrungsmittel	-0.50	-0.50	(-4.72)	(12.77)	1.08	0.594	1684.
			-133.6	0.099			
32milch	0.00	-0.50	(-0.39)	(4.48)	1.54	0.800	4958.
			-2631.1	0.183			
33fleisch	0.00	-0.50					

34getraenke	-0.50	-0.50	(-3.02)	(7.27)	1.44	0.814	1203.
			-518.6	0.062			
			(-2.84)	(7.17)			
35tabak	-0.95	-0.50	-341.3	0.037	3.50	0.538	303.
			(-2.80)	(3.80)			

summary of time equations ln(exports) = a + b*time + c*relative price

sector	price elasticities	constant(a)	time(b)	imports
23leder	0.00	0.3	0.105	3498.
		(0.89)	(20.92)	
			rbarsq	
			0.971	

where

X is the volume of exports of a commodity

D is an index of foreign demands defined by:

$$D = \sum_{m=1}^9 v_m I_m \quad , \quad (12)$$

where

I_m is the industrial production index of country m and

v_m is the share of the total exports going to country m .

m is Canada, U.S.A., Japan, Belgium, France, Italy, Netherlands, U.K.,
and Rest of the World.

$$P = \sum_{i=0}^5 \omega_i \left(\frac{P_d}{P_f} \right)_{t-i} \quad (13)$$

where

P_d is the domestic price index in the FRG

P_f is an index of competitors prices defined by:

$$P_f = \sum_{m=0}^{10} u_m P_{dm} E_m \quad , \quad (14)$$

where

P_{dm} is the domestic price index of the commodity in country m E_m is the price of m 's currency

TABLE 5. Summary Export Regression Results.

sector	price elasticities estimate	a priori	constant(a)	demand(b)	demand elasticity	rbarsq	1975 exports
11landwirtschaft	-0.50	-0.50	-4254.6 (-8.50)	64.256 (11.37)	2.960	0.910	2079.
2elektrizitaet	-0.75	-0.75	-37.7 (-1.78)	2.736 (9.10)	1.160	0.980	241.
7erdoel	0.00	-0.50	-117.0 (-1.44)	5.801 (4.87)	1.253	0.636	292.
8chemie	-2.00	-2.00	-3937.3 (-3.79)	367.180 (23.73)	1.120	0.981	20243.
9mineraloel	-1.80	-1.80	2204.1 (12.28)	3.362 (1.39)	0.132	0.806	2100.
10kunststoffe	-0.20	-2.00	-2901.0 (-6.90)	97.066 (16.69)	1.426	0.956	6228.
11steine und erden	-1.00	-1.00	-357.7 (-3.04)	17.691 (11.78)	1.253	0.926	1671.
12glas	-1.00	-1.00	-229.8 (-1.27)	23.185 (11.31)	1.110	0.912	2382.
13stahl und eisen	0.00	-1.80	-14509.4 (-3.91)	317.661 (7.50)	1.841	0.810	21677.
14nicht-eisen metall	0.00	-2.00	-3070.6 (-4.36)	70.321 (8.56)	1.775	0.847	4531.
15gessereien	-2.00	-2.00	-348.2 (-3.78)	11.404 (9.47)	1.440	0.874	920.
16stahlbau	0.00	-2.00	-1657.7 (-2.18)	36.618 (4.13)	1.827	0.552	3714.
17nicht-str. fahrz.	-2.50	-2.50	-2454.9 (-1.99)	70.051 (4.69)	1.540	0.585	5317.
18maschinenbau	0.00	-2.00	-2805.4 (-0.96)	434.153 (11.93)	1.069	0.916	45468.
19strassenfahrzeuge	-1.00	-2.50	-4840.1 (-4.12)	332.116 (20.82)	1.771	0.967	30391.
20reparaturen	-0.80	-2.00	156.6 (2.90)	6.176 (8.42)	0.798	0.857	891.
21datenverarbeitung	-2.00	-2.00	-831.1 (-4.09)	43.065 (16.29)	1.239	0.967	3566.
22elektrotechnik	-2.00	-2.00	-6302.4 (-5.98)	274.849 (17.64)	1.329	0.962	22556.
23feinmechanik	0.00	-2.00	731.0 (2.92)	32.749 (9.77)	0.818	0.877	4816.
24edm-waren	-2.00	-2.00	-795.3 (-0.93)	111.404 (9.70)	1.077	0.868	9320.
25holz	-1.00	-1.00	-1419.0 (-8.65)	42.658 (19.29)	1.478	0.767	2765.
26papier und pappe	-1.50	-1.50	-2019.0	51.640	1.642	0.986	2571.

sector	price elasticities estimate	a priori	constant(a)	demand(b)	demand elasticity	rbarsq	1975 exports
27druckereien	-0.30	-1.50	(-4.79) (-727.9 (-10.06)	(9.34) (21.591 (24.21)	1.509	0.973	1422.
28leder	-0.60	-1.00	(-1241.2 (-6.41)	(10.36) (22.439)	2.238	0.845	929.
29textilien	-1.00	-1.00	(-13692.8 (-10.72)	(14.30) (203.631)	3.053	0.944	7169.
30bekleidung	-1.00	-1.00	(-2447.5 (-7.86)	(12.06) (44.503)	2.222	0.919	2332.
31nahrungsmittel	-0.50	-0.50	(-7326.2 (-3.20)	(10.85) (127.952)	2.575	0.892	4537.
32milch	-0.50	-0.50	(-3090.7 (-5.26)	(6.87) (49.904)	2.627	0.762	2354.
33fleisch	-0.50	-0.50	(-3668.7 (-6.91)	(8.24) (50.229)	3.709	0.871	1391.
34getraenke	-0.50	-0.50	(-295.7 (-3.05)	(10.21) (7.603)	1.636	0.913	537.

summary of time equations ln(exports) = a + b*time + c*relative price

sector	price elasticities	constant(a)	time(b)	rbarsq	exports
3gas	0.00	4.5	-0.018	0.017	23.
4wasser	-0.28	(4.18)	(-1.11)	(14.
5kohlenbergbau	0.00	(5.04)	(-0.001)	(-0.138)	3840.
		(9.5)	(-0.11)	(
		(14.07)	(-0.002)	(-0.078)	
			(-0.23)	(

u_m is the share of world exports of the commodity by country m .

As with merchandise imports, here we used an a priori estimate of the price elasticity n . The estimation results appear in Table 5. The aggregate export price elasticity, using 1975 exports as weights, is estimated to be $-.92$ and the average demand elasticity to be 1.38 .

Nonmerchandise Trade Equations

Transportation and service exports and imports were related very simply as follows:

$$V_{ik} = a + bS_k \quad (15)$$

where

V_{ik} is the flow of exports ($k=1$) or import ($k=2$) for a given year

S_k is the merchandise total for exports ($k=1$) or imports ($k=2$).

Table 6 gives a summary of the results.

D. Productivity Equations

The equation for labor productivity for each of 38 industries is formulated to show the effects of technological change and growth in the economy. The form is

$$\log (E/Q) = b_0 + b_1 t + b_2 Q \quad (16)$$

where

E = level of employment in an industry in man years

Q = output of that same industry.

The coefficient b_1 represents technological change and b_2 the size of the economy. Because of high collinearity between time and output, the validity

of the distinction is sometimes in doubt. An alternative interpretation is that Q is really a proxy for capital accumulation. Hence, b_2 may be interpreted with this assumption as the effect of capital accumulation on productivity.

Table 7 shows the results of the estimation. The negative of the column "time" shows the percent per year of exogenous labor productivity growth. The column "output level" shows the coefficient b_2 , the negative of which shows the percentage change in productivity associated with a one percent change in output. Thus, for Agriculture (sector 1) we show an exogenous growth of 4.6 percent per year and a 1.05 percent growth for each one percent growth in the level of output. The last column, employment level, shows the relative importance of employment of each industry in the German economy.

E. Coefficient Change

Changes in input-output coefficients are crucial to any meaningful study of structural change in an economy. The method chosen here is designed to account for wide-spread, pervasive coefficient change in a rather simple manner.

A logistic curve defined by the differential equation

$$\frac{1}{c} \frac{dc}{dt} = b(a - c) \quad (17)$$

is used. "c" denotes the coefficient, "a" its asymptote and "b" a constant. Thus the rate of change of the coefficient slows as the coefficient approaches its "saturation" or as it nears its minimum use point.

The solution of this differential equation is

TABLE 7. Employment Equation Estimation Results

Sector	Constant	Time Output Level	Rbarsq	Rho	75 Employ
1 landwirtschaft	11.586	-0.046	0.999	0.668	1823.
2 elekt-gas-/wasserv	5.522	0.019	0.998	0.607	232.
3 kohlenbergbau	5.139	-0.042	0.871	0.553	236.
4 uebriger bergbau	6.346	-0.064	0.955	0.505	22.
5 chemie	3.762	-0.015	0.994	0.027	642.
6 mineraloelverarbeitung	1.370	-0.027	0.894	0.599	42.
7 kunststoffwaren	1.730	-0.013	0.980	0.015	307.
8 steinen und erden	3.625	-0.036	0.994	0.631	248.
9 glas	2.007	-0.039	0.995	0.271	146.
10 eisenschaffende ind	7.197	-0.034	0.986	0.638	345.
11 ne-metallerzeuging	5.018	0.007	0.937	0.772	87.
12 giesserei	2.765	-0.040	0.979	0.019	131.
13 stahlbau	4.982	-0.027	0.991	0.172	471.
14 maschinenbau	0.694	-0.021	0.984	0.580	1142.
15 datenverarbeitung	3.365	-0.052	0.984	0.017	89.
16 strassenfahrzeuge	2.826	-0.011	0.978	0.387	832.
17 nicht-str. fahrzq.	4.421	-0.011	0.998	0.259	112.
18 elektrotechnik	2.481	-0.040	0.996	0.111	1150.
19 feinmechanik	3.138	-0.003	0.992	0.221	211.
20 ebm-waren	3.745	-0.034	0.996	0.345	435.
21 holz	5.749	-0.038	0.998	0.436	422.
22 papier und pappe	2.097	-0.029	0.977	0.155	198.
23 druckereien	1.359	-0.025	0.982	0.237	252.
24 leden	2.596	-0.037	0.986	0.045	136.
25 textilien	3.443	-0.051	0.996	0.220	401.
26 bekleidung	2.913	-0.057	0.981	0.593	364.
27 nahrungsmittel	1.805	-0.032	0.995	0.266	871.
28 tabak	8.539	-0.058	0.992	0.552	29.
29 bauten	1.519	-0.028	0.987	0.190	1976.
30 handel	5.921	-0.014	0.997	0.388	3179.
31 eisenbahn	8.270	-0.012	0.860	0.802	430.
32 sonstiger verkehr	5.708	0.002	0.996	0.694	575.
33 bundespost	4.775	0.004	0.988	0.635	480.
34 kreditinstitute	1.183	0.015	0.978	0.547	490.
35 versicherungen	1.835	0.009	0.936	0.854	199.
36 sonstige dienstleis	9.435	0.021	0.983	0.796	2370.
37 staat	4.006	0.021	0.970	0.550	3512.
38 private haushalte	5.738	-0.003	0.983	0.756	679.

$$c_t = a / (1 + Ae^{-bat}) \quad (18)$$

where A is a constant of integration.

To apply ordinary least squares the equation is rearranged as follows:

$$\ln \left(\frac{a}{c_t} - 1 \right) = \ln A - bat \text{ if } \frac{a}{c_t} \geq 1 \quad (19)$$

or

$$\ln \left(1 - \frac{a}{c_t} \right) = \ln (-A) - bat \text{ if } \frac{a}{c_t} \leq 1. \quad (20)$$

The first is used for rising coefficients; the second for declining ones.

The application of the above equations to the data presents some problems. Time series on individual coefficients do exist, but because they were not derived from basic data but rather from a form of the RAS method, we feel that the estimates based on the movements of individual cells of the matrix are probably not meaningful. Therefore, we introduce a new C_{it} referring to the entire row i as follows:

$$U_{it} = X_{it} - F_{it} - a_{ij} X_{it} \quad (21)$$

$$V_{it} = \sum_{j=1}^{49} a_{ij} X_{jt} \quad (22)$$

$$C_{it} = U_{it} / V_{it} \quad , \quad i=1, \dots, 50. \quad (23)$$

where

U_{it} = actual intermediate use of commodity i

X_{it} = domestic output of commodity i

V_{it} = indicated use if coefficients have remained constant over the entire period

a_{ij} = the matrix of direct coefficients for 1975

C_{it} = index for the movement of all the coefficients in the i^{th} row.

Table 8 shows a summary of the results. For each industry we see the predicted coefficient change for the first two years of the forecast, then the change for the last two years. The equation ensures that all absolute rates of change are reduced and that the direction of change is held constant. The third column of numbers shows the fit of the equation as it predicts the movements in C_{it} -- or in the last column -- the fit in predicting U_{it} .

As we look at the first two columns we see that several rapid changes in the first period slow dramatically at the end. Gas (3) shows an initial nine percent increase, but that rate falls to less than one percent by 1990. Plastic (10) has an initial growth of 1.5 percent per year which falls to less than .2 percent by 1990.

For several equations, the fit of C_{it} was very good; for others, very poor. However, it should be pointed out that a poor fit of C_{it} does not necessarily imply a poor predictive power. In instances of small coefficient changes the equation fit is poor while the use level is very good. See, for example, Sectors 2, 4, 18, 26, 47, and 48.

IV. A FORECAST

Any forecast of an economy using an econometric model is the result of joining the equations used to certain assumptions. Assumptions may interact, with each other, as they do here, but the outline of the result is still determined by the interaction of assumptions and equations. Since the

TABLE 8. Coefficient Change Results.

Sector	%change 75-76	%change 89-90	rsq coef.	rsq flows
1 landwirtschaft	-1.28	-1.08	0.8090	0.9380
2 elektrizitaet	0.84	0.75	0.4970	0.9700
3 gas	9.06	0.96	0.9550	0.9670
4 wasser	0.25	0.24	0.0370	0.9310
5 kohlenbergbau	-4.28	-2.66	0.9800	0.7870
6 uebriger bergbau	-0.59	-0.54	0.1680	0.9220
7 erdoel	1.65	0.51	0.4210	0.8180
8 chemie	2.57	0.75	0.9940	0.9980
9 mineraloel	1.97	1.29	0.8860	0.9910
10 kunststoffe	1.54	0.18	0.9110	0.9710
11 steine und erden	1.65	1.28	0.8110	0.9720
12 glas	2.70	1.15	0.9510	0.9880
13 stahl und eisen	-0.63	-0.58	0.3590	0.9660
14 nicht-eisen metall	0.64	0.59	0.1790	0.9460
15 giessereien	-0.75	-0.24	0.7820	0.9530
16 stahlbau	2.22	1.55	0.7210	0.9360
17 nicht-str. fahrzg.	2.63	0.30	0.7920	0.8910
18 maschinenbau	0.75	0.68	0.0940	0.8490
19 strassenfahrzeuge	2.30	0.06	0.8900	0.9220
20 reparaturen	-2.12	-1.53	0.8000	0.6640
21 datenverarbeitung	6.53	1.64	0.9470	0.9770
22 elektrotechnik	4.63	2.04	0.8770	0.9560
23 feinmechanik	6.15	2.01	0.8950	0.9600
24 ebm-waren	1.16	0.12	0.8860	0.9750
25 holz	1.13	0.97	0.4790	0.9330
26 papier und pappe	-0.10	-0.10	0.0010	0.9450
27 druckereien	0.73	0.30	0.6900	0.9810
28 leder	2.30	1.67	0.4550	0.8620
29 textilien	0.33	0.32	0.0890	0.9500
31 naehrungsmittel	4.08	1.59	0.9560	0.9720
32 milch	2.76	0.07	0.9500	0.9610
33 fleisch	1.80	0.07	0.9110	0.9210
34 getraenke	1.80	0.09	0.8870	0.8820
35 tabak	3.11	0.58	0.3380	0.3240
36 bauten	1.61	0.28	0.6390	0.8960
37 grosshandel	-0.82	-0.73	0.1870	0.8580
38 einzelhandel	1.12	0.63	0.8160	0.9840
39 eisenbahn	-2.41	-1.40	0.7930	0.5500
40 schiffahrt	-1.92	-1.51	0.3560	0.3090
41 uebriger verkehr	3.15	0.44	0.8110	0.9260
42 bundespost	1.02	0.88	0.6680	0.9830
43 banken und b.-geb.	0.55	0.31	0.3540	0.9570
44 versicherungen	3.03	2.06	0.5290	0.8290
45 gaststaetten	-4.85	-2.87	0.9620	0.8110
46 verlage	0.92	0.28	0.6950	0.9620
47 sonstige dienstl.	-0.11	-0.10	0.0090	0.9530
48 private haushalte	0.02	0.02	0.0010	0.9310

equations have clearly been described in Section 3, we will now amplify on the assumptions and then describe the main features of the forecast.

Assumptions

There are three important assumptions concerning personal consumption expenditures for the years 1975-1990. They are the population (known to 1979), disposable income per capita (known to 1978), and the spending rate (also known to 1978). The total population is projected to decline slightly from the current figure of about 61.5 million to 60.0 million in 1990. Disposable per capita income is projected to increase by only 0.4 percent in 1980-81. The period 1981-85 foresees a slightly faster path of 3.1 percent per year; a slowing to 2.5 percent per year is forecast for the 1985-90 period. The West Germans spent an average of 84.5 percent of their incomes in 1975. We project an 84 percent constant rate for the whole 1980-90 period. We must state at this time that the assumptions regarding income are under constant revision and are heavily influenced by the models projection of unemployment. The assumptions regarding labor are discussed later.

The projections of foreign demands, while exogenous to the FRG model, are partially the results of other models in the system. Specifically, the results of the French, Belgian, U.S.A. and Canadian models are used. To these are added assumptions concerning the U.K., Italy, Dutch, Japanese, and the Rest of the World economies. The linked economies (France, etc.) were forecast interactively and with the same non-varying assumptions about the others (U.K, etc.) until insignificant changes appeared in the projected outputs. So, the "assumed" foreign demand projections show a drop of 0.4 percent in 1980-81, a rise of 3.5 percent in 1981-85, and 4.3 percent in 1985-90. The projection of the exchange rate is based upon two factors. The

first is that we try to maintain some sense of the balance of trade. The second is that we project the foreign/domestic price ratios from trends estimated historically. Built into these trends is the past revaluation of the DM. We have estimated the effects of the past DM revaluations sector by sector and subtracted them from the trends. Thus, the assumption about the price of foreign currency which we make here must, in some sense, incorporate the past trends in the foreign currency price. The result is an assumed revaluation of the DM of 2.8 percent per year in 1981-85 and 3.3 percent per year in 1985-90. One must keep in mind that these are revaluations against a weighted average of the FRG's trading partners and not just against the dollar.

