



Privatisation Experiences in the EU

CESifo Conference Centre, Munich
10-11 January 2003

**Privatization in Austria and Other EU
Countries: Some Theoretical Reasons and
First Results About the Privatization
Proceeds**

Friedrich Schneider

CESifo
Poschingerstr. 5, 81679 Munich, Germany
Phone: +49 (89) 9224-1410 - Fax: +49 (89) 9224-1409
E-mail: office@CESifo.de
Internet: <http://www.cesifo.de>

Privatization in Austria and other EU countries: Some theoretical reasons and first results about the privatization proceeds *)

by

Friedrich Schneider **)

*) Paper prepared for the conference “Privatization Experiences in the EU”, January 10-11, 2003, CESifo, Munich.

**) Prof. Dr. Friedrich Schneider, Department of Economics, Johannes Kepler University of Linz, Altenbergerstrasse 69, A-4040 Linz-Auhof, AUSTRIA, Phone: 0043-732-2468-8210, Fax: 0043-732-2468-8209, E-mail: friedrich.schneider@jku.at, <http://www.economics.uni-linz.ac.at>.

1. Introduction

Privatization has been a key element of structural reforms in most European Union countries including Austria during the last decade. Governments undertaking privatization have pursued a variety of objectives: achieving gains in economic efficiency, giving the extensive prevalence of pure economic performance of public enterprises in many countries and limited success with their reform; and improving the fiscal position, particularly in cases where governments have been unwilling or unable to continue to finance deficits in the public enterprise sector. In addition, budgetary-constrained governments, facing fiscal pressures have sometimes privatized mainly for the reason to finance fiscal deficit with the privatisation proceeds.

The issues of privatization (and sometimes deregulation) have been reviewed in a large literature on the various aspects of privatization, that has emphasized the potential efficiency gains.¹⁾ The goal of this paper is twofold: First to provide some theoretical reasoning why privatization is useful and occurred and second to present the extend of privatization in Austria and other European Union countries. First, in section 2, the reasons why privatization is necessary are elaborated. Second, in part 3, the privatization proceeds for Austria and oder EU countries are presented. Finally, in part 4, a short summary of these findings is given.

¹⁾ Surveys of the privatization literature is provided in Megginson and Netter (1999), Heller (1990), Boes und Schneider (1996), Bartel und Schneider (1991) and a summary for the earlier discussion is given in Borcharding, Pommerehne and Schneider (1982).

2. Reasons for privatizing public enterprises

For at least the last century, economists have employed a positive economic theory to explore the implications of wealth maximization by private firms operating in private property contexts. Only since the late 1960's have empirical studies dealing the behaviour of publicly operated firms been undertaken.²⁾ Since then a large number of studies of a variety of activities now exists and their main focus is the question of how public firms differ from their private equivalence.

Basically two methods are employed. The first, explored in part 2.1, is the property rights approach. It concentrates on the differences in the ease of captureability of economic surplus of a resource and the rights to direct an asset's use, alter its form or transfer its claims among existent and potential owners. In short, this approach explores the differences in incentives between public and private agencies caused by variation in the ability of owners to monitor management and the problems that emerge when the goals of "owners" and their agents, "managers" diverge.³⁾ The second one is called "Public Choice approach" (elaborated in part 2.2) and concentrates on political coalitions and their effect on input usage and reward and/or product characteristics. The Public Choice approach also includes the theory of bureaucracy (see Niskanen (1971, 1975)).

²⁾ Compare e.g. Borchering, Pommerehne, Schneider (1982) and Boes and Schneider (1996).

³⁾ The first approach has been developed by Alchian (1961, 1965) and more recently Baron and Myerson (1982), Grossman and Hardt (1983) and MasColell, Winston and Green (1995).

2.1. The Property Rights Approach

The property rights approach points out one crucial difference between private and public firms. The practical difficulties in transferring ownership rights among individuals in the public sector and the relative ease of such transactions with private assets which includes, of course, the ability of owners (citizens) to monitor their agents (elected officials' and bureaucrats') behaviour. By now, this approach pioneered by Armen Alchian is well known, but it is useful to recall his predictions: government managers will not organize the inputs under their direction in such a way, as to maximize the wealth of the tentative owners, the general citizenry. Alchian predicts, therefore, that public firms will be less efficient, their management will enjoy "quieter lives" and because of this the public will give them lower levels of discretion than their colleagues in private firms. To put it in another way, the property rights approach is concerned with any type of cooperation in which ownership and management fall apart. The arising principal-agent problem may be virulent in private enterprises as well, but to a much lesser extent! Numerous studies have been undertaken, which have tested this proposition and the results that public enterprises are less efficient than private ones, is confirmed in most of them.⁴⁾

To sum up the results so far: the property rights approach seems to indicate that (1) private production is cheaper than production in publicly owned and managed firms and (2) given sufficient competition between public and private producers (and no discriminative regulations and subsidies) the differences in unit cost turn out to be insignificant. From this, one may conclude that it is not so much the difference in the transferability of ownership but the lack of

⁴⁾ Compare the study by Boes and Schneider (1996), Schneider (1997, 2002), Schneider and Hofreither (1990). As these results are so well known, they are not reported here.

competition which leads to the often observed and less efficient production in public enterprises.

