



LEIBNIZ INSTITUTE OF AGRICULTURAL DEVELOPMENT
IN CENTRAL AND EASTERN EUROPE

IAMO 2007

Leibniz Institute of Agricultural Development
in Central and Eastern Europe (IAMO)

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Introduction

The agricultural and food economy in the countries of Central and Eastern Europe is currently experiencing radical changes with wide-reaching consequences for rural areas. Although considerable efforts have already been undertaken in this area, the development of the agricultural and food economy in these countries will remain far behind that of the Western industrial states in the medium term.

The Leibniz Institute of Agricultural Development in Central and Eastern Europe (IAMO) makes an important contribution to a better understanding of the economic and social reorganisation facing the agricultural and food economy in the CEEC, including the issues of globalisation and EU expansion of agricultural markets to the East. With its core expertise in agricultural economics, IAMO is a nationally and internationally renowned forum for dialogue between the academic, business and political communities. The large number of international publications and the ever-increasing volumes of funding confirm the positive development of the Institute. It makes an important contribution to the interlinking of agro-economic research, both at national and international level, and has become significant for the research and scientific environment far beyond the borders of Saxony-Anhalt. Academics from around the globe can find excellent working conditions at the Institute in conjunction with Martin Luther University Halle-Wittenberg. Recently, more than 50 researchers from 10 countries have been working at IAMO and increased its international profile.

With its specific research brief on agricultural development in the transition countries in Central and Eastern Europe, Central

and Eastern Asia as well as Turkey, IAMO has developed a unique profile. As part of its study of rural areas in the enlarged European Union, IAMO is working out the prospects for the existing agricultural structures. It is examining current questions of change in agricultural structures as well as the urgently needed reform of subsidy policy in European farming, devising approaches to solve this. In this way IAMO can offer policymakers in business and politics new and alternative strategies to assist them in their orientation and decision-making, including with regard to the EU's accession negotiations with Turkey.



*Prof. Dr Jan-Hendrik Olbertz,
Minister of Education and Cultural Affairs
for Saxony-Anhalt*

The ongoing development of cooperation with Martin Luther University Halle-Wittenberg over teaching, research and jointly organised bachelor's and master's courses is especially welcome.

The summer school 'Agriculture in the transition process', which has now become something of a tradition, is also a result of collaboration between IAMO and Martin Luther University. For me, a particularly important aspect of this is the training of junior academics. With the establishment of the Doctoral Certificate Program in Agricultural Economics, a structured educational programme for doctoral students has been developed which

sets new standards in Germany in the sphere of agricultural and food economics. Besides IAMO and MLU, three other universities from Germany are included in this programme. It allows doctoral students from Germany and CEECs to acquire a specialist qualification in the agricultural and food sector. It is part of the education of an IAMO graduate school funded by the Pact for Research and Innovation.

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Foreword

The changes in the directorate of the Leibniz Institute of Agricultural Development in Central and Eastern Europe (IAMO) are now complete. The new directorate has already been up and running for a year. 2006 did not just see a stabilisation of the positive development of the past few years; it set new standards in fundraising and publication activity.

For the first time, IAMO will be responsible for the coordination of a research project under the aegis of the EU's Sixth Framework Programme for Research. In this project, ten partners from eight countries are researching issues of structural change and rural development in an enlarged Union. We are also delighted that an application for an IAMO graduate school has been approved by the senate competition working group of the Leibniz Community as part of the Pact for Research and Innovation. Seven doctoral students will work here on the development prospects of small-scale agricultural structures. They will be supported by a systematic educational programme. We should also emphasise that, in 2006, more project funding was obtained from the German Research Community (DFG) than in any previous year. Moreover, in conjunction with the *Stifterverband für die Deutsche Wissenschaft*, in 2006 the DFG singled out a DFG project on the transition of family agricultural businesses in China, which was carried out at IAMO, as especially worthy of funding.

In addition to our funding achievements, 2006 was also distinguished by further successes in publication activity. The number of refereed articles by IAMO staff appearing in quality international

journals reached a new level, considerably surpassing past activity. Interdisciplinary research is a way of life at IAMO, represented by publications at the crossover point between economics and history, and on the multifunctionality of agriculture.

The increasing appreciation of IAMO's research is not only reflected in the increasing number of articles submitted and accepted, but also in the fact that, for the first time, a PhD thesis by an IAMO staff member was nominated for the annual prize for young academics by section B *Economic and Social Sciences, Spatial Sciences* of the Leibniz Community.

Besides research, IAMO's core tasks are the further education and training of young academics, and the exchange of scientific



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information. In these important areas of the Institute's activity, the successful work of the past few years was continued. A series of courses as part of the PhD programme met with considerable interest. At the same time, long-time IAMO staff from the regions we study are becoming qualified for positions in international organisations. Here one should mention in particular the EU with its agricultural administration and its research institutions. This positive development, together with the many different connections to Central and Eastern European research institutions, show that IAMO is making an important contribution to the integration of the new Member States into the pan-European research environment and into common international institutions.

The work of the past years to promote the exchange of scientific information was continued and IAMO's position was further consolidated. To cite just one example, at the 26th conference of the International Association of Agricultural Economists (IAAE) in Brisbane, Australia, from 12-18/8/2006, IAMO was represented by no fewer than 15 staff members. They delivered nine papers, six poster presentations and organised an IAAE symposium. Equally successful was the IAMO Forum with almost 150 participants. We can say, therefore, that IAMO has made great advances in the sphere of research, without neglecting its other core tasks. In fact, an attractive research profile, the acquisition of highly motivated researchers, and interconnections within the international research environment go hand in hand. Outstanding research as the motor of the Institute's development in all its core areas will remain IAMO's strategy in the current expansion of its geographical area of study to China, other Asian transition countries and Turkey.

IAMO's positive development in its areas of research, education and knowledge transfer are the result of the huge personal engagement of its academic members of staff. The same is true of IAMO's administration, which tries everything in the realm of the possible to react rapidly and flexibly to the constantly changing demands of an Institute operating at an international level in the global competition of research. We must particularly underline the importance of the services of IAMO's administration in 2006, as the introduction of the new agreement on tariffs for the civil service of the *Länder* in the current transition stage means a complete reorganisation of pay and grading for all members of staff. In spite of this huge extra burden and an expansion of staff numbers and funding, there were no restrictions in the day-to-day activity of the Institute. Quite the opposite – the transition to cost and results accounting, which took place according to Leibniz Community guidelines, and the introduction of economic planning according to the programme budget were also successfully concluded.

In December 2007, the second major evaluation of IAMO by the Leibniz Community will take place, after a successful first one seven years ago. This is an incentive for all of us to continue with determination the successful work of the past in the coming year. This can only be achieved with highly motivated, confident members of staff who can work independently. Of key importance to the Institute was, and still is, the many types of active support we receive from the federal administration and the *Länder*. Here IAMO extends its thanks to the Ministry of Education and Cultural Affairs of the *Land* of Saxony-Anhalt, the Federal Ministry of Food, Agriculture and Consumer Protection, and to the Ministry of Agriculture and Environment of Saxony-Anhalt.

As we prepare ourselves for the evaluation, we would like to thank the members of the board of trustees and the scientific advisory board for all their assistance. We should also like to thank our research partners in Germany and abroad. Without them, and the resulting close integration into the national and international research community, IAMO's successes would be inconceivable.

IAMO 2007 provides an overview of recent research findings relating to the thematic and geographical areas of focus of the Institute's academic work. The first four articles look at the enlarged European Union, in particular from the perspective of the development of rural areas. The first article deals with the prospects of small-scale agricultural structures in the new EU Member States. In its dual agricultural structure, with a mass of tiny farms and individual subsidiary holdings on the one hand, and a few large farms on the other, the farming structures of most new EU Member States are substantially different from those in Western Europe. Inseparable from questions of agricultural structure is the second article on the safeguarding of income through structural change in agriculture in the enlarged EU. Structural change is also at the heart of the third article, which asks how European agriculture would look without subsidies, and what effects this would have on structural change in farming.

The next three articles deal with questions of agricultural markets. The first focuses on the enlarged EU, while the other two look at accession candidates and transition countries at the Eastern borders of the EU. The first examines problems and challenges of communication in European food chains, and thus its competitiveness in increasingly global agricultural and food markets. Taking transaction costs of trade as its starting point, the second of these three considers development and integration problems of the Turkish wheat market. The third looks at the market structure and pricing in the Ukrainian market for raw milk. The article which follows, investigating issues of agricultural education, also deals with Ukraine.

The academic section of IAMO 2007 is rounded off by two articles which examine more general questions of transition. One is a theoretical essay on the economics of rural governance, or the governing and coordination mechanisms of all actors for successful rural development. The other presents the results of the IAMO Forum 2006 'Agriculture in the Face of Changing Markets, Institutions and Policies – Challenges and Strategies'. This also focuses on questions of optimal business structure, and market and enterprise organisation, in order to be able to survive in the face of competition. IAMO 2007 concludes with a short portrait of the Institute. There you can find detailed information on all important aspects of IAMO's work.



Small farmer in Poland

Prospects for small-scale agricultural enterprise structures in the new Member States of the European Union

MARTIN PETRICK

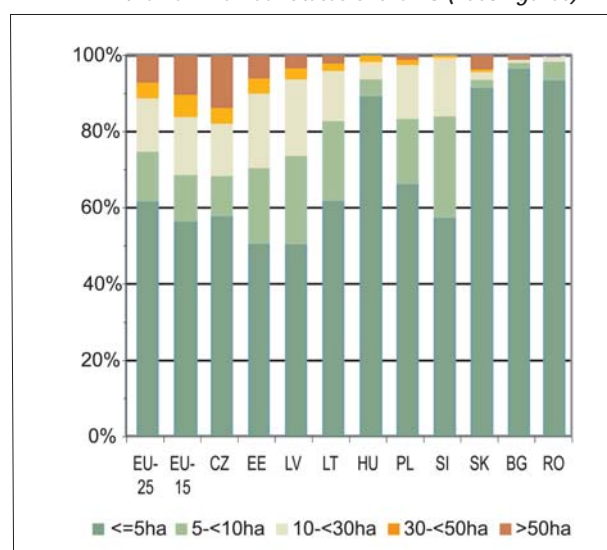
Introduction

Following the accession of Bulgaria and Romania to the European Union on 1 January 2007, the number of farmers in the EU more than doubled: From 6.2m in the EU 15 to 15m in the EU 27. According to Eurostat figures, in 2003 about 11m of these agricultural enterprises farmed less than 5 ha and thus fall into the category of small farms. By comparison, an average farm in the EU 27 cultivates 28 ha. The relative importance of such small farms in the new Member States is variable, as Diagram 1 shows. The highest proportion of small farms is to be found in the newest Member States, Romania and Bulgaria. Although they also make up a high proportion of all farms in the Czech Republic, Slovakia and the Baltic states, the total amount of land cultivated by these small farms is insignificant. In absolute numbers, lots of farms with less than 5 ha land can be particularly found in Romania (4.2m), Poland (1.4m), Hungary (690,000) and Bulgaria (640,000).

In countries with small-scale agricultural enterprise structures, labour productivity in agriculture is many times lower than in other sectors of the economy. According to European Commission figures, in 2004 the c. 33% of the workforce employed in agriculture generated only 12% of the gross domestic product of Romania. In Poland, the relation was 18% to 3%; in Bulgaria, 11% to 8%. For this reason, revenue generated by small-scale agricultural production is usually far lower than that from other sectors.

This situation gives rise to a number of questions. What prospects for development do small farms have? How likely is it that, over time, they will develop into larger and more productive units? How can their revenue opportunities improve? Essentially, these questions have been the subject of academic and political debate for a long time. This article will start by outlining some of the most typical controversies. Then, taking Poland as an

Diagram 1: Agricultural enterprises by classes of farm size in the new Member States of the EU (2003 figures)



Source: Author's own calculations based on EUROSTAT: *Agricultural Statistics, 2006 Edition, Luxembourg, p. 34.*

example, there will be an analysis of which factors, from today's perspective, must be seen as critical for the future development of small farms.

Typical controversies over the development opportunities of small farms

When the scientific analysis of agricultural development got underway in the 18th century, and more intensively in the 19th, the problem of the development potential of small farms – also known as the 'agrarian question' – soon became a major controversy. This period saw the formation of two opposing viewpoints, due in some aspects to strong political influence. In many respects these still represent the starting point and stimulus for endless controversies today. The first viewpoint argues that small farms based on family labour have systematic disadvantages compared with large industrial-like farms and, therefore, that they do not have the potential for long-term survival. This stance can be found amongst the physiocrats and the English classical economists, as well as in the socialist agricultural theories going back to Karl Marx, which were developed later by Karl Kautsky and Vladimir Lenin. Today, this view is represented in a modified form – and usually detached from political programmes – by some continental agricultural economists, particularly from East European countries. Supporters of the second viewpoint, by contrast, point to the particular characteristics of agricultural production which mean that only smaller farms, using family labour resources, can survive. Eduard David and the Russian agricultural economist, Alexander Chayanov, are typical representatives of this viewpoint. Today it has many supporters amongst those economists influenced by Anglo-Saxon thinking.

From an economic perspective, the principal issue is whether larger enterprises have efficiency advantages over small farms and thus whether they can eliminate the latter in competition. Two elements here are at the centre of the analytical investigation: First, the presence, or lack of economies of scale, i.e. productivity gains of larger business units due to technology; second, the significance of market imperfections which are dependent on business size. The latter can occur on both product and factor markets, although market failures on labour and capital markets have received particular attention. Here, questions of the mobility and substitutability of agricultural wage labourers and family members, and the access of smaller farms to credit are of key importance. Size-dependent market imperfections can mean that, even without the existence of technological economies of scale, certain enterprise sizes are advantaged economically.

The role of agricultural policy is also very important. Traditionally, agriculture is exposed to many different influences as a result of political measures which can have particular consequences for the development opportunities of small farms.

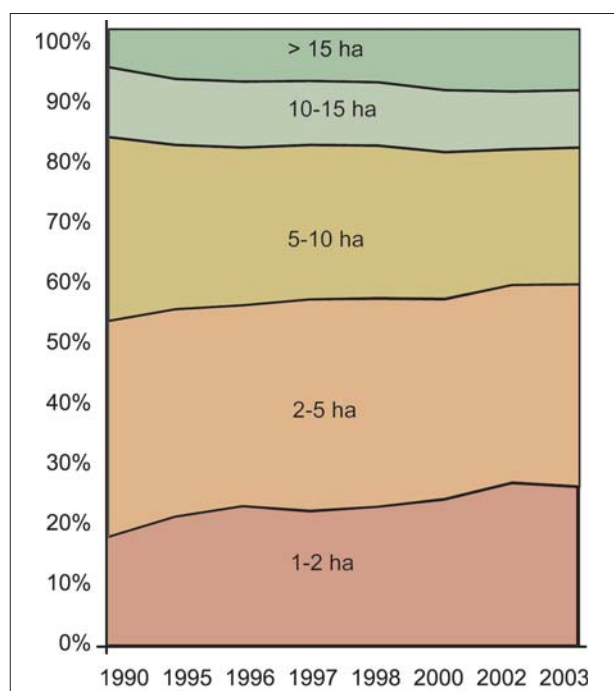
Development opportunities of small farms in Poland

As Diagram 2 shows, the importance of small farms in Poland increased following the political changes. The proportion of small enterprises with less than 5 ha farmland has grown continually since 1990, while the number of those larger than 10ha – which by Polish standards count as bigish farms – has stagnated since the middle of the 1990s.

A major cause of this is the importance of small subsistence farms as a social and economic buffer in times of crisis. Only if

rural households can maintain their livelihoods from sources of income other than their own produce do they lease or sell their land. Until now these non-agricultural sources have been insufficient. With a very large number of industrial enterprises having shown themselves unable to survive in a market environment, unemployment in rural Poland has been growing continuously over the last few years. The liquidation of the former production cooperatives in agriculture has exacerbated this trend. In this case, therefore, imperfections in the labour market are a reason for the preservation of small farms.

Diagram 2: Structural change in Polish agriculture – Distribution over time of farms between classes of farm size



Source: Central Office of Statistics of the Polish Republic.

Frequently, moreover, it takes a generational change for a farm to cease production. Older farm owners naturally have fewer opportunities for employment outside of agriculture due to a lack of vocational experience. Unlike in Romania and Bulgaria, where a large proportion of current farm owners are already of retirement age, in Poland around half of farm owners are younger than 45. A rapid structural change, therefore, with farms closing due to reasons of age, cannot be expected. A consequence of this is that, on regional land markets, little land is available for farms wishing to expand.

A study carried out by the author also revealed that some Polish farmers were unable to fully exploit production reserves on their farms due to credit restrictions imposed by the banks. An analysis of the willingness to pay for credit showed that a large number of farmers could pay higher interest rates than those demanded by the banks, but that the corresponding amount of credit was not available. Financial shortages thus stand in the way of the development of Polish agricultural enterprises. Moreover, econometric calculations carried out by the World Bank in the middle of the 1990s could not identify any relevant economies of scale for Polish farms.

Since 2004 farmers in the new Member States have also been receiving direct payments as part of the EU's Common Agricultural Policy (CAP), albeit at a much lower level to begin with. Starting at 25% in 2004, the payments will gradually reach the level of the EU 15 by 2013. The new Member States can top up these payments with funds for rural development, or from the national budget. Together with these top-ups, Polish farmers received about EUR 120/ha farmland in 2006. Besides the direct payments, Polish farmers also benefit from the highly

subsidised state pension scheme, so-called semi-subsistence farms receive special subsidies, and the smallest farms can even receive unemployment support under certain conditions. European and national policy instruments thus create a key incentive for the continued existence of small farms.

In addition to state transfers, a further revenue source for small farms has become significant again, particularly since EU entry. This is the money sent home by labour migrants and seasonal workers, some working in Germany and Austria, but predominantly in the three Member States where there is no restriction on freedom of movement: Great Britain, Ireland and Sweden. There is little information about the level of these transfers but, according to estimates, the total could even exceed that paid out annually to Polish farmers under the CAP. The effects of labour migration have also been inadequately researched. On the one hand, the payments tended to stabilise small farm structures in the home country. On the other hand, however, it is unclear how far labour migration can also act as a springboard for non-agricultural activity in Poland or abroad.

A study of how independent farms use the direct payments from the CAP shows that a large number of Polish farmers want their children to have a future outside of agriculture. Besides obtaining consumer goods, the top priority for these payments is for their children's education and training. It is evident that many Polish farmers practise agriculture out of economic necessity and not so much out of family tradition, and that they are very interested in non-agricultural vocations for the next generation.

An alternative strategy to improve the development opportunities of agricultural enterprises is collective local action for the

valorisation of regions. This approach of regional management and development by means of local partnerships has brought positive results in many old EU Member States. IAMO carried out a study of, amongst other examples, the marketing cooperative 'Chmielnik Zroj' in the south-eastern Polish voivodeship of Subcarpathia, which has been working successfully for years, and which currently employs about 400 people. The marketing cooperative buys products from small local farmers, processes them, and sells them to 70,000 households in the region. Together with the local communes, the development association in the area successfully applied in 2005 for the pilot programme to implement the community initiative Leader+ as part of the Polish Sectoral Operative Plan. Because of the need for a local development strategy, as well as the incentives inherent in Leader+ to create new revenue sources and develop existing ones, the implementation of this measure seems desirable. In general, however, not enough is known yet about the community initiative in the region. What is more, the myopia of the local population should be met with appropriate development strategies or visions, local trust in EU institutions and programmes should be strengthened, and the cooperation between the development initiative and the local authorities should be stabilised.

Conclusion

The majority of agricultural enterprises in the new EU Member States are small by European standards. The example of Poland has shown that, due to a large number of factors, this situation is not expected to change soon. On the contrary, structural problems in Polish agriculture are going to create huge problems for the politicians in Brussels and Warsaw for years to come.

The main reason for the persistence of small-scale agricultural structures in all the new Member States is the lack of suitable employment opportunities outside of agriculture. State transfers and migrant labour earnings are used to improve agricultural incomes. The former, at least, tend to postpone structural change, however. The same is true of obstacles to credit access and the lack of markets for agricultural products. If a large number of farms do in fact cease production in the next few years, this would signal a positive general economic development. It remains to be seen to what extent regional development partnerships can improve the revenue opportunities of small farmers. The first positive examples of successful cooperation between private business, associations and communes are visible, however, in the new Member States as well.

