

Der Open-Access-Publikationsserver der ZBW – Leibniz-Informationzentrum Wirtschaft
The Open Access Publication Server of the ZBW – Leibniz Information Centre for Economics

von Hagen, Jürgen; Strauch, Rolf R.

Working Paper

Tumbling giant: Germany's experience with the Maastricht fiscal criteria

ZEI working paper, No. B 05-1999

Provided in cooperation with:

Rheinische Friedrich-Wilhelms-Universität Bonn

Suggested citation: von Hagen, Jürgen; Strauch, Rolf R. (1999) : Tumbling giant: Germany's experience with the Maastricht fiscal criteria, ZEI working paper, No. B 05-1999, <http://hdl.handle.net/10419/39594>

Nutzungsbedingungen:

Die ZBW räumt Ihnen als Nutzerin/Nutzer das unentgeltliche, räumlich unbeschränkte und zeitlich auf die Dauer des Schutzrechts beschränkte einfache Recht ein, das ausgewählte Werk im Rahmen der unter

→ <http://www.econstor.eu/dspace/Nutzungsbedingungen> nachzulesenden vollständigen Nutzungsbedingungen zu vervielfältigen, mit denen die Nutzerin/der Nutzer sich durch die erste Nutzung einverstanden erklärt.

Terms of use:

The ZBW grants you, the user, the non-exclusive right to use the selected work free of charge, territorially unrestricted and within the time limit of the term of the property rights according to the terms specified at

→ <http://www.econstor.eu/dspace/Nutzungsbedingungen>
By the first use of the selected work the user agrees and declares to comply with these terms of use.

Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn



Jürgen von Hagen and Rolf Strauch

**Tumbling Giant: Germany's
Experience with the
Maastricht Fiscal Criteria**

Working Paper

**B99-05
1999**

**TUMBLING GIANT: GERMANY'S EXPERIENCE WITH THE
MAASTRICHT FISCAL CRITERIA**

Jürgen von Hagen^{*}

Rolf Strauch^{**}

March 1999

^{*}Zentrum für Europäische Integrationsforschung, University of Bonn, Indiana University, and CEPR

^{**}Zentrum für Europäische Integrationsforschung, University of Bonn

Address: Walter Flex Str. 3; D-53113 Bonn
vonhagen@united.econ.uni-bonn.de

I. Introduction

From the first time European Monetary Union (EMU) was officially declared a goal of European integration in 1969 to its realization thirty years later, Europeans were divided over the question whether the common currency should be the beginning or the end of a process of monetary and fiscal convergence.¹ The former was claimed by the "monetarists," who argued that the adoption of a common currency would lead to the convergence of price and wage developments and of the fiscal performance among the member states. The opposite view was held by the "economists," who thought that the stability of the common currency could only be guaranteed, if the member states first proved that each could live with fiscal and monetary discipline.

The introduction of a set of formal convergence criteria into the Maastricht Treaty shows that the "economists" ultimately prevailed. The fiscal criteria in particular were written into the Treaty upon the insistence of the German government. It is an irony of the Maastricht process that the very country that insisted on the need for entry criteria constraining fiscal policy proved unable to meet them except by resorting to emergency measures and budgetary accounting gimmicks in the last minute. Many observers attribute this oddity to the fiscal consequences of German Unification, presumably an unique, exogenous shock. In this view, German Unification is a classical case of tax smoothing: Germany was right to finance the real investment necessary to rebuild the East German economy with additional public debt. But this view is inconsistent with the nature of the public transfers actually paid to former East Germany since Unification, which predominantly served to finance consumption.

In this paper, we argue that instead the fiscal consequences of German Unification were the endogenous outcome of a series of political choices based on short-run strategic consideration that led to the deterioration of public budgeting and budgeting institutions in Germany. The political revolution leading to Unification was exogenous, but the measures taken to tackle the resulting economic problems were shaped by West German political concerns and actors. While former Chancellor Kohl and his government were trying to impose tighter budgeting institutions on its European partners, they let Germany's own fiscal institutions slip. As a result, Germany's post-Maastricht (and post-Kohl) fiscal institutions are much weaker than before, and Germany's fiscal policy outlook is a liability rather than a stronghold of stability for the EMU.

¹ See Fratianni and von Hagen (1992) for a review of the pre-Maastricht debate over EMU.

Below, we explain how the most critical aspect of the convergence process, the struggle to comply with the fiscal Maastricht criteria, evolved in Germany. Section II reviews Germany's performance as judged by the EMI's and the European Commission's Convergence Reports. Germany complied with all but the fiscal requirements. Section III presents an account of Germany's post-Unification economic developments. Section IV describes the resource flows to East Germany and the difficulties involved in the tax decisions taken to finance them. In Sections V and VI we analyze the politics behind these fiscal measures. The last section concludes.

II. Germany's Record in the Maastricht Process

We begin with a review of Germany's assessment in the official reports of the European Commission and the EMI. According to Article 109j of the Maastricht Treaty, these reports had to judge the achievement of a high degree of sustainable convergence by reference to a) the achievement of price stability relative to the three best performing member states, b) the sustainability of the governments' fiscal position, c) exchange-rate stability with respect to other currencies in the EMS and d) the convergence of the long-term interest rate as an indicator for market expectations on a country's inflationary or devaluation risk.

The exchange-rate criterion was no concern for Germany, as the Deutsche Mark was the reference currency of the EMS. Table 1 summarizes Germany's performance regarding the inflation and interest rate criteria in the last two years before the start of EMU. German inflation was running at about half of the reference value. The long-term interest rate stood at 2.2 percentage points below the permitted rate. Neither one of these criteria posed any problem for Germany's economic policy.

Table 1: German Inflation and Interest Rate, 1996-1998

	1996	1997	Feb. 1997 - Jan. 1998
Inflation (HIPC)			
Germany	1.2	1.5	1.4
Reference value	2.5	2.7	2.7
Interest Rate			
Germany	6.2	5.6	5.6
Reference Value	9.1	8.0	7.8

Source: EMI (1998)

In contrast, Table 2 demonstrates that Germany did not comply with the fiscal sustainability criteria. At the beginning of the 1980s, Germany had had a relatively low level of public debt compared to other European governments. The debt ratio was 31.7 percent in 1980; by 1983, it had risen to 40 percent, fueled by the economic crisis following the second oil shock. The Kohl government, that assumed power in 1982, won the general elections in 1993 promising to put the country's public finances in order and to solve Germany's unemployment problem. While the government initially delivered some fiscal consolidation, its efforts in this regard lost force in the second half of the 1980s, though the deficit remained low and reached a small surplus in 1989.²

Germany's relatively favorable fiscal performance changed with Unification. Its structural balance fell from a surplus of 0.4 percent to GDP in 1989 to a deficit of 5.3 percent in 1991. This structural worsening was initially hidden by the effects of the Unification boom, as the actual deficit rose only to 3.1 percent in 1991 and fluctuated around three percent in subsequent years. In 1996, Germany's deficit ratio exceeded the Maastricht threshold of three percent by 40 basis points. Accounting gimmicks, such as a special treatment for hospitals in the fiscal accounts, and one-time "emergency" measures were necessary to reach a deficit ratio of 2.7 percent in 1997. Judging from the deficit criterion, therefore, it is doubtful whether Germany complied with a "strict" interpretation of the fiscal criteria, such as the Kohl government had vowed throughout the 1990s to apply in the final decision on EMU.

Table 2: Germany's Fiscal Performance, 1989-1997

Year	Debt	Surplus	Structural Surplus	Expenditures	Revenues
1989	41.8	0.1	0.4	45.0	45.1
1990	43.8	-2.1	-3.4	45.3	43.3
1991	41.5	-3.1	-5.3	48.1	44.8
1992	44.1	-2.6	-4.6	48.8	46.0
1993	48.0	-3.2	-3.4	49.9	46.3
1994	50.2	-2.4	-2.7	49.4	46.8
1995	58.3	-3.3	-3.1	50.1	46.6
1996	60.8	-3.4	-2.8	49.5	45.9
1997	61.5	-2.7	-2.1	48.2	45.4

Source: AMECO

² For a more detailed discussion, see Perotti et al. (1998)

Meanwhile, the public debt ratio jumped from 41.8 percent of GDP in 1989 to 61.5 in 1997. With a consistent increase of the debt ratio after 1992, Germany clearly violated the Maastricht criteria, which demanded a sufficient *decline* of the debt ratio.

III. Fiscal Consequences of German Unification

The mere dynamics of German Unification were stunning: It was a year only from the Leipzig mass demonstrations to the political unification of Germany in October 1990. As a consequence, some critical decisions were taken under immense time pressure and largely led by political and electoral considerations.

A first, important decision was the determination of the conversion rate between the East German Mark and the West German Deutsche Mark. Against the Bundesbank's strong opposition, this rate was fixed at 1:2 for most bank accounts³; but for prices, wages, and pensions the conversion rate was set at 1:1 (Bundesbank, 1990). This had immediate fiscal policy implications. As pensions claims in the German social security system are based on the retiree's wage (BMA, 1998) the higher conversion rate resulted in higher demands on social security, both in terms of current flows and in terms of the implicit pension liabilities the system had to take on.