2.2. The public choice approach

The public choice approach appears to provide a broader analyses then the property rights one. The public choice approach assumes that politicians, bureaucrats, managers of public enterprises are selfish utility maximizes subject to constraints.⁵⁾ In this approach it is, f.e. for a politician, assumed that he acts selfish in order to reach his ideological or personal goals under to constraint not to loose the next election. As for a politician to stay in power is a most important constraint (or sometimes the goal), he will also use public utilities for his own selfish goals. One reason for this is evidently the lack of incentives for politicians and tax payers to exert effective control of an efficient use of public enterprises or resources in the economy as compared to a political sense. This argument seems especially valid for the case of public utilities. Public utilities offer excellent opportunities to reach the selfish re-election goals of governments like an additional employment and the stabilization of purchasing power of certain regions.⁶⁾ If such a “misuse” of public utilities or enterprises leads to full employment and higher income at least for a certain time span than it is easier for a government to win an election without such a “misuse” of public utilities. The cost of such a policy can be made invisible for several years (or even 1 or 2 legislative periods) as the deficit of the public enterprises can be hidden in the general budget deficit.

As the public choice approach is more concerned with micro-economic aspects, De Alessi claims that public managers are growth not wealth orientated. He

⁵⁾ Compare Schneider and Frey (1988), Bartel and Schneider (1991) and Pardo and Schneider (1996) and Schneider (2002).

argues and finds supporting evidence that this leads to larger staffs and, higher capital labour ratios since excess capital makes managers and their subordinates' productivity appear higher to their monitoring agents, the legislature. Already Borchering, Busch and Spahn (1977) argue that public employees effectively coalesce through their organizations and "capture" civil service commissions over time, altering rules in such a way that effective suppliers competing labour to public firms becomes less wage elastic than a free market buyer would otherwise face. This public employee market power is enhanced, they claim, by the fact that public service employees contribute to the election of the ultimate "bosses", definitely not an option for a private sector union. In some sense then, public employees can alter the position of the derived demand schedule for their services by (a) "nudging" the final demand schedule for public services to the right and (b) specifying rules which lower both the elasticity of substitution between themselves and rival cooperant factors and the elasticity of supply of these close substitutes. Both (a) and (b) will tend to raise wages, but they may raise employment too, since, in effect, the budget and tie-in effects may offset the usual substitution effects one might derive out of the neoclassical models of labour demand in the presence of a simple monopoly. De Alessi (1974) in another paper argues that given the relative loose monitoring of public enterprises by the political review authorities, a rational position for the latter given the gain-sharing results of assiduous monitoring, managers will indulge their taste for security rather more than in private firms. He finds evidence consistent with the risk-avoiding hypothesis. Public managers' tenures are more secure, of a longer duration, and their fluctuations in real wages are lower than their private counterparts.

In conclusion, according to the public choice scholars, governmental agencies and firms have distinct biases leading to higher production costs, just as the

⁶⁾ E.g. for Austria, Upper Austria and Styria compare Schneider (2002) and Bartel and

property rights literature suggests, but excessive outputs as well. The latter obtains because the bureaucracy can affect demand more readily under monopoly public ownership by the strength of its members' votes and/or lobbying efforts. The absence of a civil service and the constraint on strong unions under more competitive types of supply, public or private, is thought to reduce the ability of members of such bureaucracies to offer their services to the legislature on disadvantageous terms compared to potential competitors. On the other hand, the bureaucracy is not likely to have sole "capture" rights over the bureaus, but share the ownership claims with other interests.

To sum up this part, the public choice approach not only recognizes the differences in behaviour between publicly owned and managed firms and private ones due to the limited transferability of ownership. It also considers the likely oversupply of public services due to the lack of competition in their provision and production. This oversupply is then quite often used for selfish re-election goals of politicians and can result in higher employment and higher wages in certain regions for a certain time.⁷⁾

2.3 Summary of main findings

If one summarizes the two approaches one clearly comes to the result that as already said in the introduction, there are various reasons to privatize public utilities or enterprises in order to stop the misuse of such policies. In the next section I will investigate to what extent privatization have occurred in the European Union and in Austria.

Schneider (1991).

⁷⁾ The Austrian type of Keynesian policy used the public enterprises and state owned firms for such purposes quite successfully over the period 1971-1986. Compare part 3.3 and Schneider (2002) and Schneider and Bartel (1992).

3. The amount of privatization in the European Union and in Austria

Privatization and proceeds from privatization have been substantial all over the world. Since the beginning of the 80s numerous privatization in market orientated industrial countries, but also in transition and developing countries, have been taken place. According to Sigmund (1998) 100000 large public utilities have been privatized between 1980-1996 and more then 500,00 small and medium sized public enterprises (compare table 3.1).

Table 3.1

These privatizations are lower bound figures as privatization of banks, financial institutions, interstate utilities are not counted here. Considering table 3.1 one clearly sees that obviously the largest share of privatization has been taken place in transformation countries over the period 1990-1996. In figure 3.1 the revenues from privatizations between 1990-1998 for the 15 European Union, OECD and other countries are shown. In total, I had privatization proceeds of 22.9 billions USD in the year 1990, which rose to 153.8 millions USD in the year 1997 and for the first time in the year 1998 they decreased to 114.5 millions USD. The privatization proceeds (revenues) of the 15 European Union countries were in the year 1990 15.7 billions USD and rose to 66.6 billions USD in the year 1997, with a decline to 58.6 billions USD in the year 1998.

