



M Ű E G Y E T E M 1 7 8 2

**Budapest University of Technology and Economics  
Department of Economics**

**The integration of foreign direct investments into the host  
economy in the light of supplier relationships:  
the example of Suzuki Hungary**

**Thesis points**

**Ádám Mészáros**

**Tutor:**

**Dr. László Vígh**

associate professor

Budapest University of Technology and Economics

Department of Economics

**Budapest, 2010**

# Contents

Introduction.....	3
Aim and methodology .....	4
Thesis points .....	6
Thesis 1.....	7
Thesis 2.....	8
Thesis 3.....	10
Thesis 4.....	12
Summary.....	13
References.....	15
Publications about the thesis points.....	16
Other publications.....	18

## **Motto**

Foreign capital is neither an angel nor Satan but an economic power which moves according to its natural laws. Just like a block-wood in the flooding river. If we know how to deal with it we can get on it and we can drift with the current. If we believe that it automatically takes us anywhere, we will tumble down from it and drown. If we do not consider its weight and the flowing circumstances it will overthrow our boat. The only thing that we can not do: pray that it will behave as a luxury yacht. It is not programmed for that. It has no friends but interests.

Ferenc Kozma <sup>1</sup>

---

<sup>1</sup> Kozma, Ferenc [2001]: A tőkeáramlások etológiája – általános kérdések felvetése (III). (The ethology of capital flows – raising general questions). Pénzügyi Szemle, Vol. 9. pp. 809.

## **Introduction**

The analysis of the effects of foreign-owned companies on host economies goes back a long way in the international literature and Hungarian empirical studies have also dealt with a lot of related questions. The high number of theorems and empirical verification attempts do not mean that a consensus has been reached about the effects of foreign direct investments. The only thing that is certain that the positive effects of foreign-owned companies on host economies do not prevail automatically. The question especially sharply arises in the capital-scarce CEE countries where foreign direct investments were accounted as the main financial sources of transition and where serious modernization visions were associated with the presence of foreign firms [6].

The demand for external financing sources was significant in Hungary and in other transition countries as well; and the stock of FDI in Hungary is relatively high in international comparison [UNCTAD, 2010].

Because the modernization strategy of Hungary was based on capital import, the level of integration of foreign firms into the host economy is a particularly relevant question. The positive effects of FDI depend on the level of integration and on enclave-character. The company has an enclave-character when it does not have relationships with the players of the host economy, or these relationships are insignificant, its operations are not integrated into the host economy. These companies are isolated from the other segments of the economy and the backward and forward linkages are weak [see e.g.: Jodice, 1980; UNCTAD, 2007, Szentes, 1995].

International experiences have also showed that the strategy of economic policy can not be solely based on the long term positive balance of FDI, and economic

policy has to consider other effects as well. The significant capital inflow in the 1990s, the relatively dual structure of the economy and the low level of competitiveness of domestic firms [Hamar, 2001; Hamar, 2003] raised the questions of integration of foreign firms, the cooperation between the two sectors of the economy and the development of deeper and more intensive relationships. Economic policy tried to remedy the problems mentioned above: the Suppliers Target Programme, which was started in 1997, was based on domestic SMEs; and later the Suppliers Integrator Target Programme aimed to foster existing relationships and was based on larger, integrator firms.

## **Aim and methodology**

The analysis of supplier relationships would have been impossible without an empirical survey on sectoral and firm level, so I conducted in-depth interviews with the suppliers of Suzuki. Other positive or negative effects of foreign direct investments could also raise interesting questions, but with the analysis of these problems the concept of the research would have been too divergent so I could not take them into account.

The main questions of my research are not independent from the analysis of operations, value chain and supplier's network of automotive firms.

Therefore it was extremely important to analyze whether the supplier system of Suzuki operates according to fordist or toyotist patterns. In fordism, the car producers form less deep and short term relationships with easily replaceable, small firms which produce simple, standardized products. In the toyotist system, the companies concentrate on core competences and they outsource other operations. The supplier system is based on strategic partners and system suppliers that manufacture complex products.

