Challenges to Estonia's Economic Policymaking at the Eve of EU Enlargement[1]

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In the past decade, Estonia has undertaken remarkable and effective efforts to restructure its economy and prepare the factors of production for the challenges of the world market. Estonia proved itself as the reform country of Central and Eastern Europe with the most far-reaching and comprehensive reform package, leading to the fastest structural change in the region. It is fair to state that Estonia has matured enough to become a full member of the European Union.

As one—if not the decisive—part of the reform package, Estonia opted for rule-bound policies, of which there are numerous examples. In monetary policy, it chose the most restrictive regime, with its own currency under the currency board system. In its ten years of existence, the board has provided the stability and liquidity necessary to finance the economic growth necessary to bring its economic welfare to Western European standards. The labor market is organized flexibly with very low minimum wages and almost negligible unionization. The board has fostered structural change, in particular the retreat of huge parts of the work force from agriculture and their inclusion in the service industries. In this respect, Estonia is far ahead of its Baltic neighbors, albeit with a very high rate of unemployment. Fiscal policy is characterized by the requirement to balance the public budget, at least over a cycle of a few years. Again this rule has proved binding and successful. Finally, the trade regime is unique in Europe—Estonia opted for unilateral free trade in the 1990s. In 1997, all barriers to trade were removed. Estonia has followed the post-World War II German economic policy model.

Nevertheless, Estonia will face even more challenges because of accession to the EU. The *acquis communautaire* requires a number of policy changes from

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accession candidates. Often, these changes are beneficial for the country. In the case of Estonia, this cannot be said of every element of the *acquis*. In particular, the transfer of CAP and the introduction of an admittedly moderate, but still in parts selective and distortive, trade policy will harm the country. Still, further integration will increase the division of labor and deepen the commitment to stability. The accession to the European Union will equip the country with additional funds, which can enhance structural change and trigger economic growth and convergence, if they are used properly. One option is to use EU funds to invest in the Estonian education system. This article will develop this argument by first introducing the intellectual framework used to analyze economic policymaking. Second, the remarkable success of the Estonian reform project to date will be briefly analyzed. Third, the requirements of the *acquis* will be introduced before we suggest a reform of Estonian education policy. Conclusions round off the paper.

Economic Policymaking under Constraints: The Intellectual Framework

The basic model applied in the context of Estonian economic policy can be characterized as a supply side model. It clearly follows the neoclassical assignment where each policy objective is assigned one mean and one agent.[2] Put in a simplistic form, monetary policy is dedicated to price stability, fiscal policy to growth, and wage policy to employment. This policy program requires open markets, flexible factors of production, and governmental discipline. However, to safeguard economic policy objectives and to maintain discipline, stability, and flexibility, it is not sufficient to argue purely on economic aspects and to neglect political ones. The logic of politics demands for economic policy commitment, which is necessary to stabilize expectations and reduce the danger of time inconsistency in economic policymaking.

Commitment decreases the government's discretionary leeway for surprises, be it fiscal or monetary policy measures. The commitment mechanism is the choice of a set of rules or policy regime.[3] It is the government that commits to an economic set of rules or policy regime. The empirical and policy-oriented literature (for example, on monetary policy) shows that a strong commitment in monetary policy implies high central bank independence (CBI). In Organisation for Economic Co-Operation and Development (OECD) countries, a high degree of CBI is correlated with low inflation rates.[4]

The Estonian economic policy is modeled after the post-WWII German economic order, which is based on the Freiburg School of Law and Economics.[5] Being aware of political rationality as a driving force of politicians and bureaucrats, the school has set up certain principles of economic policymaking, which restrict the government's discretionary freedom as well as the individual possibilities to impose power on other individuals. The principles follow directly from the political economy considerations about the proliferation of state activities in the first half of the twentieth century. As mentioned above, there is a clear normative understanding of the economic order.

The model of economic policymaking is backed by economic analysis. An ideal (that is, wealth and justice enhancing) economic order is characterized by

a number of constitutive and regulative principles. The constitutive principles start with the fundamental principle of economic order, which as Eucken has stated, "...is to make the price mechanism workable." [6] Apart from this principle, Eucken stresses the primacy of currency stability, both externally and internally.[7] A stable price level (not structure) is regarded as being a precondition for relative prices to work and fulfill their task in allocating factors and goods with respect to scarcity. Especially in a world of fiat money, inflation may occur suddenly and painfully.[8] Estonia has followed this principle in establishing a currency board arrangement (CBA) on 20 June 1992.[9] The second principle is the existence and maintenance of private property rights. Only these give the full incentive to economize on resources. Property rights have to be unambiguous, permanent, and reliable. This principle has been discussed widely in the context of new institutional economics. The third principle requires open markets, both to domestic and foreign competition. This in turn implies that openness is protected via domestic competition policy and foreign trade policy. Open markets also imply free market entry and market exit, which can also be interpreted as the existence of an appropriate bankruptcy code and the absence of subsidies to rescue insolvent or heavily indebted enterprises. The fourth principle requires the freedom to contract and to run an enterprise, meaning that, in general, all forms of labor contract, sales, and business can be made. In particular, labor markets have to be open. In a world of fast structural change, the temptations are great for governments to protect certain industries from outside competition and to deny freedom of contract for the same reasons. The fifth principle is closely related to the high regard for private property rights, namely liability, implying that individuals who reap the benefits of private property rights also must face all costs related to their use of their property. This principle is more or less self-evident in a market economy. A very important policy principle is the final one—demanding consistency in economic policy ("Konstanz der Wirtschaftspolitik"). Again, this sounds trivial in the present, as it is theoretically and empirically confirmed that consistency in economic policy stabilizes expectations and encourages long-term investments. In case of Estonia, the rule-bound fiscal policy and CBA are two appropriate means to safeguard the consistency of economic policy.