A detailed picture of the privatization proceeds of single countries is given in table 3.2.

Table 3.2

If one considers Germany one realizes that the largest amount of privatization proceeds took place in the year 1996 with 13.228 billions USD. If one compares Germany with Great Britain one clearly realizes that in Great Britain at the beginning of the 90s the biggest privatization proceeds have been achieved with 12.9 and 21.8 billions USD in the year 1990/1991. In the following years in Great Britain the privatization proceeds were decreasing but still sizeable. In Germany the largest privatization took place in the year 1996 and the proceeds were 13.2 billions USD. This means that in this year 30% of all privatization proceeds of the 15 European Union countries came from Germany. Except this year the privatization and privatization proceeds are much smaller, compared to other larger European countries. In France the government achieved high amounts of privatization proceeds during the 90s, too. In the year 1993 they were 12.2 billions USD and in the year 1998 13.5 billions USD. In France the privatization activities were the highest in the year 1998 with a privatization of France Telecom. The privatization of France Telecom brought privatization proceeds of 7 billions USD. The Italian privatization program has been quite sizeable in the second half of the 90s. In the year 1997 the privatization proceeds in Italy were the highest with 27.7 billions USD, which is the highest value of all investigated countries in table 3.2. Privatized have been public utilities like the power plant utility ENI and public banks. Also in Spain privatizations have been quite successful and in the year 1997 12.5 billions USD have been achieved through selling Spanish Telecom and power plant utilities.

If one considers the small open economies the results are presented in table 3.3 and figure 3.2.

Table 3.3 and Figure 3.2

Table 3.3 shows that in the beginning of the 90s the amount of privatization was quite moderate with the exception of Belgium. The Belgium government privatised in the year 1993 public utilities and got proceeds of 956 millions USD, which are roughly 30% of all privatization proceeds of the small open economies in table 3.3 and figure 3.2. The second highest privatization proceeds in this year come from the Netherlands with 780 millions USD, followed by Portugal, which had a quite ambitious privatization program over the years 1993-1998, with privatization proceeds over 12 billions USD over the 1993-1998. A lot of well known public utilities in Portugal have been privatized like the power plant EDP, the highway system BRISA and cement factories ZINPOR. Also in Austria the privatization proceeds have been quite large. In the year 1997 in Austria the government privatized firms with proceeds of 2.02 billions USD. In Austria the selling of 25% share of the public telecom was the biggest deal, where proceeds of 2.33 billions USD have been achieved.

In general the amount of privatization proceeds in small open economies increased over 1993-1998. In the year 1993 it was 3.26 billions USD and in the year 1998 20.246 billions USD. In figure 3.3 the privatization proceeds of small open economies are shown in relation to GNP. One clearly realises the dominant position of Portugal, followed by Denmark and Finland. But only in Portugal we have privatization proceeds of over 4% of GNP. If one compares the privatization proceeds of small open economies with the larger ones (always in % of GNP) Portugal is still the leading country in privatization effects, followed by Greece, Spain, Italy. In general, one realises that the privatization issue and the proceeds from privatization have been a considerable and policy relevant issue in the 90s.

3.3. Some additional remarks about Austria

The Austro-Keynesian era of stabilization policy lasted from the mid 70s to the mid 80s can be viewed as an attempt of “direct employment policy” in the public utilities and the public industrial sector, mainly in the heavy, machinery and chemical industry. The primary goal of this type of short-term policy in private goods markets was to stabilize employment and real income in the nationalized industry and, by way of interindustrial relations and the multiplier process, in the private sector as well. To achieve this political target various steps were taken by the public management:

- the maintenance of the greatest possible level of production in the face of diminishing prices and demand;
- the greatest possible hoarding of employees even in situations when rationalization measures (dismissals) were required (resulting in unemployment on the job);
- an over-dimensioned propensity to invest (primarily with regard to the income effect of investment);
- an expansionist wage and fringe benefits policy with respect to buying power (causing high labour costs); and
- the (tacit) financing of the firms’ deficits out of the federal budget.

With regard to the social and re-election problems arising from unemployment the direct employment policy in public industrial firms intended to smooth the inevitable adjustment process to the rising requirements of global competitiveness in the long run. Naturally the pursued type of stabilization policy immediately caused substantial effects on the public industrial firms’ productivity, thriftiness and profitability, thus reducing international competitiveness and augmenting deficits in the short run (Nowotny, 1982).

Nonetheless, production and employment could not be maintained permanently at a high level, because the rationalization measures could not be postponed any longer. Since the mid 80s, the Austro-Keynesian stabilization policy has been increasingly criticized for what concerns its long-term efficacy. Finally the troubling rise of the losses of the state-owned firms in the iron and steel, chemical, machinery and vehicle industry caused a turn in public opinion and economic policy. The amount of subsidies to public industrial firms covering the deficits and financing investment was limited to a fixed total and to the period until 1989. This change of policy emerged when the government realized that, due to the critique of the opposition, mass media and private entrepreneurs as well as to the people's fear of tax increases, a majority of voters would not tolerate further subsidies to public industrial firms. Prior to this change of mind politicians had formed coalitions with the management of the relatively big and locally concentrated public firms in order to secure the subsidies which rendered inefficiencies possible and served the local constituency. Moreover there have been powerful shop stewards who were at the same time members of the legislating National Council and therefore succeeded in financing the expansionist enterprise policy out of the federal budget.

