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Hungarian Academy of Sciences

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I. Main duties of the research unit in 2013

In 2013 Institute of Economics (IE) continued its research activities based on the objectives arising from the previously formulated research strategies and accomplished the assignments as specified by its research contracts and agreements. The main tasks of IE were as follows: publication of the yearbooks *Competition and Regulation 2012* and the English version *The Hungarian Labour Market 2013*; the fulfilment of the targets set out for 2013 in the research projects supported by the European Commission's 7th Framework Programme; the finalisation of forecast model of labour market supply and demand; the continuation of Game Theory research and the setting up of the research group dealing with corporate strategy and competitiveness under the 'Momentum' programme of the Hungarian Academy of Sciences.

II. Research and other achievements of exceptional importance in 2013

a) Research and other achievements of exceptional importance

MACROECONOMICS AND GROWTH

The analysis of international trade relations and innovative activities of the European companies was based on the data of a survey prepared for seven countries, including Hungary. It showed that 87% of the European companies have international business contacts, while very few companies perform export/import activities, outsource their activities and/or form part of an international group of owners simultaneously. The situation is very similar also in the area of innovations, since many companies are interested or involved in at least one activity, but the number of those companies which are active in several different ways is very small. The Hungarian companies are tangibly and visibly lagging behind the foreign ones in the area of those activities which can be connected to innovation, outsourcing abroad and investments. Finally, there is a strong correlation between the intensity of the two different activities. For this reason, it is proposed that the Hungarian and European policies on trade and investment development and research and innovation shall be co-ordinated.

Disaggregated quantitative and qualitative data was used to analyse the foreign trade activities of the Visegrád Four (V4) countries between 2000 and 2010. Using the product and industry level data of export to Germany, so-called level-indicators were calculated for the export unit values and the unit labour costs. By connecting the relative level indicators and the different indicators of export performance, on the one hand, the relationship between the level and changes of the unit values and the unit labour costs, while on the other, the relationship of the latter with export performance could be investigated. The results showed that (1) the unit value levels of the export activities of the four countries tend to converge towards the EU average in time; (2) the relationship between the changes of the unit values and the unit labour costs is positive, if one filters the effects of the initial levels out; (3) the relationship between the changes of the unit values and the export volume is negative; (4) the levels of unit labour costs and the productivity of the different sectors fail to show signs of convergence towards the European averages, while there seems to be some convergence in certain components of unit labour costs, like the wage cost per worker and the wage share. Growth of the export

market share and the improvement of extensive and intensive margins lie behind the fast growth of the Czech and Polish export, while the much slower growth of Hungarian export was realised with stagnating market share and stagnating quantity of exported goods, coupled with a high level and rapid growth of the unit values.

EMPIRICAL INDUSTRIAL ORGANISATION

The research dealing with the high-tech myth showed that the sets of indicators used in mainstream literature on innovation measuring innovative activities are capable to grasp, one-sidedly, only the innovative activities based on scientific background. Instead of this, the research words the need for system-approached and economic evaluation of innovation.

The research based on interviews with large entrepreneurs mapped the changes in the performance of the enterprises, in their regulatory environment, in the circumstances of market competition, labour market position, in their business culture, internal and external relations of confidence and wider social environment of the enterprises after the end of the first phase of market transition. The research concluded that in the case of the majority of medium and large companies which used to grow fast, the initial impetus was curbed, and their growth reached a standstill during the years following 2000. By now, the germs of the initial, promising roles of large entrepreneurs have practically disappeared, and the younger generation practically precludes the possibility to undertake similar social roles.

GLOBALISATION, EU-INTEGRATION AND CONVERGENCE

Among the motivations of the large multi-national corporations active in the automotive and electronic industries to locate their research and development units in Hungary promoting adjustment to the larger, European market and the expansion of the corporations' knowledge base were the most important. In the case of the development units related to production, an additional motivation factor was that with the relocation of research activities to Hungary, development activities were performed in the vicinity of production activities performed in the affiliated companies. Successful activities of the relocated development centres may improve confidence between the parent companies and the affiliated companies, which can then promote the progress of the Hungarian units at the different levels of the value chain, and/or may result in the independence of the production-related research units. In general, the relocated research units are much less integrated in the set of relations of the host economy than the production units of the multinational company. Those research and development units which put great emphasis on co-operation with the local universities represent exceptions from this rule.