The organization of value chain and the related strategy of transnational corporations have a significant impact on the development of supplier relationships, the level of integrity, the local value added, and the quality and quantity of supplier relationships. To get the complete picture I had to analyze the supplier chain deeper. Thus my main aim was to get a comprehensive overview of the domestic supplier pyramid.

The main research questions of my empirical survey were the following:

1. How do the toyotist supplier network patterns prevail in the Hungarian business practice?
2. How much is the import ratio of Suzuki Hungary?
3. What kind of suppliers can be distinguished in the supplier network of Suzuki Hungary?
4. What role do Hungarian suppliers play in the vertical chain of automotive industry?

From mid 2006 till mid 2007 I conducted 30 structured in-depth interviews with the CEOs of first and second line suppliers and with the deputy CEO of Suzuki Hungary as well. I analyzed the results with the methods of descriptive statistics, although these methods could be applicable in a limited manner, because of the small sample size. To form the groups of companies I had to perform a cluster-analysis. Some data (which were not reported during the interviews) could be found in the company's copy of register available in the company database of Ministry of Justice and Law Enforcement and could be downloaded from the network of Corvinus University of Budapest. Unfortunately the number of the analyzed firms was limited by several reasons: the population of companies is small, several firms refused to participate in the survey and there was no comprehensive automotive database.

The largest part of the dissertation and the empirical survey was made before the crisis so the analyzed data reflect the pre-crisis structures. The automotive industry had been the symbol of the 20th century and its crisis has a much bigger significance than a simple fall due to a financial shock or a cyclical decline of demand. The signs of paradigm shift can be seen which may change the consumption patterns, the technology, the ownership structures and thus the supplier networks as well. So I necessarily had to analyze those consequences of the crisis that are relevant to this field. In the chapters on the structure of automotive industry, the explanation of empirical results, the competitiveness and the future I will set forth the already manifested and the long term effects of the crisis.

## **Thesis points**

International examples of the quality and quantity of relationships between domestic and foreign firms and the level of integration of FDI give a very heterogeneous picture. In Hungary these relationships also depend on the strategy of the foreign firms, the endowments of the host economy, the competitiveness of domestic enterprises and the domestic company structure. The level of integration is dependent on several other factors, one of which – in case of Hungary and other CEE countries – is the transformation of companies in the transition and the path dependent character of the transition process. Previous Hungarian empirical surveys have also showed that privatized companies have a higher rate of domestic suppliers and deeper relationships with local firms than greenfield investments [Vince, 2001; Sass-Szanyi, 2004]. On the other hand, my survey has also showed that the circumstances of the company foundation and the ownership structure also influence their position in the vertical chain. Besides these, the supplier strategy of Suzuki determines the

position of domestic firms in the value chain. My first thesis point relates to this problem.

## **Thesis 1**

**The supplier systems of Hungarian Suzuki is not pure toyotist but have some characteristics of fordism and toyotism as well.**

Our region and Hungary integrated into the global production system in the last two decades, which can also be described as a model of toyotism, outsourcing and system integrators. International examples showed that in practice fordist and toyotist patterns are often mixed. Obviously, Japanese companies are much closer to the increasingly widespread toyotism than their American or European competitors which partly adopt toyotist patterns.

But the Hungarian Suzuki, despite being a Japanese firm, can not be described as a classic toyotist company in all regards and neither is its supplier network purely toyotist. Although the patterns of toyotism (long term and deep relationships) are easy to recognize, the first line suppliers are not only large firms and system integrators [2].

The reasons for this can be found in the unique genesis, development and size of Suzuki Hungary. The company which produced cars on a small scale and which was forced to increase the rate of domestic suppliers made efforts to build up a domestic supplier network. Thus, several small and medium sized enterprises, which otherwise could only have been second or third line suppliers in a classic toyotist system, became first line suppliers. But in the last few years the growing size of Suzuki attracted some foreign global suppliers for which the smaller Suzuki of the 1990s would not have been a scale-efficient partner [2].