Apart from the constitutive principles, the approach is based on two regulative principles. First, they touch the tricky issue of social justice, which formal neoclassical modeling neglects. It makes sense to incorporate social issues into the analysis from the very beginning, for example, by interpreting social policy as insurance against the risks associated with a market economy. The contributions to social policy can be regarded as being the fee; social peace plus coverage in case of individual failure represent the dividend.[10] Thus, social policy is part of the economic order, allowing individuals to take risks associated with a market economy. The principles of redistribution policy, as well as social and labor security, thus are genuine capitalist principles. Second, all forms of market failures and market power abuse are addressed with the regulative principles of monopoly control and compensation of market failure. Again, these regulations, interventions, and compensations take place within a comprehensive policy

framework. Such interventions must be compatible with the constitutive principles. The danger is that the compensation of market failure creates government failure as it either goes beyond the necessary scale, which regularly implies that interest groups have managed to receive a special and favorable treatment, or the intervention loses its economic justification over time but is not withdrawn. This could be observed during the period from the late 1980s to the late 1990s in the telecommunications industries of many OECD countries where although mobile phone operators already competed with the state telecommunication firms, the argument of natural monopoly was maintained. In the following section, I assess the Estonian economic policy against the background of these principles.

The Estonian Economic Order Today: An Assessment

Monetary Policy

Monetary policy can be called the flagship of Estonian economic policymaking. Since its introduction in June 1992, the currency board was able to not only stabilize the price level at inflation of below 5 percent p.a., but also to set the frame for a workable and modern financial system, which was very fragile in the first few years of Estonian restored independence. The Estonian currency board arrangement has been analyzed in a variety of contributions.[11] Therefore, this section is very brief.

The Bank of Estonia maintained the exchange rate toward the deutschmark until 1999 and the euro thereafter. In the case of monetary policy, it paid off for Estonia that the government traded discretionary leeway or monetary autonomy for imported stability.[12] The introduction of the board was carried out against the advice of international consultants such as the IMF. They worried that the economic policy in Estonia was not suitable to a hard peg. However, as this commitment to stability was accompanied by commitment and rule binding in other policy areas (see the following section), the fear was unjustified. By the time of its introduction, the kroon was undervalued, obviously to allow for faster growth during the transition process and to raise prices of public services over time.[13] Therefore, the inflation remained relatively high in the first six years; however, monetary policy did not impede growth and structural change in the country.

Labor Market Regime and Performance

The transition process forced a considerable need for structural change in the Estonian labor market. Old uncompetitive enterprises had to leave the market, causing mass layoffs, and new enterprises had to emerge to absorb the increased number of newly unemployed. In the Baltic countries this problem seemed more severe than in other transition countries. In particular, being a part of the former Soviet Union implied a higher degree of integration than for the other CEE countries. After the secession, Estonia did not become part of CIS, leading to a sharp reduction of trade relations with Russia. This caused a dramatic fall in demand for Estonian products, which led to mass layoffs. A second potential reason for a stronger structural change in the labor of Estonia than in other transition

countries can be found in the existence of some ethnic problems, which are likely to translate into language problems, ethnic conflicts, and other related issues.[14]

There is already an economic rationale for a high degree of labor market flexibility in transition countries, which is even more prevalent in Estonia and the other Baltic countries. This need will continue once the countries become EMU members. Indeed, the labor market in Estonia has been very flexible from the beginning of the transition process. Estonia (like the other Baltic states) is an exception. Other transition countries organized their labor markets comparable to labor market regimes in Continental Europe and paid much attention to vested interests.[15] In Estonia, it may have been helpful that, with the secession from the Soviet Union, a new state with completely new organizations and rules was established. Vested interests were absent in the early stage of transition, which was favorable for preventing an inferior policy design.[16]

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Before the Estonian labor market regime and the performance of the Estonian labor market since 1989 can be analyzed in more detail, it is sensible to outline the features of labor market flexibility in brief. Labor market flexibility can be defined in several ways.[17] We concentrate on labor market regulations (governing the relations between employers and employees), including the wage setting process and employment protection legislation, as the most relevant regulations for the ability of the labor market to react efficiently to shocks. Six features of the labor regime should be distinguished: 1. the wage setting process, determining the size of an insider-outsider problem; 2. employment protection legislation, particularly layoff protection; 3. obligatory benefits, such as sickness payments and employees participation requirements; 4. unemployment benefits; 5. social dialogue; and 6. active labor market policy, such as wage subsidies, on-the-job training, or public employment of the unemployed.

The flexibility of the labor market is that the higher it is, the more decentralized the wage setting process; the lower the layoff protection is, the lower the benefits; the lower the unemployment benefits are, the more open the social dialogue and the less directly intervening the active labor market policy is. Although highly desirable, it is difficult to give a precise assessment of the labor market's flexibility. Several attempts have been made to calculate indices of labor market flexibility—the most widely accepted being the index of employment protection legislation (EPL) as constructed by the OECD[18] and improved by Nicoletti, Scarpetta, and Boylaud.[19] This index is composed of three elements: the degree of individual layoff protection, the level of collective layoff reported, and part-time work restrictions.[20] The lower the value of this index, the higher the labor market flexibility. Although sophisticated in its method of calculation and allowing

for an international comparison, the EPL index only tells a minor part of the story. In particular, the wage setting process is not included into the index.

High labor market flexibility is one prerequisite for high labor force mobility. The second factor is education policy, in particular concerning the quality of schooling, vocational training, and on-the-job training. A better educated labor force means higher potential mobility for its members. These elements contribute to the level of employment and are, in fact, considered as important for the future development of the Estonian labor market.[21] However, it would be very difficult and not to the point, to incorporate this field under the heading of labor market regime. Therefore, in this section we concentrate on the six topics mentioned above.[22] Finally, the flexibility of the labor market and the mobility of the work force are determined by the ability of the enterprises to leave the market, or in other words, the existence of a bankruptcy law and the absence of subsidies for insolvent enterprises.

The Regime

Estonia has made considerable efforts to adjust its labor market policy to meet requirements established by the International Labor Organization (ILO) and the European Union. Among these requirements are regulations of work time, vacancies, and termination of contract, as well as non-discrimination rules and minimum wages.[23] Table 1 shows the features of Estonian labor market regulations in some detail.

In particular, the wage setting process as the most important element is relatively open. Wages are set in bilateral negotiations between the employer and the employee or the trade union respectively on firm level. There is no general enforcement of collective agreements. This allows for a high wage flexibility reflecting differences in the developments of regions, sectors, and even firms within the same industry. Thus, it seems possible to integrate unemployed persons relatively quickly into the labor market again. Given the European Central Bank's probable orientation to EMU-wide price stability without any reference to potential or existing Estonian labor market problems, this ability to react relatively quickly to structural changes is very important for a small country at the periphery of the EMU, especially in a period of transition.