ECONOMICS OF EDUCATION

The research on the role of childhood and kindergartens in the development of talents undertook the role, two years after the programme was launched, to evaluate the kindergarten attendance support programme introduced at national level on 1st of January 2009. According to the research results, close to one-sixth of the children who were newly enrolled to kindergartens joined the kindergartens at the age of 3 or 4 thanks to the programme. The increase of kindergarten enrolment grew the most exactly in those regions where allowances granted for kindergarten enrolment were applied for and used to the greatest extent, or where the ratio of children with multiple disadvantages was the highest among the kindergarten age children. Most probably, allowances, being in-cash motivation factors would fulfil these needs even under unfavourable circumstances, namely even if the quality of kindergarten services decreased. This fact calls the attention to the need to build kindergartens and increase the number of places in kindergartens.

The research examining the differences in performance of the Roma and non-Roma children, after reviewing the Central-East European data and using the Hungarian data representative at national level makes the backlogs of Roma youngsters regarding talents measurable and gives explanations to the most probable social reasons of these disadvantages. Based on the reading, text interpretation and mathematical test results of the competency measurements it can be seen that the eight-grader Roma students lag far behind the non-Roma students. Their shortfall is exactly as big as the difference among the similar age white and black students was in the United States during the 1980s. Differences in social composition and not ethnic characteristics explain these shortfalls. Predominantly, the social disadvantages of Roma students are converted into shortfalls in studies via two intermediary mechanisms: in their domestic environment, Roma students have, by far less chances to have access to resources important for talent development, and their schooling is realised under worse educational conditions. Disadvantages in the educational environment of the family are, in the majority, also shaped by the living conditions. The vast majority of the disadvantages at school are also explained with lower social status, but in the case of the Roma children, the effects of ethnic segregation are also added to this as an additional disadvantage. Based on the results, besides mitigating poverty, properly targeted and well organised policy measures can also decrease the shortfalls of Roma and non Roma children living in poverty.

The research examining the effects of secondary school education performed the analysis of the causal effects of school types on the performance of children in the Hungarian secondary educational system. The analysis was based on the comparison of such admitted and non admitted children, who wanted to attend the same secondary school and whose former school results were similar. The average effects exerted on the treatment group were estimated with matching method. The results of the research showed that higher school types improve the performance of the students. The effects of the more popular schools within the different types of schools are also positive. The effects of secondary grammar schools do not differ from the effects of the better schools within the same school type, while the negative effects of vocational schools is stronger.

The question to be answered by the research focusing on the decisions of teachers to change their career was the following: Did the salaries and alternative earning options and the salary increase of civil servants introduced in 2002 have any influence on the career change of teachers? The research examined the issue with the help of duration models and large sample from matched database of the National Health Insurance Fund, the Central Administration of National Pension Insurance and the Land Registry. The results indicate that earning possibilities actually influence the decision to change career. In the case of young teachers, it influences the probability to opt for another job/work, but the earning choices do not have any effect on the probability to choose inactivity. The salary increase of civil servants transitionally decreased the probability to change career among the young teachers, but this effect disappeared in two years time, while the probability to change career was reduced by this factor in the case of senior or elderly teachers.

LABOUR RESEARCH

The research looks at how the distribution of jobs by complexity and firms' willingness to hire low educated labour for jobs of different complexity contribute to unskilled employment in Norway, Italy and Hungary. In search of how unskilled workers can attend complex jobs, it compares their involvement in various forms of post-school skill formation. The countries are also compared by the weight of small businesses assumed to assist low skilled workers through interpersonal relationships. Unskilled employment in Norway benefits from synergies

between work in complex jobs, adult training, informal learning and civil integration. Italy has abundant supply of simple jobs and the small businesses tend to employ low educated workers at a large scale even in complex jobs. In Hungary, insufficient skills and lack of a sizeable small-firm sector set limits to the inclusion of the low educated.

