

# **Plaut Economics Regulation Index**

**Regulatory density index in telecommunications with particular  
consideration of investment incentives**

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## **1 INTRODUCTION**

Despite a standard EU regulatory framework, telecommunications markets still are regulated differently in each individual member state. As a result, many institutions conduct country comparisons in an attempt to illustrate country-specific regulations with numbers. The best-known examples are the ECTA Regulatory Scorecard (ECTA 2006a and 2006b), the European Union Regulatory Institutions Database (EURI, 2004), the OECD Regulatory Index (OECD, 2006), and the WIK Indices (Elixmann et al., 2001; WIK, 2003). These studies all have in common that they do not attempt to measure regulation but rather rate it with regard to specific questions. The ECTA Regulatory Scorecard, for instance, grades country-specific regulations as to what extent the EU's communications regulatory framework of 2003 has been implemented.

One problem, which has emerged recently, is that such ratings are increasingly used to determine what influence regulation has on market results (e.g., on investment activities in the telecommunications sector). Typically, attempts are made to find a statistical link between rating figures and market results by using regression analyses (see e.g., London Economics/PriceWaterhouseCoopers, 2006). Such attempts, however, neglect that the rating figures already rate the regulation for certain matters and therefore do not measure regulation objectively. Furthermore, in addition to regulatory elements market outcomes are incorporated in most indices. However, mixing input and output values limits the qualification of these indices for analyzing statistical links between regulation and market outcomes.

To measure the influence of regulation on market results, the dependencies as illustrated in a greatly simplified manner in Figure 1 have to be modelled statistically. Market results are influenced by regulation as well as by a number of other factors. In a first step, the 'input' regulation must be measured, however not valued. If regulation is to be measured in a one-dimensional index, only regulations which have a bearing on the object of examination should be incorporated. In further steps, market results (output) and other influencing factors need to be measured. In a last step, the statistical analysis is carried out (e.g., multiple regression) where the influence of regulation on market outcome is determined. As the existing regulation indices also include market results as indicators, using them results in circular arguments by inferring the market outcome from market results. Furthermore, as regulation typically is rated with respect to certain questions, only confounded effects of regulation type, rating and weighting scheme are to be determined in the statistical analysis. The actual influence of regulation on market results can thus no longer be isolated.

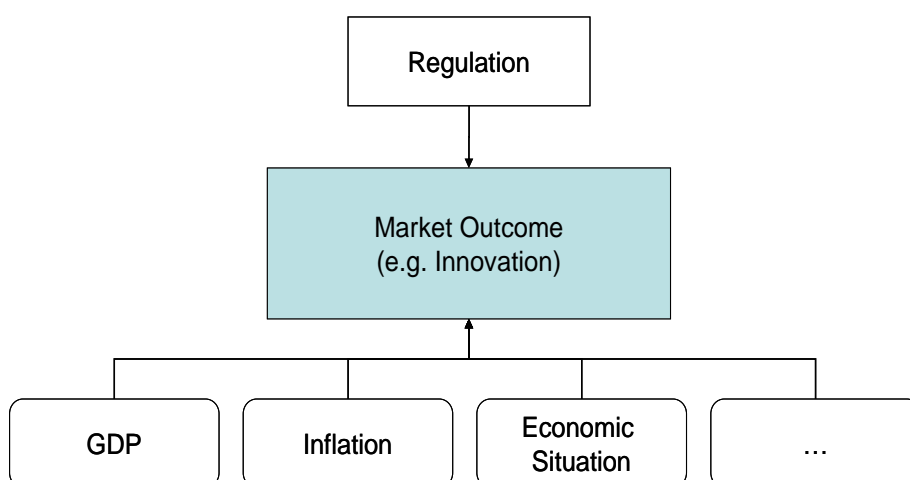


Figure 1 Market result in dependency on regulation and other factors

Regulation ratings are therefore – a careful and methodically correct implementation provided – only applicable for the question they were developed for. The ECTA Regulatory Scorecard reveals something about the EU regulatory framework, but it cannot be used *tel quel* as input to measure the influence of regulation on market outcome. The same problem arises from other existing regulation indices. To achieve valid results, an actual measure is needed which quantifies regulation intensity by inputs only – but not by market results – and does not rate them. Such measured values exist rudimentarily and for certain areas only.

Deutsche Telekom AG commissioned Plaut Economics to shed some light on the subject of 'regulation indices' and to design a telecommunications regulation index, especially with regard to valid statements on investment incentives. Section 2 explains the design of a regulation index in accordance with this intention. As an introduction, section 2.1 lists basic requirements before section 2.2 qualifies current telecommunications indices on this basis. Section 2.3 then discusses the design of a regulation index avoiding the flaws identified in the preceding section. Based on theoretical considerations, the index is then designed, i.e., sub-indices and indicators are established and weighting schemes are developed.

Section 3 describes how the index is implemented, viz. which countries are included and how the indicators are valuated. Section 3.3 explains how the index is structured in the basic scenario and what alternatives are additionally taken into account. Section 3.4 reveals the data sources used. Section 4 then discusses the results, i.e. robustness and variability of the index as well as possible applications in statistical analyses. Section 5 contains an annex on the raw data of the indicators and the result of the basic scenario.

## **2 DESIGN OF THE REGULATION INDEX**

In the international literature, the term 'regulation index' generally is used in the context of measuring bureaucratic hurdles which have an influence on corporate actions or on growth and employment. To analyse the development and measurement of regulatory density, Enste and Hardege (2006) as well as Ledergerber et al. (1998) and Koch (2003) used a regulation index for Germany and Switzerland, respectively. They developed indices comprising a variety of quantitative and qualitative variables. Those variables represent a broad range of regulations and thus enable an analysis of governmental regulation intensity. Without including further information, an index rarely allows a valuation (e.g., better versus worse). The index is a measured value, comparable to a measure of length or weight. A regulation index reveals nothing about the effectiveness, but only something about the quantitative dimension, i.e., the density or intensity of a regulation or a set of regulations. Only then it is guaranteed that the link between regulatory density and market output can be examined by using such a regulatory density index.

A number of general and specific requirements are developed below which are based on conventions when creating indices. These must be taken into account, when designing an objective regulation index, in particular.

### **2.1 Requirements for a regulatory density index (RDI)**

Regardless of the telecommunications regulation, the following general requirements must be met when creating an RDI:

- An RDI consists of sub-indices and indicators. A sub-index consists of several indicators and the index itself of the sub-indices. This modular structure allows for flexible adaptation in later applications.
- An RDI has a minimum and maximum value. As per design, the sector regulation is completely non-existent if the minimum value applies while the maximum value represents a condition in which every conceivable sector-related criterion is subject to sector-specific regulation. Here the sector-specific regulation is intensified to the extent that there is nearly no area left where competition law is applied to. If an RDI is designed for a specific question, the regulatory density may be restricted to regulations relevant to the specific question only.

- The RDI has no reference to market results, i.e., outputs are not part of the regulation index. In order to examine the influence on the market outcome, these informations have to be recorded separately. Of course, market results may be summarized in an index, too (see Vaterlaus et al., 2003, p. 63ff, for instance).
- When measuring regulatory density, it is inevitable making certain subjective decisions. Absolute transparency therefore must be guaranteed. Both selection and weighting of indicators and sub-indices must be fully documented and justified.

With the objective of examining the influence of the telecommunications regulation on innovative activities, specific additional requirements apply for creating a sector regulation index.

- Only regulations which are expected to influence investment activities in the telecommunications sector should be included. Important sector regulations (e.g., access regulations, important price and quality regulations) must be comprised in the RDI. Very specific minor regulations, however, which at best marginally affect investment activities, should not or only to a small extent influence the index value.
- Sector regulations must not be recorded twice. The index value should not increase if redundant or follow-up questions are included.
- Official information (documents from regulatory authorities, statistics, etc.) must be preferred to expert surveys. When including statements of experts, their identity must be disclosed. Interest groups should not be interviewed.
- Regulations assessed controversially in regulatory economics must be marked as such so that their influence on the index is traceable.

