The difference in the quality of the investment environment has led various rates of recovery. The investment policy's sectoral priorities are the key factors that produce a positive effect for economic growth. Investment policy in the Czech Republic, for instance, included tax breaks, government grants for technical equipment areas, creating jobs and improving the quality of human capital. Permit investment policy involved the use of a number criteria that directed FDI flows in accordance with the regional and industrial policy objectives.The inflows FDI into all the CEE countries declined dramatically in the post-crisis period. The largest decrease was in Bulgaria (in 2008 FDI inflows reached 19%, while in 2011 only 3.5%), significantly reduced investment in Romania – from 6.8% in 2008 to 1.4% in 2011 [13]. One of the factors that led to this situation is unfavorable investment environment in these countries, market failures (corruption among the highest in the EU). Among the countries that do not have a significant reduction in FDI inflows – Poland and the Czech Republic. Only Latvia have in FDI inflows performance better in 2011 than during the pre-crisis period. Thus, as a result of the crisis the country faced the effect of asymmetry of access to financial resources, threatening the financial divergence [14]. Under these circumstances there are processes stratification of emerging Europe, the formation peripheral zone. The elimination of institutional factors peripherization can be considered as the leading direction of adjustment of strategic goals of financial strategies transitivity of "south".

4. Conclusions

Summarizing the above remarks it should be noted that the financial integration strategy allowed to benefit: increasing maturity of the financial system, development of financial markets by introducing new tools, the transition to modern standards of financial activities; access to additional financial resources to overcome limitations resource base of their own financial systems. Implementation of financial convergence criteria contributed to financial stability. At the same time, the process of integration through openness and vulnerability to instability of the integration space increase the divergence of transitive economices due to lack maturity financial system. Under circumstances loss of financial sovereignty the price of false solutions to common policies raises. Due to the institutional weaknesses of the emerging Europe may upgrade adverse effects. Strategic financial policy as a combination of functional policies in finance should target reduction the vulnerability national financial systems. The global transformation and a new stage development of regional integration cause instability of the external environment emerging Europe. Under these circumstances, as practice of the most financially stable transitive economics has shown, for the CEE requires a risk-oriented strategy. Such strategies should include a complex of specific for transitive economics indicators for identification the threats to financial stability.

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Надійшла до редколегії 05.05.12

JEL classification K23, L43

R. Stanikunas, PhD, Associate Professor,
R. Striukas, Research Assistant,
Vilnius University

APPLICATION OF COMPETITION POLICY IN TELECOMMUNICATIONS SECTOR

Ця стаття пов'язана з аналізом взаємодії політики змагання та регуляторної практики у мережевій промисловості як, наприклад, телекомунікації. Мета статті – виявити внутрішню узгодженість політики змагання та специфічного для сектору регулювання як в теоретичному, так і практичному вимірі, слугуючи інструкцією для майбутнього політичного розвитку.

Ключові слова: політика змагання, регулювання, мережева промисловість.

Эта статья связана с анализом взаимодействия политики соревнования и регуляторной практики в сетевой промышленности как, например, телекоммуникации. Цель статьи – выявить внутреннюю согласованность политики соревнования и специфического для сектора регулирования как в теоретическом, так и практическом измерении, служа руководством для будущего политического развития.

Ключевые слова: политика соревнования, регулирование, сетевая промышленность.

This paper deals with the analysis of the interaction of competition policy and regulatory practice in network industries such as telecommunications. The purpose of the article is to reveal the inter-coherence of competition policy and sector-specific regulation both in theoretical and practical dimensions while acting as a guide for future policy development.

Keywords: competition policy, regulation, network industries.

Traditionally, the network industries (i.e. telecommunications, post, electricity, gas, etc.) had mostly been organized as vertically integrated monopolies. In Europe, most of them were held in state ownership, on the contrary to the United States, where most of them were privately owned and subject to sector-specific regulation. Over the past

three decades these sectors both in Europe and the US have undergone the significant technological as well as economical changes. While in different speed and depth all network industries have gone through the processes of privatization, liberalization and deregulation with the target to introduce competition into the sectors historically referred as "natural monopolies". Competition has been gradually introduced by following the specific guide loops defined in the directives, providing for the purposes and stages of this process in the EU [1, p. 2]. Member states have certain discretion to adapt it in the process of application.

