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INTEGRATION OF THE NEW MEMBER STATES INTO THE COMMON AGRICULTURAL POLICY

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Directorate General Internal Policies of the Union

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Author: Dipartimento di Economia e Ingegneria Agrarie
Università di Bologna (Italy)[1]

Responsible Official: Ms Beata Kowalkowska
Policy Department Structural and Cohesion Policies
European Parliament
B-1047 Brussels
E-mail: ipoldepb@europarl.europa.eu

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[1] *DEIAGRA (University of Bologna):* L. Vannini (scientific coordinator), M. Aragrande (project leader), M. Canali, E. Gentile, C. Grazia, L. Falasconi, S. Morganti, H. Petricks, A. Segré, M. Vittuari.
External consultants: M. Bruni (Areté srl, Bologna), A. Loi (Areté srl, Bologna), E. Halicka (Warsaw University, Warsaw), M. Hrabalek (Masaryk University, Faculty of Social Studies, Brno), L. Malece (University of Riga, Riga), N. Potori (Agricultural Economics Research Institute, Budapest), T. Volk (Agricultural Institute of Slovenia).

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AGRICULTURE AND RURAL DEVELOPMENT

INTEGRATION OF THE NEW MEMBER STATES INTO THE COMMON AGRICULTURAL POLICY

STUDY

Content:
This study presents an overview of the integration into the Common Agricultural Policy (CAP) of the ten New Member States (NMS) which joined the European Union (EU) in May 2004. In particular, the study analyses the effects of the main CAP instruments (i.e. direct payments, market measures and Rural Development measures) on modernisation and competitiveness of the NMS agriculture and compare it with the situation of the other EU 15 members (EU-15).

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Executive summary

1. This study is about the integration into the Common Agricultural Policy (CAP) of the ten New Member States (NMS) which joined the European Union (EU) in May 2004. In particular, the study analyses the effects of the main CAP instruments (i.e. direct payments, market measures and Rural Development measures) on modernisation and competitiveness of the NMS agriculture and compare it with the situation of the other EU 15 members (EU-15).

2. In general, the NMS suffer several structural constraints, which result in lower economic performances at farm and sector level. Family farms (the largest majority of the holdings in all the NMS) have a small average size, which does not stimulate farm investment and technical innovation. The scarce integration of these types of holdings into the agro-food industry supply chains is a further hindrance to modernisation, which limits market access and the interest of farmers into investment. This implies persistence of obsolete labour-intensive techniques, reduced use of inputs and equipment per hectare of land and per work unit, low yields, and low labour productivity. Despite the low levels of the total expenditure for production means, low crop and livestock yields often entail higher input costs per unit of product and a lesser compensation for land and labour. Various forms of subsistence or semi-subsistence farming are lasting in the NMS, with a production mix unfavourable for market integration of small holdings. Constrained by the need to satisfy self-consumption, family holdings maintain scarce specialisation and production schemes mainly oriented towards basic commodities (e.g. grains and many livestock products characterised by insufficient value added when practised on a small scale). All these elements are at the origin of noticeable lower levels of average farm income in the NMS.

3. The EU integration process goes along with a reduction of the structural gap between the EU-15 and the NMS agriculture. In the EU-15, the use of inputs is progressively decreasing. The NMS also experienced a decline in input use, but a slight increase is taking place after the Accession. This trend is accompanied by raise in yields of the most common crops: in particular wheat and other cereals (except in Poland, Lithuania and Cyprus), and oilseeds (except in Lithuania). Agricultural active population and labour input are diminishing. This tendency involves all the EU countries, especially the NMS. The average size of the holdings is getting smaller in the NMS, but this is influenced by situation in Poland, which accounts for nearly two thirds of all the NMS holdings. Opposite movements can be observed among the different countries: in general, the number of medium and large farms is growing, but in several areas this is counterbalanced by the increase of very small farms. The Baltic States and the Czech Republic are experiencing an important enlargement of average holding size. Besides Malta and Cyprus, micro-farming is particularly resilient in Poland, Hungary, Slovakia, and Slovenia.

4. Land-use variations show that many NMS are facing an adapting process. However, changes are not relevant with respect the structural framework described above. During 2004 and 2005, the dynamics of agricultural output prices (real terms) has been positive for the Baltic States and Cyprus. Poland and the Czech Republic benefited of price growth only in 2004. Slovenia, Slovakia, Hungary and Malta have suffered a price decline in both years. In the same period, the EU-15 average output prices have continued to follow a downward long-term trend. Industrial crops and livestock have recorded the most favourable price variations in the NMS. The cereal prices diminution has brought the major problems, because of the wide area invested by these crops. Input prices are rather stable or increasing in the NMS, especially in Cyprus, Latvia, and

Poland. As a consequence, the output/input ratio continued to deteriorate. On the contrary, in the EU-15 average input prices have recorded a diminution in 2005.

5. NMS farmers' integration into the up- and down-stream sectors of the agro-food industry lasts largely insufficient, especially if compared to the EU-15. This is explained by lack of efficient farmers associations, and by the fact that farmers in general were not involved in food industry privatisation. The situation is different for the large corporate and cooperative holdings issued from privatisation of former collective farms during the 1990s. Because of their huge production capacity, these holdings are the privileged suppliers of big processors and commodity traders.

6. In the first year after the Accession, the income of NMS farmers, except Malta and Cyprus, rose with an extraordinarily rapid pace, but the gap with the EU-15 was not significantly reduced. In the following years, the income has been quite stable, whereas in the EU-15 it has suffered a severe contraction.

7. The NMS competitive position in the EU agro-food markets is improving after the Accession. In the first two years, the total value of NMS international trade has grown with a yearly average rate of 19.2%; the trade value of the agro-food sector increased even more rapidly, at a yearly average rate of 28.6%. Nonetheless, the share of the agro-food trade in total NMS trade value is still small compared to the EU-15, with good possibilities for a further growth. The increase of exchanges has modified the geographical structure of NMS agro-food trade flows, by bringing a very important intensification of commerce with the EU-15 and, to a lesser extent, among the NMS. At the same time, extra-EU trade has risen only on the export side. This evolution has been particularly favourable for the Czech Republic, Latvia, Lithuania, Slovakia, and Poland, where the agro-food export has grown significantly faster than import and the sector trade balance has improved. Only three NMS are net exporters of agro-food products. However two of them, Poland and Hungary, are the biggest NMS agricultural producers. With the third net exporter, Lithuania, they concentrate almost three fourth of the total NMS agricultural output. Especially Poland and Lithuania are consolidating an important trade surplus, which has been only recently achieved. As a result of all these trends, the agro-food trade balance of the NMS (considered as a single aggregate) has improved in the last years: the value of the normalised balance indicator ([1]) has augmented from –0.07 in 2001, to 0.00 in 2005. On the contrary, Hungary has lost the position of biggest NMS agro-food exporter by halving trade surplus between 2001 and 2005. In this country, export growth has not counterbalanced the increased penetration of products from the rest of the EU.