## **2.2 Assessment of existing ratings**

Institutions speaking out on regulation effects tend not to distinguish between inputs and outputs when compiling ratings. Therefore, these ratings are not applicable to show a link between regulation and market outcome for conceptual reasons. This is shown in the following for the indices published by the OECD, ECTA, EURI and WIK.

### ***OECD indicator system of regulation conditions***

The OECD has developed a non-manufacturing regulation system (OECD, 2006) consisting of three groups: indices for energy, transport and communication (ETCR), indices for the retail sector and services (RBSR) and indices which measure the 'knock-on' effects of anti-competitive non-manufacturing regulation (RI). All indices focus on regulations limiting

corporate actions and domestic competition (OECD, 2006, p. 6). Among the ETCR indicators, the telecommunications index consists of three sub-indices: entry, public ownership and market structure. Public companies are assumed to face less strict budget constraints and to act in a more anti-competitive way than private companies (Sappington and Sidak, 2003a and 2003b). Details on market structure are interpreted as an indication of the effectiveness of de jure introduced market liberalizations. Non-rising market shares of entrants are hereby implicitly assumed to reflect poorly implemented market access regulations.

The advantage of the OECD's procedure lies in including central sub-indices and in using official data sources. Results are therefore less likely to be based on subjective assessments. The indicator system of the OECD primarily measures the intensity of competition. The market structure, on the other hand, is used as an indicator for the regulatory effect to what extent competition was actually fostered. This implies a circular argument which must be avoided when creating a regulatory density index.

### ***ECTA Regulatory Scorecard***

During the data collection in 2006 (ECTA 2006b), selected ECTA members were asked 97 questions. The questions are divided and subsumed into three sub-indices mainly measuring how well the EU regulatory framework for telecommunication was implemented into national law by the member states. The sub-index 'Institutional Framework' consists of a variety of process-related indicators while 'General Market Conditions' include the actual regulations. Market results can be found in the sub-index 'Effectiveness of Implementation'.

The procedure of the ECTA has already been criticized on several occasions (see Indepen, 2006 and Plaut Economics, 2006). The criticism was related to the objectiveness of the criteria included, the anonymity of the experts considered, weighting, conversion errors, etc. The ECTA Regulatory Scorecard is a benchmark to what extent the competitor – not the competition as in the OECD indicator – is promoted in terms of regulation. In view of the requirements for a regulation index, incorporating (access) regulations, regulation effects, market results, etc. make redundancies and circular arguments inevitable which should be avoided at all means.

### ***European Union Regulatory Institutions Database (EURI)***

The EURI Database contains elements of the institutional environment of the telecommunications regulation between 1997 and 2003. The focus is on measuring the independence of the sector-specific regulatory authority (EURI-I Index) in the EU member states. The rating aligns with considerations in the literature. An authority regulating several sectors ('multi-sector agency') is, e.g., assumed to have greater independence while a partial state fund-

ing of the regulatory authority may jeopardize independence (e.g., Gönenç, 2001; Kerf et al., 2001). In addition, the EURI-Q Index provides information on regulatory quality, i.e. effectiveness of the actions taken by the regulatory authority (EURI, 2004, p. 8).

As regards transparency, the EURI Database is positioned between the OECD indicator system and the ECTA Regulatory Scorecard. While the EURI-I Index is constructed in a transparent way, this holds only true to a limited extent for the EURI-Q index. Since the EURI Database puts more weight on regulatory independence than on the independence of government the authors of the indices implicitly assume a welfare-maximizing bureaucrat. However, in reality, bureaucrats will also maximize their own utility by trying to expand their area of discretion (Williamson, 1964).

### **WIK Indices**

WIK consult has developed indices in the context of liberalizing telecommunication markets (Elixmann et al., 2001). Sector-specific regulations were evaluated as to what extent they assisted in opening the market to new entrants (WIK, 2003, p. 95). WIK also designs a so-called competition index focusing on market results (prices, service penetration) and structural measures. WIK, therefore, separates sector regulations and market results in its indices.

The WIK liberalisation index is, similar to the ECTA Regulatory Scorecard, a benchmark to what extent new entrants are fostered by sector regulations which is interpreted as positive by the institute (see WIK, 2006, p. 85 ff.). The WIK competition index's weakness is that it includes market structure data. However, market shares are not a reliable criterion for reducing competitive intensity. This may be explained by the phenomenon of reverse causality. Instead of being able to implement high prices due to a high market share, low prices may increase demand and lead to a high market share. The lack of a causal link between size and market power is confirmed by the literature of industrial organization (see e.g., Schmalensee, 1989, p. 951 ff.).

## **2.3 Design of the regulatory density index (RDI)**

### **2.3.1 Theoretical basis**

Designing a regulatory density index (RDI) aims at obtaining an indicator for the density of sector regulations in the communications sector. From a theoretical point of view, regulatory density is a benchmark which can be determined on the basis of direct and indirect

costs of regulation. Regulation induces direct costs from operating a regulatory authority. However, regulatory density cannot be measured on the basis of the number of laws and regulations but must be considered in the context of the overall institutional environment. Otherwise the effect on market and competition can never be sufficiently assessed. Apart from direct costs of administration, indirect costs (e.g., rent seeking activities, erroneous regulations resulting in inefficient market outcomes) are incurred on the other hand.

Indirect costs of regulation also include influences on investment incentives which are the focus when designing the RDI. For this reason, not costs itself are used as a measure for regulatory density, but the concept of freedom of action. It is assumed that protecting property rights and rights of disposal provides the basis for functioning markets with competition law ensuring their continuity. Additional regulatory interventions due to sector-specific laws therefore increase regulatory density. Whether and to what extent an increasing regulatory density affects competition and market outcome, can ultimately be determined in an econometric analysis which relates market results to the regulation index or the sub-indices constituting it.

### **2.3.2 Design of the RDI**

There is a wide range of critical literature on indices, rankings etc. (e.g., Grupp and Moguee, 2004). Relevant points of criticism therefore must be anticipated and taken into account when designing the index.

Regulation is a multidimensional object and cannot be modelled in its totality. Therefore, sub-indices and indicators must be selected by established criteria. Economic analysis is a prerequisite when designing a regulatory index. As regards the variable to be explained – here the investment incentives –, sub-indices and indicators to be compiled into an index must be derived from theoretical relevant aspects.

#### **2.3.2.1 Sub-indices and indicators**

For quite some time, economic theory has been studying (sector-specific) state interventions and their effects on the behaviour of market participants and market result. Apart from the analysis of privatizing state companies, the effect of regulations on investments and innovation behaviour has been at the top of the agenda over the past years. Market interventions influencing the ability of an industry to develop improved production methods (process innovations) and/or new products (product innovations) are also examined. These subjects are of utmost importance, as innovation is one of the most important growth factors. In the context of competition – something regulation in principle aims to promote – it

was shown that there exists an inverted u-shaped relation, i.e., too little as well as too much competition hampers innovation (see Aghion, 2005). It can therefore not be assumed that more competition increases welfare per se. Therefore, it is crucial to use the regulatory toolkit in a way as to achieve ideal investment incentives, especially in dynamic markets which are characterised by a high degree of innovation.

For decades overinvestment problems were observed for regulated (monopoly) markets. In one of the best-known contributions to regulatory economics, Averch and Johnson (1962) showed on the basis of a static model that companies tend to engage in excessive amounts of capital accumulation if the regulated return on capital is limited to an 'appropriate' amount ('fair rate-of-return'). If companies' profit to capital ratio is regulated at a certain percentage there is a strong incentive for companies to overinvest in order to reduce calculated returns on capital and increase profits overall. The empirical evidence on the Averch-Johnson effect is, however, not clear (Viscusi et al., 2000, p. 373).

Since the failure of some liberalisations (e.g., the privatisation of the railways in the UK, the deregulation of the Californian electricity industry), underinvestment problems are nowadays being discussed, too. They refer to network infrastructures and to developing new products and services for those. However, because of the rapid technological change, underinvestment is rarely seen in the telecommunications sector, even if investment decisions still are influenced by sector-specific regulations.