Classic toyotism can operate only in a suitable environment [3], but in Hungary there are few domestic large and medium sized companies so it is not easy to

find real toyotist partners. The lack of potential integrators is one reason why the system operates partly according to fordist patterns.

The unfortunate consequence is that an orderly multi-step vertical chain does not exist in Hungary, even though the final product (i.e. the car) is technologically complex. The existing supply chains extend beyond the borders because the large international corporations optimize their purchases globally – and the regulations of international trade make it increasingly possible. The toyotist structure, which is based on existing global relationships, prefers large firms that can make real partners [6].

Thus it was not possible to follow a long pyramid of suppliers according to the original concept: there is no vertical chain in Hungary. The modularization, the use of platforms and the (until the crisis) growing production of Suzuki required larger suppliers. The result is the declining competitiveness of smaller domestic firms: car producers recruit their suppliers from an increasingly larger radius and even globally.

The suppliers system is a special mix of fordism and toyotism, and the domestic part of the vertical chain is short and incomplete [7]. My second thesis is closely related to this statement.

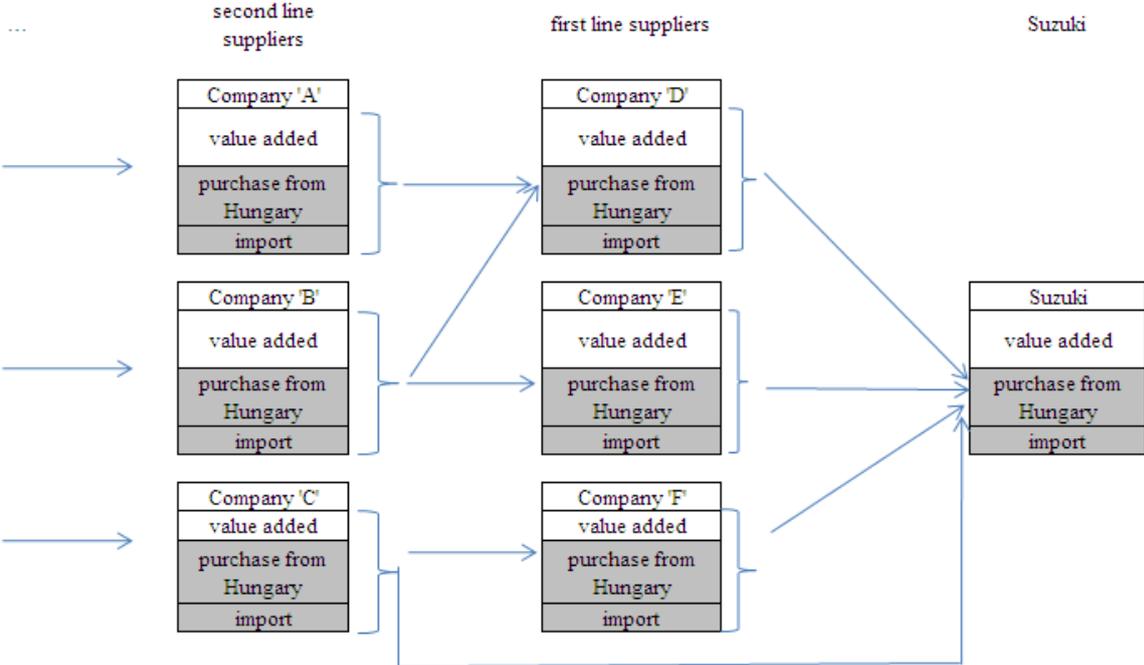
## **Thesis 2**

**Suzuki Hungary has a relatively high import ratio because of the short supply chain and the lack of second and third line suppliers.**

Suzuki had a high rate of domestic suppliers in the 1990s and even today it has a lot of Hungary-based suppliers as well. But based on international examples one may ask the question: what kind of role do Hungary-based but foreign-owned and Hungarian-owned companies play in the system and how long the vertical chain is [9].