8. After the early pre-Accession experiences under the Special Accession Programme for Agriculture and Rural Development (SAPARD) and other programmes devoted to institutional co-operation within the Phare framework (i.e. the Twinning and TAIEX programmes), NMS have significantly ameliorated CAP administrative effectiveness. The SAPARD started well behind the original schedule, and achieved a satisfactory implementation level only after the Accession (94% of the total financial plan in 2005). Thus, it became an additional tool of the EU RD policy, changing its original function of pre-Accession instrument. However, SAPARD

([1]) The normalised balance is the ratio between the trade balance and the total trade value (i.e. the sum of export and import values): if the normalised balance equals 1 all foreign trade of the country consists in export (absolute specialisation in the concerned commodities); if it equals -1, all foreign trade of the country consists in import (absolute de-specialisation in the concerned commodities).

fully decentralised administration has been a very useful experience to prepare NMS agricultural institutions for the complex CAP management.

9. Technical and infrastructural investments have been the most implemented SAPARD measures. The impact was constrained by the limited financial endowment of the programme: NMS average allocation from the EU budget was about 92 €/year per work unit and 10 €/year per hectare of agricultural area for the originally scheduled 2000-2003 period. Very scarce resources have been committed to qualitative aspects of agricultural sustainable development: measures related to quality and sanitary controls, environmental-friendly agriculture, producer groups, vocational training, and technical assistance altogether collected only 1.5% of the total 2000-2005 EU contribution and were implemented by few countries. This indicates the need to improve the concern for these issues at political and institutional level, in order to ameliorate the situation of the NMS with respect to several fundamental aspects of the *acquis communautaire*.

10. Presently it is still too early to evaluate the RD policy impact in the NMS rural areas. The level of implementation, along the 2004-2005 period, has been 61% with respect to the 2004-2005 financial plan, and 41% with respect to the 2004-2006 financial plan (a satisfactory result compared to the EU-15 figures). The Baltic States have been the most advanced in the implementation process. Investments in farms and in processing/marketing of farm products, technical assistance, agro-environment, topping-up of direct payments have been the most implemented measures . In general, the design of the RD institutional framework is considered satisfactory. The main shortcomings are the setting up of more concrete and realistic policy objectives in the RD plans, and more appropriate indicators to evaluate their implementation. The efficiency of partnership consultation is considered at medium level in Hungary, inadequate in Slovakia, and well functioning in Latvia. In some countries, the shortage of expert staff has caused some malfunctioning: changes in the financial provision of the different measures during implementation; slowness in the project generation activity (e.g. in Hungary); limited availability of IT support (especially in Malta). Furthermore, project generation activity is generally insufficient, and this is a likely consequence of weakness in farmers' organisations. Programming documents present a satisfactory quality, but evaluation and reporting capacities need to be enhanced.

11. The income effect seems to be a general outcome of direct payments (Single Area Payment Scheme - SAPS). This is especially true for small holdings, which suffer poor remuneration of labour. Due to the prevailing income effect, inefficient farming systems continue to lock human resources and land, which could be made available for more efficient uses. Large holdings on the opposite receive considerable amount of direct aids and can allocate extra funding to increase input use and enhance productivity. In conclusion, SAPS effect on production and productivity is differentiated according to farm typology. Furthermore, it must be underlined that current production and structural dynamics follow a long-term trend, which started during the transition period and was caused by general economic growth, increased industrialisation, and market enlargement. Finally, the real impact of the SAPS must take into account the rate of implementation ([2]), which is relevant, although payments have not covered all the eligible area.

([2]) This rate is calculated as the area (or the number of farmers) receiving direct payments divided by the total eligible area (or the total number of farmers).

12. The phasing-in and the method used to set the amount of direct payments in the NMS has caused relevant disparities between the NMS and the EU-15, and among the NMS. In 2005 and 2006 the average amount of the national envelope per hectare of agricultural area in the NMS has been less than one fourth than in the EU-15 (excluding the national complementary payments). *Ceteris paribus*, it will be about 70% at the end of the phasing-in (2013), when payments should be 'at the same level' in the two groups of countries. The national envelope per work unit in the NMS has started from around 10% of the EU-15 average, in 2005 and 2006, and will not be more than 30% in 2013 ([3]). The envelope per work unit in the Czech Republic is more than threefold the NMS average, while in Latvia and Malta is less than 60%. The EU Commission mainly justified the phasing-in with the hypothesis that farm restructuring in the NMS would have been more difficult without a payment reduction in the early phase. Two years after the Accession there is no apparent evidence that the phasing-in is directly favouring farm restructuring.

13. Most of the traditional CAP features are also emerging in the NMS, in particular the tendency to privilege farm productivity, high farming and cattle raising (which prevail in North-Western and Central Europe regions). This implies a direct correlation between the CAP benefits and the farm size (or the number of livestock). Biggest farms are thus advantaged. In the NMS this effect is even amplified by absence of modulation mechanisms, and by the farm dualistic structure.

14. OECD agricultural support indicators analysis shows that the value of the estimated total support, after the Accession, has increased by half with respect to the 1999-2001 period for the NMS aggregate. This situation stems from a slight diminution in the market price support, a wide expansion of payments and finance directly distributed to producers, and a growing expenditure for general state services. As a consequence, the structure of the NMS total agricultural support has radically changed: market price support accounts now for 37% of total support value, direct payments and finance to producers for 51%, and general services for 12% (they were respectively 60%, 29%, and 11% in the 1999-2001 period). The NMS agricultural policy has become more consistent with WTO negotiations priorities, thanks to the diminution of the most trade-distorting measures (i.e. the market price support). NMS producers are taking considerable advantages from the new policy framework: the share of farm receipts imputable to support measures has risen from 19%, to 28.2%, and farm receipts are now 39% higher than they would be without the CAP support. This effect is much more important considering the value per work unit, because of the fast decline of agricultural labour force in the NMS ([4]). It is remarkable that NMS consumers have not been disadvantaged by the CAP so far: the estimated value of total transfers from consumers to producers decreased from 16% of total consumer expenditure in 1999-2001, to 13.8% in 2005. The total contribution of consumers to sustain agriculture has almost halved in the post-accession: under the CAP, NMS citizens are paying for agricultural support much more as taxpayers than as consumers. The gap in the amount of farm subventions between the EU-15 and the NMS lasts extremely wide. Taking into consideration the values per work unit, NMS farmers receive in average only 17.4% of the EU-15 farmers. In 2005 the EU-15 total farm receipts have been 49% higher than they would have been without the CAP support, opposed to 39% in the NMS. The EU-15 average agro-policy expenditure in general services per work unit has been about 3.5 times higher than in the NMS.

([3]) Under the hypothesis that the current proportion between NMS and EU-15 agricultural workforce is maintained.

([4]) For example the value of total support per work unit has grown by 90%, and direct disbursement to producers per work unit by 231%, between the 1999-2001 and the 2004-2005 periods.

15. The financial perspectives of the 2007-2013 period indicate that the unit value of financing (in € per hectare of agricultural land) in the NMS will be gradually converging toward the EU-15 level. The operation of the phasing-in mechanism should also offset national complementary funds and increase the allocation for RD measures. The effectiveness of such measures should thus improve, if compared with the pre-Accession and the current periods. As regards to the CAP health check, to be concluded in 2008 or 2009, and its consequences on the fund allocation between the Market Pillar and the RD Pillar, the EU Commission insists that a transfer from the former to the latter should occur. In the NMS, this would have probably beneficial effects for agricultural modernisation. Policy support would be less oriented to keeping alive production units without the potential for becoming economically viable, and more resources could be devoted to new investments for upgrading structures, technology and organisation of agricultural production. Other aspects (e.g. full decoupling, termination of set aside regime) would have a smaller impact. Concerning the evolution after 2013, a reduction of financial resources available for CAP funding can not be excluded, with the likely associated adverse impacts on the NMS agricultural sector. It must be underlined that, in such a scenario, an allocation of available resources in the sense described above (i.e. targeted at filling still existing gaps between the NMS and the EU-15) would become even more necessary.