The research aimed at quantifying the relationship between access to kindergarten and the labour market activity of mothers examined, by applying a new empirical method, the following issue: To what extent does subsidized childcare availability encourage the mothers of three year old children to return to the labour market? The research results show that childcare has a significant positive impact on the activity rate of mothers, but other, age-related factors also have a strong influence on it, including maternity leave and preferences related to separation from the child.

Another piece of research examined the wage differentials between employees of domestic and foreign companies in Hungary. After controlling for various selection effects such as different industrial composition of firms, a large, 12 to 18% foreign wage effect was measured. The wage advantage exists for all types gender, age and educational categories and for most occupations, though its size varies. According to the results, this wage premium largely depends on the productivity increase realised by the foreign owners.

PUBLIC ECONOMICS AND PUBLIC POLICIES

According to the research 'Workplaces in public administration', choosing the public sphere as a workplace is influenced by other factors than income. A number of family circumstances could be identified which render more probable for a person to find a job in the public sector: if somebody is a single mother/father, if he/she is ill, if his/her partner/spouse, child has a lasting illness, in the case of women, if their husband used to be unemployed. Instead of interpreting these cases as risk-avoiding behaviours, it is more exact to label them as the optimisation of family strategies. The need for social usefulness plays an important role in the area of human services (health-care, social sector, education, culture), but it does not at all appear in the case of those who work in public administration. The anti-feelings to inequalities can be grasped among those who work in health-care and the social sector.

According to the comparative analysis of the factors influencing subjective well-being in Hungary and Austria, the number one factor worsening the subjective well-being of the Hungarians is poor health status, while the most influential factor improving subjective well-being is learning. However in Hungary, as opposed to Austria, neither vocational nor secondary school degree increased subjective well-being, because only high-level education has such an effect. In Hungary, the increase of the ratio of those with high-level education might be an important factor in increasing subjective well-being. As opposed to the stereotypes, the effects of social relations on the increase of satisfaction are much higher in Austria than in Hungary. In Hungary, the intensity of social relations increasing satisfaction is relatively low, and cultivating family contacts and friendships increase satisfaction with life mostly as factors improving security of living than factors by themselves. In addition to its effects on income, unemployment worsens subjective well-being, and this effect is further generated on the family members. The major reason for this is that security of housing is endangered, which is not the case in Austria due to the larger size of the tenement housing sector.

The study prepared within the framework of the research on corruption techniques in public procurement identified thirty new quantitative corruption indicators, which distinguish among twenty different corruption techniques. With the help of these, the so-called big corruption

prevalent in public procurements can be monitored and quantitatively analysed. All the indicators developed are based on the qualitative description of rent seeking occurring in public procurements and realised through the network of corrupt public actors. Qualitative information was gained from the interviews with participants, the respective literature and the content analyses of the Hungarian media. The study presents the applicability and usefulness of the proposed corruption indicators through micro data on Hungarian public procurements for the period between 2009 and 2012. The greatest benefit of the indicators is the possibility for the development of a summary indicator which can measure, with quantitative tools, the risk of corruption in the area of public procurements. Besides, the individual corruption indicators characterising the behaviour of the actors also identify such behavioural patterns, which depict the variety of corruption and its adaptation to regulations.

AGRICULTURAL ECONOMICS AND RURAL DEVELOPMENT

In the course of analysing the rural development programmes, the research, for the first time in Hungary, tried to identify, with the use of a complex rural development index, the status of rural development at the level of small regions between 2002 and 2008. According to the results gained on the basis of the estimated rural development index, the level of development of the small regions in Hungary converged between 2002 and 2008. At the same time, the small regions showed great variety among the different quartiles, while the chances to worsen their position were bigger than the chances for improvement. Furthermore, none of the small regions managed to improve its relative position between 2002 and 2008.

The size of funds for rural and regional development significantly increased following Hungary's accession to the EU. This was coupled with a considerable increase in the amount of funds per project and the increasing concentration of the funds among the different small regions. There were sizeable differences between the largest and the smallest amounts of funds granted to the different small regions. Budapest, the county centres and some of the small cities were given preference with regard to rural development funds. Based on the comparison between the distribution of funds and the level of development it can be concluded that the funds failed to focus on those small regions which were in the worse position. The average effect of the funds on the well-being of small regions was little and negative.