In order to work on the gaps in research outlined above, IAMO secured funds from the '2006 State and *Länder* Pact for Innovation and Research' for a graduate school. With the substantial involvement of several young IAMO post-doctoral researchers, it is focusing on questions of sectoral change in Central and East

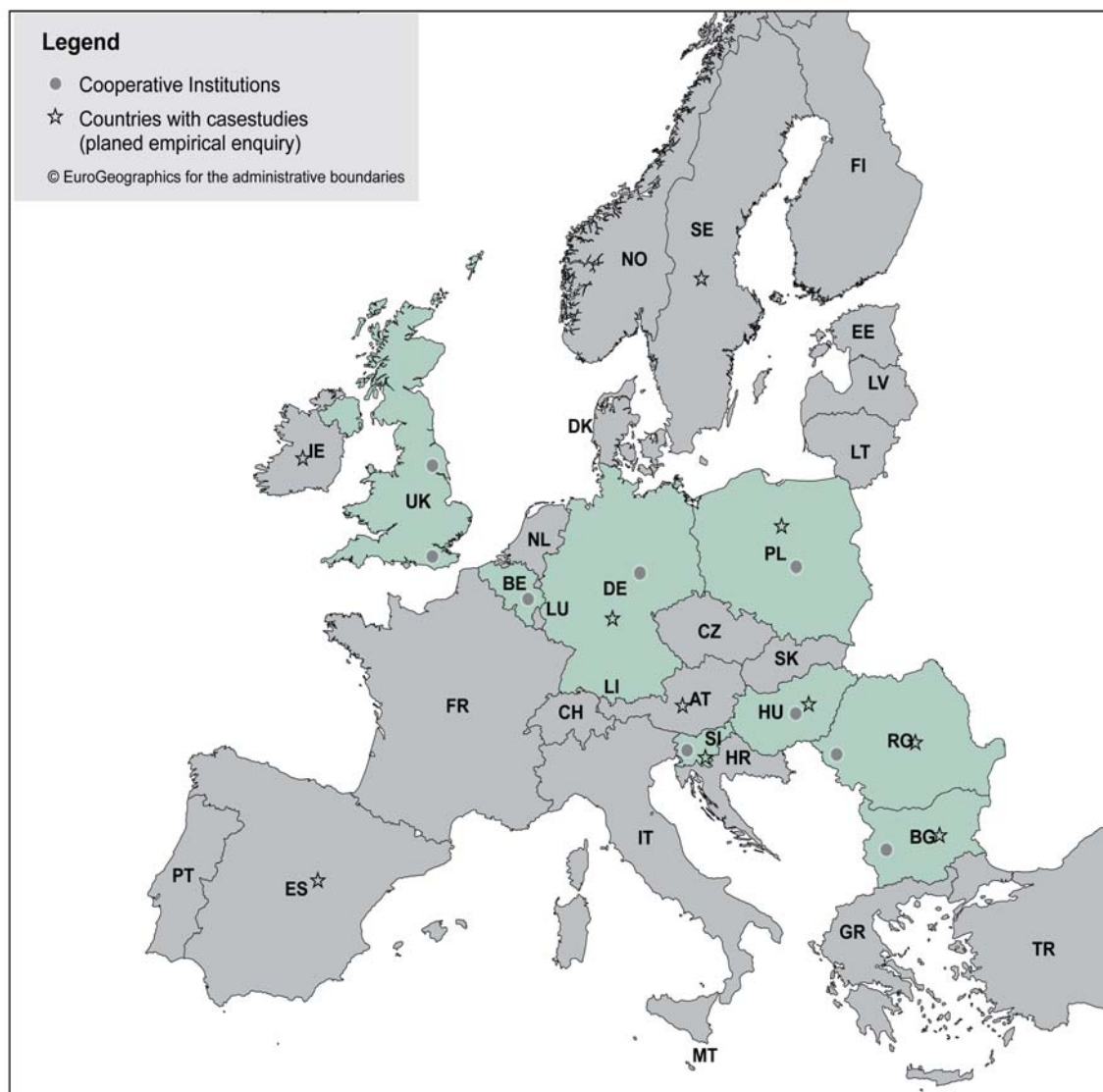
European agriculture, analysing enterprise and inter-enterprise adjustment strategies, and researching the institutional parameters of change and its implications for agricultural and regional policy.

Further literature

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SCARLED project partners and case study countries

Safeguarding income by means of rural structural change in the enlarged EU

JUDITH MÖLLERS, GERTRUD BUCHENRIEDER

Many rural regions in the enlarged EU must be subject to radical structural change, in order not to lose their connection to prospering, mostly urban commercial spheres. This is true of both the agricultural sector, where the main problems are widespread small-scale farming structures and low productivity, and the non-agricultural sector in rural areas. Besides the 'general' problems of many rural areas in the EU, rural regions in the new Member States also have to struggle with the fact that, during the course of transition, many (unprofitable) jobs within and outside agriculture disappeared.

The international research project 'Structural Change in Agriculture and Rural Livelihoods' (SCARLED) is working on this important subject area. This project, which in 2006 received a positive appraisal from the 6th Framework Research Programme of the EU, is being coordinated by IAMO. In short, SCARLED is examining rural restructuring processes and the socioeconomic transition in the new Member States of the EU. A key objective of the three-year project is to draw up policy-relevant analyses based on current empirical data. For this, surveys of farming households are being conducted in Bulgaria, Poland, Romania, Slovenia and Hungary. The policy recommendations should also be based on analyses of success stories of rural areas in selected countries of the EU 15 (Germany, Ireland, Austria, Sweden and Spain).

The answers to three of the survey questions are particularly important with regard to successful rural structural change:

What are the motivations of an agriculture oriented to the future and of the development of the non-agricultural sector? Which conditions must be created to overcome the extensive subsistence agriculture and underdeveloped horizontal and vertical cooperation relations? How are the adjustment processes of labour allocation proceeding at sectoral and regional level? These questions must be answered in order to be able to develop well-substantiated policy recommendations. Correspondingly, they receive special consideration in the SCARLED research outline. IAMO is focusing particularly on the examination of non-agricultural diversification, as well as the dynamic relations between structural change and features of subsistence-oriented rural households. This article looks at some of these questions using Slovenia as an example.

Structural change in rural areas of the enlarged EU

Structural change in agriculture is characterised by constant changes in the deployment of the production factors of labour, land and capital. It manifests itself in a clear change in the structure of production. Within agriculture the size of the workforce and the number of farms are reduced. In relation to the national economy, the proportion of those employed in agriculture falls. At the same time, agriculture's share of total national revenue develops negatively.

Following enlargement, the proportion of total territory in the EU 27 covered by rural areas has risen to over 90%, and the

proportion of the entire population living in rural areas to over 60%. The proportion of those employed in agriculture has also increased from 4% (EU 15) to 5% (EU 25) and again to more than 7% (EU 27). This development highlights the strategic importance of policies which support the structural change in rural areas of the EU. Even if this structural change is taking place on a permanent basis, it is particularly incisive in phases of political and economic upheaval. In spite of successful development in the new Member States, there are still enormous differences in the various structural and development indicators between these and the EU 15, but also between the new Member States themselves. In 2004, for example, the proportion of those employed in agriculture was just above 4%

in the Czech Republic, but more than 30% in Romania. With an average of five hectares, farm sizes in the new Member States are also comparatively unfavourable. Although, on the one hand, extremely large farms do exist, in terms of numbers it is the very small farms – often part-time and subsistence enterprises – which constitute the vast majority. This small-scale agricultural structure, together with low productivity, highlights the urgent need for structural change. This becomes even clearer when one considers that about four million farmers in the new Member States had to leave the agricultural sector in order to reach only half the average level of productivity of the old EU 15. Of chief importance is the need to develop the non-agricultural rural labour market, which must absorb those

Table 1: Poverty and income inequality in the new Member States

	BG	CZ	EE	HU	LV	PL	RO	SK	SI
Proportion of poor people	18,2	0,8	19,3	15,4	34,8	18,4	44,5	8,6	0,7
Rural poverty index	1,3	1,1	...	1,5	1,4	1,6	1,4
Gini 1989	20,7	19,8	29,9	23,3	27,4	20,5	15,6	18,3	21,9
Gini 2002	49,3	27,3	36,6	26,7	35,8	35,3	39,1	26,7	30,7

Source: WIDER (2006), WORLD BANK (2000).

Notes: BG=Bulgaria, CZ=Czech Republic, EE=Estonia, HU=Hungary, LV=Latvia, LT=Lithuania, PL=Poland, RO= Romania, SK=Slovakia, SI=Slovenia.

The proportion of the population in absolute poverty is based on a US\$4.30/day poverty line. The rural poverty index describes the risk of poverty; where values are greater than 1 the incidence of poverty is higher in the countryside than in urban regions. The Gini coefficient is a measure of income distribution. It can take values between zero and 100 %. Where the Gini coefficient is close to zero, incomes are evenly distributed.

members of farming families leaving agriculture if a massive exodus from the land is to be avoided.

The economic problems in the rural areas of the new Member States are also reflected in the per capita incomes. Measured in purchasing power parities, the per capita income for 2004 varies between 30% in Bulgaria and 79% in Slovenia compared with the average of all the EU 25 countries (EU 25 = 100%). The EU 15 average is 109%. In rural regions, the poverty rates are significantly above the average national values (Table 1).

As the importance of agriculture for productive employment decreases during economic development, the non-agricultural sector has a key function for a successful rural development policy. For this reason, European policy for the development of rural areas no longer targets the agricultural sector alone, but sees rural areas in all their diversity, including non-agricultural employment.

Structural congestion in rural areas is closely related to decisions about succession on farms, farmers leaving agriculture and, very generally, to decisions about the inter-sectoral allocation of the production factor of labour. These household decisions, in turn, are strongly influenced by socioeconomic variables such as the labour reserve and the institutional milieu.

Pluriactivity and structural change in rural areas of Slovenia

Some of these aspects – particularly farmers leaving agriculture and decisions about inter-sectoral labour allocation – are being examined by one piece of preparatory research work for SCARLED. It is looking at the two Slovenian regions of Gorenjska and Pomurska.

The situation that has been uncovered there shows clear signs of structural congestion. More than half of the 100 agricultural households surveyed have stated that they are not planning any changes to their farms over the next five years. This means that a status quo will be preserved which is based on small-scale, part-time farming. Scarcely one third of the households wish to increase the size of their farms, something which, in any case, is not always easy to achieve due to the state of the land market. On the other hand, a dwindling and low proportion of households (4%), intend to leave agriculture completely, either due to age or to take up a non-agricultural activity. The differentiators between those households which did not intend to make any changes and those which wanted to expand their farming activity were identified by means of a binomial logistic regression. This has produced a very clear picture. Households with a particularly positive outlook on agriculture, where the farm bosses are generally younger, and where there is farming know-how, are aspiring to a future centred on farming. Their agricultural labour revenues are higher than in the other, comparative group. A good infrastructure connection also makes enterprise growth more likely.

There is not only data relating to decisions about the future of the farms, but also to decisions about personal labour allocation strategies of individual household members. Three possible paths can be distinguished here: Working in agriculture, working outside of agriculture, or combined work both in and outside of farming (see Table 2). The latter is described here as pluriactivity. In such cases, a person carries out several income-generating activities. In total, data were collected for 269 economically active family members. In contrast to the observations made about

Table 2: Employment status and future strategies of family members in Slovenia

Current employment status	Future strategy			Total (Persons)
	(1)	(2)	(3)	
(1) Working outside of farming	17 (89,5 %)	2 (10,5 %)	0 (0,0 %)	19
(2) Working pluriactively	58 (50,0 %)	46 (39,7 %)	12 (10,3 %)	116
(3) Working in farming	41 (30,6 %)	22 (16,4 %)	71 (53,0 %)	134
Total	116 (43,1 %)	70 (26,0 %)	83 (30,9 %)	269

Source: MOLLERS, 2006.

Notes: 1=Working in a non-agricultural job, 2=Combination of agricultural and non-agricultural work (pluriactive), 3=Working in farming.

the farm enterprises, here there is a clear decrease in agricultural and combined activity, whereas non-agricultural work is on the increase. The number of people surveyed who work exclusively outside the farming sector is very low. An explanation for this is the widespread prevalence of part-time farming. Often this is hobby farming, which only makes a small contribution to the household income. Out of the large group of those who work both in farming and outside of the sector, 40% want to keep their employment status, i.e. pluriactivity. Half of the pluriactive individuals want to abandon their agricultural activity in the medium term, and about 10% intend to cease their work in the non-agricultural sector. More than 50% of the full-time farmers want to continue working exclusively in agriculture. About

16% of these plan to supplement their income with additional non-farming work, and about 30% see no future in farming and want to obtain work in the non-agricultural sector.

Conclusion

There is no doubt that within the EU, and thus also within its new Member States, non-agricultural employment is increasing in importance for the prosperity of rural areas. The policy challenge is to create an environment in which rural economies can be restructured, and in which those population groups concerned benefit equally whether they are involved in farming or outside the sector. In Slovenia, the close relationship of the rural population to agricultural activity, in particular, has reinforced the part-time farming



Small farmers in Poland

structure, reducing the competitiveness of full-time farms and inhibiting structural change. In many of the other new Member States, on the other hand, subsistence agriculture plays an important role in this regard. Production for one's own need offers rural households at least a minimum of security for their livelihoods.

On the other hand, it is the hidden unemployment in subsistence farming which makes a sectoral reallocation of labour necessary. Subsidy policies should support continuous structural change as well as an ongoing development of non-agricultural employment in the local and regional service sectors. SCARLED is conducting an empirical examination of this subject in the new Member States. There should also be a consideration of the positive experiences with the development of selected rural regions in several of the EU 15 countries.

Further literature

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Does it also work without subsidies? The possible consequences for European agriculture

KATHRIN HAPPE, ALFONS BALMANN

Let's imagine that direct payments to agriculture were to stop from one day to the next. What would happen? Ever since the latest EU budget negotiations this question has been a topical one. Even the financial framework for rural development, which used to be continually on the increase and was believed to be secure, is no longer sacrosanct. That has been shown not least by the fact that the future accession rounds have to be contested from the existing budget. This inevitably means a cutback in the current level of payments. Moreover, the scientific advisory board at the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV) has addressed these developments in a report, and has suggested that the underlying basis of agricultural policy be reconsidered. According to this report, it is hard to justify current agricultural policy. Even a further turn of the screw would not be able to make good the distribution effects of the policy which have been increasing for decades. The advisory board is also calling for clarity with regard to a fundamental overhaul of the Common Agricultural Policy (CAP). All this points in the same direction: The system of income subsidies and equalisation payments can be dismantled.

But would agriculture as a whole be threatened by such a move? As painful as this issue is, it is worth analysing it in more detail. After all, there is no clear evidence that each individual farmer would be negatively affected in the same way by a reduction or even abolition of direct payments. Agriculture today in

the enlarged EU as well as in Germany is extremely heterogeneous. Some of the key causes of this are differences in farm size and location, variable access to the production factors of land and capital, production orientation, and not least the highly variable management abilities of farm bosses. With regard to a drastic cutback in subsidies, therefore, the starting positions of individual farms and farm groups differ considerably.

Particularly as an agriculture without subsidies is not yet reality, it is worth conducting a series of thought experiments to bring more transparency into the debate. Simulation experiments can give such theoretical business games a sound basis. A computer-generated simulation model, such as AgriPoliS allows the effects of different policies on various agricultural structures to be tested. We can already say at this point that, from an economic perspective, not all farmers need fear such a scenario. Some farms can look to the future with confidence. There are also losers, however, who can easily be identified.

Let us take, therefore, a hypothetical agricultural structure as depicted in Table 1. In its main attributes the structure is similar to that in Western Germany. It is characterised by family farms and a large number of smaller part-time farms. The commercial orientation of the farms is mixed, although in our model the larger enterprises focus on processing. Other subsidies, such as investment assistance or capital subsidies are disregarded; only direct payments have been included. Looking at

Table 1: Selected structural indicators by size classes under the Agenda 2000 conditions

Indicators	Part-time	Full-time/greater part-time			Total
	Class I	Class II	Class III	Class IV	
		Small	Medium	Large	
	< € 19.200	€ 19.200 - € 48.000	€ 48.200 - € 120.000	> € 120.000	
Farm size (% of total)	16.7 %	36.8 %	41.9 %	4.6 %	100.0 %
Value added (% of total)	9.3 %	31.8 %	51.3 %	7.7 %	100.0 %
Proportion of land leased (% of total farmland)	26.8 %	30.9 %	38.6 %	56.7 %	31.9 %
Leasing costs (€/ha)	216	271	436	457	356
Ground rent* (€/ha)	-371	-190	156	300	-61
Proportion of full-timers (% per class)	0.0 %	60.6 %	100.0 %	100.0 %	50.5 %

Source: Authors' own.

Note: * Ground rent calculated as remaining land revenue after estimated costs for labour and capital have been taken into account.

the starting position for an agriculture without direct payments, a classification by size corresponding to the value generated by the model farms is helpful. The classification is based on the system of European size units. We have distinguished four classes based on the level of value added:

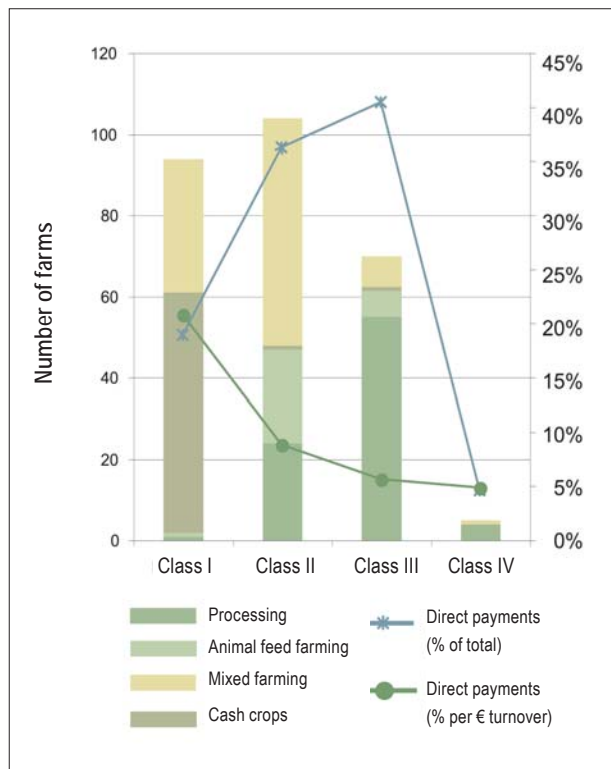
- Class I: Value added less than €19.200;
- Class II: Value added €19,200 - €48.000;
- Class III: Value added €48,000 - €120.000;
- Class IV: Value added greater than €120.000.

Even if, in absolute terms, the direct payments to larger enterprises are higher, per Euro of turnover they are considerably greater to smaller farms (diagram 1). For example, the Class I value added farms on average receive 20% of all direct payments.

However, the proportion of direct payments per Euro of turnover is, at 20%, high in comparison to Class III value added farms. These receive 40% of the cake, but the proportion of direct payments per Euro of turnover for these farms is, at 5%, rather low. At the same time, the average rent paid by large farms is, at €436 per hectare, substantially greater than the average paid by the smaller Class I farms – €216 per hectare (Table 1). This is due to the higher proportion of processing enterprises and the associated demand for land. What is more, fairly large and large farms have a relatively higher proportion of leased land and generate a substantially higher ground rent in spite of higher lease prices (Table 1). In our example, the difference in the average per hectare ground rents between Classes I and III value added is around €520.

Given the scenario of a cutback in premiums, it is predominantly those farms operating efficiently that seem to have a more advantageous starting position. They achieve a high ground rent and only a small proportion of their revenue is made up of direct payments. These enterprises are mainly processing farms, which are also used to price risks. They have learned how to adjust to these. If one assumes that less efficient farms will cease production, a policy change offers the more efficient ones

Diagram 1: Farms by value added Classes and orientation



Source: Authors' own.

opportunities for growth. A cessation of direct payments would also weaken the capitalisation of direct payments in land prices. Expanding farms with a high proportion of leased land, in particular, would be able to use this to compensate for a cutback in subsidies. The time scale in this has to be taken into consideration, however, as the adjustment in leasing prices takes place step-by-step according to the existing contractual conditions.

The following simulated calculations should check the scenario outlined above. In order to be able to better assess the findings, the following information is important:

- All farms studies in the simulation maximise their household income, which is the total of farming and non-farming revenue. Decisions are made exclusively from an economic perspective.
- Lease contracts have a duration of between eight and ten years and cannot be renegotiated until after this period, unless a farm ceases production prematurely.
- There are no alternative opportunities for using facilities and machinery, so these are not included in the calculations (so-called 'sunken costs') about the continued working of a farm. That also means that many farms are forced to continue in operation, which in turn reduces the prospects for growth for other farms.

Essentially we are looking at a scenario which simulates a radical policy change from the starting situation of Agenda 2000 to an agriculture without subsidies. Which farms will survive the policy change? What are the specific requirements for survival? Table 2 provides information on these questions. Relatively more larger than smaller farms will survive the structural change. In Class I value added, 54% of farms will survive;

Table 2: Farms which will survive structural change by at least 5 years

Indicators	Part-time	Full-time/greater part-time			Total
	Class I	Class II	Class III	Class IV	
		Small	Medium	Large	
	< € 19.200	€ 19.200 - € 48.000	€ 48.200 - € 120.000	> € 120.000	
Farms prior to policy change	94	104	70	5	273
...which have survived the policy change	54 %	72 %	77 %	100 %	68 %
...which have survived the policy change in the same class	22 %	63 %	13 %	40 %	36 %

Source: Authors' own.

in Class III, on the other hand, the figure is 77%. There is also movement between classes. In total, 36% of all surviving farms overcome structural change in the same class. This basically means that not all farms which, prior to the change in policy, were classified as small and less capable of survival, shut down when assistance payments are abolished. These farms have adjusted to the changed environment.

Markets, too – especially the land market – react to subsidy cutbacks, by reducing lease prices for example. Our simulations show that over a period of five years following the policy change, the average lease price drops by almost one half (Diagram 2). One must bear in mind, however, that because of existing lease contracts with fixed periods, farms cannot adjust immediately to the changed policy environment. For farms with existing contracts, a subsidy cutback means an additional burden until the leases can be renegotiated.