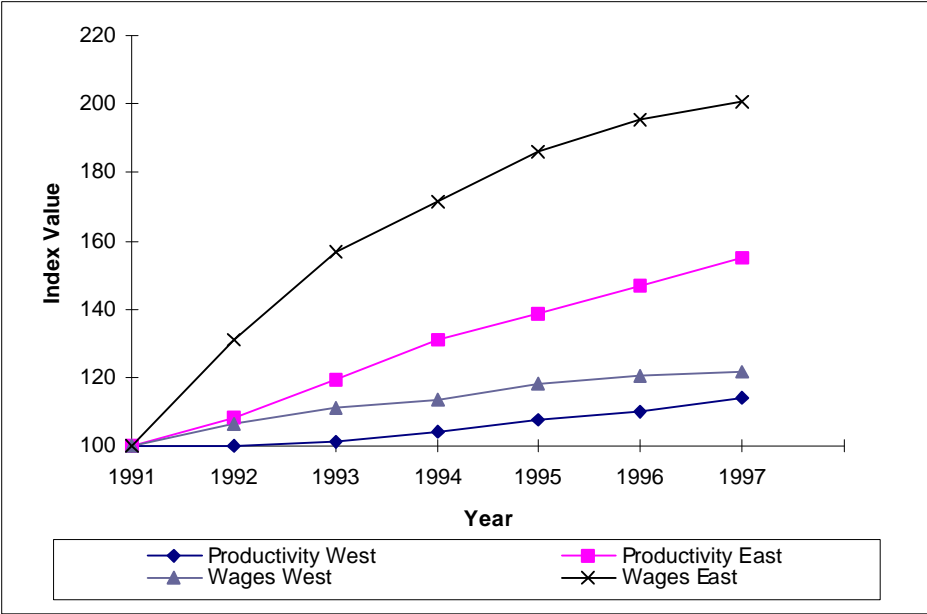
A second, important decision was the immediate and full extension of West Germany's labor market institutions to East Germany, including an unemployment insurance characterized by both a high level and a long duration of unemployment benefits.⁴ Until 1994, the replacement rate in the German unemployment insurance was 68 percent for an unemployed individual with at least one child, and 63 percent for unemployed without children. These rates were lowered to 67 percent and 60 percent, respectively, in the Consolidation Act of 1994. The duration of benefits varies from one year for individuals up to the age of 45 to 32 months for individuals above age 57. When insurance benefits expire, they are replaced by unemployment aid, which has no maximum duration for individuals below age 65, though individuals have the reapply annually. In 1994, replacement rates lowered from 58 percent to 56 percent for individuals with at least one child and from 57 percent to 53 percent for unemployed without children (BMA 1998, Steffen 1995).

³ A preferential rate of 1:1 was applied to small savers, the vast majority of the East German population.

⁴ In contrast, the US unemployment insurance, for example, combines a high replacement rate a short duration of benefits, while the UK system has a low replacement rate and long duration (Nickell 1997).

The extension of West German unemployment insurance to East Germany defined the rules of wages bargaining in East Germany in a way that allowed West German employers and labor unions to fend off the competition of low-wage workers from East Germany. Unions feared that competition for the pressure it might exert on the high wage level in West Germany. Employers were equally dismayed with the prospect of low-wage competitors from the new parts of the country. Their collusion was facilitated by the fact that wage negotiations in East Germany were soon taken over by West German unions. Western union leaders presented themselves as acting on behalf of the East German workers, as East German unions had fallen into political disrespect for their association with the communist regime. To eliminate wage competition from East Germany, employers associations and unions in 1991 agreed on a stepwise adjustment of East German wages to Western levels. Several industries - most importantly the steel industry - envisaged to have the same wage levels in East and West Germany by 1994 (SVR 1992:107-110). Moreover, unions striving for a very rapid adjustment of wages signed contracts only for less than a year to facilitate re-negotiations and a quick upward move of wages.

Figure 1: Wages and Productivity in East and West Germany, 1991-1997



Note: Deutsche Bundesbank. Wages indicate the collective bargaining agreements computed as real hourly earnings; productivity is the GDP produced by a worker per hour

⁵ After years of steady economic growth labor unions also made strong demands for wage increases in the West.

Figure 1 illustrates the resulting wage movements. From 1990 to 1991 wages in East Germany rose by a 18%. This was followed by a wage increase of 32% for 1992 and 19% in 1993. Later on, the wage hikes became more moderate and from 1995 onward real wage growth actually fell below labor productivity gains. Productivity increased during the process, but far less than wages during the initial phase. Productivity gains peaked at 10 percent in 1993 and has been around 6 percent since then.

The result of this could only be to price East German labor out of the market.⁶ But high wages levels secured high unemployment benefits, which left the unemployed better off staying in the East than moving to West Germany to find employment. Massive unemployment in East Germany was the result (Sinn 1995, von Hagen, 1998a).⁷ Instead of creating jobs in the East, the adjustment process triggered huge social transfers flowing from West to East Germany. As a result, privatization of East German enterprises became possible only with large wage subsidies.

The federal government responded to the rise in unemployment with an unprecedented level of labor market interventions. In fact, German Unification marks the beginning of a "new era" of labor market policy in the country. Table 3 reports the number of participants in different labor market schemes and the unemployment rate for East Germany. Between 183.000 and 388.000 employees, or two to five percent of the German labor force, participated in public works programs from 1991 to 1997. A similar number of employees were enrolled in training programs. This number fell to 171.000 in 1997 after a peak of 428.000 in 1992. Early retirement and provisional retirement schemes were a third kind of labor market policy. The number of beneficiaries in these programs increased from 554.000 in 1991 to 853.000 in 1993 and then leveled off to 58.000. At the peak, some eleven percent of the total labor force benefited from these schemes. An even larger number of individuals were included programs supporting part-time work during the initial stage of the transition process. Part-time employees receive a full time-equivalent if their enterprises cut working hours due to

⁶ Anecdotal evidence suggests that unions deliberately took this into account. For example, the former chairman of the metal workers' union, F. Steinkühler argued: "We knew that there would be firms which could not pay the negotiated wage increases due to their low productivity. .. And we knew someone had to pay. ... Everyone wanted reunification - the government, society, all political parties. Therefore everyone has to pay. This means that when firms with low productivity cannot afford these wage increases, then the Treuhand has to pay, that is, the government." (quoted in Burda & Funke 1993:551)

⁷ Theoretical models emphasize the role of unemployment benefits for the level of structural unemployment (see among others Driffill & Miller 1998). Empirical findings strongly confirm that high replacement rates in combination with their "long-term" duration causes high levels of structural unemployment, above all if no effective active labor market policies are in place bringing people back to work (see Nickell 1997, Siebert 1997).

a structural change or "inevitable circumstances" (BMA 1998). In 1991 1.6 million employees received such transfers, that is 19.6 percent of the labor force, but the number was continuously and forcefully reduced during the subsequent years to 50 thousand recipients in 1997. The total full-time work equivalent of these measures amounted to almost 20 percent of the labor force in 1991 and to approximately 11 percent in more recent years. Taken together, these policies created what became known as a "secondary labor market" in Germany.

Table 3: The Labor Market in East Germany, 1991-1997

	1991	1992	1993	1994	1995	1996	1997
Employees in part-time work	1616	370	181	97	71	71	50
Employees in job-creation schemes	183	388	260	281	312	278	235
Employees in training schemes	169	428	351	248	250	238	171
Employees in early retirement- or transitional old-aged schemes	554	811	853	650	374	186	58
Employed persons	7321	6387	6219	6330	6396	6259	6053
Unemployed persons	913	1170	1149	1142	1047	1169	1363
Unemployment rate	11.1	14.4	15.1	15.2	14	15.7	18.1
Participation rate	51.7	48.0	47.1	48	48.1	48.1	48.1

Note: Deutsche Bundesbank (1998), Autorengemeinschaft (1998). Figures are in thousands or in percent.

Empirical evidence on the effectiveness of these measures in terms of a reintegration of participants in the labor market is rather disappointing.⁸ Only on-the-job-training or training demanded by enterprises seem to have a positive effect on the individual's chances to find employment. None of the other programs can be found to have a positive employment impact. In particular, they have failed to re-integrate the long-term unemployed into the labor market (Bertold and Fehn, 1997). Unemployment in East Germany rose from 11.1 percent in 1991 to more than 18 percent 1998, with some regions suffering unemployment rates above 25 percent. Thus, the interventionist policies were unable to overcome the structural weaknesses of Germany's highly administered labor market. The limited effectiveness of this approach is particularly noteworthy because alternative economic strategies were proposed already at an early stage of Unification, but ignored by the Kohl government. Most alternative proposals suggested to let the market determine wages and pay transfers to employees that could not support themselves or their families at the market wage rate, instead of tying transfers to

⁸ A literature overview and additional evidence is provided in Hübler (1997) and Berthold & Fehn (1997). See also Buttler and Emmerich (1995) and Heinelt et al. (1994).

unemployment. This would have helped to overcome the inherited labor market distortions and keep unemployment low in the first place. (see Akerlof et al. 1991, Sinn & Sinn 1991).

IV. Fiscal Implications

IV.1. Transfer Flows

Table 4 reports the total transfer flows paid to East Germany by the various parts of German government. Total gross transfers rose from DM 139 billions in 1991 to DM 189 billions in 1997. The federal government's share in these transfer flows increased over time. West German Länder, early on, looked for a financing arrangement which would confine their fiscal burden to predictable amounts. This arrangement was found in the German Unity Fund (Schwinn 1997:51-54). Beyond their contributions to this fund, and until the inclusion of the new Länder in the equalization scheme of the "Länderfinanzausgleich,, the Western Länder paid only small transfers to the East. Direct transfers from Western Länder and local governments to their East German counterparts did not exceed 14 billion Deutsche Mark, or eight percent of the total transfers in 1994.

Table 4: Public Gross Transfers to East Germany, 1991-1998 (in Bill. Deutsche Mark)

	1991	1992	1993	1994	1995	1996	1997	1998 *
Federal Budget	75	88	114	114	135	138	131	139
"German Unity" Fund	31	24	15	5 -	-	-	-	-
EU	4	5	5	6	7	7	7	7
Pension Fund	-	5	9	12	17	19	18	18
Labor Office (BfA)	25	38	38	28	23	26	26	28
Länder and local governments in West-Germany	5	5	10	14	10	11	11	11
Total	139	151	167	169	185	187	183	189
of which (percent)								
Social Security Benefits	40.3	45.0	46.1	43.7	42.7	44.9	44.2	44.4
Subsidies to firms	5.8	6.6	6.6	10.0	9.7	8.0	7.7	8.5
Investment	15.8	15.2	15.6	15.4	18.3	17.6	17.5	17.5
Cash transfers (not classifiable)	38.1	33.1	31.7	30.8	29.2	29.4	30.6	29.6

Note: Deutsche Bundesbank (1997), BMF (1998). (*) indicates preliminary figures as planned in the budget

Table 4 also reports the functional distribution of these transfers. The largest share are transfers to private households. Social security payments rose from 56 billion to 84 billion between 1991 and 1996, between 40 and 46 percent of total gross transfers. A large part of these expenditures were payments from the federal government, which were channeled through

the social security system to overcome its financing shortages (see Table 5). Moreover, the federal government directly paid for social security benefits under early retirement schemes and unemployment support.