From the end of the 80s there was a turn around in the Austrian policy with respect to the public industrial sector and public utilities. Not only took place quite a considerable privatization in the 90s but also these enterprises were much less used for re-election purposes partly due to the fact that after joining the European Union and the deregulation of former monopolies into competitive markets it was much less attractive to use the public utilities and industries for re-election purposes. In the 90s the privatization of Austrian state owned industrial firms and state owned utilities has reached over the period 1993-1998 over 6 billions USD (compare figure 3.3). But still the privatization potential in Austria in the mid 90s is quite large, considering the federal, the state and

community level and including all public utilities, there is a privatization potential of 45 billion Euro from which the federal government owns 62%, the city or state of Vienna 13%, all other states (e.g. Upper and Lower Austria) 14% and the communes (without Vienna) 11%. The latest privatization proceeds of the federal government over the years 1999 up to 2001 are presented in table 3.4.

Table 3.4

In the year 1999 a part of the Austrian tobacco (9.4%) has been privatized, which brought 6.8 billions Euro. In the year 2000 100% of the postal bank has been privatized and the proceeds were 970 millions Euro. Also 24% of the state owned Telecom utility has been privatized with the proceeds of 763 millions Euro. In sum in the year 2000 1.742 billions Euro of privatization proceeds have been achieved. In the year 2001 41.1% of the Austrian tobacco state owned utility has been privatized, which brought privatization proceeds of 582.2 millions Euro. In sum, over the years 1999-2001 2.455 billions Euro privatization proceeds have been achieved. This is quite sizeable and helped the Austrian government to reduce the federal debt.

4. Summary and conclusions

Privatization has certainly been a key-element of structural reform in the European Union countries including Austria and proceeds from privatization have been substantial in most of these countries. Gross receipts that can be transferred to the budget are effected by actions prior to sale, the sales process and the post-privatization regime. An evaluation of the potential uses of privatization receipts or proceeds should reflect the implications for government

net worth and their macroeconomic impact. In so far as government net worth is concerned, proceeds from privatization do not often themselves indicate then the government is better off. Privatization has longer term implications in terms of revenues forgone and/or expenditures that will not be made in the future and government decisions on the use of proceeds should reflect this intertemporal effects. Government net worth will rise to the extent that private sector ownership leads to an increase in efficiency and the government shares in this gain.

The macroeconomics effects of privatization depend, in part, on whether receipts/proceeds are from domestic or foreign sources, the degree of capital mobility and the exchange regime. Broadly the effects of an increase in the deficit financed by privatization receipts would be similar to those resulting from a debt financed fiscal expansion. Use of proceeds to reduce external debt provides for an automatic sterilization of what may be substantial capital inflows associated with privatization. The reduction of domestic debt may impact domestic ability.

Both, the microeconomic and case study data are supportive of the positive effects of privatization over time on growth and employment (compare IMF occasional paper 194). These results hold for the European Union countries, but are less pronounced for transition and developing countries. The microeconomic evidence indicates that private firms are operationally more efficient than those, held by the state, particularly in competitive industries.⁸⁾ A strong correlation is also found for European Union countries between privatization and growth. However, and consistent with the growth literature, privatization is likely surveying as a proxy in the regressions for one or more missing variables that may proudly be characterized as a favourable regime change. Public enterprises

⁸⁾ This was especially the case in Austria.

often seek to maintain employment, and benefit from staff budget constraints. Consequently, there is a concern that privatization may lead to increased unemployment. Also empirical evidence suggests that aggregate unemployment tends to decrease following privatization, particularly groups of workers may still be adversely effected. In general, this paper has tried to show that there are good theoretical reasons for privatization and that the proceeds from privatization, if used clever, can increase the welfare of such countries.

Table 3.1: Worldwide Privatizations between 1980 and 1996

Source	Region	Number of Enterprises		Years
		Large Enterprises	Small Enterprises	
EBRD (1996)¹⁾	Transformation countries	51.500	274.700	1990-96
OECD (1996)¹⁾	Transformation countries	44.600	253.200	1990-96
THA (1994)	East Germany	13.800	35.000	1990-94
Kikeri, Nellis, Shirley (1994)	World	4.000		1980-92
Sader (1993)	World	1.800		1980-92
In sum	World	> 65.000	> 300.000	1980-96

¹⁾ Without East Germany and China.

Source: Siegmund (1998).

Table 3.2: Privatization proceeds in OECD countries and worldwide between 1990 and 1998