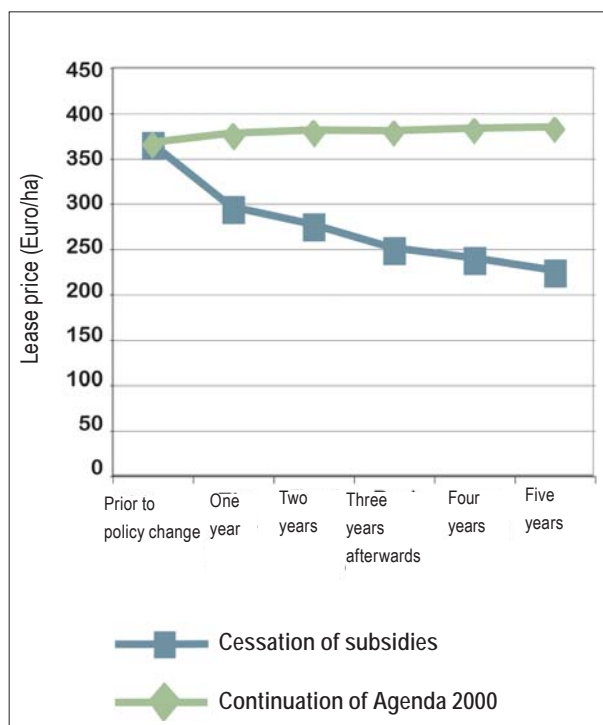
What do these results mean when transposed to the current state of agriculture? If one takes as similarly a strict economic perspective as in the simulations, the following key statements can be made:

- The greater the dependence on direct payments in the past, measured by payments per Euro of turnover, the harsher the effect of a cutback in subsidies. If one considers that in the processing regions these are smaller (measured by ground rent), less efficient farms, a radical policy change requires massive adjustment in order to survive. These adjustments are diminished by the fact that these farms (a) benefit less from a drop in lease prices following subsidy cutbacks because they lease a smaller proportion of land, and (b) because of previous investments they have settled on an agricultural orientation which is difficult to change from. One option for these farms is to orient themselves as broadly as possible and to secure alternative sources of income.

- Those farms that can benefit directly from increased structural change in the wake of a radical policy shift are clearly in a better situation. These are the farms that are oriented towards expansion, who already operated relatively independent of policy at the starting point and who, with a high proportion of leased land, can directly benefit from the low lease prices. Here farmers must check that contractual commitments entered into prior to the policy change are sufficiently flexible that they can be adjusted if necessary.

Even if the simulation model highlights the main lines of future development following the abolition of direct payments, the developments in reality will not run as clearly and definitively as the experiments show. Frictions, e.g. due to laws and regulations or the development of alternative sources of income also have an effect on adjustment. What is more, a large number of farmers – both in the hypothetical simulation world and in real regions dominated by small-scale agriculture – are in a subsidy trap. They are reliant on financial assistance in order to be able to produce at all. And yet it is precisely the agricultural policy of the past which has pushed farms into this situation. Occasionally, therefore, certain compensation payments can be justified. But the reason for them must be made transparent.

Diagram 2: Comparison of lease prices with a continuation of Agenda 2000 and with a radical cutback in subsidies



Source: Authors' own.



Grain silos near Kavanas (Bulgaria)

Business relationships and communication in the supply chains of the European food economy: An analysis of key factors of influence

MIROSLAVA BAVOROVÁ

The reforms of the EU's Common Agricultural Policy mean a reduction of market interventions and a further liberalisation of agricultural markets. To preserve the efficiency, competitiveness and sustainability of the supply chains for agricultural products, the actors within the chains must be sufficiently prepared for changes. Increased coordination between producers, processors and distributors represents one of the possibilities for using the reform as an opportunity for the sustainable development of enterprises and their relationships.

Economic relations can be improved particularly if the management within and between the various stages of a supply chain has adapted. A key aspect of this is information transfer between those involved. Given that markets are becoming ever more global, an international study is needed to identify the social, economic and cultural factors which influence the communication and coordination in European supply chains. This task is being undertaken by the 'Key factors influencing economic relations and communication in European food chains' (FOODCOMM) research project. The project, involving seven partners from six countries, began in March 2005 and is scheduled to last three years. Its chief aim is the formulation of agricultural and food policy recommendations to improve the functioning of food chains in the European Union. Based on the significance of food chains for a particular country, the following chains were selected for the analysis: Beef cattle to beef (Ireland, Poland, UK), pigs to pork or

pork products (Finland, Germany, Ireland, Poland, Spain), barley to beer (Germany, UK), and wheat to bread (Finland, Germany, Spain). This article presents the initial findings of the project which are based on a study of the literature and expert interviews.

Business relations

The relations in the chains studied vary between highly fragmented spot markets, via hybrid forms of relations, to complete vertical integration, i.e. the absorption of upstream or downstream businesses into one enterprise. An array of economic, political, technological, social and cultural factors influence the form of business relations. On the spot market, where goods or services are traded directly at the going market prices, the identity of the respective parties is unimportant. Spot markets predominate in the marketing of homogenous goods, especially in the relations between farmers and first processors, as, for example, in the sausage and beer chains in Germany, and in the British beef chain. For the most part, farmers are only prepared to enter into close contractual relations if their type of production necessitates a high level of investment and if, with a lack of alternative distribution channels, they have to avert the risk of opportunistic behaviour by the purchaser (price reduction, refusing to purchase). In most chains involving products with specific characteristics or qualities, such as wheat for baby

food, the relations are thus closer and more intense. Contract farming, on the basis of a legally enforceable contract which defines all or at least the most important obligations of each party, predominates in Irish and Finnish pork production. Through contracts with farmers, the abattoirs secure for themselves fixed deliveries at specific times. The farmers benefit from contracts by receiving a guarantee for their sales.

Intermediaries play an important role in the marketing of agricultural products at the downstream processing stage. Their significance varies between the countries studied and also between product types. In the German bread chain, it is mostly intermediaries or Raiffeisen cooperatives that look after the drying, cleaning and storage of wheat. For this reason, it is small farmers in particular, and those without any storage possibilities who market their products through intermediaries. In the Polish meat chain, too, intermediaries play an important role in the transition from the stage of agricultural production to the processors. At this stage they market 60-70% of sales in the pork chain and 55% in the beef chain. This high proportion of intermediary involvement is chiefly a result of the small-scale farming structure. Here, intermediaries ensure that meat processors receive a constant and sufficient supply of raw meat. The producer price for farmers is based on the live weight and is not connected to the classification system for meat after slaughter. Consequently there is little incentive for the farmer to produce high-quality meat. By contrast, the intermediary is paid according to quality which is measured by the classification system. In the Irish pork chain and the British beef chain, intermediaries do not play an important role in exchange between agricultural producers and abattoirs. As there are predominantly animal

producers with large capacities, the consolidation function of the intermediaries – to supply meat to the slaughter enterprises for processing – does not occur here.

The relations between the various later processing stages are generally closer than those between farmers and first processors. There are technological and economic reasons for this which are connected to the greater focus on quality when products reach the food industry and later processors. As a result of the increasing differentiation of agricultural products and ever more demanding consumers, the need for communication and cooperation within food chains has risen continually over the last few years. In the German bread chain, for example, there is ever closer cooperation between mills and bakeries. The bakeries require special qualities of flour with specific characteristics in order to be able to produce differentiated high-quality breads, cakes and pastries. It is also the case that industrial high-capacity bakeries, in particular, have an enormous flour requirement and so suppliers have to guarantee a sure supply. Suppliers should, therefore, have a high level of flexibility, in order to be able to react as quickly as possible to changes in consumption. The growing demand for traceability is increasing the costs for information provision and monitoring. With longer-term contractual relations, these costs are lower compared to single transactions.

Business relations between processors and food sales chains are, in the main, strongly formalised, and regulated by detailed written contracts. In the drafting of contracts it is not just the price which is important, but also the product quality and the continuity of supply. What is more, the retail sector often demands information about suppliers, in order to be able to trace the path

of products almost 'back to the stable'. The retail sector also keeps a very close eye on consumer preferences and passes on its findings to the upstream suppliers. In most food chains market power is in the hands of the retailers, who thus have a decisive influence – both directly and indirectly – over contract terms throughout the whole chain.

Communication

The CAP reform has reduced market support for agricultural products. Market forces thus have a greater influence on the farming sector in EU Member States. This will increase further in the future. Consequently, farmers' incomes will be ever more dependent on their ability to satisfy the demands of the food trade. Ultimately, the food retail sector has market power in most food chains. At the same time, because of the dominant position of the consumer it is subject to enormous competitive pressure on its markets with tight profit margins (it's a buyer's market). Farmers, therefore, have to satisfy the demands of both their direct purchasers and the food retail sector. This requires a stepping up of information exchange along the whole food chain.

Increasing demands on food quality and traceability also make the exchange of large amounts of information along the entire food chain necessary. For this to occur, all production stages in the food chain, including farmers, must be equipped with modern communications technology. This will incur a high expense for all those involved. As the costs for communications technology are not directly in proportion to the enterprise size, I.T. costs for small businesses will increase disproportionately.

Currently in the communication sphere, there are clear commercial 'economies of scale' in Europe.

For different countries and food chains, various communications media have shown themselves to be dominant. The importance of different communications media also changes between the stages of a chain. Between the production stage of the farmer and that of the intermediary or first processor, communication is generally by means of a direct personal conversation with great use of the telephone. In the downstream stages of the chain, with increasingly formalised relations, media such as email, internet, extranet and EDI are increasingly being used. In the near future it is expected that the use of these media, which simplify, speed up and reduce the cost of information exchange, will be expanded at all stages of the food chain. The use of a means of communication is also dependent on the size of business – small businesses prefer a personal conversation or a telephone call. This is particularly the case in the Polish pork chain, and is also due to the fact that small farms in Poland are inadequately equipped with communications media. On the other hand, large enterprises do not lack modern communications technology, which significantly facilitates the exchange of large amounts of information.

One of the greatest problems caused by poor communication is inadequate transmission of market signals within the chain. Good communication in the chain with regards quality and prices also gives rise to increased trust between partners. Trust between members of a chain is one of the most important factors for the quality of relations in the food chain.

It was established that poor trust is also predominantly a result of very strong competition, where all members of the food chain have to compete for a very narrow profit margin. This was shown to be the case in the British beef chain, the Irish pork chain and the German beer chain. Poor trust can also develop as a result of a lack of transparency regarding product quality demands and the price consequences which, for farmers, are scarcely calculable. This is true of the Irish and German pork chains. The fragmentation of agricultural production, as exists

in the Spanish bread chain, for example, also has a negative effect on the development of trust in delivery relations.

By means of a survey of representatives from all stages of various food chains, the aim is to produce another, deeper analysis of both delivery relations and communication in European food chains. This began in autumn 2006 as part of the FOOD-COMM project. The project's progress can be followed on the project website <http://www.foodcomm-eu.net>.

The Turkish wheat market: High transaction costs as an integration problem?

ENNO-BURGHARD WEITZEL

For many Europeans the Turkish agricultural and food sector is still a great unknown. But irrespective of whether Turkey joins the EU in the foreseeable future, or whether the existing relations with the European Union are developed in different ways, questions of agricultural policy will still play an important role. With 30% of the population involved in farming and about a 10% share of social product, agriculture is much more important for the Turkish economy than in the EU on average, even compared to most of the new accession states. Labour and land productivity are even less than the very low Romanian and Bulgarian levels. Many EU Member States are worried, therefore, that a transfer of the Common Agricultural Policy to Turkey is not financially sustainable. For their part, Turkish farmers see the danger of not being equal to the more intense competition of an enlarged market. This has produced an 'angst scenario' which already plagued the eastern expansion of the EU but has proved to be a false alarm since 2004. To make a balanced assessment of greater European-Turkish cooperation, therefore, a precise knowledge of the Turkish situation is necessary. There is still a considerable need for research in this area.

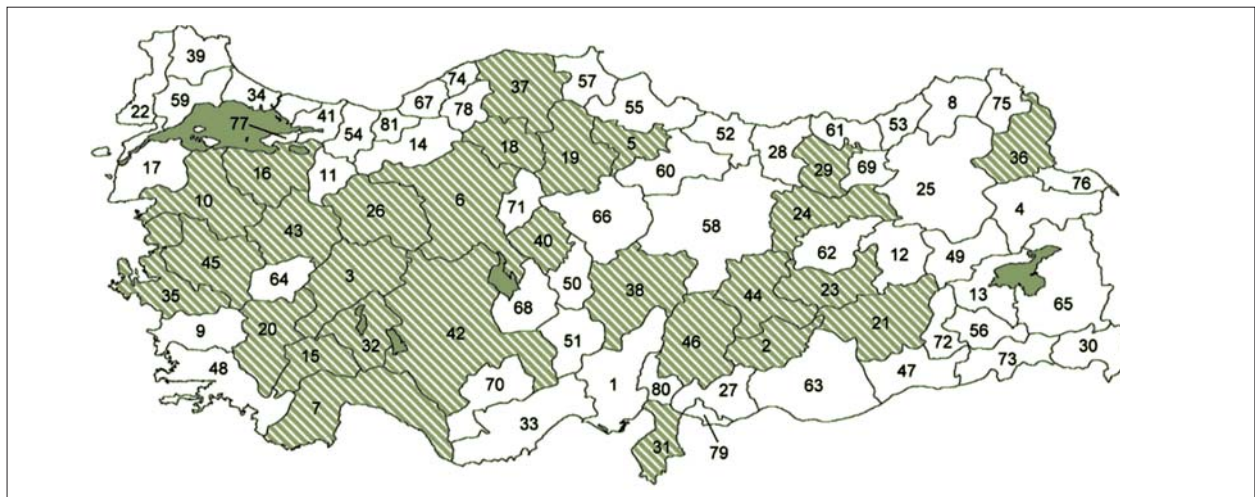
Wheat farming and the activity of the wheat markets is critical to the Turkish agricultural and food economy as well as food safety. Hardly any studies exist on this or even on Turkish farming and agricultural markets. Out of approximately seven million farmers in Turkey, four million cultivate wheat, while 21% of agricultural value created from crop production is based on wheat.

About two-thirds of wheat grown in Turkey arrives on the market. There has not yet been a study, however, of pricing mechanisms in the Turkish wheat market.

The market analysis presented here focuses on wheat as the most important product of Turkish agriculture. The 81 administrative provinces serve as the basis for the study. The key research question is whether – and if so, how strongly – prices in a province are influenced by those from other provinces. The degree of integration in the Turkish wheat market is at the heart of this question. A poorly integrated wheat market would be a serious obstacle to development for Turkish agriculture and would massively distort the effectiveness of agro-political measures. For this reason, agricultural policymakers – e.g. those in the EU – have a substantial need for knowledge in this area. Successful market integration can be defined as the long-term alignment of price movements of all marketplaces within a geographical area. Studying equilibrium relations provides, in particular, information about the effectiveness of the signal function of prices as a major requirement for the efficient functioning of free markets.

Turkey, as shown in Diagram 1, is 783.562 km² in size, more than twice as large as Germany. Many villages are to a large extent cut off from roads and new information technology. Diagram 1 provides an overview of Turkey and her provinces. It shows the size and location of all 81 administrative provinces. The areas shaded in green are the 28 provinces which were included in this study. The available data come from provinces

Diagram 1: Geographical overview of Turkish provinces



Source: Author's own.

distributed across the whole of Turkey. From Kars in the east (36) to Izmir in the west (35), and from the southerly Hatay (31) to the northerly Kastamonu (37), all the important Turkish provinces are represented. The overall greater consideration given to western provinces reflects the economic importance of Konya (42) and Ankara (6) as the chief wheat farming regions in Turkey. Important ports such as Izmir (35) and Hatay (31) are also included in the study. The selection of provinces can thus be seen as representative for the Turkish wheat market as a whole.

In comparison with other EU states, Turkey has a very large number of wheat exchanges (19), which have evolved into major transportation hubs in the market. In itself, the unusual volume of wheat exchanges suggests that transaction costs do not play a negligible role in market activity for the trading of

wheat. If one ignores these, the findings are distorted. As direct information on the level of transaction costs is in most instances unobtainable, however, a threshold co-integration model was used for this study. This has the great advantage that it can record significant transaction costs on the basis of price data alone.

Pricing from the period January 1994 to December 2003 provides the basis for the data. This includes farmers' producer prices for the sale of durum wheat from the farm gate. As the report was not compiled on a continual basis for all provinces, only 28 of the 81 time series can be used for the econometric analysis. The prices represent averages of the first two weeks of each month. Because of the inflation-led price increases in Turkey, which at times were extreme – inflation over the ten-year observation period was 12.000% – all nominal prices have

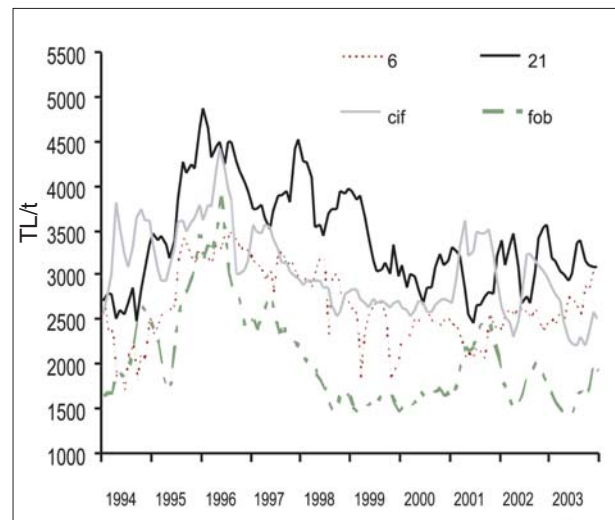
been deflated with the wholesale price index. This eliminates the combined effect of inflation on the time series and also increases the interpretability of the findings.

Over the course of the observation period the number of Turkish provinces increased from 76 to 81. To guarantee a constant geographic reference value for all price series, those provinces which did not yet exist in January 1994 were excluded from the study. Following the severe earthquake of 1999, many of the existing provinces were divided up along administrative-technical lines, because the redevelopment funds were equally distributed between the total number of affected provinces. Those provinces which emerged as a result of division, or were made smaller, are also excluded from the study.

On the basis of two provinces, Diagram 2 demonstrates an example of price development. The lowest average prices are recorded by province 6 (Ankara), whereas wheat is most expensive in Diyarbakir (province 21). In order to integrate the Turkish price level into international markets, Diagram 2 also shows the import (cif) and export prices (fob). As it was not possible to establish a stable seasonal pattern for all provinces, there was no correction for this. Neither is there any discernable general trend in price movement. The internationally comparable import (cif – Rotterdam) and export (fob – ex EU) figures are both significantly lower than the national prices, which reflects the state subsidy of the agricultural sector by means of price support. Logarithmic prices were used for the study.

The analysis of the long-term equilibrium relations (co-integration) between the geographically differentiated prices shows substantial regional differences. Whereas some provinces in the geographical centre of Turkey exhibit a long-term price

Diagram 2: Development of real wheat prices from 1994 to 2003



Source: Author's own.

equilibrium with the majority of the other provinces, the number of co-integration relations decreases the further a province is towards the Turkish border. This suggests that price adjustments between two provinces become less significant the further the provinces are apart. A possible explanation for this is increasing transport costs, as a reaction to price differences is only worthwhile if the transport costs inclusive of other transaction costs are lower than the price difference.

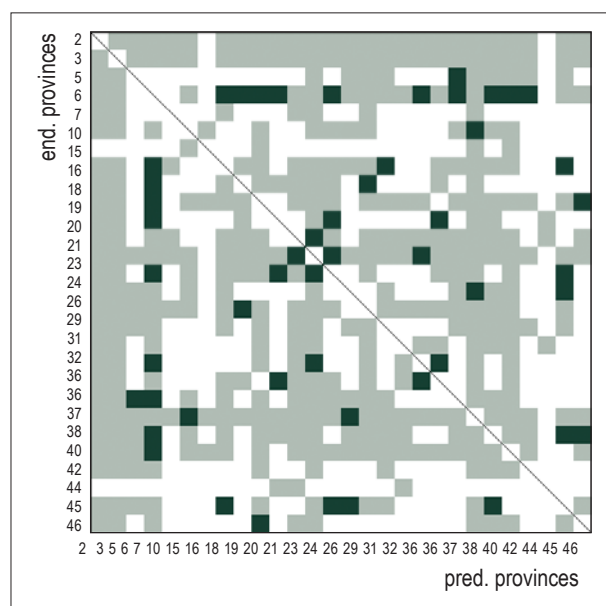
It is precisely at this point that the so-called threshold co-integration model gets working. It divides up the price adjustment process for each pair of provinces into those price differences which are lower than the total transaction costs, and those which are higher. The idea behind this is that where provinces have price differences which are lower than the costs needed

to eliminate the price difference, no price adjustment occurs without this signifying a lack of market integration. In this way it is actually possible to identify only those pairs of provinces where transaction costs have a considerable influence on, or impede the price adjustment process. This does not mean, however, that they prevent it completely.

Diagram 3 shows a stylised graphical representation of the price adjustment process on the Turkish wheat market. The grey boxes symbolise the existence of a long-term price equilibrium, where there is linear adjustment. Even a slight deviation from the equilibrium path leads to a corrective price reaction. Where the province pairs are represented by black boxes, the adjustment process is non-linear. In terms of amounts, slight deviations from the long-term equilibrium path are not corrected with the same speed as major deviations. If the correction below the boundary is zero, then this threshold can be interpreted as the level of transaction costs, below which any action on a given price difference is not worthwhile. The average threshold value is 11%. If the price adjustment process of a pair of provinces exhibits a threshold value, therefore, the deviation from the price must reach more than 11% of the average price before an adjustment reaction takes place.

The pattern represented in Diagram 3 shows that transaction costs play a significant role for a number of Turkish provinces (black boxes). One cannot discern a geographical distribution here, as almost all provinces, in interaction with at least one other province, exhibit significant thresholds in the price adjustment process. The capital city province of Ankara stands out, however. Ten of its twenty-three co-integration relations exhibit a threshold value. Transaction costs are not so frequently significant for any other province.

Diagram 3: Price adjustments between provinces



Source: Author's own.

These findings are all the more interesting as Konya, Ankara's immediate neighbour, has completely contrasting figures. Its price adjustment processes are all linear. It is only with Ankara that the price adjustment does not occur until significant transaction costs of 13%, or 373 Turkish Lira/t relative to the average wheat price in Konya, have been overcome.