Federal support to the social insurance system would have been even bigger without the transfers made from within the system. These transfers were heavily needed to finance the falling ratio of receipts to expenditures in East Germany. While the revenues of the unemployment insurance collected in East Germany covered 50 percent of its East German expenditures in 1990, this ratio dropped to 7.2 percent in 1993 and only increased slightly afterwards, reaching about 10 percent in 1997 (Table 6). A general increase in the unemployment insurance contribution rates led to a surplus of the system in West Germany that was used to cover expenses in East Germany. While the federal government covered deficits in the German pension system throughout the 1990s, the rate of contributions to expenses remains much higher in West than in East Germany. As shown in Table 6, this rate fell from around 81 percent in 1991 to 56 percent in 1997, as a result of rising unemployment, rising early retirement benefits and rising wage levels. Thus, although social security and unemployment insurance have no explicit geographical dimension, the uneven regional distribution of unemployment and the fact that East Germans did not contribute fully to the pension fund imply that these schemes became channels of massive regional income distribution (Czada, 1995).

Table 5: Financial Transfers of the Federal Government (Billion DM), 1991-1997

Transfers to East German	1991	1992	1993	1994	1995	1996	1997
private households	27.2	32.9	52.6	44.6	44.5	46.3	-
- unemployment aid	0.3	1.5	3.5	4.9	5.7	6.8	-
- early retirement	5.7	5.1	5.0	7.2	8.2	5.6	2.1*
- unemployment ins.	5.9	8.9	24.4	10.2	6.9	13.8	9.6
- pension system	7.7	8.7	10.7	13.5	15.1	16.2	17.4**
- others	7.6	8.7	9.0	8.8	8.6	3.9	-
firms	19.7	22.9	20.2	25.3	25.0	21.6	-
states and communities	9.5	6.6	7.6	7.3	32.6	32.3	-

Source: Boss (1998), BMF (1998). (*) This is a preliminary figure as planned in the budget. (**) The figure includes a preliminary part as planned in the budget.

Table 6: Ratio of Contributions to Expenditures for Unemployment Insurance and Pension Fund

	Unemployment Insurance		Pension Fund	
	West	East	West	East
1990	92.6	50.4	86.0	-
1991	148.7	15.2	85.0	80.9
1992	154.4	7.2	83.4	69.4
1993	129.4	7.1	78.9	65.4
1994	133.6	9.0	81.0	62.2
1995	131.1	11.1	80.7	57.8
1996	120.5	10.2	81.8	55.6
1997	127.5	9.5	84.0	56.0

Source: Deutsche Bundesbank

Public investment in East Germany financed by West German or federal administrations amounts to much less than the transfers payments to individuals, as indicated in Table 4. Public investment rose from 22 billion to 33 billion during the period considered, and never exceeded a fifth of the total transfers. This is a clear refutation of the tax-smoothing interpretation of German fiscal policy after Unification. Current subsidies to East German enterprises are the third most important transfer category amounting to 8 billion in 1991 and 16 billion in 1997.⁹

Not included in these figures are the expenditures and liabilities incurred by Treuhand, the East German privatization agency. Treuhand financed its expenditures through privatization proceeds and borrowing in the capital market. The agency was allowed to raise capital market funds in order to take over liabilities of the former socialist firms as well as to guarantee private loans these firms made. Table 7 gives some details. From 1990 to 1994, Treuhand channeled between 6 and 47 billion Deutsche Mark into East German industries and labor markets. In the last two years of its existence this is equivalent to 46 percent of the federal transfers to the East German Länder. Interest payments on the debt inherited from former socialist firms only accounts for a small part of the overall expenditure level. Thus, in 1993 the interest paid to the debt processing fund came close to one-fifth of Treuhand's expenditures. In general, privatization proceeds never sufficed to cover expenditures and the Treuhand experienced raising deficits due to its spending in other activities.

⁹ According to Table 4, between 50 billion and 56 billion DM per year cannot be ascribed to any of these transfer categories, they include wage compensation for public employees and other transfers.

Table 7: Treuhand Expenditures, Revenues and Debt (Billion DM), 1990-1994

	Second half of 1990	1991	1992	1993	1994
Expenditures	5.9	27.6	41.2	46.6	46.6
Revenues	1.6	7.7	11.6	8.5	9.5
Balance	-4.3	-19.9	-29.6	-38.1	-37.1
Liabilities resumed from Soc. Enterprises	9.8	5.5	37.8	23.4	1.9
Change of Debt	14.1	25.3	67.4	61.5	36.3
Interest paid to the Debt	.	1.1	7.7	4.2	2.7*
Processing Fund					
Interest on own debt	4.4	9.9	8.3	9.9	10.3

Note: Boss (1998:3); *) Not included in the preceding two lines.

IV.2. Financing the Fiscal Expansion

In the very early debate over German Union, it was assumed that the financing needs of East Germany would be transitory and that the East German economy would pick up after a while. In this view, Unification would ultimately be self-financing and the initial increase in public spending could be financed largely by government borrowing. The preceding stabilization Germany's public debt in the 1980s supported that view, as did the initial Unification boom that increased government revenues. Only when it became clear that the transfer flows were going to be permanent, the government had to resort to raising tax rates to start financing the increased public spending. Even then, the federal government never developed a consistent financing strategy for German Unification. One can find different reasons for this default. First, the government probably wanted to avoid an open recognition that it had destroyed the East German labor market. Second, the rising tax burden triggered a public debate about Germany's attractiveness as a business location from 1993 onward. Since the government never produced the political strength to cut spending, it had to engage in revenue raising activism under conflicting goals. The result was a financing strategy that can best be characterized as a process of muddling-through (Sturm, 1998).

The changes to the „solidarity surcharge,, on personal income tax is a telling example for the conflicting orientations of tax policy. Introduced in 1991, when the additional financing needs could no longer be denied, it was presented as a temporary measure and abolished in 1992. But the continued financing needs forced the Government to re-impose it in 1995, at a rate of 7.5 percent. This time it was introduced indefinitely; but political struggles within the government coalition centered around it in subsequent years. The Liberal Democrats pushed

¹⁰ The following is largely based on Bundesbank (1997, 1998)

for the abolition of the surcharge arguing that it increased an already excessive tax burden. But the Christian Democrats were not willing to reduce public spending accordingly. In the end, a lower tax rate 5.5 percent was adopted in 1998. (Bundesbank 1997; SVR 1995, 1997)

Table 8: Tax Changes from Major Tax Initiatives for Selected Tax Categories, 1991-1997

Tax Initiative	Income Tax	Corpo- rate Tax	Solida- rity Tax	Trade Tax	Wealth Tax	Value Added Tax	Inheri- tance Tax	Motor Vehicle Tax	Capital Income Tax	Others
General Tax Law 1991	x	x	x	x	x	x		x		x
General Tax Law 1992	x			x	x	x	x		x	
<i>Zinsabschlagsgesetz</i> (1992)	x	x			x				x	
Consumer and Common Market Law (1992)	x	x		x						x
Consolidation Pact (1993)	x	x	x	x	x	x	x	x	x	x
<i>Standortsicherungs- gesetz</i> (1993)	x	x		x			x		x	
Consolidation and Growth Pact (1993)										x
Tax Evasion and Tax Simplification Law (1993)	x	x		x	x	x	x	x	x	x
Social Care Insurance (1994)	x									
Value added Tax Changes and other Laws (1994)	x		x	x		x				
General Tax Law (1996)	x	x	x	x	x	x	x			
Housing Construction Program (1996)	x		x							
General Tax Law (1997)	x	x	x	x		x	x			
Tax Support for New Länder (1997)	x	x				x				

Source: SVR (1995), BMF(1997, 1998)

Table 8 presents a summary of the tax measures introduced by the federal government between 1991 and 1997. A short glance at this table reveals the multitude of tax initiatives affecting almost any major tax category, some of the with reductions of the tax rates, other with increases, still others with tax exemptions. Most changes occurred in income and corporate income tax laws.

Given the usual lag structure of changes in income and corporate income tax laws, these initiatives affected revenues over the subsequent years. The Bundesbank (1997) warned that the amount of tax exemptions induced an erosion of the tax base. The mounting complexity of the tax system and the rising tax burden are also regarded as the main reasons for the increasing tax evasion. This can be observed from Table 9. The table shows that the

share of corporate income tax in total tax revenues fell significantly between 1991 and 1995. Furthermore, the assessed part of income tax, which contains tax rebates from business and personal allowances, was reduced to a negligible part of total revenues. Both developments can be attributed largely to the tax deductions for investments in East Germany (see Deutsche Bundesbank 1997, Scharrer et al. 1998).

Table 9: Share of Income and Corporate Income Tax

Year	Tax Revenues	Income Tax	Income Tax ("veranlagte Einkommensteuer")	Corporate Tax
	Share of GDP	Share of Taxes to Total Tax Revenues		
1991	21.6	48.5	6.7	5.2
1992	22.1	48.6	6.1	4.6
1993	22.1	49.0	4.8	4.0
1994	22.1	46.7	3.5	2.7
1995	22.2	45.0	1.8	2.4
1996	21.2	42.5	1.6	3.9
1997	20.4	42.4	0.8	4.5

Source: Deutsche Bundesbank

These revenue shortfalls did not only present a problem in themselves, but also caused a reduced predictability of revenue flows and, hence, fiscal planning capacity. As the Council of Economic Advisors (SVR, 1997) put it, revenues were uncoupled from economic growth, which made it increasingly difficult to forecast revenues. The figures reported in Table 10 indicate the problems which the tax forecasting committee had in recent years to predict the actual revenues.¹¹ Repeatedly, it overestimated future revenues by double-digit billion amounts. Even the Spring and Fall estimates of the current year were often higher than the actual outcome, although the forecast error is smaller. This complicated fiscal planning and produced unexpected financing gaps leading to emergency measures, as well as extra ordinary attempts of revenue raising. Thus, Finance Minister Waigel made use of his prerogative to block expenditures in March 1995, and again in June 1997 (SVR 1996:138, 1997:121). One of the most obvious signals of the government's troubles to meet the Maastricht criteria was its attempt to force the Bundesbank to revalue its gold reserves against legal accounting standards in May 1997, and cash in the resulting accounting profits.