Apart from the wage setting process, other elements of the labor market regime are also relevant. Starting with employment protection legislation, the index of employment protection for regular employment—a part of the index for employment protection legislation (EPL)—has been applied on the Estonian labor market regime.[24] The result is slightly surprising as it is higher in Estonia (3.31) than in all other OECD countries except for Portugal (4.3). The result can be partly explained by the prohibition of firing pregnant women, single mothers, and disabled persons. This prohibition may prevent the hiring of members of these groups, and even of young women who bear the risk (from the perspective of the employer) of becoming pregnant during the contract's term. However, the index only reflects part of the EPL. The important element of collective layoff protection is missing, obviously for good reason; it does exist to a very moderate extent

TABLE 1. The Estonian Labor Market Regime by Mid-2002

Feature	Details
Wage formation process	In general, wages are set by employers and employees in individual negotiations—only rarely through a collective bargaining process; Collective agreements cover union members, no general enforcement; Increasing minimum wage (1800 EEK/month).
Employment protection legislation	Individual layoff protection, in particular to protect pregnant women, single mothers, and disabled persons, terms of termination of contract are laid down in the employment contract, no restriction otherwise; Collective layoffs demand for some time of notifying and permit by the employment office if it exceeds a certain number of employees.
Obligatory fringe benefits	No part time work restrictions; Employees' participation restricted to big enterprises, no participation on the board of overseers; Obligatory sickness payments; Overtime restrictions; No additional holiday and Christmas payments.
Unemployment benefits	Unemployment benefits (400 EEK/month) are paid by the government; Since January 2002 compulsory unemployment insurance (premia: 1 percent of salaries).
Social dialogue	No obligatory collective wage bargaining between social partners; Tripartite roundtables on minimum wages.
Active labor market policy	Subsidized employment; Labor market training; Public employment: all to a very low extent.

Sources: Raul Eamets, Kaia Philips, and Tiina Annus, Employment and Labour Market Policy in Estonia, (Tartu: Background Study for the European Training Foundation, 1999); Rivo Noorkõiv, et al., How Estonia's Economic Transition Affected Employment and Wages (1898-95), (Washington, D.C.: World Bank Working Paper 1837, 1997); and Tiiu Paas, et al., Labour Flexibility and Migration in the EU Eastward Enlargement Context: The Case of the Baltic Countries (Tartu: University of Tartu, 2002), mimeo.

in Estonia. The almost complete absence of this requirement allows the employers a very fast response to any shocks.

In general, the same holds for obligatory benefits such as part time work restrictions and employees' participation. On the one hand, knowing that firing the employees is easily possible makes hiring them much more attractive than with the existence of these regulations. On the other hand, the absence of employees' participation may have a negative impact on productivity, as the employees are not automatically involved in the entrepreneurial decisions. The currently low

unemployment benefits provide a strong incentive for the unemployed to search for a new job within a short period of time.[25] However, this element only makes sense if the insider-outsider problems are negligible, which is the case in a decentralized wage formation process. The decentralization of the wage formation process reflects the weak, but increasingly developed, social dialogue. This also can be interpreted as a lack of cartelization in the Estonian labor market. Some argue that the tight relations between employers' organizations and trade unions, in combination with their right to exclusively negotiate wages in Germany, have contributed to a cartel-like situation.

Fiscal Policy

One (if not the main) precondition for a hard peg to be credible and successful is fiscal discipline. The government must not use monetary policy for fiscal purposes. If it does, inflation inevitably will rise, and the peg is unsustainable.[26] As mentioned in the first section, this also will hold true for Estonia as a potential member of EMU.

Estonia displays a high fiscal discipline, but this discipline did not occur by chance. The government has been required since the State Budget Act of 16 June 1993 to balance the general public budget. As it does not make much sense for a small open economy prone to external shocks to require a balanced budget every year, there is some leeway for the government to balance revenue and spending over several years. This law became necessary, since the government was unable to ensure a balanced budget in the early years of transformation, which was not only economically necessary, but also a political precondition of the IMF to support the monetary reform.[27] As part of the reform, the government is not allowed to borrow from the Bank of Estonia.

Overall, the success of the balanced budget rule in Estonian fiscal policy is remarkable (table 2). Except for 1999, the general government budget has been close to balanced in the second half of the 1990s. Because 1999 was a special case due to the Russian crisis and its effect on the Estonian economy, this outcome is positive.

However, there were some irritations after the State Budget Act was put into practice. It did not define clearly a general government balance clearly. The distinction between revenue and lending was also unclear. The official understanding of public revenue seems to have been a sort of cash flow (including inflows due to future repayment) rather than the normal understanding of government revenue, consisting of taxes, customs, payroll taxes, fees, and so forth, none of which has to be repaid.[28] As the Estonian government has adjusted its budget process according to the EU ruling in 2002, the problem has been solved.[29]

To be sure, a rule concerning only the budget may be misleading, because it does not have implications for the level of public spending. Even in a purely collectivist economic system, the public budget can be balanced; all income is taken away from individuals and completely redistributed—no borrowing takes place. To fulfill the task of the government given by the neoclassical assignment, namely to allow for high and sustainable real economic growth, the state should also—

TABLE 2. Fiscal Balances by Government Sector, 1996–2001 (in percent of GDP)

	1996	1997	1998	1999	2000	2001
Central government						
Revenue	25.3	22.9	20.9	20.7	20.7	20.6
Expenditure	25.2	20.6	21.0	23.1	21.6	20.3
Capital expenditure	0.3	0.2	0.2	0.3	0.0	0.1
Net Lending	0.1	–0.1	0.1	0.0	–0.8	–0.1
Balance	–0.2	2.2	–0.4	–2.8	–0.1	0.4
Local government						
Revenue and transfers	7.7	8.4	8.5	8.6	7.8	9.5
Expenditure	8.6	8.5	8.7	9.1	8.1	10.1
Balance	–0.9	–0.1	–0.2	–0.5	–0.3	–0.6
Social Insurance						
Revenue	9.2	9.2	9.2	7.5	7.7	7.3
Expenditure	9.4	8.9	8.9	8.5	7.6	7.0
Balance	–0.3	0.2	0.3	–1.0	0.1	0.4
Medical Insurance						
Revenue	4.9	4.9	4.9	4.7	4.8	4.8
Expenditure	4.9	4.6	4.9	5.1	4.8	4.5
Balance	0.0	0.3	0.0	–0.4	0	0.3
Overall Balance*	–1.5	2.2	–0.3	–4.6	–0.7	0.4