In the dissertation I estimated the import ratio according to the following scheme.

**Figure 1: Estimating the import ratio**



I defined the import ratio as  $\text{import}/(\text{import} + \text{purchase from Hungary})$ . I stated that the import ratio of first line suppliers is high and these first line suppliers could name only a few domestic second line suppliers. The domestic part of the supply chain is very short and incomplete. As most of the firms did not give any information about the value added, I had to estimate the missing values using values given by similar firms in the same functional group.

When calculating the average import ratio of the firms in the sample, I weighed it with the revenue from Suzuki and the result was that the total import ratio of Suzuki is 46%. As there were fewer foreign-owned companies (i.e. with higher

import ratio) among the companies interviewed (due to the differences in willingness of participation in the survey) we can consider this as a lower estimation, which means that the import ratio of the purchases of Suzuki is at least around 50%.

The reason behind the relatively high import ratio is not only the high share of foreign-owned but also Hungary-based companies (which have higher import ratio than Hungarian firms) but also the fact that the Hungary-based part of the vertical chain is very short [4; 5].

### **Thesis 3**

**In the suppliers' system of Suzuki, four groups of suppliers can be distinguished: *'domestic small enterprises'*, *'heterogeneous domestic mid-range companies'*, *'large foreign firms'* and *'rejuvenated dinosaurs'*. These companies play significantly different roles in the vertical chain.**

My aim was to identify the different supplier groups of Suzuki and to determine the role Hungarian companies play in the vertical chain of automotive industry. The cluster analysis distinguished the groups of 'small domestic enterprises', 'heterogeneous domestic mid-range companies' and 'large foreign firms' and 'rejuvenated dinosaurs' [1].

The majority of domestic enterprises were established in the 1980s and 1990s, some of them as typical family enterprises. Half of them are not first line suppliers but are in the second line in the chain and therefore they only form relationships with the partners of Suzuki. A part of them are asymmetrically dependent from their partners but there are companies with diversified income sources as well. The cluster is heterogeneous: the companies are from different functional groups and produce several types of products although we can not

state that these firms conduct only low value added activities. Their import ratio is heterogeneous.

The second group is the 'heterogeneous domestic mid-range companies'. Some of them were large state-owned firms, others were in the 1990s established as small enterprises and started to grow dynamically. Their range of production is wide, some of them produce low value added and simple products but there are also firms producing tools, machine tools, prototypes which represent high level of technology. The asymmetric dependency in this group is rather rare. The majority of the companies have an import ratio of more than 50%.

The members of the third cluster are foreign-owned companies: these are greenfield investments or privatized firms. Most of them are backed by a mother company. Their range of production is wide, they produce strategic, high-technology products but there are firms dealing with trade and injection moulding as well. Their import ratio is extremely high, several companies have a more than 90% ratio and all of them have a higher ratio than 50%.

The privatized former state-owned companies, which today are Hungarian, foreign-owned companies or joint ventures, form the fourth cluster. These companies are the successors of important industrial traditions. They are the largest companies among the suppliers of Suzuki. They are not asymmetrically dependent: their diversified income sources and lower dependency is an important advantage and they have a high import ratio as well [1; 7; 8].

The existence of the company groups mentioned above means that the Hungarian economy is not simply dualistic i.e. can not simply be divided into a group of large foreign firms with high technology and a group of small and medium size domestic enterprises lacking capital and with low level of technology.

## Thesis 4

### *The supplier system is making steps towards toyotism and the new threats and opportunities may result in further differentiation among domestic suppliers*

The automotive industry has been especially strongly affected by the crisis. Besides the effects the crisis has had on individual suppliers, the whole supplier system seems to be in transition.

In the future, sectoral concentration may increase further, supplier relationships may deepen, the role of co-operations may also become more important, and higher energy prices and the growing significance of environmental aspects may trigger a technological change as well. These factors also generate changes in the current toyotist supplier system [2].