The final major group of assumptions involves employment. The size of the labor force is projected to remain unchanged during the 1979-90 period following a small drop in 1975-79. Unemployment appears as an assumption. Technically it is an outcome of the subtraction of the total employment from the labor force and, therefore, endogenous to the model. In fact, however, an "unreasonable" unemployment figure leads to revised estimates of disposable income and government expenditure and so here unemployment is called, as in fact, it is, an exogenous assumption. The forecast has unemployment rising until 1983, peaking at 1.13 million and then falling to .9 million in 1985, and falling further to .8 million in 1990.

The last group of assumptions involves coefficient changes in the energy sectors. The across-the-row change equation forecasts were overridden for Electricity (Sector 2), Gas (3), Coal mining (5), and Petroleum refining (9). The assumed pattern (indexes) is as follows:

<u>Seller</u>	<u>Buyer</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
(2) electricity	all intermediate	1.0	1.04	1.0	.95
(3) gas	all intermediate	1.0	1.25	1.4	1.4
(7) crude oil	all intermediate	1.0	1.0	1.0	1.0
(9) refining	all intermediate	1.0	.9	.8	.7
(9) refining	(2) electricity	1.0	.9	.6	.3
(5) coal	(2) electricity	1.0	.84	1.2	1.2
(3) gas	(2) electricity	1.0	.8	.7	.4
(3) gas	(10) plastics	1.0	1.0	1.0	1.0

Note: patterns referring to specific buyers have priority over those referring to all buyers.

As one can see, we have imposed a scenario of electricity generation which assumes more emphasis upon coal and nuclear power and less upon oil and gas than would have been the case using the estimated across-the-row function. In addition, natural gas feed stocks sold to make plastics are held fixed since, in this case, gas is not a fuel but a feedstock.

The Forecast Results

Table 9 shows the main macroeconomic results. It should be emphasized that the numbers shown are merely sums of the detailed sector by sector flows and hence are not imposed from above. (The only exception is the item for government spending.) As can be seen, we expect exports to be growing significantly faster than total production, and private consumer expenditures somewhat slower in the coming decade. The table below shows the very marginal shifts in the main GNP:

TABLE 9. The Main Macroeconomic Results.

prognose:	brd 29 may 1981		wachstumsraten:					summary table		
	75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90
gross nat product	4.33	1.50	-1.00	2.04	2.60	2.32	2.84	3.19	2.99	2.85
output	4.63	1.56	-1.08	2.26	2.77	2.52	3.09	3.49	3.13	2.85
staatsverbrauch	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
ausfuhr	5.60	2.67	-0.82	3.33	5.50	4.42	4.80	4.94	5.22	5.45
einfuhr	6.00	0.63	-1.08	2.93	3.53	3.23	4.17	4.92	4.31	3.83
privat verbrauch	3.85	1.63	0.08	2.97	2.87	2.92	2.87	2.82	2.50	2.23
ausruestungen	4.91	2.17	-5.78	-2.75	-3.75	-3.25	0.41	4.00	2.48	1.27
bauten	3.72	-3.82	-0.56	-1.85	-1.99	-1.92	1.01	2.75	2.19	1.75
vorratsveraenderung	0.00	-50.38	-192.55	126.65	47.05	86.85	75.10	63.54	24.08	-7.49
erwerbstaetige	0.14	-0.65	-1.28	-0.45	-0.28	-0.36	-0.08	0.11	0.10	0.08

	prognose:			brd 29 may 1981		ab. werte: summary table				
	1975	1979	1980	1981	1982	1983	1984	1985	1988	1990
gross nat product	1136080.	1350893.	1371267.	1357581.	1385595.	1422039.	1478159.	1542416.	1689504.	1776796.
output	2180708.	2623933.	2665240.	2636699.	2696888.	2772730.	2893106.	3031910.	3328645.	3495789.
staatsverbrauch	331412.	373807.	404989.	405395.	413584.	426179.	439158.	453892.	501127.	535316.
ausfuhr	259275.	324358.	333139.	330432.	341632.	360946.	381568.	402579.	476474.	529573.
einfuhr	249733.	317410.	319416.	315996.	325401.	337077.	358155.	384737.	435282.	465869.
privat verbrauch	572751.	663180.	679145.	679712.	700187.	720551.	740806.	760950.	815222.	850900.
ausruestungen	100640.	122456.	125141.	118112.	114912.	110681.	119589.	138597.	152378.	147700.
bauten	124806.	144846.	139413.	138635.	136099.	133424.	142907.	154741.	167666.	168903.
vorratsveraenderung	-3071.	14656.	8856.	1291.	4582.	7335.	12286.	16395.	11920.	11272.
erwerbstaetige	25479.	25620.	25454.	25129.	25016.	24947.	25067.	25245.	25351.	25346.

	Percent of GNP		
	<u>1975</u>	<u>1980</u>	<u>1990</u>
PCE	50.4	49.5	47.9
GOV	29.2	29.5	30.1
EXP	22.8	24.4	26.2
INVESTMENT	19.8	19.3	17.8
(plant & Equipment)			

Components predicted by the model.

The sectoral details are shown in Appendix 2. Please take the time to look them over. Some highlights are shown below:

	Sum of Percent of Gross Outputs		
	<u>1975</u>	<u>1980</u>	<u>1990</u>
(1) Agriculture	3.29	2.92	2.57
(9) Oil refining	1.61	1.54	1.20
(18) Machinery	4.38	4.33	4.34
(29) Textiles	1.55	1.38	1.22
(36) Construction	7.06	6.60	4.20
(38) Retail trade	3.83	3.80	3.79
(43) Banking	1.92	2.05	2.26

	Percent of Total Employment		
	<u>1975</u>	<u>1980</u>	<u>1990</u>
(1) Agriculture	7.15	5.62	3.53
(14) Machinery	4.48	4.57	4.46
(25) Textiles	1.57	1.29	0.85
(30) Trade	12.48	12.22	11.39
(34) Banking	1.92	2.26	3.03
(37) Government	13.78	15.91	20.86

As one can see from these tables, employment is moving strongly toward the service side of the economy, while the output measures show no such pronounced trend. To be sure, for output, we see relative declines in Agriculture and Textiles and an increase in Banking services; on the other hand, both Machinery's and Trade's proportion of the total remain remarkably constant. For employment, Agriculture's and Textile's proportion is halved, while Government's share is predicted to rise by nearly 50 percent.

For those desiring greater detail, a matrix listing showing the sales of each of the industries to each of the other and to final demand is available for any of the years between 1975 and 1990.

APPENDIX 1

APPENDIX 1

SECTOR	GERMAN NAME	ENGLISH NAME
1	Landwirtschaft	Agriculture
2	Elektrizitaet	Electric Utilities
3	Gas	Gas Utilities
4	Wasser	Water Utilities
5	Kohlenbergbau	Coal Mining
6	Uebriger Bergbau	Other Mining
7	Erdoel	Crude Oil
8	Chemie	Chemicals
9	Mineraloel	Petroleum Refining
10	Kunststoffe	Plastic Products
11	Steine und Erden	Stone and Clay
12	Glas	Glass
13	Stahl und Eisen	Crude Iron and Steel
14	Nicht-Eisen Metall	Nonferrous Metals
15	Giessereien	Steel Castings
16	Stahlbau	Other Steel Products
17	Nicht-str. Fahrzg.	Nonroad Vehichles
18	Maschinenbau	Machinery
19	Strassenfahrzeuge	Motor Vehicles
20	Reparaturen	Repair
21	Datenverarbeitung	Computing Machinery
22	Elektrotechnik	Electrical Machinery
23	Feinmechanik	Precision Machinery
24	Ebm-Waren	Musical Inst., Toys, Cameras, etc.
25	Holz	Wood Products
26	Papier und Pappe	Paper and Paper Products
27	Druckereien	Printing
28	Leder	Leather Products
29	Textilien	Textiles
30	Bekleidung	Clothing
31	Nahrungsmittel	Other Food
32	Milch	Dairy Products
33	Fleisch	Meat Products
34	Getraenke	Beverages
35	Takab	Tobacco
36	Bauten	Construction
37	Grosshandel	Wholesale Trade
38	Einzelhandel	Retail Trade
39	Eisenbahn	Railroads
40	Schiffahrt	Shipping
41	Uebriger Verkehr	Other Transportation
42	Bundespost	Communication
43	Banken und B.-Geb.	Banking and Credit
44	Versicherungen	Insurance
45	Gaststaetten	Hotels
46	Verlage	Publishing, Advertising
47	Sonstige Dienstl.	Other Services
48	Private Haushalte	Private Households
49	Staat	Government
50	Gasproduktion	Gas By-product Production
51	Cf+tind-s	Subsidies

APPENDIX 2

bereiche	prognose: brd 29 may 1981			wachstumsraten:				output		
	75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90
1 landwirtschaft	2.48	-2.27	-3.82	2.47	2.87	2.67	2.63	2.56	2.06	1.66
2 elektrizitaet	5.33	3.92	-0.86	1.87	2.96	2.41	2.91	3.22	2.78	2.43
3 gas	7.86	5.07	0.51	3.95	4.86	4.41	4.93	5.27	3.60	2.27
4 wasser	4.61	1.66	-0.47	2.85	2.95	2.90	3.14	3.31	2.89	2.57
5 kohlenbergbau	0.02	-0.33	-1.64	2.96	2.88	2.92	3.36	3.71	2.13	0.86
6 uebriger bergbau	13.85	-3.02	-13.90	5.15	7.70	6.43	8.04	8.75	6.46	4.63
7 erdoel	1.08	0.74	-1.45	1.63	4.20	2.91	3.09	3.14	2.77	2.48
8 chemie	8.26	4.96	-0.92	3.58	3.20	3.39	3.46	3.50	2.87	2.36
9 mineraloel	3.59	0.73	-3.34	0.98	0.84	0.91	1.12	1.23	0.61	0.12
10 kunststoffe	6.64	0.47	-0.86	3.36	4.41	3.89	4.36	4.66	4.17	3.77
11 steine und erden	5.70	-1.39	0.19	1.33	1.79	1.56	3.58	4.65	3.86	3.22
12 glas	5.63	1.96	-0.08	3.39	4.26	3.82	4.66	5.14	4.52	4.02
13 stahl und eisen	4.54	-1.41	-2.60	2.00	3.71	2.85	3.68	4.18	3.93	3.73
14 nicht-eisen metall	6.45	3.53	-0.61	4.66	6.63	5.65	6.61	7.21	6.49	5.92
15 giessereien	5.09	-0.37	-2.89	1.24	2.27	1.76	3.25	4.28	3.49	2.85
16 stahlbau	4.36	-1.14	-0.49	0.67	1.53	1.10	3.49	4.92	3.93	3.14
17 nicht-str. fahrzg.	2.47	6.01	-3.48	3.88	3.94	3.91	4.05	4.69	4.79	4.88
18 maschinenbau	4.82	-0.39	-2.53	-0.04	1.84	0.90	2.56	3.75	3.31	2.97
19 strassenfahrzeuge	7.08	1.56	-3.95	4.97	4.07	4.52	4.57	4.97	4.28	3.73
20 reparaturen	4.31	-0.81	-0.64	3.94	3.53	3.73	3.49	3.19	2.87	2.61
21 datenverarbeitung	10.31	10.27	-7.64	2.18	6.61	4.39	6.84	8.56	7.80	7.18
22 elektrotechnik	6.81	4.43	-1.58	2.59	3.53	3.06	4.75	6.00	4.96	4.12
23 feinmechanik	4.62	1.66	-0.50	2.56	3.58	3.07	3.75	4.12	3.77	3.50
24 ebm-waren	6.39	2.92	-1.32	2.80	3.82	3.31	3.96	4.35	3.75	3.27
25 holz	4.39	2.38	-0.75	1.89	2.95	2.42	3.40	4.06	3.40	2.89
26 papier und pappe	4.44	2.90	-1.12	2.91	3.83	3.37	3.60	3.73	3.27	2.91
27 druckereien	3.98	1.50	-1.25	2.19	2.61	2.40	2.69	2.89	2.52	2.22
28 leder	2.28	-1.12	-7.16	4.37	-0.00	2.18	1.49	1.11	-0.84	-2.40
29 textilien	1.30	3.38	-2.11	1.68	2.53	2.10	2.22	2.26	1.92	1.64
30 bekleidung	2.30	2.79	0.11	2.47	2.86	2.66	2.72	2.75	2.63	2.53
31 naehrungsmittel	3.63	1.43	0.20	2.77	2.85	2.91	2.86	2.88	2.67	2.50
32 milch	2.23	-0.99	-1.37	1.48	1.54	1.51	1.59	1.62	1.52	1.45
33 fleisch	3.38	1.13	-0.68	1.87	2.83	2.35	2.46	2.50	2.39	2.31
34 getraenke	3.94	3.99	0.56	2.20	3.34	2.77	2.98	3.07	2.93	2.81
35 tabak	2.16	0.59	1.08	2.36	1.66	2.01	1.92	1.87	1.69	1.54
36 bauten	3.97	-2.01	-0.42	-0.95	-0.93	-0.94	1.44	2.85	2.36	1.96
37 grosshandel	3.30	2.43	-2.11	1.86	1.30	1.58	2.29	2.90	2.78	2.69
38 einzelhandel	4.32	1.79	-0.09	3.20	3.17	3.19	3.25	3.31	3.00	2.75
39 eisenbahn	2.20	-1.36	-2.74	1.16	0.37	0.77	1.10	1.41	1.24	1.11
40 schifffahrt	4.14	1.71	-0.88	1.60	2.10	1.85	2.13	2.32	2.72	3.04
41 uebriger verkehr	5.43	1.49	-0.42	3.41	3.03	3.22	3.55	3.77	3.33	2.98
42 bundespost	5.97	3.74	0.34	2.92	3.63	3.28	3.72	4.02	3.71	3.46
43 banken und b.-geb.	5.76	3.44	0.93	3.90	4.23	4.07	4.27	4.40	4.01	3.70
44 versicherungen	6.58	3.27	0.96	4.07	4.20	4.13	4.41	4.60	4.17	3.83
45 gaststaetten	1.27	0.35	-2.38	0.16	0.67	0.41	0.68	0.86	0.74	0.64
46 verlage	4.59	2.11	-0.62	2.44	2.76	2.60	2.96	3.21	2.90	2.65
47 sonstige dienstl.	4.45	1.80	-0.46	2.44	2.74	2.59	2.80	2.93	2.65	2.42
48 private haushalte	3.24	1.75	-1.13	1.37	2.24	1.80	1.93	2.02	2.07	2.11
49 staat	4.29	2.77	0.06	1.99	2.99	2.49	2.65	2.81	3.06	3.27
50 gasproduktion	0.00	27.00	10.48	11.22	11.03	11.12	11.65	11.89	6.88	2.87
51 cfttind-s	4.59	1.08	-4.79	-2.57	-3.47	-3.02	0.50	3.72	2.42	1.37
insgesamt	4.63	1.56	-1.08	2.26	2.77	2.52	3.09	3.49	3.13	2.85

bereiche	prognose:			brd 29 may					ab. werte:				
	1975	1979	1981	1980	1981	1982	1983	1984	1985	1988	1990		
1 landwirtschaft	71815.	79304.	77527.	74619.	76482.	78708.	80754.	82660.	87151.	89814.			
2 elektrizitaet	38938.	43194.	50119.	49691.	50630.	52150.	54229.	56515.	61236.	63803.			
3 gas	15384.	21069.	22166.	22279.	23177.	24332.	25832.	27502.	29663.	30811.			
4 wasser	4406.	5371.	5461.	5435.	5593.	5760.	5972.	6204.	6737.	7053.			
5 kohlenbergbau	26391.	26407.	26320.	25893.	26672.	27451.	28637.	30038.	30818.	31356.			
6 uebriger bergbau	1965.	3420.	3318.	2688.	3040.	3284.	3676.	4098.	4782.	5166.			
7 erdoel	1191.	1243.	1252.	1234.	1254.	1308.	1354.	1399.	1514.	1584.			
8 chemie	100408.	139694.	148053.	145460.	150769.	155663.	161393.	167329.	181419.	188293.			
9 mineraloel	35215.	40648.	40946.	39602.	39993.	40329.	40955.	41594.	42088.	41837.			
10 kunststoffe	29325.	38240.	38420.	38092.	39395.	41171.	43417.	45900.	51837.	55419.			
11 steine und erden	27484.	34526.	34043.	34115.	34570.	35196.	37984.	41082.	45937.	48268.			
12 glas	11519.	14431.	14717.	14705.	15213.	15874.	16910.	18064.	20406.	22090.			
13 stahl und eisen	119054.	142763.	140761.	137154.	139919.	145206.	153162.	162101.	182697.	195287.			
14 nicht-eisen metall	12442.	23867.	24725.	24575.	25747.	27512.	29960.	32795.	39655.	44083.			
15 glessereien	12266.	15037.	14981.	14555.	14737.	15076.	16045.	17275.	19100.	19922.			
16 stahlbau	21275.	25331.	25044.	24922.	25088.	25475.	27676.	30343.	34066.	35505.			
17 nicht-str. fahrz.	12821.	14152.	15028.	14513.	15097.	15694.	16391.	17509.	20638.	22344.			
18 maschinenbau	95574.	115912.	115463.	112583.	112542.	114636.	121573.	130783.	145017.	151703.			
19 strassenfahrzeuge	71927.	95334.	96833.	93082.	97924.	101891.	106749.	113563.	128845.	136823.			
20 reparaturen	28589.	33971.	33697.	33483.	34824.	36078.	37173.	38032.	41042.	43334.			
21 datunvarbeitung	6140.	9273.	10277.	9520.	9730.	10395.	11689.	13410.	16887.	19803.			
22 elektrotechnik	71791.	94258.	98532.	96984.	99529.	103102.	111839.	123292.	142094.	151493.			
23 fehmehchanik	12994.	15628.	15889.	15810.	16219.	16811.	17691.	18641.	20878.	22204.			
24 ebm-waren	35986.	46463.	47839.	47213.	48555.	50445.	53163.	56188.	62678.	66168.			
25 holz	49745.	53306.	60732.	60279.	61430.	63270.	66756.	70897.	78296.	81865.			
26 papier und pappe	22748.	27168.	27967.	27656.	28474.	29587.	30807.	32109.	35307.	37129.			
27 druckereien	19576.	22059.	23307.	23016.	23525.	24148.	24949.	25837.	27734.	28866.			
28 leder	8467.	9277.	9174.	8540.	8921.	8921.	8931.	8929.	8409.	7920.			
29 textilien	33737.	35534.	36756.	35990.	36598.	37535.	38472.	39396.	41862.	42760.			
30 bekleidung	30762.	33733.	34687.	34724.	35592.	36624.	37680.	38755.	41939.	43981.			
31 naehrungsmittel	66648.	77051.	78160.	78316.	80517.	82848.	85343.	87862.	95003.	99560.			
32 milch	19942.	21804.	21588.	21295.	21612.	21946.	22333.	22717.	23785.	24422.			
33 fleisch	37654.	43102.	43592.	43295.	44112.	45377.	46603.	47842.	51432.	53699.			
34 getraenke	26916.	31509.	32783.	32972.	33706.	34650.	36051.	37278.	40669.	42912.			
35 tabak	12841.	14001.	14084.	14236.	14577.	14820.	15078.	15342.	16031.	16570.			
36 bauten	154034.	180624.	175966.	175226.	173567.	171962.	182948.	196423.	213199.	216696.			
37 grosshandel	93346.	106731.	109359.	107091.	109096.	110526.	114691.	120232.	131609.	137529.			
38 einzelhandel	83630.	99413.	101209.	101113.	104405.	107766.	111478.	115422.	125739.	132436.			
39 eisenbahn	11552.	12616.	12446.	12110.	12251.	12297.	12517.	12811.	13322.	13543.			
40 schiffahrt	10278.	12131.	12340.	12232.	12429.	12694.	13040.	13421.	14750.	15624.			
41 uebriger verkehr	39811.	49465.	50206.	49998.	51734.	53327.	55608.	58145.	64115.	67484.			
42 bundespost	25404.	32254.	33484.	33599.	34594.	35873.	37562.	39457.	44082.	46906.			
43 banken und b.-geb.	41867.	52721.	54569.	55080.	57271.	59746.	62616.	65683.	73837.	79024.			
44 versicherungen	19622.	25535.	26383.	26639.	27745.	28935.	30407.	32020.	36167.	38782.			
45 gaststaetten	39780.	41853.	42000.	41014.	41091.	41355.	41860.	42447.	43405.	43828.			
46 verlage	13992.	16813.	17171.	17066.	17488.	17978.	18648.	19404.	21139.	22149.			
47 sonstige dienstl.	190636.	227818.	231901.	230888.	236595.	243147.	251134.	259640.	280476.	293092.			
48 private haushalte	27104.	30852.	31396.	31044.	31478.	32185.	32895.	33661.	35804.	37396.			
49 staat	240884.	285966.	294009.	294191.	300108.	309204.	318568.	329175.	363064.	387559.			
50 gasproduktion	-449.	2301.	3014.	3347.	3745.	4191.	4747.	5386.	5933.	6217.			
51 cfttind-s	-10929.	-13129.	-13272.	-12651.	-12331.	-11910.	-12841.	-14683.	-16102.	-15725.			
insgesamt	2180708.	2623933.	2665240.	2636699.	2696888.	2772730.	2893106.	3031910.	3328645.	3495789.			