*The balance does not always equal the sum of revenues and expenditure.
Source: IMF b, 1999 and 2001.

but not only—control for its expenditure and leave the major share of the GDP to the citizens.[30] The tax burden for the public in Estonia is reasonably moderate. This is due to the fact that income tax for both personal income and profits is a flat rate tax (26 percent). Reinvested profits are tax free. The VAT is 18 percent, which implies that there will be no difficulties joining the EMU in that respect. Nevertheless, there is work to be done before Estonia can join the EU: Some taxes (for example, special indirect taxes such as the tobacco tax) have to be adjusted, and the tax collection system has to be improved.[31]

Public expenditure accounts for less than 40 percent of the GDP.[32] This is below the EU average, although not particularly low. It also indicates that the public sector in Estonia is still large. In addition to the size of the public budget, the structure of expenditure is important for economic growth, as higher public investments allow for higher growth. As the stock of public debt is low (less than 5 percent of the GDP in 2001),[33] only a limited share of the budget is spent for interest payments (less than 1 percent of general government expenditure in 2001). In addition, no public money has to be spent for failing public enterprises, as Estonia has privatized almost the whole economy.[34] There is room in the budget for public investment[35] and for social spending, which can be interpreted

as social insurance to allow society to take a higher risk. In 2001, transfers to households amounted to 30 percent of general government expenditures.

Fiscal discipline in Estonia is reasonably high, particularly because a balanced public budget is forced upon the government by law. Moreover, the flat-rate tax ruling is innovative and enhances investment.[36] However, the future will certainly prove to be challenging for the government. With Estonia's accession to the European Union public spending will rise, partly because of *acquis* related costs and partly because of the dynamics of integration (for example, a rise in social spending). Most former accession countries have increased public expenditure relative to the GDP. This normally means a higher tax burden and, *ceteris paribus*, a decrease in economic dynamics. However, potential certainly exists for making the public sector in Estonia more efficient and consolidated.[37] The exception of Ireland, which managed to stabilize general public expenditure relative to the GDP,[38] proves that a spending increase is not a must. Against the background of this positive example, fiscal discipline has to be safeguarded in the future.

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Openness of the Estonian Economy: Trade, Competition, and Industrial Policy

A strong monetary commitment, such as EMU membership, requires open markets, because the exchange rate no longer serves as a shock absorber. This implies that there are no barriers to entry or exit markets for goods and services. Openness in Estonia is particularly high: Until 2000 no trade barriers existed, and the competition policy is in line with European competition policy. So far, subsidies are the exception rather than the rule. [39]

The Regime

To start with trade policy, Estonia opted for unilateral free trade in 1993. Trade liberalization was the final step in the Estonian reform program. It covered all goods and services, including agriculture. Prior to the reform, Estonia relied heavily on import quotas, which were almost completely abolished in early 1993. Tariffs were reduced to 1.4 percent (weighted average) by the end of 1993 and to zero in 1997.[40] The Estonian policy development is one of the few examples for comprehensive unilateral liberalization that is not compatible with the logic of contemporary trade policy—the principle of reciprocity is applied with the consequence that liberalization is regarded as a painful concession. Estonia—like Germany some forty years before—has chosen a different policy option, namely an overall unilateral reform package following the classical political economy

approach.[41] Parallel to trade liberalization, capital markets also were opened. Foreigners are no longer restricted from buying domestic firms and real estate. At the beginning of the 1990s, Estonia was thinking of a more selective approach with free-trade zones, tax reductions for certain activities, and a small group of foreign actors.[42] In 1992 it finally decided to take a non-discriminatory approach.[43]

Besides the unilateral free trade policy, Estonia agreed to a number of free trade arrangements (FTAs) with neighboring countries (except for Russia), European Free Trade Association (EFTA), and the European Union. In 1999, Estonia became WTO member Number 136. It did not demand special concession as a developing country when joining the WTO. On the contrary, the negotiations were difficult, as Estonia had nothing to offer in the context of a trade system based on reciprocity, because its tariffs already were down to zero. Moreover, as it will join the European Union in the coming years, it had to increase the tariff bindings to avoid serious problems with Article XXIV in the General Agreement on Tariffs and Trade (GATT). Hence, the negotiations took much longer than with its rather protectionist neighbors. Beginning in 2000, Estonia has applied tariffs on agricultural products.[44]

The other closely related policy area relevant for opening domestic markets is competition policy. It has two facets: market behavior and state aid (subsidies). For market behavior, the Estonian Competition Law, entering into force in October 2001, is fully compatible with EU legislation. It contains both merger control and antitrust rules. The national antitrust agency is a fully autonomous authority responsible for ex-post and ex-ante control; there is no special regulation agency for network industries such as telecommunication, energy, and rail. The agency has been successful in assessing and deciding antitrust cases.[45]

For state aid, the Competition Act introduced severe rules that are subject to control and enforcement by an independent agency, a branch of the Ministry of Finance. This independent agency has to control state aid programs and single cases on all levels of public activity.

The Performance

Estonia can be regarded as an open economy, as evidenced through a closer look at its structure of production, trade, and investment. At the beginning of the transition period, the Estonian production structure did not reflect scarcities and comparative advantage. It mainly was directed to serve the needs of the Soviet Union.[46] Under an open trade and competition regime, however, Estonia managed the structural changes imposed on it rather efficiently. As mentioned earlier, the share of agriculture in the GDP diminished sharply and the share of services increased, whereas the share of manufacturing remained about the same during the 1990s.

Nevertheless, a significant structural change took place within manufacturing. The manufacture of food, beverages, and tobacco products, as well as textiles and apparel, decreased about a third (in relative terms) between 1992 and 2000. On the other hand, the production of technical equipment such as transport equipment, radio, television and communication equipment, and office and electrical machinery has increased significantly in the last decade. The same holds true for wood and paper production.[47]

A similar development can be observed in international trade, particularly regarding exports. The main export products in 1999 were electrical machinery and equipment and wood and furniture; the strongest relative growth in export took place in electrical machinery and equipment and in optical instruments.[48] Estonia has a high share of intra-industry trade, indicating rapid movement toward the status of a developed country. The structure of both production and trade has changed; the theory of structural change in world economy suggests that emerging countries normally begin their integration into world trade with exporting mainly Heckscher-Ohlin products, such as labor- or capital-intense goods, or agricultural goods. By the time the country catches up, these products are substituted for human capital–intense goods, which earn higher value.[49]

Both the structure of products and the partner countries in international trade have significantly changed in the past fifteen years. Estonia mainly trades with the West; particularly with the Nordic countries.[50] Since 1995, Finland has become its main trading partner. About 75 percent of its foreign trade is with the European Union. The dependence on exports to Eastern trading partners, particularly Russia, has faded away. Although Russia was the biggest trading partner until 1994 (absorbing 23.1 percent of Estonian exports), only 2.7 percent of official Estonian exports were directed to Russia in 2001. One reason for the quickly diminishing trade relations with Russia may be the double tariffs Russia imposed on Estonian imports beginning 1 July 1994.[51] However, another factor to consider is that because part of Estonian exports to Russia take the route via Latvia and Lithuania, reliable figures cannot be found. Evidence for the period from 1994 to 2001 (table 3) shows the changing export pattern pretty clearly. The import structure is similar.