The determinants of the pricing mechanisms can be represented using this pair of provinces as an example. For this, the key figures of both provinces are compared in Table 1. With net imports of about 880.000 and 1.1m tonnes, Ankara and Konya are by far the biggest buyers on the Turkish wheat market. Market size is thereby eliminated as a reason for different adjustment

processes. The number of processing enterprises (mills etc.) does not really explain these findings either. Not even the distance from other provinces can account for the differences between Ankara and Konya, as these are immediate neighbours and thus would necessarily exhibit similar patterns vis-à-vis a third province. A cause of the difference in behaviour might be found in the previously unstudied market structures or in the organisation of Turkish wheat trading, which in key points is reminiscent of successful threshold countries.

Here one should mention the no doubt large significance of informal networks which, for other sectors of the Turkish economy,

have already been the subject of research. The huge importance of informal networks is suggested by the fact that not only the agricultural sector, but also large parts of the marketing chain in Turkey are controlled almost exclusively by family businesses or networks of relatives. Such informal contacts allow the exchange of important market information, e.g. about prices, quality and other aspects of drawing up contracts. It is not just the information itself which is important here, but the speed with which information is passed on. Without access to such networks, obtaining a comparable body of knowledge will incur many information and search costs. Assuming that farmers in rural regions are better connected to each other than in urban areas, this explains the influence of significant transaction costs on the pricing process in Ankara. At the same time it must be asked why a city with millions of inhabitants such as Ankara should lack an anonymous institutional configuration of markets which are adjusted to competitive markets. These only represent initial assumptions, however, as there is still a great need for research into the organisation of Turkish agricultural markets.

It would be interesting to compare the findings for the Turkish wheat market with studies on other economic sectors or on other countries. Until now, however, there has not been any study investigating such a substantial data set with the same method or a comparable one. Most comparative studies focus on individual or a few price pairs.

The question posed in the title – whether transaction costs prevent price adjustment on the Turkish wheat market – must be given a differentiated answer. For the majority of province pairs, transaction costs do not seem to be an obstacle to price adjustment. For almost every province, however, there is at least one

Table 1: Key figures for Ankara and Konya

	Ankara	Konya
Inhabitants	4.007.860	2.192.166
Size	25.615	40.824
Farming revenue (000 000 TRL)	500.016.806	799.287.340
Per capita farming revenue	124.76	364.61
Processing capacity (t)	1.922.382	2.503.641
Wheat consumption for food	788.506	431.287
Wheat consumption for animal feed	9.215	14.580
Total demand	1.931.597	2.518.221
Total supply	1.051.484	1.423.539
Net import	880.113	1.094.682

Source: Author's own calculations.

other province with which adjustment is not linear but has a significant threshold. Although a regional pattern cannot be identified, the findings for Ankara are conspicuous. Based on the findings which exist, one cannot reject the fact that transaction costs have a significant influence in this case. Particularly with regard to the fairly rural, but in no way backwards province of Konya, this throws up questions. Future research should focus on analysing the reasons for the deviant behaviour of the wheat market in Ankara.

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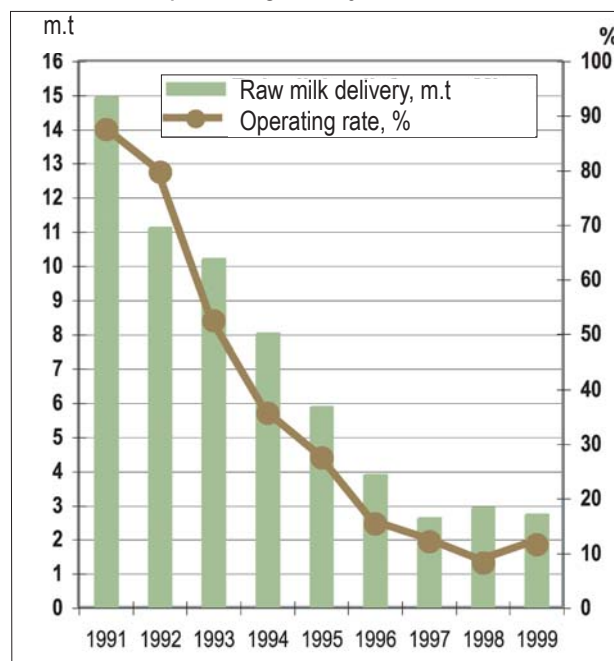
Factor input and pricing in the Ukrainian milk-processing industry under the conditions of transition

OLEKSANDR PEREKHOZHUK, MICHAEL GRINGS

The collapse of the Soviet Union and the start of transition towards a market economy brought radical changes to all branches of the Ukrainian economy. At the heart of the transition process were price liberalisation and the privatisation of state enterprises. As in the other successor states of the Soviet Union, transition in Ukraine was accompanied by a severe economic crisis in the 1990s, which also affected agriculture and the food economy. In the dairy sector, the volume of raw milk delivered fell between 1991 and 1999 by around 80%, which meant that at the end of the 1990s the operating rate of dairies was only just above 10% (c.f. Diagram 1).

Although in theory privatisation gave businesses the opportunity for free entrepreneurial activity for the first time, the economic system of the country remained substantially under the influence of state regulation, which seriously impeded the transition process. The German Advisory Group on Economic Reforms with the Ukrainian Government (1999, p. 7) suggests that 'in broad areas of the Ukrainian economy, e.g. in the agro-industrial sector... enterprises do not operate in accordance with market rules; they are "managed" administratively – but without any visible overall concept'. Even some of the privatisation rules were burdensome. For example, the privatisation legislation obliged enterprises to make extensive social guarantees to employees. In the dairy sector this meant that the adjustment of the number of jobs to the development of production was slow. Moreover,

Diagram 1: Raw milk delivery and operating rate in the Ukrainian milk-processing industry, 1991-1999



Source: NATIONAL STATISTICAL COMMITTEE OF UKRAINE: *Statistical year book of Ukraine (various years)*.

privatised dairies were prohibited from changing their production programmes for a period of 10 years.

At regional and local levels, enterprises in the dairy sector were also subject to direct and indirect interventions by the

authorities (BAKER and PROTCHENKO, 1999). For example, the authorities continued to be involved in business decision making and there were many different interventions in market processes. Some regional authorities imposed temporary restrictions on interregional trade in raw milk, clearly with the aim of increasing the operating rates of dairies in their own regions. In many cases there is the suspicion that the reason for administrative interventions by regional authorities has been to ensure the survival of dairies as employers and tax payers (BAKER and PROTCHENKO, 1999).

Table 1: Concentration of the milk-processing industry of Ukraine in selected regions in 2004 with varying industry concentration

Region	N	HHI
Chernivtsi	9	711.53
Kirovohrad	11	626.87
Zakarpattia	9	334.73
Vinnytsia	29	77.97
Kiev oblast and Kiev	73	72.46
Luhansk	25	61.47
Ukraine overall	610	7.73

Source: Own calculations based on plant level data of the milk-processing industry.

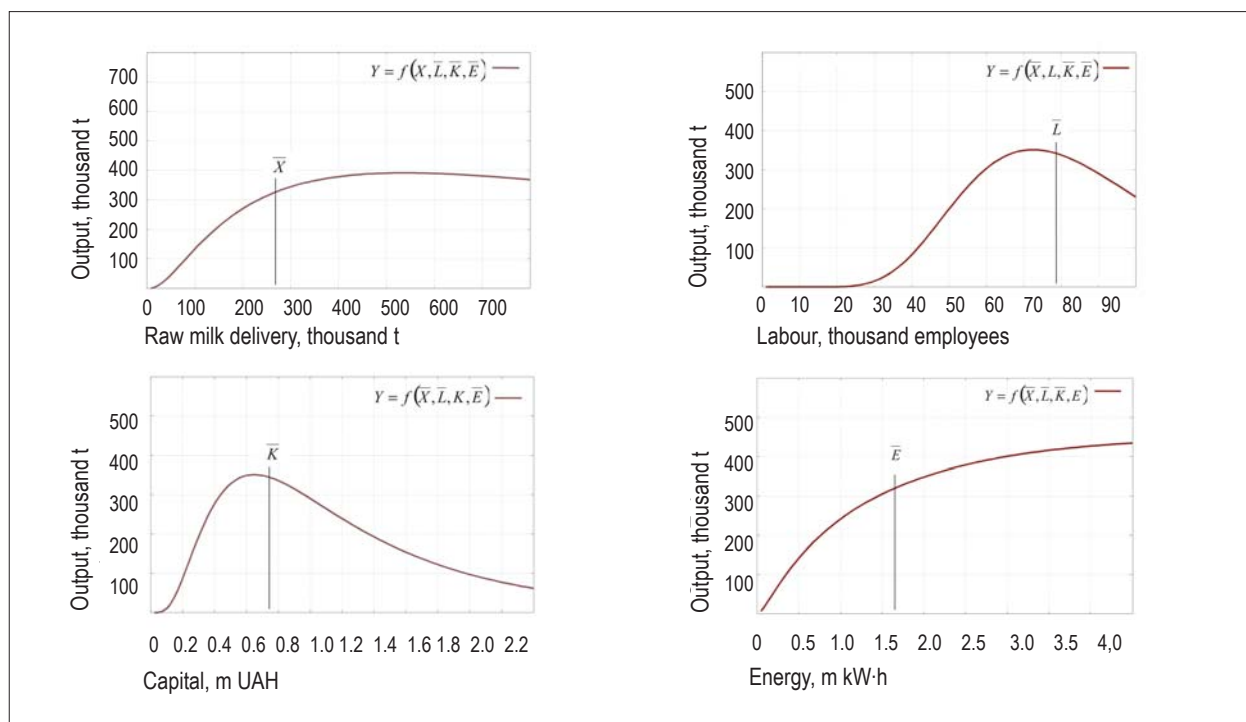
Note: N=number of enterprises;
HHI=Herfindahl-Hirschman coefficient (*1.000).

On the basis of these observations two hypotheses can be suggested. First, in view of the massive administrative interventions outlined above, it is not to be expected that the factor input in the Ukrainian dairy sector can be oriented to criteria of economic efficiency. The second hypothesis concerns the horizontal and vertical competitive situation in the milk-processing industry and its effects on pricing in the raw milk market. Initially, however, it is not clear what competitive situation the country's dairies found themselves in vis-à-vis the raw milk suppliers – i.e. the agricultural enterprises and small family farms – in the 1990s and which still exists today. Although one might assume that the low operating rate triggered sharp competition between the dairies for raw milk, the industry concentration in the dairy sector in some regions suggests, on the other hand, a strong market position for the milk processors with the exertion of market power vis-à-vis the raw milk producers.

Table 1 shows the extremes of industry concentration measured against turnover at the regional level. The figures reveal that there are considerable differences between individual Ukrainian regions regarding the extent of concentration in the dairy sector. The Herfindahl-Hirschman coefficient ($0 < HHI \leq 1000$) ranges between 61 in Luhansk and 712 in the Chernivtsi region.

In the past some dairies have achieved an oligopsonistic market position – at least on a regional scale – on the raw milk market by the restriction or prevention of competition due to interventions by the authorities. This would support the supposition that dairies have been using market power vis-à-vis the raw milk producers. Moreover, inquiries by the State Anti-monopoly Committee in 2002 revealed that in some Ukrainian administrative

Diagram 2: Partial production curves of the estimated translog production function for the milk-processing industry in Ukraine



Source: Authors' own representation on the basis of estimation results for the translog production function (Estimation period: January 1996 to December 2003).

districts there were price arrangements on the raw milk market between milk-processing enterprises.

Both hypotheses of the economic inefficiency of factor input and of severely restricted competition on the raw milk market can only be tested by means of appropriate model analyses. The question whether factor input in the Ukrainian milk-processing industry deviates from the economically efficient level can

already be given a rough answer on the basis of estimation results for the production function of the sector. The econometric estimate was carried out at the aggregated (i.e. national) level by using a translog function with the four factors of raw milk (X), labour (L), capital (A) and energy (E), on the basis of monthly data for the period January 1996 to December 2003. The production (output) of the sector (Y) was measured as the aggregate



Field in Ukraine

of milk-processing products converted into milk equivalent. Diagram 2 shows the partial production curves of the four factors. In this diagram, the average input level of the factors in the period under investigation is marked by a vertical line. As the graphs show, the marginal product of labour and capital is negative at their average input level. This means that the input of both factors

is beyond the level at which considerations of economic efficiency come into play. The production curve for capital must, however, be interpreted very cautiously, as the corresponding variable can only be measured with the aid of some approximations. For the labour factor at least, the findings can be explained by an excess of labour utilisation. This is largely a result of the fact

that the structural adjustment of the sector to the drastically reduced operating rate was insufficient from an economic perspective because of, amongst other things, political or administrative guidelines.

To test the second hypothesis – exercise of market power on the raw milk market by the milk-processing enterprises – an econometric market structure model was formulated for the raw milk market. Besides the supply function for the aggregated supply of raw milk from agricultural enterprises and household plots, this included a demand relation, generalised for the case of imperfect competition, of the milk-processing sector for raw milk. Within this structural model, as an element of the generalised demand relation a market power parameter was estimated, on the basis of which the hypothesis of price-setting behaviour versus price-taking behaviour on the raw milk market was tested. The estimation of the model was again based on monthly data for the corresponding variables for the period January 1996 to December 2003. Only a national-level complete data set could be compiled and used for the estimation.

The econometric estimation of the model did not produce any pointers suggesting the exercise of market power by the milk-processing industry in the estimation period. With regard to the market structure at national level, this finding is probably plausible, as the degree of concentration of milk-processing enterprises at national level is low, as Table 1 shows. The degree of concentration at regional level is in some areas much higher, however. On the basis of the findings of the analysis, therefore, one cannot discount the possibility that market power is indeed being exercised on the raw milk market in some Ukrainian regions. With regard to the particular product characteristics

of raw milk and its relatively high transport costs, the regional market for raw milk is of more significance than the national market for the analysis of market structure and pricing. Further research in this area must, therefore, focus on creating a sufficient regional database to enable the market power hypothesis to be tested at regional level.

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Ukrainian agricultural students: Work in farming – Yes! Live in the country – No!

ALEXEJ LISSITSA, TARAS GAGALYUK, MARYNA MYKHAYLENKO

The shortage of young, well-educated and motivated managers is one of the major problems facing Ukrainian agriculture today. In this context, many western but also Ukrainian specialists point out the low educational level of most graduates from agricultural universities, as well as the reluctance of students to work in farming after their studies. This lack of willingness harbours the threat that all the endeavours of the last few years to effect a recovery in Ukrainian farming might, to a large extent, be worthless. And yet the numbers of agricultural colleges in Ukraine and students who enrol at them are disproportionately high by European standards.

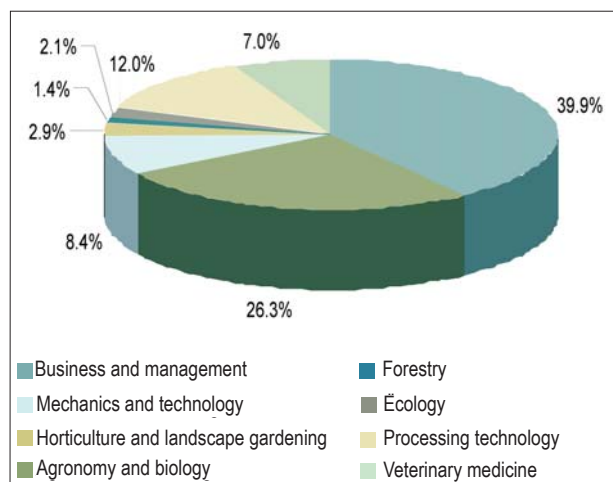
Under the aegis of the Ukrainian Ministry for Agricultural Policy, for instance, there are 20 college institutions of the 3rd and 4th accreditation stage. These correspond to technical colleges and universities in Germany. Besides the universities and technical colleges, the agricultural education system also has 116 other colleges and institutions. There are more than 190,000 students (130,000 of which are directly involved in study), about half of whom are studying economics.

There has not yet been a comprehensive survey of the motives, aims and impressions of agricultural students. Neither is there any reliable information on the central question of how high the proportion of students is who will be actually prepared to work in agriculture after their studies, and who can imagine a life in the country. In order to ascertain the motives for enrolling

to study at an agricultural college and the potential uptake of employment in agriculture after study, an extensive survey was carried out of Ukrainian students and graduates from several agricultural colleges. The survey was conducted by IAMO staff in cooperation with the Ukrainian Agricultural Confederation, the agricultural education department at the Ukrainian Ministry for Agricultural Policy, and the National Agricultural University of Ukraine. There were just over 3,000 responses from students and graduates. This article presents the findings of the survey.

The survey included students from eight agricultural colleges in Ukraine. Agricultural universities of the various Ukrainian regions are represented by roughly the same number of students. As far as subject courses are concerned, the findings of the sample are a sufficiently precise reflection of the actual situation (Diagram 1). About half of those surveyed are studying economics, finance, management and other economic subjects. The prevalence of economics-oriented subjects is no coincidence, and there are a number of reasons for this. First, it satisfies the great demand for business qualifications. Second, it reflects the fact that it is no longer the state which finances the study of a large number of students, but enterprises (on a contractual basis) or the family. Third, this distribution is a result of the fact that a large proportion of students are from an urban environment without a rural-agricultural background. Students of agricultural and biological subjects are the second most frequent

Diagram 1: Distribution of students surveyed by faculty



Source: Own calculations.

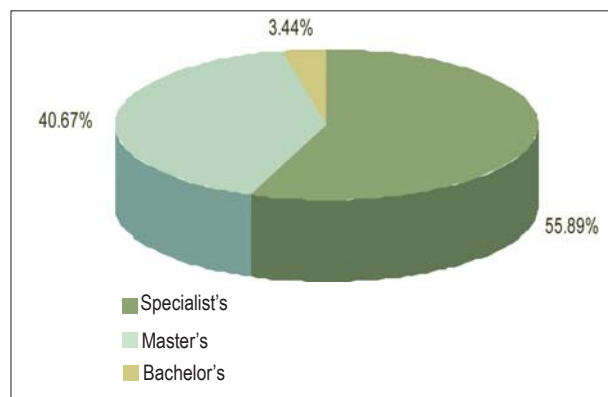
type (about 26%), while 12%, 8% and 7% of those surveyed study at the faculties of processing technology, mechanics and technology, and veterinary medicine respectively.

Students from all years (first to sixth year) are covered by the survey. Most of them, however, are from the 3rd and 4th years (30% and 28% respectively). Only students with several years of experience have developed firm ideas and these individuals are more likely to be in a position to give grounded answers. The interest in this group is due to the desire to determine which level of qualification the students want to reach at the end of their bachelor's course.

Like many other countries, Ukraine is also taking part in the EU-driven Bologna process for convergence in European higher education. One of the most important goals of this process is the introduction of a two-stage study programme with bachelor's

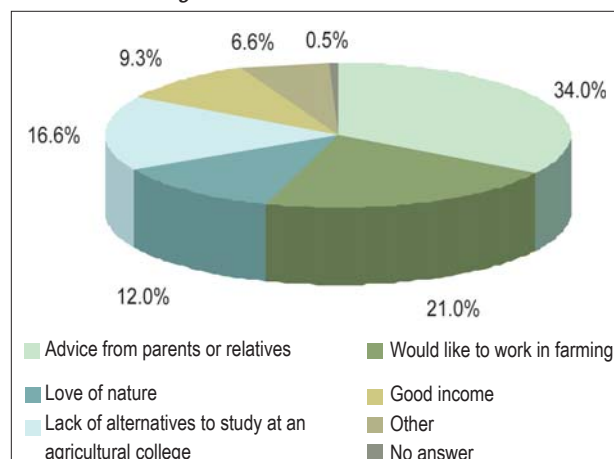
and master's courses. Ukraine is attempting to devise a third course – specialist – as an intermediate stage between master and bachelor. The survey shows that more than 55% of students intend to finish their study with a specialist's qualification,

Diagram 2: Which qualification would you like to obtain?



Source: Own calculations.

Diagram 3: Why did you decide to study at an agricultural college?



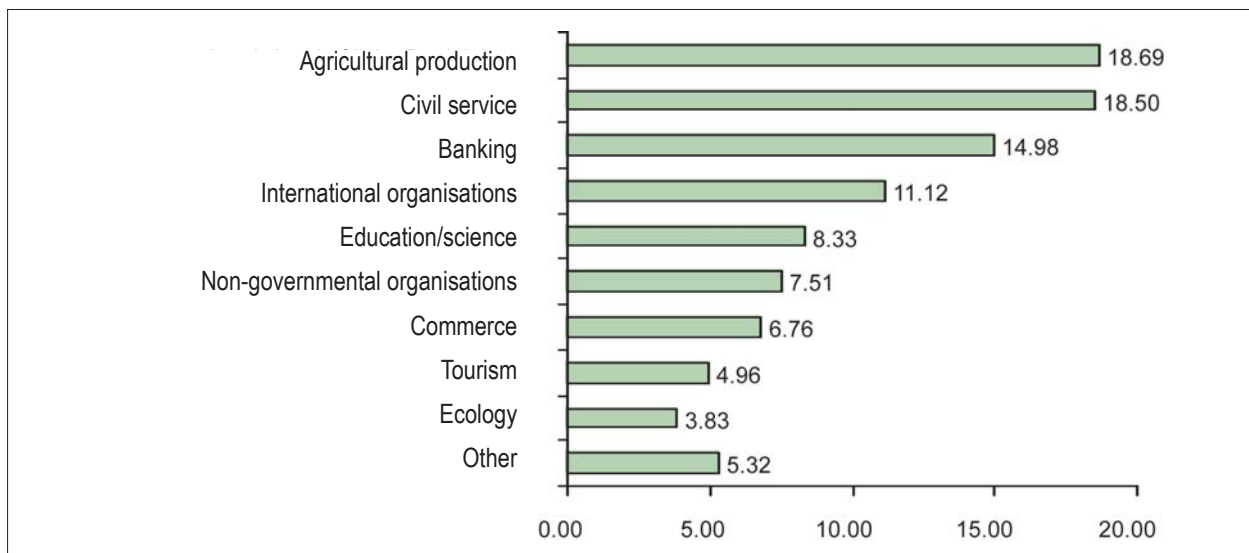
Source: Own calculations.

while more than 40% are aiming for a master's (Diagram 2). Only 3.4% of students plan to finish their study after three or four years with a bachelor's qualification. A very low proportion of bachelor students is due to the fact that professionals with this qualification are not in demand in the labour market. The prevailing thinking that one must have studied for at least five years and longer for a higher qualification still plays a big role here. This finding is not unexpected – similar tendencies are evident in Germany and some other Western European countries.