16. The CMO-sugar reform will result in a strong restructuring process in the NMS, mostly related to obsolescence and low efficiency of processing plants. This will probably determine a substantial decrease in production and social problems caused by loss of jobs. In the wine sector, the implementation of the most plausible reform option will mean that most small vineyards will cease to produce. However, medium- and long-term perspectives in the major NMS wine producer (i.e. Hungary) do not appear negative. The proposed new CMO for fruit and vegetables will not spark dramatic outcomes in the NMS, neither in positive nor in negative terms. Indeed the changes it would introduce are not capable, alone, of reducing the relevant backwardness which is still affecting the fruit and vegetables sector in the NMS. Beside minor exception, these reforms treat in the same way deeply different agricultural situations in the EU-15 and the NMS. This implies: (i) asymmetrical adverse impacts, which are stronger on the weakest realities, more widespread in the NMS; (ii) the unsuitability of the proposed reforms to fill the gaps (structural, technological, and organisational) which characterise the most of agricultural producers in the NMS.

17. In the years to come the NMS agricultural systems will face relevant challenges. Enhancement of labour productivity and farm income still deserve the highest priority from the agricultural policy. In this view, some strategic issues should be considered, including the modification of the current CAP framework. In synthesis:

17.1. Identify a competitive/complementary positions of NMS agriculture within the EU framework can be a strategic priority. Production increases slowly in most of the NMS due to market forces. The question rises whether this process should be pushed or oriented towards specific sectors to optimise available resources and competitive advantages.

17.2. Identify the reference organizational scheme (kind of farms, kind of supply chains, relational issues, etc.) to serve sector strategic aims with the best level of economic and social sustainability. SAPS implementation mechanisms mainly benefit the largest and best organised holdings (which also benefit more from RD measures), and will likely lead to a deeper structural polarisation, where small-medium family farms would hardly have the means to compete. Family farming with well-organised and self-managed infrastructure

seems to be the best organisational model to achieve economic efficiency and social sustainability.

17.3. It should be considered the possibility to differentiate more the CAP implementation according to national and regional peculiarities. The likely outcome of CMO reforms show the need for this option, not only to focus on the specific problems of the NMS with respect to the EU15, but also to afford the diversified problems and economic dynamics which characterise the variety of NMS agricultural systems.

17.4. If a strategic organisational scheme (e.g. the 'family farms + farmer associations' model) is adopted to face future challenges, policy measures should be more strictly targeted. In this perspective, the current CAP measures (mainly direct aid and rural development) require a number of adjustments: some of them necessarily need additional funding, while others are regulatory corrections. The underlying intervention logic is that measures should be aimed at reducing the constraints to productivity improvement and competitiveness. The basic hindrances for NMS farmers, especially for individual farmers, are access to land, capital, and technology. If we accept this rationale, the question is how the current CAP framework could be managed in order to reduce barriers to those production factors. Some solutions are possible:

a. Given the SAPS operation, the possibility to reinforce direct payment modulation should be considered. This would allow re-allocation of financial resources in favour of selected family holdings.

b. To achieve the most relevant structural objectives, a mechanism linking direct payments to structural targets could be adopted. This means that appropriate selection criteria (based for instance on land tenure, efficiency gains, engagement in farmers associations, human resources improvement, and access of young farmers) could be applied. Furthermore, compliance mechanisms (e.g. conditioned to participation into farmers associations) could be introduced to facilitate access to higher finance level.

c. Among structural measures, the priority should gradually shift from farm investments to infrastructural targets. In this field the creation of farmer groups should receive the highest priority. Until now the relevance of this aspect has been largely underestimated. Integration of farmers into associations is a preliminary condition to reach not only economic efficiency but also greater effectiveness in policy implementation. In some cases, the creation of farmer groups could require a different cultural approach towards the co-operation concept in the agricultural sector. Measures to regulate land and credit access could also be adopted.

d. Decoupled payments do not orient production toward strategic sectors. In this view, some incentives could be partially re-coupled, by linking them to production volume in specific sectors, and production quota for selected typologies of farms (e.g. family holdings) could be introduced. At the institutional level, more attention should be paid to technical assistance and to monitoring the effectiveness of policy making and measure implementation.

Acronyms

ARDOP	Agricultural and Rural Development Programme
AWU	Annual Work Unit
BFTA	Baltic Free Trade Agreement
CAP	Common Agricultural Policy
CARDS	Community Assistance for Reconstruction, Development and Stabilisation (EU pre-accession policy instrument for the Western Balkans)
CEE	Central and Eastern Europe
CEEC	Central and Eastern Europe Countries, is a group of 10 countries including: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia
CEFTA	Central Europe Free Trade Agreement
CFS-OP	Community Support Framework – Operational Programme
CMO	Common Market Organisation
CNPD	Complementary National Direct Payment
CSE	Consumer Support Estimate
CP	Complementary payment
DP	Direct Payment
EAGGF	European Agricultural Guidance and Guarantee Fund
EU	European Union
EU-15	The group of 15 countries forming the EU from January 1995 to April 2004: i.e., Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom
EU-25	The group of 25 countries forming the EU since May 2004 : i.e., Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, the Netherlands, Poland, Portugal, Spain, Slovakia, Slovenia, Sweden, and the United Kingdom
FADN	Farm Accountancy Data Network
GPD	Gross Domestic Product
GSSE	General Service Support Estimate
GVA	Gross Value Added
ha	hectare
HUF	Hungarian florin
IACS	Integrated Administration Control System
IPA	Instrument for Pre-Accession Assistance
ISPA	Instrument for Structural Policies for Pre-Accession

IT	Innovation Technology
LFA	Less Favoured Area
LSU	Livestock Standard Unit
MPS	Market price support
NAC	Nominal Assistance Coefficient
NIAE	Network of Independent Agricultural Experts in the CEE Candidate Countries
NMS	New Member States, the group of 10 countries acceding to the EU in May 2004: Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, Slovakia
NRPD	National Rural Development Programme
OECD	Organisation for Economic Cooperation and Development
OP	Operational Plan
PHARE	Poland and Hungary: Assistance for Restructuring their Economies
PO	Producer Organisation
PPS	Purchasing Power Standard
PSE	Producer Support Estimate
RD	Rural Development
SAPARD	Special Accession Programme for Agriculture and Rural Development
SAPS	Single Area Payment Scheme
SOP	Sector Operational Programme
SPD	Single Programming Document
SPF	Single Farm Payment
TAIEX	Technical Assistance and Information Exchange Instrument (Phare Programme)
TRDI	Temporary Rural Development Instrument
TSE	Total Support Estimate
UAA	Utilised Agricultural Area
WTO	World Trade Organisation