TABLE 3. Estonia's Main Trading Partners (percent of total exports)

	1994	1995	1996	1997	1998	1999	2000	2001
Finland	17.8	21.5	18.3	19.0	22.1	22.7	31.3	33.7
Sweden	10.8	10.8	11.6	17.1	19.5	22.0	19.8	14.0
Germany	6.8	7.2	7.1	6.7	6.2	8.3	8.2	6.9
Latvia	8.2	7.5	8.3	8.4	8.8	8.0	6.8	6.9
UK	2.8	3.3	3.5	4.4	4.5	4.5	4.2	4.2
Lithuania	5.4	4.7	5.7	4.6	4.1	3.3	2.7	3.0
Russia	23.1	17.6	16.4	14.4	10.5	5.3	2.0	2.7
EU	47.9	54.7	51.0	56.7	61.8	72.7*	76.5*	n.a.
Others	12.8	13.4	16.4	12.8	11.7	n.a.	n.a.	n.a.
Exports/ GDP	0.52	0.47	0.41	0.50	0.51	0.49	0.66	0.62

*Data from Commission not compatible with data from IMF and Bank of Estonia

Source: Commission (2001), Bank of Estonia (2002), Weber and Taube (1999, p. 10) as well as IMF (2002b, p. 26), own calculations.

Another indicator of the openness of the Estonian economy is the high net capital inflow to Estonia, especially the high foreign direct investment (FDI) inflows. From the CEE countries, only Hungary had higher cumulative per capita inflows between 1989 and 1998. The Estonian economy is fully privatized (except for some utility suppliers), and the level of subsidies is very low (less than 1 percent of the GDP).

Despite the still prevailing need to further adjust the economy, both the regime and the empirical picture show that Estonia has opened its markets significantly. Both exports and imports have been steadily rising, implying an increased participation of the Estonian economy in the international division of labor. FDI flows are strong, selective policy measures rare. If this development continues, the continuing low value added by the manufacturing industry in Estonia[52] will rise and the export products will create bigger incomes and higher employment.

Future Challenges: Scope for Sensible Reform?

The Requirements of the *Acquis Communautaire*

Central and Eastern European countries wishing to join the European Union have to adopt the Union's *acquis communautaire*. The accession negotiation process consists of thirty-one chapters. The accession candidates are required to fulfill all elements of the *acquis* before joining the Union. The rationale behind this requirement is to ensure their real convergence and to level the playing field in some respects, such as labor market policies and administrative issues. Unfortunately, not all elements of the *acquis* are economically sensible. Nevertheless, they are binding for accession candidates, as the EU and its member countries have not shown a willingness to reform in the course of enlargement.[53] As there is no need to change monetary policy in advance of the accession, it is not addressed in the following section.

Labor Market

According to the "Joint Assessment of Employment Priorities in Estonia" by the Estonian government and the European Commission (2001), the Estonian labor market regime has to be further developed. In particular, vocational and continuing training are identified as needing further efforts. Other suggested improvements are better active labor market policy, including the necessary administrative capacities, a better coordination of tax and benefit systems, and the consideration of regional and gender aspects of labor market policy. These measures—particularly those directed to overcome the qualification and regional mismatch—make sense economically, because they are directed to higher labor force mobility. In the next section, we will discuss some suggestions for meeting these requirements.

Second, measures to ensure employees' participation (such as gender equality) need to be taken. Although there is broad consensus that any kind of discrimination on the labor market has to be prevented, discussions continue about the appropriate means of doing so. Legal protection for threatened groups, such

as young women and disabled persons, may have opposite effects. Providing protection and legal opportunities for members of these groups after they are hired, may be an obstacle to their obtaining employment in the first place. Potential employers could anticipate the difficulty of laying off people from these groups and avoid hiring them. However, the *acquis* does not prescribe the form and degree of legal protection for these groups. In addition, a further deepening of the social dialogue is advisable. In contrast to the first category of measures, an intensified social dialogue might reduce the high degree of labor market flexibility. Nevertheless, there are no provisions regarding the wage setting process. There is obviously no need for Estonia to introduce an obligatory collective wage bargaining regime.

Finally, the administrative capacity of the Public Employment Service (PES) has to be improved for two main reasons. First, it seems to be incapable of its primary task of job mediation. Second, the focus on active labor market policy and the participation in the European Social Fund demand more and better qualified personnel.[54]

Fiscal Policy

With respect to fiscal policy, two issues are still unsettled. First, tax policy is not fully in line with special excise taxes. The tobacco tax and excise duties on mineral oils, for example, are not yet adjusted to EU rules. These are economically minor problems compared to the necessity of fiscal discipline, but they touch politically tricky issues and might harm special interests. Taxes on mineral oils are politically very sensitive. The second issue is the administrative capacity. In general, Estonia has adapted to EU regulations quite well. Open questions regard the calculation of Estonia's contribution to the resources of the European Community, cooperation with other EU authorities, prevention of tax evasion, organization of the budget process, and the correct calculation of VAT.

Competition and Trade Policy

The average openness of the Estonian markets for goods and services is at least as high as that of the European Union. This holds true domestically (competition policy) and internationally (trade policy). Thus, Estonia has to meet almost no requirements, except for partly reducing the degree of openness. The biggest challenge for Estonian economic policy imposed by the *acquis* will be the EU's common commercial policy, including the common agricultural policy (CAP). So far, Estonia benefits from the EU system of export subsidies, for example, by importing subsidized sugar. This will change once Estonia is a member of the Union; its customers then will have to pay EU prices. According to Toming,[55] the dead weight losses due to participation in the CAP will amount to between 0.7 and 1.4 percent of the GDP. Given that her calculations are comparatively static and based on partial analysis, one can imagine even higher costs. In addition, the introduction of higher tariffs on other goods also will increase import prices. However, as a considerable share of imports (approximately 75 percent) comes from the EU, the effect will be relatively small.