On the basis of Vaterlaus (2004, p. 31ff), the most important sector-specific regulations which have a potential effect on a company's investment and innovation activity are identified below. Using the framework of regulatory economics, regulations may be systematized according to the companies' decision variables being influenced (e.g., price, rate of return, etc.; see Viscusi et al., 2000, Section 10). However, sector-specific regulations also influence the investment and innovation behaviour of market players. This can be shown by the example of regulated access prices: if they are low, network operators have little incentive to invest in maintaining and improving their infrastructure (see Bühler et al., 2004). However, this promotes an intensive service competition. If on the other hand, access tariffs are high, the incumbent has greater investment incentives, but service competition is hard to establish. This in turn may result in incentives for the entrants to invest in new infrastructure which may compete against the incumbent's network infrastructure in the long run.

The example of access price regulation suggests that sector-specific regulation can have subtle effects on investment incentives. An empirically based overview of access regulation and its effects can be found in Wallsten (2006). In the following, we will assess the probable effects of important sector regulations (price, quantity, market-entry and other regula-

tions) on the investment and innovation behaviour of market participants as described in the economic literature.

### **Price regulations**

In the context of regulating access prices, one-way and two-way access generally are distinguished (see Valletti, 2003). There is a consensus that regulating access prices based on cost is efficient by chance only and – in contrast to price caps – hardly generates investment incentives (see Laffont and Tirole, 1996). Regulating access prices may lead to under- or overinvestment. Underinvestment occurs for one-way access, in particular with low access prices, and for two-way access with high access prices.

Retail prices of incumbents often were subject to rate-of-return regulation in the past (in particular in the U.S.). This allows covering historic investment cost by granting an appropriate return on capital plus depreciation. If, however, technical progress is neglected, rate-of-return regulation results in price distortions relative to the optimum price path (Biglaiser and Riordan, 2000). At first, prices are low because they neglect the necessary depreciations due to technical progress; later they increase above the ideal level because regulated companies are entitled to an appropriate return on an overestimated capital basis. This results in underinvestment over time since regulated companies lack incentives to replace old infrastructure.

Biglaiser and Riordan (2000) show that price-cap regulations create better incentives to replace old infrastructure. However, other problems may arise. On the one hand, a stranded-cost problem can occur when switching to price-cap regulation because no appropriate return can be achieved on past investments (see Sidak and Spulber, 1997). On the other hand, investment incentives do not significantly differ from those under rate-of-return regulation if the time horizon for the price cap is too short. If the time horizon is, however, long, companies have incentives to invest in infrastructure too early which may lead to investment cycles when repeatedly adapting the price cap.

### **Quantity regulations**

In telecommunications, quantity regulations mainly are applied in the context of a universal service obligation. The most important type of quantity regulation therefore is an obligation to contract requiring the entire demand resulting from a regulated retail price to be met. Such quantity regulations demand for regulating access and/or retail prices as prerequisites. Investment effects of a universal service obligation therefore are difficult to separate from those resulting from regulating access or retail prices. Additionally, there may be further

distortions resulting from financing mechanisms affecting supply (see Noam, 1994; Schankerman, 1996).

Other requirements for supplying the population with certain services may qualify as special types of quantity regulation, too. For instance there may be obligations regarding the degree of mobile network coverage. The investment effects of such requirements are hardly discussed in the literature. It must be assumed that they influence the time of investment rather than the investment decision per se: investments may be made earlier in order to prevent sanctions from regulatory authorities.

### **Market entry or exit regulations**

Liberalisation aims at opening monopoly markets to potential competitors. Unsurprisingly, Alesina et al. (2003) conclude that reducing entry barriers generally has positive effects on investment behaviour. In its analysis of the enactment of the 1996 Telecommunications Act in the USA, the Phoenix Center (2003a, b) also observed growing investment volumes. Important sector-specific entry or exit regulations are regulations demanding an unbundled network access or a vertical separation between network and retail services. Finally, restricting the number of market participants through mobile communication licenses is important, too.

### **Miscellaneous sector regulations**

In addition to price, quantity and market access regulations there are other regulations affecting companies' investment decisions. Minimum quality standards are regulated in many countries, which is a direct involvement in companies' investment decisions. During the process of liberalisation, for instance, technical requirements, such as number portability and carrier pre-selection, directly affected investment decisions.

For many years, telecommunication markets in Europe were characterised by monopolies. The liberalisation process raised the question of (gradually) privatising state companies. The theoretical literature postulates privatisation to encourage desirable changes of incentives which, as a rule, contribute to increased investments (see Shapiro and Willig, 1990).

Plaut Economics has examined existing rankings and excluded all indicators referring to market results and market structure. It was also ensured that no redundant information was incorporated. Detailed regulations, as found in the ECTA Regulatory Scorecard in particular, were also excluded (see the justification in Section 2.3.2.2). This leaves 25 indicators (see Table 1) for creating a regulatory density index that allows to empirically analysing effects of regulation on investment incentives.

### **2.3.2.2 Weighting issues**

When designing regulation indices, Ogus (1994) suggests developing regulation categories by distinguishing between regulation types. The categories are organised on a scale which ranges from a weak to a strong intervention. Liabilities to inform are a weak form of regulation while qualitative standards have a greater intervention density. Quantitative standards receive even greater weight and approval obligations are weighted heaviest.

A problem to be solved is that de jure identical regulations can de facto result in different regulatory practice. Evaluating the actual regulatory practice is far more difficult than to assess the legal situation. It also results in an additional source of subjective weighting, as the regulatory practice has to be assessed by experts; this would automatically lead to the RDI being more prone to criticism. Therefore, it seems to be more promising to relate the RDI to jurisdiction which allows for a more objective index. The problem of different regulation practices may then be tackled later on in the econometric analysis. Assumingly, countries tend to regulate either more strictly or more lax as a rule. Regulatory practice may therefore be incorporated into the econometric analysis by using specific country variables that allow for eliciting effects of de jure and de facto regulation separately.

**Table 1 Sub-indices and indicators**

Sub-indices	No.	Indicators
Price regulation	1	Which interconnection regime is applied to the incumbent's fixed-line network?
	2	What interconnection regime is applied to the incumbent's mobile communications network?
	3	What mobile termination regulation is applied?
	4	Amount of weighted average cost of capital accepted by the regulator <sup>a)</sup>
	5	Existence of sector-specific retail price-regulation for fixed network services?
	6	Existence of sector-specific retail price-regulation for mobile communications services?
Quantity regulation	7	Existence of a USO-burden for incumbents (USO=Universal Service Obligation)?
	8	Existence of a (financial or other) USO-burden for other telecommunications companies?
	9	Existence of meet-demand clauses for specific products or services at regulated prices?
	10	Are there regulatory requirements regarding coverage of the population with 3G mobile communications technology?
Market-entry regulation	11	Existence of regulated vertical separation of the incumbent company?
	12	Accounting separation requirement to ensure non-discrimination?
	13	Is full local-loop unbundling regulated?
	14	Is line sharing regulated?
	15	Is bit-stream access regulated?
	16	Is sub-loop unbundling regulated?
	17	Number of network-based mobile communications licenses of the 2 <sup>nd</sup> generation?
	18	Number of network-based mobile communications licenses of the 3 <sup>rd</sup> generation?
	19	Is frequency trading regulated?
Miscellaneous regulations relevant for investment incentives	20	State's shares of the incumbent in percent?
	21	Existence of a 'golden share' (right to veto, that can be applied by the government)?
	22	Is there an asymmetric access regulation between DSL and cable network providers?
	23	Is there a sector-specific environmental regulation (e.g., regarding radiation limits)?
	24	Can fines issued by the regulator exceed 5% of turnover of activity concerned?
	25	Are there any sector-specific regulations in connection with rights of way?

a) With regard to investment incentives, it is crucial to include information on cost of capital which regulatory authorities grant companies. The returns granted directly influence the provision of capital in regulated areas.

Source: Plaut Economics.

### **3 IMPLEMENTATION OF THE REGULATION INDEX**

#### **3.1 Countries considered**

To obtain significant results from econometric estimations, a certain variance in the data included for the design of the RDI is necessary. The Plaut Economics regulation index therefore includes the countries of the EU 27. The chosen indicators are recorded for 1997 to 2006. In order to be able to evaluate indicators from the monopoly regime with some of the EU 15 countries 1997 is selected as the starting year for the index. As an extension of the analysis additional countries which are not subject to EU regulations (e.g., USA, Korea, Japan or Switzerland) can be included in a further step.