At the same time the economic and political world experienced the development of competition policy. In Europe at first it was focused on establishing rules on restrictive practices interfering directly with market integration. Later however the focus moved more to ensuring effective competition by detecting and stopping cross-border cartels and maintaining competitive market structures [2, p. 43]. The latter aspect indicates the need both of *ex ante* and *ex post* interventions the former of which is also the attribute of the sector-specific regulation.

The analytical starting point of the paper is the observation of industry-specific deviations from the concept of perfect markets. From the economical point of view where markets are perfect, efficient outcomes can be expected. This standard result of economic theory is based on quite rigid assumptions. In real markets, there are important deviations which give rise to market failures and inefficient market equilibrium. Economists argue that in the network industries, most regulatory interventions can be explained by market failures: in particular, natural market power, incomplete markets, and asymmetric information which are sound rationales for market interventions [3]. Respectively it is believed that proper interventions are needed to tackle these failures.

There are two main public policy instruments to guarantee effective competition in the network industries that is sector-specific regulation and competition policy applied simultaneously. However this dual application does not always result in the most effective outcome.

The purpose of the paper is twofold. On the one hand it is aimed to reveal the inter-coherence of competition policy and sector-specific regulation both in theoretical and practical dimensions. On the other hand it seeks to identify possible ways of utilise the synergy of both practices, acting as a guide for future policy development. The paper deals with the telecommunications sector as the representative of network industries as it has gone through rapid developments in recent years both in economical and technologic sense.

The paper is organised as follows. Following a brief sketch of the rationale behind the market interventions, the paper enters into a systematic discussion and case study of the different characteristics together with the comparative advantages and disadvantages of the two policy regimes, a set of issues that arise when competition policy and to sector-specific regulation apply to a given industry at the same time according to the different experience in the EU and the US, as well as in Lithuania. The last section summarizes.

Rationale for intervention

At its most basic, market is a mechanism for allocating resources. Well-regulated, competitive markets can maximize consumer welfare, and, by raising economic growth, also increase total welfare. When markets work well, firms thrive by satisfying consumer needs better and more cost-effectively than their competitors. As such, effective competition provides significant benefits for consumers through greater choice, lower prices, and better quality goods and services. Competition also provides strong incentives for firms to be more efficient and innovative, thereby helping raise productivity growth across the economy [4].

Left to their own devices, however, markets will not necessarily deliver the best outcomes for consumers, companies or Government. Public authorities aim to maximise the welfare of their citizens and markets are supposed to be the best means to ensure such welfare maximisation. Thus governments can and should intervene when the mere functioning of the markets does not deliver this objective (governments also intervene in the markets to achieve other policy goals (political: health care, education; national security, etc.). In this case economists distinguish three types of market failure:

Excessive market power. The presence of excessive market power (like a monopoly operator) may lead to excessive price or too little innovation. Excessive market power is caused by legal and economic entry barriers or by anticompetitive behaviours.

Externality. The presence of an externality (like network externality or tariffs-mediated externality) may lead to under-consumption in case of positive externality and over-consumption in case of negative externality. For instance, less than the optimal number of customers may decide to join a network if new customers are not compensated, when joining the network, for the increase of welfare they create to the already existing customers.

Information asymmetries. The presence of information asymmetries (e.g. the absence of knowledge of the price) may lead to under or over consumption. In telecommunications, the two first categories lead to the standard distinction between the one-way access (or access model) which concerns the provision of bottleneck inputs by an incumbent network provider to new entrants and two-way access (or the interconnection model) which concerns reciprocal access between two networks that have to rely upon each other to terminate calls) [5, p. 65-66].