- Vouchers will be given to two well-defined groups, namely to school leavers (primary or secondary schools) and to long-term registered unemployed persons. Long-term unemployment will be defined exactly, for example, more than 12 months;
- Each person is restricted to two vouchers in her lifetime, among them only one voucher for school leavers. The voucher contains the name of the entitled person;
- The vouchers are separated into twelve monthly slips worth 1000 EEK each for long-term unemployed persons, and into 36 monthly slips worth 900 EEK for school leavers. They can be used for any licensed education supplier in Estonia and abroad. They can be split over several years and are not due to repayment;
- The voucher is not tradable and cannot be cashed in by the recipient;
- An education standard will be defined and an adequate license mechanism will be set up. The standard will be subject to an assessment every two years and will be set in accordance with foreign experience. A control mechanism will also be set up;
- The funding of vocational training, continuous education, and universities will be subject to reform. No direct funding will be allowed;
- Adequate service suppliers will be licensed. They include private training companies and universities. These suppliers have to be assessed biannually by the government or an agency appointed by the government. For foreign suppliers, the principle of origin may hold;
- "If regular producers of goods and services among the licensed suppliers of education, long-term unemployed persons are not allowed to use the vouchers in the enterprise that had laid them off, as this would probably give the incentives to firms to fire employees and to hire them again after the time span defined as long term" (Klodt 1991).

Source: Freytag (2002c)

FIGURE 1. A voucher scheme for higher education and continuous training.

In addition, there will be costs due to the operation of the customs laws and administration systems. Although Estonia has made some progress and implemented the EU Customs Code in 2002,[56] there are considerable tasks ahead. The personnel have to be trained; the computerized customs system of the EU has to be implemented and tested; and the cooperation between customs authorities, police, border guards, and EU authorities has to be improved.

To summarize this section, the main efforts Estonia has to make in the next couple of years involve administrative issues. The relatively high degree of labor market flexibility, fiscal discipline, and openness allows for a relatively easy adoption of the *acquis communautaire*. In the following section, I discuss some policy options, which aim at increased compatibility of the economic policy to EMU and *acquis* requirements.

Mismatch on the Labor Market Requires Reform of the Education System[57]

Apart from the EU necessities, Estonia has to take action against the high level of unemployment in the country. As empirical studies have shown, active labor market policy has not reduced unemployment remarkably in OECD countries.[58]

Therefore, the EU's proposal to spend more on active labor market policies has doubtful success. Instead it should concentrate on education to reduce the mismatch of the Estonian labor market. A well-organized education and training system is important to combat the long-standing structural unemployment in Estonia. The efforts so far have proved insufficient. Consequently, a reform of the education policy has been proposed, namely a voucher scheme for Estonian post-school education and for training of long-term unemployed persons, taking into account peculiarities of the Estonian education and training system (see figure 1).[59] In general, the proposal means that youngsters leaving primary or secondary school get vouchers, which they can use to finance vocational training or university studies of their own choice. Similarly, the unemployed can invest the vouchers in their human capital building. Standards and license procedures make sure that the suppliers meet certain quality requirements.

In general, a voucher system is superior to any other form of state provision, as long as the education is provided publicly. If the additional arguments of negative and positive externalities hold true, the principles of economic policymaking are fully met by a voucher scheme.

A voucher scheme, however, is not without cost. We estimate that the suggested scheme would cost an estimated 60 million euro p.a.[60] The expected flow of structural funds from the EU will total up to 200 million euro p.a., which is most likely enough money to finance this project. In late 2002, a working group on the appropriate use of structural funds came to the preliminary conclusion that it is sensible to avoid a selective use of them—the voucher scheme would meet this requirement.[61] Education policy is also an officially legitimate option for structural funds spending.[62] Figure 1 shows the details of the scheme as suggested in Freytag.[63]

Conclusions

Estonia has to meet a number of economic policy requirements to become a member of European Monetary and Economic Union (EMU). These requirements include both general challenges of EU membership as well as particular demands to Estonian economic order. The general requirements are forced upon the country through the *acquis* and through a potential increase in rent-seeking activities, both within Estonia and in the Union.

Estonian economic policy has been set into a very balanced and enforceable framework. Monetary policy, fiscal policy, labor market regulation, as well as competition and trade policy are rule bound. The labor market regime in Estonia provides the main challenge. Although relatively flexible—at least if compared to Continental Europe—it contributes to high unemployment, which, according to Estonia labor market specialist, mainly is due to a mismatch with respect to qualifications. In some industries, there is a significant excess supply of labor force, while in others there is excess demand for labor. There is broad consensus among the government and the European Commission that this problem must be tackled with an increase in active labor market policy (ALMP) and raised efforts in vocational education and continuing training for the unemployed. Given the

weak evidence of favorable effects of ALMP, I recommend education and training. The Estonian system has some problems, which are due in part to the small size of the country and the backward orientation of the education bureaucracy.

This situation can be changed through a less centralized education system. To encourage vocational education and continuous training that becomes more effective and responsive to the market's needs, I suggest seriously considering the introduction of a voucher scheme. Such a scheme would increase the incentives for those who leave school and the long-term unemployed to invest in human capital, while also accounting for the special requirements of enterprises in Estonia. In addition, the Estonian education system can be well integrated into the European market. Empirical evidence shows that voucher schemes have been used successfully for a long time. Whether this option is considered seriously, however, depends on the political will in Estonia to solve labor market problems.

NOTES[64]

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2. Jan Tinbergen, *On the Theory of Economic Policy* (Amsterdam: North Holland, 1952).

3. Geoffrey H. Brennan and James M. Buchanan, *Monopoly in Money and Inflation: The Case for a Constitution to Discipline Government* (London: Institute for Economic Affairs, Hobart Paper 88, 1981).

4. Helge Berger, Jacob de Haan, and Sylvester C. W. Eijffinger, "Central Bank Independence: An Update of Theory and Evidence," *Journal of Economic Surveys* 15 (2001): 3–40.

