

## Quot Homines, Tot Sententiae? A Survey Among Austrian Economists

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### Zusammenfassung

140 österreichische Ökonomen wurden gebeten, zu 44 Aussagen über ökonomische Fragen Stellung zu nehmen. Die mit Hilfe des Entropie-Maßes und einer bivariaten Probit-Analyse durchgeführte Auswertung zeigt zwar unterschiedliche Ansichten, aber auch eine statistisch erfaß- und interpretierbare Struktur in den Auffassungen. Im großen und ganzen können die österreichischen Ökonomen als Keynesianer bezeichnet werden; gegenüber einer eng definierten Neoklassik sind sie eher skeptisch. Dem Staat weisen sie im Wirtschaftsgeschehen eine wichtige Rolle zu. Auch die historische Entwicklung und gesellschaftlichen Schichten finden sie von großer Bedeutung. Die Unterschiede in den individuellen Antworten werden auf Einflußfaktoren wie Beruf, Alter und ideologische Selbsteinstufung zurückgeführt.

### 1. Consensus and dissension in economics

Modern economics is often seen as the most developed branch of social sciences: It is deemed to possess a well defined common core; to be able to explain facts; to allow the formulation of policy suggestions that can be checked with respect to both their theoretical and empirical foundations. The view that economists can give professional advice based not only on personal opinion but on a generally accepted theoretical framework is held not only among economists themselves but also among laymen and politicians. This is reflected, for example, by the high consideration given to the studies of economic research institutes and groups of experts by economic policy makers. A further indication of this high esteem is that an increasing number of economists are called into the political stage and there quite often make a brilliant career.

At the same time, economics is criticized for contributing only little to practical economic policy. The lively debate between monetarists and fiscalists (Keynesians) is said to have

\*) University of Zurich. The authors wish to thank all those who responded to and commented on the questionnaire. Given the anonymity of the inquiry it was not possible to reply to individual comments and suggestions; however, as far as possible they have been taken up in the writing of the report. For clarifying discussions the authors are indebted to Professor Gebhard Kirchgäßner (University of Osnabrück), Professor Kurt Rothschild (University of Linz), Dr. Wolfgang Weigel, Professor Georg von Winckler (both University of Vienna) and Dr. Hannelore Weck (University of Zurich). The authors are particularly grateful to Dr. Willi Nagel (University of Konstanz) for competent and helpful advice on the statistical evaluation.

shown a striking difference of opinions among economists(1). Allegedly, this is confirmed by the rising number of minority- or even counter-votes to the studies of the official authorities and research institutes in recent years.

According to economists (as well as laymen) there is therefore at the same time consensus and dissension in economics. This is as such no reason for complaint since difference of views is part of a free society and therefore desirable(2). Besides, a profound dissent among economists seems inevitable in times when the conventional doctrine proves unable to solve contemporary problems. Yet, too great a variety of opinions is harmful since it reduces greatly the impact on economic policy.

This paper presents an empirical investigation into the degree of consensus or dissension among Austrian economists on a series of economic issues. It also tries to find out whether there are systematic connections between the views expressed by different economists and certain personal characteristics such as occupation, age, and self-declared ideological position. Such an investigation may serve several purposes. First, it helps economic policy makers to identify the commonly accepted core of economic opinions and gives them some indication as to the relative importance of different paradigms among Austrian economists. If there is widespread dissension on economic policy on the whole or even on specific issues the political decision maker in his turn has to take into account a broader spectrum of opinions and arguments. Second, the inquiry gives useful hints to economics as a science (but also to economists themselves) whether the individual responses to the different issues (which are formulated partly as normative and partly as positive statements) are independent from the respondent's personal situation and views; or, conversely, to what extent personal characteristics such as age and occupation, or more subtle influence factors such as the self-understanding of the respondent as theoretical/practical worker and the self-declared ideological position impinge upon the responses(3). Furthermore, it provides information on whether new doctrines (like monetarism) can establish themselves against previous ones (like Keynesianism). Finally, the inquiry can provide useful guidelines for future research strategies as it points to particularly controversial issues where further research is needed most. It may also indicate areas for further training of economists outside the academic sector.

## 2. The inquiry

In summer 1981, a questionnaire was sent to 140 Austrian economists(4) with the request to express their opinion on a number of propositions listed, 44 in all. The response categories were given. Each proposition could be replied to by either "Generally agree", "Agree with provisions" or by "Generally disagree". A "No answer" category was not provided. The different propositions are listed in Appendix A, where also the complete results are reproduced. As can be seen from the Appendix, 58 percent of the respondents hold the view

that income redistribution is a legitimate task for government in developed industrial nations (proposition 40); a further 30 percent "agree with provisions" with this statement, and only 11 percent "generally disagree" (1 percent abstentions).

Our inquiry was stimulated by an investigation among American economists published in 1979(5), which solicited responses to a total of 30 propositions. 27 of them were retained in our survey(6). The three response categories are also taken from the American study(7). The 17 additional propositions refer to issues not raised in the American study but which in our view are important for European economists. They include statements on government influence (propositions 7, 11, 25, 32, 34, 39), on the role of power in the economy (proposition 18), on the behaviour of workers and employees (propositions 20, 28, 33), on the importance of historical references and of class-specific aspects for economic analysis (propositions 9, 30, 44), and on neo-classical theory (propositions 5, 14, 16, 23).

The economists in our sample were assured anonymity; with the questionnaire they received a mailed return envelope. 102 of the recipients filled out and sent back the questionnaire. The response rate of over 70 percent is relatively high compared with similar inquiries. 11 questionnaires could not be used due to answers missing so that the final sample included 91 people. With a few exceptions the questionnaire was replied to diligently and completely: 17 of the 44 propositions were evaluated by 99 percent of the respondents; only in the case of two propositions more than 5 percent refused to answer. Some of the written comments on the questionnaire were critical, particularly because, it was claimed, the propositions did not allow a clear and unequivocal response(8). A far greater number of comments, however, were positive: the inquiry is approved and is seen as a meaningful approach to gain more knowledge on consensus and dissension among economists.

Section 3 of our paper discusses the responses to the 44 propositions in various dimensions and examines to what extent there is consensus or dissension among Austrian economists. In Section 4 we want to find out whether the response pattern for the different propositions can be explained by a number of objective and subjective factors. Section 5 evaluates the responses to the questions on outstanding living economists and on the most important economic journals. Section 6 gives a summary of the main findings and draws some conclusions.

## 3. Interpretation of the results

The propositions can be classified into six categories. The first one is related to economic doctrines prevailing in Austria (neo-classical versus Keynesian). The others relate to the attitude vis-à-vis the price system (market economy and competition), the evaluation of government activities, the relevance of historical references and of social stratification for economic analysis, the effect of economic incentives, and to aspects of income distribution.

In order to interpret the responses, two criteria are applied: first the percentage shares of the three response categories and of the "No answer" option; second, the entropy measure stemming from information theory. By using the latter the concentration of responses and thus the degree of consensus (dissension) among Austrian economists can be assessed. The relative entropy measure  $\rho$  used in the following is standardized for the range between 0 and 1(9). If all economists reply in the same way, there is perfect consensus and  $\rho = 0$ ; questioning more than one of them would be redundant. Conversely, if there is perfect dissension, all possibilities of response are equally represented and  $\rho = 1$ : the responses do not exhibit any pattern and the group of economists can be regarded as entropic. In order to find out their opinion, it is necessary (not redundant) to ask a greater number of them(10).

### 3.1 What Austrian economists think

Contemporary economics may be divided into two main groups of doctrines (or paradigms): Neo-classics and Keynesianism. Though overlapping in some respect, their basic ideas and perceptions are different enough as to draw a clear borderline.

#### 3.1.1 Neo-classics

The neo-classical position is characterized by a clearly defined microeconomic theory and has been further developed on the macro level by monetarism(11) and more recently by supply side economics(12). Table 1 lists those propositions which refer to the neo-classical position.

*Table 1*

Attitude towards propositions on neo-classics					
	Generally agree	Agree with provisions	Generally disagree	No answer	Standardized relative entropy $\rho$
	percent				
23 Neo-classical theory is the only sensible basis for microeconomics	3.3	31.9	61.5	3.3	0.64
16 The utility-maximizing homo oeconomicus is a distorted view of reality and therefore useless	26.4	35.2	35.1	3.3	0.87
10 A minimum wage increases unemployment among young and unskilled workers	29.7	34.1	35.1	1.1	0.83
24 A ceiling on rents reduces the quantity and quality of housing available	45.0	44.0	11.0	0.0	0.70
5 Cash payments are superior to transfers-in-kind	42.8	35.2	18.7	3.3	0.83

Note: The lower (higher) the standardized relative entropy measure  $\rho$ , the more the responding economists agree (disagree).