bereiche	brd 29 may 1981					ab. werte:					staatsverbrauch				
	1975	1979	1980	1981	1982	1983	1984	1985	1988	1990	1983	1984	1985	1988	1990
1 landwirtschaft	424.	504.	518.	519.	529.	545.	562.	581.	641.	685.			581.	641.	685.
2 elektrizitaet	1998.	2374.	2442.	2444.	2493.	2569.	2648.	2736.	3021.	3227.			2736.	3021.	3227.
3 gas	566.	673.	692.	692.	706.	728.	750.	775.	856.	914.			775.	856.	914.
4 wasser	183.	217.	224.	224.	228.	235.	242.	251.	296.	296.			251.	296.	296.
5 kohlenbergbau	675.	802.	825.	826.	842.	868.	894.	924.	1021.	1090.			924.	1021.	1090.
6 uebriger bergbau	6.	7.	7.	7.	7.	8.	8.	8.	9.	10.			8.	9.	10.
8 chemie	6094.	7241.	7447.	7454.	7605.	7837.	8075.	8346.	9215.	9843.			8346.	9215.	9843.
9 mineraloel	3293.	3913.	4024.	4028.	4109.	4235.	4364.	4510.	4979.	5319.			4510.	4979.	5319.
10 kunststoffe	1170.	1390.	1430.	1431.	1460.	1505.	1550.	1602.	1769.	1890.			1602.	1769.	1890.
11 steine und erden	439.	522.	536.	537.	548.	565.	582.	601.	664.	709.			601.	664.	709.
12 glas	331.	393.	404.	405.	413.	426.	439.	453.	501.	535.			453.	501.	535.
13 stahl und eisen	550.	654.	672.	673.	686.	707.	729.	753.	832.	888.			753.	832.	888.
14 nicht-eisen metall	159.	189.	194.	194.	198.	204.	211.	218.	240.	257.			218.	240.	257.
15 glessereien	1.	1.	1.	1.	1.	1.	1.	1.	2.	2.			1.	2.	2.
16 stahlbau	389.	462.	475.	476.	485.	500.	515.	533.	588.	628.			533.	588.	628.
17 nicht-str. fahrzq.	2476.	2942.	3026.	3029.	3090.	3184.	3281.	3391.	3744.	3999.			3391.	3744.	3999.
18 maschinenbau	4711.	5598.	5757.	5763.	5879.	6058.	6243.	6452.	7123.	7609.			6452.	7123.	7609.
19 strassenfahrzeuge	1619.	1924.	1978.	1930.	2020.	2082.	2145.	2217.	2448.	2615.			2217.	2448.	2615.
20 reparaturen	577.	686.	705.	706.	720.	742.	765.	790.	872.	932.			790.	872.	932.
21 datenverarbeitung	136.	162.	166.	166.	170.	175.	180.	186.	206.	220.			186.	206.	220.
22 elektrotechnik	489.	581.	593.	598.	610.	629.	648.	670.	739.	790.			670.	739.	790.
23 feinmechanik	1663.	1976.	2032.	2034.	2075.	2139.	2204.	2278.	2515.	2686.			2278.	2515.	2686.
24 ebm-waren	1390.	1640.	1686.	1688.	1722.	1775.	1829.	1890.	2087.	2229.			1890.	2087.	2229.
25 holz	134.	219.	225.	225.	230.	237.	244.	252.	278.	297.			252.	278.	297.
26 papier und pappe	513.	510.	627.	628.	640.	660.	680.	703.	776.	829.			703.	776.	829.
27 druckereien	1239.	1472.	1514.	1516.	1546.	1593.	1642.	1697.	1873.	2001.			1697.	1873.	2001.
28 leder	419.	498.	512.	513.	523.	539.	555.	574.	634.	677.			574.	634.	677.
29 textilien	929.	1104.	1135.	1136.	1159.	1195.	1231.	1272.	1405.	1501.			1272.	1405.	1501.
30 bekleidung	848.	1008.	1036.	1037.	1058.	1090.	1124.	1161.	1282.	1370.			1161.	1282.	1370.
31 naehrungsmittel	798.	948.	975.	976.	996.	1026.	1057.	1093.	1207.	1289.			1093.	1207.	1289.
32 milch	341.	405.	417.	417.	426.	439.	452.	467.	516.	551.			467.	516.	551.
33 fleisch	447.	531.	546.	547.	558.	575.	592.	612.	676.	722.			612.	676.	722.
34 getraenke	35.	42.	43.	43.	44.	45.	46.	48.	53.	57.			48.	53.	57.
35 tabak	3.	4.	4.	4.	4.	4.	4.	4.	5.	5.			4.	5.	5.
36 bauten	5370.	6381.	6562.	6569.	6701.	6906.	7116.	7355.	8120.	8674.			7355.	8120.	8674.
37 grosshandel	1796.	2134.	2195.	2197.	2241.	2310.	2380.	2460.	2716.	2901.			2460.	2716.	2901.
38 einzelhandel	7906.	9394.	9661.	9671.	9866.	10167.	10476.	10828.	11955.	12770.			10828.	11955.	12770.
39 eisenbahn	359.	427.	439.	439.	448.	462.	476.	492.	543.	580.			492.	543.	580.
40 schiffahrt	-29.	-34.	-35.	-35.	-36.	-37.	-38.	-40.	-44.	-47.			-40.	-44.	-47.
41 uebriger verkehr	1364.	1621.	1667.	1668.	1702.	1754.	1807.	1868.	2062.	2203.			1868.	2062.	2203.
42 bundespost	1906.	2265.	2329.	2331.	2379.	2451.	2526.	2610.	2882.	3079.			2610.	2882.	3079.
43 banken und b.-geb.	4753.	5648.	5808.	5814.	5931.	6112.	6298.	6510.	7197.	7677.			6510.	7197.	7677.
44 versicherungen	589.	700.	720.	720.	735.	757.	780.	807.	891.	951.			807.	891.	951.
45 gaststaetten	332.	454.	467.	467.	477.	491.	506.	523.	578.	617.			523.	578.	617.
46 verlage	1250.	1485.	1528.	1529.	1560.	1607.	1656.	1712.	1890.	2019.			1712.	1890.	2019.
47 sonstige dienstl.	21884.	26004.	26743.	26769.	27310.	28142.	28999.	29972.	33091.	35348.			29972.	33091.	35348.
48 private haushalte	12857.	15278.	15711.	15727.	16045.	16533.	17037.	17609.	19441.	20767.			17609.	19441.	20767.
49 staat	235940.	280361.	288322.	288610.	294440.	303407.	312647.	323137.	356764.	381105.			323137.	356764.	381105.
insgesamt	331412.	393807.	404989.	405395.	413584.	426179.	439158.	453892.	501127.	535316.			453892.	501127.	535316.

bereiche	prognose:					wachstumsraten:		staatsverbrauch		
	75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90
1 landwirtschaft	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
2 elektrizitaet	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
3 gas	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
4 wasser	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
5 kohlenbergbau	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
6 uebriger bergbau	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
8 chemie	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
9 mineraloel	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
10 kunststoffe	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
11 steine und erden	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
12 glas	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
13 stahl und eisen	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
14 nicht-eisen metall	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
15 giessereien	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
16 stahlbau	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
17 nicht-str. fahrzg.	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
18 maschinenbau	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
19 strassenfahrzeuge	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
20 reparaturen	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
21 datenverarbeitung	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
22 elektrotechnik	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
23 feinmechanik	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
24 ebm-waren	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
25 holz	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
26 papier und pappe	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
27 druckereien	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
28 leder	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
29 textilien	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
30 bekleidung	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
31 naehrungsmittel	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
32 milch	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
33 fleisch	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
34 getraenke	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
35 tabak	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
36 bauten	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
37 grosshandel	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
38 einzelhandel	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
39 eisenbahn	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
40 schiffahrt	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
41 uebriger verkehr	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
42 bundespost	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
43 banken und b.-geb.	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
44 versicherungen	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
45 gaststaetten	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
46 verlage	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
47 sonstige dienstl.	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
48 private haushalte	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
49 staat	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30
insgesamt	4.31	2.80	0.10	2.00	3.00	2.50	2.67	2.82	3.09	3.30

bereiche	prognose:				ab. werte:				ausfuhr			
	1975	brd 29 may	1981	1981	1982	1983	1984	1985	1988	1990		
1 landwirtschaft	2079.	3315.	3312.	3330.	3482.	3821.	4142.	4479.	5721.	6614.		
2 elektrizitaet	241.	375.	393.	398.	410.	420.	433.	447.	495.	530.		
3 gas	23.	23.	23.	23.	22.	22.	21.	21.	20.	19.		
4 wasser	14.	15.	15.	15.	15.	15.	15.	15.	15.	15.		
5 kohlenbergbau	3840.	3976.	3968.	3960.	3952.	3944.	3936.	3927.	3903.	3887.		
6 uebriger bergbau	620.	620.	620.	620.	620.	620.	620.	620.	620.	620.		
7 erdoel	292.	433.	437.	450.	459.	504.	535.	566.	672.	745.		
8 chemie	29243.	50954.	55015.	55812.	58598.	61235.	64197.	67339.	77453.	84374.		
9 mineraloel	2100.	2965.	3219.	3342.	3550.	3754.	3966.	4183.	4894.	5369.		
10 kunststoffe	6228.	8059.	7961.	7980.	8189.	8832.	9436.	10025.	12267.	13814.		
11 steine und erden	1071.	1818.	1835.	1845.	1919.	2070.	2219.	2368.	2894.	3251.		
12 glas	2392.	2668.	2677.	2681.	2781.	3004.	3203.	3405.	4125.	4636.		
13 stahl und eisen	21677.	23910.	23024.	22553.	23201.	24817.	26362.	27835.	33728.	38042.		
14 nicht-eisen metall	4531.	5379.	5277.	5182.	5296.	5694.	6090.	6509.	8016.	9130.		
15 glassereien	920.	1065.	1108.	1103.	1144.	1219.	1298.	1379.	1673.	1878.		
16 stahlbau	3714.	2640.	2602.	2537.	2595.	2776.	2984.	3201.	3937.	4488.		
17 nicht-str. fahrzg.	5817.	6142.	6396.	6379.	6638.	7094.	7597.	8094.	9958.	11219.		
18 maschinenbau	45468.	52014.	52117.	51391.	51846.	53538.	55894.	58216.	66629.	72823.		
19 strassenfahrzeuge	30391.	37839.	38348.	36680.	38515.	40643.	42363.	44005.	50854.	55555.		
20 reparaturen	891.	679.	685.	692.	702.	713.	723.	733.	764.	783.		
21 datenverarbeitung	3566.	5200.	5960.	5604.	5819.	6413.	7310.	8328.	11126.	13288.		
22 elektrotechnik	22556.	27026.	28594.	28516.	29753.	32030.	34621.	37274.	46156.	52346.		
23 feinmechanik	4316.	5077.	5018.	4972.	4981.	5118.	5287.	5457.	6110.	6602.		
24 ebm-waren	9320.	12305.	12921.	12925.	13455.	14321.	15164.	16000.	18785.	20591.		
25 holz	2765.	3154.	3212.	3213.	3342.	3647.	3903.	4153.	4940.	5485.		
26 papier und pappe	2371.	3844.	4014.	4096.	4366.	4853.	5264.	5693.	7170.	8231.		
27 druckereien	1422.	1539.	1526.	1514.	1548.	1639.	1704.	1770.	2005.	2165.		
28 leder	929.	1220.	1244.	1239.	1265.	1324.	1396.	1474.	1757.	1955.		
29 textilien	7169.	9038.	9496.	9482.	9932.	10744.	11618.	12565.	15909.	18273.		
30 bekleidung	2332.	2732.	2867.	2875.	3044.	3265.	3510.	3777.	4711.	5398.		
31 naehrungsmittel	4537.	5983.	6075.	5983.	6050.	6334.	6707.	7074.	8435.	9346.		
32 milch	2354.	2356.	2369.	2305.	2253.	2370.	2533.	2701.	3310.	3702.		
33 fleisch	1391.	2273.	2300.	2300.	2286.	2591.	2868.	3157.	4271.	5002.		
34 getraenke	537.	691.	715.	719.	749.	812.	872.	935.	1170.	1346.		
35 tabak	326.	326.	326.	326.	326.	326.	326.	326.	326.	326.		
36 bauten	1130.	1386.	1409.	1405.	1436.	1489.	1546.	1603.	1803.	1944.		
37 grosshandel	8559.	10823.	11156.	11088.	11528.	12264.	13048.	13846.	16625.	18581.		
39 eisenbahn	1573.	1749.	1764.	1761.	1781.	1814.	1850.	1896.	2012.	2101.		
40 schiffahrt	9668.	10900.	11026.	11001.	11166.	11444.	11740.	12041.	13089.	13827.		
41 uebriger verkehr	3671.	4795.	4944.	4914.	5111.	5440.	5792.	6149.	7394.	8271.		
42 bundespost	140.	179.	184.	183.	191.	203.	216.	230.	277.	310.		
43 banken und b.-geb.	1974.	2384.	2463.	2447.	2552.	2727.	2913.	3103.	3765.	4231.		
44 versicherungen	108.	123.	126.	125.	130.	138.	146.	154.	183.	203.		
46 verlage	179.	252.	259.	258.	266.	281.	296.	312.	367.	406.		
47 sonstige dienstl.	3540.	4119.	4236.	4212.	4367.	4627.	4903.	5184.	6162.	6851.		
insgesamt	259275.	324358.	333139.	330432.	341632.	360946.	381568.	402579.	476474.	528573.		