The key question is whether Hungarian suppliers will be able to keep their positions in the new environment. The groups of ‘domestic enterprises’, ‘heterogeneous domestic mid-range companies’, ‘large foreign firms’ and ‘rejuvenated dinosaurs’ will probably adapt differently to the changed value chain. Company size and the ability of participation in technological cooperation may become the most important competitive advantages in this new environment.

The need of technological change and the introduction of new models increase the importance of cooperation between car producers and suppliers. On the other hand, in a more concentrated market the smaller firms’ problems of capacities and economies of scale might become more evident [2].

Capital intensive suppliers with the ability of technological cooperation may successfully participate in the probably very stiff competition for the right of supplying new intermediate products for car makers. These could mainly be

foreign firms, ‘rejuvenated dinosaurs’ and larger, more competitive companies from the group of ‘heterogeneous domestic mid-range companies’.

However, those companies which can not meet the new technological requirements or (because of their smaller scale) can not compete in a more and more concentrated and increasingly international market, will fall out from the group of first line suppliers. This is dangerous for ‘small domestic enterprises’, and the smaller, less competitive firms in the group of ‘heterogeneous domestic mid-range companies’.

The growing concentration, the deepening supplier relationships and the technological change can divide the heterogeneous domestic group of companies into two parts, because the majority of local suppliers will face problems of capacity and technological constraints, while others will be competitive in the new environment as well. This may lead to radical changes in the Hungarian supplier industry [1].

## **Summary**

The development of supplier relationships and the way domestic companies join the production system of transnational corporations largely depend on the functioning of toyotist systems and the companies of the host economy as well. This research revealed that the supplier system of Suzuki has both fordist and toyotist characteristics.

The domestic vertical chain is very short and incomplete, there is no regular multi-step pyramid of suppliers, and thus it was not possible to follow a long supplier chain according to the original research concept. The real domestic verticum is missing and the existing chains extend beyond the borders because the large international corporations optimize their decisions globally.

Nowadays Suzuki Hungary has quite a high import ratio: my estimation found that it is at least 46%, despite the fact that in the 1990s the company made efforts to build up a Hungarian supplier network.

The cluster analysis divided the suppliers into four groups. There are significant differences between these groups not only in size, ownership structure and type of activity but also in the role played in the vertical chain and in import ratio. The supplier systems, not independent from the crisis, are undergoing a transition. In the new system most of the local suppliers will face problems of capacity and technological constraints while some of them will be competitive in the new environment too.

## References

- Brookfield, Jonathan – Liu, Ren-Jye [2005]: The Internationalization of a Production Network and the Replication Dilemma: Building Supplier Networks in Mainland China. *Asia Pacific Journal of Management*, 22, pp. 355–380.
- Hamar Judit [2003]: Mechanism of Productivity Growth through Inward Foreign Direct Investment. Kopint-Datorg. Prague Workshop, 20-21 June 2003
- Hamar Judit [2001]: A külföldi és a hazai tőkével működő vállalatok szerepe a magyar iparban. *Külgazdaság*, április
- Jodice, David A. [1980]: Sources of Change in Third World Regimes for Foreign Direct Investment 1968-1976. *International Organization*, Vol. 34. No. 2. Spring, 1980. pp. 177-206.
- Kozma Ferenc [2001]: A tőkeáramlások etológiája – általános kérdések felvetése (III.) *Pénzügyi Szemle*, Vol. 9, pp. 809.
- Sass Magdolna – Szanyi Miklós [2004]: A hazai cégek és a multinacionális vállalatok közötti beszállítói kapcsolatok alakulása. *Külgazdaság*, szeptember
- Smitka, Michael J. [1990]: The Invisible Handshake: The Development of the Japanese Automotive Parts Industry. *Business and Economic History*, Second Series, Vol. 19. , 1990.
- Szentes Tamás [1995]: A világgazdaságtan elméleti és módszertani alapjai. Aula Kiadó, Budapest
- Turnbull, P. - Oliver, N. - Wilkinson, B. (1992): „Buyer–supplier relations in the UK automotive industry: strategic implications of the Japanese manufacturing model”. *Strategic Management Journal* (13) 2: 159–168.
- UNCTAD [2007]: World Investment Report 2007 – Transnational Corporations, Extractive Industries and Development. United Nations Conference on Trade and Development, New York and Geneva
- UNCTAD [2010]: World Investment Report, Country Fact Sheets. Hungary. <http://www.unctad.org/Templates/Page.asp?intItemID=2441&lang=1> letöltve: 2010. május 23.