Country	Privatization Proceeds in million USD of the year								
	1990	1991	1992	1993	1994	1995	1996	1997	1998
Australia	19	1.042	1.893	2.057	1.841	8.089	9.052	16.815	7.146
Austria	32	48	49	142	700	1.035	1.251	2.020	2.935
Belgium	-	-	-	956	549	2.681	1.222	1.562	1.467
Canada (5)	1.504	808	1.249	755	490	3.998	1.770	-	11
Denmark	644	-	-	122	229	10	366	45	4.502
Finland	-	-	-	229	1.166	363	911	835	1.999
France	-	-	-	12.160	5.479	4.136	5.099	8.189	13.467
Germany (2)	-	325	-	435	240	-	13.228	1.125	364
Great Britain (3)	12.906	21.825	604	8.523	1.341	6.691	7.610	4.544	-
Greece	-	-	-	35	73	44	558	1.395	3.892
Hungary	38	470	720	1.842	1.017	3.813	1.157	1.966	353
Ireland	-	515	70	274	-	157	293	-	-
Island	-	-	21	10	2	6	-	4	129
Italy (4)	-	-	-	1.943	6.493	7.434	6.265	27.719	13.619
Japan	-	-	-	15.919	13.773	-	6.379	4.009	6.641
Korea	-	-	-	817	2.435	480	1.866	539	600
Luxemburg	-	-	-	-	-	-	-	-	-
Mexico	3.122	10.757	6.859	2.503	766	167	73	2.690	995
Netherlands	716	179	-	780	3.766	3.993	1.239	831	335
Newseeland	3.895	17	967	630	29	264	1.839	-	441
Norway	73	-	-	-	118	521	660	35	28
Poland	23	23	238	245	385	714	749	2.179	2.020
Portugal	1.192	1.198	2.326	500	1.132	2.425	3.011	4.968	4.271
Spain	172	-	820	3.223	1.458	2.941	2.679	12.522	11.618
Sweden	-	-	378	252	2.313	852	785	1.055	172
Switzerland	-	-	-	-	-	-	-	-	4.426
Tschechoslowakia (6)	-	-	-	-	1.077	1.205	994	442	469
Turkey	486	244	423	546	412	515	292	466	1.009
USA	-	-	-	-	-	-	-	-	3.100
Total OECD	24.822	37.451	16.617	54.895	47.284	52.537	69.348	95.955	86.009
Davon: EU 15	15.662	24.090	4.247	29.573	24.940	32.765	44.518	66.812	58.641
Other countries (7)	5.078	10.413	19.845	23.976	18.111	21.115	27.911	57.827	28.533
Worldwide total	29.900	47.864	36.462	78.871	65.395	73.652	97.259	153.782	114.542

- = Zero or insignificant

(1) Gross receipt from privatizations.

(2) Up to 1997 no information about privatization proceeds were available.

(3) Debt sales in Great Britain were between 1990 and 1997 (fiscal year) GBP 5.347 Mio, GBP 7.924 Mio, GBP 8.189 Mio, GBP 5.453 Mio, GBP 6.429 Mio, GBP 2.439 Mio and GBP 4.500 Mio respective.

(4) Inclusive convergeable bonds, INA, which could be transferred and shared of these utilities with the amount of USD 2.055 Mio. in the year 1996 and indirect privatization proceeds of USD 2.658 Mio. in the year 1996 and USD 2.620 Mio. in the year 1997.

(5) In the year 1997 there have been no privatizations on the federal level..

(6) The cumulated amount for the years 1991-1993 is USD 2.240 Mio.

(7) Source for the years 1990-1996 is the Worldbank and SBC Warburg; for the year 1997 the source is IFR Securities.

All other sources: National statistics, and OECD Financial Market Trends, No 72, (1999), Paris.

Table 3.3.: Privatization proceeds in small open economies in the years 1993, 1995, 1997 and 1998

Country	Privatization proceeds in small open economies											
	1993			1995			1997			1998		
	US \$ Mio	in % of Total	Rang	US \$ Mio	in % of Total	Rang	US \$ Mio	in % of Total	Rang	US \$ Mio	in % of Total	Rang
Austria	142	4%	7	1.035	9%	4	2.020	18%	2	2.935	14%	4
Belgium	956	29%	1	2.681	22%	2	1.562	14%	3	1.467	7%	6
Denmark	122	4%	8	10	0%	9	45	0%	7	4.502	22%	1
Finland	229	7%	6	363	3%	7	835	7%	5	1.999	10%	5
Ireland	274	8%	4	157	1%	8	-	-	-	-	-	-
Island	10	0%	9	6	0%	10	4	0%	9	129	1%	9
Netherlands	780	24%	2	3.993	33%	1	831	7%	6	335	2%	7
Norway	-	-	-	521	4%	6	35	0%	8	28	0%	10
Portugal	500	15%	3	2.425	20%	3	4.968	44%	1	4.271	21%	3
Sweden	252	8%	5	852	7%	5	1.055	9%	4	172	1%	8
Switzerland	-	-	-	-	-	-	-	-	-	4.426	22%	2
Total	3.265	100%		12.043	100%		11.355	100%		20.264	100%	