"Neo-classics" according to our questionnaire is interpreted as follows: an economist committed to neo-classics will agree with proposition 23, whereby neo-classical theory is the only sensible basis for microeconomics. The survey results show, however, that a large majority holds a different view: 62 percent reject proposition 23 and as the  $\rho$  value of 0.64 shows there is widespread consensus in this rejection. Also, proposition 16 whereby the utility-maximizing homo oeconomicus is a distorted view of reality and therefore is useless, is agreed to by a majority; yet the degree of consensus is somewhat lower ( $\rho = 0.87$ ). A neo-classical economist will agree to propositions 10 ("A minimum wage increases unemployment among young and unskilled workers") and 24 ("A ceiling on rents reduces the quantity and quality of housing available"). However, there is widespread difference of opinions vis-à-vis proposition 10 because only 30 percent "generally agree" and 35 percent "generally disagree". Proposition 24 which is based on similar considerations is, however, accepted by almost 90 percent, a result which may be due to the specific features of the Austrian housing market. The view held in economic literature that cash payments are superior to transfers-in-kind (proposition 5) is, however, also accepted by a large majority. The general conclusion to be drawn from Table 1 is that Austrian economists, while agreeing with some propositions of neo-classics, can hardly be regarded as convinced neo-classical economists as they reject the absolute validity of this doctrine. A similar conclusion can be drawn from the propositions on monetarism. The view that "inflation is primarily a monetary phenomenon" (proposition 19) is rejected by 56 percent. Also proposition 4, whereby the money supply is a more important target than interest rates for monetary policy, is contested (30 percent rejection and 28 percent agreement without provisions;  $\rho = 0.86$ ). Furthermore, a large majority (68 percent) rejects the idea that the central bank should be instructed to increase the money supply at a fixed rate (proposition 26;  $\rho$  value of 0.61). There is considerable skepticism vis-à-vis supply side economics: 51 percent reject proposition 28, whereby employees can only be expected to provide a high level performance if they can be dismissed. Only 24 percent think that the income taxation as it exists in the developed industrial nations significantly reduces incentives to work (proposition 33), 40 percent clearly reject this proposition.

#### 3.1.2 Keynesianism

The "Keynesian" doctrine is basically a macroeconomic approach and has been further developed to Post-Keynesianism during the seventies(13). In the context of our survey "Keynesianism" is understood as follows: an economist subscribing to the Keynesian position will agree to propositions 13 ("Fiscal policy has a significant stimulative impact on a less than fully employed economy") and 37 ("The federal budget should be balanced over the business cycle rather than yearly"). Both views are accepted by a clear majority. Proposition 37 is agreed to even by more than two third of the respondents. i. e. there is widespread consensus ( $\rho = 0.62$ ) among Austrian economists that the budget should be balanced over the business cycle (rather than in every single year).

Attitude towards propositions on Keynesianism

Table 2

	Generally agree	Agree with provisions	Generally disagree	No answer	Standardized relative entropy
	percent				$\varrho$
13 Fiscal policy has a significant stimulative impact on a less than fully employed economy	51.6	36.3	6.6	5.5	0.76
37 The federal budget should be balanced over the business cycle rather than yearly	70.3	18.7	8.8	2.2	0.62
40 The redistribution of income in the developed industrial nations is a legitimate task for government	58.2	29.7	11.0	1.1	0.70
15 The distribution of income in the developed industrial nations should be more equal	46.1	30.8	19.8	3.3	0.83
22 Wage-price controls should be used to control inflation	17.6	29.7	51.6	1.1	0.76

Note: The lower (higher) the standardized relative entropy measure  $\varrho$ , the more the responding economists agree (disagree).

A further important aspect for Keynesian economists is the modification of the distribution of income by the government (proposition 40). 58 percent agree without provisions and 30 percent with provisions to the idea, that the redistribution of income is a legitimate task for the government. This view is reflected also in the responses to proposition 15 whereby the distribution of income in the developed industrial nations should be more equal. 46 percent generally agree with this proposition and only 20 percent reject it. On the other hand, measures of incomes policy as advocated by Post-Keynesians in the form of price and wage controls are clearly rejected: 52 percent of the respondents disagree with proposition 22. Yet, the responses show that on the whole Austrian economists sympathize with the Keynesian doctrine.

### 3.2 Attitudes towards the price system

There is consensus among the economists in our sample that competition is desirable in a market economy in which supply and demand are adjusted via the price mechanism (see Table 3).

A clear commitment to competition is implicit in the strong rejection of proposition 14 (87 percent "no"), whereby entrepreneurial initiative becomes impossible when many small firms compete. Likewise, economists disagree markedly (54 percent) with proposition 38 according to which the fundamental cause of the rise in oil prices of the past five years is the monopoly power of the large oil companies. Intervention into the "free play of the mar-

Attitude towards propositions on the price system

Table 3

	Generally agree	Agree with provisions	Generally disagree	No answer	Standardized relative entropy
	percent				$\varrho$
14 When many small firms compete, entrepreneurial initiative becomes impossible	1.1	7.7	86.8	4.4	0.37
38 The fundamental cause of the rise in oil prices of the past five years is the monopoly power of the large oil companies	16.5	28.6	53.8	1.1	0.75
6 Flexible exchange rates offer an effective international monetary arrangement	34.1	49.4	16.5	0.0	0.73
1 Tariffs and import quotas reduce general economic welfare	43.9	41.8	13.2	1.1	0.75

Note: The lower (higher) the standardized relative entropy measure  $\varrho$ , the more the responding economists agree (disagree).

ket" in the form of fixed exchange rates is rejected (proposition 6). There is also widespread agreement (of more than 80 percent) with proposition 1, whereby tariffs and import quotas reduce general economic welfare.

### 3.3 Evaluation of government activity

Austrian economists on the whole take a positive attitude vis-à-vis government activity, i. e. they reject the view that any government intervention is of evil and should therefore be discouraged (see Table 4).

This attitude emerges for example from the fact that proposition 42, whereby "consumer protection" laws generally reduce economic efficiency, is rejected by 70 percent ( $\varrho = 0.58$ ). Similarly, almost 70 percent subscribe to the claim that pollution ceilings should be imposed on individual enterprises (proposition 3). Only 4 percent are explicitly against imposition of such pollution ceilings. Furthermore, a large majority holds the view that planning of macroeconomic magnitudes is also necessary in countries with private ownership of capital (proposition 32).

Yet, there is considerable skepticism as regards public enterprises: 55 percent of the respondents think that public enterprises are in general less efficient than private enterprises (proposition 11). Only 24 percent fully agree with proposition 7, whereby state-owned television is better than private television. Again, only 24 percent generally agree with proposition 34, whereby especially dangerous goods should be manufactured by the government

Attitude towards propositions on the state

Table 4

	Generally agree	Agree with provisions	Generally disagree	No answer	Standardized relative entropy
	percent				$\varrho$
42 "Consumer protection" laws generally reduce economic efficiency	6.6	22.0	70.3	1.1	0.58
3 A maximum emission level for pollutants should be prescribed for individual enterprises	69.2	25.3	4.4	1.1	0.57
32 Planning of macroeconomic magnitudes is also necessary in countries with private ownership of capital	51.6	31.9	14.3	2.2	0.77
11 Public enterprises are (with few exceptions) less efficient than private enterprises	54.9	20.9	20.9	3.3	0.79
7 State-owned television is better than private television	24.2	37.3	36.3	2.2	0.84
34 Especially dangerous goods should be manufactured by the government	24.2	30.8	41.7	3.3	0.85
21 The government should restructure the welfare system along the lines of a "negative income tax"	22.0	27.5	42.8	7.7	0.90

Note: The lower (higher) the standardized relative entropy measure  $\varrho$ , the more the responding economists agree (disagree).

(the  $\varrho$  value is between 0.8 and 0.9 in all cases). Austrian economists are similarly skeptical albeit to a varying degree about major changes in social policy: the introduction of a "negative income tax" instead of the conventional welfare system is rejected by 43 percent (proposition 21).

### 3.4 Relevance of historical references and of social classes to economic analysis

A large majority is convinced that historical references as well as social strata (classes) are important factors to be taken into account in economic analysis. There is widespread consensus ( $\varrho = 0.67$ ) that when fighting inflation the historical background must be taken into consideration (more than 60 percent fully agree with proposition 9; see for the following also Appendix A). The Austrian economists also share the view that business cycle movements can only be adequately analysed when historical events are taken into account (again, over 60 percent agreement to proposition 30;  $\varrho = 0.72$ ). Furthermore, proposition 44 is rejected by a clear majority. 55 percent oppose the view that economic analysis can do without a distinction between different social strata (classes).

### 3.5 Impact of economic incentives

A majority of Austrian economists believe that co-determination ("Mitbestimmung") increases the productivity of the employees (19 percent fully agree and almost 60 percent with provisions to proposition 20). Positive incentives are considered more effective than negative ones via sanctions; thus, just more than half of the respondents contest proposition 28 (and only 14 percent agree with provisions), whereby employees can only be expected to work hard when they can be dismissed ( $\varrho = 0.72$ ). Things are less clear, as far as the effects of taxation on incentives are concerned. Proposition 33, according to which income taxation as it exists in the developed industrial nations significantly reduces the incentive to work is rejected by 40 percent and totally subscribed to by only 24 percent ( $\varrho = 0.84$ ). From these responses one may conclude that Austrian economists have some provisions about the effectiveness of economic incentives, a conclusion which is hardly surprising in view of the skeptical attitude towards neo-classical economics (see Section 3.1).