In addition, each type of market failure may be structural and result from the supply and demand conditions of the market, or may be behavioural and artificially (albeit rationally) executed by the firms. These two types of market failures are closely linked together and structure may influence conduct as much as conduct may influence structure. However, it remains possible (and useful when choosing between the different instruments of public intervention) to identify the causes of the non-efficient market results and to distinguish between structural and behavioural market failures.

Competition policy versus regulation: theory

To tackle the above mentioned different market failures, public authorities dispose of several legal instruments that they must combine in the most efficient way: in particular competition law, sector regulation, consumer law [5, p. 67]. Specifically to find the appropriate balance between competition policy and sector regulation, governments seek to determine the main differences between both instruments, confront them with the market failures to be dealt with and accordingly decide which instrument is the most efficient in solving the market failure. It is important to stress the same purpose of all the instruments.

Many authors consider that the main difference between competition policy and sector regulation is that the former aims at maintaining the level of competition whereas the latter aims at increasing the level of competition. However, it is not always the case in merger decisions which sometimes are aimed at strengthening the level of competition in the market. Also the type and level of regulation could differ. For theoretical framework that explains why sector-specific regulation implemented in network in-

dustries differ both from other industries as well as among the various network industries see Jaag and Trinkter [6, p. 4].

The two principal and related substantive differences between competition policy and sector regulation are that sector regulation mainly deals with unsatisfactory market structures whereas competition law deals with unsatisfactory firms' behaviours, and the burden of proof for sector regulation to intervene on the selected markets is lower than competition policy.

Because of the first difference related to structure and behaviours, it is efficient that sector regulation deals with structural market failures and competition policy deals with behavioural ones. Because of the second difference related to the burden of proof, it is efficient that the factor used to select markets for regulation is set at a very high level because once a market area is selected, intervention is relatively easy. In other words, the regulation should focus on market where the risks of false condemnation errors are low and the risks of false acquittal errors are high. Taking both arguments together, any possible regulation should limited to structural market failures due to excessive market power and externalities.

The other differences follows the two principals identified above and involves institutional design, requirements for the information and nature of remedies imposed. Table 1 summarizes the differences between competitive policy and sector specific regulation.

Table 1. **Differences between the competition policy and sector-specific regulation**

	Competition policy	Sector-specific regulation
General approach	Ex-post, harm based approach	Ex-ante, prescriptive business conduct
Institutional design	Horizontal institution: lawyers and economists	Sector-specific institution: sector-specific engineers and economists
Amount and nature of information required	Only information on the allocated abuse	General and detailed information on the sector
Nature of the remedies imposed on undertaking	Structural remedies addressed to specific conduct	Detailed conduct remedies requiring extensive monitoring
Nature of public intervention	Permanent based on general competition policy principles	As competition is more effective, part of sector specific regulation replaced by competition policy

Source: Authors based on Buigues P. [7]

Because of the unanimous goal (that is effective competition) and taken the profound level of the regulation introduced it could be argued that there is no space and possibility for competition authorities to intervene into the regulated sectors, especially when pricing is directly regulated. In practice, however, competition policy interventions are possible even in a case of state monopoly. As suggested by Cave and Crowther [8], in practice the boundaries between what is considered *ex ante* regulation and *ex post* competition policy are blurred.

Competition policy versus regulation: practice

Though debated between the academics and policy makers [6, 7, 8] the topic of the role of the competition policy in the regulated sectors was held outside the practical implementation until recently when important and controversial judgements were handed both in the EU and the US. In particular in the EU the discussion started on the eve of the introduction of the new regulatory framework for telecommunication sector while following the American Supreme Court's decisions in the *Trinko* [9] and its successor the *Linkline* [10] cases. In Europe the debate culminated in 2008 when the Court of first Instance (now General Court) handed down the *Deutsche Telekom* judgement [11]. Similar logic was also applied in *Telefonica* case [12].