- = Null or insignificant

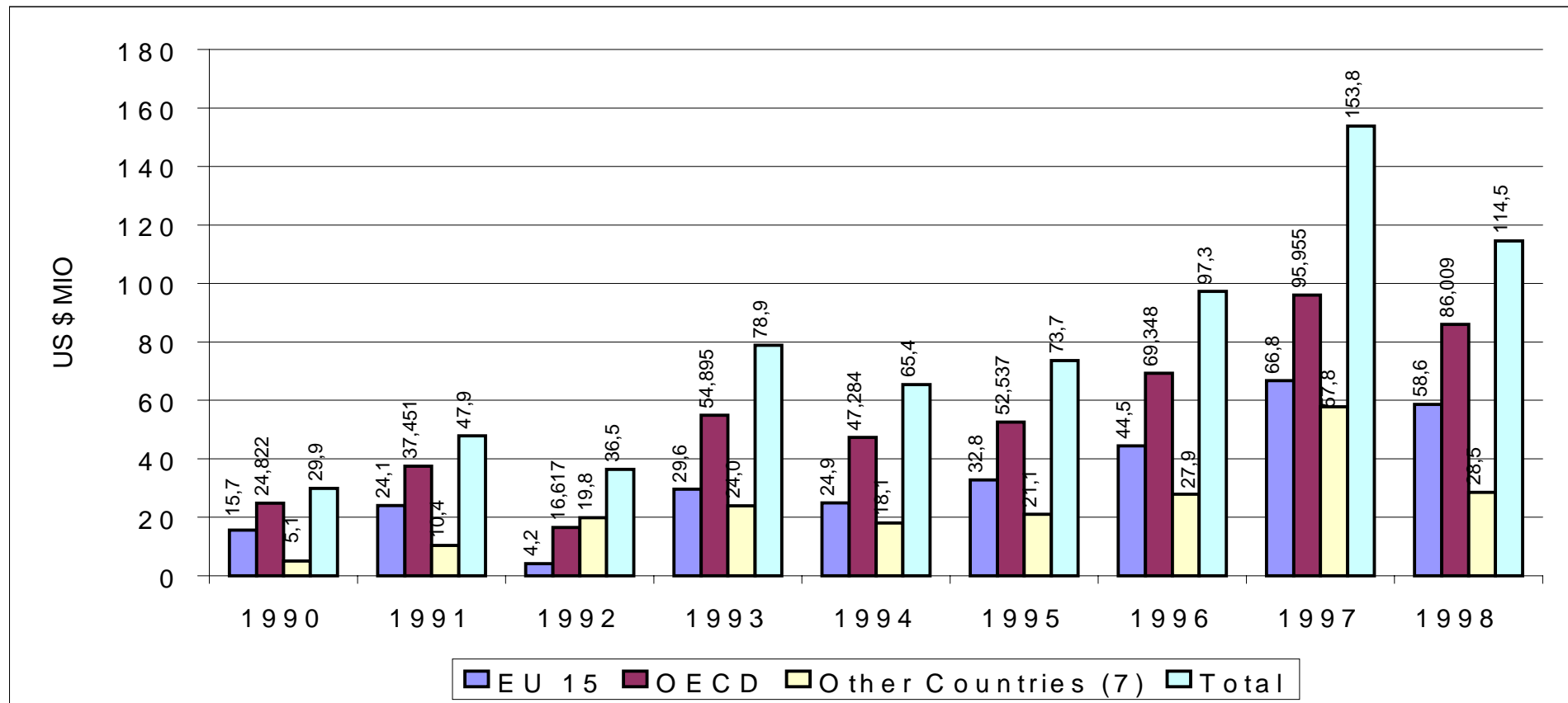
Source: Own calculations with the help of table 3.2.

Table 3.4: Privatization proceeds in Austria (Federal government) over 1999-2001

Year		Proceeds (Mio. Euro)
1999:	Privatization of 9,4% of the Austrian Tabacco AG	6,8 Mio. Euro
2000:	100% PSK (Postal Bank)	969,5 Mio. Euro
	24,4% Telecom	763,8 Mio. Euro
	100% State Printing Office	2,2 Mio. Euro
		<u>1.742,3 Mio. Euro</u>
2001:	17,38% Airport Vienna AG	54,1 Mio. Euro
	41,1% Austrian Tabacco AG	582,2 Mio. Euro
	100% Dorotheum	55,6 Mio. Euro
	100% Strohal Rotary Printing	21,1 Mio. Euro
		<u>713,0 Mio. Euro</u>
Summe 1999-2001		2.455,3 Mio. Euro

Source: Ministry of Economic Affairs, Vienna, 2002.

Figure 3.1: Privatization proceeds in the EU15, OECD countries and worldwide (total) between 1990 and 1998.



Source: OECD Financial Market Trends (1999).

Figure 3.2.: Privatization Proceeds in percent of GNP in small open economies in the years 1993, 1996, 1997 and 1998