Here we should highlight the proportion of those students surveyed who answered 'because I would like to work in farming after my study'. At 21% it is surprisingly high when one knows

Ukrainian circumstances (Diagram 3). About 17% of students cited a lack of alternatives to study at another college. 'Love of nature' and 'Good earnings' were the answers given by 12% and 9% of respondents, although the answer 'High earnings' should be regarded somewhat ironically, as it is universally known that the lowest wages and salaries are paid in agriculture. Parental advice influences the largest group of students (34%) in their choice of study. That is not particularly surprising if one considers the young age of school leavers in Ukraine: 17, on average. In Germany or other EU countries, undergraduates start studying considerably later; most of them will have already done some agricultural work experience, which obviously facilitates their choice of career.

Diagram 4: In which area would you like to work after finishing study?



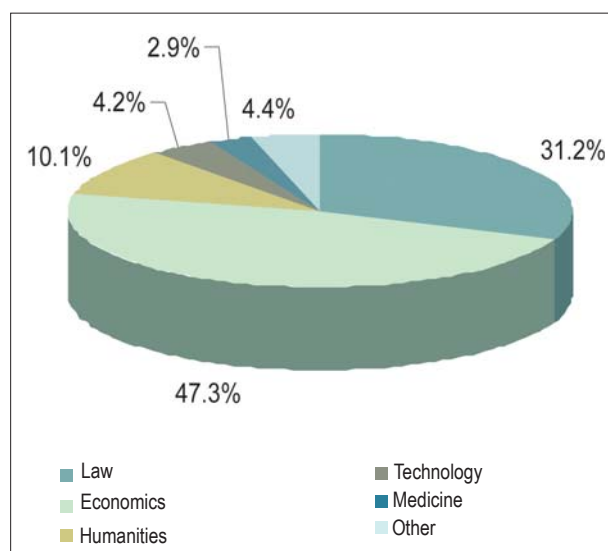
Source: Own calculations.

Besides identifying the reasons for study at an agricultural college, it is also very important to discover what current students plan to do after leaving college (Diagram 4). Of particular importance here is the question of how many of them see their future in agriculture. Students' ideas about the areas they would like to work in after finishing study are as follows: About 19% of those surveyed said they would like to work in agricultural production, about the same as those who expressed an intention to enter the civil service; 15% want to work in banking; 11% are looking at a job in international organisations; 8% are opting for education/science; and 7.5% plan to work in non-governmental organisations. The remaining 20% of those surveyed prefer to seek employment in other sectors such as commerce, tourism, mass media etc.

The findings of the survey show that, in principle, only one in five students intends to work in agriculture after college. At first glance, this cannot be a satisfactory outcome, as it means that more than half of the money spent on agricultural education is benefiting the training of professionals for other sectors of the economy. On the other hand one must consider that, even if only 20% of those students currently studying at Ukrainian agricultural colleges were working in agriculture after finishing their education, this number would be sufficient to go at least part of the way towards solving the problem of inadequate specialists in the agro-industrial sector. In other words, the critical issue is how to succeed in winning over young professionals – who would like in principle to work in farming – for a life in the country. We will return to this question later.

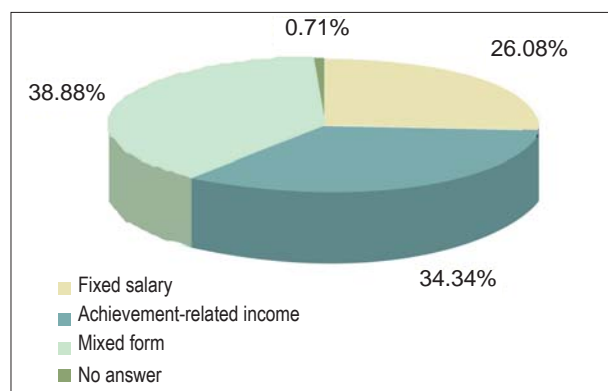
No less important than the question of career choice is the question of how broad the availability of further courses is (Diagram 5).

Diagram 5: If you went on to a higher degree, in which field would it be?



Source: Own calculations.

Diagram 6: How do you imagine your income?



Source: Own calculations.

Here there are still certain problems. 68% of those surveyed expressed the wish to obtain the second qualification in order to improve their chances in the job market. 50% of these want to take a further course in economics, and 30% an additional course in law. From this one can conclude that almost all students who have taken non-economics courses need to catch up on practical business and legal knowledge. This fact needs more consideration when drafting study programmes at non-economics faculties.

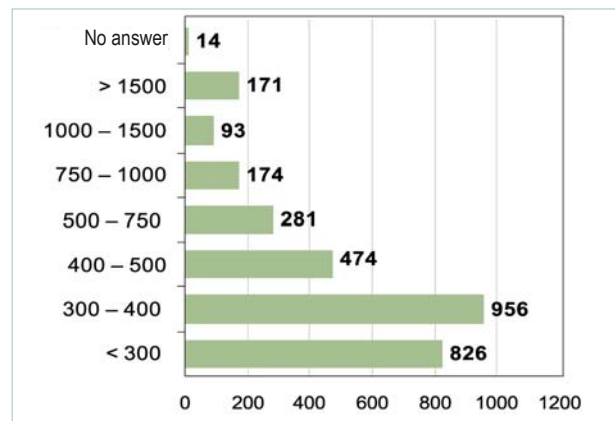
The question 'How do you imagine your income?' (Diagram 6) should help determine the willingness of students to work according to market criteria, i.e. to receive a remuneration directly related to achievement. Those surveyed divide into three groups with regard to the form of income. About 35% of students imagine an income which is directly dependent on achievement and productivity. 26% of students would prefer a fixed salary. The largest grouping of students (about 40%) is in favour of a mixed form of income, consisting of a guaranteed basic salary and an additional amount related to achievement.

Students' ideas about their minimum salary in the first year after study show that they realistically assess the labour market situation for young professionals (Diagram 7). Of those surveyed, 28% are prepared to work for a salary of less than \$300 per month. A proportion of the students (about 32%) expect a monthly salary of between \$300 and \$400. 16% assume a minimum monthly salary of between \$300 and \$400. Just fewer than 10% reckon on a salary in the range of \$500-\$750. Yet 15% of students are seeking a monthly wage of between \$750 and \$1.000 in their first year of work. The fairly realistic ideas of most students about their expected work income demonstrate their wish to find a job directly after college, irrespective of salary.

About 50% of those surveyed responded to the question about their expected employment type that they will be securely employed in an enterprise, 30% plan a career in the civil service, and 20% see themselves as independent entrepreneurs (Diagram 8). Students' ideas about their future work are thus clearly dominated by the desire to be an employee, either in a private firm or in the civil service. Only 20% of those surveyed can conceive of an independent working life in the future. In view of the very young age of school leavers, this is not surprising. These 20% of students might form the basis for the future middle class in the countryside. For this reason they ought to be given particularly intensive support during their studies. It is absolutely essential, moreover, that these students are identified at an early stage of their studies.

Answers to the question about future employment in an agricultural enterprise do give some cause for optimism. A clear

Diagram 7: What is the minimum salary you expect to earn in your first year of work, \$ per month?



Source: Own calculations.

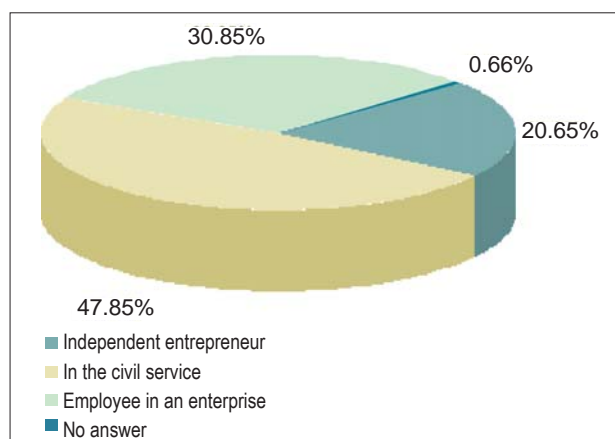
majority of 62% gave a positive response to this question. This result is very encouraging for a number of reasons. First of all, it is of course a positive sign that, in principle, the students are not afraid of the problems afflicting the farming sector in Ukraine following the break-up of the USSR.

The analysis of the responses about students' birthplace reveals the positive fact that both school-leavers who were born in the countryside (and thus have been directly connected with farming from an early age) as well as those with a purely urban background, are choosing to study at an agricultural college. The percentage of students from the country is almost equal to that of those from towns. Almost 55% of students grew up in the country and 45% in towns and cities. One must, however, treat with caution the fact that such a high proportion of school-leavers from an urban environment are interested in an agricultural

education, as the majority of students from towns study economics subjects and usually do not wish to work in farming later on.

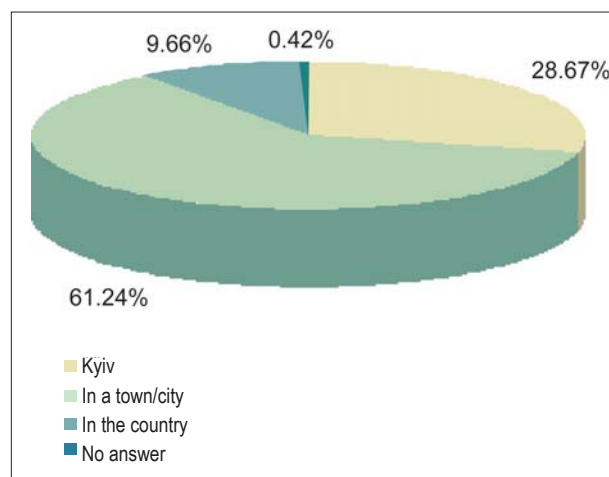
Although almost two thirds of all those surveyed said they could imagine a job in agriculture, at the same time about 90% revealed that they wanted to work in a town or city (Diagram 9). Such contradictory answers are usual for surveys, however. Although this answer goes against previous statements, it reflects the attitude of young people to living in the country, according to what we currently know. After all, everybody knows that the difference in the standard of living between town and country is enormous. The underdeveloped infrastructure, the unsatisfactory level of social security and medical care, the demographic situation, the run-down agricultural businesses – all these are only some of the factors which influence the students' attitudes.

Diagram 8: What type of employment do you expect after your studies?



Source: Own calculations.

Diagram 9: Where would you like to work?



Source: Own calculations.

This answer is also evidence for the argument that, without radical changes in the countryside in the immediate future, a larger flow of graduates into agriculture is unlikely to occur. This means that the already disastrous situation in rural areas of Ukraine will get even worse.

In conclusion, however, it must be noted that currently one can clearly identify a group of students (about 20%) who wish to have a comprehensive, modern education, and who are willing to work as entrepreneurs in farming after their studies.

Agricultural policy and universities must identify this group and ensure they receive support, both during their studies and in increasing the incentives for them to work in the countryside.

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Apple plantation in Ukraine

Economics of rural governance

VLADISLAV VALENTINOV

The rural governance agenda: The shift 'from government to governance'

In the recent years, the literature on rural development has been marked by growing attention to the issues of rural governance. The rural governance agenda has emerged in the context of the shift 'from government to governance' (MARSDEN and MURDOCH, 1998), basically meaning 'the development of governing styles in which boundaries between and within public and private sectors have become blurred' (STOKER, 1998, p. 17). In the rural development context, this shift involved, among other things, a broadening of participation in rural policy making through the transfer of responsibilities from the state toward the private and voluntary sectors (GOODWIN, 1998, p. 8). These changes resulted in the increasing reliance on partnerships beyond the formal structures of government, as has been articulated in the Cork Declaration and a number of other European rural policy documents (ibid, p. 6).

Lacking theoretical understanding of partnership working

The mechanism of partnership working, however, has not been sufficiently understood. Partnership issues have been referred to as 'black-boxed' within considerations of governance (JONES and LITTLE, 2000, p. 172). A similar concern has been expressed by the authors of the 2001 OECD study of local partnerships who admitted that though the partnerships' inputs and outputs

are visible, the mechanisms enabling the transformation from inputs to outputs remain unclear.

An approach to fill this gap: The property rights theory of the firm

The economic rationale for the rise of rural governance can be identified by building upon the organizational economics literature. The step required to make the tools of organizational economics amenable to analyzing rural policy consists of visualizing rural policy making as a 'transactional arena', where different transactional participants are assigned specific property rights which structure their economic interaction. Different assignments of property rights define different governance structures, with some of these structures being more efficient (and hence more preferable by transactional participants) than others. Thus, viewed from the organizational economics perspective, rationalization of rural governance involves identifying reasons why the governance structure based on relatively uniform distribution of property rights among governmental and nongovernmental actors has become more efficient (and hence, more preferable by these actors) than the structure characterized by the government having more extensive property rights than nongovernmental actors.

To be sure, organizational economics is a heterogeneous field that must allow for a diversity of approaches to rationalizing

rural governance. This article will be focused on utilizing one strand of organizational economics – the property rights theory of the firm. While this theory is focused on identifying the transactional participants which are efficiently assigned more and less extensive property rights, its application to rural governance will require extending it to the case of the efficient assignment of property rights being more uniform. Partnership working will be thereby understood in a broad sense and will refer to cooperation of several entities regardless of the societal sectors to which they belong (government, private for-profit, or voluntary sectors).

According to the property rights theory of the firm, contractual incompleteness impedes efficient allocation of resources, and whether efficiency will be achieved depends on the assignment of property rights to contractual parties. Specifically, efficiency is defined in the property rights theory of the firm by the maximization of the net present value of relationship-specific investments, which are likely not to be undertaken if the potential investor fears to be 'held up' by its contractual partner in view of the contractual incompleteness. This fear, however, can be eliminated if the potential investor receives property rights in the assets of its contractual partner, or, more generally speaking, receives more extensive property rights than its partner. Thus, in a situation of contractual incompleteness, efficient allocation of resources can be ensured if more extensive property rights are assigned to the contractual party who has a greater interest in transacting (defined by the higher net present value of his investment). However, assigning more extensive property rights to one party has a cost in terms of a weakening of incentives of the other party to make its own relationship-specific investments, since the gains from investing will largely accrue to the party with more extensive property rights.

The theory's implication: Unequal assignments of property rights reflect unequal economic interests of the transacting parties

Thus the basic logic of this theory lies in explaining the willingness to make relationship-specific investments, and hence efficiency of resource allocation, in terms of the extent to which the distribution of property rights between contractual parties properly reflects these parties' interests in transacting.

The significance of this insight to understanding partnership working in rural governance is revealed by the following analogy: Just like parties to the contract think about the expediency of making relationship-specific investments, individual stakeholders with an interest in a rural development activity contemplate the possibility of contributions to support this activity; just like the decision to make an investment depends on the existence and relative distribution of property rights, the decision to make a contribution to a rural development activity can be determined by the relative role of stakeholders in the governance of this activity. Generally, just like the firm is seen in the property rights theory as an institution designed to maximize relationship-specific investments, partnership working in rural governance can be considered as a comparable institution designed to maximize resource contributions to (i.e., mobilize resources for) rural development activities, given the existence of respective interests on the part of rural stakeholders.

Hence, rural governance as a trend toward equal assignment of 'property rights' in rural policy making...

However, by contrast to the property rights theory of the firm that advocates the efficiency of assigning more extensive

property rights to selected transactional participants, the rise of rural governance is motivated by the efficiency of eliminating the differences in the extensiveness of property rights assigned to different stakeholders of rural policy making. Accordingly, to fit the case of rural governance, this basic theory must be extended to embracing the premise that the interests of different transactional participants are equal. In this case, it will be inefficient to assign one party more extensive property rights than the other party, because the party whose property rights are underrepresented will refrain from making its relationship-specific investment for the fear of not being able to appropriate the resulting benefits (in accordance with the costliness of ownership mentioned in the preceding section). The inefficiency results from the fact that the value of relationship-specific investments actually undertaken is not maximized. The governance structure that is based on uniform assignments of property rights is represented by some form of cooperative agreement, e.g. network, association, alliance, or cooperative. Clearly, in the context of rural governance, it is represented by partnership working.

... must be explained by growing equality of interests of all concerned stakeholders of rural development

Hence, the rise of rural governance must represent a response to the evolutionary change in the constellation of various stakeholders' interests in the sustainable development of rural areas. These stakeholders have been increasingly recognizing that they do have a stake in rural development. Since the 'transactional arena' of rural governance is represented by rural policy making, rather than more usual business transactions, the question of how equal these stakes, or interests, are is resolved on the

basis of the normative postulate of political equality of citizens in a democratic society (BUCHANAN, 1985). Specifically, to the extent that citizens publicly express their private concerns in issues of rural policy, the normatively superior way of addressing these issues involves adopting policies that are positively evaluated by all concerned citizens on the basis of their private preferences, with no citizen being considered more or less important than any other citizen.

That these concerns are, in fact, being expressed is evidenced by major rural policy documents referring to these concerns as the basis for their political legitimacy. For example, the conclusions of the Second European Conference on Rural Development in Salzburg draw attention to 'the increasing importance European citizens attach to the safety and quality of their food, to the welfare of farm animals, and to the preservation and enhancement of the rural environment'. Hence, when interests of nongovernmental actors in rural policy making are becoming increasingly recognizable, efficiency of rural governance can be only preserved if these actors are assigned respectively greater property rights in this governance, or, to use a more conventional terminology, greater powers in rural policy making. From the perspective of the normative thrust of political equality, these actors must be assigned equal rights, and equal not only in comparison to each other, but also to the government.

Implications for further research

The proposed explanation for the rise of rural governance is framed in terms of the efficiency of transferring from one governance structure to another in view of the changing constellations of stakeholder interests. This explanation calls for the identification

of specific manifestations of inefficiency occurring in the case when the speed of this transfer falls short of the rate of change in stakeholder interests. One of these manifestations might consist of crowding out of private voluntary initiatives of supporting rural areas if the rural policy making is dominated by the government. Accordingly, the governmental domination of rural policy making can be hypothesized to be optimal for productivist agriculture (see e.g. ILBERY and BOWLER, 1998) which presupposes limited role for local actors' voluntary initiatives, while its optimality may be lowered by the advent of the post-productivist era of agricultural development. Further research, both conceptual and empirical, is needed to justify this hypotheses (VALENTINOV, 2005).

In any case, the empirical verification of the proposed rationalization of rural governance will require developing measurement methodologies for such variables as the uniformity in the property rights assignment and extent of governmental domination of rural policy making and the reliance on partnership-based governance. Though these methodologies are likely to be case-specific, the identification of the empirical relationships between these variables is indispensable for understanding the political and economic processes involved in the rise of rural governance.

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More businesses in agriculture?! – Challenges and strategies: Results of the IAMO Forum 2006

KIRSTI DAUTZENBERG, SVEN-OLIVER JUNGKLAUS

Since the late 1980s, agriculture in the countries of Central and Eastern Europe has been under great pressure to adapt. On the one hand, the sector had to react to the emergence of new markets and the continually changing political environment; on the other, face integration into the EU and the global market. A change in society's demands regarding food safety, the continuing structural change in food retailing and in enterprises within the agricultural and food industry, increasing environmental standards and a reduction in subsidy payments have all brought about changes in farming businesses. Pressure on these enterprises has led not only to adjustments in how they operate, but also to a change in the requirements of business management.

The aim of the IAMO Forum 2006, which took place from 29 June to 1 July on the topic *Agriculture between Markets, Institutions and Politics – Challenges and Strategies*, was to examine these developments in greater detail. Discussion took place on possible paths towards an efficient and successful agriculture and food industry, on the development of competitive organisation, cooperation and contract structures, and on the interaction between policy and sector. The academic papers and discussions summarised below provide answers to the following questions: Which forms of organisation and cooperation are necessary for long-term survival in the market? Which potentials of efficiency and productivity can be exploited, where are the market niches?

The factors influencing future policy drafting were also considered, as were the emerging demand for new products and the opening up of new markets.

Studies on the efficiency and competitiveness of agricultural enterprises in the countries of Central and Eastern Europe show that the current competitiveness of businesses is a result of significantly lower factor costs for land, labour and capital. The probability that these costs will rise in the future means that production efficiency must be substantially increased in order to be able to remain competitive on the market in the long term. Potential for this exists in business management, the adjustment of production structures, improvement in allocation efficiency, and in changes in the organisation of agricultural enterprises and the integration of businesses into the agricultural and food supply chains.

Limiting factors, competitiveness and alternatives

The analysis by Epstein of allocation efficiency of cooperatives in the region around St Petersburg revealed that both the lack of (qualified) workers and insufficient capital (access) are the critical obstacles to businesses reaching an adequate level of profitability. The efficient use of land is also a basic requirement for the successful development of farming and of rural areas. Studies by Il'ina and Svetlov showed that there are considerable



Participants at the IAMO Forum

deficits in the transfer of land between farms in the region around Moscow due to high transaction costs and greatly varying prices. The findings also reveal that the level of land productivity, which was low anyway, declined between 2001 and 2003. In hindsight, this trend is the result of a lack of a secure policy framework. However, a further decline in land in the immediate future does not give much hope that the necessary investments will be made in the development of functioning land markets.