5. Viktor Vanberg, "Freiburg School of Law and Economics," in *The New Palgrave Dictionary of Economics and the Law*, Vol. 2, ed. Peter Newman (London: Macmillan, 1998): 172–179.

6. Walter Eucken (1955/1981), *Grundsätze der Wirtschaftspolitik*, English translation of parts, in *Standard Texts on the Social Market Economy*, ed. Ludwig-Erhard-Stiftung (Gustav Fischer, Stuttgart, New York: 1955/1981), 115–131.

7. Walter Eucken, *Kritische Betrachtungen zum deutschen Geldproblem* (Verlag Gustav Fisher, Jena, 1923). Eucken was the first German economist who saw inflation as a monetary phenomenon. In this publication he also indirectly mentioned the problem of time inconsistency.

8. See the case of Argentina in 2002.

9. The board came into being exactly 44 years after Ludwig Erhard pursued economic and monetary reform in Germany (20 June 1948).

10. James M. Buchanan, *Grenzen der Freiheit* (Mohr [Siebeck], Tübingen, 1984); Karl Homann and Ingo Pies, "Sozialpolitik für den Markt: Theoretische Perspektiven konstitioneller Ökonomik," in *James Buchanan's konstitutionelle Ökonomik, Konzepte der Gesellschaftstheorie*, Vol. 2, eds. Ingo Pies and Martin Leschke (Mohr (Siebeck) Tübingen, 1996): 203–240.

11. For instance see Biswajit Banerjee, Vincent Koen, Thomas Krueger, Mark S. Lutz, Michael Marrese, and Tapio O. Saavalainen, *Road Maps of the Transition: The Baltics, the Czech Republic, Hungary, and Russia*, (Washington, D.C.: IMF Occasional Paper 127), 1995; Adam G. G. Bennett, "The Operation of the Estonian Currency Board," *IMF Staff Papers* 40 (1993): 451–470; Adam G. G. Bennett, "Currency Boards: Issues and Experiences," *IMF Paper on Policy Analysis and Assessment* PPAA/94/18 (1994): 25; Claudia

M. Buch, "Das erste Jahr der Krone—Estlands Erfahrungen mit der Währungsreform," Die Weltwirtschaft (1993): 441–465; Andreas Freytag, "Einige Anmerkungen zur Wahl der Reservewährung eines Currency Boards," *Zeitschrift für Wirtschaftspolitik*, 47 (1998): 3–19; Siim Kallas and Mart Sõrg, "Estonia's Currency Reform of 1992," *Bank of Finland Bulletin* no. 3 (1993): 3–7; and Urmas Sepp, *The Economic Policy in Estonia*, (mimeo, Lohusalu, 1996).

12. A comprehensive overview can be found in Urmas Sepp, Raoul Lättemäe and Martti Randveer, "The History and Sustainability of the CBA in Estonia," *Alternative Monetary Regimes in Entry to EMU*, eds. Urmas Sepp and Martti Randveer (Tallinn: Bank of Estonia, 2002), 327–419.

13. Needless to say that it is difficult to find official statements about this issue.

14. Rivo Noorkõiv, et al. *How Estonia's Economic Transition Affected Employment and Wages (988–95)* (Washington, D.C.: World Bank Working Paper 1837, 1997).

15. Ansgar Belke and Martin Hebler, *EU-Osterweiterung, Euro und Arbeitsmärkte*, (Verlag Oldenbourg, München and Wien, 2002).

16. Mancur Olson, *The Rise and Decline of Nations* (New Haven and London: 1982).

17. See Tiiu Paas et al. *Labour Flexibility and Migration in the EU Eastward Enlargement Context: The Case of the Baltic Countries* (mimeo, University of Tartu, 2002), 11–16 and Raul Eamets "Eesti tööturu paindlikkus Euroopa Liiduga liitumise kontekstis" in *Effect of Accession to the European Union on the Economic Policy of Estonia* (Tartu-Värska: Proceedings of the X. Scientific and Educational Conference, June 27–29, 2002): 54–64 for overviews.

18. OECD, *OECD Employment Outlook*, Paris, 1999.

19. Guiseppe Nicoletti, Stefano Scarpetta, and Olivier Boylaud, *Summary Indicators of Product Market Regulation with an Extension to Employment Protection Legislation* (Paris: OECD ECO/WKP 226, 2000).

20. These elements are further specified in OECD (1999, chapter 2).

21. Raul Eamets, Kaia Philips, and Tiina Annus, *Employment and Labour Market Policy in Estonia* (Tartu: Background Study for the European Training Foundation, 1999).

22. Education policy will play a significant role in the last section.

23. For details see Paas et al. 2002, 29–34.

24. Ibid., 44f.

25. However, this sentence has to be qualified, as the total of all social benefits (unemployment, housing, health care) granted by different state levels in Estonia is difficult to calculate.

26. See Andreas Freytag, (2002a), *Accession to EMU and Exchange Rate Policies in Central Europe—Decision Under Institutional Constraints* (Tallinn: Eesti Pank Working Paper 2002/1, 2002a) and Andreas Freytag, *Choice of an Exchange Rate Arrangement, Institutional Setting and Inflation: Empirical Evidence for Latin America* (Paris: OECD Development Centre Technical Paper 198, 2002b) for empirical evidence in CEE and in Latin American economies.

27. Mart Laar, *Das estnische Wirtschaftswunder* (Tallinn: Tänapäev, 2002), 81–85 and Adalbert Knöbl, Andres Sutt, and Basil Zavoico, *The Estonian Currency Board: its Introduction and Role in the Early Success of Estonia's Transition to a Market Economy* (Washington, D.C.: IMF Working Paper 02/96, 2002).

28. Andres Saarniit, "Balanced Budget Can Be Interpreted in Many Ways," *Eesti Pank Bulletin* no. 2, (1997): 43–47.

29. Government of Estonia and European Commission, *Joint Assessment of Employment Priorities in Estonia* (Tallinn and Brussels, 2001).

30. In summer 2001, the deficit criterion of the EMU's Stability and Growth Pact (SGP) was questioned and a limitation of public expenditures was proposed in European politics instead. It was argued that expenditures can be targeted better than deficits. For an economic judgment see "Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung," *Für Stetigkeit—Gegen Aktionismus, Jahresgutachten 2001/02* (Stuttgart:

Metzler-Poeschel, 2001), 26f, quoted as SVR. From a political economy perspective, it does not seem very sensible to abandon the (somewhat flawed) 3 percent rule, given the enormous difficulties in the 1990s to fix it. The credibility of a new rule would probably be limited.