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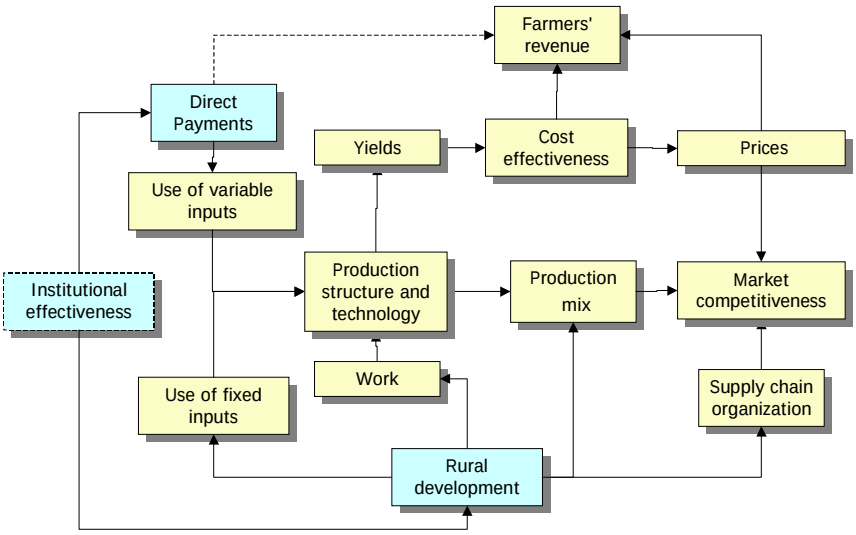
Foreword

This study is about: (i) the integration of the New Member States of the EU (NMS) into the Common Policy Agriculture (CAP); (ii) the analysis of effects of Single Area Payment Scheme (SAPS) and Rural Development (RD) measures starting from the Accession date, especially in terms of agricultural sector modernization and competitiveness; (iii) the comparison between NMS and EU-15 for relevant quantitative indicators of the agricultural industry and policy implementation.

Modernization mainly consists in the adoption of updated production schemes (technical and organizational), which allow the agricultural industry to comply with social and economic needs. In an industrial market-based economy, efficiency and competitiveness are the means which farmers adopt to comply with this task and get revenue. For NMS, agricultural system modernization is part of their overall adaptation process, which have been re-shaping the whole economic, social and institutional system during the transition to the free market economy.

Many factors contribute to agricultural systems modernization, policy measures being the key factors among them. Figure A shows the basic cause-to-effect tree diagram linking the main CAP measures (direct payments and rural development measures) to competitiveness and effectiveness.

Figure A. Rationale of the study



Source: DEIAGRA

Given the institutional framework effectiveness, both direct payments and RD measures contribute to the modernization process through different paths. Direct aid may lead to an increase of input use (specially variable inputs), while RD measures contribute directly to the structural factors modification (land availability, work, fixed inputs, facilities, etc.). This process would result in increased farmers' revenue, due to increased cost effectiveness at farm level, and/or to increased market competitiveness. On the opposite, direct payment could play as pure income recovery, bypassing modernization path. Scheme in Figure A is in fact the rationale

beyond study, which allows answering the above-mentioned questions according to a consistent and comprehensive conceptual framework.

The development of the study all along the report adopts, when possible, three main levels of analysis, consisting in: (a) the comparison between the NMS and the EU-15, in order to outline the main differences between the two groups of countries; (b) the comparison among the NMS, to analyse similarities and differences about the national situations, according to homogenous groups or patterns as far as possible; (c) the pre-/post- accession comparison, to analyse the main effects of the CAP after 2004.

Chapter 1. **The agricultural sector** supplies most of the basic information about the agricultural industry, its position in the economic system and its functioning. Concerning the latter issue, the structure of the chapter goes through the following steps: analysis of the production factors usage (structure of the holdings, work, fixed and variable inputs); land utilisation and main produce; supply chain organization; technical and economic result at the farm and sector levels (respectively: yields, production cost structure, farm revenue; market price, trade).

Chapter 2. **Operation of the policy measures** informs about main policy measures implementation, directs payments (SAPS) and rural development measures. SAPARD and RD measures implementation before and after accession are analysed. In particular, some specific aspects are outlined: the level, the structure and the financial prospects of the policy measures; beneficiary farm typologies; fund use ability, institutional framework, sectors not covered by CAP measures.

Chapter 3. Financial perspectives and CAP reform outlines the likely consequences of the financial perspectives for 2007-2013 and of the CAP reform in the NMS.

Chapter 4. **Synthesis and recommendations** summarizes about the likely effects of the CAP on the agricultural industry in a global perspective. Policy recommendations are included in this chapter.

The Annexes report on more detailed methodological information (see Methodological note in Volume II).

1. The agro-food industry

1.1. General background

1.1.1. Territory and population

([5]) The territory of the 10 New Member States (NMS) joining the EU in 2004 extends over an area of nearly 740,000 sq km, corresponding to 22.8% of the EU-15 surface area (Table 1.1.). Poland alone accounts for 42.3% of the total NMS surface area, the three Baltic NMS for 23.6%, the Czech Republic, Slovakia, Hungary, and Slovenia together for 32.7%, Cyprus and Malta only 6.1%. NMS population (year 2005) amounts to 74.1 million inhabitants (19.1% of the EU-15 population). More than half of NMS population live in Poland, 27.4% is almost equally shared between the Czech Republic and Hungary, Slovakia and Slovenia together have 10%, the three Baltic NMS 9.5%, Cyprus and Malta 1.5%. On the whole, the NMS are less densely populated than the EU-15: 100.3 inhabitants per sq km versus 119.7 in the EU-15. This is mainly due to the Baltic NMS, where population density is particularly low, varying from 29.8 inhabitants per sq km in Estonia to 52.5 in Lithuania. Apart from Malta, only the Czech Republic and Poland are more densely populated than the EU-15 average.

1.1.2. Population in rural areas

According to OECD definitions, more than one third of NMS population lives in predominantly rural regions, nearly half in intermediate (urban/rural) regions and less than one fifth in predominantly urban regions. These data give to NMS a much more pronounced character of rurality than the EU-15, where almost half of the population is concentrated in predominantly urban regions and only 15.5% dwell in predominantly rural regions. Among the 10 NMS the situation varies but, excluding the particular case of Malta, in all countries the population results significantly less gathered in the urban areas than the EU-15 average (Table 1.1.).

1.1.3. Gross Domestic Product (GDP)

In 2005, the total NMS GDP amounted to € 560.7 billion, i.e. 5.5% of the EU-15 GDP (Table 1.2). Poland contributed for 43.5%, the Czech Republic and Hungary shared about one third, Slovakia and Slovenia together more than one tenth, the three Baltic NMS 7.7%, Cyprus and Malta 3.2%. Along the 2001-2005 period, the NMS GDP grew in real terms at an average rate of 3.4% per year, 2.8 times quicker than the EU-15's 1.2%. The best performances have been recorded by the Baltic NMS (more than 7% per year), Slovakia (4.2% per year), and Hungary (3.8%). In Cyprus, Poland, Slovenia, and the Czech Republic the annual growth was between 2.5% and 3.3%; only Malta with 0.5% did worse than the EU-15 average.

1.1.4. Foreign trade

In general, the NMS suffer a historically consolidated negative foreign trade balance (EUROSTAT, 2006, pp. 117-266); only the Czech Republic achieved a positive balance in 2005, thanks to the concurrent increase of its positive balance with the EU and to the reduction

([5]) All tables related to the Chapter 1 can be seen in the corresponding Annex to Chapter 1.

of negative balance with extra-EU countries. Smaller economies are in general more influenced by external trade fluctuations, hence the ratio between the trade balance and the GDP results to be remarkably negative in the Baltic and the Mediterranean NMS, where after the Accession import from the EU has grown faster than export. A similar condition affects Slovakia as well, where in the two years after the Accession either the EU and the extra-EU trade balance worsened. Poland and Slovenia increased significantly their deficit with the EU in 2004, but the situation improved in 2005. In post-Accession years, Hungary has reduced its commercial deficit.