The General Court in Europe and the American Supreme Court in the US reached two opposite conclusions as to the relationship between competition (or antitrust) policy and sector specific regulation. Roughly speaking the American Supreme Court opted for an "hands-off" approach as long as competition policy considerations are built-in the regulatory scheme, whereas the General Court held that the concurrent application of the two set of rules is possible notwithstanding the fact that the regulatory framework is competition policy driven and incorporates competition law concerns. As the purpose of this article is not to analyze in depth the details of the competition law claims in the particular cases (i.e. margin squeeze and refusal to supply), we focus on the theoretical framework concerning the relationship between competition policy and regulation.

EU perspective. In brief, the facts of Deutsche Telekom case were as follows. Deutsche Telekom (hereinafter DT) had an obligation to unbundle the local loop to allow competitors to offer competing services and the wholesale price for this was approved by the regulation authority, so resulting in a price squeeze. One of DT's arguments was that it had relied on the regulator's directions and so assumed its pricing policies were lawful. This argument was quickly cast aside by the Commission (and later by General Court) by concluding that: "the competition rules may apply where the sector-specific legislation does not preclude the undertakings it governs from engaging in autonomous conduct that prevents, restricts or distorts competition." [11]. It was also concluded that the only way for DT to avoid the infringement of Competition law was to increase the retail price for the customers, thus giving the priority to the competition and respectively consumer benefit in the long term.

Also in assessing the impact of the sectoral regulation, the General Court drew a distinction between situations where the restriction of competition is wholly attributable to the regulatory regime, and situations where it is merely encouraged or facilitated by the regulatory regime, also allowing some scope for autonomous conduct by the firm concerned. Under the former scenario, the competition rules are not applicable, because they apply directly only to the conduct of undertakings–essentially a state or regulatory compulsion defence. In the latter case, however, any scope for autonomous behaviour by the relevant firm can be examined to determine whether it is in conformity with the competition rules [11].

The analogous approach was adopted by the courts and competition authorities in the *Telefonica* case where the incumbent telecommunications operator in Spain was held to have committed an abusive margin squeeze between its retail and wholesale prices for high speed internet which were broadly subject to price regulation by a national authority. While this position has been criticised [13] it judged that a regulatory or antitrust duty to supply is not required for margin squeeze liability.

US perspective. The American Supreme Court ruled the judgement in *Trinko* and *Linkline* cases in 2004 and 2009 respectively. The facts of the *LinkLine* case were remarkably similar to those of *Deutsche Telekom* and *Telefonica*, relating to the local loop unbundling: an antitrust suit was brought against a monopolist, alleging *inter alia* an anticompetitive margin squeeze. However the notion of an anticompetitive spread between wholesale and retail prices, embraced so emphatically by the EU courts, was dismissed absolutely in *LinkLine*. Finally, *LinkLine* confirmed the *Trinko* approach with respect to the effects of sector-specific regulation on the application of the antitrust rules, and indeed may have strengthened the *de facto* antitrust immunity for regulatory activity resulting from that judgment. The Supreme Court in *Trinko* took the view that the existence of a regulatory duty to deal removed any scope for imposing an antitrust duty to deal in the market concerned.

Both Trinko and Linkline cases relied upon the earlier judgement of the margin squeeze case in electricity sector which argued that "*where regulatory and antitrust regimes coexist…antitrust analysis must sensitively "recognize and reflect the distinctive economic and legal setting" of the regulated industry to which it applies.*" [14]. Respectively the ultimate result in *Trinko* and *LinkLine* was the same: the presence of economic regulation precludes any finding of breach of the antitrust policy and laws.

To summarize, in the EU, the presence of sector-specific regulation – even intrusive regulation that mandates entry and sets prices – does not prevent the application of competition policy (and the margin squeeze concept), provided the vertically integrated firm retained some scope to avoid the squeeze, even if it can only do so by raising retail prices. By contrast, in the US, the *ex ante* economic regulation of a sector appears to remove it from the purview of competition policy, so that only regulatory duties can arise and regulatory remedies be imposed.

Competition policy versus regulation: practice in Lithuania

The similar cases are common in the smaller markets too. Table 2 represents the total number of investigations carried out by the Competition Council of the Republic of Lithuania in the telecommunications sector excluding investigations concerning the breech of Advertising Law.