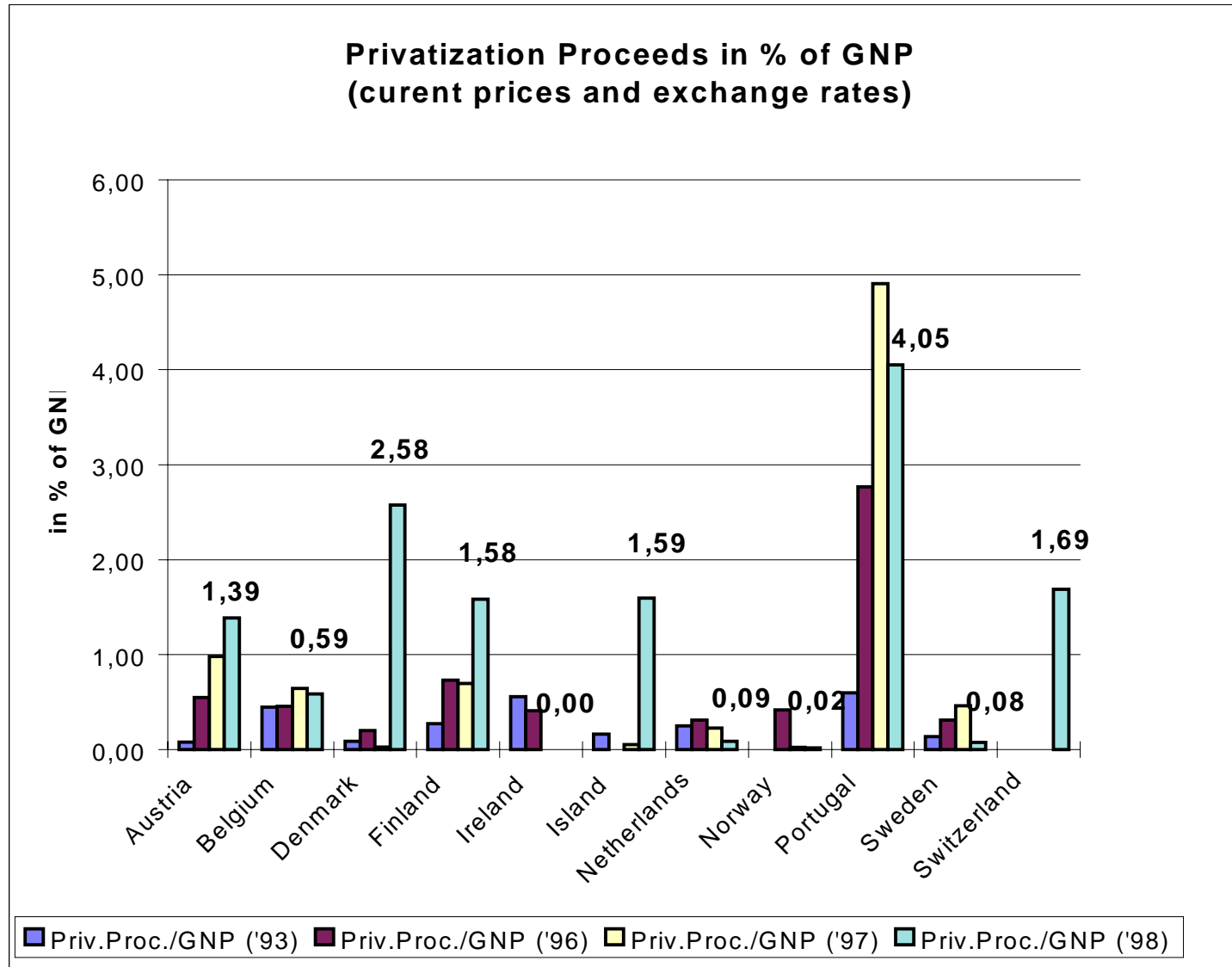
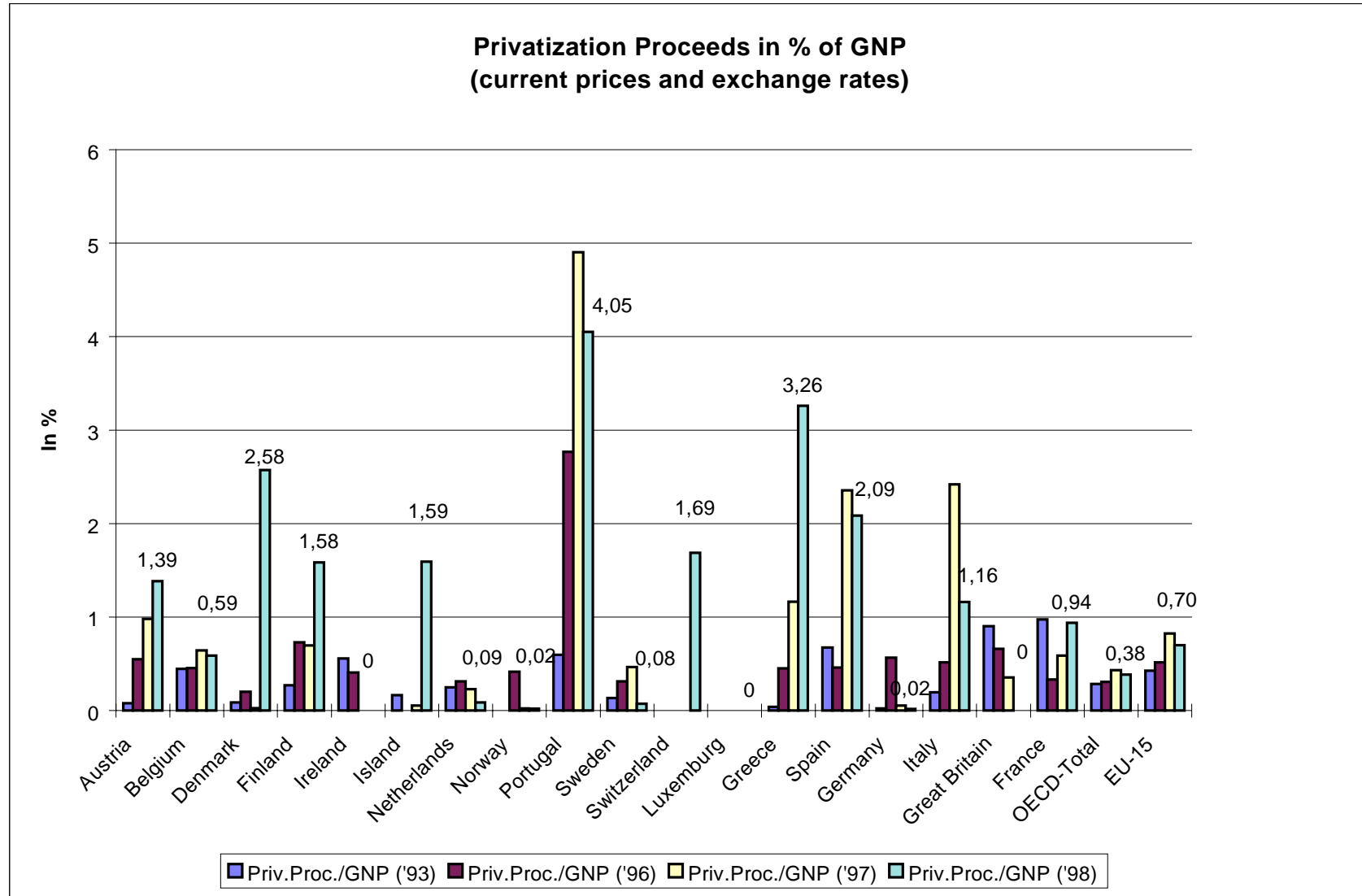