The social-economic composition and the motivations of the producers participating in the short food chain was examined. The results show that the farmers can be grouped into three, well distinguishable categories: producers of traditional markets (maintained by the local government), producers of farmers' markets and producers of bio-markets. With regard to the majority of the socio-economic characteristics, the latter two categories cannot be distinguished from each other, but the characteristics of selling are different. The farmers selling their products of farmers' markets might be serious competitors for the bio sector due to their lower prices already in the near future. The producers selling their products on the traditional markets are less open, they are unable to efficiently participate in the local food movement thus they are in need of special help and consultancy.

The relationship between forestation and economic development was analysed, with special emphasis on those countries where forest coverage increased between 1990 and 2010. Since the term 'forest' covers a very heterogeneous group, the research developed a Forestation Index corrected with bio-diversity, which can distinguish between new forests 'valuable from environmental perspective' and monocultures. The research results indicate that the environmental Kuznets-curve can be interpreted in connection with deforestation and forestation. Environmental protection measures exert a negative impact on the forestation

processes, which raises the issue of nature protection versus forestation. In summary one can conclude that the separation of the different types of forests is indispensable during the investigation of the forestation processes.

GAME THEORY

One of the objectives of the new Hungarian Election Law was to decrease the differences among the number of electors belonging to one constituency and for this purpose the Law follows, practically word by word, the recommendations of the Code of Good Practice in Electoral Matters of the Venice Commission. However, one of the previous draft bills prescribed so very stringent conditions for equality which cannot be respected in practice. The approved version of the law is more permissive, as it permits a maximum of 15% difference (in special cases, the difference can even be 20%), but when distributing the constituencies among the counties, the size of an average constituency in Tolna-county is 15.28% smaller than the national average, thus one of the conditions was infringed already according to the most recent data available after the enforcement of the Law. At the same time it was proved that a more favourable distribution was not possible, because if Tolna-county received less constituencies the difference would have been even bigger. If we take the present size of the Parliament fix, the differences among the average sizes of the constituencies in Tolna county may increase up to 20% due to demographic changes. As a consequence, it may occur that not even the 20% upper limit for size differences can be respected. Based on the recommendations of the Venice Commission, the researchers elaborated a new, leximin rule for distribution, which provides a clear distribution. The rule proposes a distribution different from the Law only at one point.

The distribution of financial risks and system risks were examined in an illiquid environment. On non liquid markets, the assets may not always be sold without limits at market price, and a significant amount can only be sold with losses. During the distribution process, it should be taken into account that the risk of portfolios is super-additive, and extensive externalities may appear in the risk distribution game.

Besides Hungary, the school admission system of many other countries is based on the calculation of scores, but the handling of draws differs from country to country. Problems arise when there are several applicants with the same score number, thus either there are vacancies or the size of the programme has to be increased. In the majority of the countries, certain applicants are admitted based on certain selection criteria – date of birth or random selection -, while other applicants with the same score number are refused. In Hungary, the principle of complete equality is applied. The currently valid system was examined from different perspectives: the score limit remains the same and the whole group is refused, or the whole group is admitted with the application of an adequately reduced score limit and it was proved that both of the approaches result in stable matching, and the subsequent thresholds represent the lowest or the highest limits regarding the score limits of the intermediary methods. At the same time, the possibility for manipulation of both admission algorithms was also recognised.

FIRMS, STRATEGY AND PERFORMANCE

The research on corporate pricing concluded that there seems to be a difference in dynamics between the Hungarian and foreign firms regarding the determinants of profit rates, and that the extent of export and import activities is closely related to profit rates. The investigation of the pass-through effects of exchange rates based on detailed trade data resulted in similar findings as those achieved for other countries, but unlike some results in the literature, the

strength of its effects is not correlated with the observed characteristics of the firms. At the same time, merging the data with the country-product level production data of Eurostat indicated that the reactions of the companies to changes in foreign prices can be measured precisely, but the correlation is weak.