1.1.5. Average income

The NMS average GDP per capita in 2005 resulted less than one third of that of the EU-15: in the Baltic States the indicator varied between 21% and 30.9% with respect to the EU-15 value; in the NMS of Central Europe the range varied from around one fourth of the EU-15 average in Poland and Slovakia to about one third in the Czech Republic and Hungary, and to 52.1% in Slovenia. In the Mediterranean area, Malta recorded a 42.6% and Cyprus a 68.5% of the EU-15 average income value. Considering the income corrected through an equalisation of the purchasing power in the different countries (Purchasing Power Standard or PPS), the situation becomes more homogeneous. In 2005, the average NMS GDP-PPS per capita was equivalent to 52% of the EU-15 average and varied from 43.3% in Latvia to 76.8% in Cyprus ([6]).

1.1.6. Unemployment

The NMS had 4.5 million unemployed people in 2005, which gives an unemployment rate of 13.4%, 1.7 times the EU-15 rate. The situation in Poland has great influence on these data, since it accounted by itself for 3 million unemployed and for an unemployment rate of 17.7%. Slovakia presented the second worst result with an unemployment rate of 16.3%. In Cyprus, Slovenia, Hungary and Malta, the indicator was below the EU-15 average; the Czech Republic and Estonia were aligned with the EU-!5, while Lithuania and Latvia were slightly above. From 2003 to 2005 NMS unemployment decreased by 300,000 units (i.e. from 14.3% to 13.3%), out of which 278,000 only in Poland. An important reduction of the unemployment rate along this period was recorded in Lithuania (from 11.4% to 8.3%) and in Estonia (from 10% to 7.9%).

1.1.7. Households food expenditure and food consumer prices

A reduced importance of expenditure for food in the total expenditure of households can be taken as an indicator of the social prosperity. EUROSTAT data on 2005 show that in all the NMS this index is higher than the EU average (12%) and, in particular, in the Baltic States, Poland and Slovakia, which have values between 18.2% and 26.1%, while in the other Central Europe and Mediterranean NMS the share of food in households' expenditure resulted between 14.9% and 16.9%. Food consumer prices show a generalized increase, especially in Latvia, Cyprus, Slovenia, Hungary and Slovakia (see Table 1.3.). This trend appears to be more intense than the level reported for the EU-15 in the same period.

([6]) According to EU statistics, in 2005 an EU-15 country, Portugal, had the 2005 GDP-PPS per capita lower than Cyprus, Slovenia, and the Czech Republic; Greece had a lower value than Cyprus.

1.2. The role of agriculture in the NMS economy

1.2.1. Agricultural working population

With the 2004 Enlargement, the increase of EU agricultural active population has been very important. EU-25 agriculture actives amounts to 10 million people (year 2005), out of which 3.6 million are from the NMS. The ratio between NMS and EU-15 agricultural actives is 57%: i.e. 2.5 times higher than the ratio between the total populations of the two groups of countries. These figures are mostly due to the situation in Poland, which with 2.7 million agricultural actives gathers three fourths of the total workers in the NMS primary sector (Table 1.4).

1.2.2. Agriculture in employment and GVA

Data show that agriculture has a more important role in the NMS economy than in the EU-15, but also that this is an aspect of NMS backwardness: in these countries, agriculture employs proportionally more people with scarcer economic results. The share of agricultural employment in total NMS employment is 12.3%: 3.4 times the EU-15 average (3.7%). The countries with the most important percentages of agricultural workers are Poland (19.2%), Lithuania (14%), Latvia (11.2%), and Slovenia (10%). The share of agriculture in the total NMS Gross Value Added (GVA) ranges from 2.5% (Malta and Slovenia) to 5.7% (Lithuania), with an average of 4.2%: NMS values are always higher than the EU-15 average (1.8%).

The NMS GVA per agricultural active is equivalent to € 5,600: only one fifth of the EU-15 average (€ 25,900). However, the situation varies significantly among the different countries, and in the NMS of Central and Eastern Europe there is a correlation between the level of GVA per agricultural active and the weight that big farm – former collectives now mainly managed either as private companies or cooperatives – have maintained after the 1990s' agricultural reforms. A first group of countries, including Poland, Latvia, Lithuania, and Slovenia, where small individual farms prevail, have GVA per agricultural active between € 3,800 and 6,700. A second group, incorporating Estonia, the Czech Republic, Hungary, and Slovakia (where agriculture is still dominated by big former collective farms) have GVA between € 11,300 and 19,300 per agricultural active. The Mediterranean Cyprus and Malta, respectively € 19,700 and 23,700, getting closer to the EU-15 situation.

1.2.3. Agricultural GVA compared to the other sectors

An indicator of the particular marginalisation suffered by agriculture in the NMS is that the GVA per agricultural active is only one third of the average of all sectors merged. As comparison, in the EU-15, GVA per agricultural active is nearly a half of the average of all sectors. Also in this case, in the group of former socialist countries with prevalence of small individual farms, the situation is worse: in Poland, Slovenia, Latvia and Lithuania, the GVA per agricultural active varies from 24.9% to 40.6% of the average of all sectors; Estonia, the Czech Republic and Hungary range from 70.4% to 88.8%, in Slovakia the GVA per agricultural active is even 19.2% higher than the average of all sectors.

1.3. Agricultural land and its use

According to 2005 Eurostat statistics, the NMS have one fifth of the total EU-25 utilised agricultural area (UAA): i.e. ha 30.4 million, corresponding to 24.4% of the EU-15 UAA. Poland itself with ha 14.8 million covers 48.5% of NMS UAA, the Baltic States together account for 17.5%, the other countries of Central Europe for 33.5%, and the Mediterranean NMS only 0.5% (see Table 1.5).

Because of the wide extension of plain regions in Central and Eastern Europe, the NMS land territory in general results more intensively used by farm activities than the EU-15 average: the UAA covers 41.2% of the total NMS territorial area, compared to 38.6% in the EU-15. In Central Europe countries and Lithuania, the UAA is relatively more extended: in Hungary it occupies 45.9% of the country area, 45.1% in the Czech Republic, 47.2% in Poland, 38.3% in Slovakia, and 42.8% in Lithuania. In the other Baltic States, the low population density and the unfavourable environmental conditions make the share of UAA in the total countries' area quite reduced: Estonia, 18.3% and Latvia, 26.3%. In Slovenia (23.9%), and the Mediterranean islands (Cyprus 16.4%, Malta 32.5%), the expansion of farmed land is constrained by the harshness of the territory and also by the extent of the urban developments in small Malta.

The distribution of the UAA by type of utilisation also indicates a higher intensity of agricultural land use in the NMS than in the EU-15. Taking into consideration the three major categories of the agricultural land use: arable land, permanent crops, and permanent pasture, the last one, that is the most extensive type, amounts to 35.6% of the UAA in the EU-15, compared to only 22.7% in the NMS. With respect to the two most intensive types, especially arable land is important in the NMS, where it covers 75.1% of UAA, opposed to the 56.5% level of the EU-15, while permanent crops occupy only 2.3% of UAA in the NMS and a larger 7.8% in the EU-15, due to the major role of Mediterranean agriculture (i.e. vineyards, olive and citrus groves, citruses, orchards, etc.).