### 3.6 Income distribution

The view that the distribution of income in developed industrial nations should be more equal (proposition 15) is widely supported by Austrian economists. 46 percent generally agree with it and only 20 percent reject it. However, it is less clear in which way the distribution of income should be made more equal: the distribution of income and of economic power is seen as closely interrelated (more than 80 percent agreement with proposition 18). Curtailing the power of trade unions is rejected by a majority (proposition 43) which can be seen as a denial of government intervention into the wage autonomy of the social partners. Another possibility is redistribution via the public sector. This kind of distribution policy seems perfectly legitimate to Austrian economists (almost 60 percent fully agree with proposition 40), a view which already became clear from the discussion on the Keynesian doctrine.

Apart from the six different aspects elaborated here, other ones may be considered though we shall leave further analysis and interpretation of the responses to the reader as it would go beyond the scope of this paper. Our major interest will now focus on a comparison of the outstanding results with those of the other German speaking countries, i. e. the Federal Republic of Germany and Switzerland.

### 3.7 Comparison with other German speaking countries(14)

Appendix A shows the responses of German and Swiss economists to the same propositions presented to their Austrian colleagues. Furthermore, the last two columns show the results of the  $\chi^2$  test, i. e. to what extent the responses of Austrian economists are significantly different from those of German and Swiss economists(15).

For about a third of all propositions the views expressed by Austrian economists are hardly different from those of the two other German speaking countries. Marked differences do exist, however, with respect to a number of responses on the Keynesian doctrine (propositions 15, 22 and 40), which finds relatively stronger support among Austrian economists partly due to positive experience (e. g. with wage and price controls in order to combat inflation, proposition 22). It also becomes clear that Austrian economists are significantly less hostile to government intervention. They advocate to a relatively higher degree planning of macroeconomic aggregates (proposition 32), they rather disagree with proposition 11 whereby public enterprises are less efficient than private ones and they tend to sympathize with government regulations imposed on private enterprises for reasons of environment protection (proposition 3). Also with respect to the impact of economic incentives, Austrian economists take a somewhat different view from their German and Swiss colleagues. They give much greater support to proposition 20 according to which co-determination increases productivity; conversely, their dissension with proposition 28 is markedly more pronounced, i. e. that employees can only be expected to work hard when they can be dismissed. Finally, a significantly greater number of Austrian economists advocate redistribution of income through the public sector (propositions 15, 18, 40).

#### 4. Influence of individual characteristics on the views expressed

In this part we want to find out whether the attitudes adopted towards the different propositions can be explained by certain individual characteristics of the respondents. The inquiry collected information on the following characteristics(16):

— Occupation: a distinction was made between full professors of economics and other members of the teaching force (assistant professors and lecturers), economists employed in the public sector (non-university) and economists working in the private sector;

— Age: "lower" (up to 34 years), "middle" (between 35 and 54 years) and "higher" (55 years and above);

— Self-evaluation of the respondent as "practical" or "theoretical" economist;

— Self-declared ideological position on a "right-to-left" scale.

Whether or not the respondent had spent a study period in the United States was introduced as a further possible determining factor. All characteristics listed above are used in the following for a bivariate analysis of individual responses. Since the dependent variable is only adopting discrete values the probit analysis has been applied(17). The objective of the analysis is twofold:

1. We examine what influence a specific characteristic (like occupation etc.) has on the views expressed towards the different propositions. The impact of other characteristics is held constant respectively.

2. The opinions expressed can be generated on the basis of the personal characteristics of the respondents. Thus, the quality of the (statistical) explanation can be checked.

The following example may illustrate our procedure. Let us take proposition 19 whereby inflation is primarily a monetary phenomenon. 41 percent of the economists agree with this proposition (fully or with provisions), 56 percent disagree. The coded response (agreement = 1, dissension = 0) can be explained statistically by the following characteristics.

#### Attitude towards proposition 19

<i>Occupation</i>	
Agreement = 1, disagreement = 0	
Full professors	0.3
Assistant professors, lecturers	-0.1
Other public sector	-0.6*
Private sector	0.5
<i>Age</i>	
Agreement = 1, disagreement = 0	
"Lower" (up to 34)	-0.2
"Middle" (35 to 54)	0.3
"Higher" (55 and above)	-0.8*
<i>Self-evaluation</i>	
as "practical" (= 1) or "theoretical" (= -1) economist	-0.6*
<i>Self-declared ideological position</i>	
from "right" (= 1) to "left" (= -1)	2.1*
<i>Study period in the United States</i>	
yes = 1, no = -1	0.4

$N = 88$   $\chi^2 = 74.0$   $p = 0.51$

\*\* indicates statistical significance at the 99 percent level, \* at the 95 percent level and (\*) at the 90 percent level (two-sided test).

For the assessment of the statistical significance, a *t* test is applied as an approximation; see also Bock (1975).

The above estimate can be interpreted as follows (we shall discuss only those determinants that are statistically significant):

— A person employed in the civil service (non-university public sector) is *ceteris paribus* more inclined to reject proposition 19 than a member of any other occupational group.

- "Older" economists *ceteris paribus* disagree more with this proposition than their "younger" or "middle aged" colleagues.
- Those who see themselves as "practical" economists *ceteris paribus* tend more towards rejection of this proposition than those who see themselves as "theoreticians".
- Economists who declare themselves as "right-wing" rather hold the view that inflation is primarily a monetary phenomenon than those who see themselves as "left-wing".

By using the  $\chi^2$  test we want to find out to what extent the attitude towards proposition 19 (agreement versus rejection) can be explained (statistically) by the variables used. The  $p$  value of 0.51 is an approximate measure for the probability of the independent variables in sum influencing the dependent variable. 71.2 percent of the responses (agreement or rejection) can be reproduced correctly by using probit estimation, i. e. out of 88 responses 63 can be generated on the basis of the personal characteristics of the respondents. This result is better by 14 percentage points than a "naive" forecast of the responses based on an a priori distribution among the dependent variables (43 percent agreement and 57 percent rejection with respect to proposition 19); the extent of this improvement is statistically significant at the 99 percent level ( $\chi^2$  test).

Table 5 shows the results of the probit estimates for all 44 propositions. In order to facilitate the reading of the table only those coefficients have been reproduced which exhibit a significant influence on the response.

Table 5 shows that for the overwhelming majority of propositions the response depends on the ideological self-declaration of the respondent; only for six out of 44 propositions there is no significant influence. As could be expected, the impact of the ideological position is particularly strong for normative propositions as for example the issue of a reduction of public expenditure (proposition 31), a more equal distribution of income in industrial nations (15), the necessity of macro-planning also in countries with private ownership of capital (32) and a significant curtailing of the economic power of labour unions (43). For all these propositions implying a value judgement, but also for many propositions on government activity formulated in a "positive" way (where theory and empirical observation may give direction; propositions 7, 11, 24, 33, 40) economists who tend to be left-wing are *ceteris paribus* in favour of government intervention whereas rather right-wing economists want to confine government activity.

Apart from the ideological position the self-declared status of a respondent as "practical" or "theoretical" economist is of great influence (significant for 17 out of 44 propositions). The general picture is that those who see themselves as "theoreticians" *ceteris paribus* exhibit a stronger commitment to neo-classical theory. This group rejects for example proposition 16 whereby the utility-maximizing homo oeconomicus is a useless concept, as opposed to the "practical" economists (conversely, the "theoreticians" rather agree to propositions 27, 28, 33, 36 and 44).

As far as the impact of occupational characteristics is concerned it is eye-catching that economists in the civil service (non-university) and those working in the private sector have opposite views on a number of propositions. Economists employed in the public sector reject *ceteris paribus* the introduction of a "negative income tax" (proposition 21), those in the private sector sympathize with such a measure; public sector employees deny the negative influence of rent controls (24), whereas private sector employees regard it as significant; public sector economists, unlike those working in the private sector, do not think that "consumer protection" laws reduce economic efficiency (42). This result is not surprising if one assumes that each occupational group defends its specific interest. Public sector employees draw considerable benefit from a higher degree of government intervention. Thus they oppose a cut in public expenditure (proposition 31) and particularly contest proposition 36 according to which deregulation would improve the efficiency of the economy. Conversely, economists working in the private sector can improve their own situation when the government leaves them a high degree of freedom and interferes little into the economic process.