## Publications about the thesis points

1. Mészáros Á., A válság utáni autóiipari beszállítói rendszerek és a hazai beszállítók lehetőségei (The post-crisis automotive supplier systems and the opportunities of the Hungarian suppliers). *Vezetéstudomány*, 2010 October, pp. 19-26.
2. Mészáros, Á., Újabb lépés a toyotizmus felé? – Autóiipari beszállítói rendszerek és a válság lehetséges hatásai (Further step towards Toyotism? – Automotive supplier systems and the possible effects of the crisis). *Külgazdaság*, 2010 issue 7-8., pp. 57-75.
3. Mészáros Ádám – Szívós László: Mágusok határok nélkül. Jeffrey K. Liker: A Toyota módszer. 14 vállalatirányítási alapelv (HVG Kiadó, 2008) című könyvéről (Magicians without borders. About the book of Jeffrey K. Liker: The Toyota way – 14 management principles). *Köz-Gazdaság*, expected date of publishing: 2010 January
4. Mészáros Á., Length of Supply Chains and Import Ratio. *Development and Finance*, 2009: 4, pp. 26-34.
5. Mészáros, Á., A beszállítói lánc hossza és az importhányad (Length of Supply Chains and Import Ratio). *Fejlesztés és Finanszírozás*, 2009: 4, pp. 26-34.
6. Mészáros, Á., Csodagyógyszertől a mellékhatásokig (From miracle drugs to side-effects). in: *Magyar árok és napfény-ország. Fiatal értelmiségiek a jövő Magyarorszájáról*. Gondolat Kiadó, 2009. pp. 137-153.
7. Mészáros, Á., A fordizmus és a toyotizmus a magyar Suzuki beszállítói rendszerében (Fordism and toyotism in the supplier system of Hungarian Suzuki). *Köz-Gazdaság*, 2009: 1, pp. 127-144.
8. Mészáros, Á., Joining the global suppliers network: different classes of suppliers of in the Hungarian automotive industry – an empirical survey. 6<sup>th</sup> *International Conference of PhD Students*, University of Miskolc, 12-18 August 2007 Economics II, pp. 253-258.

9. Mészáros, Á., A külföldi működőtőke-beruházások exportenklávé-jellege (The export-enclave character of foreign direct investments). *Külgazdaság*, 2004: 4. szám pp. 48-59.