Figure 3.3.: Privatization Proceeds in percent of GNP in European countries, in EU 15 and OECD countries



5. References

- Alchian A.A. (1961), Some Economics of Property Rights, **Rand Corporation**, Santa Monica.
- Alchian A.A. (1965), Some Economic of Property Rights, **Il Politico** 30/4, pp. 816-829.
- Baron and Myerson (1982), Principal Agents Theory, **Econometrica** 50, pp. 911-930.
- Bartel Rainer and Friedrich Schneider (1991), The “mess” of public industrial production in Austria: A typical case of public sector inefficiency?, **Public Choice** Vol. 68/1, pp. 17-40.
- Boes Dieter and Friedrich Schneider (1996), Private Public Partnership: Gemeinschaftsunternehmen zwischen privaten und der oeffentlichen Hand, **Zeitschrift fuer Unternehmens- und Gesellschaftsrecht**, pp. 519-543.
- Borcherding Thomas, Bush W.C. and R.M. Spann (1977), The Effects on Public Spending on the Divisibility of Public Outputs in Consumption, Bureaucratic Power and the Size of the Tax Sharing Group, in: T.E.Borcherding (editor), **Budgets and Bureaucrats: The Sources of Government Growth**, Durham, N.C., pp. 211-228.
- Borcherding Thomas, Pommerehne Werner W. and Friedrich Schneider (1982), Comparing the Efficiency of Private and Public Production: The Evidence from 5 Countries, **Zeitschrift fuer Nationaloekonomie/Journal of Economics** 89 (Supplement 2), pp. 127-156.
- De Alessi L. (1974), An Economic Analyses of Government Ownership and Regulation: The Theory and the Evidence from Electric Power Industry, **Public Choice** 19/1, pp. 1-42.
- Grossman and Hardt (1983), Principal Agents Theory: What is new, what is old, **Econometrica** 51, pp. 7-45.
- MasColell, Winston and Green (1995), **Microeconomic Theory**, New York-Oxford, Oxford University Press.
- Niskanen W.A. (1971), **Bureaucracy and Representative Government**, Chicago and New York, Chicago University Press.
- Niskanen W.A. (1975), Bureaucraths and Politicians, **Journal of Law and Economics** 18/4, pp. 617-643.
- Nowotny Ewald (1982), Nationalist Industry as an Instrument of Stabilization Policy, **Annalen der Gemeinwirtschaft** 51/1, pp. 41-57.
- Pardo José Casas and Friedrich Schneider (1996), **Current Issues in Public Choice**, Cheltenham, UK, Edward Elgar Publishing Company.
- Schneider Friedrich (1997), Deregulierung und Privatisierung als Allheilmittel gegen ineffiziente Produktion von oeffentlichen Unternehmen?, in: **Wieviel Staat, wie viel Privat?**, Sammelband von der Arbeitsgemeinschaft der wissenschaftlichen Wirtschaftspolitik, Vienna, pp. 33-59.

- Schneider Friedrich (2002), Privatisierungen und Deregulierungen in Oesterreich in den 90er Jahren: Einige Anmerkungen aus Sicht der neuen politischen Oekonomie, in: Hartmut Berg (editor), **Deregulierung und Privatisierung: Gewolltes – Erreichtes – Versaeumtes?**, Schriften des Vereins fuer Socialpolitik (Neue Folge, Band 287), pp. 89-120.
- Schneider Friedrich and Markus F. Hofreither (1990), **Privatisierung und Deregulierung in oeffentlichen Unternehmen in westeuropaeischen Laendern: Erste Erfahrungen und Analysen**, Vienna: Manzsche Verlags- und Universitaetsbuchhandlung.
- Schneider Friedrich und Bruno Frey (1988), Political Business Cycles: A Survey, in: Thomas Willet (editor), **Inflation and the Political Business Cycles**, Durham, N.C., pp. 239-275.
- Sigmund Ulrich (1998), Die Treuhand 1990/1991: **Spezialfall, Privatisierungsmonopol und Staatsversagen?**, Universitaet Kiel: Institut fuer Weltwirtschaft, Kiel.