Table 2. **Activities by the Competition Council in telecommunication sector from 1999-2012**

Period	Decisions made	Terminated investigations	Refusals to investigate
Prior liberalisation	2	1	1
After liberalisation	1	4	7

Source: Authors based on Competition Council [15]

As indicated in the table above during the period from 1999-2012 there were 16 activities carried out by the Competition Council involving TEO LT AB (hereinafter TEO), the dominant firm and the previous incumbent in Lithuanian telecommunications market. The number itself indicates the fact that the sector-specific regulation does not guarantee the appropriate level of competition protection and also can be influenced by the liberalization of the sector after the 1 January 2003.

The main details of three activities ending with the decisions and penalties imposed are discussed below. The main focus is put on the reasoning both by the Competition council and TEO rather than to the specific details of the cases.

In 2000 TEO (then Lietuvos telekomas AB) technically blocked the use of the analogous telecommunication lines for the transfer of double-sideband signals for TEO's client firms. TEO argued that these circumstances are not regulated (what is the responsibility of the regulator) and TEO can act according to its business needs. Competition Council concluded that TEO infringed the Competition Law by extending its legal monopoly in fixed telephone market to the familiar market.

In 2002 TEO (then Lietuvos telekomas AB) blocked the ISDN and fixed telephone lines for its client firms which were offering the voice transfer by internet services as violating TEO's exceptional rights of legal monopoly. TEO referred to the licence issued by the Ministry of Transport and Communications (then regulator) and concluded that TEO as incumbent cannot be incriminated as first and foremost it is a responsibility of the regulator to consider and act upon the circumstances of the case. Also TEO argued that Competition Council has no discretion to act and issue decisions affecting the situation of incumbent before the liberalisation which was scheduled next year. All arguments were denied by the Competition Council. Both above mentioned cases were appealed by TEO to the courts but were left unaltered.

The 2006 case happened already in a liberalised market was analogous to the above mentioned *Deutsche Telekom*, *Telefonica*, *Trinko* and *Linkline* cases: margin squeezing in DSL retail market. This time TEO agreed to the incriminations and were adjudged. The total penalties for the infringements in three discussed cases amounted to 1.5 million Euros.

To summarize the Competition Council in Lithuania has not departed from the path stimulated by the European Union. It has strictly applied competition policy and laws in the telecommunications sector despite the specifics of the sectoral regulations.

Conclusion

The concurrent application of the competition policy and sector specific regulation in the network industries poses the three sets of issues. Firstly, the need of both types of intervention is questionable. Secondly, if it is the case, it is not clear whether the competition policy is fully applicable in the areas where sectoral regulation is in place. Thirdly, if the competition policy is applicable, it is not clear to what extent is the anticompetitive behaviour attributable to the regulatory regime rather than the dominant firm's conduct and does this shield the dominant firm from liability under the competition rules.

Going back to the essentials, if the ultimate goal is the effective competition then there is definitely a ground and need of competition policy and laws to act. However competition policy itself cannot create competition. Because of its *ex post* nature its main goal and approach is to prevent and limit the effects of certain activities restricting the freedom of competition. In a case of unsatisfactory market structures in network industries, there is a need of proactive or *ex ante* intervention. Respectively in a case of network industries there is a rationale both for competition policy and sector regulation to coexist.

On the other hand if the competition is an ultimate goal, the consensus view seems to be that less regulation and more competition policy is better. Formally, at least, neither EU nor US practice contains a bright line rule regarding the application of the competition policy within regulated sectors. Nonetheless, after Deutsche Telekom case (also sup-

ported by the practice in Lithuania), the scope for reliance upon the state compulsion defence seems minimal, while in US the immunity of competition policy was treated as *de facto* automatic in the presence of sectoral regulation. In these circumstances the EU gives a strong preference to the industrial policy over the benefits for the customers or to the long-term over the short-term objectives, i.e. possibly the higher retail prices because of the need to foster competition. While the US experience raises the doubts whether the automatic regulatory immunity afforded in *LinkLine* will be challenged going forward, given that the expansion of economic regulation will result in a correlating elimination of competition policy.