#### **3.2 Valuation of the indicators**

The valuation of the indicators (see Table 1) can be mapped onto a 0 to 1 continuum in many cases. A value of 1 is assigned for the top regulatory density and 0 indicates no regulatory density. For indicators 1, 2, 3, 4, 17, 18 and 20 interim values (0.5 and 0.8) are used additionally. The following valuation procedure applies for the 25 indicators (see Table 2).

The interconnection regime is considered in questions 1, 2, and 3. It is assumed that ex ante approved prices based on incremental cost correspond to a higher regulatory density than a price-cap regulation. Price-caps set a maximum price level but give the regulated company flexibility in designing the price structure. Therefore, price-cap regulation is assigned an index value of 0.5. In terms of regulatory density rate-of-return regulation is comparable to price-cap regulation and thus is valued with 0.5 as well. A slightly higher value of 0.8 is assigned to general cost regulation schemes. It is assumed that its regulatory density is lower than the ex ante requirement of an incremental cost accounting but higher than the price-cap regulation. The same value is used for regulation schemes which cannot clearly be identified due to a lack of publicly accessible information. Due to its efforts in securing the prohibition of market access, a monopoly regime is valued with 1, indicating a high regulatory density. The value 0 is assigned as soon as a market is deregulated and monitored by competition law.

**Table 2 Selection criteria and valuation of the indicators**

Indicators 1, 2, and 3	Interconnection regulation		Valuation
	Regulation of the network monopoly		1
	Incremental cost accounting		1
	General cost regulation		0.8
	Combination of all regulations		0.8
	Price-cap regulation		0.5
	Rate-of-return regulation		0.5
	No regulation (competition law)		0
Indicator 4	WACC (before tax, if available real, otherwise nominal)		Valuation
	Lower threshold ( $\geq$ )	Upper threshold ( $<$ )	
	0	7%	1
	7%	10%	0.8
	10%	14%	0.5
	14%		0
Indicators 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 19, 21, 22, 23, 24, and 25	Yes or no		Valuation
	Yes		1
	No		0
Indicators 17 and 18	No. of licenses		Valuation
	1		1
	2		0.8
	3		0.5
	4		0.5
	More than 4		0
Indicator 20	State's shares		Valuation
	Lower threshold ( $\geq$ )	Upper threshold ( $<$ )	
		80%	1
	51%	80%	0.8
	20%	51%	0.5
		20%	0

Source: Plaut Economics.

Indicator 4 incorporates the regulation of the weighted average cost of capital (WACC) for which a pragmatic procedure is required. As soon as a company may achieve a relatively high regulatory WACC before taxes, it is assumed that this is not subject to a noticeable cost-of-capital regulation. A WACC above 14% is therefore assessed with 0. The case of a non-regulated weighted average cost of capital also entails a value of 0. If the WACC is less than 7%, a relatively strong cost-of-capital regulation is assumed; calling for an index value of 1. Entries between 7% and 14% are assessed with the interim values of 0.5 and 0.8.

Indicators 17 and 18 ask for the number of GSM and UMTS licenses. It is assumed that the regulatory density is highest when only one license is assigned (thus value 1) and very low with more than 4 licenses and respective competition (thus value 0). Interim values of 0.5 and 0.8 are also applied dependent on the number of licenses.

Indicator 20 covers the percentage of state's shares in the incumbent. The value 1 is used for a more than 80% share while 0 indicates a share less than 20%. State's shares between 20% and 50% and between 51% and 80% are assessed with 0.5 and 0.8, respectively.

### **3.3 RDI basic scenario and variants**

The RDI is composed of 25 indicators or four sub-indices, respectively. The sub-index 'price regulation' includes indicators 1 to 4 (see Table 1), the sub-index 'quantity regulation' indicators 5 to 10, the sub-index 'market-entry regulation' indicators 11 to 19. The indicators 20 to 25 are summarised in the sub-index 'miscellaneous regulations'. The four sub-indices are weighted with 25% each (basic scenario) and aggregated to form the RDI. Within the sub-indices all indicators are equally weighted.

With index creation weighting issues arise that must be dealt with on the basis of established indexing methods and tested for sensitivities. Such tests cannot eliminate all subjective weighting, but the weights used can be discussed in an objective way. Due to the lack of agreement on the significance of sector-specific regulations in the literature, the RDI includes, in addition to the basic scenario, four alternative scenarios where in each case one of the sub-indices is weighted with 40% (see Table 3).

**Table 3** Regulation index scenarios

Sub-indices	Basic scenario	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Price regulation	25%	40%	20%	20%	20%
Quantity regulation	25%	20%	40%	20%	20%
Market-entry regulation	25%	20%	20%	40%	20%
Miscellaneous regulations	25%	20%	20%	20%	40%

Source: Plaut Economics.

### 3.4 Data sources

It is crucial that reliable data sources on sector regulations in telecommunications are drawn to derive the RDI. There are many sources covering the state and development of telecommunications regulations of the 27 EU member states between 1997 and 2006. The following sources were consulted in particular to answer the 25 indicator questions of the RDI:

- Cullen International, Telecommunications, Western Europe, Cross-Country Analysis, various editions from 2000 to 2007.
- Cullen International, Telecommunications, Central & Eastern Europe, Cross-Country Analysis, various editions from 2006 to 2007.
- European Radiocommunications Office (2005), Information Document on GSM Frequency Utilisation within Europe (available on <http://www.ero.dk>).
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So far 12 implementation reports have been released; the 5<sup>th</sup> to the 12<sup>th</sup> edition were downloadable in August 2007 at <http://europa.eu.int/ISPO/infosoc/telecompolicy>.

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- Baker & McKenzie (2005), Telecommunications Laws in Europe, 5<sup>th</sup> edition, published by Joachim Scherer, Tottel Publishing, West Sussex.
- Websites of the national regulatory authorities where the relevant decrees from the 27 member states of the European Union can be consulted.

Basic problems in index creation are data gaps. During data research there were no countries where several indicators could not be determined and could therefore not be considered in the index. There was also no indicator which could not be derived for several countries. When creating the RDI, no imputation methods for completing missing values based on existing data were applied for indicators with numerical data.

## **4 RESULTS OF THE REGULATION INDEX**

The RDI allows making statements on the extent of regulation in the telecommunications sector of several countries. A higher index value means that this country has a higher regulatory density, i.e., regulates the telecommunications sector more intensively than countries with a lower index value. Even though the sub-indices and indicators used in the RDI were all selected by the criterion, whether they potentially influence the innovation activity of telecommunications companies, the RDI will not allow making any direct statements on the quality of regulation. This is not possible, due to the fact that the intensity of regulation is only measured, not rated. Thus it cannot be concluded whether countries with a high RDI value promote or hamper innovations in the telecommunications sector through their regulation regime. This can only be assessed econometrically in a second step, estimating the relationship between innovations in the telecommunications sector and regulatory density (measured by the RDI).

### **4.1 Sensitivity of the RDI**

In order to apply the RDI for complementary analyses, questions regarding its robustness arise. An important aspect when creating the RDI is the weighting of the indicators and sub-indices (see Table 3). The stronger the RDI responds to the selection of the weights, the less robust it is and the more limited is its use for further quantitative evaluations. Rank correlations were calculated to examine the sensitivity with respect to various weighting scenarios. For this analysis the change in RDI values from 1997 to 2006 was compared between the basic and the alternative scenarios of each country. Significant discrepancies between the values in the different scenarios indicate that the chosen weights may distort the results. The four scenarios analysed each result in a rank correlation coefficient of more than 0.9. In other words, the ranking of more than 90% of the countries with regard to the change in RDI values do not differ between scenarios. As an example, Table 4 shows the respective rank correlation coefficient of scenarios 1 and 2 with correlation coefficients of 0.93 and 0.98, respectively. For scenario 3 the coefficient is 0.96, for scenario 4 it amounts to 0.91 (not shown in Table 4). The regulatory density measured by the RDI does therefore not depend on the selected scenario. Econometric analyses can thus be based on the basic scenario (see Tables 6 to 32 in the annex).