¹¹ In the German budget process tax revenues are forecasted by a committee composed of the Ministry of Finance, the Ministry of Economic Affairs, the Ministries of Finance of the Länder, local government associations, the Bundesbank, the Council of Economic Advisors and leading national research institutes.

Table 10: Tax Forecasts - Deviations from Actual Values, 1991-1997

Year	Difference between forecast and actual outcome			Actual outcome
	November previous year	May current year	November current year	
1991	12.3	10.9	2.2	661.9
1992	13.5	3.2	2.6	731.7
1993	-12.1	0.7	3.4	749.1
1994	3.9	1.2	2.5	786.2
1995	-35.1	-31.5	-5.4	817.3
1996	-31.7	-10.0	-5.0	800.0
1997	-24.8	-6.8	2.0	797.2

Source: SVR (1997:116, 121)

V. Political Factors

The decomposition of the political system in the former GDR started at the beginning of the electoral campaign for the West German federal elections in 1990. Therefore, short term electoral reasoning became a strong element in a situation of general uncertainty about the economic fundamentals and consequences of Unification. Together with the fear of massive migration from East Germany, election considerations were probably the main determinant for the speed and the terms of agreements on the Economic, Monetary and Social Union between the West and the East German governments. Economic reasoning and cautious policy advice were subdued.

Earlier in 1989, electoral expectations for the governing coalition looked rather bleak. The Christian and Liberal Democrats were trailing behind the Social Democrats in public opinion polls from the Fall of 1989 to the Spring of 1990. (Schwinn 1997:55) Working towards rapid Unification strongly improved the position of the government parties; probably that was what Chancellor Kohl felt when he proposed his 10-point program for a confederation of the two parts of Germany as early as in November 1989. While the government had been in a defensive position before, reacting merely to the agenda set by the Social Democrats, the prospect of Unification immediately changed its strategic position. Moreover, rapid Unification under favorable terms promised a new electorate for the governing parties, at least at a later stage of the Unification process. Both the favorable conversion rate for the monetary union, and the terms of the social union that included the extension of Western labor market institutions must be seen before the background of these considerations. It is noteworthy, for example, that proposals of a more moderate conversion rate and a slower transfer of social

institutions met stronger resistance from the federal government than from East German policy makers involved in the negotiations of the treaties in 1990.¹²

As indicated above, it was initially assumed that the economic transition was going to be a self-financing process. The Christian Democrats could employ this argument and a strategy of pure optimism concerning the burden of reunification, claiming the "track record" of delivering the West German economic miracle after World War II and, more recently, of improving the country's economic stance during the 1980s. The Social Democrats, in contrast, could not effectively attack the position, because their admonitions for a more cautious unification strategy were often equated in the public debate with an attitude of spoiling the unique opportunity for Unification.

As a result of these political factors, the financial arrangements provided by the first Treaty on Economic, Monetary and Social Union in 1990 were by far insufficient to sustain the Unification process. Later in the course of 1990, when it became obvious that the unification costs were likely higher than initially estimated, the government could not change the political agenda any more without a tremendous loss of credibility. Thus, the unsustainable financial arrangements driven by electoral opportunism were carried forward into the Reunification Treaty.

The point is illustrated by the following episode. In August 1990, the last Finance Minister of the GDR, Walter Romberg, a Social Democrat, presented a forecast of the fiscal implications of Unification for the East German Länder during the up-coming years. Given the generous regulations of the social union, he predicted a sky-rocketing increase in public debt and asked for more transfers to East Germany. Yet, strong pressures from the West German government eventually lead the East German head of government, Lothar de Maizière, a Christian Democrat, to refrain from including this forecast his official bargaining position in the negotiations of the Unification Treaty. Although most political actors, including the Western Ministry of Finance knew that East German Länder and local governments did not have by far the resources to comply with the legal demands of the social union (Schwinn 1997:81-83), the political campaign prevented the adoption of an adequate financing arrangement, because that would have made the costs of Unification explicit.

¹² A particularly illustrating account of the negotiations is the biographic essay of Tietmeyer (1994).

VI. Institutional Weaknesses: The Demise of Budgeting in Germany

Decisions to spend other people's money are at the heart of fiscal policy. Above the level of local governments, public policy programs typically involve an incongruence between those who pay and those who benefit. Political economy research shows that this leads to a spending and deficit bias, as policy makers try to attract as much funds paid by other people as possible for the benefit of their constituencies. Good budgeting institutions are critical to keep political interests producing fiscal profligacy in check and to keep these biases small.¹³

Germany's budgeting institutions at the federal level traditionally ranged among the strongest in European comparison (von Hagen 1992). Important characteristics of the traditional German budget process were the comprehensiveness of the budget, i.e., the rule to make decision with financial implications within the framework of the budget process, the relatively strong position of the finance minister relative to the other members of cabinet, based on a constitutional right to veto spending decisions, and the binding force of the budget law, i.e., the fact that supplementary budgets and in-year changes were rare. Given the importance of budgeting institutions to maintain sustainable public finances (Perotti et al. 1998), a significant aspect of German Unification is that the government undermined and circumvented the traditional institutions. The resulting institutional deterioration is a significant part in explaining the financial troubles of the German government after unification.

Table 11: Public Debt in the 1990s (as percentage share of GDP)

	Federal Government	Local Governments (West)	Local Governments (East)	ERP-Fund	German Unity Fund	Kreditabwicklungs-fonds	Erblasten-tilgungs-fonds	Treuhand
1989	22.1	21.6	-	0.3	-	-	-	-
1990	22.3	20.3	-	0.4	0.8	1.1	-	0.6
1991	20.6	18.1	0.6	0.6	1.8	1.0	-	1.4
1992	19.8	17.8	1.4	0.8	2.4	3.0	-	3.5
1993	21.7	18.4	2.4	0.9	2.8	3.2	-	5.3
1994	21.4	18.3	3.3	0.8	2.7	3.1	-	6.1
1995	22.0	18.4	4.0	1.0	2.5	-	9.6	-
1996	23.8	18.3	4.3	1.0	2.4	-	9.4	-
1997	25.0	17.7	4.4	0.9	2.2	-	8.9	-

Source: Deutsche Bundesbank

A first indication of this institutional deterioration is the use of resource flows not subject to the stringency of the formal budget process. The increased use of special funds by the federal government to finance German Unification is the first, most obvious phenomenon in

this regard. Table 11 gives a break-up of the development of Germany's public debt after 1989.¹⁴ While the federal government's debt only rose by three percent of GDP in the wake of Unification, the combined debt of the German Unity Fund, the ERP fund and the "Erblastentilgungsfond., rose quickly to 12 percent of GDP, or almost half of the federal government's official debt. Treuhand alone incurred an impressive debt of over six percent of GDP amount of liabilities resulting in an increase of public debt from 0.6 percent of GDP in just five years. Additional funds, such as the „Sondervermögen,, (special asset fund) of the railways were used to hide away large amounts of public debt.

Significantly, the use of such funds implied that the decisions over a large part of the transfers paid to East Germany were not subject to the scrutiny of legislative control. The control of the otherwise powerful budget committee in Parliament was largely circumvented by the fact the special funds did not appear in the budget. As a result, the committee's control powers became only effective when the changes in fiscal stocks and flows finally began to have an impact on the federal budget. A second phenomenon is the increased use of tax expenditures indicated above. While the budgetary effect of tax expenditures is the same as that of explicit subsidy payments, they are harder to control in the budget process, because they do not appear as an expense in the budget law.

Treuhand is a particularly significant case as regards the loss of financial controls in the German government. *De jure*, it was an independent federal agency under the supervision of the Ministry of Finance and subject to the scrutiny of a special parliamentary committee. *De facto* the Ministry of Finance exercised partial control, at best, over its activities. The "THA-Leitungsausschuß", an advisory committee to the Ministry of Finance working in Treuhand, emerged from a group of comptrollers who were sent to Berlin to check the Treuhand activities before it became integral part of the Government apparatus in October 1990. Later, this group monitored the privatization projects of the Treuhand and made pertinent recommendations. But this did not yield effective control over the general financing situation, which could also not be enforced by the Ministry of Finance itself. Requests of the Ministry concerning the usage of funds Treuhand borrowed in the capital markets or received from other sources were not necessarily answered. For example, Treuhand's president Birgit Breuel flatly rejected to produce information on credit commitments Treuhand made to firms taking

¹³ For a review of this literature, see von Hagen (1998), and Alesina and Perotti (1997).

¹⁴ See Boss & Rosenschon (1996) and Kilian (1993) for a description of the different funds and their functions.

over ex-socialist enterprises, commitments that reached an amount of DM 20 billion (Czada 1994a:40).

Nor was the Treuhand Committee in parliament able to exercise financial control, although it was vested with the formal authority to do so. According to the law, the Committee had to agree on the amount of debt the Treuhand was allowed to raise. However, it had no control over the ways the money was spent. Although the Committee put much effort in its control function, it did not effectively work as a "safeguard of the purse". A conflict between the Treuhand and the Committee in 1993 illustrates the point. In June 1993, Treuhand demanded an expansion of its credit limit by eight billion DM to finance some measures settled in the negotiations for the Consolidation and Solidarity Pact between the Federal Government and the Länder. When the Committee approved seven billion DM, Treuhand threatened to limit its commitments to public work agencies. The Committee was eventually forced to concede to Treuhand to avoid risking the consolidation package (Czada 1994a:35).

A second indication of the institutional deterioration is the increasing loss of influence of the Ministry of Finance over the financial decisions involved in German Unification. During the initial unification process the Ministry of Finance lost fiscal control due to its own framing of the first Treaty on the social, economic and monetary union. In the Treaty the West German government made financial commitments to its Eastern counterpart without having the legal authority and instruments to control the usage of the corresponding funds. The Ministry's unlucky role during this stage of the Unification process, later on, may have further undermined its political position¹⁵ which was generally weak due to Kohl's inclination to concentrate power in the Chancellor's office (Bundeskanzleramt). In fact, a Task Force on Reconstruction in the Chancellor's Office instead of Ministry of Finance participated in most important decisions concerning the reconstruction of the East German Länder.