As far as the influence of the age variable is concerned, no systematic differences can be observed. This is somewhat surprising, as one may expect from the usual generation pattern that younger economists may be more inclined to accept new lines of thought (in our particular case monetarism). From the older ones one may expect that they would rather declare themselves in favour of the existing theory (especially in favour of Keynesianism) since this amounts to a large part of their human capital; abandoning the existing theory would reduce the value of this capital. The results of the probit estimation, however, cast some doubt on this conventional generation pattern. In some cases it is the younger economists who adopt a more critical or even hostile attitude towards monetarism but also towards neo-classics (e. g. propositions 4, 6, 10, 33).

Finally, we examine to what extent a research or study period in the United States impinges upon the individual response(18). One may expect those who spent some time in the United States to adhere more to neo-classical theory and to have adopted some typical American attitudes, e. g. confidence in the success of personal effort and distrust vis-à-vis the government(19). Such expectations are largely confirmed by the estimation results. Economists who spent some time in the United States do not like to see the government as an employer of last resort (proposition 2), they regard a minimum wage as well as the existing system of income taxation as having a bad influence (10, 33), they reject macro-planning (32) and think that historical references and social strata (classes) do not play a major role in economic analysis (9, 30, 44).

The above discussion of the estimation results with respect to particular determinants shows that the views expressed by Austrian economists exhibit a visible structure. A large share of individual responses can be adequately reproduced using the probit analysis. For the average of all 44 propositions, almost four fifths (79.3 percent) of the views expressed by the 91 economists could be generated correctly. The *ex post* forecasts are thus by

Determinants of responses, statistically

	Constant	Occupation				Age		
		Full profes- sors	Assistant professors, lecturers	Other pub- lic sector	Private sector	'Lower'	'Middle'	'Higher'
		yes = 1, otherwise = -1				up to 34 = 1, otherwise = -1	35 to 54 = 1, otherwise = -1	55 and above = 1, otherwise = -1
1 Tariffs and import quotas reduce general economic welfare	1.3**	—	—	—	—	—	—	—
2 The government should be an employer of last resort and initiate a guaranteed job program	0.9(*)	—	—	—	—	—	—	0.3*
3 A maximum emission level for pollutants should be prescribed for individual enterprises	3.0**	—	—	—	—	—	—	—
4 The money supply is a more important target than interest rates for monetary policy	0.4	-0.6*	—	-0.8*	—0.7(*)	—	—	—
5 Cash payments are superior to transfers-in-kind	0.6	-0.3(*)	—	-0.6(*)	-0.8(*)	—	—	—
6 Flexible exchange rates offer an effective international monetary arrangement	2.7**	—	—	—	1.1*	-0.5(*)	—	—
7 State-owned television is better than private television	0.4	—	-0.4(*)	0.5*	—	—	—	—
8 The "Corporate State", as depicted by Galbraith, accurately describes the context and structure of advanced economies	0.8**	-0.6*	—	—	—	—	—	—
9 When fighting inflation, the historical background must be taken into consideration	2.9**	—	—	—	—	—	0.9*	—
10 A minimum wage increases unemployment among young and unskilled workers	0.6*	—	—	—	0.8*	-0.9*	—	—
11 Public enterprises are (with few exceptions) less efficient than private enterprises	2.9**	0.5*	0.8*	—	—	—	—	—
12 The government should index the income tax rate structure for inflation	-0.4	—	—	—	0.5(*)	-0.4(*)	—	—
13 Fiscal policy has a significant stimulative impact on a less than fully employed economy	2.6**	—	—	0.6*	—	—	-0.5(*)	—

significant coefficients of the probit estimation

Table 5

	Test statistics		Share of responses predicted correctly (ex post)	Percent agreement/Percent disagreement of the dependent variable (proportion)	Number of respondents				
	$\chi^2$	p					percent	percent	N
	'Practical' versus 'theoretical' economists = 1, -1	Self-declared ideological position = 1, -1				Study period in the US = 1, no = -1			
	'practical' = 1, 'theoretical' = -1	'right' = 1, 'left' = -1				yes = 1, no = -1			
Tariffs and import quotas reduce general economic welfare	-0.4(*)	0.7(*)	—	62.2	0.30	89.0	86.4/13.6	90	1
The government should be an employer of last resort and initiate a guaranteed job program	—	-3.6**	-0.3*	79.8	0.20	78.0	66.5/33.5	90	2
A maximum emission level for pollutants should be prescribed for individual enterprises	—	-3.1**	—	29.2	0.99	96.0	95.0/ 5.0	90	3
The money supply is a more important target than interest rates for monetary policy	—	1.6*	0.4(*)	69.3	0.40	79.1	69.2/30.8	88	4
Cash payments are superior to transfers-in-kind	—	1.0(*)	—	79.0	0.21	81.1	80.2/19.8	88	5
Flexible exchange rates offer an effective international monetary arrangement	—	2.4*	—	51.2	0.90	89.3	80.5/16.5	91	6
State-owned television is better than private television	—	-5.2**	0.5*	71.6	0.71	78.1	62.1/37.9	89	7
The "Corporate State", as depicted by Galbraith, accurately describes the context and structure of advanced economies	—	-1.3(*)	—	86.7	0.15	79.1	75.0/25.0	90	8
When fighting inflation, the historical background must be taken into consideration	0.4(*)	—	-0.6*	68.2	0.45	83.4	81.3/18.7	91	9
A minimum wage increases unemployment among young and unskilled workers	—	1.5(*)	0.4*	73.1	0.33	77.5	64.1/35.9	90	10
Public enterprises are (with few exceptions) less efficient than private enterprises	—	2.4**	—	68.4	0.41	82.9	78.0/22.0	88	11
The government should index the income tax rate structure for inflation	—	1.3(*)	—	101.4	0.04	55.0	52.0/48.0	89	12
Fiscal policy has a significant stimulative impact on a less than fully employed economy	—	-3.6**	—	43.5	0.91	96.1	91.1/ 8.9	86	13



Determinants of responses, statistically

significant coefficients of the probit estimation

Table 5 (Continued)

	Constant	Occupation				Age			"Practical" versus "theoretical" economists	Self-declared ideological position	Study period in the US	Test statistics		Share of responses predicted correctly (ex post)	Percent agreement/Percent disagreement of the dependent variable (proposition)	Number of respondents		
		Full professors	Assistant professors, lecturers	Other public sector	Private sector	"Lower"	"Middle"	"Higher"				$\chi^2$	p					
		yes = 1, otherwise = -1				up to 34 = 1, otherwise = -1	35 to 54 = 1, otherwise = -1	55 and above = 1, otherwise = -1	"practical" = 1, "theoretical" = -1	"right" = 1, "left" = -1	yes = 1, no = -1			percent	percent	N		
14	-2.6**	-0.4*							0.6(*)	-0.3*		41.7	0.80	91.0	11.7/88.3	87	When many small firms compete, entrepreneurial initiative becomes impossible	14
15	1.8**		0.2*	0.5*						-3.1**		70.5	0.51	80.3	79.1/20.9	88	The distribution of income in the developed industrial nations should be more equal	15
16	0.6(*)		0.4(*)				0.6(*)		0.5*	-2.1**		86.1	0.26	75.0	63.8/36.2	88	The utility-maximizing homo oeconomicus is a distorted view of reality and therefore useless	16
17	2.5**	-0.3*		0.2(*)		1.2*			0.6(*)			61.9	0.64	89.4	87.9/12.1	88	Antitrust laws should be used vigorously to reduce monopoly power from its current level	17
18	2.0**					0.3*			0.2*	-2.5*		69.8	0.71	84.5	83.4/16.6	88	The distribution of income reflects the distribution of economic power	18
19	-0.3(*)			-0.6*					-0.6*	2.1*		74.0	0.51	71.2	42.9/57.1	88	Inflation is primarily a monetary phenomenon	19
20	1.6*									-1.7**	-0.5*	75.0	0.50	81.7	79.8/20.2	87	Co-determination increases the productivity of the employees	20
21	0.9(*)		-0.6(*)	-0.4(*)	0.5*					1.2(*)	0.3(*)	73.0	0.55	67.1	54.7/45.3	84	The government should restructure the welfare system along the lines of a "negative income tax"	21
22	-0.			0.6(*)						-2.3**		84.1	0.22	70.1	48.0/52.0	90	Wage-price controls should be used to control inflation	22
23	-0.9*						0.5*			1.5**		85.7	0.21	74.0	37.4/62.6	88	Neo-classical theory is the only sensible basis for microeconomics	23
24	-1.2*			-1.7**	1.5**		0.6*			2.8**		25.8	0.99	94.0	89.0/11.0	91	A ceiling on rents reduces the quantity and quality of housing available	24
25	-0.9(*)									1.8*		80.2	0.25	76.3	40.3/59.7	90	Economists should study the effects a new tax system will have on social welfare, but not the problems of political decision-making connected with it or of its practical implementation	25
26	-0.7(*)		0.5(*)							3.4*	0.6*	79.1	0.35	75.3	31.2/68.8	89	The central bank should be instructed to increase the money supply at a fixed rate	26