Table 4 Rank correlation coefficient

RDI	Basic scenario		Scenario 1			Scenario 2			
	1997	2006	1997	2006	Delta B quad	1997	2006	Delta B quad	
Cyprus	0.23	0.65	0.25	0.67	4	0.23	0.62	9	
Czech Republik	0.23	0.60	0.22	0.55	100	0.23	0.63	4	
Slovenia	0.27	0.63	0.25	0.60	1	0.27	0.60	4	
Latvia	0.26	0.56	0.28	0.56	1	0.26	0.55	0	
Bulgaria	0.28	0.57	0.26	0.56	4	0.28	0.55	0	
Hungary	0.30	0.60	0.31	0.59	0	0.29	0.63	4	
Netherlands	0.34	0.67	0.34	0.66	1	0.32	0.64	1	
Estonia	0.19	0.37	0.18	0.36	0	0.20	0.39	1	
Lithuania	0.30	0.59	0.31	0.61	49	0.29	0.57	0	
Romania	0.27	0.52	0.25	0.50	4	0.27	0.52	1	
Belgium	0.31	0.59	0.32	0.57	16	0.30	0.58	0	
Poland	0.28	0.51	0.29	0.52	1	0.27	0.51	1	
Ireland	0.32	0.58	0.32	0.58	9	0.31	0.57	0	
Malta	0.28	0.49	0.29	0.50	0	0.27	0.49	1	
Greece	0.33	0.57	0.33	0.57	16	0.31	0.56	0	
Spain	0.40	0.69	0.39	0.66	4	0.37	0.70	0	
Italy	0.38	0.64	0.37	0.60	1	0.35	0.66	4	
Slovakia	0.32	0.54	0.32	0.54	1	0.31	0.48	25	
Germany	0.40	0.67	0.39	0.69	1	0.37	0.69	0	
Sweden	0.30	0.50	0.30	0.52	1	0.29	0.50	1	
Denmark	0.33	0.53	0.33	0.52	0	0.32	0.52	1	
Portugal	0.38	0.59	0.37	0.56	9	0.36	0.57	0	
United Kingdom	0.39	0.59	0.39	0.59	1	0.37	0.57	0	
Luxembourg	0.22	0.33	0.21	0.31	0	0.18	0.26	0	
France	0.42	0.57	0.40	0.57	4	0.48	0.56	0	
Austria	0.40	0.56	0.39	0.53	1	0.37	0.54	0	
Finland	0.29	0.38	0.28	0.38	0	0.23	0.31	1	
Spearman rank correlation						0.93			
							0.98		

Source: Plaut Economics.

## 4.2 Country variability of the RDI

Apart from the robustness of the RDI, the variability of the RDI over time and between countries also plays an important role for its further use as part of quantitative analyses. Table 5 shows that the opening of telecommunications markets has overall resulted in an increasing regulatory density in the sector in all EU 27 countries. However, it can be observed that some countries even had a lower regulatory density in 2006 than others had in 1997. For example France's regulatory density was 0.42 in 1997, whereas Luxembourg achieved only a value of 0.33 in 2006. An examination of the development of sub-indices does in some cases also reveal a reduction of regulatory density (cannot be derived from Table 5).

For 1997 as well as 2006 one can observe a significant country variability of the RDI within the EU 27. In 1997 the lowest density can be found in Estonia with an indicator of 0.19, the highest in France with a value of 0.42. In 2006, however, the lowest density of 0.33 is derived for Luxembourg and the highest of 0.69 for Spain. The percentage change of regula-

tory density progressed very differently over this period as well. While the density has increased in countries such as Cyprus, Czech Republic and Slovenia by more than 100%, the respective growth rate in countries such as Luxembourg, France, Austria and Finland is below 50%. Among the four sub-indices the one on market-entry regulation has the greatest impact on the growth of regulatory density.

**Table 5 Country variability**

RDI	Basic scenario			Scenario 1			Scenario 2			Scenario 3			Scenario 4		
	1997	2006	Diff.	1997	2006	Diff.	1997	2006	Diff.	1997	2006	Diff.	1997	2006	Diff.
Cyprus	0.23	0.65	185%	0.25	0.67	167%	0.23	0.62	167%	0.18	0.67	265%	0.25	0.66	163%
Czech Republik	0.23	0.60	164%	0.22	0.55	154%	0.23	0.63	171%	0.22	0.62	176%	0.24	0.62	153%
Slovenia	0.27	0.63	131%	0.25	0.60	139%	0.27	0.60	125%	0.26	0.65	152%	0.31	0.66	113%
Latvia	0.26	0.56	113%	0.28	0.56	102%	0.26	0.55	111%	0.21	0.56	166%	0.30	0.57	89%
Bulgaria	0.28	0.57	100%	0.26	0.56	116%	0.28	0.55	100%	0.27	0.57	108%	0.33	0.59	79%
Hungary	0.30	0.60	99%	0.31	0.59	94%	0.29	0.63	116%	0.28	0.59	110%	0.32	0.58	79%
Netherlands	0.34	0.67	97%	0.34	0.66	93%	0.32	0.64	98%	0.31	0.69	122%	0.39	0.71	81%
Estonia	0.19	0.37	96%	0.18	0.36	97%	0.20	0.39	97%	0.15	0.34	126%	0.22	0.38	74%
Lithuania	0.30	0.59	96%	0.31	0.61	98%	0.29	0.57	97%	0.28	0.60	115%	0.32	0.57	76%
Romania	0.27	0.52	93%	0.25	0.50	100%	0.27	0.52	94%	0.26	0.54	109%	0.31	0.53	72%
Belgium	0.31	0.59	90%	0.32	0.57	80%	0.30	0.58	92%	0.29	0.63	118%	0.34	0.60	75%
Poland	0.28	0.51	84%	0.29	0.52	79%	0.27	0.51	87%	0.26	0.54	106%	0.29	0.48	64%
Ireland	0.32	0.58	81%	0.32	0.58	78%	0.31	0.57	84%	0.30	0.62	109%	0.36	0.57	59%
Malta	0.28	0.49	78%	0.29	0.50	73%	0.27	0.49	82%	0.27	0.52	95%	0.28	0.46	64%
Greece	0.33	0.57	74%	0.33	0.57	75%	0.31	0.56	79%	0.27	0.54	100%	0.39	0.61	54%
Spain	0.40	0.69	71%	0.39	0.66	68%	0.37	0.70	88%	0.36	0.69	89%	0.49	0.72	47%
Italy	0.38	0.64	69%	0.37	0.60	64%	0.35	0.66	88%	0.32	0.64	102%	0.47	0.64	38%
Slovakia	0.32	0.54	69%	0.32	0.54	68%	0.31	0.48	58%	0.30	0.56	88%	0.36	0.58	64%
Germany	0.40	0.67	68%	0.39	0.69	78%	0.37	0.69	86%	0.40	0.66	66%	0.45	0.66	46%
Sweden	0.30	0.50	64%	0.30	0.52	70%	0.29	0.50	70%	0.28	0.49	76%	0.34	0.49	43%
Denmark	0.33	0.53	59%	0.33	0.52	60%	0.32	0.52	65%	0.33	0.58	76%	0.36	0.49	36%
Portugal	0.38	0.59	54%	0.37	0.56	51%	0.36	0.57	60%	0.35	0.58	68%	0.46	0.64	40%
United Kingdom	0.39	0.59	50%	0.39	0.59	50%	0.37	0.57	57%	0.37	0.59	60%	0.45	0.61	35%
Luxembourg	0.22	0.33	47%	0.21	0.31	47%	0.18	0.26	47%	0.22	0.37	67%	0.28	0.36	30%
France	0.42	0.57	38%	0.40	0.57	43%	0.48	0.56	16%	0.39	0.59	53%	0.39	0.58	47%
Austria	0.40	0.56	37%	0.39	0.53	35%	0.37	0.54	46%	0.36	0.56	53%	0.49	0.59	21%
Finland	0.29	0.38	33%	0.28	0.38	33%	0.23	0.31	33%	0.31	0.42	36%	0.33	0.43	31%

Source: Plaut Economics.