bereiche	prognose:		brd 29 may 1981				wachstumsraten:		ausfuhr		
	75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90	
1 landwirtschaft	11.66	-0.08	0.54	4.47	9.30	6.88	7.27	7.41	7.63	7.80	
2 elektrizitaet	11.04	4.70	1.36	2.89	2.37	2.63	2.78	2.89	3.17	3.39	
3 gas	0.39	-1.66	-1.72	-1.76	-1.76	-1.76	-1.76	-1.76	-1.76	-1.76	
4 wasser	1.17	0.48	-0.20	0.11	0.00	0.06	0.03	0.01	-0.07	-0.13	
5 kohlenbergbau	0.87	-0.21	-0.20	-0.20	-0.21	-0.20	-0.21	-0.21	-0.21	-0.21	
6 uebriger bergbau	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7 erdoel	9.86	0.84	2.96	1.98	9.34	5.66	5.78	5.75	5.60	5.48	
8 chemie	13.88	7.67	1.44	4.87	4.40	4.64	4.67	4.69	4.59	4.51	
9 mineraloel	8.63	8.21	3.73	6.04	5.61	5.82	5.71	5.62	5.27	4.99	
10 kunststoffe	6.44	-2.48	1.50	2.59	7.56	5.07	5.59	5.70	6.10	6.41	
11 steine und erden	2.11	0.93	0.55	3.94	7.58	5.76	6.16	6.24	6.29	6.34	
12 glas	2.83	0.36	0.13	3.68	7.72	5.70	5.94	5.98	6.09	6.17	
13 stahl und eisen	2.45	-3.78	-2.07	2.84	6.73	4.78	5.20	5.26	5.81	6.25	
14 nicht-eisen metall	4.29	-1.91	-1.82	2.17	7.24	4.71	5.38	5.70	6.29	6.77	
15 glassereien	3.65	3.97	-0.47	3.70	6.30	5.00	5.44	5.59	5.92	6.18	
16 stahlbau	-8.54	-1.43	-2.53	2.26	6.73	4.49	5.41	5.81	6.34	6.76	
17 nicht-str. fahrzg.	1.36	4.05	-0.27	3.98	6.65	5.31	5.82	5.95	6.27	6.53	
18 maschinenbau	3.36	0.20	-1.40	0.88	3.21	2.05	2.80	3.12	3.87	4.48	
19 strassenfahrzeuge	5.48	1.34	-4.45	4.88	5.38	5.13	4.80	4.55	4.61	4.66	
20 reparaturen	-6.78	0.84	1.04	1.47	1.45	1.46	1.46	1.45	1.38	1.32	
21 datenverarbeitung	9.43	13.64	-6.15	3.75	9.73	6.74	8.86	9.90	9.59	9.35	
22 elektrotechnik	4.52	5.64	-0.27	4.25	7.37	5.81	6.47	6.70	6.75	6.79	
23 feinmechanik	1.32	-1.15	-0.94	0.19	2.71	1.45	2.05	2.33	3.15	3.81	
24 abn-waren	6.95	4.89	0.03	4.02	6.24	5.13	5.33	5.34	5.17	5.05	
25 holz	3.29	1.84	0.03	3.94	8.72	6.33	6.48	6.41	5.94	5.56	
26 papier und pappe	10.05	4.34	2.01	6.39	10.58	8.48	8.37	8.23	7.75	7.37	
27 druckereien	1.97	-0.80	-0.82	2.26	5.69	3.97	3.94	3.90	3.98	4.03	
28 leder	6.82	1.90	-0.40	2.09	4.54	3.32	3.99	4.35	5.07	5.65	
29 textilien	5.79	4.95	-0.16	4.64	7.86	6.25	6.77	7.04	7.29	7.49	
30 bekleidung	-3.96	4.84	0.27	5.71	7.00	6.35	6.65	6.82	7.00	7.14	
31 nahrungsmittel	6.91	1.53	-1.51	1.11	4.58	2.85	3.80	4.25	4.95	5.51	
32 milch	0.02	0.57	-2.76	-2.27	5.08	1.40	3.15	3.97	5.27	6.30	
33 fleisch	12.27	1.19	0.01	-0.60	12.50	5.95	7.36	7.91	8.63	9.21	
34 getraenke	6.29	3.54	0.45	4.11	8.07	6.09	6.45	6.59	6.97	7.27	
35 tabak	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
36 bauten	5.10	1.71	-0.35	2.23	3.62	2.93	3.19	3.30	3.61	3.86	
37 grosshandel	5.87	3.03	-0.61	3.89	6.19	5.04	5.42	5.55	5.74	5.88	
39 eisenbahn	2.65	0.86	-0.17	1.13	1.86	1.49	1.64	1.72	1.96	2.16	
40 schiffahrt	3.00	1.15	-0.23	1.50	2.46	1.98	2.17	2.26	2.54	2.77	
41 uebriger verkehr	6.68	3.06	-0.62	3.93	6.25	5.09	5.48	5.61	5.79	5.93	
42 bundespost	6.12	3.09	-0.62	3.97	6.31	5.14	5.53	5.66	5.83	5.97	
43 banken und b.-geb.	4.72	3.27	-0.66	4.19	6.64	5.41	5.82	5.94	6.08	6.20	
44 versicherungen	3.17	2.79	-0.56	3.59	5.74	4.66	5.03	5.16	5.38	5.56	
46 verlage	8.58	2.59	-0.52	3.33	5.34	4.34	4.69	4.82	5.07	5.26	
47 sonstige dienstl.	3.79	2.81	-0.56	3.61	5.77	4.69	5.06	5.19	5.40	5.58	
insgesamt	5.60	2.67	-0.82	3.33	5.50	4.42	4.80	4.94	5.22	5.45	

bereiche	prognose:				ab. werte:				einfuhr			
	1975	1979	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
1 landwirtschaft	22377.	26608.	26116.	26419.	26758.	27080.	27385.	28116.	28577.	28116.	28577.	28577.
2 elektrizitaet	806.	961.	1020.	1040.	1060.	1090.	1100.	1160.	1200.	1160.	1200.	1200.
3 gas	3061.	3322.	3421.	3521.	3678.	3895.	4139.	4399.	4544.	4399.	4544.	4544.
5 kohlenbergbau	1273.	907.	831.	953.	1074.	1258.	1474.	1599.	1685.	1599.	1685.	1685.
6 uebriger bergbau	4726.	4945.	5100.	5200.	5300.	5400.	5500.	5800.	6000.	5800.	6000.	6000.
7 erdoel	23843.	27405.	27024.	27412.	27717.	28214.	28695.	29032.	28913.	29032.	28913.	28913.
8 chemie	17595.	30324.	32486.	34367.	37742.	41319.	45379.	57070.	65886.	57070.	65886.	65886.
9 mineraloel	22097.	25225.	24562.	25051.	25654.	26576.	27574.	29566.	30699.	29566.	30699.	30699.
10 kunststoffe	4654.	6839.	6817.	7198.	7577.	8138.	8793.	10019.	10686.	10019.	10686.	10686.
11. steine und erden	3075.	4306.	4303.	4404.	4533.	5046.	5631.	6639.	7286.	6639.	7286.	7286.
12 glas	2107.	3311.	3270.	3378.	3508.	3820.	4180.	4779.	5090.	4779.	5090.	5090.
13 stahl und eisen	10159.	11413.	10810.	11115.	11549.	12557.	13795.	15645.	16491.	15645.	16491.	16491.
14 nicht-eisen metall	7762.	10247.	9660.	9682.	9828.	10304.	10908.	11592.	11874.	11592.	11874.	11874.
15 giesereien	432.	636.	619.	641.	680.	733.	894.	1138.	1300.	1138.	1300.	1300.
16 stahlbau	900.	1480.	1477.	1510.	1569.	1868.	2248.	2904.	3269.	2904.	3269.	3269.
17 nicht-str. fahrzg.	3795.	4105.	4100.	4253.	4288.	4348.	4681.	5278.	5405.	5278.	5405.	5405.
18 maschinenbau	10482.	14056.	12873.	12634.	12782.	14796.	17909.	20662.	21068.	20662.	21068.	21068.
19 strassenfahrzeuge	10189.	11157.	9735.	9981.	10037.	10441.	11361.	12259.	12450.	12259.	12450.	12450.
20 reparaturen	ol.	133.	140.	155.	170.	185.	200.	256.	304.	256.	304.	304.
21 datenverarbeitung	3329.	3960.	3775.	3761.	3811.	4197.	4905.	5512.	5588.	5512.	5588.	5588.
22 elektrotechnik	12765.	13366.	18490.	18829.	19261.	21666.	25220.	29639.	31845.	29639.	31845.	31845.
23 feinsmechanik	3050.	4712.	4892.	5152.	5474.	5981.	6555.	7904.	8811.	7904.	8811.	8811.
24 ebm-waren	6047.	7227.	7097.	7240.	7503.	8004.	8611.	9853.	10660.	9853.	10660.	10660.
25 holz	3975.	6258.	6707.	7013.	7416.	8064.	8845.	10805.	12163.	10805.	12163.	12163.
26 papier und pappe	6218.	8522.	8588.	8868.	9245.	9782.	10396.	11915.	12956.	11915.	12956.	12956.
27 druckereien	938.	1325.	1391.	1456.	1536.	1636.	1750.	2089.	2349.	2089.	2349.	2349.
28 leder	3498.	4443.	5009.	5319.	5648.	5997.	6368.	7624.	8596.	7624.	8596.	8596.
29 textilien	12534.	18294.	19540.	20613.	22055.	23646.	25376.	30794.	35022.	30794.	35022.	35022.
30 bekleidung	7780.	10047.	10077.	10318.	10702.	11078.	11451.	12420.	13026.	12420.	13026.	13026.
31 naehrungsmittel	9600.	12254.	12542.	13075.	13600.	14146.	14705.	16291.	17376.	16291.	17376.	17376.
32 milch	1634.	1979.	1929.	1971.	1993.	2016.	2038.	2082.	2104.	2082.	2104.	2104.
33 fleisch	4958.	6054.	6092.	6284.	6497.	6708.	6918.	7447.	7785.	7447.	7785.	7785.
34 getraenke	1203.	1445.	1500.	1525.	1576.	1631.	1686.	1831.	1927.	1831.	1927.	1927.
35 tabak	308.	174.	172.	188.	195.	202.	210.	232.	247.	232.	247.	247.
36 bauten	549.	691.	689.	702.	719.	749.	787.	860.	903.	860.	903.	903.
37 grosshandel	1863.	2217.	2208.	2274.	2356.	2504.	2690.	3045.	3260.	3045.	3260.	3260.
39 eisenbahn	544.	617.	614.	634.	659.	704.	761.	869.	934.	869.	934.	934.
40 schiffahrt	3881.	3859.	3853.	3892.	3942.	4030.	4143.	4356.	4485.	4356.	4485.	4485.
41 uebriger verkehr	2752.	3460.	3445.	3545.	3669.	3893.	4176.	4713.	5038.	4713.	5038.	5038.
42 bundespost	162.	175.	175.	177.	179.	184.	190.	201.	207.	201.	207.	207.
43 banken und b.-gab.	38.	39.	39.	39.	40.	42.	44.	48.	50.	48.	50.	50.
44 versicherungen	774.	192.	191.	195.	200.	209.	220.	241.	253.	241.	253.	253.
45 saatstaetten	1563.	1718.	1711.	1758.	1817.	1922.	2055.	2309.	2462.	2309.	2462.	2462.
46 verlage	3.	11.	11.	11.	12.	13.	14.	16.	17.	16.	17.	17.
47 sonstige dienstl.	10183.	10930.	10891.	11150.	11472.	12052.	12784.	14176.	15019.	14176.	15019.	15019.
insgesamt	249733.	317410.	315996.	325401.	337077.	358155.	384737.	435282.	465869.	435282.	465869.	465869.

bereiche	prognose:			brd 29 may 1981		wachstumsraten:		einfuhr		
	75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90
1 landwirtschaft	4.39	-0.94	-1.15	1.15	1.27	1.21	1.21	1.19	1.00	0.85
2 elektrizitaet	4.40	3.96	1.98	1.94	1.90	1.92	1.91	1.89	1.81	1.74
3 gas	2.05	2.71	0.20	2.89	4.37	3.63	4.33	4.76	3.15	1.87
5 kohlenbergbau	-9.47	-1.30	-7.40	13.61	11.99	12.80	13.80	14.32	7.85	2.67
6 uebriger bergbau	1.13	1.10	1.98	1.94	1.90	1.92	1.91	1.89	1.81	1.74
7 erdoel	3.93	0.69	-3.90	1.43	1.11	1.27	1.44	1.50	0.75	0.15
8 chemie	14.02	2.93	2.32	7.07	7.92	7.50	8.02	8.36	7.86	7.46
9 mineraloel	3.31	-0.49	-2.17	1.97	2.38	2.17	2.63	2.89	2.48	2.15
10 kunststoffe	9.57	2.04	-2.36	5.43	5.14	5.28	5.90	6.35	4.99	3.91
11 steine und erden	8.42	-2.13	2.06	2.31	2.90	2.61	5.31	6.72	5.85	5.16
12 glas	11.30	-0.34	-0.92	3.26	3.76	3.51	5.18	6.14	4.92	3.94
13 stahl und eisen	2.91	-0.48	-4.95	2.78	3.83	3.31	4.99	6.10	4.69	3.57
14 nicht-eisen metall	6.94	-1.70	-4.19	0.22	1.50	0.86	2.15	3.04	2.29	1.70
15 giessereien	9.68	-2.07	-0.75	3.58	5.65	4.71	7.41	9.21	8.26	7.49
16 stahlbau	12.44	-3.66	3.40	2.21	3.83	3.02	7.84	10.51	8.83	7.49
17 nicht-str. fahrzg.	1.96	7.94	-8.05	3.66	0.81	2.23	1.95	3.31	3.07	2.88
18 maschinenbau	7.33	-3.31	-5.48	-1.88	1.16	-0.36	4.64	8.25	5.47	3.25
19 strassenfahrzeuge	2.27	-7.02	-6.61	2.49	0.56	1.53	2.33	3.86	2.73	1.83
20 reparaturen	19.56	1.06	3.76	9.90	9.52	9.71	9.37	8.94	8.61	8.34
21 datenverarbeitung	4.34	5.59	-10.38	-0.39	1.33	0.48	3.53	6.55	4.36	2.61
22 elektrotechnik	9.10	1.67	-1.00	1.82	2.27	2.04	5.28	7.76	6.04	4.67
23 feinmechanik	10.93	1.70	2.04	5.18	6.07	5.62	6.70	7.32	6.54	5.92
24 ebm-waren	4.46	-1.52	-0.29	1.99	3.56	2.78	4.01	4.83	4.52	4.27
25 holz	11.34	3.76	3.17	4.46	5.59	5.03	6.15	6.92	6.61	6.37
26 papier und pappe	7.60	0.52	0.25	3.21	4.16	3.68	4.34	4.78	4.57	4.40
27 druckereien	7.33	1.96	2.92	4.54	5.37	4.96	5.41	5.74	5.82	5.88
28 leder	5.98	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
29 textilien	9.45	3.38	3.21	5.35	6.76	6.06	6.36	6.53	6.48	6.44
30 bekleidung	6.39	1.16	-0.86	2.36	3.65	3.00	3.16	3.19	2.90	2.67
31 nahrungsmittel	6.10	1.09	1.23	4.16	3.94	4.05	4.01	3.98	3.62	3.34
32 milch	4.04	-1.30	-1.27	2.13	1.15	1.64	1.47	1.38	0.97	0.64
33 fleisch	4.99	1.74	-1.12	3.12	3.32	3.22	3.22	3.18	2.73	2.36
34 getraenke	4.58	3.56	0.15	1.70	3.29	2.50	2.79	2.93	2.78	2.67
35 tabak	-14.31	-0.85	2.98	5.53	3.66	4.59	4.33	4.19	3.68	3.27
36 bauten	5.75	0.41	-0.71	1.93	2.35	2.14	2.80	3.34	3.01	2.75
37 grosshandel	4.35	0.63	-1.08	2.95	3.54	3.25	4.19	4.94	4.33	3.84
39 eisenbahn	3.15	0.69	-1.18	3.22	3.86	3.54	4.56	5.36	4.66	4.10
40 schiffahrt	-0.14	0.22	-0.37	1.02	1.26	1.14	1.50	1.81	1.69	1.59
41 uebriger verkehr	5.72	0.61	-1.05	2.86	3.44	3.15	4.08	4.81	4.22	3.75
42 bundespost	1.94	0.25	-0.42	1.16	1.42	1.29	1.70	2.04	1.89	1.77
43 banken und b.-geb.	0.46	0.39	-0.67	1.82	2.21	2.02	2.63	3.15	2.85	2.61
44 versicherungen	-34.89	0.43	-0.74	2.02	2.45	2.23	2.91	3.47	3.12	2.85
45 gaststaetten	2.37	0.58	-1.00	2.72	3.27	2.99	3.88	4.58	4.04	3.61
46 verlage	8.30	0.68	-1.15	3.14	3.77	3.45	4.46	5.24	4.57	4.03
47 sonstige dienstl.	1.77	0.50	-0.86	2.35	2.84	2.60	3.38	4.01	3.57	3.22
insgesamt	6.00	0.63	-1.08	2.93	3.53	3.23	4.17	4.92	4.31	3.83

bereiche	brd 29 may 1981				ab. wert:				privat verbrauch			
	1975	1979	1980	1981	1982	1983	1984	1985	1988	1990		
1 fleisch-waren	38736.	43544.	44016.	43661.	44589.	45617.	46629.	47622.	50138.	51758.		
2 fisch-waren	2196.	2327.	2301.	2252.	2262.	2268.	2274.	2278.	2270.	2261.		
3 eier	2739.	2774.	2971.	3003.	2931.	2964.	2996.	3028.	3122.	3176.		
4 milch, kaese	12372.	13263.	13565.	13639.	13701.	13858.	14010.	14156.	14542.	14772.		
5 butter	3580.	3688.	3057.	2788.	2956.	2830.	2700.	2564.	2079.	1747.		
6 speisefette	3133.	3243.	3239.	3216.	3235.	3250.	3264.	3279.	3311.	3331.		
7 brot, backwaren	18459.	19189.	19169.	19109.	19143.	19149.	19150.	19146.	19090.	19035.		
8 kartoffeln	1435.	1616.	1272.	1149.	1225.	1160.	1097.	1036.	856.	755.		
9 gemuese	4882.	5932.	6070.	6155.	6292.	6440.	6589.	6738.	7174.	7469.		
10 obst	5473.	5477.	5485.	5451.	5461.	5477.	5492.	5507.	5616.	5686.		
11 zucker	8709.	10114.	10197.	10387.	10908.	11307.	11712.	12126.	13356.	14226.		
12 sonst.nahrungsmittel	3153.	3800.	3771.	3820.	4027.	4159.	4292.	4426.	4814.	5084.		
13 alkoholfr.getraenke	7508.	8857.	9454.	9719.	9959.	10370.	10785.	11201.	12430.	13256.		
14 kaffee, tee	4594.	5233.	5089.	5103.	5419.	5539.	5760.	5934.	6428.	6779.		
15 alkohol. getraenke	2635.	3064.	31972.	32186.	32803.	33877.	34954.	36032.	39050.	41064.		
16 tabakwaren	13244.	13453.	14020.	14211.	14557.	14795.	15034.	15275.	16000.	16500.		
17 kleidung	52490.	59609.	61157.	61367.	62787.	64335.	66268.	67981.	72619.	75644.		
18 schuhe	8516.	9508.	9697.	9471.	10096.	10281.	10465.	10646.	10933.	10980.		
19 mieten	65290.	76983.	77900.	77608.	79861.	81958.	83980.	85923.	90743.	93684.		
20 elektrizitaet	11047.	13288.	14359.	14636.	14944.	15613.	16268.	16908.	18640.	19718.		
21 gas	3639.	4515.	4893.	4983.	5119.	5390.	5635.	5885.	6556.	6976.		
22 kohlen	1765.	1271.	707.	404.	350.	126.	0.	0.	0.	0.		
23 heizoeel	7438.	8078.	8332.	8383.	8272.	8383.	8487.	8584.	8876.	9029.		
24 moebel	34675.	41224.	43223.	43949.	45088.	46878.	48673.	50470.	55573.	58985.		
25 haushaltsmaschinen	13694.	17044.	18346.	18706.	19496.	20737.	22019.	23342.	27310.	30155.		
26 uenerhafte waren	5807.	6989.	7004.	6874.	7090.	7301.	7508.	7712.	8217.	8546.		
27 tapeten	4729.	5491.	5646.	5639.	5683.	5781.	5877.	5966.	6174.	6289.		
28 haushalts dienstleis	7037.	7124.	7053.	6984.	6839.	6793.	6738.	6672.	6401.	6194.		
29 sonst. haushaltsfuer	8116.	9761.	9753.	9754.	10149.	10451.	10751.	11051.	11867.	12418.		
30 reparat	978.	972.	979.	963.	936.	921.	906.	889.	839.	804.		
31 kraftfahrzeuge	22445.	33318.	31845.	31586.	34594.	36234.	37940.	39619.	44005.	46973.		
32 benzin	12526.	14183.	14274.	14077.	14689.	15118.	15541.	15936.	17300.	18198.		
33 rep. und dienst kfz	16042.	21803.	21616.	21853.	23275.	24220.	25164.	26105.	28736.	30523.		
34 fremde verkehrsleist	15317.	16491.	15677.	15345.	15799.	15832.	15862.	15890.	15865.	15868.		
35 nachrichtenebermitt	5766.	7419.	8446.	8596.	8748.	9068.	9381.	9685.	10502.	11003.		
36 koerperpflege - ware	7913.	8423.	8706.	8762.	8775.	8894.	9009.	9118.	9403.	9568.		
37 gesundheitspflege	18030.	20401.	20621.	20824.	21423.	21913.	22392.	22860.	24124.	24929.		
38 runkfunk-, fernseh,	6444.	8286.	9010.	9238.	9572.	10155.	10752.	11361.	13168.	14430.		
39 bildung	5445.	7055.	7264.	7367.	7798.	8203.	8626.	9056.	10306.	11182.		
40 buecher, zeitunge,	10736.	11880.	11877.	11673.	11792.	11916.	12026.	12122.	12256.	12300.		
41 sonst. waren, bil.	3076.	3598.	3704.	3708.	3767.	3863.	3936.	4046.	4270.	4405.		
42 unterricht and forsc	3830.	4814.	5050.	4880.	4984.	5238.	5490.	5739.	6363.	6769.		
43 kunst, sport	8905.	11481.	12060.	11842.	12174.	12790.	13402.	14007.	15570.	16596.		
44 gebuehren, betiraege	2830.	3500.	3662.	3658.	3686.	3790.	3848.	3922.	4097.	4193.		
45 persoenliche ausstat	7550.	8529.	8608.	8832.	9134.	9429.	9716.	10435.	10435.	10892.		
46 sonstige dienstleist	42942.	50920.	52133.	52409.	54114.	55905.	57659.	59372.	63899.	66770.		
insgesamt	572751.	668180.	679145.	679712.	700187.	720551.	740806.	760950.	815222.	850900.		