On the basis of production costs of individual farms, Ramanovich and Hemme compared the competitiveness of Eastern European milk production with that of Western European countries. The majority of enterprises in the CEEC produce milk at a competitive price. This is chiefly a result of the lower factor costs for labour and land, which together account for about 50% of the cost advantages. It is probable that over time the local price advantages of these factors will diminish and enterprises will have to increase the efficiency of their use of resources.

Nivjevskiy and Cramon-Taubadel examined the development of non-agricultural employment opportunities in rural areas of Ukraine. Factors such as the breadth of non-agricultural jobs available, the gender and educational level of the rural population, and the access to infrastructure and farmland had a big influence on the availability of non-agricultural employment. Looking at a number of accession countries, Zander, Thobe and Nieberg studied the effects of joining the EU on enterprises involved in organic farming. Following accession, the level of transfer payments for alternatively and organically farmed areas increased substantially. This was accompanied by a rise in administrative costs, additional investments to meet the higher standards of hygiene, animal protection and environmental

protection, and by increased factor costs. The development of the domestic market and the improvement of production and marketing opportunities are seen as crucial for the future development of organic farming.

Agricultural policy and its effects on farms

The effects of accession on farms in Bulgaria was examined by Doitchinova, Kanchev and Miteva. Their findings show that there is an increasing demand for land (to lease and purchase), and a shifting of production to better locations. With a drop in the overall numbers of agricultural enterprises, there is now new capacity in the area of specialised farming such as tobacco growing, and vegetable and fruit farming. The influence of policies on the development of the agricultural and food sector is also an important factor these days. Using the example of Polish farming, Falkowski and Milczarek discussed potential reasons for the discrepancies seen between policy aims and how farmers themselves perceived these.

The results of a survey of Polish farmers show that policy changes since the beginning of the 1990s have for the most part been viewed negatively. Clearly, farmers' expectations that the agricultural sector would develop into a market economy have not been fulfilled. The authors suggest that this perception has been driven especially by a lack of coordination of rural policies and a strongly centralised decision-making structure.

Using the findings of a partial equilibrium model, Balkhausen and Banse discussed the question of what effect a return of direct payments would have on production in Germany, France and the Netherlands. In such a scenario, a not inconsiderable proportion of farmland would lie fallow. Irrespective of whether

direct payments for ruminants were maintained or not, they argue that a return of premiums would have considerable effects on beef production.

In her paper, Luka examined the most important factors for direct foreign investment in the Ukrainian food industry. Her finding was that the size of the market in the target country has a large influence on the level of direct investments. From this, the author concluded that it is particularly those investments which aim at opening up further markets which are most likely to be made. A connection between direct foreign investment and imports into Ukraine was also made.

Prospects for, and trends in, the agricultural and food sector

On the second day the conference focused on the future prospects and parameters for the agricultural and food sector, as well as new ideas and trends. At the start of proceedings, Alfons Balmann, Director of IAMO, suggested that the industrialisation of the farming sector had currently reached a new dimension. Agricultural production is increasingly being integrated into the supply chains, not least as a result of the efforts to safeguard quality. Further challenges for the agricultural sector are participation in new markets, e.g. the growth in crops for renewable energies as well as the boom in demand – in some instances also in exports – in South America, East Asia and South-east Asia, and the emergence of new technologies. According to Ulrich Neubauer from the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV), an essential requirement for competitive production is better coordination within the supply chain. The principle here is that those involved in the market organise their

cooperation and structures themselves. As key goals of national agricultural policy Neubauer cited bureaucracy reduction and bureaucracy avoidance, as well as reliability and planning certainty for farms.

Developments in China

The rapid development of the farming sector in China and its effects on the world markets and European agriculture were impressively outlined by Scott Rozelle from Stanford University (USA). In spite of a considerable drop in agricultural employment, particularly amongst the younger generation (in 1990, the proportion of those aged 16-20 working outside of agriculture was 23.7%; in 2000 this figure had already risen to 75.8%), huge production increases – chiefly a result of technology – have been achieved in the farming sector over the past decade. In the future, greater export from China of particularly labour-intensive products such as fruit, vegetables and meat is expected; at the same time the import requirements of land-intensive products such as soya and cotton are falling. Currently, however, there are problems with safeguarding the quality of agricultural products, as traceability is almost impossible. There are some exception areas here, however, where quality products are already being produced specifically for foreign markets (e.g. Japan and South Korea).

Johan Swinnen from the Catholic University in Leuven (Belgium) spoke about problems of the land market in selected countries of Central and Eastern Europe. Deficiencies in the capital markets in these countries, as well as ambiguities with regard to the legal parameters, are leading to problems in the trading of land.

Complicated access to capital influences both the purchase and leasing of farmland. The small-scale ownership structures for land, and the consequently high transaction costs of land trading lead to factor immobility and thus to the failure of necessary transactions.

Podium discussion on the future of the sector

At the first podium discussion of the day, various stakeholders from the farming sector discussed the future direction of the sector and the institutional and political parameters necessary for this. According to State Secretary Hermann Onko Aeikens of the Ministry of Agriculture and Environment (Saxony-Anhalt), 'the competitiveness of our agriculture must have top priority. For this reason we don't agree with the modulation by 20 per cent which is now discussed repeatedly. Farmers need reliability. Only in this way can Saxony-Anhalt develop further as a top agricultural region.' In the view of Michael Grams from the European Union (DG Budget), the competitiveness of European farming can only be guaranteed by consistently orienting businesses to the needs of the market.

Looking at the EU's Common Agricultural Policy, easing the burden on the EU budget will play a key role. Brendan Bayley from the UK Treasury asked who the direct payments should be aimed at and what function they should actually perform. He categorically rejected the combining of agro-political and socio-political goals, and outlined the vision of a competition-focused and market-oriented European agriculture, which is competitive without subsidies. Armin Tietjen of John Deere International envisaged a reduction in classical investment support and demanded

the withdrawal of policymaking from the sector, justifying his argument by saying that, recently, agricultural policy had generated increased political uncertainty – especially in the EU's new Member States and accession countries. He expressed his conviction that manufacturers of farming machinery did not have to fear such a change, as at the same time a modernisation process would take place. Hans-Joachim Preuß, secretary general of Deutsche Welthungerhilfe (German Agro Action), cited in particular the conflict of aims of European agricultural policy and German development policy. In his opinion, the EU's Common Agricultural Policy and the accompanying distortion of global market prices for food is bringing about sensitive disturbances resulting even in the collapse of the internal markets in developing countries. These problems have to be solved.

Many paths lead into the future

In the second podium discussion, four farmers from Germany, Austria, Poland and Hungary presented their business plans. Just as different as the agricultural enterprises – ranging from a 6.000 ha farm in Hungary to a mountain farmer – were the business philosophies behind these, although they all look to the future with confidence. For Carl-Albrecht Bartner, president of the German Farming Society (DLG), becoming and remaining competitive in today's Europe means first of all reducing costs, but also increasing organic production and product quality in the eyes of the customers. Every measure and business decision, therefore, must also meet the strict benchmarks of economic efficiency. Products with identifiable origin and quality, which are oriented towards consumer interests and are ahead of

consumer trends as early as possible, can achieve a competitive advantage over globally traded standard goods. Arnold Czech (Poland) and György Rasko (Hungary) went a step further. Their strategies would be to react flexibly to external circumstances and aim for profitability even without subsidies. In their opinion, the current direct payments have only led to increases in lease prices in favour of the landowner. In contrast to the strategy of cost leadership, the Austrian farmer Josef Brandstätter preferred a niche strategy with an equally thorough orientation to customers' needs.

Conclusion

Besides a consistent market orientation, the existing competitive structures in agriculture chiefly need predictable and reliable policy parameters and a reorientation of EU agricultural policy

back to its original goals. The vigorously expanding agricultural exports of other countries, especially China and in South America, may weaken farming in Central and Eastern Europe. Comparative advantages in Central and Eastern Europe, on the other hand, continue to be the (still) favourable factors of labour and land. For a successful and sustainable development, however, these must be accompanied by increases in productivity.

Further literature

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IAMO – A brief portrait

Aims and tasks

The Leibniz Institute of Agricultural Development in Central and Eastern Europe (IAMO) focuses on the far-reaching economic, social and political processes of change in the agricultural and food sector, and in rural areas. Its geographical area of research extends across Central, Eastern and South-eastern Europe, including Turkey. The transition countries of Central and Eastern Asia have been added to this remit. In spite of great efforts and many successes, the development of agriculture and the food economy in many of these regions is still far behind that of Western industrial nations, and some of them are adopting their own very specific development paths. In addition, an enormous gap is emerging between successful and stagnating regions within individual countries and between countries. It is clear that agriculture and the food economy, as well as the politics of the expanding Union, are also affected by huge variation in these processes. In this respect, IAMO is faced with a very broad research requirement both thematically and regionally.

With its thematic and geographical orientation, IAMO is a unique global institution. Since its establishment in 1994 it has belonged to the Leibniz Community as a non-university research centre. The Leibniz Community brings together scientifically, legally and commercially independent research institutes and service institutions which are funded jointly by the federal administration and the *Länder* to perform interregional, nationwide tasks (www.leibniz-gemeinschaft.de).

IAMO's work is not just aimed at helping to understand, but also to manage the transition processes. This goal gives rise to the three core tasks of the Institute:

- Internationally oriented research into agricultural and food economics including the development of rural areas;
- Exchange of information between the academic, business and political communities;
- Support for junior academics.

The Institute sees itself as a driving force of international research into agricultural economics. Outstanding research is the engine of the Institute's development and it creates the conditions in which the other two core tasks can be performed. For instance, IAMO acts as a forum for exchange and in this way supports the international interlinking of research, and dialogue between decision makers from the academic, political and business communities. It also uses its expertise and capacities to help academics become qualified. Here there is a particular focus on supporting young academics from partner countries. Through its international orientation and cooperation with other teaching and research institutions, IAMO is helping strengthen Halle's profile as a centre of science and research in Central Germany. Our close cooperation with Martin Luther University Halle-Wittenberg (MLU) – especially with the Institute of Agricultural and Food Sciences as part of the newly created Faculty of Natural Sciences III – makes an important contribution in this respect.



IAMO building

Academic departments, research fields and key topic areas

IAMO's threefold research structure with the departments *Agricultural policy*, *Agricultural markets* and *Structural development* (these are short descriptions) is derived from the orientation of its research. The parameters of agricultural policy and possibilities of shaping policy, markets in the agricultural and food sector, and the development of farms and structures in rural areas are all analysed by the Institute. Developments at the individual farm level and in rural areas, the development of functioning agricultural markets and the shaping of agricultural policy are all closely interrelated in transition countries. Correspondingly, IAMO's academic work is organised interdepartmentally into four key research areas which focus on key problem areas of agricultural development in transition countries. Under the key research areas are topic fields which combine more than three dozen individual projects, divided between a total of ten working groups. The more intensive level of communication in working groups counteracts any possible fragmentation of research. Besides positive bundling effects, greater individual responsibility of the working groups allows efficient, result-oriented research management. The working groups within the key research areas are currently investigating the following topic fields:

I. Model-based policy analysis at sector and business level

1. Effects of production, trade and demand
2. Structural, income and environmental effects

II. Agricultural institutions in CEECs

3. Social capital
4. Institution economics of rural development
5. Organisation and management of agricultural enterprises
6. Risk management and financing

III. Marginalisation in rural areas

7. Policy for the development of rural areas
8. Private households and family farms

IV. Product and process quality in the agri-food chains

9. Supply chains
10. Management, marketing and consumer behaviour

Institutional structure

IAMO is a public foundation. Its bodies are the board of trustees, the directorate and the scientific advisory board. The Institute is divided into three academic departments:

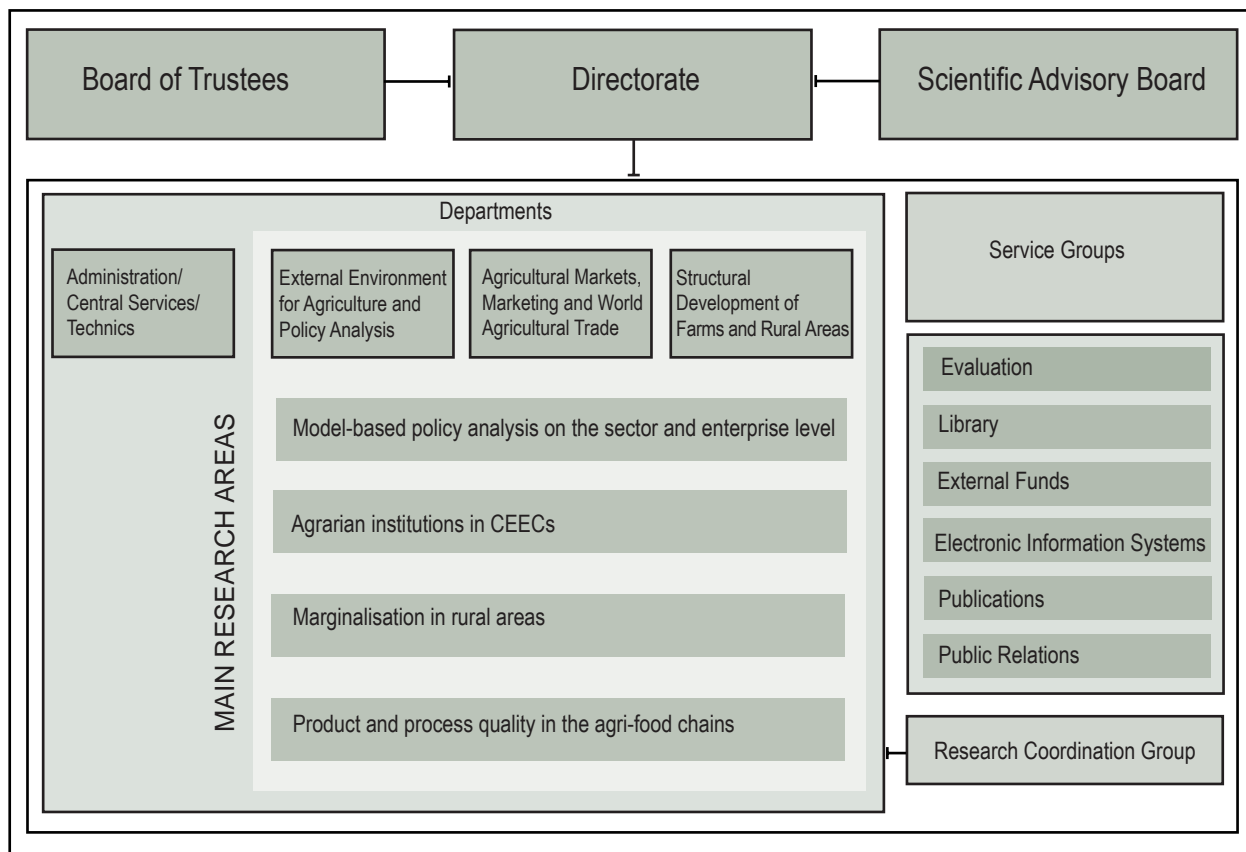
- External Environment for Agriculture and Policy Analysis;
head of department is Prof. Dr Gertrud Buchenrieder (née Schrieder)
- Agricultural Markets, Marketing and World Agricultural Trade;
head of department is Prof. Dr Thomas Glauben
- Structural Development of Farms and Rural Areas;
head of department is Prof. Dr Alfons Balmann.

The heads of the academic departments, together with the head of the department of

- Administration and Central Services,
Dipl.-Ök. Hannelore Zerjeski,

form the directorate of the Institute. IAMO's Executive Director is Prof. Dr Alfons Balmann.

In co-ordination with the board of trustees, this collegiate body manages the Institute's business and directs the long-term research and development planning of IAMO. The scientific advisory



Organigram of the Leibniz Institute of Agricultural Development in Central and Eastern Europe

board advises the directorate and the board of trustees on academic matters and carries out a regular evaluation of the Institute's work.

As of 1/1/2007, the following individuals were members of the board of trustees: MinDirig. Dr Joachim Welz (Chairman; Ministry of Education and Cultural Affairs of Saxony-Anhalt), State Secretary

Dr Hermann Otto Aeikens (Vice-chairman; Ministry of Agriculture and the Environment of Saxony-Anhalt), MinR. Dr Rudolf Wendt (German Ministry of Food, Agriculture and Consumer Protection), Reg.Dir. Dr Ulrich Neubauer (German Ministry of Food, Agriculture and Consumer Protection), Prof. Dr Stephan von Cramon-Taubadel (Georg August University Göttingen), Prof. Dr Peter Michael Schmitz (Justus Liebig University Gießen),

Prof. Dr Bernd Six (Martin Luther University Halle-Wittenberg), and Dr Franz-Georg von Busse (CEO of LEMKEN GmbH & Co. KG).

As of 1/1/2007, the following were members of the scientific advisory board: Prof. Dr Stephan von Cramon-Taubadel (Chairman; Georg August University Göttingen), Prof. Dr Peter Michael Schmitz (Vice-chairman; Justus Liebig University Gießen), Prof. Dr Heinz Ahrens (Martin Luther University Halle-Wittenberg), Prof. Dr Ernst Berg (Rhineland Friedrich Wilhelm University Bonn), Dr Tomáš Doucha (State Secretary, Ministry of Agriculture, Prague, Czech Republic), Prof. Dr Konrad Hagedorn (Humboldt University in Berlin), Prof. Dr Michael Kirk (Philipps University Marburg), Prof. Dr Ewa Rabinowicz (Swedish Institute for Food and Agricultural Economics SLI, Lund, Sweden), Prof. Dr Eugenia Serova, (Institute for Transition Economics IET, Moscow, Russia), Prof. Dr Dr h.c. Ulrich Koester (Christian Albrecht University Kiel) and Prof. Ph. P. Jo Swinnen (Catholic University Leuven, Belgium).

Halle (Saale) as a centre of science and research

Site of one of the great traditional German universities, Halle has a long and fruitful tradition in almost all areas of science. The institutes of the Martin Luther University, the non-university research institutions of the Max Planck, Fraunhofer, Leibniz and Helmholtz societies, in addition to numerous younger ventures undertaking research projects in the science and innovation park, create a good basis for a network of training, research and practice. IAMO is part of this growing and expanding scientific centre of expertise.

Cooperation with university institutions

IAMO's work is closely tied up with the agricultural faculty of the Martin Luther University Halle-Wittenberg (MLU), which in September 2006 was transferred into the Institute of Agricultural and Food Sciences. This institute is now part of the newly created Faculty of Natural Sciences III at MLU. The heads of IAMO's academic departments take part in MLU's teaching and committee work. Many qualified academic members of staff from IAMO are also involved in university teaching, and in the running of a joint summer school and a PhD student programme which is organised nationwide. Individual connections also strengthen the links between MLU and IAMO: MLU's Prof. Dr Heinz Ahrens, who is Professor of Agricultural Policy and Agricultural Environment Policy, is a member of IAMO's scientific advisory board, while the Prorektor of Strategic Planning, Prof. Dr Bernd Six, also from MLU, is a member of IAMO's board of trustees.

IAMO also works closely in conjunction with many other universities, chiefly with faculties of agriculture and economic sciences. Depending on the requirements of interdisciplinary research, other social science and humanities subjects may be brought in, e.g. history. As far as partners in Germany are concerned, we have strong relationships with Berlin, Bonn, Hohenheim, Kiel, Göttingen and Münster. There are also close relationships with chairs of agricultural economics and institutes at agricultural and economics colleges and universities in IAMO's partner countries. Here we should note that in 2006 our research cooperation was extended to Chinese universities as well as non-university research institutions in China.

Amongst our partner universities we should highlight the National Agricultural University of the Ukraine (NAUU) and the National University 'Kyiv Mohyla Academy', both in Kiev; the Timiryazev Academy in Moscow; the Agricultural University in Astana, Kazakhstan; the Agricultural University in Grodno, Belarus; the Agricultural University of Warsaw; the Agricultural University of Nitra, Slovakia; Corvinus University in Budapest and Gödöllő Agricultural University, Hungary; and University of National and World Economy in Sofia, Bulgaria. In addition there are Hanoi Agricultural University in Vietnam, and the Centre for Agricultural and Rural Development (CARD) at Zhejiang University in China. IAMO also exchanges a wide range of scientific information with the Institute for Agro-economics and the Centre for Transition Economics at the Catholic University in Leuven, Belgium, Wageningen University in the Netherlands, the University of Kent in Canterbury, and the University of Queensland in Australia. In the USA we have close contacts with Pennsylvania State University, the State University of New York, the University of Wisconsin in Madison, and with Stanford University.

Cooperation with non-university institutions

The numerous contacts with non-university institutions are also very important for IAMO's work. We work together with the Institute of Farm Economics, of Rural Studies and the Institute of Market Analysis and Agricultural Trade Policy (MA) at the Federal Agricultural Research Centre (FAL) in Brunswick-Völkenrode, the Max Planck Institute for Social Anthropology in Halle, the Leibniz Centre for Agricultural Landscape and Land Use Research (ZALF) in Müncheberg, and the Leibniz Institute for Regional Geography (IfL) in Leipzig. There are close relations with many

non-university research institutions in Central and Eastern Europe. Of note here are: In the Czech Republic, the Research Institute of Agricultural Economics in Prague (VÚZE); in Slovakia, the Research Institute of Agricultural and Food Economics in Bratislava (VÚEPP); in Hungary, the Research and Information Institute for Agricultural Economics in Budapest (AKI); in Russia, the Institute of Transition Economics (IET) and the All-Russian Institute for Agrarian Problems and Information Theory (VIAP), both in Moscow; in Ukraine, the Institute of Agrarian Economy at the Academy of Agrarian Sciences, and the National Institute of Statistics in Kiev; in China, the Centre for Chinese Agricultural Policy (CCAP) at the Chinese Academy of Sciences; and in Turkey, the Agricultural Economics Research Institute at the Ministry of Agriculture in Ankara. IAMO's partners in Western and Northern Europe are: In France, the National Institute for Agricultural Research (INRA) in Rennes, and the National Engineering College for Agricultural Sciences in Paris-Grignon (INA-PG); in Ireland, the Ashdown Food Research Centre; in Scotland, the Scottish Agricultural College (SAC), Edinburgh; in Austria, the Austrian Federal Institute of Agro-economics in Vienna; in Sweden, the Swedish Institute for Food and Agricultural Economics (SLI) in Lund; and in Denmark, the Danish Institute of Agricultural Sciences, Tjele.