### 4.3 Possible applications of the RDI

In an econometric analysis, the RID can be used as an input factor (influencing factor) with individual investments of telecommunications companies serving as output (or dependent variable). Company-specific investment activities can be used as a proxy variable for the companies' innovations. The requirements for such an analysis, however, are high. Data quality of the dependent variables, the correct model specification and definition of other possible influencing factors as well as the consistent mapping of temporal dependencies of inputs and outputs play an important role. A major problem in this context is the way of im-

plementing regulatory measures in each of the countries. The structure of the RDI is designed to measure regulations. The actual implementation of these regulatory measures can, however, greatly differ between countries. The econometric estimation should therefore control for different regulatory practices.

As the RDI is designed with the intention of considering indicators which influence innovation, it is suitable for such an analysis. Other existing regulation indices are less feasible for such an analysis, as they are as well determined by other indicators without linking them to innovations and investments and would thus provide biased results. This argument also shows the limitations of the possible applications for the RDI. With respect to the influence of regulation on market results other than innovation or investments the RDI is not applicable without changes.

However, even if the regulatory density index is primarily designed for deriving statements on the influence of regulation on innovation activity in the telecommunications sector, analyses that go beyond this question are not ruled out entirely. The modular structure of the index and the transparent disclosure of its construction allow a flexible statistical analysis.

As the RDI consists of sub-indices and indicators transparently described with respect to their integration and weighting, it is possible to embed the individual elements of the RDI in statistical analyses independently from the overall index. This modification allows for answering questions outside the area of innovation or investment. In this context it is important to use those sub-indices or indicators from the RDI which are relevant for the questions under consideration.

As only indicators with an expected influence on investments in telecommunications are included in the RDI, it is possible that, depending on the question, not all relevant regulation details can be isolated from the overall RDI. Due to the modular structure of the RDI it is, however, also possible to redesign the sub-indices and the overall index by including new and omitting old indicators resulting in a new regulatory density index. This index then is suited to measure the influence of regulation on other market results than investment activities in the telecommunications sector.

## 5 ANNEX: INDICATORS OVERALL INDEX – BASIC SCENARIO

Table 6 Austria: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	1	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.300	0.300	0.300	0.300	0.300	0.300	0.417	0.417
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	1	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	1	1	1	1	1	1	1	1	1
13	0	1	1	1	1	1	1	1	1	1
14	0	0	0	0	1	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	1	1	1	1	1	1	1	1
17	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0	0.5
19	1	1	1	1	1	1	1	1	0	0
Market-entry-regulation	0.200	0.389	0.500	0.500	0.611	0.611	0.611	0.500	0.500	0.556
20	1	1	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.833	0.833	0.800	0.750	0.750	0.750	0.750	0.750	0.750	0.750
Overall index	0.404	0.451	0.462	0.512	0.540	0.540	0.540	0.512	0.542	0.556

Quelle: Plaut Economics.

Table 7 Belgium: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2	0	0	0	0	0.5	0.5	0.5	0.5	0	0
3	0	0	0	0	0	0	0	0	0	0.5
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.300	0.433	0.433	0.517	0.517	0.517	0.517	0.383	0.467
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.750	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	1	1	1	1	1	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	0	1	1	1	1	1	1
15	0	1	1	1	1	1	1	1	1	1
16	0	0	0	0	0	1	1	1	1	1
17	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.311	0.278	0.389	0.667	0.778	0.778	0.778	0.778	0.778
20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.467	0.467	0.467	0.467	0.633	0.633	0.633	0.633	0.633	0.633
Overall index	0.312	0.332	0.357	0.385	0.579	0.607	0.669	0.607	0.574	0.594

Quelle: Plaut Economics.

Table 8 Denmark: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	0.8	0.8	0.8	0.8	0.8	0.8	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0.5	0.5
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.300	0.300	0.433	0.433	0.433	0.433	0.467	0.467	0.500	0.500
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	1	1	1	1	1	1	1	1	1	1
13	0	0	1	1	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	0	0	1	1	1	1	1
16	0	0	1	1	1	1	1	1	1	1
17	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.311	0.278	0.500	0.500	0.556	0.778	0.778	0.778	0.778	0.778
20	0.8	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	0	0	0	0	0
24	1	1	1	1	1	1	1	1	1	1
25	0	0	0	0	0	0	0	0	0	0
Miscellaneous regulations	0.467	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333
Overall index	0.332	0.290	0.379	0.379	0.456	0.511	0.519	0.519	0.528	0.528

Quelle: Plaut Economics.

Table 9 Finland: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2	0	0	0	0	0.8	0.8	0.8	0.8	0.8	0
3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.267	0.267	0.400	0.400	0.533	0.533	0.533	0.533	0.350	0.350
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
Quantity regulation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0	0	0	0	0	0	0	0	0	0
12	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1
14	0	0	0	0	1	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.389	0.389	0.444	0.444	0.556	0.556	0.556	0.556	0.556	0.556
20	1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.500	0.500	0.467	0.467	0.467	0.633	0.633	0.633	0.633	0.633
Overall index	0.289	0.289	0.328	0.328	0.389	0.431	0.431	0.431	0.385	0.385

Quelle: Plaut Economics.

Table 10 France: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	0.8	0.8	1	1	1	1	1	1	1
2	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0	0
3	0	0	0	0	0	0	0	0	0.8	0.8
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.300	0.567	0.600	0.600	0.600	0.600	0.600	0.550	0.550
7	1	1	1	1	1	1	1	1	0	0
8	1	1	1	1	1	1	1	1	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.750	0.750	0.750	0.750	1.000	1.000	1.000	1.000	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	1	1	1	1	1	1	1	1	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	0	1	1	1	1	1	1
15	0	0	0	0	1	1	1	1	1	1
16	0	0	0	0	0	1	1	1	1	1
17	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0.8	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.278	0.278	0.278	0.278	0.700	0.778	0.778	0.778	0.778	0.667
20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	1	1	1	1	1
Miscellaneous regulations	0.300	0.300	0.300	0.300	0.467	0.633	0.633	0.583	0.583	0.583
Overall index	0.415	0.407	0.474	0.482	0.692	0.753	0.753	0.740	0.603	0.575

Quelle: Plaut Economics.

Table 11 Germany: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	0	0	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.467	0.467	0.467	0.467	0.417	0.750
7	0	0	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	1	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500	0.750
11	0	0	0	0	0	0	0	0	0	0
12	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	1	1	1	1	1
17	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0.5	0
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.389	0.389	0.389	0.389	0.389	0.611	0.611	0.611	0.667	0.611
20	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1
25	0	0	0	0	0	0	0	0	0	0
Miscellaneous regulations	0.633	0.633	0.633	0.633	0.583	0.583	0.583	0.583	0.583	0.583
Overall index	0.401	0.401	0.435	0.497	0.485	0.540	0.540	0.540	0.542	0.674

Quelle: Plaut Economics.

Table 12 Greece: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	0.8	1	1	1	1	1
2	0	0	0	0	0	0	0.8	0	0	0
3	0	0	0	0	0	0	0	0	0.8	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.433	0.467	0.600	0.467	0.550	0.583
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	1	1	1	1	1	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	0	0	0	0	0	0	0	0	0	0
Market-entry-regulation	0.056	0.056	0.056	0.167	0.333	0.444	0.444	0.444	0.444	0.444
20	1	1	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.667	0.667	0.633	0.633	0.800	0.750	0.750	0.750	0.750	0.750
Overall index	0.326	0.326	0.351	0.379	0.517	0.540	0.574	0.540	0.561	0.569

Quelle: Plaut Economics.

Table 13 Ireland: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	0.8	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0.8
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.300	0.467	0.467	0.467	0.467	0.467	0.467	0.417	0.550
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	1	1	1	1	1	1	1	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	0	1	1	1	1	1	1
15	0	0	0	0	0	1	1	1	1	1
16	0	0	0	0	0	1	1	1	1	1
17	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.311	0.311	0.311	0.556	0.778	0.778	0.778	0.778	0.778
20	1	1	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	1	1	1	1	1
Miscellaneous regulations	0.500	0.500	0.333	0.333	0.333	0.500	0.500	0.500	0.500	0.500
Overall index	0.321	0.340	0.340	0.340	0.464	0.561	0.561	0.561	0.549	0.582

Quelle: Plaut Economics.