bereiche	prognose:				1981				wachstumsraten:				privat verbrauch			
	75-79	brd 29 may	79-80	90-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90					
1 fleisch,-waren	2.92	1.08	-1.08	-0.81	2.10	2.28	2.19	2.19	2.17	1.89	1.67					
2 fisch,-waren	1.45	-1.11	-2.19	-2.19	0.45	0.29	0.37	0.33	0.29	0.05	-0.15					
3 eier	0.32	6.85	1.07	1.07	-2.41	1.10	-0.65	-0.08	0.21	0.62	0.96					
4 milch, kaese	1.74	2.25	0.54	0.54	0.46	1.14	0.80	0.90	0.93	0.89	0.85					
5 butter	0.75	-18.79	-9.19	-9.19	5.84	-4.34	0.75	-1.08	-2.10	-5.19	-7.66					
6 speisefette	0.33	-0.15	-0.69	-0.69	0.57	0.46	0.52	0.07	0.48	0.39	0.32					
7 brot, backwaren	0.97	-0.11	-0.32	-0.32	0.18	0.03	0.11	0.07	0.05	-0.04	-0.12					
8 kartoffeln	2.97	-23.90	-10.32	-10.32	6.56	-5.49	0.54	-1.50	-2.55	-4.66	-6.34					
9 gemuese	4.87	2.29	0.16	0.16	2.20	2.32	2.26	2.27	2.26	2.15	2.06					
10 obst	0.02	0.82	0.82	0.82	0.18	0.29	0.23	0.25	0.25	0.47	0.64					
11 zucker	3.74	0.82	1.84	1.84	4.90	3.59	4.24	4.00	3.87	3.50	3.20					
12 sonst.nahrungsmittel	4.66	-0.76	1.29	1.29	5.26	3.23	4.25	3.88	3.68	3.18	2.77					
13 alkoholfr.getraenke	4.13	6.52	2.76	2.76	2.44	4.05	3.24	3.47	3.55	3.45	3.37					
14 kaffee, tee	2.72	-2.79	4.18	4.18	6.00	3.08	4.54	4.04	3.77	3.16	2.66					
15 alkohol. getraenke	3.33	0.48	0.67	0.67	1.90	3.22	2.56	2.75	2.82	2.71	2.61					
16 tabakwaren	1.30	0.48	1.35	1.35	2.41	1.62	2.01	1.88	1.81	1.66	1.54					
17 kleidung	2.97	2.46	0.34	0.34	2.29	2.75	2.52	2.56	2.56	2.32	2.14					
18 schuhe	2.75	1.97	-2.35	-2.35	6.38	1.82	4.10	3.33	2.92	1.64	0.62					
19 mieten	4.12	1.06	-0.25	-0.25	2.86	2.59	2.73	2.63	2.54	2.09	1.73					
20 elektrizitaet	4.62	7.75	1.91	1.91	2.08	4.38	3.23	3.52	3.61	3.31	3.03					
21 gas	5.39	8.05	1.81	1.81	2.69	4.97	3.83	4.10	4.16	3.74	3.40					
22 kohlen	-8.21	-58.69	-55.43	-55.43	-14.24	-102.17	-58.20	0.00	0.00	0.00	0.00					
23 heizoeel	2.06	3.10	0.62	0.62	-1.34	1.34	-0.00	0.41	0.59	0.82	1.01					
24 moebel	4.33	4.74	1.44	1.44	2.79	3.69	3.34	3.48	3.52	3.29	3.12					
25 haushaltsmaschinen	5.47	7.36	1.94	1.94	4.13	6.17	5.15	5.44	5.53	5.31	5.12					
26 dauerhafte waeren	4.63	0.21	-1.87	-1.87	3.09	2.93	3.01	2.94	2.88	2.42	2.05					
27 tapeten	3.74	2.78	-0.12	-0.12	0.77	1.74	1.25	1.38	1.41	1.21	1.05					
28 haushalts dienstleis	0.31	-0.99	-2.43	-2.43	-0.66	-0.66	-0.66	-0.72	-0.78	-1.17	-1.49					
29 sonst. haushaltsfuer	4.61	-0.08	0.00	0.00	3.97	2.93	3.45	3.25	3.12	2.68	2.33					
30 reparat	-0.15	0.71	-1.69	-1.69	-2.75	-1.64	-2.20	-2.04	-1.98	-2.00	-2.02					
31 kraftfahrzeuge	9.88	-4.52	-0.81	-0.81	9.09	4.77	6.93	6.13	5.66	4.41	3.41					
32 benzin	2.99	0.64	-1.39	-1.39	4.26	2.88	3.57	3.30	3.13	2.85	2.62					
33 rep. und dienst kfz	7.67	-0.86	1.09	1.09	6.31	3.98	5.14	4.70	4.44	3.71	3.13					
34 fremde verkehrsleist	1.85	-5.07	-2.14	-2.14	2.91	0.21	1.56	1.10	0.87	0.37	-0.03					
35 nachrichtenubermitt	7.05	6.43	1.76	1.76	1.76	3.60	2.68	2.91	2.98	2.74	2.55					
36 koerperpflege - ware	1.56	3.31	0.64	0.64	0.15	1.35	0.75	0.93	1.00	0.98	0.96					
37 gesundheitspflege	3.09	1.07	0.98	0.98	2.84	2.26	2.55	2.42	2.33	2.00	1.73					
38 runkfunk-, fernseh,	6.28	8.38	2.50	2.50	3.55	5.92	4.74	5.06	5.17	4.96	4.78					
39 bildung	6.48	2.92	1.41	1.41	5.56	5.20	5.38	5.26	5.16	4.64	4.22					
40 buecher, zeitunge,	2.41	-0.03	-1.73	-1.73	1.01	1.05	1.03	0.99	0.94	0.58	0.29					
41 sonst. waeren, bil.	3.85	-3.19	0.09	0.09	1.58	2.53	2.06	2.16	2.18	1.92	1.70					
42 unterricht and forsc	5.72	4.78	-3.42	-3.42	2.12	4.96	3.54	3.92	4.06	3.64	3.30					
43 kunst, sport	6.46	4.92	-1.82	-1.82	2.76	4.94	3.85	4.12	4.20	3.74	3.38					
44 gebuehren, betraege	5.31	4.52	0.15	0.15	0.51	2.23	1.37	1.60	1.68	1.49	1.34					
45 persoenliche ausstat	3.05	0.92	-1.04	-1.04	3.61	3.36	3.49	3.38	3.29	2.73	2.28					
46 sonstige dienstleist	4.26	2.35	0.53	0.53	3.20	3.26	3.23	3.18	3.12	2.69	2.35					
insgesamt	3.85	1.63	0.08	0.08	2.97	2.87	2.92	2.87	2.82	2.50	2.23					

bereiche	prognose:				ab. werte:				ausrüstungen			
	1975	brd 29 may 1981	1980	1981	1982	1983	1984	1985	1988	1990		
1 land- forstwirtschaft	6637.	5570.	5570.	5570.	5570.	5570.	5575.	5816.	7106.	7087.		
2 elektrizität-ges-	11004.	17338.	16388.	18495.	18076.	16106.	18423.	21393.	20327.	18387.		
3 bergbau	2056.	1381.	1381.	1381.	1381.	1381.	1411.	1724.	1988.	1782.		
4 chemie	6160.	10341.	9798.	8844.	7933.	7893.	8879.	9490.	9786.	9613.		
5 mineraloelverarbeitung	1791.	1630.	1826.	1557.	1484.	1475.	1394.	1400.	1531.	1446.		
6 kunststoff und gummi	1210.	2163.	1628.	1553.	1432.	1626.	1883.	2197.	2326.	2350.		
7 steinen und erden	1443.	3261.	3058.	2862.	2484.	2451.	3255.	4234.	4141.	3892.		
8 feinkeramik, glas	372.	589.	577.	597.	518.	536.	657.	784.	852.	838.		
9 eisen-schaffende indu	3187.	3460.	2968.	3545.	2941.	3000.	3418.	4070.	5150.	4935.		
10 ne-metallerzeugung	605.	1704.	1086.	1524.	1420.	981.	1269.	1819.	2425.	2298.		
11 siesserei	1278.	1479.	1667.	1418.	1389.	1385.	1431.	1808.	2233.	1965.		
12 stahl	523.	548.	530.	462.	468.	430.	547.	706.	752.	675.		
13 maschinenbau	3140.	4610.	3625.	3359.	3596.	3143.	3472.	4657.	5206.	4774.		
14 bueromaschinen	1186.	1496.	1931.	1771.	1572.	1326.	1571.	2313.	3123.	3170.		
15 strassenfahrzeug	3814.	6197.	5196.	4593.	4353.	4219.	4651.	5621.	6905.	6446.		
16 n.-str. fahrzeug	465.	304.	269.	312.	313.	260.	303.	374.	491.	484.		
17 elektrotechnik	3719.	3815.	4995.	3921.	3658.	3883.	4600.	6016.	6408.	6095.		
18 feinmechanik, optik, u	442.	456.	563.	400.	427.	451.	492.	549.	632.	636.		
19 ehm waren	1151.	1670.	1422.	1437.	1392.	1386.	1526.	1886.	1998.	1946.		
20 holzbearbeitung	954.	1447.	1714.	1411.	1209.	1412.	1768.	2098.	1894.	1912.		
21 papiererzeugung	1023.	1050.	1160.	1125.	1156.	1408.	1571.	1666.	1690.	1727.		
22 druckerrei	744.	999.	1010.	901.	854.	927.	1021.	1110.	1139.	1142.		
23 lederzeugung	163.	170.	177.	162.	157.	151.	151.	151.	151.	151.		
24 textiltgewerbe	1116.	1145.	1262.	1254.	1217.	1296.	1409.	1500.	1573.	1516.		
25 bekleidungsgewerbe	291.	387.	421.	348.	367.	403.	410.	430.	458.	476.		
26 ernaeherungsgewerbe	4137.	6339.	5983.	5574.	5519.	5527.	6059.	6433.	6829.	7043.		
27 tabakverarbeitung	180.	126.	138.	150.	138.	147.	155.	154.	160.	164.		
28 baugerbe	3375.	4043.	4722.	4072.	3806.	3778.	3782.	5026.	5337.	4688.		
29 handel	6134.	7349.	7730.	7600.	7694.	7515.	7747.	8667.	9871.	9821.		
30 verkehr, nachrichtenu	13042.	12642.	16219.	13809.	14539.	14069.	13533.	15471.	18305.	18276.		
31 kredit und versicher	1710.	1652.	2253.	1839.	1851.	1751.	1669.	1997.	2375.	2403.		
32 sonstige dienstleist	12384.	10311.	11697.	10727.	10465.	9061.	9246.	10117.	11799.	11693.		
33 staat	4366.	5586.	5025.	4515.	4596.	4735.	5196.	5337.	6170.	6585.		
34 priv. organisation	792.	1187.	1152.	1023.	931.	1001.	1117.	1194.	1250.	1287.		
insgesamt	100640.	122456.	125141.	118112.	114912.	110681.	119589.	138587.	152378.	147700.		

bereiche	prognose:					1981					wachstumsraten:					auswertungen		
	75-79	brd 29 may	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90							
1 land-/forstwirtschaft	-4.38	0.00	0.00	0.00	0.00	0.00	0.00	0.03	1.08	2.68	3.95							
2 elektrizitaet-,gas-,	11.37	-5.63	12.10	12.10	-2.29	-11.54	-6.92	-0.13	3.64	-0.07	-3.03							
3 bergbau	-9.95	0.00	0.00	0.00	0.00	0.00	0.00	0.73	5.55	2.84	0.66							
4 chemie	12.95	-5.40	-10.24	-10.24	-10.87	-0.51	-5.69	0.13	1.76	-0.83	0.26							
5 mineraloelverarbeitung	-2.36	11.39	-15.93	-15.93	-4.81	-0.65	-2.73	-3.70	-2.66	0.83	0.64							
6 kunststoff und gummi	14.76	-29.37	-4.67	-4.67	-8.13	12.70	2.28	6.42	8.55	4.60	1.44							
7 steinen und erden	20.37	-6.43	-6.60	-6.60	-14.00	-1.53	-7.76	4.28	9.79	3.41	-1.68							
8 feinkeramik, glas	11.49	-2.01	3.34	3.34	-14.25	3.42	-5.42	3.18	6.83	3.77	1.32							
9 eisen-schaffende indu	2.05	-15.31	17.76	17.76	-18.69	1.99	-8.35	-1.22	3.45	3.68	3.86							
10 ne-metallerzeugung	25.89	-45.06	33.92	33.92	-7.07	-36.98	-22.03	-6.10	4.42	4.56	4.67							
11 glesserei	3.67	11.71	-16.17	-16.17	-2.03	-0.30	-1.16	0.32	6.08	3.62	1.66							
12 stahl	1.18	-3.42	-13.76	-13.76	1.35	-8.44	-3.55	5.66	10.61	4.23	-0.87							
13 maschinenbau	9.60	-24.04	-7.61	-7.61	6.82	-13.49	-3.33	1.10	8.17	3.90	0.50							
14 bueremaschinen	5.81	25.56	-8.67	-8.67	-11.91	-17.02	-14.66	-4.00	6.67	6.47	6.30							
15 strassenfahrzeug	12.14	-17.62	-12.33	-12.33	-5.38	-3.13	-4.25	0.41	5.05	3.77	2.74							
16 n.-str. fahrzeug	-10.57	-12.47	14.81	14.81	0.45	-18.61	-9.08	-0.94	4.53	4.89	5.18							
17 elektro-technik	0.64	26.95	-24.20	-24.20	-6.95	5.98	-0.49	5.33	10.70	4.90	0.26							
18 feinmechanik,optik,u	0.79	21.11	-34.26	-34.26	6.57	5.59	6.08	6.93	7.93	5.16	2.94							
19 ehm waeren	9.30	-16.06	1.07	1.07	-3.19	-0.49	-1.84	1.99	6.79	3.36	0.62							
20 holzbearbeitung	10.41	16.96	-19.48	-19.48	-15.38	15.50	0.06	7.52	9.93	3.38	-1.86							
21 papiererzeugung	0.65	9.97	-3.04	-3.04	2.71	19.69	11.20	11.12	9.81	4.76	0.71							
22 druckerei	7.12	2.03	-11.32	-11.32	-5.37	8.12	1.37	4.15	5.21	2.63	0.56							
23 ledererzeugung	1.11	3.87	-9.00	-9.00	-3.12	-3.93	-3.52	-2.35	-1.76	-0.78	0.00							
24 textilgewerbe	0.63	9.72	-0.63	-0.63	-2.94	6.23	1.65	3.89	4.49	2.11	0.20							
25 bekleidungsgewerbe	7.16	8.34	-18.98	-18.98	5.39	9.26	7.33	5.44	5.26	3.48	2.07							
26 ernaehrungsgewerbe	10.37	-5.78	-7.07	-7.07	-0.99	0.14	-0.42	2.78	3.58	2.60	1.81							
27 tabakverarbeitung	-8.80	9.07	7.96	7.96	-8.00	6.46	-0.77	1.18	0.70	1.01	1.26							
28 baugerbe	4.52	15.53	-14.82	-14.82	-6.77	-0.73	-3.75	-2.46	5.26	1.57	-1.39							
29 handel	4.52	5.05	-1.70	-1.70	1.22	-2.35	-0.56	0.64	3.28	2.85	2.50							
30 verkehr-,nachrichtenu	-0.78	24.91	-16.07	-16.07	5.15	-3.28	0.93	-0.67	2.84	3.11	3.33							
31 kredit und versicher	-0.87	31.05	-20.34	-20.34	0.68	-5.58	-2.45	-3.23	2.06	2.97	3.71							
32 sonstige dienstleist	-4.58	12.61	-8.65	-8.65	-2.47	-14.40	-8.44	-4.95	-0.97	0.96	2.50							
33 staat	6.16	-10.58	-10.70	-10.70	1.77	2.98	2.37	4.68	5.10	4.19	3.47							
34 priv. organisation	10.12	-2.78	-11.88	-11.88	-9.38	7.23	-1.08	2.95	3.87	2.55	1.50							
insgesamt	4.91	2.17	-5.78	-5.78	-2.75	-3.75	-3.25	0.41	4.00	2.48	1.27							