Moreover, a variety of informal decision making forums sprang up under Chancellor Kohl's government. One example are the "round tables" involving representatives of the parties in parliament, social groups, and the Chancellor's Office to discuss issues such as labor market policies (Czada 1994b). Ultimately, the agreements reached at these "round tables" had financial implications, which, as it seems, were often not fully considered by the participants, but which were later presented as unchangeable. The most important of these coordination

¹⁵ See the biographic essay of Wolfgang Schäuble, head of the Chancellor's Office. He presents an episode where he employed this argument to counter Waigel's assertion that the Unification Treaty bears "unpredictable financial risks" (Schäuble 1993:121-122).

circles was the "Ludewig Round Table", where governors of the new Länder or their delegates, a representative of Treuhand, and State Secretary Ludewig, acting as the representative of the Chancellor's office, discussed transition issues and policies, such as public work programs and investment subsidies. This informal circle also took definite decisions and drafted fiscally relevant laws. Among other decisions, it set the eligibility criteria for public guarantees of private debts incurred by firms in Eastern Germany (Czada 1994a:41). In addition, the contacts emerging from these meetings were often used to furnish financing strategies rescuing single enterprises in East Germany. (Czada 1994b: 257)

A third indication of the institutional deterioration is the increased "ad-hocery" of the fiscal measures, within or outside the pre-established setting of the budget process. Particularly prevalent in the early years of the 1990s, was the Chancellor's tendency to promise financial aid to special interests and groups complaining of being particularly hurt by the transformation process. At the time, the German press was musing about the standard "Chancellor billion" that anyone complaining seemed to be able to obtain. A particularly ironical aspect of this financial ad-hocery emerged to the public when the Chancellor complained that the German banking industry was not paying the government an amount of DM 10 billion the bankers had allegedly promised to spring for the good of German Unification.

Finally, while German governments between 1952 and 1980 had resorted to supplementary budgets only four times, the Kohl government presented seven supplementary budgets between 1990 and 1997 (Sturm, 1998). Budget freezes and the last-minute revision of the budget proposal in December 1994 are similar signs of weakening budget management (ibid.). These incidents show that the Kohl government's fiscal policy increasingly become one of reactive budgeting rather than a consistent budgetary strategy.

Evidently, then, the Kohl government did not use the opportunity of the Maastricht process to strengthen Germany's budgetary institutions, as a number of other EMU member states did.¹⁶ When the time of reckoning finally came in 1997, the government had resort to one-off measures and budgetary gimmicks to meet the very fiscal criteria it had verbally touted for so long to persuade the German public of the benefits of EMU. While the European Commission recognized that Germany's deficit ratio was by 20 basis points due to one-time measures, a German institute estimates that the budgetary gimmicks accounted for 40 basis points. Given the official ration of 2.7 percent, an honest fiscal account would have caused a violation of the deficit criterion (DIW 1998).

VII. Conclusion

Germany's fiscal policy in the 1990s is characterized by a perplexing degree of schizophrenia. On the European front, the Kohl government spent every effort to insist on tight fiscal policies and on hardening the fiscal constraints embedded in the Maastricht Treaty. Domestically, in contrast, the same government showed a growing disregard for sound fiscal policies and for the rules set by the existing budgetary institutions. Disastrous financial decisions taken for electoral opportunism were never reversed or replaced by a more long-term oriented financial strategy. The 1990s, therefore, leave Germany with a large fiscal problem that still awaits a sustainable solution. The fact that such a solution will ultimately involve reforms including in Germany's labor market institutions does not, of course, make it more politically palatable nor increase the chances that it will be provided by the left-wing government elected in 1998. The weakening of Germany's budgetary institutions in the 1990s is a significant negative legacy of the Kohl era, and one that risks resulting in a continued lack of German fiscal discipline in years to come.

One might argue that the rules of EMU will force Germany to attack its fiscal problems, anyway. But it seems doubtful that the constraints of the Stability Pact will be enforced by the EMU, if the very country that imposed them shows itself unwilling or unable to respect them. If this turns out to be correct, the weakening of Germany's fiscal institutions in the 1990s may have adverse consequences on fiscal discipline beyond the country itself.

¹⁶ See e.g. Hallerberg and von Hagen (1998)

Bibliography

- Akerlof, G.A., Rose, A., Yellen J.L. and Hessenius, H. (1991), "East Germany in from the Cold: The Economic Aftermath of Currency Union", *Brookings Papers for Economic Activity*, pp. 1-101
- Alesina, A. and Perotti, R. (1997), "Budget Deficits and Budget Institutions", Paper presented at the NBER/ZEI Conference on Budgetary Institutions and Fiscal Policy. Bonn, June 1997
- Autorengemeinschaft (1998), "Der Arbeitsmarkt in der Bundesrepublik Deutschland in den Jahren 1997-1998", *Mitteilungen aus der Arbeitsmarkt- und Berufsforschung*, vol. 31, pp. 5-58
- Berthold, N. and Fehn, R. (1997), "Aktive Arbeitsmarktpolitik - wirksames Instrument der Beschäftigungspolitik oder politische Beruhigungspille", *ORDO*, vol. 48, pp. 412-435
- Boss, A. (1998), *How Germany Shouldered the Fiscal Burden of the Unification*, Kiel: Kiel Institute of World Economics, Kiel Working Paper No. 851
- Boss, A. and Rosenschon, A. (1996), *Öffentliche Transferleistungen zur Finanzierung der deutschen Einheit: Eine Bestandsaufnahme*, Kiel: Institut für Weltwirtschaft, Kiel Discussion Papers 269
- Bundesministerium für Arbeit und Soziales (BMA) (1998), *Übersicht über das Sozialrecht*, 5th. ed., Bonn: BMA
- Bundesministerium der Finanzen (BMF) (various issues), *Finanzbericht*, Bonn: BMF
- Burda, M. and Funke, M. (1993), "German Trade Unions after Unification - Third Degree Wage Discriminating Monopolists?", *Weltwirtschaftliches Archiv*, vol. 129, pp. 537-560
- Buttler, F. and Emmerich, K. (1995), "Kosten und Nutzen aktiver Arbeitsmarktpolitik im ostdeutschen Transformationsprozeß", in G. Gutmann (ed.), *Die Wettbewerbsfähigkeit der ostdeutschen Wirtschaft - Ausgangslage Handlungserfordernisse, Perspektiven*, Berlin: Duncker & Humboldt, pp. 61-94
- Czada, R. (1994a), "Die Treuhandanstalt im politischen System der Bundesrepublik", *Aus Politik und Zeitgeschichte*, vol. B43-44/94, pp. 31-42
- Czada, R. (1994b), "Schleichweg in die "Dritte Republik": Politik der Vereinigung und politischer Wandel in Deutschland", *Politische Vierteljahresschrift*, vol. 35, pp. 245-270
- Czada, R. (1995), *Der Kampf um die Finanzierung der deutschen Einheit*, Cologne: MPIFG, MPIFG Discussion Paper 95/1
- Deutsches Institut für Wirtschaftsforschung (DIW) (1998), "Entwicklung des Staatsdefizits im Jahre 1997 - Ein (notwendiger) Blick zurück", *Wochenbericht* (25/98)
- Deutsche Bundesbank (various issues), *Monthly Report*, Frankfurt a.M.: Deutsche Bundesbank
- Driffill, J. and Miller, M. (1998), *No Credit for Transition: The Maastricht Treaty and German Unemployment*, London: CEPR, CEPR Discussion Paper No. 1929
- European Monetary Institute (1998), *Convergence Report - Report Required by Article 109j of the Treaty Establishing the European Community*, Frankfurt: EMI
- Fratianni, M. and von Hagen, J. (1992), *The European Monetary System and European Monetary Union*. Boulder: WestView Press
- Hallerberg, M. and von Hagen, J. (1998), "Electoral Institutions and the Budget Process." K. Fukasaku and R. Hausmann (eds.), *Democracy and Decentralization in Latin America*. Paris: OECD
- Heinelt, H., Bosch, G. and Reissert, B. (eds.) (1994), *Arbeitsmarktpolitik nach der*

- Vereinigung, Berlin: Sigma
- Hübler, O. (1997), "Evaluation beschäftigungspolitischer Maßnahmen in Ostdeutschland", *Jahrbücher für Nationalökonomie und Statistik*, vol. 216, pp. 22-44
- Kilian, M. (1993), *Nebenhaushalte des Bundes*, Berlin: Duncker und Humboldt
- Nickell, S. (1997), "Unemployment and Labor Market Rigidities: Europe versus North America", *Journal of Economic Perspectives*, vol. 11, pp. 55-74
- Perotti, R., Strauch, R. and von Hagen, J. (1998), *Sustainability of Public Finances*, London: CEPR
- Sachverständigenrat (SVR) zur Begutachtung der Gesamtwirtschaftlichen Entwicklung (various issues), *Jahresgutachten*, Stuttgart: Metzler-Poeschel.
- Scharrer, H.-E., Wohlers, E., Weinert, G., Hinze, J., Krägenau, H., Wetter, W. and Winkler-Büttner, D. (1998), *Nachhaltigkeit: Beurteilung der Konvergenz ausgewählter Mitgliedstaaten im Vorfeld der Europäischen Wirtschafts- und Währungsunion*, Hamburg: HWWA, Report No. 179
- Schäuble, W. (1993), *Der Vertrag. Wie ich über die deutsche Einheit verhandelte*, München: Knauer
- Schwinn, O. (1997), *Die Finanzierung der deutschen Einheit*, Opladen: Leske & Budrich
- Siebert, H. (1997), "Labor Market Rigidities: At the Root of the Unemployment in Europe", *Journal of Economic Perspectives*, vol. 11, pp. 37-54
- Sinn, G. and Sinn, H.-W. (1991), *Kaltstart*, Tübingen: J.C.B. Mohr (Paul Siebeck)
- Sinn, H.-W. (1995), "Schlingerkurs: Lohnpolitik und Investitionsförderung in den neuen Bundesländern", in G. Gutmann (ed.), *Die Wettbewerbsfähigkeit der ostdeutschen Wirtschaft - Ausgangslage Handlungserfordernisse, Perspektiven*, Berlin: Buncker & Humboldt, pp. 23-60
- Steffen, J. (no date), *Die wesentlichen Änderungen in den Bereichen Arbeitslosenversicherung, Rentenversicherung, Krankenversicherung und Sozialhilfe (HLU) in den vergangenen Jahren*, mimeo.
- Sturm, R. (1998), "Finanzpolitik am Ende oder 'vor der Wahl'? Akteure, Instrumente und Blockaden in der Finanzpolitik", in U. Andersen (ed.), *Der Deutsche Steuerstaat in der Finanzkrise*, Schwalbach: Wochenschau Verlag
- Tietmeyer, H. (1994), "Erinnerungen an die Vertragsverhandlungen", in T. Waigel and M. Schell (eds) *Tage, die Deutschland und die Welt veränderten: Vom Mauerfall zum Kaukasus: Die deutsche Währungsunion*. München: Ferenczy at Bruckmann, pp. 57-117
- von Hagen, J. (1992), *Budgeting Institutions and Fiscal Performance*, Brussels: European Commission DG-II, Economic Paper 92
- von Hagen, J. (1998a), "East Germany: The Economics of Kinship". P. Desai (ed.), *Going Global: Transition From Plan to Market in the World Economy*. Cambridge: MIT Press
- von Hagen, J. (1998b), *Budgeting Institutions for Aggregate Fiscal Discipline*, Bonn: ZEI Policy Paper B98-01