Table 14 Italy: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.300	0.433	0.517	0.517	0.517	0.517	0.517	0.467	0.467
7	0	0	1	1	1	1	0	0	0	0
8	0	0	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	1	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.750	1.000	1.000	1.000	0.750	0.750	0.750	0.750
11	0	0	0	0	0	0	0	0	0	0
12	0	1	1	1	1	1	1	1	1	1
13	0	1	1	1	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	1	1	1	1	1	1	1
16	0	0	0	0	0	1	1	1	1	1
17	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0	0.5
19	0	0	0	0	0	0	0	0	0	0
Market-entry-regulation	0.089	0.311	0.278	0.389	0.389	0.611	0.611	0.611	0.611	0.667
20	0	0	0	0	0	0	0	0	0	0
21	1	1	1	1	0	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	0	0	0
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.833	0.833	0.833	0.833	0.667	0.833	0.833	0.667	0.667	0.667
Overall index	0.376	0.424	0.574	0.685	0.643	0.740	0.678	0.636	0.624	0.637

Quelle: Plaut Economics.

Table 15 Luxembourg: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	0.8	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.167	0.133	0.300	0.300	0.300	0.300	0.300	0.300	0.250	0.250
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
Quantity regulation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0	0	0	0	0	0	0	0	0	0
12	0	1	1	1	1	1	1	1	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.222	0.311	0.311	0.311	0.478	0.589	0.589	0.589	0.556	0.556
20	1	1	1	1	1	1	1	1	1	1
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
Overall index	0.222	0.236	0.278	0.278	0.319	0.347	0.347	0.347	0.326	0.326

Quelle: Plaut Economics.

Table 16 Netherlands: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	0.8	0.8	0.8	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.300	0.433	0.433	0.467	0.467	0.467	0.467	0.417	0.583
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	1	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	1	1	1	1	1	1	1	1	1
13	0	1	1	1	1	1	1	1	1	1
14	0	0	0	0	1	1	1	1	1	1
15	0	0	0	0	0	1	1	1	1	1
16	0	0	0	0	1	1	1	1	1	1
17	0.8	0.5	0	0	0	0	0	0	0	0.5
18	0	0	0	0	0	0	0	0	0	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.389	0.333	0.333	0.556	0.667	0.667	0.667	0.667	0.778
20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0
21	0	0	0	0	0	0	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	1	1
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.583	0.583	0.583	0.583	0.583	0.583	0.750	0.667	0.833	0.833
Overall index	0.342	0.381	0.400	0.462	0.526	0.554	0.596	0.575	0.604	0.674

Quelle: Plaut Economics.

Table 17 Portugal: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0.5	0.5
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.433	0.433	0.433	0.433	0.433	0.467	0.467
7	0	0	1	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.500	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	1	1	1	1	1	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	1	1	1	1	1
17	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	0	0	0
Market-entry-regulation	0.200	0.167	0.167	0.278	0.444	0.667	0.667	0.556	0.556	0.556
20	0.5	0.5	0	0	0	0	0	0	0	0
21	0	0	0	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.750	0.750	0.667	0.833	0.833	0.833	0.833	0.833	0.833	0.833
Overall index	0.383	0.375	0.450	0.449	0.553	0.608	0.608	0.581	0.589	0.589

Quelle: Plaut Economics.

Table 18 Spain: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	0.8	1	1	0.8	0.8	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0.8
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.300	0.467	0.467	0.433	0.433	0.433	0.433	0.383	0.517
7	0	0	1	1	1	1	1	1	1	1
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	1	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.500	0.750	0.750	0.750	0.750	0.750	0.750	0.750
11	0	0	0	0	0	0	0	0	0	0
12	0	1	1	1	1	1	1	1	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	1	1	1	1	1	1	1
15	0	0	1	1	1	1	1	1	1	1
16	0	0	0	0	1	1	1	1	1	1
17	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	0	0	0	0	0	0	0
Market-entry-regulation	0.200	0.311	0.389	0.444	0.667	0.667	0.667	0.667	0.667	0.667
20	0	0	0	0	0	0	0	0	0	0
21	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833
Overall index	0.404	0.424	0.547	0.624	0.671	0.671	0.671	0.671	0.658	0.692

Quelle: Plaut Economics.

Table 19 Sweden: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	0.8	0.8	0.8	0.8	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0.5	0.5	0.5	0.5	0.5	0.5	1	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.300	0.300	0.517	0.517	0.550	0.550	0.550	0.550	0.583	0.583
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	1	1	1	1	1	1	1	1	1
13	0	0	0	1	1	1	1	1	1	1
14	0	0	0	0	1	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0.5	0.5	0.5	0.5	0.5	0	0.5	0.5	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	0	0	0	0
Market-entry-regulation	0.167	0.278	0.278	0.389	0.556	0.500	0.444	0.444	0.444	0.444
20	1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	0	0	0	0	0
24	0	0	0	0	0	0	0	0	1	1
25	0	0	0	0	0	0	0	0	0	0
Miscellaneous regulations	0.500	0.500	0.467	0.467	0.467	0.300	0.300	0.300	0.467	0.467
Overall index	0.304	0.332	0.378	0.406	0.518	0.462	0.449	0.449	0.499	0.499

Quelle: Plaut Economics.

Table 20 United Kingdom: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	0.8	1	1	1	1	1	1	1	1	1
2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
3	0	0	0	0	0	0	0	0.5	0.5	0.5
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.383	0.417	0.550	0.550	0.550	0.550	0.550	0.633	0.583	0.583
7	0	0	1	1	1	1	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	1	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.500	0.750	0.750	0.750	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	1	1	1	1	1	1	1	1	1	1
13	0	0	0	1	1	1	1	1	1	1
14	0	0	0	1	1	1	1	1	1	1
15	0	0	0	1	1	1	1	1	1	1
16	0	0	0	1	1	1	1	1	1	1
17	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0	0
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.278	0.278	0.278	0.722	0.722	0.722	0.722	0.722	0.611	0.611
20	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1
Miscellaneous regulations	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667
Overall index	0.394	0.403	0.499	0.672	0.672	0.672	0.610	0.631	0.590	0.590

Quelle: Plaut Economics.

Table 21 Estonia: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	0.8	0.8	0.8	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0.5
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.167	0.167	0.300	0.300	0.267	0.267	0.267	0.300	0.250	0.333
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0.5	0.5
19	0	0	0	0	1	1	1	1	1	1
Market-entry-regulation	0.000	0.000	0.000	0.000	0.167	0.167	0.167	0.167	0.222	0.222
20	1	1	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
Miscellaneous regulations	0.333	0.333	0.300	0.250	0.417	0.417	0.417	0.417	0.417	0.417
Overall index	0.187	0.187	0.212	0.200	0.337	0.337	0.337	0.346	0.347	0.368

Quelle: Plaut Economics.

Table 22 Latvia: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	1	1
Price regulation	0.333	0.333	0.467	0.467	0.467	0.467	0.433	0.433	0.550	0.550
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0.8	0.8	0.8	0.8	0.5	0.5
18	0	0	0	0	0	0	0.8	0.8	0.5	0.5
19	0	0	0	0	1	1	1	1	1	1
Market-entry-regulation	0.000	0.000	0.000	0.000	0.200	0.200	0.289	0.289	0.444	0.556
20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	1	1	1
Miscellaneous regulations	0.467	0.467	0.467	0.467	0.467	0.467	0.467	0.633	0.633	0.633
Overall index	0.262	0.262	0.296	0.296	0.408	0.408	0.422	0.464	0.532	0.560

Quelle: Plaut Economics.

Table 23 Lithuania: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0.8	0.8	0.8	0.8
3	0	0	0	0	0	0	0	0	0	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.467	0.467	0.567	0.567	0.517	0.683
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	0	0	0	0	1
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	0	1
15	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0
17	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.278	0.667
20	0.5	0.5	0.5	0	0	0	0	0	0	0
21	1	1	1	1	1	1	1	1	1	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	1	1	1
Miscellaneous regulations	0.417	0.417	0.417	0.333	0.500	0.500	0.333	0.500	0.500	0.500
Overall index	0.300	0.292	0.325	0.304	0.346	0.346	0.329	0.371	0.386	0.587

Quelle: Plaut Economics.