bereiche	prognose:						ab. werte:					
	1975	1979	1980	1981	1982	1983	1984	1985	1988	1990		
1 land-, forstwirtschaft	1410.	1217.	1217.	1217.	1217.	1217.	1220.	1399.	1765.	1742.		
2 elektrizitaet, gas-	7300.	11028.	7356.	8389.	6947.	5011.	6537.	8340.	8380.	7551.		
3 bergbau	270.	263.	263.	263.	263.	263.	269.	295.	488.	371.		
4 chemie	1180.	2278.	1761.	1412.	1502.	1270.	1511.	1656.	1632.	1549.		
5 mineraloelverarbeitung	140.	188.	142.	142.	131.	119.	119.	124.	134.	121.		
6 kunststoff und gummi	170.	485.	341.	291.	258.	331.	412.	491.	491.	487.		
7 steinen und erden	180.	453.	403.	391.	288.	264.	382.	577.	586.	477.		
8 feinkeramik, glas	70.	125.	128.	126.	97.	105.	144.	180.	186.	175.		
9 eisenschaffende indu	440.	435.	364.	469.	334.	337.	412.	551.	743.	664.		
10 no-metallverarbeitung	80.	438.	235.	347.	321.	198.	285.	451.	587.	532.		
11 gliesserei	200.	345.	347.	268.	278.	256.	271.	378.	517.	399.		
12 stahl	130.	228.	170.	192.	164.	125.	164.	249.	315.	219.		
13 maschinenbau	620.	1441.	976.	851.	947.	737.	882.	1399.	1546.	1307.		
14 buromaschinen	260.	106.	273.	203.	99.	95.	207.	373.	342.	370.		
15 strassenfahrzeug	570.	1783.	1485.	1094.	1022.	1036.	1187.	1570.	1872.	1672.		
16 n.-str. fahrzeug	220.	113.	92.	138.	114.	85.	116.	152.	211.	198.		
17 elektrotechnik	810.	1201.	1105.	954.	914.	723.	1120.	1619.	1581.	1404.		
18 feinmechanik, optik, u	80.	176.	154.	133.	114.	139.	180.	212.	210.	208.		
19 ebm waren	230.	343.	562.	461.	393.	392.	459.	538.	658.	594.		
20 holzverarbeitung	270.	499.	573.	478.	366.	412.	571.	738.	645.	604.		
21 papierverarbeitung	160.	170.	201.	191.	204.	268.	315.	347.	338.	336.		
22 druckerei	100.	221.	248.	243.	184.	181.	225.	269.	274.	260.		
23 lederzeugung	30.	66.	87.	77.	60.	60.	60.	60.	60.	60.		
24 textilgewerbe	160.	202.	233.	237.	228.	243.	275.	307.	325.	300.		
25 bekleidungsgewerbe	110.	194.	240.	172.	159.	203.	215.	220.	231.	239.		
26 ernaeuerungsgewerbe	860.	1867.	1578.	1490.	1354.	1219.	1527.	1666.	1742.	1779.		
27 tabakverarbeitung	40.	19.	23.	27.	25.	25.	28.	28.	28.	29.		
28 baugeerbe	550.	1004.	882.	894.	710.	643.	645.	722.	1311.	788.		
29 handel	3310.	4227.	4403.	4136.	4112.	3985.	4254.	5013.	5648.	5460.		
30 verkehr, nachrichtenu	7720.	7631.	7374.	6458.	6685.	6048.	6578.	7778.	8841.	8586.		
31 kredit und versicher	3080.	5206.	3588.	3378.	3513.	2922.	3850.	4264.	4668.	4656.		
32 sonstige dienstleist	9440.	12189.	13041.	12252.	9942.	8357.	9408.	11085.	12399.	11949.		
33 staat	34270.	35250.	36000.	36900.	37800.	38700.	39600.	40500.	43200.	45000.		
34 priv. organisation	2210.	3769.	3565.	2656.	2356.	2956.	3480.	3690.	3713.	3817.		
35 wohnungen	48136.	49627.	50000.	51500.	53000.	54500.	56000.	57500.	62000.	65000.		
insgesamt	124806.	144846.	139413.	138635.	136099.	133424.	142907.	154741.	167666.	168903.		

bereiche	prognose:										wachstumsraten:			bauten		
	75-79	brd 29 may	1981	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90					
1 land-, forstwirtschaft	-3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.10	3.48	3.99	4.39					
2 elektrizitaet-, gas-,	10.31	-40.49	13.13	-18.84	-32.68	-25.76	-8.31	-0.14	-0.14	-1.17	-1.99					
3 bergbau	-0.64	0.00	0.00	0.00	0.00	0.00	0.73	2.90	2.90	3.82	4.55					
4 chemie	16.44	-25.72	-22.11	6.18	-16.75	-5.29	2.26	4.00	4.00	1.03	-1.34					
5 mineraloelverarbeitung	7.36	-27.74	-0.37	-7.89	-10.07	-8.98	-5.99	-3.43	-3.43	-1.73	-0.37					
6 kunststoff und gummi	26.23	-35.24	-15.83	-12.23	24.88	6.33	11.58	13.05	13.05	5.71	-0.17					
7 steinen und erden	23.06	-11.59	-3.03	-30.60	-8.77	-19.68	-0.82	9.72	9.72	2.19	-3.83					
8 feinkeramik, glas	14.42	2.94	-2.08	-26.05	8.10	-8.97	4.46	9.01	9.01	3.70	-0.55					
9 eisenschaffende indu	-0.26	-17.79	24.97	-33.64	0.74	-16.45	-4.26	4.11	4.11	3.89	3.71					
10 ne-metallerzeugung	42.48	-62.03	38.94	-7.90	-48.16	-27.98	-6.58	6.53	6.53	4.74	3.30					
11 gliesserei	13.62	0.49	-25.73	3.69	-8.32	-2.31	0.38	8.62	8.62	4.44	1.09					
12 stahl	14.04	-24.24	11.88	-15.34	-27.07	-21.20	-5.29	6.55	6.55	1.48	-2.57					
13 maschinenbau	21.09	-38.96	-13.71	10.62	-24.96	-7.17	1.19	12.42	12.42	4.77	-1.35					
14 bueromaschinen	-11.27	50.12	-29.74	-72.14	-3.82	-37.98	0.70	15.23	15.23	6.65	-0.20					
15 strassenfahrzeug	28.51	-18.30	-30.52	-6.82	1.39	-2.72	2.72	9.03	9.03	4.71	1.26					
16 n.-str. fahrzeug	-16.76	-20.32	40.85	-19.60	-29.04	-24.32	-5.82	2.37	2.37	3.97	5.25					
17 elektrotechnik	9.85	-9.38	-14.63	-4.30	-23.49	-13.89	5.33	13.21	13.21	4.29	-2.85					
18 feinmechanik, optik, u	19.72	-13.48	-14.84	-15.32	19.89	2.29	10.15	11.71	11.71	5.00	-0.36					
19 ehm waeren	10.01	49.37	-19.82	-15.97	-0.39	-8.18	-0.17	3.83	3.83	2.81	1.99					
20 holzbearbeitung	15.33	14.00	-18.30	-26.72	11.84	-7.44	5.97	10.88	10.88	2.62	-3.99					
21 papiererzeugung	1.56	16.59	-5.28	6.64	27.30	16.97	16.73	14.96	14.96	6.29	-0.65					
22 durckerei	19.77	11.71	-2.11	-27.61	-1.57	-14.59	-2.60	2.57	2.57	0.77	-0.67					
23 ledererzeugung	19.70	28.10	-12.95	-25.42	0.00	-12.71	-8.47	-6.35	-6.35	-2.82	0.00					
24 textilgewerbe	5.81	14.24	1.63	-3.47	6.35	1.44	5.01	6.56	6.56	2.64	-0.49					
25 bekleidungsgewerbe	14.24	20.96	-33.48	-7.69	24.48	8.39	7.50	6.27	6.27	3.66	1.58					
26 ernaehrungsgewerbe	19.37	-18.80	-5.73	-9.61	-10.50	-10.05	0.82	2.79	2.79	1.97	1.32					
27 tabakverarbeitung	-19.02	21.37	14.30	-7.32	1.45	-2.94	1.06	1.05	1.05	0.89	0.76					
28 baugarbe	15.05	-12.97	1.39	-23.13	-9.81	-16.47	-10.90	-5.36	-5.36	-1.41	1.75					
29 handel	6.12	4.07	-6.27	-0.57	-3.14	-1.85	0.94	4.81	4.81	3.09	1.71					
30 verkehr, nachrichtenu	-0.29	-3.42	-13.12	3.30	-10.01	-3.36	0.56	4.61	4.61	3.15	1.98					
31 kredit und versicher	13.12	-37.22	-0.29	-1.83	-18.42	-10.13	2.44	4.38	4.38	2.93	1.76					
32 sonstige dienstleist	6.39	6.75	-6.24	-20.89	-17.37	-19.13	-8.80	-2.50	-2.50	-0.28	1.50					
33 staat	0.70	2.11	2.47	2.41	2.35	2.38	2.35	2.33	2.33	2.21	2.11					
34 priv. organisation	13.34	-5.55	-29.42	-12.01	22.70	5.35	9.01	8.22	8.22	4.03	0.68					
35 wohnungen	0.76	0.75	2.96	2.87	2.79	2.83	2.79	2.76	2.76	2.59	2.45					
insgesamt	3.72	-3.82	-0.56	-1.85	-1.99	-1.92	1.01	2.75	2.75	2.19	1.75					

bereiche	prognose:					ab. werte:				
	1975	1979	1980	1981	1982	1983	1984	1985	1988	1990
		brd 29 may	1981			vorratsveraende				
1 landwirtschaft	-100.	2267.	828.	-406.	379.	984.	1306.	1462.	1357.	1279.
5 kohlenbergbau	605.	218.	100.	-35.	143.	239.	376.	494.	163.	139.
6 uebriger bergbau	54.	151.	75.	-16.	43.	91.	144.	179.	135.	132.
7 erdoel	-4.	117.	82.	-102.	3.	45.	89.	109.	25.	-1.
8 chemie	-439.	2829.	2308.	1101.	1485.	1704.	2010.	2257.	2133.	2092.
9 mineraloel	-148.	498.	272.	-154.	59.	172.	321.	407.	221.	161.
10 kunststoffe	-416.	640.	361.	107.	292.	448.	618.	748.	625.	610.
11 steine und erden	-105.	596.	220.	130.	135.	164.	503.	720.	440.	405.
12 glas	-53.	195.	116.	50.	83.	115.	184.	233.	176.	169.
13 stahl und eisen	-479.	585.	156.	-184.	99.	382.	720.	956.	746.	756.
14 nicht-eisen metall	-218.	275.	171.	24.	98.	188.	314.	414.	329.	336.
15 glassereien	-37.	130.	53.	-21.	12.	45.	133.	204.	115.	108.
16 stahlbau	7.	471.	182.	79.	68.	99.	414.	649.	357.	305.
17 nicht-str. fahrzg.	97.	50.	144.	-20.	62.	91.	116.	197.	212.	175.
18 maschinenbau	-137.	1062.	402.	-164.	-105.	165.	949.	1645.	814.	745.
19 strassenfahrzeuge	-190.	344.	178.	-140.	181.	277.	376.	543.	395.	372.
21 datenverarbeitung	-35.	190.	216.	-22.	10.	79.	211.	351.	243.	245.
22 elektrotechnik	-359.	2117.	1644.	578.	667.	858.	1925.	2976.	1847.	1690.
23 feinmechanik	-46.	102.	61.	28.	46.	65.	98.	119.	101.	102.
24 ebm-waren	-114.	258.	180.	43.	99.	159.	244.	303.	228.	215.
25 holz	-72.	256.	182.	73.	96.	139.	239.	316.	218.	207.
26 papier und pappe	-38.	126.	91.	28.	62.	94.	122.	142.	123.	121.
27 druckereien	-12.	98.	63.	14.	38.	55.	74.	87.	70.	67.
28 leder	-38.	60.	37.	3.	37.	35.	35.	36.	29.	28.
29 textilien	-193.	224.	185.	82.	122.	175.	206.	227.	241.	245.
30 bekleidung	-74.	311.	221.	95.	127.	166.	184.	194.	190.	191.
31 nahrungsmittel	-99.	124.	80.	41.	81.	99.	112.	118.	115.	113.
32 milch	-16.	12.	2.	-3.	3.	5.	6.	7.	7.	6.
33 fleisch	-107.	32.	19.	4.	12.	21.	24.	25.	24.	24.
34 getraenke	-55.	66.	63.	31.	33.	46.	53.	56.	53.	54.
35 tabak	-78.	48.	26.	20.	28.	26.	26.	27.	25.	25.
37 grosshandel	-82.	79.	63.	-1.	24.	28.	62.	93.	70.	62.
38 einzelhandel	9.	92.	59.	23.	48.	59.	68.	74.	67.	67.
39 eisenbahn	-19.	3.	0.	-2.	0.	0.	2.	3.	2.	2.
40 schiffahrt	-1.	2.	2.	0.	1.	2.	3.	3.	4.	4.
41 uebriger verkehr	-19.	27.	15.	5.	12.	15.	20.	24.	19.	18.
insgesamt	-3071.	14656.	8856.	1291.	4582.	7335.	12286.	16395.	11920.	11272.

bereiche	prognose: brd 29 may 1981				wachstumsraten:			vorratsveränderung		
	75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90
1 landwirtschaft	0.00	-100.70	0.00	0.00	95.40	0.00	0.00	0.00	0.00	-2.67
5 kohlenbergbau	-25.49	-78.28	0.00	0.00	51.23	0.00	0.00	0.00	0.00	-25.31
6 uebriger bergbau	25.66	-69.74	0.00	0.00	75.71	0.00	0.00	0.00	0.00	-6.04
7 erdoel	0.00	-35.85	0.00	0.00	268.79	0.00	0.00	0.00	-48.06	0.00
8 chemie	0.00	-20.36	-73.99	29.91	13.75	21.83	20.06	17.94	7.13	-1.51
9 mineraloel	0.00	-60.68	0.00	0.00	107.85	0.00	0.00	0.00	0.00	-18.60
10 kunststoffe	0.00	-57.25	-121.58	100.21	42.94	71.57	58.42	48.60	19.33	-4.08
11 steine und erden	0.00	-99.66	-52.85	4.33	18.94	11.64	45.21	42.84	12.66	-11.49
12 glas	0.00	-51.65	-85.08	50.84	32.88	41.86	43.76	38.67	13.61	-6.44
13 stahl und eisen	0.00	-132.04	0.00	0.00	135.22	0.00	0.00	0.00	0.00	-4.70
14 nicht-eisen metall	0.00	-47.56	-195.66	139.94	65.31	102.63	85.57	71.08	29.26	-4.19
15 glassereien	0.00	-89.48	0.00	0.00	133.57	0.00	0.00	0.00	0.00	-12.71
16 stahlbau	105.24	-95.18	-83.22	-15.04	37.01	10.99	55.14	52.58	15.00	-15.06
17 nicht-str. fahrzg.	-16.72	106.06	0.00	0.00	37.63	0.00	0.00	0.00	0.00	-2.35
18 maschinenbau	0.00	-97.22	0.00	-43.92	0.00	0.00	0.00	0.00	0.00	-15.84
19 strassenfahrzeuge	0.00	-65.63	0.00	0.00	42.66	0.00	0.00	0.00	0.00	-7.53
21 datenverarbeitung	0.00	12.99	0.00	0.00	207.34	0.00	0.00	0.00	0.00	-7.17
22 elektrotechnik	0.00	-25.31	-104.47	14.25	25.23	19.74	40.09	40.96	11.92	-11.32
23 feinmechanik	0.00	-51.66	-76.46	48.21	35.42	41.81	41.22	35.79	14.17	-3.13
24 ebm-waren	0.00	-36.07	-142.61	83.02	47.66	65.34	57.71	48.70	17.86	-6.80
25 holz	0.00	-33.70	-92.08	27.41	37.47	32.44	39.63	36.74	11.65	-8.42
26 papier und pappe	0.00	-33.30	-118.77	80.51	42.34	61.42	49.53	40.90	16.45	-3.11
27 druckereien	0.00	-44.05	-152.49	100.45	38.24	69.34	55.90	46.15	17.64	-5.17
28 leder	0.00	-49.25	-264.52	263.98	-6.03	128.98	86.68	65.67	26.52	-4.80
29 textilien	0.00	-19.03	-90.75	39.62	35.58	37.60	30.52	25.30	12.13	1.59
30 bekleidung	0.00	-34.36	-84.49	29.33	26.49	27.91	22.15	17.87	7.80	-0.25
31 naehrungsmittel	0.00	-44.27	-66.17	66.91	21.16	44.04	33.19	26.19	11.16	-0.87
32 milch	0.00	-170.64	0.00	0.00	56.97	0.00	0.00	0.00	0.00	-2.82
33 fleisch	0.00	-49.76	-158.75	114.57	51.42	82.99	59.88	46.18	19.93	-1.07
34 getraenke	0.00	-4.17	-70.05	6.33	31.83	19.08	17.34	14.65	6.01	-0.90
35 tabak	0.00	-63.67	-24.73	35.12	-7.22	13.95	9.31	7.29	2.56	-1.22
37 grosshandel	0.00	-22.34	0.00	0.00	14.03	0.00	0.00	0.00	0.00	-7.95
38 einzelhandel	58.20	-45.12	-94.72	74.75	20.82	47.79	36.41	29.51	12.02	-1.98
39 eisenbahn	0.00	-283.89	0.00	0.00	107.50	0.00	0.00	0.00	0.00	-11.82
40 schiffahrt	0.00	-24.06	-211.20	160.96	47.78	104.37	82.26	66.87	30.93	2.17
41 uebriger verkehr	0.00	-56.55	-117.10	97.63	17.96	57.79	49.07	41.32	15.19	-5.71
insgesamt	0.00	-50.38	-192.55	126.65	47.05	86.85	75.10	63.54	24.08	-7.49

bereiche	prognose:				ab. werte:				labor prod.			
	1975	1979	1981	1981	1983	1984	1985	1988	1990			
1 landwirtschaft	39.	53.	54.	54.	63.	68.	73.	89.	100.			
2 elekt-gas-/wasserve	253.	304.	313.	305.	315.	325.	337.	349.	351.			
3 kohlenbergbau	112.	138.	145.	150.	169.	181.	195.	225.	248.			
4 uebriger bergbau	143.	276.	289.	283.	352.	404.	463.	626.	753.			
5 chemie	156.	213.	224.	226.	244.	253.	264.	291.	308.			
6 mineraloelverarbeitu	838.	1018.	1034.	1043.	1113.	1154.	1197.	1309.	1380.			
7 kunststoffwaren	96.	114.	116.	117.	125.	130.	136.	150.	160.			
8 steinen und erden	111.	145.	149.	155.	169.	183.	198.	235.	259.			
9 glas	79.	101.	106.	110.	123.	130.	139.	164.	182.			
10 eisenschaffende indu	345.	479.	491.	497.	559.	607.	660.	813.	923.			
11 ne-metallerzeuging	212.	268.	273.	267.	295.	320.	350.	422.	467.			
12 giesserei	94.	127.	132.	136.	149.	160.	172.	204.	225.			
13 stahlbau	45.	57.	58.	60.	64.	70.	76.	89.	97.			
14 maschinenbau	109.	126.	128.	130.	137.	142.	148.	163.	172.			
15 datenververarbeitung	69.	107.	118.	121.	139.	154.	172.	222.	260.			
16 strassenfahrzeuge	86.	104.	106.	105.	113.	117.	123.	137.	145.			
17 nicht-str. fahrzq.	114.	128.	137.	134.	147.	154.	165.	193.	217.			
18 elektrotechnik	62.	83.	88.	91.	100.	107.	115.	136.	151.			
19 feinmechanik	62.	70.	71.	71.	75.	78.	81.	89.	94.			
20 ebm-waren	83.	110.	115.	118.	131.	140.	149.	175.	192.			
21 holz	118.	156.	164.	170.	190.	205.	222.	267.	297.			
22 papier und pappe	115.	145.	152.	155.	170.	178.	187.	214.	232.			
23 druckereien	78.	92.	95.	97.	103.	107.	112.	124.	132.			
24 leden	62.	73.	75.	76.	83.	86.	89.	97.	102.			
25 textilien	84.	105.	112.	117.	132.	140.	149.	178.	199.			
26 bekleidung	85.	104.	111.	117.	133.	143.	152.	185.	210.			
27 naehrungsmittel	174.	206.	214.	221.	240.	250.	261.	295.	320.			
28 tabak	443.	620.	662.	711.	837.	905.	979.	1233.	1437.			
29 bauten	78.	90.	91.	94.	99.	104.	109.	122.	130.			
30 handel	56.	65.	68.	68.	72.	75.	79.	88.	93.			
31 eisenbahn	27.	32.	32.	31.	32.	33.	35.	38.	39.			
32 sonstiger verkehr	87.	106.	107.	106.	111.	115.	120.	130.	136.			
33 bundespost	53.	65.	66.	66.	69.	72.	75.	82.	85.			
34 kreditinstitute	85.	94.	95.	94.	96.	97.	99.	102.	103.			
35 versicherungen	99.	115.	116.	115.	118.	121.	124.	131.	135.			
36 sonstige dienstleist	103.	113.	113.	110.	111.	113.	115.	118.	119.			
37 staat	69.	73.	73.	71.	71.	71.	71.	73.	73.			
38 private haushalte	40.	46.	47.	47.	49.	50.	51.	55.	57.			