2008		
B01-08	Euro-Diplomatie durch gemeinsame „Wirtschaftsregierung“	<i>Martin Seidel</i>
2007		
B03-07	Löhne und Steuern im Systemwettbewerb der Mitgliedstaaten der Europäischen Union	<i>Martin Seidel</i>
B02-07	Konsolidierung und Reform der Europäischen Union	<i>Martin Seidel</i>
B01-07	The Ratification of European Treaties - Legal and Constitutional Basis of a European Referendum.	<i>Martin Seidel</i>
2006		
B03-06	Financial Frictions, Capital Reallocation, and Aggregate Fluctuations	<i>Jürgen von Hagen, Haiping Zhang</i>
B02-06	Financial Openness and Macroeconomic Volatility	<i>Jürgen von Hagen, Haiping Zhang</i>
B01-06	A Welfare Analysis of Capital Account Liberalization	<i>Jürgen von Hagen, Haiping Zhang</i>
2005		
B11-05	Das Kompetenz- und Entscheidungssystem des Vertrages von Rom im Wandel seiner Funktion und Verfassung	<i>Martin Seidel</i>
B10-05	Die Schutzklauseln der Beitrittsverträge	<i>Martin Seidel</i>
B09-05	Measuring Tax Burdens in Europe	<i>Guntram B. Wolff</i>
B08-05	Remittances as Investment in the Absence of Altruism	<i>Gabriel González-König</i>
B07-05	Economic Integration in a Multicore World?	<i>Christian Volpe Martincus, Jennifer Pédussel Wu</i>
B06-05	Banking Sector (Under?)Development in Central and Eastern Europe	<i>Jürgen von Hagen, Valeriya Dinger</i>
B05-05	Regulatory Standards Can Lead to Predation	<i>Stefan Lutz</i>
B04-05	Währungspolitik als Sozialpolitik	<i>Martin Seidel</i>
B03-05	Public Education in an Integrated Europe: Studying to Migrate and Teaching to Stay?	<i>Panu Poutvaara</i>
B02-05	Voice of the Diaspora: An Analysis of Migrant Voting Behavior	<i>Jan Fidrmuc, Orla Doyle</i>
B01-05	Macroeconomic Adjustment in the New EU Member States	<i>Jürgen von Hagen, Iulia Traistaru</i>
2004		
B33-04	The Effects of Transition and Political Instability On Foreign Direct Investment Inflows: Central Europe and the Balkans	<i>Josef C. Brada, Ali M. Kutan, Tanner M. Yigit</i>
B32-04	The Choice of Exchange Rate Regimes in Developing Countries: A Multinomial Panel Analysis	<i>Jürgen von Hagen, Jizhong Zhou</i>
B31-04	Fear of Floating and Fear of Pegging: An Empirical Analysis of De Facto Exchange Rate Regimes in Developing Countries	<i>Jürgen von Hagen, Jizhong Zhou</i>
B30-04	Der Vollzug von Gemeinschaftsrecht über die Mitgliedstaaten und seine Rolle für die EU und den Beitrittsprozess	<i>Martin Seidel</i>
B29-04	Deutschlands Wirtschaft, seine Schulden und die Unzulänglichkeiten der einheitlichen Geldpolitik im Eurosystem	<i>Dieter Spethmann, Otto Steiger</i>
B28-04	Fiscal Crises in U.S. Cities: Structural and Non-structural Causes	<i>Guntram B. Wolff</i>
B27-04	Firm Performance and Privatization in Ukraine	<i>Galyna Grygorenko, Stefan Lutz</i>
B26-04	Analyzing Trade Opening in Ukraine: Effects of a Customs Union with the EU	<i>Oksana Harbuzyuk, Stefan Lutz</i>
B25-04	Exchange Rate Risk and Convergence to the Euro	<i>Lucjan T. Orłowski</i>
B24-04	The Endogeneity of Money and the Eurosystem	<i>Otto Steiger</i>
B23-04	Which Lender of Last Resort for the Eurosystem?	<i>Otto Steiger</i>
B22-04	Non-Discretionary Monetary Policy: The Answer for Transition Economies?	<i>Elham-Mafi Kreft, Steven F. Kreft</i>
B21-04	The Effectiveness of Subsidies Revisited: Accounting for Wage and Employment Effects in Business R+D	<i>Volker Reinthaler, Guntram B. Wolff</i>
B20-04	Money Market Pressure and the Determinants of Banking Crises	<i>Jürgen von Hagen, Tai-kuang Ho</i>
B19-04	Die Stellung der Europäischen Zentralbank nach dem Verfassungsvertrag	<i>Martin Seidel</i>

B18-04	Transmission Channels of Business Cycles Synchronization in an Enlarged EMU	<i>Iulia Traistaru</i>
B17-04	Foreign Exchange Regime, the Real Exchange Rate and Current Account Sustainability: The Case of Turkey	<i>Sübidey Togan, Hasan Ersel</i>
B16-04	Does It Matter Where Immigrants Work? Traded Goods, Non-traded Goods, and Sector Specific Employment	<i>Harry P. Bowen, Jennifer Pédussel Wu</i>
B15-04	Do Economic Integration and Fiscal Competition Help to Explain Local Patterns?	<i>Christian Volpe Martincus</i>
B14-04	Euro Adoption and Maastricht Criteria: Rules or Discretion?	<i>Jiri Jonas</i>
B13-04	The Role of Electoral and Party Systems in the Development of Fiscal Institutions in the Central and Eastern European Countries	<i>Sami Yläoutinen</i>
B12-04	Measuring and Explaining Levels of Regional Economic Integration	<i>Jennifer Pédussel Wu</i>
B11-04	Economic Integration and Location of Manufacturing Activities: Evidence from MERCOSUR	<i>Pablo Sanguinetti, Iulia Traistaru, Christian Volpe Martincus</i>
B10-04	Economic Integration and Industry Location in Transition Countries	<i>Laura Resmini</i>
B09-04	Testing Creditor Moral Hazard in Sovereign Bond Markets: A Unified Theoretical Approach and Empirical Evidence	<i>Ayse Y. Evrensel, Ali M. Kutan</i>
B08-04	European Integration, Productivity Growth and Real Convergence	<i>Taner M. Yigit, Ali M. Kutan</i>
B07-04	The Contribution of Income, Social Capital, and Institutions to Human Well-being in Africa	<i>Mina Baliamoune-Lutz, Stefan H. Lutz</i>
B06-04	Rural Urban Inequality in Africa: A Panel Study of the Effects of Trade Liberalization and Financial Deepening	<i>Mina Baliamoune-Lutz, Stefan H. Lutz</i>
B05-04	Money Rules for the Eurozone Candidate Countries	<i>Lucjan T. Orłowski</i>
B04-04	Who is in Favor of Enlargement? Determinants of Support for EU Membership in the Candidate Countries' Referenda	<i>Orla Doyle, Jan Fidrmuc</i>
B03-04	Over- and Underbidding in Central Bank Open Market Operations Conducted as Fixed Rate Tender	<i>Ulrich Bindseil</i>
B02-04	Total Factor Productivity and Economic Freedom Implications for EU Enlargement	<i>Ronald L. Moomaw, Euy Seok Yang</i>
B01-04	Die neuen Schutzklauseln der Artikel 38 und 39 des Beitrittsvertrages: Schutz der alten Mitgliedstaaten vor Störungen durch die neuen Mitgliedstaaten	<i>Martin Seidel</i>
2003		
B29-03	Macroeconomic Implications of Low Inflation in the Euro Area	<i>Jürgen von Hagen, Boris Hofmann</i>
B28-03	The Effects of Transition and Political Instability on Foreign Direct Investment: Central Europe and the Balkans	<i>Josef C. Brada, Ali M. Kutan, Taner M. Yigit</i>
B27-03	The Performance of the Euribor Futures Market: Efficiency and the Impact of ECB Policy Announcements (Electronic Version of International Finance)	<i>Kerstin Bernoth, Juergen von Hagen</i>
B26-03	Sovereign Risk Premia in the European Government Bond Market (überarbeitete Version zum Herunterladen)	<i>Kerstin Bernoth, Juergen von Hagen, Ludger Schulknecht</i>
B25-03	How Flexible are Wages in EU Accession Countries?	<i>Anna Iara, Iulia Traistaru</i>
B24-03	Monetary Policy Reaction Functions: ECB versus Bundesbank	<i>Bernd Hayo, Boris Hofmann</i>
B23-03	Economic Integration and Manufacturing Concentration Patterns: Evidence from Mercosur	<i>Iulia Traistaru, Christian Volpe Martincus</i>
B22-03	Reformzwänge innerhalb der EU angesichts der Osterweiterung	<i>Martin Seidel</i>
B21-03	Reputation Flows: Contractual Disputes and the Channels for Inter-Firm Communication	<i>William Pyle</i>
B20-03	Urban Primacy, Gigantism, and International Trade: Evidence from Asia and the Americas	<i>Ronald L. Moomaw, Mohammed A. Alwosabi</i>
B19-03	An Empirical Analysis of Competing Explanations of Urban Primacy Evidence from Asia and the Americas	<i>Ronald L. Moomaw, Mohammed A. Alwosabi</i>