In all the NMS, the arable land has a considerably larger share of the UAA than the EU-15 average, from 63.3% in Latvia to 85.1% in Lithuania, and to even 89.4% in Malta; only Slovenia distinguish itself with only 36.2% of UAA devoted to arable land and 58.1% to permanent pasture. Permanent crops cover 26.9% of UAA in Cyprus, 10.6% in Malta, between 5.7% in Slovenia, 3.9% in Hungary, 2.2% in Poland, and less than 2% in the remaining countries.

1.4. Agricultural holdings

NMS agriculture shows two main structural weaknesses. Firstly, land fragmentation: the size of a large majority of agricultural holdings is too small to allow the formation of modern and economically viable production units; in these micro-holdings, subsistence farming is still widespread and in general maintains an important role for the livelihood of rural population ([7]). Secondly, the polarisation of farm structures: the overwhelming number of subsistence micro-holdings is opposed by a reduced group of macro-holdings derived from the privatisation of the former big collective farms; they are now managed as private companies or cooperative farms and continue to concentrate a significant part of commercialised agricultural production.

([7]) About subsistence agriculture in the NMS, see more detailed information in the Annex to Chapter 1.

The NMS have 3.8 million agricultural holdings, that correspond to 40% of the EU-25 total holdings and to 65.8% of the EU-15 units (see Table 1.6). The average size results to be around ha 7.91 of UAA per holding, a little more than one third of the EU-15 average (ha 21.36 per holding). The largest portion of NMS agricultural holdings are located in Poland and in Hungary: the former counts for 2.5 million holdings (64.4% of the NMS total), the latter for 715,000 (18.6%). Lithuania and Latvia have 253,000 and 129,000 holdings, respectively (6.6% and 3.3% of the NMS total); the other six NMS together gather only 7.1% of the total NMS holdings. The average size of the holdings varies considerably among the NMS, from ha 0.93 of UAA per holding in Malta, to ha 84.21 in the Czech Republic. However, it is possible to observe that the five countries where the national average is below the NMS average (Cyprus, Hungary, Malta, Poland, and Slovenia) cover 86.5% of the total NMS holdings, and considering the seven countries where the national average is below the EU-15 average (the former five with Latvia and Lithuania), the share encompasses 96.4% of the total NMS holdings.

In the NMS, nearly 2.8 million agricultural holdings, or 72.2% of the total, have less than 5 ha of UAA, they occupy 3.7 million ha, or 12.2% of total NMS UAA. These figures are equal to 87% of the holdings and 65.7% of the UAA that belong to the same size class in the EU-15. Apart from Cyprus and Malta that have obvious territorial constraints, the NMS that show a particularly fragmented structure among the small holdings are: Slovakia, where the holdings with less than 5 ha of UAA are 90% of the total holdings and share just 2.3% of the total UAA; Hungary, with 89.7% of the holdings sharing 8.4% of the UAA; Poland, with 70.7% of the holding sharing 17.6% of the UAA; and, finally, the Czech Republic, with 53% of the holdings apportioning 0.9% of the UAA. In the mentioned countries, the average size of this class of holdings is less than 1.5 ha of UAA.

Considering now the holdings with more than 100 ha of UAA, in the NMS there are only 25,000 holdings belonging to this size class, only 0.7% of the total NMS holdings, but they cultivate 12 million ha, nearly 40% of NMS UAA. Their average size is 473. ha, more than twice the average size of the EU-15 holdings of the same size category. In Central and Eastern Europe the phenomenon of macro-holdings is related to the former socialist farm structure and to the process of agricultural de-collectivisation. Among the NMS, it is possible to identify three groups of countries: first, Poland and Slovenia where, during the socialist period, collectivisation had a reduced impact on the farm structure. In these countries, although the average size of farms that have more than 100 ha of UAA is quite large (336 ha per holding in Slovenia and 356 ha per holding in Poland), the total area occupied by this category is relatively small: only 6.9% of total UAA in Slovenia and 17.4% in Poland. A second group includes Lithuania and Latvia, where, after the breakdown of the socialist Block, de-collectivisation led to a wide redistribution of agricultural land to individual farmers; in these countries, macro-holdings have considerably reduced their importance, nonetheless the farms with more than 100 ha of UAA have an average size of 293 ha and control 32.7% of total UAA in Latvia, and an average of 321 ha in Lithuania where they cultivate 28.4% of total UAA. The third group comprises the countries where de-collectivisation did not change significantly the farm structure inherited from the socialist regimes and where macro-holdings, with renewed management and legal status, continue to control most of the agricultural lands and of the marketed production: the holdings with more than 100 ha of UAA have an average size of 738 ha in the Czech Republic and cultivate 88.3% of the country's UAA, in Slovakia they cultivate 91.8% of total UAA with an average size of 872 ha per holding, in Hungary 61.9% of total UAA with an average of 437 ha per holding, and in Estonia 65.4% of total UAA with an average of 411 ha

1.5. Labour input in agricultural holdings

Comparing data of agricultural labour input with other aggregates, i.e. the population, country area, agricultural GVA, and used agricultural land, the NMS farms show to make a more intensive use of agricultural workforce than the EU-15, especially of labour coming from by farmers' households.

Total labour input employed by NMS agricultural holdings (year 2005) amounts to 3.5 million of Annual Work Units (AWU), or 57.8% of the AWU employed in the EU-15. Poland uses almost two thirds of the total NMS agricultural labour input, Hungary 13.2%, Lithuania 6.3%, the other two Baltic States together 5%, the Czech Republic and Slovakia together 7.2%, Slovenia 2.8%, the two Mediterranean NMS 0.9% (see Table 1.7). Almost the entireNMS agricultural workforce results to be employed on a regular basis: workers non regularly employed by the holdings, e.g. daily workers occasionally hired, provide only 3.1% of total NMS AWU, compared to 10.5% in the EU-15. The largest portion of NMS agricultural labour input is supplied by members of the farmers' households: 86.% of total AWU, while regularly hired employees furnish 10.3%; in the EU-15 the same categories provide respectively 71% and 16.7% of total labour.

Among the NMS of CEE, hired agricultural labour is more important in the countries where macro-holdings have maintained a significant presence: in the Czech Republic more than three fourths of total labour input comes from hired farm labourers, 58% in Slovakia, 36.8% in Estonia, and 20.7% in Hungary. In the other CEE, hired labour counts for about 13% of total labour in Latvia and Lithuania, and for less than 10% in Poland and Slovenia. Among the Mediterranean NMS, the high relative value of hired labour input in Cyprus (28.2%) is due to the considerable amount of seasonal work required by widespread permanent crops.
On the whole, the agricultural labour input from farmers' households is considerably younger in the NMS than in the EU-15 (Table 1.8). Workers with less than 45 years provide 68% of total family AWU, compared to 55.1% in the EU-15, and for the age class under 35 years old, NMS agricultural families provide for even 73,000 AWU more than the EU-15. This gap is mainly due to the situation in Poland, which presents a very young structure of the family workforce: the younger class (< 35 years old) is twice wider than the oldest (> 64 years old); in the other NMS the differences with the EU-15 average are less. The NMS that show the oldest structure of agricultural family labour input are Cyprus, the Baltic States and Hungary.