The influence of political factors on the distribution of EU funds among the companies and regions was investigated. The preliminary, settlement-level results show that firms in municipalities with the mayors from big parties received more funding from the firm subsidies.

ECONOMICS OF NETWORKS

In general, the regulators have less knowledge about the efficiency and profitability of the economic organisations intended to be regulated by them than the organisations themselves. This fact influences the opportunities granted by the regulation of competition and market and also the actual practices. This occurs when the state regulator cannot precisely observe the level of effectiveness of the efforts of those companies which are intended to be regulated, and is not fully aware of the actual costs of the companies, thus does not exactly know their efficiency type either. In these network industries – from telecommunication to the energy, from transportation to postal services – there exists, even today, state or central price regulation, which is based on the principles of ‘cost based pricing’ or, more precisely, pricing based on long-term marginal costs. The research presented, through the example of telecommunication connection fees calculated according to the rules of cost-based regulation that these result in distorted incentives: they penalise the ‘good ones’ and reward the ‘bad ones’. The right solution would be the so-called ‘incentive-based regulation’, which, on the one hand, would guarantee that the typical public service companies of the network industries make the effort expected from them to improve their efficiency and increase the level of services and on the other, that the companies with different levels of efficiency do not try to ‘blow up’ their accountable costs to increase their revenue and profit.

When examining the effects of the system of social networks and network of relations on the functioning and operation of the markets, it was concluded that the networks of relations may have a role in managing and reducing the information asymmetry (adverse selection and moral risk problem). With the help of a model they showed how a network of relations can be used in the case of price discrimination, for example, to reduce the incentive costs stemming from asymmetric information.

The research analysing regional economic growth examined, through two regional economic models based on entropic-statistics Hungarian regional development and the role of foreign companies between 1998 and 2005. Following the synergy model of regional innovation it was found that foreign companies exert positive influence in the more developed regions, while their effect is negative in the less developed regions. The indicator used to measure the learning capacity among the companies highlighted that the learning capacities among the Hungarian companies had a stronger effect on regional development than the learning capacities among the foreign companies.

b) Science and society

Beside basic research, actual economic policy issues, welfare related questions and issues of national importance always have room in the research portfolio of IE. Some examples to these topics: the reasons for the learning disadvantages of Roma pupils at school, the experiences gained from micro lending to people living in deep poverty in Hungary, examination of the socio-economic composition and motivations of the producers, farmers taking part in the short

food chain, examination of the financing models of higher education, forecast of the effects of secondary school types on the performance of students, relationship between access to nurseries and the labour supply of women.

IE also puts special emphasis on disseminating the research results which can be beneficial for the society as a whole and on publicly presenting the different publications and make them accessible on the homepage for the interested parties.

Each year, the results of labour market research are presented at the annual conference at *Szirák*, which was organised with the title ‘Competencies, labour supply and employment’ this year. Three sections of public interest were organised during the conference on the following topics: relationship between having children and the labour market, the effects of competency requirements at workplace and the economic crisis, and different issues of the labour market, education and employment policies.

The sixth volume of yearbook ‘*Competition and regulation 2012*’ presents the Hungarian empirical market structure analysis prepared until now, and the birth and failure of the paradigm ‘too-big-to-fail’. In the section of the book dealing with network services the changes in the regulations of the water services, the telecommunication, the energy sectors and the postal services are analysed. The studies dealing with the transformation of the institutional system of regulations analyse the normative aspects to be taken into account at the merger or disintegration of the regulatory institutions when deciding upon the scope of authority and present the influences of the different legal systems with varying characteristics on the frameworks of efficient alternative regulation – including self-regulation – and give an overview on the economic conditions of efficient self-regulation.

The authors of the book ‘Ten years after’ again made a series of interviews between 2009 and 2012 with the medium and large entrepreneurs presented in their previous book, and also with a group of younger entrepreneurs to map the changes after the end of the first phase of market transition and to compare the differences in the attitudes of the two groups of entrepreneurs. The book presents, based on the conversations about the changes taking place in the performance, regulatory environment, conditions of market competition, labour market positions, business culture, external and internal relations of confidence and wider sociological environment of the companies.