bereiche	1981		81-82	82-83	wachstumsraten:		labor prod.		85-90
	75-79	79-80			81-83	81-84	81-85	81-90	
1 landwirtschaft	7.36	2.32	7.26	7.66	7.46	7.42	7.32	6.77	6.33
2 elekt-/gas-/wasserve	4.58	2.75	1.01	2.11	1.56	2.12	2.47	1.56	0.83
3 kohlenbergbau	5.29	4.50	6.18	6.12	6.15	6.44	6.67	5.62	4.79
4 uebriger bergbau	16.35	4.75	9.74	11.86	10.80	11.81	12.27	10.86	9.73
5 chemie	7.76	4.84	3.92	3.66	3.79	3.84	3.86	3.44	3.10
6 mineraloelverarbeitung	4.84	1.54	3.32	3.24	3.28	3.40	3.46	3.11	2.84
7 kunststoffwaren	4.43	1.57	3.06	3.59	3.32	3.57	3.72	3.47	3.26
8 steinen und erden	6.77	2.62	4.36	4.61	4.49	5.59	6.18	5.74	5.40
9 glas	6.24	4.61	5.14	5.46	5.30	5.61	5.79	5.56	5.38
10 eisen-schaffende indu	8.22	2.34	5.14	6.69	5.92	6.67	7.12	6.89	6.71
11 ne-metallerzeugung	5.87	1.94	3.73	6.07	4.90	6.02	6.75	6.22	5.79
12 gresserei	7.66	3.83	4.58	5.06	4.82	5.51	5.98	5.62	5.32
13 stahlbau	5.96	1.93	3.15	3.74	3.45	5.08	6.05	5.38	4.84
14 maschinenbau	3.68	1.71	2.33	2.80	2.57	2.98	3.26	3.16	3.07
15 datenverarbeitung	11.07	9.62	6.11	9.03	7.07	8.13	8.88	9.55	8.28
16 strassenfahrzeuge	4.70	1.78	3.99	3.48	3.74	3.76	3.99	3.60	3.28
17 nicht-str. fahrz.	2.88	6.39	4.52	4.57	4.54	4.67	5.23	5.32	5.40
18 elektrotechnik	7.16	5.45	4.85	5.15	5.00	5.55	5.96	5.62	5.35
19 feinmechanik	3.22	1.54	2.21	2.97	2.59	3.09	3.36	3.11	2.90
20 ebm-waren	7.02	4.96	4.90	5.44	5.17	5.51	5.73	5.40	5.15
21 holz	6.96	5.47	5.12	5.88	5.50	6.20	6.66	6.20	5.83
22 papier und pappe	5.90	4.26	4.27	4.70	4.48	4.59	4.65	4.44	4.26
23 druckereien	4.14	3.12	3.38	3.55	3.47	3.58	3.65	3.51	3.40
24 ledern	3.97	3.15	5.57	3.64	4.61	4.30	4.13	3.27	2.58
25 textilien	5.59	6.43	5.77	6.10	5.94	5.98	6.00	5.87	5.76
26 bekleidung	5.28	6.16	6.30	6.57	6.43	6.48	6.50	6.48	6.48
27 naehrungsmittel	4.30	3.75	4.04	4.23	4.13	4.17	4.19	4.13	4.08
28 tabak	8.43	6.56	8.50	7.74	8.12	8.03	7.98	7.81	7.68
29 bauten	3.44	2.02	2.53	2.54	2.54	3.28	3.72	3.57	3.44
30 handel	4.13	2.91	3.25	3.03	3.14	3.43	3.68	3.52	3.40
31 eisenbahn	4.21	-0.47	2.45	1.56	2.00	2.41	2.77	2.60	2.46
32 sonstiger verkehr	4.90	0.97	2.57	2.40	2.49	2.80	3.03	2.80	2.61
33 bundespost	5.04	2.50	2.01	2.71	2.36	2.80	3.09	2.85	2.66
34 kreditinstitute	2.44	0.49	0.98	1.19	1.08	1.21	1.29	1.05	0.85
35 versicherungen	3.83	0.61	1.43	1.62	1.52	1.76	1.94	1.78	1.65
36 sonstige dienstleist	2.35	-0.18	0.50	0.93	0.71	1.01	1.20	0.90	0.65
37 staat	1.43	0.00	-0.54	0.26	-0.14	0.00	0.13	0.34	0.50
38 private haushalte	3.35	2.33	1.80	2.52	2.16	2.25	2.31	2.28	2.25

bereiche	brd 29 may 1981		ab. werte: erwerbstaetige		1990					
	1975	1979	1980	1981		1982	1983	1984	1985	1988
1 landwirtschaft	1823.	1500.	1432.	1370.	1306.	1245.	1187.	1132.	984.	896.
2 elekt.-gas-wasserve	232.	245.	249.	253.	257.	261.	264.	268.	280.	289.
3 kohlenbergbau	236.	191.	182.	173.	168.	162.	158.	154.	137.	126.
4 uebriger bergbau	22.	17.	16.	15.	14.	13.	12.	12.	10.	9.
5 chemie	642.	655.	656.	644.	642.	639.	637.	635.	623.	612.
6 mineraloelverarbeitu	42.	40.	40.	38.	37.	36.	35.	35.	32.	30.
7 kunststoffwaren	307.	335.	332.	326.	327.	330.	334.	338.	345.	347.
8 steinen und erden	248.	238.	223.	221.	214.	208.	208.	208.	196.	186.
9 glas	146.	143.	139.	133.	131.	130.	130.	130.	126.	121.
10 eisen-schaffende indu	345.	298.	297.	276.	268.	260.	253.	246.	225.	212.
11 ne-metallerzeugung	87.	89.	90.	92.	93.	93.	94.	94.	94.	94.
12 glasserei	131.	118.	113.	107.	104.	101.	100.	100.	94.	89.
13 stahlbau	471.	442.	429.	416.	406.	397.	397.	398.	381.	366.
14 maschinenbau	1142.	1190.	1164.	1125.	1109.	1103.	1118.	1141.	1143.	1131.
15 datenverarbeitung	89.	86.	87.	79.	76.	75.	76.	78.	76.	74.
16 strassenfahrzeuge	832.	915.	913.	888.	897.	902.	910.	924.	942.	945.
17 nicht-str. fahrgz.	112.	110.	110.	108.	107.	107.	106.	106.	104.	103.
18 elektrotechnik	1150.	1134.	1122.	1067.	1043.	1026.	1042.	1069.	1042.	1005.
19 feinmechanik	211.	223.	223.	222.	223.	225.	227.	229.	234.	236.
20 ebm-waren	435.	424.	416.	399.	391.	385.	381.	378.	359.	344.
21 holz	422.	391.	369.	355.	343.	334.	326.	320.	294.	276.
22 papier und pappe	198.	187.	184.	178.	176.	174.	173.	172.	165.	160.
23 druckereien	252.	250.	246.	238.	236.	233.	232.	231.	224.	218.
24 ledern	136.	127.	122.	113.	111.	108.	104.	100.	87.	78.
25 textilien	401.	338.	328.	307.	295.	285.	274.	265.	235.	215.
26 bekleidung	364.	323.	312.	296.	285.	274.	264.	255.	227.	209.
27 naehrungsmittel	871.	842.	823.	797.	783.	772.	761.	750.	714.	699.
28 tabak	29.	23.	21.	20.	19.	18.	17.	16.	13.	12.
29 bauten	1975.	2015.	1924.	1865.	1801.	1739.	1764.	1801.	1750.	1673.
30 handel	3179.	3136.	3111.	3059.	3036.	3012.	2998.	2988.	2934.	2888.
31 eisenbahn	430.	397.	393.	390.	385.	381.	375.	370.	355.	346.
32 sonstiger verkehr	575.	581.	594.	587.	590.	592.	595.	598.	605.	609.
33 bundespost	480.	498.	504.	508.	513.	517.	522.	527.	540.	549.
34 kreditinstitute	490.	560.	576.	589.	605.	624.	644.	666.	727.	768.
35 versicherungen	199.	222.	228.	232.	239.	245.	252.	258.	277.	238.
36 sonstige dienstleist	2370.	2528.	2574.	2636.	2679.	2720.	2758.	2795.	2925.	3021.
37 staat	3512.	3938.	4049.	4137.	4243.	4360.	4479.	4605.	5003.	5288.
38 private haushalte	679.	676.	672.	667.	664.	662.	661.	660.	656.	655.
39 inl. erwerb. einpend	78.	81.	81.	82.	83.	84.	85.	86.	88.	90.
40 ueb. welt erwerbstaet	135.	126.	124.	121.	119.	116.	114.	112.	105.	100.
insgesamt	25479.	25620.	25454.	25129.	25016.	24947.	25067.	25245.	25351.	25346.

bereiche	prognose: brd 29 may 1981					wachstumsraten:					erwerbstaetige	
	75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90		
1 landwirtschaft	-4.88	-4.59	-4.45	-4.79	-4.79	-4.79	-4.78	-4.77	-4.71	-4.67		
2 elekt-/gas-/wasser	1.39	1.33	1.94	1.54	1.41	1.47	1.41	1.36	1.47	1.56		
3 kohlenbergbau	-5.27	-4.83	-5.07	-3.21	-3.24	-3.23	-3.08	-2.96	-3.49	-3.92		
4 uebriger bergbau	-6.59	-6.75	-8.26	-5.63	-5.16	-5.40	-5.17	-5.07	-5.38	-5.63		
5 chemie	0.50	0.12	-1.82	-0.33	-0.46	-0.40	-0.37	-0.36	-0.57	-0.74		
6 mineraloelverarbeitu	-1.26	-0.81	-4.20	-2.34	-2.40	-2.37	-2.28	-2.23	-2.50	-2.72		
7 kunststoffwaren	2.21	-1.10	-1.75	0.31	0.82	0.56	0.79	0.94	0.70	0.51		
8 steinen und erden	-1.07	-4.02	-3.38	-3.03	-2.82	-2.93	-2.01	-1.53	-1.89	-2.17		
9 glas	-0.60	-2.65	-3.94	-1.75	-1.21	-1.48	-0.96	-0.65	-1.04	-1.35		
10 eisenschaffende indu	-3.08	-3.75	-3.78	-3.15	-2.98	-3.07	-2.99	-2.94	-2.96	-2.98		
11 ne-metallerzeuging	0.58	1.59	1.71	0.94	0.56	0.75	0.58	0.46	0.27	0.13		
12 glasserei	-2.57	-4.20	-5.56	-3.34	-2.78	-3.06	-2.26	-1.70	-2.13	-2.47		
13 stahlbau	-1.00	-3.07	-2.86	-2.49	-2.21	-2.35	-1.58	-1.13	-1.44	-1.70		
14 maschinenbau	1.03	-2.20	-3.41	-1.44	-0.56	-1.00	-0.21	0.35	0.06	-0.18		
15 datenververarbeitung	-0.77	0.66	-9.51	-3.94	-1.42	-2.68	-1.29	-0.31	-0.75	-1.10		
16 strassenfahrzeuge	2.38	0.22	-2.74	0.98	0.59	0.79	0.80	0.98	0.68	0.44		
17 nicht-str. fahrzg.	-0.41	-0.38	-1.52	-0.64	-0.63	-0.63	-0.62	-0.54	-0.53	-0.52		
18 elektrotechnik	-0.35	-1.01	-5.07	-2.26	-1.63	-1.94	-0.80	0.04	-0.66	-1.23		
19 feinmechanik	1.40	0.11	-0.45	0.35	0.62	0.48	0.66	0.76	0.67	0.59		
20 ehmwaren	-0.63	-2.04	-4.01	-2.09	-1.62	-1.86	-1.56	-1.37	-1.65	-1.88		
21 holz	-2.57	-3.09	-4.00	-3.23	-2.93	-3.08	-2.80	-2.61	-2.80	-2.95		
22 papier und pappe	-1.46	-1.36	-3.50	-1.35	-0.86	-1.11	-0.99	-0.92	-1.16	-1.36		
23 druckereien	-0.15	-1.62	-3.32	-1.20	-0.94	-1.07	-0.89	-0.77	-1.00	-1.18		
24 leden	-1.69	-4.27	-7.65	-1.20	-3.65	-2.42	-2.81	-3.02	-4.11	-4.97		
25 textilien	-4.29	-3.05	-6.42	-4.10	-3.58	-3.84	-3.76	-3.74	-3.95	-4.12		
26 bekleidung	-2.98	-3.37	-5.43	-3.83	-3.71	-3.77	-3.75	-3.75	-3.86	-3.95		
27 naehrungsmittel	-0.86	-2.22	-3.25	-1.75	-1.45	-1.60	-1.54	-1.52	-1.61	-1.69		
28 tabak	-0.27	-5.96	-6.02	-6.14	-6.09	-6.12	-6.11	-6.11	-6.13	-6.14		
29 bauten	0.49	-4.63	-3.12	-3.49	-3.47	-3.48	-1.94	-0.87	-1.21	-1.48		
30 handel	-0.34	-0.79	-1.70	-0.73	-0.81	-0.77	-0.67	-0.58	-0.64	-0.68		
31 eisenbahn	-2.01	-0.89	-0.71	-1.29	-1.19	-1.24	-1.31	-1.36	-1.36	-1.35		
32 sonstiger verkehr	0.27	0.56	0.40	0.50	0.45	0.47	0.47	0.46	0.41	0.38		
33 bundaspost	0.92	1.25	0.73	0.91	0.92	0.91	0.92	0.93	0.86	0.80		
34 kreditinstitute	3.32	2.75	1.94	2.93	3.05	2.99	3.06	3.11	2.97	2.85		
35 versicherungen	2.75	2.66	1.82	2.64	2.58	2.61	2.65	2.66	2.40	2.18		
36 sonstige dienstleist	1.62	1.79	2.38	1.52	1.52	1.57	1.51	1.46	1.52	1.56		
37 staat	2.86	2.77	2.15	2.53	2.72	2.63	2.65	2.68	2.73	2.76		
38 private haushalte	-0.11	-0.58	-0.75	-0.43	-0.28	-0.35	-0.32	-0.28	-0.21	-0.14		
39 incl. erwerb. einpend	0.81	1.06	1.05	1.04	1.03	1.03	1.03	1.02	1.00	0.98		
40 ueb. welt erwerbstaet	-1.74	-1.89	-1.93	-1.96	-2.00	-1.98	-2.00	-2.02	-2.14	-2.23		
insgesamt	0.14	-0.65	-1.28	-0.45	-0.28	-0.36	-0.08	0.11	0.10	0.08		

bereiche	prognose:				ab. werte:				
	1975	brd 29 may 1979	1980	1981	1983	1984	1985	1988	1990
11 steine und erden	88.	108.	112.	109.	103.	110.	126.	137.	133.
12 glas	924.	1303.	1266.	1228.	1159.	1272.	1416.	1501.	1478.
15 giessereien	608.	849.	768.	804.	706.	808.	969.	1075.	1013.
16 stahlbau	2887.	3738.	3662.	3500.	3230.	3552.	4168.	4642.	4453.
17 nicht-str. fahrzg.	4522.	4465.	5197.	4604.	4587.	4525.	5042.	5890.	5842.
18 maschinenbau	31270.	40906.	40040.	38298.	35982.	39703.	46376.	50537.	48591.
19 strassenfahrzeuge	18171.	21713.	22693.	20977.	20497.	21613.	27863.	27320.	27320.
20 reparaturen	-3570.	-4327.	-4425.	-4176.	-3910.	-4222.	-4892.	-5380.	-5216.
21 datenverarbeitung	4448.	5641.	5927.	5320.	5024.	5457.	6480.	7279.	7147.
22 elektrotechnik	26019.	33878.	34467.	33366.	31045.	33920.	39732.	42790.	40922.
23 feinmechanik	1521.	2165.	2040.	1958.	1844.	2053.	2289.	2427.	2392.
24 ebm-waren	3446.	4797.	4656.	4344.	4104.	4549.	5196.	5623.	5507.
25 holz	3352.	4241.	4398.	4019.	3871.	4220.	4907.	5414.	5333.
29 textilien	170.	218.	222.	203.	197.	210.	237.	251.	259.
37 grosshandel	13397.	11504.	12890.	11879.	10179.	10465.	11726.	13342.	13175.
39 eisenbahn	582.	500.	560.	516.	442.	455.	509.	580.	572.
40 schifffahrt	545.	468.	524.	483.	414.	426.	477.	543.	536.
41 uebriger verkehr	940.	807.	904.	833.	714.	736.	823.	936.	924.
51 cftind-s	-8680.	-10519.	-10760.	-10153.	-9506.	-10266.	-11894.	-13081.	-12682.
insgesamt	100640.	122456.	125141.	118112.	110681.	119589.	138597.	152378.	147700.