Determinants of responses, statistically

	Constant	Occupation			Age			
		Full profes- sors	Assistant professors, lic sector lecturers	Other pub- lic sector	Private sector	"Lower"	"Middle"	"Higher"
		yes = 1, otherwise = -1			up to 34 = 1, otherwise = -1	35 to 54 = 1, otherwise = -1	55 and above = 1, otherwise = -1	
27 Effluent taxes represent a better approach to pollution control than imposition of pollution ceilings	-0.4(*)	—	—	-0.8*	0.5(*)	—	—	—
28 A high level of performance can only be expected of employees if they can be dismissed	0.6(*)	0.3*	—	-0.5*	—	0.7*	—	—
29 The government should issue an inflation indexed security	-0.8*	-0.5(*)	—	-0.6(*)	—	-0.8*	—	—
30 Business cycle movements can only be adequately analysed when historical events are taken into account	2.7**	-0.7(*)	—	—	—	0.3*	—	—
31 The level of government spending should be reduced (disregarding expenditures for stabilization)	1.3(*)	-0.7*	—	-1.1*	—	-0.5*	—	—
32 Planning of macroeconomic magnitudes is also necessary in countries with private ownership of capital	3.4**	—	—	—	-0.9*	—	—	—
33 Income taxation as it exists in the developed industrialized nations significantly reduces the incentive to work	1.4**	—	1.1*	—	—	-0.8*	—	—
34 Especially dangerous goods should be manufactured by the government	0.5(*)	0.3*	—	—	—	—	0.3*	—
35 The central bank has the capacity to achieve a constant rate of growth of the money supply if so desired	2.3**	0.8*	—	—	0.6**	0.6*	—	—
36 Reducing the influence of regulatory authorities (e. g. in air traffic) would improve the efficiency of the economy	0.4(*)	—	—	-0.4**	—	—	—	—
37 The federal budget should be balanced over the business cycle rather than yearly	2.2**	—	5.1**	—	—	—	0.6(*)	—

significant coefficients of the probit estimation

	"Practical" versus "theoretical" economists	Self-declared ideological position	Study period in the US	Test statistics		Share of responses predicted correctly (ex post)	Percent agreement of the dependent variable (proposition)	Number of respondents
				$\chi^2$	p			
	"practical" = 1, "theoretical" = -1	"right" = 1, "left" = -1	yes = 1, no = -1	percent	percent	N		
	-0.5*	1.5*	0.6*	79.0	0.35	74.2	44.4/55.6	89
	-0.7*	4.4**	—	74.2	0.60	84.6	49.5/50.5	91
	-0.4(*)	1.8*	—	85.7	0.23	73.6	46.7/53.3	89
	—	—	-1.2*	53.9	0.72	89.4	87.2/12.8	89
	-0.8*	5.8**	—	61.9	0.80	83.6	68.6/31.4	90
	0.3*	-3.6**	-1.1*	50.1	0.99	86.8	85.0/15.0	89
	-0.9**	5.0**	0.4(*)	60.9	0.70	81.4	59.8/40.2	89
	0.2*	-1.8**	—	81.9	0.20	67.0	57.2/42.8	88
	-0.5*	1.4(*)	—	73.3	0.33	77.0	58.0/42.0	87
	-0.8**	3.2**	—	78.0	0.23	78.0	56.9/43.1	90
	—	-2.4*	—	46.1	0.99	91.0	90.5/ 9.5	89

Table 5 (Continued)

Effluent taxes represent a better approach to pollution control than imposition of pollution ceilings 27

A high level of performance can only be expected of employees if they can be dismissed 28

The government should issue an inflation indexed security 29

Business cycle movements can only be adequately analysed when historical events are taken into account 30

The level of government spending should be reduced (disregarding expenditures for stabilization) 31

Planning of macroeconomic magnitudes is also necessary in countries with private ownership of capital 32

Income taxation as it exists in the developed industrialized nations significantly reduces the incentive to work 33

Especially dangerous goods should be manufactured by the government 34

The central bank has the capacity to achieve a constant rate of growth of the money supply if so desired 35

Reducing the influence of regulatory authorities (e. g. in air traffic) would improve the efficiency of the economy 36

The federal budget should be balanced over the business cycle rather than yearly 37

Determinants of responses, statistically

	Constant	Occupation				Age		
		Full profes- sors	Assistant professors, lecturers	Other pub- lic sector	Private sector	"Lower"	"Middle"	"Higher"
		yes = 1, otherwise = -1				up to 34 = 1, otherwise = -1	35 to 54 = 1, otherwise = -1	55 and above = 1, otherwise = -1
38 The fundamental cause of the rise in oil prices of the past five years is the monopoly power of the large oil companies	1.6(*)	-0.5**	-	-	-	-	-	-
39 Politicians make efforts to undertake policies that maximize the social welfare	1.0(*)	-	-	0.5(*)	-0.3(*)	-	-	0.8*
40 The redistribution of income in the developed industrial nations is a legitimate task for the government	1.9**	-	-	-	-1.0**	-	-0.8(*)	-
41 In the short run, unemployment can be reduced by increasing the rate of inflation	0.7*	-0.6*	-	-	-	-	-	-
42 "Consumer protection" laws generally reduce economic efficiency	0.9**	0.2*	-	-0.6*	0.4*	-	-	-
43 The economic power of labour unions should be significantly curtailed	-0.6*	-	-	-	0.2*	-	-	-
44 Economic analysis of modern industrial societies can do without a distinction between different social strata (classes)	-0.4(*)	0.4*	-	-	-	-	-	-

\*\* indicates statistical significance at the 99 percent level, \* at the 95 percent level and (') at the 90 percent level. Note: Non-respondents are excluded from the probit estimation. Thus, the number of observations

significant coefficients of the probit estimation

Table 5 (Continued)

	"Practical" versus "theoretical" economists	Self-declared ideological position	Study period in the US	Test statistics		Share of responses predicted (ex post)	Percent agreement/Percent disagreement of the dependent variable (proposition)	Number of respondents
				$\chi^2$	p			
	"practical" = 1, "theoretical" = -1	"right" = 1, "left" = -1	yes = 1, no = -1			percent	percent	N
	-	-0.8(*)	-	86.1	0.21	61.9	45.8/54.2	90
	-	-	-	108.3	0.01	53.4	51.0/49.0	89
	-	-3.4**	-	37.6	0.99	92.3	88.6/11.4	90
	-	-	-0.7(*)	88.9	0.21	77.2	74.0/26.0	89
	-	1.8*	-	86.9	0.25	78.0	29.3/70.7	90
	-	3.2**	0.3*	87.4	0.23	72.8	47.0/53.0	90
	-0.2*	1.7*	0.4*	85.3	0.27	72.5	44.4/55.6	89

90 percent level (two-sided test).

(last column) is between 84 and 91 (highest N) depending on the proposition.

10 percentage points better than naive forecasts on the basis of the a priori distribution of agreement and rejection which altogether amounts to 69.9 percent (referring again to the average of all propositions). The picture is of course more complicated when concentrating on particular propositions. For 19 out of 44 propositions the ex post forecasts using probit estimation are significantly better than the corresponding naive forecasts (on average 74.4 percent are forecast correctly, against 61.9 percent with naive forecasts)(20); for the other 25 propositions probit estimation is better in most cases, as expected, though the superiority over the naive forecast is not statistically significant.

5. Important periodicals and economists

In addition to the 44 propositions, two questions with open responses were posed in the questionnaire in order to investigate into the reputation of scientific periodicals and of living economists. The responses to the first question provide information on the dissemination of scientific information among academics and between academics and "practical" economists. This aspect has almost developed into a discipline of its own in economics(21).

Table 6

Appraisal of economic periodicals			
Rank of importance	Austria	Federal Republic of Germany	Switzerland
1	American Economic Review	American Economic Review	American Economic Review
2	Kyklos	Kyklos	Kyklos
3	Zeitschrift für die gesamte Staatswissenschaft	Zeitschrift für die gesamte Staatswissenschaft	Schweizerische Zeitschrift für Volkswirtschaft und Statistik
4	Economic Journal	Jahrbücher für Nationalökonomie und Statistik	Weltwirtschaftliches Archiv
5	Zeitschrift für Nationalökonomie	Weltwirtschaftliches Archiv	Harvard Business Review
6	Finanzarchiv	Journal of Political Economy	Economic Journal
7	Journal of Economic Literature	Finanzarchiv	Zeitschrift für die gesamte Staatswissenschaft
8	Journal of Political Economy	Economic Journal	Zeitschrift für die Betriebswirtschaft
9	Weltwirtschaftliches Archiv	Econometrica	Journal of Political Economy
10	Quarterly Journal of Economics	Journal of Economic Literature	Management Science

Such questions having been posed also to economists in Germany and Switzerland a direct comparison of the results can be drawn (Table 6)(22).