IE operates its professional blog as a discussion forum for the research results achieved or to be achieved, the professional policy opinions and the actual economic, public life and socio-political issues, where IE researchers regularly publish their opinion, publications, etc. giving an opportunity for social interactions. The appearances in the media of the researchers are gathered and presented for the wider public in the section called *press review*. On the Hungarian and English language homepage up-to-date information is provided about the core activities of the research units, the publications of the researchers, the conferences and seminars and the major research projects. Regular assessment of the visits on the homepage is an important element of the communication strategy.

III. Domestic and international relations of the research centre in 2013

IE researchers pursue educational activities in almost all of the higher educational institutions offering graduate and post-graduate education in economics (CEU, Eötvös Lóránd University of Sciences, Corvinus University of Budapest, University of Debrecen, Pécs University of Sciences, etc.). In addition to this, the Pannon University of Veszprém and the Szeged University of Sciences are supported, within the framework of co-operation agreements in their Ph.D education. The researchers also teach at foreign universities (Cardiff University,

UK Open University), and the external researchers work in different famous foreign research networks (CEPR, IZA).

The Summer Workshop was organised by IE for the thirteenth time. This workshop operates as a forum for economists studying or working abroad. The fourth joint conference was organised within the framework of the co-operation agreement concluded earlier with the School of Economics and Business Administration (SEBA) of Beijing Normal University. The one-week long international seminar on the possibilities to implement evolutionary economics in the field of regional economics was a success both with regard to its professional level and the number of participants.

Expert activities were performed for the National Media and Info-communications Authority, the EU Employment Observatory, the 7th Framework Programme of the European Union and the European Central Bank. The researchers commented on the 'Horizon 2020' draft programme of the European Commission and the document 'National Research-Development and Innovation Strategy'. One of the researchers of the institute, within the framework of the Open Society Institute Academic Fellowship programme was appointed to the Odessa I. I. Mechnikov State University's department of world economy and international economic relations as an International Scholar, while another researcher co-operated in the creation of the methodological foundations of the so-called „NEKIFUT” project (a mosaic word for National Research-Development Infrastructure Survey and Roadmap) and participated in the development of the foresight methodology of the ForSEE project. IE is represented with consultative right in the Evaluation Committee of National Strategy 'Make it better for the children' and in the Indicator Sub-Committee.

Several researchers are members of the presidium of the Hungarian Society of Economics and take part, as members of the presidium in the activities of the Hungarian Economic Association.

IV. Short presentation of the most important Hungarian and international tenders won in 2013

This year, there were 28 projects run by the Hungarian Scientific Research Fund, of which 9 were new. In its tendering activities, the MTA 'Momentum programme' is of exceptional importance. Research in game theory was continued within the framework of this programme, and the research group dealing with corporate strategies and competitiveness also started its activities. In 2013, the realisation of the Preparation of labour market forecasts and forecasting the structural changes special Social Renewal operation Programme - 2.3.2-09/1 was completed. At the tenders put up by the Competition Culture Centre of the Economic Competition Office funding was won for the preparation of the following volume of Competition and regulation yearbook and for the realisation of two other research projects.

The project 'Mapping competitiveness in Europe' funded by the 7th framework programme of the EU was launched, and IE will be the co-ordinator of the project. The implementation of the research projects 'Growth, innovation and competitiveness: promotion of cohesion in Eastern and Central Europe' and 'International comparison of the agro-food Industrial product paths: factors defining their competitiveness and performance in the EU, and at the international markets' was continued.

V. Most important publications of the year

Books

Fazekas K. - Benczúr P. - Telegdy Á. (eds.): The Hungarian labour market, 2013. Budapest: Centre for Economic and Regional Studies, Hungarian Academy of Sciences; National Employment Non-profit Public Company, 2013. 404 p.

Fazekas K. - Varga J. (szerk.): Trendek és előrejelzések: Munkaerő-piaci prognózisok készítése, szerkezetváltás a munkaerőpiacon (Trends and forecasts: Preparation of labour-market forecast. Budapest: Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences, 2013. 265 p.