bereiche	prognose:				wachstumsraten:					
	75-79	brd 29 may 1979-80	1980-81	81-82	82-83	81-83	81-84	81-85	81-90	95-90
11 steine und erden	5.11	3.41	-2.84	-1.18	-4.14	-2.66	0.45	3.70	2.26	1.10
12 glas	8.60	-2.87	-3.10	-2.30	-3.48	-2.89	1.18	3.56	2.06	0.86
15 giessereien	8.34	-10.00	4.54	-6.86	-6.15	-6.51	0.19	4.67	2.58	0.90
16 stahlbau	6.46	-2.06	-4.53	-4.73	-3.31	-4.02	0.49	4.36	2.68	1.33
17 nicht-str. fahrzg.	-0.32	15.17	-12.11	2.09	-2.45	-0.18	-0.58	2.27	2.65	2.95
18 maschinenbau	6.72	-2.14	-4.45	-3.97	-2.27	-3.12	1.20	4.78	2.64	0.93
19 strassenfahrzeuge	4.45	4.41	-7.86	-1.16	-1.16	-1.16	1.00	4.30	2.94	1.84
20 reparaturen	4.80	2.26	-5.81	-2.75	-3.84	-3.29	0.37	3.96	2.47	1.28
21 datenverarbeitung	5.94	4.94	-10.79	-3.61	-2.13	-2.87	0.85	4.93	3.28	1.96
22 elektrotechnik	6.60	1.72	-3.25	-2.42	-4.78	-3.60	0.55	4.37	2.27	0.59
23 feinmechanik	8.83	-5.96	-4.09	-3.69	-2.33	-3.01	1.57	3.90	2.22	0.83
24 ebm-waren	8.27	-2.99	-6.95	-4.54	-1.15	-2.85	1.54	4.48	2.64	1.16
25 holz	5.88	3.64	-9.02	-2.55	-1.21	-1.88	1.62	4.99	3.14	1.67
29 textilien	6.25	1.73	-9.06	-2.23	-0.72	-1.47	1.22	3.88	2.70	1.76
37 grosshandel	-3.81	11.37	-8.16	-2.60	-12.84	-7.72	-4.22	-0.32	1.15	2.33
39 eisenbahn	-3.81	11.37	-8.16	-2.60	-12.84	-7.72	-4.22	-0.32	1.15	2.33
40 schifffahrt	-3.81	11.37	-8.16	-2.60	-12.84	-7.72	-4.22	-0.32	1.15	2.33
41 uebriger verkehr	-3.81	11.37	-8.16	-2.60	-12.84	-7.72	-4.22	-0.32	1.15	2.33
51 cftind-s	4.80	2.26	-5.81	-2.75	-3.84	-3.29	0.37	3.96	2.47	1.28
insgesamt	4.91	2.17	-5.78	-2.75	-3.75	-3.25	0.41	4.00	2.48	1.27

bereiche	prognose:					ab. werte:					bauten i-o		
	1975	brd 29 may 1979	1981	1980	1981	1982	1983	1984	1985	1988	1990		
1 landwirtschaft	91.	106.	102.	102.	101.	99.	98.	104.	113.	123.	123.		
36 bauten	126904.	147350.	141823.	141823.	141032.	138452.	135731.	145377.	157416.	170565.	171823.		
51 cfttind-s	-2249.	-2610.	-2512.		-2498.	-2453.	-2404.	-2575.	-2788.	-3021.	-3044.		
insgesamt	124806.	144846.	139413.		138635.	136099.	133424.	142906.	154741.	167666.	168903.		

bereiche	prognose:					wachstumsraten:					bauten i-o		
	75-79	brd 29 may 79-80	1981	80-81	81-82	82-83	81-83	81-84	81-85	81-90	85-90		
1 landwirtschaft	3.72	-3.82	-0.56	-0.56	-1.85	-1.99	-1.92	1.01	2.75	2.19	1.75		
36 bauten	3.72	-3.82	-0.56	-0.56	-1.85	-1.99	-1.92	1.01	2.75	2.19	1.75		
51 cfttind-s	3.72	-3.82	-0.56	-0.56	-1.85	-1.99	-1.92	1.01	2.75	2.19	1.75		
insgesamt	3.72	-3.82	-0.56	-0.56	-1.85	-1.99	-1.92	1.01	2.75	2.19	1.75		

bereiche	prognose:					ab. werte:				
	1975	1979	1980	1981	1982	1983	1984	1985	1988	1990
1 landwirtschaft	14749.	15937.	15904.	15779.	15955.	16104.	16251.	16396.	16797.	17061.
2 elektrizitaet	11047.	13288.	14359.	14636.	14944.	15613.	16268.	16908.	18640.	19718.
3 gas	3639.	4515.	4893.	4983.	5119.	5380.	5635.	5885.	6556.	6976.
4 wasser	2165.	2579.	2613.	2613.	2696.	2774.	2849.	2922.	3108.	3224.
5 kohlenbergbau	1262.	910.	506.	289.	251.	90.	0.	0.	0.	0.
6 uebriger bergbau	76.	80.	76.	75.	77.	77.	77.	77.	78.	78.
8 chemie	10210.	11728.	11928.	12037.	12362.	12670.	12972.	13270.	14084.	14510.
9 mineraloel	14317.	16000.	16282.	16207.	16562.	16964.	17357.	17738.	18950.	19718.
10 kunststoffe	2985.	3734.	3744.	3743.	3914.	4052.	4189.	4324.	4690.	4933.
11 steine und erden	835.	979.	973.	968.	1002.	1027.	1051.	1075.	1140.	1184.
12 glas	1756.	2140.	2168.	2147.	2220.	2297.	2373.	2449.	2647.	2778.
13 stahl und eisen	449.	491.	497.	485.	490.	501.	512.	522.	548.	565.
17 nicht-str. fahrzg.	1068.	1472.	1382.	1347.	1450.	1495.	1539.	1580.	1673.	1732.
18 maschinenbau	526.	638.	683.	692.	717.	759.	802.	846.	976.	1068.
19 strassenfahrzeuge	15345.	22805.	21894.	21784.	23850.	25041.	26227.	27403.	30550.	32688.
20 reparaturen	13226.	17373.	17323.	17471.	18491.	19181.	19871.	20559.	22457.	23748.
21 datenverarbeitung	125.	181.	191.	198.	214.	230.	247.	264.	314.	350.
22 elektrotechnik	10576.	13520.	14770.	15155.	15823.	16870.	17950.	19062.	22409.	24794.
23 feinmechanik	3105.	4058.	4213.	4311.	4583.	4851.	5123.	5399.	6200.	6751.
24 ehm-waren	7163.	8546.	8769.	8764.	9097.	9479.	9865.	10255.	11348.	12107.
25 holz	16893.	20315.	21333.	21699.	22399.	23363.	24334.	25311.	28120.	30020.
26 papier und pappe	2150.	2480.	2545.	2559.	2608.	2670.	2731.	2790.	2945.	3041.
27 druckereien	6638.	7352.	7385.	7274.	7348.	7438.	7519.	7592.	7717.	7770.
28 leder	8304.	9189.	9317.	9106.	9605.	9793.	9977.	10155.	10397.	10565.
29 textilien	14140.	16488.	17073.	17244.	17723.	18333.	18942.	19547.	21228.	22335.
30 bekleidung	30990.	34759.	35637.	35722.	36487.	37471.	38446.	39409.	42006.	43698.
31 nahrungsmittel	37494.	41203.	41355.	41596.	42604.	43369.	44140.	44914.	47145.	48686.
32 milch	11615.	12348.	12015.	11840.	12036.	12042.	12040.	12030.	11878.	11784.
33 fleisch	32454.	36651.	37090.	36831.	37654.	38563.	39459.	40340.	42597.	44056.
34 getraenke	16908.	19927.	20984.	21326.	21884.	22764.	23654.	24553.	27157.	28927.
35 tabak	11502.	12132.	12194.	12363.	12667.	12877.	13089.	13303.	13944.	14387.
36 bauten	2390.	2749.	2820.	2810.	2826.	2869.	2909.	2946.	3027.	3069.
37 grosshandel	25071.	29402.	29841.	29878.	30900.	31862.	32829.	33803.	36481.	38274.
38 einzelhandel	59335.	69459.	70483.	70545.	72933.	75182.	77442.	79715.	85960.	90137.
39 eisenbahn	3841.	4146.	3944.	3853.	3960.	3991.	4001.	4011.	4013.	4020.
40 schifffahrt	442.	514.	498.	496.	519.	528.	537.	546.	568.	582.
41 uebriger verkehr	11034.	11931.	11235.	10987.	11301.	11313.	11324.	11333.	11284.	11265.
42 bundespost	5786.	7919.	8446.	8596.	8748.	9068.	9381.	9685.	10502.	11003.
43 banken und b.-geb.	12808.	17109.	17980.	18529.	19586.	20688.	21790.	22888.	25979.	27991.
44 versicherungen	9315.	10960.	11196.	11229.	11567.	11923.	12269.	12606.	13483.	14048.
45 gaststaetten	25162.	27501.	27960.	27768.	28087.	28582.	29059.	29517.	30623.	31507.
46 verlage	4010.	4494.	4529.	4473.	4531.	4600.	4663.	4722.	4839.	4899.
47 sonstige dienstl.	91280.	107786.	109556.	109212.	112119.	115214.	118217.	121122.	128419.	132941.
48 private haushalte	13581.	14783.	14871.	14502.	14597.	14795.	14976.	15140.	15416.	15555.
49 staat	4944.	5606.	5687.	5581.	5667.	5797.	5921.	6038.	6300.	6455.
insgesamt	572750.	668180.	679146.	679712.	700187.	720551.	740806.	760950.	815222.	850900.

bereiche	prognose:				1981				wachstumsraten:				pceio		85-90
	75-79	brd 29 may 79-80	30-81	81-82	82-83	81-83	81-84	81-85	81-90						
1 landwirtschaft	1.94	-0.21	-0.79	1.11	0.93	1.02	0.98	0.96	0.87	0.79					
2 elektrizitaet	4.62	7.75	1.91	2.09	4.38	3.23	3.52	3.61	3.31	3.03					
3 gas	5.39	8.05	1.81	2.69	4.97	3.83	4.10	4.16	3.74	3.40					
4 wasser	4.38	1.31	0.00	3.11	2.84	2.98	2.88	2.79	2.33	1.97					
5 kohlenbergbau	-8.18	-58.66	-55.90	-14.21	-102.14	-58.19	0.00	0.00	0.00	0.00					
6 uebriger bergbau	1.13	-4.01	-1.96	2.21	0.26	1.24	0.92	0.76	0.44	0.18					
8 chemie	3.47	1.69	0.91	2.67	2.46	2.56	2.50	2.44	2.15	1.92					
9 mineraloel	2.78	1.74	-0.46	2.17	2.40	2.28	2.28	2.26	2.18	2.12					
10 kunststoffe	5.60	0.26	-0.02	4.47	3.45	3.96	3.75	3.61	3.07	2.64					
11 steine und erden	3.99	-0.64	-0.54	3.46	2.43	2.94	2.75	2.64	2.24	1.93					
12 glas	4.94	1.30	-0.98	3.35	3.40	3.38	3.29	3.29	2.86	2.52					
13 stahl und eisen	2.23	1.23	-2.46	2.19	2.19	1.65	1.80	1.86	1.70	1.58					
17 nicht-str. fahrzq.	8.02	-6.30	-2.56	7.37	3.08	5.23	4.44	3.99	2.80	1.84					
18 maschinenbau	4.83	6.77	1.37	3.58	5.64	4.61	4.90	5.01	4.92	4.67					
19 strassenfahrzeuge	9.91	-4.08	-0.50	9.06	4.88	6.97	6.19	5.74	4.51	3.53					
20 reparaturen	6.22	-0.29	0.85	5.67	3.67	4.67	4.29	4.07	3.41	2.88					
21 datenverarbeitung	9.24	5.35	3.71	7.71	7.22	7.46	7.28	7.12	6.31	5.66					
22 elektrotechnik	6.32	8.10	2.57	4.31	6.41	5.36	5.64	5.73	5.47	5.26					
23 feinmechanik	6.69	3.76	2.29	6.11	5.69	5.90	5.75	5.63	4.98	4.47					
24 ebm-waren	4.41	2.58	-0.05	3.72	4.11	3.92	3.94	3.93	3.59	3.32					
25 holz	4.63	4.91	1.68	3.17	4.21	3.69	3.82	3.85	3.61	3.41					
26 papier und pappe	3.57	2.58	0.54	1.89	2.36	2.13	2.17	2.16	1.92	1.73					
27 druckereien	2.55	0.44	-1.50	1.01	1.22	1.11	1.10	1.07	0.73	0.46					
28 leder	2.53	1.38	-2.29	5.33	1.94	3.64	3.05	2.73	1.65	0.79					
29 textilien	3.75	3.49	1.00	2.74	3.39	3.06	3.13	3.13	2.87	2.67					
30 bekleidung	2.87	2.49	0.24	2.12	2.66	2.39	2.45	2.46	2.24	2.07					
31 naehrungsmittel	2.36	0.37	0.58	2.39	1.78	2.09	1.98	1.92	1.75	1.61					
32 milch	1.53	-2.74	-1.47	1.64	0.05	0.85	0.56	0.40	-0.05	-0.41					
33 fleisch	3.04	1.19	-0.70	2.21	2.39	2.30	2.30	2.28	1.99	1.76					
34 getraenke	4.11	5.17	1.62	2.58	3.94	3.26	3.45	3.52	3.39	3.28					
35 tabak	1.33	0.51	1.38	2.44	1.64	2.04	1.90	1.83	1.68	1.57					
36 bauten	3.50	2.54	-0.35	0.53	1.51	1.02	1.14	1.17	0.98	0.82					
37 grosshandel	3.98	1.48	0.12	3.36	3.07	3.21	3.14	3.09	2.75	2.43					
38 einzelhandel	3.94	1.46	0.09	3.33	3.04	3.18	3.11	3.06	2.72	2.46					
39 eisenbahn	1.91	-5.00	-2.07	2.98	0.28	1.63	1.17	0.94	0.44	0.05					
40 schiffahrt	3.79	-3.29	-0.42	4.56	1.80	3.18	2.70	2.43	1.80	1.29					
41 uebriger verkehr	1.74	-5.17	-2.24	2.81	0.11	1.46	1.01	0.77	0.29	-0.12					
42 bundespost	7.85	6.43	1.76	1.76	3.60	2.68	2.91	2.98	2.74	2.55					
43 banken und b.-geb.	7.24	4.97	3.01	5.55	5.48	5.51	5.40	5.28	4.58	4.03					
44 versicherungen	4.07	2.13	0.30	2.97	3.03	3.00	2.95	2.89	2.49	2.17					
45 saestuetten	2.22	1.66	-0.69	1.14	1.75	1.44	1.51	1.53	1.33	1.18					
46 verlage	2.85	0.74	-1.21	1.29	1.50	1.40	1.39	1.35	1.01	0.74					
47 sonstige dienstl.	4.16	1.63	-0.31	2.63	2.72	2.68	2.64	2.59	2.18	1.86					
48 private haushalte	2.12	0.60	-2.51	0.65	1.35	1.00	1.07	1.08	0.78	0.54					
49 staat	3.14	1.44	-1.88	1.53	2.26	1.90	1.97	1.97	1.62	1.33					
insgesamt	3.85	1.63	0.08	2.97	2.87	2.92	2.87	2.82	2.50	2.23					

bereiche	prognose:	brd 29 may 1981					wachstumsraten:					annahmen								
		75-79	79-80	80-81	81-82	82-83	81-83	81-84	81-85	81-86	81-87	81-88	81-89	81-90	81-91	81-92	81-93	81-94	81-95	81-96
1	population(mill.)	-0.01	0.00	-0.24	-0.24	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25
2	income percapita	4.13	1.53	0.38	3.25	3.15	3.20	3.15	3.15	3.15	3.15	3.15	3.10	2.77	2.50	2.50	2.50	2.50	2.50	2.50
14	spending rate	-0.14	0.00	0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	foreign demand	5.43	0.83	-0.40	2.10	3.85	2.97	3.32	3.48	3.48	3.48	3.48	3.48	3.91	4.26	4.26	4.26	4.26	4.26	4.26
9	exchange rate(f.c.)	-3.77	-1.17	-3.59	-2.47	-2.85	-2.66	-2.75	-2.82	-2.82	-2.82	-2.82	-2.82	-3.11	-3.33	-3.33	-3.33	-3.33	-3.33	-3.33
3	labor force	-0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	unemployment	-13.90	27.31	38.36	10.52	5.98	8.25	2.01	-2.99	-2.99	-2.99	-2.99	-2.99	-2.64	-2.36	-2.36	-2.36	-2.36	-2.36	-2.36

bereiche	prognose:	brd 29 may 1981					ab. werte:					annahmen								
		1975	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1	population(mill.)	61.53	61.50	61.50	61.35	61.20	61.05	60.90	60.75	60.30	60.30	60.30	60.30	60.00	60.00	60.00	60.00	60.00	60.00	60.00
2	income percapita	11021.00	13000.00	13200.00	13250.00	13687.50	14125.00	14562.50	15000.00	16200.00	16200.00	16200.00	16200.00	17000.00	17000.00	17000.00	17000.00	17000.00	17000.00	17000.00
14	spending rate	84.46	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00	84.00
20	foreign demand	100.00	124.24	125.27	124.77	127.41	132.41	137.84	143.39	163.05	163.05	163.05	163.05	177.40	177.40	177.40	177.40	177.40	177.40	177.40
9	exchange rate(f.c.)	100.00	86.00	85.00	82.00	80.00	77.75	75.50	73.25	66.50	66.50	66.50	66.50	62.00	62.00	62.00	62.00	62.00	62.00	62.00
3	labor force	26397.00	26148.43	26148.57	26148.71	26148.86	26149.00	26149.14	26149.29	26149.71	26149.71	26149.71	26149.71	26150.00	26150.00	26150.00	26150.00	26150.00	26150.00	26150.00
4	unemployment	918.00	528.62	694.62	1019.43	1132.52	1202.35	1082.64	904.64	798.97	798.97	798.97	798.97	804.01	804.01	804.01	804.01	804.01	804.01	804.01

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