As can be seen from Table 6, the "American Economic Review" is rated highest also in Austria, followed by "Kyklos" which takes the second place also in the two other German speaking countries(23). Highly ranked in all three countries is also the "Zeitschrift für die gesamte Staatswissenschaft" as well as the "Economic Journal", the "Journal of Political Economy" and the "Weltwirtschaftliches Archiv". It is not surprising that the "Zeitschrift für Nationalökonomie" and the "Schweizerische Zeitschrift für Volkswirtschaft und Statistik" enjoy a high reputation particularly in Austria and in Switzerland respectively.

The economists in our sample have also dealt with the second question concerning the importance of living economists(24). The responses to this question are reproduced in Table 7.

In response to the question "To which living economists would you have attributed the first two Nobel Prize Awards in economics?" Paul A. Samuelson was named most frequently in Austria as well as in Germany, whereas in Switzerland it is Milton Friedman who takes the top position (in Germany he takes the second place). In Austria, Milton Friedman is found only at rank eight. Highly esteemed by Austrian economists (but also by their German and Swiss colleagues) is Friedrich von Hayek, but also Gottfried Haberler for rather obvious rea-

Table 7

Appraisal of economists			
Rank of importance	Austria	Federal Republic of Germany	Switzerland
1	P. A. Samuelson <sup>N</sup>	P. A. Samuelson <sup>N</sup>	M. Friedman <sup>N</sup>
2	J. Robinson	M. Friedman <sup>N</sup>	P. A. Samuelson <sup>N</sup>
3	F. A. v. Hayek <sup>N</sup>	F. A. v. Hayek <sup>N</sup>	J. K. Galbraith
4	J. Hicks <sup>N</sup>	J. Tinbergen <sup>N</sup>	J. Tinbergen <sup>N</sup>
5	K. Arrow <sup>N</sup>	J. Robinson	F. A. v. Hayek <sup>N</sup>
6	W. Leontief <sup>N</sup>	J. Hicks <sup>N</sup>	J. Hicks <sup>N</sup>
7	J. Tinbergen <sup>N</sup>	W. Leontief <sup>N</sup>	J. Tobin <sup>(N)</sup>
8	M. Friedman <sup>N</sup>	J. K. Galbraith	J. Robinson
9	N. Kaldor	G. Myrdahl <sup>N</sup>	K. Brunner <sup>N</sup>
10	G. Haberler	K. Arrow <sup>N</sup>	W. Leontief <sup>N</sup>

Note: Nobel Laureates are marked by N (J. Tobin received the Nobel Prize only after the time of the inquiry).

sons. An outstanding position in Austria is attributed to Keynesian economists who have concentrated on issues of distribution and growth (Joan Robinson who at the date of our survey was still living, and Nicholas Kaldor), Joan Robinson even occupying the second place (behind Paul A. Samuelson). This rank order may suggest that Austrian economists do not fully agree with the decisions of the Nobel Prize Committee since Joan Robinson enjoying such a high reputation in Austria has not received the Nobel Prize. Like in the two other German speaking countries, however, also mathematically oriented economists and econometricians are considered important (John Hicks, Kenneth Arrow, Wassily Leontief and Jan Tinbergen).

## 6. Concluding remarks

Quot homines — tot sententiae? Is it really true that in Austria there are as many different opinions as economists? Our investigation shows that different opinions do actually, and fortunately, exist, but the difference of opinions exhibits a certain pattern which lends itself to statistical assessment and interpretation. By and large the Austrian economists can be regarded as Keynesians; they attribute an important role to the government in the economy as regards both the allocation of resources and the distribution of income. Furthermore, they regard historical references and social stratification as highly relevant. They are rather skeptical about a narrowly defined neo-classical approach to economics.

Personal characteristics such as occupation, age and self-declared ideological position have been used to explain significant differences of opinions. Not surprisingly, the attitudes adopted towards the different propositions depend on the ideological position of the re-

Appendix A: Responses

	Austria					Federal Republic of Germany				
	Generally agree	Agree with provisions	Generally disagree	No answer	Standardized relative entropy $\rho$	Generally agree	Agree with provisions	Generally disagree	No answer	Standardized relative entropy $\rho$
	percent					percent				
1 Tariffs and import quotas reduce general economic welfare	43.9	41.8	13.2	1.1	0.75	69.6	24.2	5.5	0.7	0.57
2 The government should be an employer of last resort and initiate a guaranteed job program	30.8	35.1	33.0	1.1	0.83	8.1	27.1	63.7	1.1	0.65
3 A maximum emission level for pollutants should be prescribed for individual enterprises	69.2	25.3	4.4	1.1	0.57	51.7	29.3	18.3	0.7	0.75
4 The money supply is a more important target than interest rates for monetary policy	27.5	39.5	29.7	3.3	0.86	41.0	35.2	20.9	2.9	0.84
5 Cash payments are superior to transfers-in-kind	42.8	35.2	18.7	3.3	0.83	46.2	26.0	20.5	7.3	0.88
6 Flexible exchange rates offer an effective international monetary arrangement	34.1	49.4	16.5	0.0	0.73	62.0	30.0	5.1	2.9	0.66
7 State-owned television is better than private television	24.2	37.3	36.3	2.2	0.84	20.9	35.5	41.0	2.6	0.83
8 The "Corporate State", as depicted by Galbraith, accurately describes the context and structure of advanced economies	36.3	38.4	24.2	1.1	0.81	33.7	42.5	23.1	0.7	0.80
9 When fighting inflation, the historical background must be taken into consideration	61.5	19.8	18.7	0.0	0.67	47.6	30.8	20.5	1.1	0.79
10 A minimum wage increases unemployment among young and unskilled workers	29.7	34.1	35.1	1.1	0.83	44.3	24.9	29.7	1.1	0.81
11 Public enterprises are (with few exceptions) less efficient than private enterprises	54.9	20.9	20.9	3.3	0.79	62.7	25.6	10.6	1.1	0.72
12 The government should index the income tax rate structure for inflation	24.2	26.4	47.2	2.2	0.82	23.1	21.2	53.9	1.8	0.77
13 Fiscal policy has a significant stimulative impact on a less than fully employed economy	51.6	36.3	6.6	5.5	0.76	31.1	51.3	11.7	5.9	0.81
14 When many small firms compete, entrepreneurial initiative becomes impossible	1.1	7.7	86.8	4.4	0.37	0.4	5.8	92.3	1.5	0.23

to the 44 propositions

	Switzerland					$\chi^2$ test for differences in responses				
	Generally agree	Agree with provisions	Generally disagree	No answer	Standardized relative entropy $\rho$	Austria - Federal Republic of Germany		Austria - Switzerland		
	percent					$\chi^2$	$p$	$\chi^2$	$p$	
Tariffs and import quotas reduce general economic welfare	47.2	40.2	10.1	2.5	0.75	19.41*	0.00	1.40	0.71	1
The government should be an employer of last resort and initiate a guaranteed job program	14.6	37.2	47.2	1.0	0.76	36.07*	0.00	10.94*	0.01	2
A maximum emission level for pollutants should be prescribed for individual enterprises	57.3	29.1	13.1	0.5	0.70	15.44*	0.00	7.36*	0.06	3
The money supply is a more important target than interest rates for monetary policy	62.9	26.1	9.5	1.5	0.67	6.11*	0.11	35.89*	0.00	4
Cash payments are superior to transfers-in-kind	36.9	31.8	21.7	9.6	0.93	4.22	0.24	5.31	0.15	5
Flexible exchange rates offer an effective international monetary arrangement	52.5	38.9	7.6	1.0	0.68	31.58*	0.00	13.11*	0.00	6
State-owned television is better than private television	15.6	42.7	39.2	2.5	0.80	0.83	0.84	3.02	0.39	7
The "Corporate State", as depicted by Galbraith, accurately describes the context and structure of advanced economies	28.3	53.0	17.7	1.0	0.75	0.54	0.91	5.47*	0.03	8
When fighting inflation, the historical background must be taken into consideration	45.5	25.3	27.8	1.5	0.81	7.50*	0.06	9.11*	0.03	9
A minimum wage increases unemployment among young and unskilled workers	35.6	30.7	32.2	1.5	0.84	6.51*	0.09	1.16	0.76	10
Public enterprises are (with few exceptions) less efficient than private enterprises	58.3	27.6	14.1	0.0	0.68	7.98*	0.05	9.95*	0.02	11
The government should index the income tax rate structure for inflation	30.7	26.6	42.2	0.5	0.80	1.43	0.70	2.87	0.41	12
Fiscal policy has a significant stimulative impact on a less than fully employed economy	42.2	40.7	12.1	5.0	0.82	12.67*	0.01	3.51	0.32	13
When many small firms compete, entrepreneurial initiative becomes impossible	2.0	8.1	89.9	0.0	0.27	3.45	0.33	5.41	0.14	14

Appendix A: Responses

to the 44 propositions

(Continued)