Summer school on the transition process

From 17 July – 5 August 2006, the fifth summer school on 'Agriculture in the transition process' took place. In the first two weeks in Minsk (Belarus), the participants increased their knowledge of the topics 'Marketing of agricultural products' and 'Development of rural areas' through lectures and seminars.

The topic areas were given practical demonstration by excursions in Germany in the third week.

A total of 24 agricultural professionals from science, agricultural administration and farming from all over Belarus took part. As in previous years, the summer school was run jointly by the Institute for Agricultural Economics and Regional Planning (IAA) of the Agricultural Faculty at Martin Luther University Halle-Wittenberg and IAMO, with financial support from the DAAD (German Academic Exchange Service). Once again, Prof. Dr Michael Grings and Dr Jürgen Wandel (both IAA) were in charge of the event. On the Belarusian side, the Centre of Agricultural Economics of the Institute of Economics at the Belarusian National Academy of Sciences provided helpful logistical support. The teaching was carried out by Professors Ahrens, Grings, Tillack and Wagner, as well as Dr Wandel and Dr Weingarten. In view of the positive experiences of the past four years, it is intended to hold the summer school on 'Agriculture in the transition process' again in 2007.

European Summer School 2006

From 31 July – 11 August, the Research Institute of Agricultural Economics in Prague (VÚZE), IAMO and the Czech University of Agriculture in Prague (CZU) jointly ran the 'European Summer School 2006: Efficiency and Growth in the Agriculture of Transition Economies' (EGATE) in Prague. EGATE was the first summer school under the aegis of the EU-funded Marie Curie training project 'Modern Agriculture in Central and Eastern Europe: Tools for the Analysis and Management of Rural Change' (MACE). 22 participants from ten countries took part in EGATE. It gave postgraduate and post-doctoral students from all over

the world, who are working in the area of agricultural efficiency and productivity analysis in transition countries, the opportunity to acquire further training, exchange information, and discuss open research questions.

Supporting junior academics

One of the three core tasks of IAMO is to help develop the next generation of researchers. In particular, therefore, the Institute supports the study for doctoral and post-doctoral degrees. Around 25 theses are being supervised at IAMO. Several staff members are preparing their post-doctoral degrees.

Dr Kathrin Happe nominated for the Leibniz Community prize

Dr Kathrin Happe was nominated for the 2006 Leibniz Community prize for her PhD thesis 'Agricultural Policies and Farm Studies – Agent-based Modelling and Application to EU Policy Reform'.

The prize for junior academics is awarded annually by the Leibniz Community. It honours an outstanding PhD thesis from a member institute of the Community. The five sections of the Leibniz Community each choose one candidate from a number of nominees. Out of the maximum of five finalists, a jury selects the prize-winner. Section B, 'Economic and Social Sciences, Spatial Sciences', with its 17 institutes nominated Dr Kathrin Happe's PhD thesis for the 2006 prize. This nomination by itself represents an accolade. Yet the work already won the 2005 GEWISOLA prize for best thesis.



Dr Kathrin Happe (centre) at the awarding of the Leibniz prize for junior academics on 23 November in Berlin

Training for doctoral students: Seminars and PhD programme

As part of its educational provision for doctoral students, IAMO runs a PhD student seminar together with the professors of agricultural economics for agricultural business theory, agricultural market theory, agricultural business management, and agricultural policy and agricultural environment policy from MLU's Institute of Agricultural and Food Sciences. The seminar serves as a forum for swapping ideas about research questions, methodological approaches and findings. In addition, the agro-economic coffee gatherings at IAMO provide an opportunity to discuss early, often provisional findings.

The Doctoral Certificate Program in Agricultural Economics, designed and run by agro-economic institutes from several German universities, the Federal Research Institute of

Agriculture (FAL) and IAMO, has been in existence since 2005 (www.agroekonomik.de).

The 'Doctoral Certificate Program' provides the first structured training in Germany for doctoral students in the areas of agricultural and food economics and rural development. The systematic teaching of essential theory and method should further increase the quality of education and the students' efficiency in working on dissertation topics. PhD study forms the third stage of a consecutive programme of study, following bachelor's and master's degrees in agriculture, food and the environment. The doctoral study course is jointly run by the Agricultural and Food Economics Faculty of the Christian Albrecht University in Kiel, the Faculty of Agriculture and Horticulture at the Humboldt University in Berlin, IAMO, the Institute of Agricultural and Food Sciences at MLU, the Faculty of Agricultural Sciences at the Georg August University in Göttingen, and FAL, Section Agricultural Economics, Brunswick. The PhD course is based on a modular system. In 2006, professors and staff at IAMO helped organise academic events related to the following modules:

- 'Efficiency and Productivity Analysis I – Deterministic Approaches';
- 'Efficiency and Productivity Analysis II – Stochastic Frontier Analysis';
- 'Household Behaviour: Theory and Applications';
- 'Applied Industrial Organisation';
- 'Agent-based Modelling in Agriculture';
- 'Resource Economics', parts I and II.

Young Scientist Workshop 2006

On 4 and 5 September IAMO organised the fourth workshop on agricultural development in Central and Eastern Europe for doctoral and post-doctoral students. To increase its international significance, the event took place for the first time exclusively in English, as the *Young Scientist Workshop 2006*. Abstracts of 22 papers from eleven countries were submitted, from which the organisers, Dr Raushan Bokusheva and Prof. Dr Gertrud Buchenrieder ultimately chose twelve. The topics ranged from developments in rural factor markets and agro-political problems of the enlarged EU and Eastern Europe about questions of social capital and social networks, to business studies and issues of modelling. As in previous workshops, participants particularly valued the opportunity of substantial formal and informal discussion of their own research plans, and the opinions of experts, often from other universities.

Peter Weingarten leaves IAMO

At the end of 2006, Dr Peter Weingarten left IAMO in order to become head of the Institute of Rural Studies at the Federal Agricultural Research Centre (FAL) in Brunswick-Völkenrode. Peter Weingarten worked in a position of responsibility at IAMO for eleven years and had a considerable influence on the Institute's development. He came to the newly founded Institute in 1995, after successfully completing his PhD in Bonn. He was immediately given the position of deputy head of the External Environment for Agriculture and Policy Analysis department by the then Director Klaus Froberg. At the time, the restructuring and privatisation processes in Central and Eastern European agriculture triggered by the end of socialism were in full swing.

The first countries had petitioned to join the EU. A huge need for information and analysis developed. With all his energies Dr Weingarten faced up to the challenges this posed for the Institute, which was still then in its development stage. A large number of publications and lectures demonstrate his engagement in the areas of institutional analysis, model-based policy drafting in agriculture, and environmental policy, amongst others. He worked in numerous national and international advisory groups, including as coordinator of the 'Advisory Body' of the network of independent experts for Central and Eastern European candidate countries, supported by the European Commission. From 2002 to 2005 he was acting head of the Policy Analysis department, at a critical time of transition for IAMO. His integrative and collegial manner, as well as his cooperative and level-headed management style made him a well-liked and much-respected colleague. His extensive experience of dealings with policymakers both in Germany and abroad, his vast knowledge and his wealth of experience in committee and advisory work will be difficult to replace. IAMO wishes him and his family the very best and every success for his future work in Brunswick.

Visiting academics at IAMO

The further education and training of academics is one of IAMO's core tasks. As already mentioned above, IAMO focuses chiefly on supporting junior academics from our partner countries. Of great importance here are study visits by researchers, which can range from a few weeks to two years. Besides being involved in joint publications, those engaged in long-term visits also

concentrate on their doctoral studies, financed by external and IAMO grants, and externally funded projects. In 2006, 46 predominantly young visiting academics from 22 countries carried out research at IAMO. By working together closely on international, externally funded research projects, young researchers from partner countries integrate themselves into the international academic community. Former IAMO staff, both from Germany and partner countries, are now already working in international organisations such as the EU and World Bank, or they have acquired management positions in their respective national agricultural administrations. An even larger number of them are continuing their academic careers back in their home countries.

IAMO graduate school on the prospects of small-scale agricultural structures

On 23 June 2005, the German government and the ministers president of the *Länder* announced the 'Pact for Research and Innovation'. This pact aims at increased support for those



Welcome to IAMO

large academic and research institutions – including the Leibniz Community – which are jointly funded by the federal administration and the *Länder*. The extra funds from the budget will not go directly to the individual institutes, but will be allocated in a competitive process. Within the framework of this pact, which corresponds to the Excellence Initiative of the federal administration and the *Länder* to promote science and research at German universities, IAMO's application for the funding of a graduate school was approved.

It will be launched in 2007, and will look at 'prospects of small-scale agricultural structures in the agri-business complex of the new EU Member States and accession countries'. In many Eastern accession countries, semi-subsistence farms still play an important role in ensuring rural employment and in agricultural production. On the other hand, they have hardly adapted themselves to the demands of modernising food chains and increased competition within the enlarged Union. This problem gives rise to the question of whether and how the existing structural deficits in agriculture in many regions of the new EU Member States and accession countries can be overcome; also, how agriculture in these regions can be successfully integrated into changing supply chains in the food economy, and how the social problems of the necessary structural change can be countered.

Three German PhD students and four from the new Member States and accession countries of the EU will work on individual sub-projects. The research projects are focusing on the following three topic fields:

- Change in the agricultural sector and business adjustment strategies;

- Inter-enterprise and cooperative adjustment strategies in relation to the demands of supply chains;
- Institutional parameters and implications for (regional) policy.

Besides its research activity, the IAMO graduate school will provide systematic support for junior academics. This takes the form of structured training of doctoral students via participation in the Doctoral Certificate Program in Agricultural Economics (see above), and the involvement of IAMO researchers who have successfully completed their PhDs. The latter will be given the opportunity to develop their research areas further, and to acquire experience in research management.

Development of funding

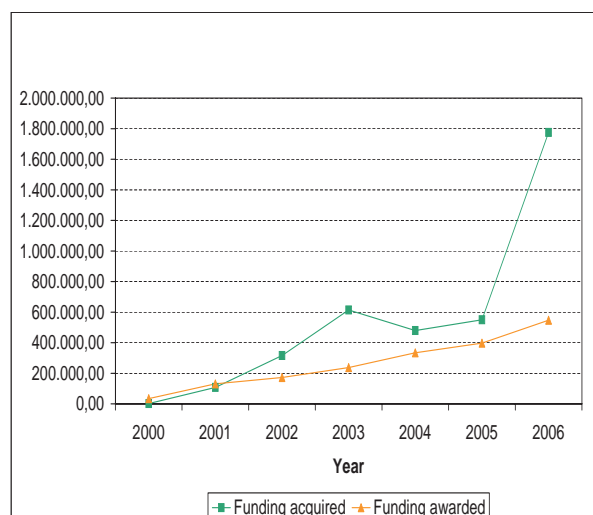
Over the past few years, IAMO has substantially improved the volumes of funding it acquires and awards. The increase in recent years, particularly in 2006, was mainly achieved by winning the contracts for research projects in the EU's 6th Research Framework Programme, and by DFG research funds. In both cases, funding was awarded by competition.

Funded projects in 2006

I. Research projects for which funding was approved in 2006

- Project title: Social Capital and Informal Social Networks in a Changing Natural and Institutional Environment
Funded by: DFG grant
- Project title: Pricing and Competition on Spatially Differentiated Markets – Simulation and Analysis of Complex Market

Development of funding



Source: Institute's own statistics.

Structures Using the Example of Raw Milk

Funded by: DFG grant

- Project title: Structural Change in Agriculture and Rural Livelihoods (SCARLED)
Funded by: EU's 6th Research Framework Programme
- Project title: Croatia's EU Accession and its Socioeconomic Implications for Farm Households
Funded by: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
- Project title: Contract Promoting Quality of Life in Rural Europe
Funded by: KMU research, Austria

II. Ongoing externally funded research projects in 2006

- Project title: The Transition of Family Farms in the P.R. China
Funded by: DFG grant
- Project title: German-Hungarian Cooperation Project: Price Transmission in the Hungarian Agri-food Chain
Funded by: DFG grant
- Project title: Key Factors Influencing Economic Relationships and Communication in European Food Chains (FOODCOMM)
Funded by: EU's 6th Research Framework Programme
- Project title: Micro-economic Instruments for Impact Assessment of Multifunctional Agriculture to Implement the Model of European Agriculture (MEA-Scope)
Funded by: EU's 6th Research Framework Programme
- Project title: The Impact of Decoupling and Modulation in the Enlarged Union: A Sectoral and Farm Level Assessment (IDEMA)
Funded by: EU's 6th Research Framework Programme
- Project title: The Structures of Civil Society Governance in Promoting Rural Development (on the Example of East Germany and Ukraine)
Funded by: EU's 6th Research Framework Programme
- Project title: Modern Agriculture in Central and Eastern Europe. Tools for the Analysis and Management of Rural Change (MACE)
Funded by: EU's 6th Research Framework Programme

III. Externally funded research projects completed in 2006

- Project title: Study on Employment in Rural Areas: Demographic and Employment Trends – in Particular for Young

People and Women – and Typologies of Rural Areas (SERA)

Funded by: EU Directorate-General Agriculture

- Crop Insurance in Kazakhstan: Options for Building a Sound Institution Promoting Agricultural Production
Funded by: VW Foundation
- Project title: Information and Communication Technology Needs Assessment
Funded by: FAO
- Project title: Development of the Agricultural Sector in Central and Eastern Europe: IAMO Expert Assessment
Funded by: BASF AG

IAMO project on China singled out by DFG

In 2006, the *Stifterverband für die Deutsche Wissenschaft* and the German Research Foundation (DFG) singled out two projects as particularly worthy of support, and both were awarded an extra 12,500 Euro of research funding. One of the projects to receive this distinction was 'The Transition of Family Farms in the P.R. China', which is being worked on by Prof. Dr Thomas Glauben at IAMO. The project's goal is to analyse how farming households have been adjusting economically to the radical economic and agro-political reforms of the last 25 years in the P.R. China. One part of the research has focused on the analysis of the labour market behaviour of rural households; the other is examining the development of income distribution, particularly the persistence of poverty in China's rural regions. In order to identify and explain the extent of chronic poverty, of chief interest here is the lower income distribution band. The findings will help improve the

accurate targeting of all policies related to the combating of unemployment and poverty in rural areas. Over the course of the project, IAMO staff are cooperating closely with Chinese partners and other German research institutions.

Selected externally funded projects

Below is an outline of the most important projects for which new funding was obtained in 2006. There are two new DFG projects, and one EU project which comes under the aegis of the EU's 6th Research Framework Programme.

EU project 'Structural Change in Agriculture and Rural Livelihoods' (SCARLED)

Part of the EU's 6th Research Framework Programme, the SCARLED project – 'Structural Change in Agriculture and Rural Livelihoods' – was given a positive assessment in 2006. It is looking at structural adjustment in rural areas and the accompanying socioeconomic transition in the new EU Member States including Romania and Bulgaria.

This is the first time that IAMO has been in charge of the coordination of a EU project. A total of ten partner institutions from eight countries are contributing to SCARLED. The overall management of the project, which will run for three years, is the responsibility of Prof. Dr Gertrud Buchenrieder. At IAMO, two PhD theses will address the topic of the project.

Rural households in the enlarged EU need to undergo thorough structural change so as not to become disconnected from prosperous, mostly urban economic spheres. This is true of both the agricultural sector, where the main problems are farm size structure and low productivity, and the rural

non-agricultural sector, which in many areas has to be completely redeveloped following a transition-induced collapse. With regard to these two starting positions the project has two aims. First, the analysis of the restructuring process in the agricultural sector and the socioeconomic transition of rural areas of the new Member States are a key focus. Second, the lessons of successful rural development processes within the old EU 15 for the new Member States need to be considered. Empirical data collections are planned for Bulgaria, Hungary, Poland, Romania and Slovenia. The policy recommendations are also based on the successful examples of earlier accessions (which need examination) in selected countries of the old EU 15. In this way, SCARLED will provide policy-relevant analyses on the basis of current empirical data.

DFG project: 'Social Capital and Informal Social Networks in a Changing Natural and Institutional Environment'

The DFG-funded project, 'Social Capital and Informal Social Networks in a Changing Natural and Institutional Environment', began its research activity in Northern Thailand and Vietnam in January 2007. The project is being undertaken by Prof. Dr Gertrud Buchenrieder, Dr Thomas Dufhues and two PhD students. Our Thai and Vietnamese cooperation partners are Prof. Dr Nuchanata Mungkung (Kasetsart University, Thailand) and Prof. Dr Pham Thi My Dung (Hanoi, Agricultural University No. 1, Vietnam). The project is linked to special research area 564 (SFB), 'The Uplands Program', of Hohenheim University. The overall aim of the project is to increase our understanding of the role of social capital and social networks for the functioning of rural households in developing and transition countries.

Social capital and social networks are currently attracting a lot of attention in development economics research. Previously, social capital in the form of social networks was hardly addressed in the analysis of income and poverty. What is more, a large proportion of past research saw social capital as a rather uniform size. The effects of different forms of social capital on economic output of households have scarcely been examined.

A comparative analysis of the differences and similarities of Thai and Vietnamese rural households with regard to their provision of social capital ought to help us better understand the role of social capital in rural development. The research hypotheses are that different forms of social capital:

1. Have different effects on the welfare of households;
2. Are important for the access to scarce resources;
3. Have a large influence on the capacity to resist poverty.

The research project aims to collect socioeconomic household data in combination with ego-centred data on social networks. A 'Principal Component Analysis' will allow different forms of social capital to be drawn from the data, and these to be considered in multiple regression models, in order to be able to measure the influence of social capital on different household incomes and differing access to resources. New research findings on the capacity of rural households to resist poverty, and on the relations between town and country as an important component of social capital are expected to be the results of the project.

Pricing and market structure on the raw milk market

In September 2006 the DFG approved a research plan on the following topic: 'Pricing and Competition on Spatially Differentiated Markets – Simulation and Analysis of Complex Market Structures Using the Example of Raw Milk'. The aim is – using a combination of theory, computer-assisted simulation and empirical testing – to gain a better understanding of the geographical distribution of production and processing of raw milk, in particular of the strategies of producers and processors at the upstream and downstream stages. The application for the project was submitted jointly by IAMO (Prof. Dr Alfons Balmann) and the Chair of Environmental Economics and Agricultural Policy (Prof. Dr Klaus Salhofer) at the Technical University in Munich. Particularly on agricultural markets, large distances and the resulting transport costs can have a huge influence on the price and competition behaviour of actors. Geographical price and competition theory in the past only allowed a limited application of theoretical knowledge to corresponding empirical data. Instead geographical analyses used to be carried out using simplistic and restrictive assumptions. Although these were necessary for a formal solution, they hindered the validity and applicability vis-à-vis real markets. This is the point at which the research project begins. It uses newly developed processes from the field of computer-assisted approaches, which allow it to analyse complex systems such as geographical markets. The aim of the part of the project which is located at IAMO is to devise an agent-based simulation model. With its help, the intention is to analyse the effects and interaction of geo-economic and market-relevant factors. This will produce a virtual market of interacting, heterogeneous agents so that, in complex

experiments closely following the specific circumstances of the German raw milk market, it will be possible to identify potential future scenarios which have a sound scientific basis. Crucial elements here are the structure of the milk-processing enterprises regarding their production orientation, as well as their legal form. These factors will also be examined empirically in the part of the project to be carried out at the TU in Munich. Various methods will be used, for example from the sphere of New Empirical Industrial Organization. First, these make it possible to identify important factors of influence which need to be incorporated into the simulation model; second, the simulation results that follow will be faced with a real economic data basis.

IAMO lecture activity

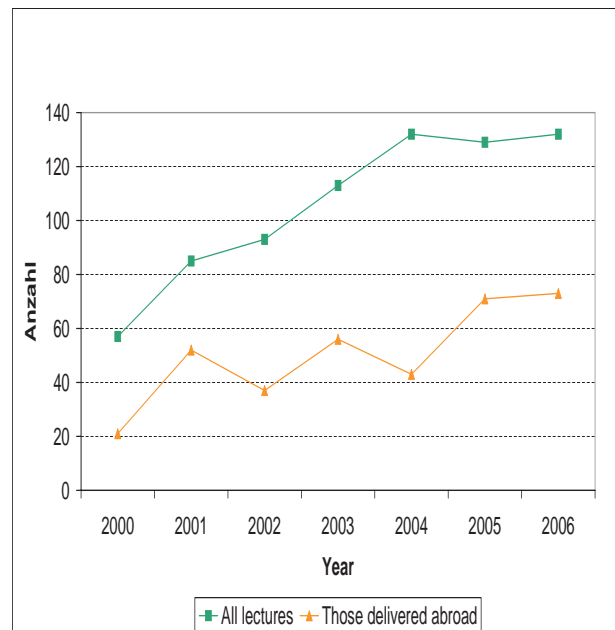
Another important activity for our staff, besides contributing to publications, is the presentation and discussion of research findings at national and international conferences, forums and workshops. A large proportion of lectures by IAMO staff are delivered at events with an international audience and about half of all lectures are given abroad. In the last few years, the level of engagement of our staff members in presenting their research findings has been consistently high.