B18-03	The Effects of Regional and Industry-Wide FDI Spillovers on Export of Ukrainian Firms	<i>Stefan H. Lutz, Oleksandr Talavera, Sang-Min Park</i>
B17-03	Determinants of Inter-Regional Migration in the Baltic States	<i>Mihails Hazans</i>
B16-03	South-East Europe: Economic Performance, Perspectives, and Policy Challenges	<i>Iulia Traistaru, Jürgen von Hagen</i>
B15-03	Employed and Unemployed Search: The Marginal Willingness to Pay for Attributes in Lithuania, the US and the Netherlands	<i>Jos van Ommeren, Mihails Hazans</i>
B14-03	FCIs and Economic Activity: Some International Evidence	<i>Charles Goodhart, Boris Hofmann</i>
B13-03	The IS Curve and the Transmission of Monetary Policy: Is there a Puzzle?	<i>Charles Goodhart, Boris Hofmann</i>
B12-03	What Makes Regions in Eastern Europe Catching Up? The Role of Foreign Investment, Human Resources, and Geography	<i>Gabriele Tondl, Goran Vuksic</i>
B11-03	Die Weisungs- und Herrschaftsmacht der Europäischen Zentralbank im europäischen System der Zentralbanken - eine rechtliche Analyse	<i>Martin Seidel</i>
B10-03	Foreign Direct Investment and Perceptions of Vulnerability to Foreign Exchange Crises: Evidence from Transition Economies	<i>Josef C. Brada, Vladimír Tomsík</i>
B09-03	The European Central Bank and the Eurosystem: An Analysis of the Missing Central Monetary Institution in European Monetary Union	<i>Gunnar Heinsohn, Otto Steiger</i>
B08-03	The Determination of Capital Controls: Which Role Do Exchange Rate Regimes Play?	<i>Jürgen von Hagen, Jizhong Zhou</i>
B07-03	Nach Nizza und Stockholm: Stand des Binnenmarktes und Prioritäten für die Zukunft	<i>Martin Seidel</i>
B06-03	Fiscal Discipline and Growth in Euroland. Experiences with the Stability and Growth Pact	<i>Jürgen von Hagen</i>
B05-03	Reconsidering the Evidence: Are Eurozone Business Cycles Converging?	<i>Michael Massmann, James Mitchell</i>
B04-03	Do Ukrainian Firms Benefit from FDI?	<i>Stefan H. Lutz, Oleksandr Talavera</i>
B03-03	Europäische Steuerkoordination und die Schweiz	<i>Stefan H. Lutz</i>
B02-03	Commuting in the Baltic States: Patterns, Determinants, and Gains	<i>Mihails Hazans</i>
B01-03	Die Wirtschafts- und Währungsunion im rechtlichen und politischen Gefüge der Europäischen Union	<i>Martin Seidel</i>
2002		
B30-02	An Adverse Selection Model of Optimal Unemployment Assurance	<i>Marcus Hagedorn, Ashok Kaul, Tim Mennel</i>
B29B-02	Trade Agreements as Self-protection	<i>Jennifer Pédussel Wu</i>
B29A-02	Growth and Business Cycles with Imperfect Credit Markets	<i>Debajyoti Chakrabarty</i>
B28-02	Inequality, Politics and Economic Growth	<i>Debajyoti Chakrabarty</i>
B27-02	Poverty Traps and Growth in a Model of Endogenous Time Preference	<i>Debajyoti Chakrabarty</i>
B26-02	Monetary Convergence and Risk Premiums in the EU Candidate Countries	<i>Lucjan T. Orlowski</i>
B25-02	Trade Policy: Institutional Vs. Economic Factors	<i>Stefan Lutz</i>
B24-02	The Effects of Quotas on Vertical Intra-industry Trade	<i>Stefan Lutz</i>
B23-02	Legal Aspects of European Economic and Monetary Union	<i>Martin Seidel</i>
B22-02	Der Staat als Lender of Last Resort - oder: Die Achillesverse des Eurosystems	<i>Otto Steiger</i>
B21-02	Nominal and Real Stochastic Convergence Within the Transition Economies and to the European Union: Evidence from Panel Data	<i>Ali M. Kutan, Taner M. Yigit</i>
B20-02	The Impact of News, Oil Prices, and International Spillovers on Russian Financial Markets	<i>Bernd Hayo, Ali M. Kutan</i>

B19-02	East Germany: Transition with Unification, Experiments and Experiences	<i>Jürgen von Hagen, Rolf R. Strauch, Guntram B. Wolff</i>
B18-02	Regional Specialization and Employment Dynamics in Transition Countries	<i>Iulia Traistaru, Guntram B. Wolff</i>
B17-02	Specialization and Growth Patterns in Border Regions of Accession Countries	<i>Laura Resmini</i>
B16-02	Regional Specialization and Concentration of Industrial Activity in Accession Countries	<i>Iulia Traistaru, Peter Nijkamp, Simonetta Longhi</i>
B15-02	Does Broad Money Matter for Interest Rate Policy?	<i>Matthias Brückner, Andreas Schaber</i>
B14-02	The Long and Short of It: Global Liberalization, Poverty and Inequality	<i>Christian E. Weller, Adam Hersch</i>
B13-02	De Facto and Official Exchange Rate Regimes in Transition Economies	<i>Jürgen von Hagen, Jizhong Zhou</i>
B12-02	Argentina: The Anatomy of A Crisis	<i>Jiri Jonas</i>
B11-02	The Eurosystem and the Art of Central Banking	<i>Gunnar Heinsohn, Otto Steiger</i>
B10-02	National Origins of European Law: Towards an Autonomous System of European Law?	<i>Martin Seidel</i>
B09-02	Monetary Policy in the Euro Area - Lessons from the First Years	<i>Volker Clausen, Bernd Hayo</i>
B08-02	Has the Link Between the Spot and Forward Exchange Rates Broken Down? Evidence From Rolling Cointegration Tests	<i>Ali M. Kutan, Su Zhou</i>
B07-02	Perspektiven der Erweiterung der Europäischen Union	<i>Martin Seidel</i>
B06-02	Is There Asymmetry in Forward Exchange Rate Bias? Multi-Country Evidence	<i>Su Zhou, Ali M. Kutan</i>
B05-02	Real and Monetary Convergence Within the European Union and Between the European Union and Candidate Countries: A Rolling Cointegration Approach	<i>Josef C. Brada, Ali M. Kutan, Su Zhou</i>
B04-02	Asymmetric Monetary Policy Effects in EMU	<i>Volker Clausen, Bernd Hayo</i>
B03-02	The Choice of Exchange Rate Regimes: An Empirical Analysis for Transition Economies	<i>Jürgen von Hagen, Jizhong Zhou</i>
B02-02	The Euro System and the Federal Reserve System Compared: Facts and Challenges	<i>Karlheinz Ruckriegel, Franz Seitz</i>
B01-02	Does Inflation Targeting Matter?	<i>Manfred J. M. Neumann, Jürgen von Hagen</i>
2001		
B29-01	Is Kazakhstan Vulnerable to the Dutch Disease?	<i>Karlygash Kuralbayeva, Ali M. Kutan, Michael L. Wyzan</i>
B28-01	Political Economy of the Nice Treaty: Rebalancing the EU Council. The Future of European Agricultural Policies	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B27-01	Investor Panic, IMF Actions, and Emerging Stock Market Returns and Volatility: A Panel Investigation	<i>Bernd Hayo, Ali M. Kutan</i>
B26-01	Regional Effects of Terrorism on Tourism: Evidence from Three Mediterranean Countries	<i>Konstantinos Drakos, Ali M. Kutan</i>
B25-01	Monetary Convergence of the EU Candidates to the Euro: A Theoretical Framework and Policy Implications	<i>Lucjan T. Orłowski</i>
B24-01	Disintegration and Trade	<i>Jarko and Jan Fidrmuc</i>
B23-01	Migration and Adjustment to Shocks in Transition Economies	<i>Jan Fidrmuc</i>
B22-01	Strategic Delegation and International Capital Taxation	<i>Matthias Brückner</i>
B21-01	Balkan and Mediterranean Candidates for European Union Membership: The Convergence of Their Monetary Policy With That of the European Central Bank	<i>Josef C. Brada, Ali M. Kutan</i>
B20-01	An Empirical Inquiry of the Efficiency of Intergovernmental Transfers for Water Projects Based on the WRDA Data	<i>Anna Rubinchik-Pessach</i>
B19-01	Detrending and the Money-Output Link: International Evidence	<i>R.W. Hafer, Ali M. Kutan</i>