In the EU the concurrent application of the competition policy and sector-specific regulation and relevant issues can be explained by the different way of the implementation. In the EU the competition law is the law of the constitutional level and is directly adopted and applied in national legislation of the member states. Whereas the regulation (emerging from the liberalization framework) is implemented trough the directives and member states has a certain level of discretion to alter it when applying to the local sectors.

In this respect the tough application of competition policy may seem necessary to finish the liberalisation of network sectors and attempt to create an internal market. As the application of competition policy and law is fundamental there is a need to adapt the regulatory policies respectively. Accordingly a more active involvement of competition authorities to the regulation activities may seem beneficial. One of the possible solutions would be implemented firstly by aggregation of different sector regulators to one institution. The next step further would be the merger of sector regulators and a competition authority (already implemented in some countries).

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Надійшла до редколегії 05.05.12

JEL classification H63

T. Venger, post-graduate student,
Taras Shevchenko National University of Kyiv

THE SOCIAL CONSEQUENSES OF THE PUBLIC DEBT INCREASE IN THE DEVELOPED AND EMERGING ECONOMIES

Досліджено основні соціальні наслідки збільшення державного боргу в залежності від рівня економічного розвитку країни і рівня заборгованості. Виявлено нелінійний зв'язок між рівнем заборгованості та обсягом державних витрат на охорону здоров'я й освіту як в розвинених країнах, так і в країнах, що розвиваються. Рівень фінансування системи охорони здоров'я в них зменшуються, коли державний борг перевищує 90% та 60% ВВП відповідно. Обсяг державних витрат на освіту починає скорочуватись, коли рівень заборгованості досягає 60% ВВП. Проаналізовано вплив державного боргу на рівень безробіття.

Ключові слова: державний борг, рівень безробіття, державні витрати на охорону здоров'я та освіту.

Исследованы основные социальные последствия увеличения государственного долга в зависимости от уровня экономического развития страны и уровня задолженности. Выявлена нелинейная связь между уровнем задолженности и государственными расходами на здравоохранение и образование как в развитых, так и в развивающихся странах. Уровень финансирования системы здравоохранения в них уменьшаются, когда государственный долг превышает 90% и 60% ВВП соответственно. Объем государственных расходов на образование начинает сокращаться, когда уровень задолженности достигает 60% ВВП. Проанализировано влияние государственного долга на уровень безработицы.

Ключевые слова: государственный долг, уровень безработицы, государственные расходы на здравоохранение и образование.

Certain social consequences of the government debt increase are examined depending on the income and debt-to-GDP ratio level of the country. Nonlinear link between the government debt and the public expenditures on healthcare and education are revealed both in the developed and emerging markets. The public healthcare spending starts to decrease when the public debt exceeds 60% and 90% of GDP in the emerging and developed economies respectively. The expenditures on education diminish after debt-to-GDP ratio reaches 60%. The unemployment rate augments with the growth of the state debt.

Keywords: public debt, unemployment rate, public health expenditures, public expenditures on education.

The purpose of the paper is to provide detailed analysis of the influence of public debt on the government expenditures on healthcare and education as well as its correlation with unemployment rate.

The government debt increase may result in reduction of the public expenditures on education, healthcare and other social services by creating additional burden on the state budget related to the debt servicing. Many factors define the existence of such influence and the degree of its intensity. First of all it is the level of country's economic development and the level of public debt. The way in which those factors are matched defines, in turn, the cost of debt service and new borrowings, the interest and tax rates, the volume of foreign direct investments inflow etc. Therefore the analysis of the social consequences of the public debt increase should be performed for the various country groups, classed by their economic development and public debt level.

There is a wide range of literature dealing with the influence of the public debt on the national economies. Among the main channels through which high debt adversely affects the economy are: capital accumulation and growth constraining via higher long-term interest rates [1, 9]; future distortionary taxation [3, 7], inflation [2, 5, 13].