	Austria					Federal Republic of Germany					Switzerland				$\chi^2$ test for differences in responses						
	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy $\rho$	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy $\rho$	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy $\rho$	Austria - Federal Republic of Germany		Austria - Switzerland			
	percent					percent					percent				$\chi^2$	$p$	$\chi^2$	$p$			
15 The distribution of income in the developed industrial nations should be more equal	46.1	30.8	19.8	3.3	0.83	24.9	30.8	41.7	2.6	0.84	25.1	35.7	36.2	3.0	0.86	19.76*	0.00	14.52*	0.00	The distribution of income in the developed industrial nations should be more equal	15
16 The utility-maximizing homo oeconomicus is a distorted view of reality and therefore useless	26.4	35.2	35.1	3.3	0.87	23.1	30.0	45.8	1.1	0.80	25.1	36.2	36.7	2.0	0.84	4.46	0.22	0.50	0.92	The utility-maximizing homo oeconomicus is a distorted view of reality and therefore useless	16
17 Antitrust laws should be used vigorously to reduce monopoly power from its current level	49.4	36.3	11.0	3.3	0.77	54.9	34.1	10.3	0.7	0.72	36.7	44.7	18.6	0.0	0.75	3.26	0.35	12.86*	0.00	Antitrust laws should be used vigorously to reduce monopoly power from its current level	17
18 The distribution of income reflects the distribution of economic power	47.2	34.1	15.4	3.3	0.81	31.9	42.9	23.4	1.8	0.82	34.7	47.7	16.1	1.5	0.78	8.43*	0.05	6.19*	0.10	The distribution of income reflects the distribution of economic power	18
19 Inflation is primarily a monetary phenomenon	13.2	27.5	56.0	3.3	0.76	24.5	30.8	42.9	1.8	0.82	31.2	35.1	32.7	1.0	0.82	7.84*	0.05	19.87*	0.00	Inflation is primarily a monetary phenomenon	19
20 Co-determination increases the productivity of the employees	18.7	58.2	18.7	4.4	0.78	13.6	39.6	45.3	1.5	0.77	16.6	40.2	41.7	1.5	0.79	23.20*	0.00	17.12*	0.00	Co-determination increases the productivity of the employees	20
21 The government should restructure the welfare system along the lines of a "negative income tax"	22.0	27.5	42.8	7.7	0.90	20.5	26.4	45.8	7.3	0.88	19.1	24.6	53.8	2.5	0.78	0.24	0.97	5.66	0.13	The government should restructure the welfare system along the lines of a "negative income tax"	21
22 Wage-price controls should be used to control inflation	17.6	29.7	51.6	1.1	0.76	2.2	5.1	92.3	0.4	0.24	8.5	30.2	61.3	0.0	0.63	68.02*	0.00	7.52*	0.06	Wage-price controls should be used to control inflation	22
23 Neo-classical theory is the only sensible basis for microeconomics	3.3	31.9	61.5	3.3	0.64	7.7	38.1	49.4	4.8	0.76	12.6	37.7	39.7	10.1	0.89	5.25	0.15	17.62*	0.00	Neo-classical theory is the only sensible basis for microeconomics	23
24 A ceiling on rents reduces the quantity and quality of housing available	45.0	44.0	11.0	0.0	0.70	71.8	21.2	5.9	1.1	0.57	46.5	33.3	19.7	0.5	0.77	23.88*	0.00	6.42*	0.09	A ceiling on rents reduces the quantity and quality of housing available	24
25 Economists should study the effects a new tax system will have on social welfare, but not the problems of political decision-making connected with it or of its practical implementation	17.6	22.0	59.3	1.1	0.72	20.9	24.5	52.0	2.6	0.80	23.1	25.1	51.3	0.5	0.76	2.01	0.57	2.23	0.53	Economists should study the effects a new tax system will have on social welfare, but not the problems of political decision-making connected with it or of its practical implementation	25
26 The central bank should be instructed to increase the money supply at a fixed rate	5.5	24.2	68.1	2.2	0.61	9.5	26.7	62.7	1.1	0.66	15.1	35.2	44.7	5.0	0.84	2.46	0.48	15.61*	0.00	The central bank should be instructed to increase the money supply at a fixed rate	26
27 Effluent taxes represent a better approach to pollution control than imposition of pollution ceilings	20.9	22.0	54.9	2.2	0.77	34.4	29.7	33.0	2.9	0.86	21.2	34.3	43.0	1.5	0.81	13.99*	0.00	5.21	0.16	Effluent taxes represent a better approach to pollution control than imposition of pollution ceilings	27
28 A high level of performance can only be expected of employees if they can be dismissed	14.3	35.2	50.5	0.0	0.72	19.0	43.6	35.9	1.5	0.80	24.1	38.7	37.2	0.0	0.78	7.93*	0.05	5.89*	0.05	A high level of performance can only be expected of employees if they can be dismissed	28

Appendix A: Responses

to the 44 propositions

(Continued)

	Austria					Federal Republic of Germany					Switzerland					$\chi^2$ test for differences in responses						
	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy <i>p</i>	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy <i>p</i>	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy <i>p</i>	Austria — Federal Republic of Germany	Austria — Switzerland					
	percent					percent					percent					$\chi^2$	<i>p</i>	$\chi^2$	<i>p</i>			
29	The government should issue an inflation indexed security	20.9	24.2	52.7	2.2	0.79	15.4	22.7	60.1	1.8	0.72	19.1	26.1	50.8	4.0	0.82	1.92	0.59	0.90	0.83	The government should issue an inflation indexed security	29
30	Business cycle movements can only be adequately analysed when historical events are taken into account	60.4	25.3	12.1	2.2	0.72	49.8	35.5	13.6	1.1	0.75	53.3	34.0	11.2	1.5	0.73	4.39	0.22	2.21	0.53	Business cycle movements can only be adequately analysed when historical events are taken into account	30
31	The level of government spending should be reduced (disregarding expenditures for stabilization)	42.8	25.3	30.8	1.1	0.81	48.8	30.4	20.1	0.7	0.77	38.9	32.8	27.3	1.0	0.82	4.41	0.22	1.80	0.62	The level of government spending should be reduced (disregarding expenditures for stabilization)	31
32	Planning of macroeconomic magnitudes is also necessary in countries with private ownership of capital	51.6	31.9	14.3	2.2	0.77	33.3	37.0	28.6	1.1	0.82	37.7	34.2	27.1	1.0	0.82	12.98*	0.00	8.36*	0.04	Planning of macroeconomic magnitudes is also necessary in countries with private ownership of capital	32
33	Income taxation as it exists in the developed industrialized nations significantly reduces the incentive to work	24.2	34.1	39.5	2.2	0.84	30.0	40.7	28.6	0.7	0.81	22.1	43.7	34.2	0.0	0.77	5.28	0.15	6.73*	0.09	Income taxation as it exists in the developed industrialized nations significantly reduces the incentive to work	33
34	Especially dangerous goods should be manufactured by the government	24.2	30.8	41.7	3.3	0.85	19.4	23.4	55.0	2.2	0.77	22.6	25.1	51.3	1.0	0.77	4.83	0.18	3.72	0.30	Especially dangerous goods should be manufactured by the government	34
35	The central bank has the capacity to achieve a constant rate of growth of the money supply if so desired	14.3	40.7	40.6	4.4	0.83	18.7	49.8	30.0	1.5	0.78	32.7	50.2	14.1	3.0	0.79	6.58*	0.09	28.38*	0.00	The central bank has the capacity to achieve a constant rate of growth of the money supply if so desired	35
36	Reducing the influence of regulatory authorities (e. g. in air traffic) would improve the efficiency of the economy	22.0	34.1	42.8	1.1	0.80	30.8	44.3	23.1	1.8	0.82	27.6	34.2	36.2	2.0	0.84	12.67*	0.00	1.84	0.61	Reducing the influence of regulatory authorities (e. g. in air traffic) would improve the efficiency of the economy	36
37	The federal budget should be balanced over the business cycle rather than yearly	70.3	18.7	8.8	2.2	0.62	50.3	28.9	20.1	0.7	0.77	65.4	26.1	8.0	0.5	0.62	14.71*	0.00	3.37	0.34	The federal budget should be balanced over the business cycle rather than yearly	37
38	The fundamental cause of the rise in oil prices of the past five years is the monopoly power of the large oil companies	16.5	28.6	53.8	1.1	0.75	5.5	20.5	73.3	0.7	0.54	10.1	31.7	58.2	0.0	0.66	14.56*	0.00	4.76	0.19	The fundamental cause of the rise in oil prices of the past five years is the monopoly power of the large oil companies	38
39	Politicians make efforts to undertake policies that maximize the social welfare	7.7	41.8	48.3	2.2	0.72	8.4	43.6	45.1	2.9	0.74	9.0	39.7	48.3	3.0	0.75	0.40	0.94	0.36	0.95	Politicians make efforts to undertake policies that maximize the social welfare	39
40	The redistribution of income in the developed industrial nations is a legitimate task for the government	58.2	29.7	11.0	1.1	0.70	40.2	38.5	20.9	0.4	0.78	39.2	31.2	27.6	2.0	0.84	10.78*	0.01	13.96*	0.00	The redistribution of income in the developed industrial nations is a legitimate task for the government	40