## Other publications

10. Mészáros, Á., Science and Practice: An Optimal Balance. Book Review (60 éves Közgáz. A Jubileumi Tudományos Konferencia alkalmából készült tanulmányok). *Society and Economy* 2009: 1, pp. 147–150.
11. Berki T., Mészáros, Á., „A tövit töröm, s gallya jut” Mészáros István: A tőkén túl. Közelítések az átmenet elméletéhez. Első rész. Az ellenőrizhetetlenség árnya című könyvéről. *Egyenlítő*, 2009. 1. szám pp. 21-27.
12. Mészáros, Á., Globalizációkritika tőlünk, magunknak, mindenkinek. Andor László - Farkas Péter (szerk.): Az adóparadicsomtól a zöldmozgalomig. Kritikai szócikkek a világgazdaságról és a globalizációról című könyvéről (Anti-globalization from us, for us, for everybody. About the book of Andor László - Farkas Péter (ed.): From tax heavens to green movements). *Eszmélet*, 2009: 80, pp. 106-110.
13. Mészáros, Á., Nemzetgazdaságok a transznacionális kapitalizmus korában. (National Economies in the Age of Transnational Capitalism) in: Csáki Gy., Farkas P. (szerk.), *A globalizáció és hatásai. Európai válaszok* (Globalisation and its effects. European answers) Budapest, Napvilág Kiadó, 2008. pp. 37-56.
14. Mészáros, Á., Uralom és uralkodók. Pokol Béla Globális uralmi rend című könyvéről (Dominance and Dominants. On Béla Pokol's "Global Dominant Order"). *Fordulat új folyam*, 2008. 1. szám. pp. 88-91.
15. Mészáros, Á.: Szolgáltatások, infratstruktúra (Services, infrastructure). In: Andor, L., Honvári, J., Losoncz, M., Mészáros, Á., Sebők, M., Szabó, Zs., Szikszai, Sz., Vígvári, A., *Magyar Gazdaság*, 21. századi enciklopédia (Hungarian Economy – Encyclopedia of the 21st Century – Volume 3). Budapest, Pannonica Kiadó, 2007. pp. 271-302.
16. Mészáros, Á., Regionális integrációk a világgazdaságban (Regional Integrations in the world economy). In: Blahó, A. és munkaközössége, *Világgazdaságtan* (World Economy). Budapest, Akadémiai Kiadó, 2007. pp. 251-280.

17. Mészáros, Á., Regionális integrációk a világgazdaságban (Regional Integrations in the world economy). In: Blahó, A. és munkaközössége, *Világgazdaságtan (World Economy)*. Perfekt Kiadó, 2007. pp. 256-283.
18. Mészáros, Á. and Szabó, Zs., Designed for Patience. The Significance of International Factors in the Ukrainian and Belarusian Transitions, *Transition Studies Review*, Vol. 17, 2007. pp. 313-330.
19. Artner A., Mészáros, Á., Böcskei, B., Szigeti, P., Globalizáció alulnézetben: Elnyomott csoportok - lázadó mozgalmak: Beszélgetés Artner Annamária könyvéről (Globalization from a bottom-view: depressed classes – rebellious movements. Discussion about the book of Annamária Artner). *Eszmélet*, 2007 Vol 75, pp. 129-145.
20. Mészáros, Á., Szabó, Zs., The Socioeconomic Background of the Divergence of Belarusian and Ukrainian Political Systems, *Periodica Polytechnica*, Vol. 15, 2007. pp. 11-22.
21. Árva, L., Mészáros, Á., Magyarország a globalizációban: kis- és középvállalkozók (Hungary in the Global Economy: small and medium entrepreneurs). *Andrássy úti esték sorozat*. Civil Akadémia Alapítvány, Budapest, 2007. pp. 1-27.
22. Mészáros, Á., Külföldi beruházások és transznacionális társaságok (Foreign Direct Investments and Transnational Corporations). In: Andor László (szerk.): *Világgazdaság - 21. századi enciklopédia sorozat (World Economy – Encyclopedia of the 21st Century – Volume 2)*. Pannonica Kiadó, 2006. pp. 133-159.
23. Kacsirek, L., Árva, L., Mezősi, B., Mészáros Á., Az eltűnt piac nyomában (Searching for Hungary's Lost Markets). *Kritika*, 2005: 9, pp. 28-30.
24. Andor, L., Mészáros, Á., Észak Dél ellen: szabad kereskedelem, protekcionizmus és fejlesztési politikák a világgazdaságban (North versus South: Free trade, Protectionism and Development Policies in the World). *Egyenlítő*, 2003: 11, pp. 2-8.
25. Mészáros, Á., Tőkeáramlás és függőség a transznacionalizálódó világgazdaságban (Capital Flow and Dependence in a Transnational World Economy). *Fordulat*, 2002 Winter edition, pp. 57-64.