The number of papers delivered by IAMO staff at international conferences and meetings of experts has remained at a high level over the past few years. For example, at the 26th conference of the *International Association of Agricultural Economists* (IAAE) in 2006 in Brisbane, Australia, the Institute was represented by no fewer than nine lectures and six poster presentations, and we also coordinated an IAAE symposium.

Conferences and seminars

Conferences and seminars are essential for IAMO to be able to fulfil its third core task, which is to act as a forum for scientific

Development of IAMO lecture activity



Source: *Institute's own statistics.*

exchange in all questions of agricultural development in transition countries. The events organised by the Institute represent an important platform for scientific exchange, both on a national and international scale. Besides greater scientific cooperation, the meeting of academics with decision makers from the food industry and politics often provide an impetus for restructuring

in the agricultural and food sectors in partner countries. Below is an outline of the most important conferences, symposiums and workshops run by the Institute in 2006.

Agricultural policy symposium at Green Week

As part of the 13th East-West Agricultural Forum at Green Week 2006, IAMO ran an agricultural policy symposium and was involved in organising an expert forum. The agricultural policy symposium, which IAMO has been running for several years, addressed in 2006 the topic, 'Food Retail as a Decisive Factor in the Supply Chain in the Agricultural and Food Economy'. At the heart of this topic were the effects of the ever closer relations between primary agricultural producers, processing enterprises and commercial institutions within Europe. The focus was on food chains and retail development trends in Central and Eastern Europe. The four lectures by renowned experts were complemented by an animated open discussion. Another subsidiary event at the 13th East-West Agricultural Forum at Green Week was the discussion forum jointly organised by the regional office of the FAO for Europe, the GFA Consulting Group GmbH and IAMO. This forum on the topic, 'Turkey – A Partner in the Agricultural and Food Sector – Prospects and Challenges for Turkey and the European Union', involved well-known experts and high-level political representatives. From the Turkish side, State Undersecretary Dr Ramasan Cadak and Director General Dr Cevdet Akdiniz from the Ministry for Agriculture took part. Other participants were: The parliamentary State Secretary Dr Gerd Müller from the Federal Ministry for Food, Agriculture and Consumer Protection; Dr Antonis Constaninou as representative

of the EU Commission's Directorate-General for Agriculture and Rural Development; Dr Harald Grethe from the Humboldt University in Berlin; and Dr Robert Bambauer from the district authority of Cham, as the former head of the veterinary EU twinning project with Turkey.

Symposium on livestock farming in the new German Länder

At the symposium organised by IAMO on 26 January 2006, entitled 'How Many Pigs Does the Country Need? Prospects for Livestock Farming in the New German *Länder*', more than 100 representatives from business, politics, environmental protection and science took part in the discussion. The event was prompted by the controversy over current licensing processes for pig fattening farm plants with capacity for more than 30.000 animals in Saxony-Anhalt. State Secretary Dr Hermann Onko Aeikens from the Ministry of Agriculture and the Environment for Saxony-Anhalt justified the *Land's* current initiative regarding livestock farming by saying that the favourable regional conditions made it possible to use livestock farming to create jobs, as well as to counteract the great dependency of domestic agriculture on EU subsidies. Applications to permit such large farm plants would therefore be appraised by the administration without any reservation. According to Prof. Hans Wilhelm Windhorst (Institute of Structural Research and Planning in Intensive Agricultural Areas, ISPA, Vechta College), although Germany is one of the largest pork producers, it is facing increasing international competition. Pig farming in Germany shows definite structural deficiencies; the average size of animal holding is far below that of the most important competitors. Prof. Eberhard von Borell (Martin Luther University Halle-Wittenberg) presented the

argument that there is a conflict of aims between environmental protection and animal welfare. He also pointed out that animal welfare applies to each individual animal and that animal welfare legislation is not differentiated according to the size of animal holding. Animal health is far more dependent on specific factors of husbandry and management which are not connected to the amount of animals owned. The only critical factors here are the quality of husbandry and accommodation. In the view of Prof. Alfons Balmann (IAMO), there are basic problems in livestock farming in the new German *Länder* with regard to management and financing due to the high external financing requirements. Besides sufficiently trained and motivated professionals, therefore, external investors or new financing ideas developed within the framework of vertical integration were urgently needed. A heated podium discussion followed on the topic, between representatives from agriculture, animal welfare, environmental protection, the meat processing industry, as well as investors and the 100 or so other participants. In addition to debating the misgivings held by BUND (German League of the Environment and the Protection of Nature) and ABL (Syndicate of Traditional Agriculture e.V.) with regard to environmental protection and animal welfare, and to the consequences for the farm structure of large farm plants, the participants also discussed questions such as market segmentation and changes in consumer behaviour.

IAMO Forum 2006

The fourth IAMO Forum took place between 29 June and 1 July 2006 with the title 'Agriculture in the Face of Changing Markets, Institutions and Politics – Challenges and Strategies'. At the core

of the event were papers and discussions debating new paths towards an efficient and successful agriculture and food industry, the development of competitive organisation, cooperation and contract structures, as well as the interplay between policy and sector.

On the first day of the conference, researchers – predominantly from the countries of Central and Eastern Europe – presented their findings in 40 academic papers. There were plenary and working group sessions on the following topic areas:

- Institutional and structural change;
- Business organisation;
- Vertical organisation within the food chain;
- Competitiveness in a changing environment;
- Efficiency and productivity of agricultural enterprises;
- Price transmission in the agri-food sector;
- Factor mobility;
- Rural development.

The second day saw mainly representatives from the scientific, political and business communities discussing the future prospects and parameters, as well as new ideas and trends in the agricultural and food sector. Four farmers from Germany, Austria, Poland and Hungary each presented their own individual business plan. The discussions on both days showed that the existing competitive structures in agriculture need, besides consistent orientation to the market, predictable and reliable policy parameters. The orientation of EU agricultural policy back to its original goals appears ever more necessary. The conference was rounded off by a field trip on the third day to a vineyard which is

making an alternative use of the land which was formerly the slag heap of a lignite surface mine.

As in previous years, the IAMO Forum 2006 brought together well-known specialists from Germany and abroad as speakers and discussants. The representatives from the scientific community were: Prof. Dr Scott Rozelle, Stanford University (USA), Prof. Dr Andrew Schmitz, University of Florida (USA),



Discussion at the IAMO Forum 2006

Dr David Sedik, FAO Rome (Italy), Prof. Dr Johan Swinnen of the Catholic University Leuven (Belgium). From politics and organisations: State Secretary Dr Hermann Onko Aeikens from the Ministry of Agriculture and Environment (Saxony-Anhalt), Carl-Albrecht Bartmer, President of the German Society for Agriculture (DLG), Brendan Bayley from HM Treasury (UK), Dr Michael Grams from the European Union (DG Budget), Dr Ulrich Neubauer from the Federal Ministry of Food, Agriculture and Consumer Protection, Hans-Joachim Preuß, Secretary General of Deutsche Welthungerhilfe (a well known

non-governmental German food aid organisation). From business: Armin Tietjen from John Deere International and the farmers Josef Brandstätter (Austria), Arnold Czech (Poland), Heiner Petersen (Germany) und György Rasko (Hungary).

1st Halle Efficiency and Productivity Analysis Workshop

Together with the Institute for Business Research in Halle (IWH), IAMO organised the '1st Halle Efficiency and Productivity Analysis Workshop – HEPAW', which took place on 20 and 21 June 2006. The aim of the workshop was to discuss current theoretical and empirical research findings of productivity and efficiency measurement from the disciplines of economic theory, agricultural economics, business theory, operations research and related areas. The theoretical and empirical pieces of work which were presented examined aspects such as the link between product prices and quality, and the efficiency of German universities, regional public transport (ÖPNV), the German electricity industry, and the European rail industry. Current international research findings relating to agriculture were also presented.

The aim of the workshop is to develop into a platform for all researchers in the German-speaking world who are involved in productivity and efficiency research, and also to promote the integration of German researchers into the international academic community. This was achieved here, as participants and speakers from around the world accepted the invitation to participate. The main papers were delivered by the following internationally renowned researchers: Prof. Dr Tim Coelli from the University of Queensland, Australia, and Prof. Dr Subal Kumbhakar from Binghampton University, State University of New York.

Events announced for 2007

Agricultural policy symposium at Green Week 2007

The 14th East-West Agricultural Forum at Green Week in Berlin was looking at the topic: 'Agriculture and Bio Energy – The Lights will go out without Agriculture'. Together with academics from Germany and abroad, IAMO is preparing an agricultural policy symposium: 'Bio Energy – Strategic alternative or rescue anchor for European agriculture?' The symposium took place on Friday, 19 January 2007. At the heart of the symposium is the question of the potential European farming has in the production of bio energy, the ideas of the European Union and the individual countries, and the opportunities, risks and expectations which are associated with this.

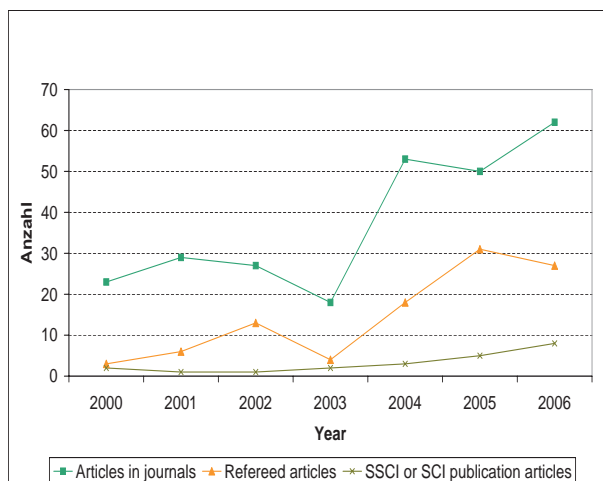
IAMO Forum 2007

As in previous years, IAMO is again organising the IAMO Forum in Halle. The topic of the 2007 Forum, which will take place on 27-29 June is: 'Sustainable Rural Development: What is the Role of the Agri-Food Sector?' The main objective of the IAMO Forum 2007 is to debate the prospects and necessary strategies for sustainable rural development using a multidisciplinary approach. The focus here is not just the enlarged EU but also Turkey, the CIS and China. Information on the next IAMO Forum can be found on our web site www.iamo.de.

Publications

Academic staff at IAMO publish their findings in scientific journals, monographs and proceedings and discussion papers. A complete list of publications can be found on IAMO's web site on the Internet (www.iamo.de). The diagram above illustrates the development of articles published in journals by IAMO staff since 2000. As well as the fact that there has been much higher level of publication activity recently, particular attention should be paid to the continually increasing number of refereed articles

Development of publications in journals



Source: Institute's own statistics.

listed on the Science Citation Index (SCI) and the Social Science Citation Index (SSCI). Because of the aforementioned increase in high ranking third-party funding, we can expect this trend of the last few years to continue.

Best journal article

Each year the Institute's research coordination group chooses the best refereed article by an IAMO staff member published in a journal. This year, the honour was awarded to a paper by

Dr Raushan Bokusheva and PD Dr Heinrich Hockmann, which looked at production risk and technical inefficiency in Russian agriculture (BOKUSHEVA, R., HOCKMANN, H. (2006): Production risk and technical inefficiency in Russian agriculture, *European Review of Agricultural Economics*, Vol. 33, pp. 93-118).

The study assesses technical inefficiency in the use of inputs, and the factor-specific production risk for Russian agricultural enterprises. The findings are based on panel data from 443



Discussion at the IAMO Forum 2006

agricultural enterprises from different parts of Russia. The findings suggest that both technical inefficiency and production risk raise the volatility of agricultural production. For most businesses, the output volatility is chiefly a result of the high production risk. This means that future studies on the development of Russian agricultural production should look more closely at production risk and the resulting behaviour of agricultural producers. Studies on the technical efficiency of Russian agricultural enterprises which neglect the influence of risk on output and commercial decisions particularly run the risk of producing a distorted picture of technical efficiency.

The three regions studied, Oryol, Krasnodar and Samara, show significant differences in their production technology. This is true of both production elasticities and the effects of technical progress. The agricultural enterprises differ significantly from region to region in their capacity, on the one hand, to push their production frontier outwards, and on the other to even reach the existing frontier. It is also the case that the greater the technical change in a region, the less the average technical efficiency of all enterprises increases. A reason for this is that the majority of farms are too slow in adapting the innovations – which continually expand production possibilities – made by the leading enterprises of a region. This is especially true of the region of Samara.

The study also shows that agricultural enterprises only react slowly to production risk. This implies that the factor allocation of Russian farms has not adjusted to the heavily risk-determined production conditions. For the accelerated development of Russian agriculture, it is thus essential that farms orient their factor input to the production risk. It is most likely that this would

be achieved by introducing modern production technologies and cultivation systems which help to reduce output volatility, and which allow a more flexible factor input adapted to the extreme natural conditions.

Discussion papers

The Discussion Paper series continued in 2006 with the following publications that can all be downloaded free in PDF format from the IAMO web site (www.iamo.de/doc/##):

GRAMZOW, A. (2006): Local partnership as an incubator for rural development: The case of Dębarno, North-western Poland, *IAMO Discussion Paper No. 90*, Halle (Saale).

ČIMPOEȘ, D., SCHULZE, E. (2006): Ëkonomičeskoe sostojanie sel'skochozjajstvennyh predprijatij Respubliki Moldova [Die wirtschaftliche Situation der Republik Moldova], *IAMO Discussion Paper No. 91*, Halle (Saale).

LISSITSA, A., LUKA, O., GAGALJUK, T., KVAŠA, S. (2006): Edinaja Agrarnaja Politika Evropejskogo Sojuza – Put' stanovlenija i principy funkcionirovanija [Gemeinsame Agrarpolitik der Europäischen Union – Entwicklung und Funktionsprinzipien], *IAMO Discussion Paper No. 92*, Halle (Saale).

SCHMITZ, S., BROSIG, S., DEGTJAREVICH, J., DEGTJAREVICH, I., GRINGS, M. (2006): Grodno household survey – Sources and utilization of foodstuffs in Belarussian households, *IAMO Discussion Paper No. 93*, Halle (Saale).

RUNGSURIYAWIBOON, S., LISSITSA, A. (2006): Agricultural productivity growth in the European Union and transition countries, *IAMO Discussion Paper No. 94*, Halle (Saale).

GRAMZOW, A. (2006): Endogenous initiatives as a chance to improve rural livelihood? Results of a case study in Baltow, South-eastern Poland, *IAMO Discussion Paper No. 95*, Halle (Saale).

DUFHUES, T., BUCHENRIEDER, G., FISCHER, I. (2006): Social capital and rural development: Literature review and current state of the art, *IAMO Discussion Paper No. 96*, Halle (Saale).

WOLZ, A., FRITZSCH, J., PENCÁKOVÁ, J. (2006): Social capital among agricultural producers in the Czech Republic: Its impact on economic performance, *IAMO Discussion Paper No. 97*, Halle (Saale).

BOKUSHEVA, R., BUCHENRIEDER, G. (eds.) (2006): Contributions to the 4th Young Scientists Workshop on agricultural development in Central and Eastern Europe – YSW-2006, *IAMO Discussion Paper No. 98*, Halle (Saale).

HOCKMANN, H., RAMANOVICH, M. (2006): Zur Wettbewerbsfähigkeit der weißrussischen Milchwirtschaft: Eine Anwendung des Porterschen Diamanten, *IAMO Discussion Paper No. 99*, Halle (Saale).

GRAMZOW, A. (2006): Doświadczenia oddolnych inicjatyw rozwoju regionalnego oraz perspektywy dla programu leader+ w regionie Doliny Strugu w Polsce, *IAMO Discussion Paper No. 100*, Halle (Saale).

GRAMZOW, A. (2006): Partnerstwo lokalne jako inkubator rozwoju terenów wiejskich: Przypadek Debrna, północno-zachodnia Polska, *IAMO Discussion Paper No. 101*, Halle (Saale).

Studies on the Agricultural and Food Sector in Central and Eastern Europe

In the series of 'Studies on the Agricultural and Food Sector in Central and Eastern Europe' IAMO publishes monographs and conference proceedings that deal with agro-economic issues in Central and Eastern Europe. All publications from volume 22 onwards can be downloaded from the internet free of charge <www.iamo.de/dok/sr_vol###.pdf>. Until now in the studies-series 17 conference proceedings and 19 monographies have been published. In 2007 the following volumes were published:

CURTISS, J., BALMANN, A., DAUTZENBERG, K., HAPPE, K. (eds.) (2006): Agriculture in the face of changing markets, institutions and policies – Challenges and strategies, Vol. 33.

BUCHENRIEDER, G., DUFHUES, T. (eds.) (2006): Making rural households' livelihoods more resilient – The importance of social capital and the underlying social networks, Vol. 34.

MÖLLERS, J. (2006): Außerlandwirtschaftliche Diversifikation im Transformationsprozess. Diversifikationsentscheidungen und -strategien ländlicher Haushalte in Slowenien und Mazedonien, Vol. 35.

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IAMO Internet presence

The Institute's Internet presence (www.iamo.de) aims to provide outsiders and interested users with a quick overview of IAMO's core tasks and aims, as well as of staff research topics, findings and publications. Our Internet presence is based on the Open Source Content Management System TYP03. Each member of staff has the opportunity to maintain and update the content of their individual pages independently. This ensures that the site is very much up to date. The web site also aims to achieve the goal of maximum accessibility. The advantages of an accessible-to-all, standard compatible web site are: Access for all users, easy maintenance and smaller file sizes.

From the home page, which gives information on news, events and the most recent publications, users can access information from the *Institute*, *Research*, *Events*, *Publications* and *Portal* categories. The *Institute* menu leads to information about IAMO's core tasks, institutional structure, staff and library.

Via the library page, online searches of the library catalogue can be made using OPAC. Current job vacancies can also be found via the *Institute* menu. The *Research* menu leads to information about current research projects, with short project descriptions and details of the staff involved, select publications, and research cooperation with other institutes. The *Events* menu provides details of the annual events either organised by the Institute, or in which IAMO is taking part. These include the IAMO Forum, the PhD workshop, as well as seminars and workshops on a variety of possible topics. Here, users can find out about programmes and speakers in advance, and view papers that have been submitted. The online service also provides access to all in-house publications (IAMO Series, IAMO Discussion Papers, IAMO Annual Reports and IAMO Annual). Publications by staff members can either be viewed in the complete publication list, or directly on the individual staff pages. The *Portal* menu contains a comprehensive and structured collection of links.

How to find us

» *By car*

From the south: Take the motorway A9 (Munich-Berlin) to Schkeuditzer Kreuz. Then take the A14 in the direction of Halle/Magdeburg and leave at the Halle-Peißen exit. Follow the B100 to Halle until you reach the outskirts of the city (traffic lights at Dessauer Brücke). Get into the right-hand lane and turn left still following the B100, to "Zentrum" (centre) and Magdeburg. Turn immediately to the right onto the B6 in the direction of Magdeburg, leave this at the next exit (Zoo, Wolfensteinstraße) and follow the signs to Universitätsklinikum Kröllwitz. Carry on straight along Wolfensteinstraße (underpass, several traffic lights, Reilstraße/Große Brunnenstraße crossing) until you reach Burgstraße. Turn right (you have no other option) and at the next crossroads ("Zum Mohr" restaurant, Burg Giebichenstein) turn left and follow the main road over the Saalebrücke. Once over this bridge turn right, go right again under the bridge and continue along the river embankment. Turn left at the next crossroads into Weinbergweg towards the University, and follow the road until the next set of lights. Drive straight on into Walter-Hülse-Straße. IAMO is the building on the right-hand side. Now turn right into Theodor-Lieser-Straße and you are in front of IAMO.

From the north: Leave the A9 at the Halle exit (AS 13) and take the B100 towards Halle. See "From the south" for further directions.

From the north-west: Coming from Magdeburg take the A14 (direction Leipzig or Dresden) to the Halle/Peißen exit and then take the B100 to Halle. See "From the south" for further directions.

From the west (on the B80): Follow the B80 until the Rennbahnring crossroads and from there follow the signs to Peißnitz/Kröllwitz. After about 2 km, after the third set of lights, you will see the IAMO building on your left (sandy coloured with a red roof). At the next available opportunity, turn left (back on yourself) and go back along the Heideallee until the Walter-Hülse-Straße lights. Turn right into Walter-Hülse-Straße, then right again into Theodor-Lieser-Straße. The IAMO building is on your right.

» *By train*

Leave the station by the main exit and follow the signs to the tram stop "Riebeckplatz". From here take tram number 4 direction "Heide". Alight at "Weinberg Campus" (about 15 minutes from the station). The Institute is on the left-hand side of the road as you get out.

» *By plane*

Leipzig-Halle Airport is 20 km from Halle. A shuttle train runs to the main station. Read the "by train" advice to find the way from there.



Publisher's note

IAMO's publications also include the series of in-house *Discussion Papers*, the series *Studies on the Food Sector in Central and Eastern Europe*, and the Institute's *Annual Report*.

Photos

Andreas Gramzow (pp. 12, 23), Olena Fedotowa (pp. 9, 82, 84), Sven-Oliver Jungklaus (p. 30), Ministry of Education and Cultural Affairs of Saxony-Anhalt (p. 5), Andreas Labes (p. 72), Alexej Lissitsa (p. 60, 66, 74), Henriette Stange (pp. 44, 54).

Published by

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Edited by

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Technical editor

Silke Scharf, Olena Fedotowa,

Printing/binding:

Druck-Zuck GmbH, Seebener Straße 4, 06114 Halle (Saale)

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IAMO 2007 is also available as a pdf file at www.iamo.de.

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ISSN 1617-6456

ISBN 3-938584-20-3