31. Kaie Kerem and Mare Randveer, "The Impact of Fiscal Policy on Business Environment in Estonia," in *Estonia on the Threshold of the European Union: Financial Sector and Enterprise Restructuring in the Changing Economic Environment*, eds. Vello Vensel and Clas Wilborg (Tallinn: Tallinn Technical University, Tallinn, 2001), 361–383.

32. Table 2 is a bit misleading in that intra-governmental transfers are not shown. Since the second half of the 1990s, they have accounted for approximately 3 to 4 percent of the GDP and are decreasing.

33. Unless differently stated, all data on the public budget are from Statistical Office of Estonia (2002), Statistical Database, internet recherché, <http://gatekeeper.stat.ee:8000/px-web.2001/dialog/statfileri.asp> (2002). Additional information from Bank of Estonia, Statistical Indicators, <www.epbe.ee> (2002).

34. Ulrich Fritsche, and Dieter Lösch (1998), *Estland—Die Rolle des Staates in der Wirtschaft* (Hamburg: HWWA-Report 175, HWWA, 1998).

35. Nevertheless, investment with a share of only 10 percent in public expenditure is still considerably lower than in OECD countries (Kerem and Randveer 2001, 374). In particular, public R&D investment is very low.

36. Vito Tanzi and George Tsibouris (2000), *Fiscal Reform over Ten Years of Transition* (Washington, D.C.: IMF Working Paper 00/113, 2000), 17, judge Estonia as a country having reformed its fiscal policy to the greatest possible extent.

37. René Weber and Günther Taube, *On the Fast Track to EU Accession: Macroeconomic Effects and Policy Changes for Estonia* (Washington, D.C.: IMF Working Paper 99/156, 1999).

38. International Monetary Fund, *The Baltics: Medium-Term Fiscal Issues Related to EU an NATO Accession* (Washington D.C., 2002), quoted as IMF.

39. The basis for this subsection is the theory of contestable markets. William J. Baumol, "Contestable Markets: An Uprising in the Theory of Industry Structure," *American Economic Review*, 72 (1982): 1–15.

40. Magnus Feldmann and Razeen Sally, "From the Soviet Union to the European Union: Estonian Trade Policy 1991–2000," *The World Economy*, 25 no. 1 (2001): 79–106.

41. Razeen Sally, *Classical Liberalism and International Economic Order: Studies in Theory and Intellectual History* (London: Routledge, 1998).

42. Corporate income tax reductions for foreigners were introduced later, but have been abandoned with the Income Tax Act 2000, becoming effective from 1 January 2000 (Kerem and Randveer 2001, 365–368).

43. Razeen Sally and Urmas Varblane, "Estonia Should Join the EU, and Lead It," *Wall Street Journal Europe,* 6 May 1999, 7.

44. Feldmann and Sally 2001.

45. Commission of the European Communities, 2001 *Regular Report on Estonia's Progress towards Accession (Brussels, 2001), quoted as Commission.*

46. Kaarel Kilvits, "Structural Changes in Industry," in *Factors of Convergence*, eds. Ülo Ennuste and Lisa Wilder (Tallinn: Tallinn Technical University, 2001): 37–81.

47. Ibid., 76.

48. Fainshtein and Lubenets 2001.

49. Herbert Giersch, "Aspects of Growth, Structural Change, and Employment—A Schumpeterian Perspective," *Weltwirtschaftliches Archiv* 115 (1979): 629–652.

50. Again, this development is compatible with theoretical reasoning, as gravity models of international trade suggest that trade is very intensive with neighboring countries (for example, see Alan V. Deardorff, *Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical Model?* (Cambridge, MA: NBER Working Paper 5377, 1995).

51. In addition, it seems as if Russia is not a natural trading partner for Estonia anyway.

In the first period of Estonian independence, the share exports into the Soviet Union declined from 11.2 percent (1922–25) to less than 4 percent in the 1930s (before World War II); the share of imports remained the same at roughly 6 percent. Kalev Kukk, "Estonia's Foreign Economic Relations in the 20th Century: Geographical Metamorphosis," *Estonia Geographical Studies* 8 (2000): 170–183.

52. Kilvits 2001.

53. This is a very unfortunate result of the enlargement process. Political economy considerations show that enlargement would have provided a window of opportunity to reform some of the EU's rules and institutions, in particular the Common Agricultural Policy.

54. Government of Estonia and European Commission 2001.

55. Kristina Toming, *Estonia's Accession to the EU: What Effect on Agricultural Imports and Economic Welfare?* (mimeo, Kiel Institute for World Economics, 2002).

56. Commission 2001, 79–81.

57. This section is based on Andreas Freytag, *Estonian Labour Market and EMU-Membership—Challenges and Policy Options* (Tallinn: Eesti Pank Working Paper 2002/11, 2002c).

58. OECD, *OECD Employment Outlook*, Paris, 2002.

59. For details see Freytag (2002c). For a general discussion, see Milton Friedman "The Role of Government in Education," in *Economics and the Public Interest*, ed. Robert A. Solow (New Brunswick, NJ: Rutgers University Press, 1955), 123–144 and Davis F. Bradford and Daniel N. Shaviro, *The Economics of Vouchers* (Cambridge, MA: NBER Working Paper 7092, 1999). For the discussion of an application in Maine see Frank Heller, *Lessons from Maine: Education Vouchers for Students since 1873* (Washington, D.C.: Cato Institute Briefing Papers No. 66, 2001).

60. Freytag 2002c, 23.

61. Sulev Nommann, Interview about the Group of Experts' Recommendations on EU Structural Funds, Tallinn (2002).

62. Jörg Mallossek, *Die Erweiterung der Europäischen Union um mittel- und osteuropäische Länder: Wirtschaftspolitischer Reformbedarf bei gegebenen Budgetrestriktionen*, Untersuchungen zur Wirtschaftspolitik Nr. 116, Köln 1999.

63. Freytag 2002c.

64. Other sources include: International Monetary Fund (b), *Republic of Estonia: Statistical Appendix*, various issues, Washington D.C., quoted as IMFb and Henning Klodt, "Wirtschaftsförderung für die neuen Bundesländer: Qualifizierungsgutscheine als Alternative," *Die Weltwirtschaft*, no. 3, (1991): 91–103.