Table 24 Poland: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	0.8	0.8	0.8	1	1
2	0	0	0	0	0	0	0	0	0	0.8
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.467	0.433	0.433	0.433	0.417	0.550
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	1	1
13	0	0	0	0	1	1	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0
17	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.167	0.167	0.167	0.333	0.444	0.444	0.444	0.556	0.667
20	1	1	1	0.8	0	0.5	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
Miscellaneous regulations	0.333	0.333	0.333	0.300	0.167	0.417	0.333	0.333	0.333	0.333
Overall index	0.279	0.271	0.304	0.296	0.367	0.449	0.428	0.428	0.451	0.512

Quelle: Plaut Economics.

Table 25 Czech Republic: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	0.8	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.167	0.167	0.300	0.300	0.267	0.383	0.383	0.383	0.333	0.333
7	0	0	0	0	1	1	1	1	1	0
8	0	0	0	0	0	0	0	0	1	1
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.500	0.750	0.750	0.750	1.000	0.750
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	1	1	1	1	1
13	0	0	0	0	0	0	0	1	1	1
14	0	0	0	0	0	0	0	1	1	1
15	0	0	0	0	0	0	0	1	1	1
16	0	0	0	0	0	0	0	0	0	0
17	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0.8	0.8	0.8	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.200	0.200	0.167	0.167	0.367	0.367	0.700	0.667	0.667
20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	1	1	1	1	1	1
24	0	0	0	0	0	1	1	1	1	1
25	0	0	0	0	0	1	1	1	1	1
Miscellaneous regulations	0.300	0.300	0.300	0.300	0.467	0.800	0.800	0.800	0.800	0.667
Overall index	0.229	0.229	0.262	0.254	0.350	0.575	0.575	0.658	0.700	0.604

Quelle: Plaut Economics.

Table 26 Slovakia: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	0.8	0.8	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0.8	0.8
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.467	0.467	0.433	0.433	0.550	0.550
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	0	0	0	0	0
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	1	1
13	0	0	0	0	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
18	0	0	0	0	0	0.8	0.8	0.8	0.8	0.8
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.200	0.200	0.200	0.200	0.289	0.289	0.289	0.622	0.622
20	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	0	0	0	0	0	0	0	1	1	1
25	0	0	0	0	0	0	0	1	1	1
Miscellaneous regulations	0.500	0.500	0.500	0.417	0.417	0.417	0.417	0.750	0.750	0.750
Overall index	0.321	0.321	0.354	0.333	0.333	0.356	0.347	0.431	0.543	0.543

Quelle: Plaut Economics.

Table 27 Slovenia: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	0.8	0.8	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0	0	0	0.8
3	0	0	0	0	0	0	0	0	0	0.8
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.167	0.167	0.300	0.300	0.267	0.267	0.267	0.267	0.217	0.483
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	1	1	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.500	0.500	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	1	1
15	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0
17	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.200	0.200	0.200	0.167	0.278	0.278	0.278	0.500	0.722
20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1
24	0	0	0	0	0	1	1	1	1	1
25	0	0	0	0	0	1	1	1	1	1
Miscellaneous regulations	0.467	0.467	0.467	0.467	0.467	0.800	0.800	0.800	0.800	0.800
Overall index	0.271	0.271	0.304	0.304	0.287	0.461	0.461	0.461	0.504	0.626

Quelle: Plaut Economics.

Table 28 Hungary: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	1	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.467	0.467	0.467	0.467	0.583	0.583
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	0	0	0	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.250	0.750	0.500	0.750	0.750
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	1	1	1
13	0	0	0	0	0	0	1	1	1	1
14	0	0	0	0	0	1	1	1	1	1
15	0	0	0	0	0	0	0	1	1	1
16	0	0	0	0	0	0	0	0	0	0
17	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0.5	0.5
19	1	1	1	1	1	1	1	1	0	0
Market-entry-regulation	0.200	0.200	0.167	0.167	0.167	0.389	0.389	0.611	0.556	0.556
20	0.5	0	0	0	0	0	0	0	0	0
21	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	1	1	1	1	1
Miscellaneous regulations	0.417	0.333	0.333	0.333	0.333	0.500	0.500	0.500	0.500	0.500
Overall index	0.300	0.279	0.304	0.304	0.304	0.401	0.526	0.519	0.597	0.597

Quelle: Plaut Economics.

Table 29 Malta: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0.8
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.467	0.467	0.433	0.433	0.383	0.517
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	0	0	0	0	1
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	1	1	1	1
13	0	0	0	0	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	1	1	1	1	0.8	0.8	0.8	0.8	0.8	0.8
18	0	0	0	0	0	0	0	0	0	0.8
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.222	0.222	0.222	0.222	0.200	0.200	0.311	0.311	0.533	0.622
20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	1	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
Miscellaneous regulations	0.300	0.300	0.300	0.300	0.467	0.467	0.467	0.467	0.467	0.333
Overall index	0.276	0.276	0.310	0.310	0.346	0.346	0.365	0.365	0.408	0.493

Quelle: Plaut Economics.

Table 30 Cyprus: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	0.8	0.8	1	1
2	0	0	0	0	0	0	0	0	0	0.8
3	0	0	0	0	0	0	0	0	0	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.333	0.333	0.467	0.467	0.467	0.467	0.433	0.433	0.417	0.717
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	0	0	1	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.500	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	1	1	1
14	0	0	0	0	0	0	0	1	1	1
15	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0.8	0.8	0.8
18	0	0	0	0	0	0	0	0.8	0.8	0.8
19	0	0	0	0	0	0	0	1	1	1
Market-entry-regulation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.511	0.511	0.733
20	1	1	1	1	1	1	1	1	1	1
21	0	0	0	0	0	0	0	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	0	0	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	1	1	1
Miscellaneous regulations	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.667	0.667	0.667
Overall index	0.229	0.229	0.262	0.262	0.262	0.262	0.254	0.528	0.524	0.654

Quelle: Plaut Economics.

Table 31 Romania: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	0.8	0.8	1	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0.5	0.5	1
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
Price regulation	0.167	0.167	0.300	0.300	0.300	0.300	0.267	0.350	0.333	0.417
7	0	0	0	0	0	0	0	1	1	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	0	0	0	1	1
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.500	0.750	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	1	1	1
13	0	0	0	0	0	0	0	1	1	1
14	0	0	0	0	0	0	0	1	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0.8	0.8
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.200	0.200	0.167	0.167	0.167	0.167	0.167	0.500	0.589	0.589
20	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5
21	1	1	1	1	1	1	1	0	0	0
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	1	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	1	1	1
Miscellaneous regulations	0.467	0.467	0.467	0.467	0.467	0.633	0.417	0.583	0.583	0.583
Overall index	0.271	0.271	0.296	0.296	0.296	0.337	0.275	0.483	0.564	0.522

Quelle: Plaut Economics.

Table 32 Bulgaria: Indicators and overall index – Basic scenario

Indicators	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	1	1	1	1	1	1	0.8	0.8	0.8	0.8
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5
5	0	1	1	1	1	1	1	1	1	1
6	0	1	1	1	1	1	1	1	1	1
Price regulation	0.167	0.500	0.633	0.633	0.633	0.633	0.600	0.600	0.550	0.550
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	1	1	1	1	1	1	1	1	1	1
10	0	0	0	0	0	0	0	0	0	0
Quantity regulation	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.500	0.500
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	1	1	1
13	0	0	0	0	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	1	1
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	1	1	1	1	1	0.8	0.8	0.5	0.5	0.5
18	0	0	0	0	0	0	0	0	0.5	0.5
19	1	1	1	1	1	1	1	1	1	1
Market-entry-regulation	0.222	0.222	0.222	0.222	0.222	0.200	0.200	0.278	0.556	0.556
20	1	1	1	1	1	1	1	0.5	0	0
21	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1
23	0	0	0	0	0	0	1	1	1	1
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	1	1	1
Miscellaneous regulations	0.500	0.500	0.500	0.500	0.500	0.500	0.667	0.750	0.667	0.667
Overall index	0.285	0.368	0.401	0.401	0.401	0.396	0.429	0.469	0.568	0.568

Quelle: Plaut Economics.

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