1.6. Livestock

In the early 1990, the transition from planned to market economy imposed to the livestock sector of most CEE countries a dramatic collapse, especially in the regions where production was mainly concentrated in big collective farms; in many cases, the pre-transition levels of production have not been recovered yet. Presently (year 2005 data), the NMS herd of herbivores comprises 10.31 million heads of cattle, out of which 4.67 million are dairy cows, 522,000 horses, and 3.41 million sheep and goats, respectively corresponding to 13.5%, 25.4%, 23.4%, and 3.3% of the EU-15 levels. With respect to granivores, according to EU statistics, the NMS breed 28.6 million pigs and 256.14 million heads of poultry, equivalent to 23.8% and 22% of the EU-15 values. Poland breeds around 60% of total NMS heads in almost all the breeding species, except for the ovine livestock. As far as the number of cattle and diary cows is concerned, important positions among the NMS are held by the Czech Republic and Lithuania; Hungary leads with Cyprus the NMS ovine sector, and together with the Czech Republic it follows Poland in the granivore sector (see Table 1.9).

The structure of livestock husbandry in the different countries can be directly compared by using the Livestock Standard Unit indicator (LSU). An approximate evaluation of the LSU distribution among the various categories of livestock (Table 1.10) shows that the main differences between the NMS and the EU-15 structure concern the total cattle (48.3% of total LSU in the NMS and 57.7% in the EU-15), diary cows (21.9% in the NMS and 13.9% in the EU-15), pigs (40.2% in the NMS and 27.2% in the EU-15), and ovine livestock (1.6% in the NMS and 7.9% in the EU-15). For sheep and goats the difference is mainly related to the dramatic fall of sheep rearing in several CEE countries, and especially in Poland ([8]), that accompanied market liberalisation in the early stages of the post-socialist transition; as regards the relatively reduced incidence of meat cattle with respect to dairy cows and granivores, besides the structural consequences of past economic policies, it should be also taken into account that milk, pork and poultry production is more adaptable to small semi-subsistence farms. In fact, nearly 40% of total NMS livestock is bred by farms with less than 20 LSU, compared to 6.4% in the EU-15.

In the distribution of the LSU on the basis of the size of herds (Table 1.11), the structure of livestock husbandry is characterized by a polarisation similar to the one already observed for the distribution of agricultural land among the holdings: most of NMS livestock is bred by two types of production units: very small family herds of few LSU each or very large industrial concentrations herding thousands of LSU. This dualistic structure is typical of Hungary, Latvia, and Lithuania; in Estonia, the Czech Republic, and Slovakia there is dominance of very large herds, while in Poland and Slovenia small units prevail.

1.7. Structural indicators

The comparison of some main indicators referred to availability of productive capitals per work unit can give an appraisal of the wide structural gap existing between the NMS and the EU-15 agricultural system (Table 1.12). Average UAA per AWU amounts to 8.65 ha in the NMS, corresponding to 42.2% of the EU-15 average, equivalent to ha 20.49 per AWU. Only in the Czech Republic, Slovakia, and Estonia, the country averages are around the EU-15 average value; apart from the small Cyprus and Malta, in Poland, Hungary and in Slovenia the endowments of agricultural land per AWU are less than half of the EU-15.

The average endowment of livestock units per AWU is 5.34 LSU in the NMS, that is only 29.5% of the EU-15 average (18.12 LSU per AWU). In this case only, in the Czech Republic and in Malta the country averages are more than half of the EU-15 average. Also the livestock density, expressed as LSU per ha of UAA is averagely lower in the NMS, with a level of 0.62 LSU per ha, or 69.7% of the EU-15 average (0.88 LSU per ha). Except for Cyprus and Malta, among the CEE NMS, only Slovenia with a level of 1.08 LSU per ha overcomes the EU-15; the other CEE country averages range from around 30% (Latvia) to 80% (Poland) of the EU-15 value.

With respect to rural machinery, the farm tractors belonging to agricultural holdings in the NMS correspond to an average of 0.56 tractor units per AWU, a little more than half of the EU-15 average (1.01 tractor units per AWU). Only in Slovenia, the country average is slightly higher than the EU-15 average. In the other NMS the data vary between one fourth (in Hungary) and three fourths (Estonia) in the EU-15.

([8]) Poland had nearly 5 million sheep in mid 1980s, that were reduced to less than 900,000 already in mid 1990s, (Martyniuk E.; Rzepecki R., 1995).

1.8. Crop yields

According to the main indicators, in most of NMS, crop yields are considerably lower than in the EU-15, presenting however trends towards a gradual convergence. Yields of cereals in Hungary and Slovenia have reached almost the same level of the EU-15 average in recent years, in the Czech Republic and in Slovakia this level is about 15-25% lower; in Poland and in the Baltic States ir ranges between 50% and 60% of the EU-15 average. In the first decade of 2000 the differences were in general significantly wider (Table 1.13).

1.9. Usage of inputs

A reason of this gap is in technology. The average expenditure for variable inputs per ha of UAA in the NMS is around half of the EU-15, and for all the countries, except in Slovenia, Malta, and Cyprus, the distance is significant: Poland, the Czech Republic, Slovakia, and Hungary are at around 50% of the EU-15 average, and the Baltic States between 23% and 33% (Table 1.23). The usage of fixed inputs, measured as cost for net fixed capital consumption per ha of UAA, in the NMS is just 30% of the EU-15 average: apart from Slovenia and Malta, all countries range between 11% and 33% of the EU-15 value ([9]). The trends indicate a gradual progress for the NMS: the total real expenditure for variable inputs shows to be averagely rather stable in the NMS along the period 2000-2005, and is somewhat decreasing in the EU-15. Yet in the values per ha of UAA, the NMS are in general increasing (and especially in the Czech Republic, Slovakia, Poland, and the Baltic States), while the EU-15 is stable (Table 1.14). In the use of fixed, the average cost sustained by NMS in 2000 was less than one fourth of the EU-15, and in 2005 it has grown almost to 30% ([10]).

1.10. Prices of agricultural products and inputs

In the first year after the Accession, real price variations of crop products have been slightly positive in the Czech Republic and Latvia, stable or declining in Lithuania, Poland, and Slovakia, and heavily negative in Hungary, Malta, and Slovenia ([11]). In the same year 2004, the EU-15 average crop prices lowered by 5.4% in real terms, only half of the NMS obtained a result more favourable to farmers. During the second post-Accession year, real crop prices increased only in Lithuania and Latvia, had a severe contraction in the Czech Republic and Slovakia, and a slight decrease in all the other NMS. In the EU-15, the average real decrease of crop products' prices was of 4.8%, and only in 3 NMS the variation was worse for producers. In general, the most favourable price fluctuations took place in the industrial crop sector, especially in 2004.

In the livestock sector, the post-Accession price dynamics have been more positive. In 2004, the price real growth of livestock products has been significant in Poland and in the Baltic States, while in the other countries prices have been stable or slightly decreasing. In 2005, the Baltic States confirmed a robust increase, while smaller either positive or negative variations took place in the other countries. On the whole, the Baltic States have shown the most favourable post-Accession price trends for agricultural producers; in Poland, the 2005 deflated prices were little above the 2003 level; in all the other countries, the real prices of agricultural products have

([9]) DEIAGRA calculations based on Eurostat data.