Appendix A: Responses

	Austria					Federal Republic of Germany				
	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy g	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy g
	percent					percent				
41 In the short run, unemployment can be reduced by increasing the rate of inflation	36.2	36.2	25.3	2.2	0.84	27.8	33.0	38.8	0.4	0.80
42 "Consumer protection" laws generally reduce economic efficiency	6.6	22.0	70.3	1.1	0.58	10.3	24.2	65.1	0.4	0.63
43 The economic power of labour unions should be significantly curtailed	17.6	28.6	52.7	1.1	0.76	20.9	34.8	43.6	0.7	0.79
44 Economic analysis of modern industrial societies can do without a distinction between different social strata (classes)	19.8	23.1	54.9	2.2	0.77	22.7	23.8	50.6	2.9	0.81

$\chi^2$  values marked by an asterisk are statistically significant at the 90 percent (or higher) level

to the 44 propositions

	Switzerland					$\chi^2$ test for differences in responses				
	Gen- erally agree	Agree with pro- visions	Gen- erally disagree	No an- swer	Stand- ardized relative entropy g	Austria - Federal Republic of Germany		Austria - Switzerland		
						$\chi^2$	p	$\chi^2$	p	
	percent									
41 In the short run, unemployment can be reduced by increasing the rate of inflation	33.2	27.2	28.1	1.5	0.82	7.88*	0.05	0.54	0.91	41
42 "Consumer protection" laws generally reduce economic efficiency	18.1	25.6	55.8	0.5	0.73	2.04	0.56	9.35*	0.03	42
43 The economic power of labour unions should be significantly curtailed	18.6	28.1	51.3	2.0	0.79	2.52	0.47	0.39	0.94	43
44 Economic analysis of modern industrial societies can do without a distinction between different social strata (classes)	15.6	22.1	55.8	6.5	0.81	0.68	0.88	3.32	0.35	44

(one-sided test).

(Continued)

spondent. This is true particularly for normative statements but also holds for positive propositions. The respondent's occupation also has a significant influence: Professional interests determine the reaction to many propositions; this becomes clear particularly when the responses of civil servants (non-university public sector employees) are compared with those of private sector employees.

In view of the fundamental difficulties inherent in any assessment of individual views and preferences, the results should be interpreted with care. The possibility that other important factors influencing the individual responses may not have been identified cannot be ruled out. Likewise, it may well be that respondents expressed identical views on a certain proposition for different and even conflicting reasons. Bearing in mind this provision the survey may nevertheless serve the objectives stated in the introduction. Furthermore, the same kind of investigation may be applied to different countries or areas speaking the same language in order to assess identities and differences of opinions and attitudes(25). In a similar way, the survey may also be extended over time in order to check whether the opinions expressed remain stable or otherwise in which way and for which issues changes can be observed.

Appendix B: Characteristics of the respondents

(Total number = N)

	Percent share of N
<i>Occupation</i>	
Full professors	26.4
Assistant professors, lecturers	20.9
Other public sector	24.2
Private sector	28.5
<i>Age and sex</i>	
"Lower" (up to 34)	36.3
"Middle" (34 to 54)	48.3
"Higher" (55 and above)	15.4
Male	93.4
Female	6.6
<i>Self-evaluation as</i>	
"Practical" economist	52.7
"Theoretical" economist	47.3
<i>Self-declared ideological position</i>	
"Left" (range from -1.0 to -0.2)	36.3
"Middle" (range from -0.1 to 0.1)	41.7
"Right" (range from 0.2 to 1.0)	22.0
<i>Study period in the US</i>	
Average duration: 5 months	36.1



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## 8. Notes

(1) Does this hold true also for other sciences? The considerable differences of opinion among scientists concerning the advantages and disadvantages of nuclear energy (see e. g. *Manne — Richels*, 1980) suggest that even in the "exact" sciences there is by no means consensus on fundamental issues.

(2) Or, as *Johnson* (1937, p. 1), former president of the American Economic Association put it, "We economists are said to disagree on every imaginable point of doctrine. So we do. We are free men. Those who wish for agreement among scholars would best turn to the scholars functioning anemically under the totalitarian states . . . We plead guilty of opinion. We are proud to be guilty".

(3) The importance of this aspect is reflected by the recent debate on "Austro-Keynesianism" (*Wirtschaftspolitische Blätter* 1982), where it has been claimed e. g. "Whatever may divide Austrian economists ideologically they have one thing in common, namely Keynesianism" (*Seidel*, 1982, p. 11).

(4) Members of the Austrian Economic Association and Austria based Members of the Gesellschaft für Wirtschafts- und Sozialwissenschaften — Verein für Socialpolitik. The presidents of the two associations at that time, Professor Dr. Wilhelm Weber and Professor Dr. Helmut Hesse, kindly allowed us to address members.

(5) *Kearl et al.* (1979).

(6) Propositions 11, 27 and 28 in the survey by *Kearl et al.* (1979, p. 30) refer specifically to the United States and have therefore been omitted.

(7) A by-product of the present survey is the possibility of a comparison between the views of European and American economists. Similar studies have been carried out for France (*Bobe — Etchegoyen*, 1981), for the Federal Republic of Germany (*Schneider — Pommerehne — Frey*, 1983) and for Switzerland (*Frey et al.*, 1982) or are still in progress (for Italy).

(8) At the end of the questionnaire, space was provided for the respondents to comment in general on the propositions. The following points of criticism were put forward: Questions are unprecise (five times), too generalizing (four times), questions need further interpretation (three times), and response categories are inadequate or too restrictive (four times). This list includes cases of multiple choice.

(9) The relative entropy is the ratio between the actual entropy ( $Q_{act}$ ) and the maximum possible entropy ( $Q_{max}$ ):  $Q = Q_{act}/Q_{max}$ . Given the four possibilities of response  $Q_{act} = \sum_{j=1}^4 \ln(A_j) \cdot A_j$ , where  $A_j$  is the share of responses of the  $j$ -th category; in this case  $Q_{max} = \sum_{j=1}^4 \ln(0.25) \cdot 0.25$ .

(10) For a better understanding the entropy measure may be illustrated by two extreme cases. As can be seen from Appendix A,  $Q$  adopts the value of 0.37 in proposition 14 (when many small firms compete entrepreneurial initiative becomes impossible). Roughly 87 percent of the respondents reject this proposition (4 percent abstentions and altogether 9 percent approval). Thus, Austrian economists broadly agree in their evaluation of this proposition, namely in rejecting it. On the other hand, only 22 percent agree without major provisions with proposition 21 (the government should restructure the welfare system along the lines of a "negative income tax"), 27 percent agree with provisions, 43 percent disagree with this proposition, and 8 percent decline a response. Austrian economists differ substantially in their response to this issue; the value for  $Q$  is 0.90. The values of the relative entropy cannot be taken as linear between 0 and 1. A value of 0.78 (proposition 20) implies for example that 58 percent agree with provisions to this proposition.

(11) See also a. o. *Brunner* (1970) and *Mayer* (1978).

(12) See a. o. *Boskin* (1981), *Brunner — Meltzer* (1981) and the collection of articles edited by *Laffer — Seymour* (1979).

(13) See also e. g. *Davidson* (1980) as well as the contributions in the *Journal of Post-Keynesian Economics*.

(14) For an international comparison including also France and the United States see *Pommerehne et al.* (1984).

(15) Statistically significant differences at the 90 percent or above confidence level (one-sided test).

(16) The distribution of personal characteristics is reproduced in Appendix B.

(17) For details on the procedure of probit analysis see *Bock* (1975). The program used in this context (BMDP, version 1980) requires dichotomy of the dependent variable. For this reason, the two affirmative response options are taken together. Those who did not respond to a proposition are excluded from the probit estimation.

(18) Furthermore, we tried to find out whether the fact that a respondent quotes the two most frequently named periodicals, the *American Economic Review* or *Kyklos*, has a systematic influence on the response. This aspect is not further developed here for reasons of space.

(19) It is possible that the causality is reversed, namely that mainly those economists have carried out part of their studies in the US who have a preference for the American value system and for neo-classical theory. The direction of causality cannot be examined with the above estimation approach.

(20) The appropriate test procedure in this context is discussed in *Edwards* (1976).

(21) From the many contributions see *Hawkins — Ritter — Walter* (1973), *Kagann — Leeson* (1978) and *Borchardt* (1978).

(22) However, in the three countries only just over three out of four economists have replied to those two questions with open responses, so that some provisions have to be made concerning the results.

(23) It is hoped that the latter is due to the intrinsic quality of the journal and not to the fact that one of the authors of this paper figures among the editors of *Kyklos*.

(24) See in particular *Hansen — Weisbrod* (1972) and *Kadushin* (1972).

(25) First indications to possibly significant systematic differences emerge already from our investigation: Those economists who spent part of their study period in the United States expressed opinions on certain propositions which were significantly different from those of the other economists.

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