B18-01	Monetary Policy in Unknown Territory. The European Central Bank in the Early Years	<i>Jürgen von Hagen, Matthias Brückner</i>
B17-01	Executive Authority, the Personal Vote, and Budget Discipline in Latin American and Caribbean Countries	<i>Mark Hallerberg, Patrick Marier</i>
B16-01	Sources of Inflation and Output Fluctuations in Poland and Hungary: Implications for Full Membership in the European Union	<i>Selahattin Dibooglu, Ali M. Kutan</i>
B15-01	Programs Without Alternative: Public Pensions in the OECD	<i>Christian E. Weller</i>
B14-01	Formal Fiscal Restraints and Budget Processes As Solutions to a Deficit and Spending Bias in Public Finances - U.S. Experience and Possible Lessons for EMU	<i>Rolf R. Strauch, Jürgen von Hagen</i>
B13-01	German Public Finances: Recent Experiences and Future Challenges	<i>Jürgen von Hagen, Rolf R. Strauch</i>
B12-01	The Impact of Eastern Enlargement On EU-Labour Markets. Pensions Reform Between Economic and Political Problems	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B11-01	Inflationary Performance in a Monetary Union With Large Wage Setters	<i>Lilia Cavallar</i>
B10-01	Integration of the Baltic States into the EU and Institutions of Fiscal Convergence: A Critical Evaluation of Key Issues and Empirical Evidence	<i>Ali M. Kutan, Niina Pautola-Mol</i>
B09-01	Democracy in Transition Economies: Grease or Sand in the Wheels of Growth?	<i>Jan Fidrmuc</i>
B08-01	The Functioning of Economic Policy Coordination	<i>Jürgen von Hagen, Susanne Mundschenk</i>
B07-01	The Convergence of Monetary Policy Between Candidate Countries and the European Union	<i>Josef C. Brada, Ali M. Kutan</i>
B06-01	Opposites Attract: The Case of Greek and Turkish Financial Markets	<i>Konstantinos Drakos, Ali M. Kutan</i>
B05-01	Trade Rules and Global Governance: A Long Term Agenda. The Future of Banking.	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B04-01	The Determination of Unemployment Benefits	<i>Rafael di Tella, Robert J. McCulloch</i>
B03-01	Preferences Over Inflation and Unemployment: Evidence from Surveys of Happiness	<i>Rafael di Tella, Robert J. McCulloch, Andrew J. Oswald</i>
B02-01	The Konstanz Seminar on Monetary Theory and Policy at Thirty	<i>Michele Fratianni, Jürgen von Hagen</i>
B01-01	Divided Boards: Partisanship Through Delegated Monetary Policy	<i>Etienne Farvaque, Gael Lagadec</i>
2000		
B20-00	Breakin-up a Nation, From the Inside	<i>Etienne Farvaque</i>
B19-00	Income Dynamics and Stability in the Transition Process, general Reflections applied to the Czech Republic	<i>Jens Hölscher</i>
B18-00	Budget Processes: Theory and Experimental Evidence	<i>Karl-Martin Ehrhart, Roy Gardner, Jürgen von Hagen, Claudia Keser</i>
B17-00	Rückführung der Landwirtschaftspolitik in die Verantwortung der Mitgliedsstaaten? - Rechts- und Verfassungsfragen des Gemeinschaftsrechts	<i>Martin Seidel</i>
B16-00	The European Central Bank: Independence and Accountability	<i>Christa Randzio-Plath, Tomasso Padoa-Schioppa</i>
B15-00	Regional Risk Sharing and Redistribution in the German Federation	<i>Jürgen von Hagen, Ralf Hepp</i>
B14-00	Sources of Real Exchange Rate Fluctuations in Transition Economies: The Case of Poland and Hungary	<i>Selahattin Dibooglu, Ali M. Kutan</i>
B13-00	Back to the Future: The Growth Prospects of Transition Economies Reconsidered	<i>Nauro F. Campos</i>

B12-00	Rechtsetzung und Rechtsangleichung als Folge der Einheitlichen Europäischen Wahrung	<i>Martin Seidel</i>
B11-00	A Dynamic Approach to Inflation Targeting in Transition Economies	<i>Lucjan T. Orłowski</i>
B10-00	The Importance of Domestic Political Institutions: Why and How Belgium Qualified for EMU	<i>Marc Hallerberg</i>
B09-00	Rational Institutions Yield Hysteresis	<i>Rafael Di Tella, Robert MacCulloch</i>
B08-00	The Effectiveness of Self-Protection Policies for Safeguarding Emerging Market Economies from Crises	<i>Kenneth Kletzer</i>
B07-00	Financial Supervision and Policy Coordination in The EMU	<i>Deutsch-Franzosisches Wirtschaftspolitisches Forum</i>
B06-00	The Demand for Money in Austria	<i>Bernd Hayo</i>
B05-00	Liberalization, Democracy and Economic Performance during Transition	<i>Jan Fidrmuc</i>
B04-00	A New Political Culture in The EU - Democratic Accountability of the ECB	<i>Christa Randzio-Plath</i>
B03-00	Integration, Disintegration and Trade in Europe: Evolution of Trade Relations during the 1990's	<i>Jarko Fidrmuc, Jan Fidrmuc</i>
B02-00	Inflation Bias and Productivity Shocks in Transition Economies: The Case of the Czech Republic	<i>Josef C. Brada, Arthur E. King, Ali M. Kutan</i>
B01-00	Monetary Union and Fiscal Federalism	<i>Kenneth Kletzer, Jurgen von Hagen</i>
1999		
B26-99	Skills, Labour Costs, and Vertically Differentiated Industries: A General Equilibrium Analysis	<i>Stefan Lutz, Alessandro Turrini</i>
B25-99	Micro and Macro Determinants of Public Support for Market Reforms in Eastern Europe	<i>Bernd Hayo</i>
B24-99	What Makes a Revolution?	<i>Robert MacCulloch</i>
B23-99	Informal Family Insurance and the Design of the Welfare State	<i>Rafael Di Tella, Robert MacCulloch</i>
B22-99	Partisan Social Happiness	<i>Rafael Di Tella, Robert MacCulloch</i>
B21-99	The End of Moderate Inflation in Three Transition Economies?	<i>Josef C. Brada, Ali M. Kutan</i>
B20-99	Subnational Government Bailouts in Germany	<i>Helmut Seitz</i>
B19-99	The Evolution of Monetary Policy in Transition Economies	<i>Ali M. Kutan, Josef C. Brada</i>
B18-99	Why are Eastern Europe's Banks not failing when everybody else's are?	<i>Christian E. Weller, Bernard Morzuch</i>
B17-99	Stability of Monetary Unions: Lessons from the Break-Up of Czechoslovakia	<i>Jan Fidrmuc, Julius Horvath and Jarko Fidrmuc</i>
B16-99	Multinational Banks and Development Finance	<i>Christian E. Weller and Mark J. Scher</i>
B15-99	Financial Crises after Financial Liberalization: Exceptional Circumstances or Structural Weakness?	<i>Christian E. Weller</i>
B14-99	Industry Effects of Monetary Policy in Germany	<i>Bernd Hayo and Birgit Uhlenbrock</i>
B13-99	Financial Fragility or What Went Right and What Could Go Wrong in Central European Banking?	<i>Christian E. Weller and Jurgen von Hagen</i>
B12-99	Size Distortions of Tests of the Null Hypothesis of Stationarity: Evidence and Implications for Applied Work	<i>Mehmet Caner and Lutz Kilian</i>
B11-99	Financial Supervision and Policy Coordination in the EMU	<i>Deutsch-Franzosisches Wirtschaftspolitisches Forum</i>
B10-99	Financial Liberalization, Multinational Banks and Credit Supply: The Case of Poland	<i>Christian Weller</i>
B09-99	Monetary Policy, Parameter Uncertainty and Optimal Learning	<i>Volker Wieland</i>
B08-99	The Connection between more Multinational Banks and less Real Credit in Transition Economies	<i>Christian Weller</i>

- B07-99 **Comovement and Catch-up in Productivity across Sectors: Evidence from the OECD** *Christopher M. Cornwell and Jens-Uwe Wächter*
- B06-99 **Productivity Convergence and Economic Growth: A Frontier Production Function Approach** *Christopher M. Cornwell and Jens-Uwe Wächter*
- B05-99 **Tumbling Giant: Germany's Experience with the Maastricht Fiscal Criteria** *Jürgen von Hagen and Rolf Strauch*
- B04-99 **The Finance-Investment Link in a Transition Economy: Evidence for Poland from Panel Data** *Christian Weller*
- B03-99 **The Macroeconomics of Happiness** *Rafael Di Tella, Robert McCulloch and Andrew J. Oswald*
- B02-99 **The Consequences of Labour Market Flexibility: Panel Evidence Based on Survey Data** *Rafael Di Tella and Robert McCulloch*
- B01-99 **The Excess Volatility of Foreign Exchange Rates: Statistical Puzzle or Theoretical Artifact?** *Robert B.H. Hauswald*
- 1998**
- B16-98 **Labour Market + Tax Policy in the EMU** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B15-98 **Can Taxing Foreign Competition Harm the Domestic Industry?** *Stefan Lutz*
- B14-98 **Free Trade and Arms Races: Some Thoughts Regarding EU-Russian Trade** *Rafael Reuveny and John Maxwell*
- B13-98 **Fiscal Policy and Intranational Risk-Sharing** *Jürgen von Hagen*
- B12-98 **Price Stability and Monetary Policy Effectiveness when Nominal Interest Rates are Bounded at Zero** *Athanasios Orphanides and Volker Wieland*
- B11A-98 **Die Bewertung der "dauerhaft tragbaren öffentlichen Finanzlage" der EU Mitgliedstaaten beim Übergang zur dritten Stufe der EWWU** *Rolf Strauch*
- B11-98 **Exchange Rate Regimes in the Transition Economies: Case Study of the Czech Republic: 1990-1997** *Julius Horvath and Jiri Jonas*
- B10-98 **Der Wettbewerb der Rechts- und politischen Systeme in der Europäischen Union** *Martin Seidel*
- B09-98 **U.S. Monetary Policy and Monetary Policy and the ESCB** *Robert L. Hetzel*
- B08-98 **Money-Output Granger Causality Revisited: An Empirical Analysis of EU Countries (überarbeitete Version zum Herunterladen)** *Bernd Hayo*
- B07-98 **Designing Voluntary Environmental Agreements in Europe: Some Lessons from the U.S. EPA's 33/50 Program** *John W. Maxwell*
- B06-98 **Monetary Union, Asymmetric Productivity Shocks and Fiscal Insurance: an Analytical Discussion of Welfare Issues** *Kenneth Kletzer*
- B05-98 **Estimating a European Demand for Money (überarbeitete Version zum Herunterladen)** *Bernd Hayo*
- B04-98 **The EMU's Exchange Rate Policy** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B03-98 **Central Bank Policy in a More Perfect Financial System** *Jürgen von Hagen / Ingo Fender*
- B02-98 **Trade with Low-Wage Countries and Wage Inequality** *Jaleel Ahmad*
- B01-98 **Budgeting Institutions for Aggregate Fiscal Discipline** *Jürgen von Hagen*
- 1997**
- B04-97 **Macroeconomic Stabilization with a Common Currency: Does European Monetary Unification Create a Need for Fiscal Insurance or Federalism?** *Kenneth Kletzer*
- B-03-97 **Liberalising European Markets for Energy and Telecommunications: Some Lessons from the US Electric Utility Industry** *Tom Lyon / John Mayo*
- B02-97 **Employment and EMU** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B01-97 **A Stability Pact for Europe** *(a Forum organized by ZEI)*

ISSN 1436 - 6053

Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn

Walter-Flex-Strasse 3
D-53113 Bonn
Germany

Tel.: +49-228-73-1732
Fax: +49-228-73-1809
www.zei.de