Laki M. - Szalai J.: Tíz évvel később - magyar nagyvállalkozók európai környezetben (Ten years after – Hungarian entrepreneurs in European environment). Budapest: Közgazdasági Szemle Alapítvány (Economic Review Foundation), 2013. 199 p.

Semjén A.: Költségmegosztás a felsőoktatásban : Utak és tévutak (Distribution of costs in public education – Ways and wrong ways). Budapest: Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences, 2013. 176 p. (KTI Könyvek; 16.)

Valentiny P. - Kiss F. L. - Nagy Cs. I. (eds.): Verseny és szabályozás (Competition and regulation), 2012. Budapest: Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences, 2013. 380 p.

Articles in foreign journals

Altomonte, C. - Aquilante, T. - Békés G. - Ottaviano, G. I.P.: Internationalization and innovation of firms: Evidence and policy. *Economic Policy* Vol. 28. No. 76. 2013. p. 663-700.

Békés G. - Harasztosi P.: Agglomeration premium and trading activity of firms. *Regional Science and Urban Economics*, Vol. 43. No. 1. 2013. p. 51-64.

Biró P. - Klijn, F.: Matching with couples: A multidisciplinary survey. *International Game Theory Review* Vol. 15. No. 2. 2013. p. 1340008-1-18.

Biró P. - Norman, G.: Analysis of stochastic matching markets. *International Journal of Game Theory* Vol. 42. No. 4. 2013. p. 1021-1040.

Bojnec, S. - Fertő I.: Farm income sources, farm size and farm technical efficiency in Slovenia. *Post-Communist Economies* Vol. 25. No. 3. 2013. p. 343-356.

Herrendorf, B. - Rogerson, R. - Valentinyi Á.: Two perspectives on preferences and structural transformation. *The American Economic Review* Vol. 103. No. 7. 2013. p. 2752-2789.

Horn D.: Diverging performances : The detrimental effects of early educational selection on equality of opportunity in Hungary. *Research in Social Stratification and Mobility* Vol. 32. 2013. p. 25-43.

Kézdi G. - Csorba G.: Estimating consumer lock-in effects from firm-level data. *Journal of Industry, Competition and Trade* Vol. 13. No. 3. 2013. p. 431-452.

Koren M. - Tenreyro, S.: Technological diversification. *The American Economic Review* Vol. 103. No. 1. 2013. p. 378-414.

Lange, F. - Kóczy Á. L.: Power indices expressed in terms of minimal winning coalitions. *Social Choice and Welfare* Vol. 41. No. 2. 2013. p. 281-292.

Lovász A. - Rigó M.: Vintage effects, aging and productivity. *Labour Economics* Vol. 22. 2013. p. 47-60.

Articles in Hungarian journals

Altwicker-Hámori Sz. - Lovász A.: A köz- és a magánszféra kereseti különbségei Magyarországon, 2002-2008 (Differences in earnings between the public and private sectors in Hungary): Javíthat-e hosszú távon a közalkalmazottak relatív helyzetén egy 50 százalékos béremelés?(Can a 50% wage increase improve the situation of civil servants in the long term?). *Közgazdasági Szemle* (Economic Review), vol. 60. No. 5., May 2013, p. 500-522.

Békés G. - Halpern L. - Muraközy B.: Külkereskedelem és a vállalatok közötti különbségek (Foreign trade and differences among the companies). *Közgazdasági Szemle* (Economic Review, Vol. 60, No. 1, 2013. p. 1-24.

Cseres-Gergely Zs.: Kiszorítják-e az idősebb munkavállalók a fiatalokat a közszférában? Eredmények a magyarországi nyugdíjkorhatár-emelés időszakából (Will senior employees force out the young ones in the public sphere? Results from the period of increasing the age of retirement in Hungary). *Közgazdasági Szemle* (Economic Review), vol. 60, Nos 7-8, 2013. p. 837-864.

Köllő J.: A közszféra bérszintje és a magánszektorból átlépők szelekciója 1997-2008 között (Wage level of the public sector and the selection of those coming from the private sector between 1997 and 2008). *Közgazdasági Szemle* (Economic Review), vol. 60, No. 5, 2013. p. 523-554.

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