([10])DEIAGRA calculations based on Eurostat data.

([11])No data related to year 2004 are available for Cyprus and Estonia.

decreased, but only in Hungary, Malta, and Slovakia the drop has been worse than the EU-15 average (Table 1.15).

The price dynamics of agricultural inputs has been less advantageous for NMS farmers. Only in Hungary, the general level of input prices (deflated) in 2005 has been below the 2003 level, and in all the NMS the variation has been less favourable than the EU-15 average. The output/input real price ratio has improved only in the Baltic States, while in all the other countries it has deteriorated with Malta, Hungary, Slovenia, and the Czech Republic recording a variation worse than the EU-15 average (Table 1.15).

1.11. Agricultural production

1.11.1. Structure of the agricultural output

In 2005, the total value of NMS agricultural output amounted to € 31 million, or 11.1% of the EU-15 value. The main differences in the structure of the agricultural output between the two groups of countries relate to the distribution of values between crop and livestock products: crop products are relatively less important in the NMS, with 48.3% of total output, compared to 52.2% in the EU-15, to the favour of the livestock sector, which accounts for 46.3% of total output in the NMS, and only 41.1% in the EU-15. Services and processing activities provided by agricultural holdings amount to 5.4% of total output in the NMS and 6.8% in the EU-15 (Table 1.16).

1.11.2. Crop production

The NMS crop output is the result of a typical cropping pattern for North-Central Europe, with prevailing cultivation of cereals (18.6% of total output, compared to 9.6% in the EU-15) and industrial crops (7.7% of NMS total output, and 4.6% in the EU-15), and a reduced weight of vegetables and permanent crops, which together represent only 12% of total agricultural output, compared to 29.6% in the EU-15. Since cereals and industrial crops in general create a lower value added per hectare of land and are profitable when cultivated on large extensions with huge mechanisation (the so-called high farming), this type of cropping is not favourable for small holders, which represent the very large majority of NMS farmers. Vegetables and permanent crops create more than 20% of total output only in the Mediterranean NMS, i.e. Slovenia, Malta, and Cyprus.

1.11.3. Livestock production

In the livestock sector, the NMS have a relatively more accentuated presence of granivores: pigs, poultry and eggs respectively represent 13.8%, 7.2%, and 3.1% of the NMS agricultural output value, and together count for nearly one fourth of the total. In the EU-15, the corresponding shares are 8.7% (pigs), 3.8% (poultry), and 1.4% (eggs), and the part in the total output of the three items together is only 13.9%. Also the dairy sector is more important in the NMS, with 15.7% of the total output, compared to 13.7% in the EU-15. These results are influenced by the basic role played by pig, poultry and milk production in the mixed farming systems of small NMS individual holdings. On the other side, cattle meat and sheep production (respectively 5% and 0.4% of total NMS agricultural output, compared to 9.7% and 2% in the

EU-15) still suffer the consequences of heavy de-capitalisation, which accompanied the economic reforms in the early 1990s.

1.11.4. Post-Accession trends and productivity gaps with the EU-15

In the post-Accession period, the NMS have considerably reinforced their trend to specialise in cereal and industrial crops. The output of these two categories of products has grown, in real terms, nearly by 60% with respect to the year 2000. Also production of forages is strongly increasing after the Accession, while, among crop products, potatoes are following the worst declining trend that has brought the 2004-2005 average harvest to 57% of the year 2000 level. NMS livestock production is growing only slightly after the Accession: the most expanding sectors are poultry and sheep, while cattle (meat) and pigs follows a negative trend. The real growth of the total agricultural output in 2004 and 2005 has been quite generalised among the NMS, except for Malta and Cyprus; in the same period, the EU-15 has experienced a weak drop (Table 1.17).

Between the NMS and the EU-15 there is a considerable gap in the value of agricultural output per hectare of UAA. However, along the period 2000-2005. the NMS average output per hectare has steadily risen from 30.1% to 43% of the EU-15 average. In the Baltic States (year 2005), this indicator varies between 18% and 27% of the EU-15 value. In the NMS of Central Europe (i.e. Poland, Hungary, the Czech Republic, and Slovakia), the range is between 38% and 48%, while Slovenia and the Mediterranean NMS have the same level of the EU-15 or even more (Table 1.18). The gap narrowing is due to the stability of the average output value per hectare in the EU-15, and to a vigorous growth of the same indicator in the NMS, which rose by one third between 2000 and 2004, with a particular speeding-up during the Accession year. In 2005, the situation was stable also for the NMS. The countries displaying the most important output increase have been the Czech Republic, Slovakia, Poland and Lithuania (Table 1.19).

1.12. Economic accounts of the agricultural industry in the NMS and its structure

1.12.1. Agricultural gross output and value added

In the year 2005, out of € 31,006 million forming the total output of the NMS agricultural industry, a total of € 19,138 million, or 61.7%, have been spent for intermediate consumption of inputs, which reduced the Gross Value Added (GVA) to € 11,868 million, or 38.3% of the total output. In the EU-15, the figures have been more favourable for farmers, since the intermediate consumption eroded only 53.2% of the total output by leaving 46.8% to the GVA (Tables 1.20 and 1.21). A relative high burden of the intermediate consumption is a widespread element in the economic accounts of the NMS agricultural industry: in a majority of countries, the expenditure has been aligned to the NMS average 61% of total output, with peaks in the Czech Republic (72.2%) and Slovakia (73.4%). In Slovenia, Cyprus, and Malta the situation has been similar or better than the EU-15 average.

1.12.2. Fixed capital consumption and factor income

Net fixed capital consumption of NMS agriculture in 2005 has been estimated at 10.2% of the total output (14.9% in the EU-15): the most remarkable differences with respect to the NMS average regarded Slovenia (18.8%), Cyprus (2.5%), and Malta (3.2). Subsidies and taxes on

production have been respectively equivalent to 9.6% and 1.3% of the total NMS output; thus, the difference, or net subsidies, corresponded to 8.3% of total output, which did not differ significantly from the EU-15 data. Net subsidies resulted particularly important in Latvia (14.4% of total output), the Czech Republic (14%), Estonia (12.3%), and Hungary (10.6%), and very low in Lithuania (2.2%).

The factor income, i.e. the net value added at factor cost, obtained by deducting capital consumption from the GVA and adding the net subsidies, indicates the comprehensive income of land, capital, and labour invested in agricultural production. In 2005, this value has been 35.8% of the total output value in the NMS and 39.8% in the EU-15. It resulted around 50% of the total output value in Cyprus and Malta, above 40% in Estonia and Latvia, between 30% and 40% in the Czech Republic (30.3%), Lithuania (30.8%), Hungary (37.1%), Poland (36.9%), and Slovenia (37.3%), only 23.8% in Slovakia. It is possible to observe that the level of the NMS factor income with respect to the total output has been mainly influenced by two elements: the level of intermediate consumption and the release of net subsidies on production. For example, both the Czech Republic and Slovakia, where agriculture is mostly dominated by large corporate or cooperative farms, similarly suffer for having the highest levels of intermediate consumption in the NMS, but the former has by far taken much more advantage of the subsidies.

1.12.3. Entrepreneurial income of NMS agriculture

Wages of hired labour force have covered 10% of the NMS 2005 total output value (10.7% in the EU-15). This indicator has been particularly significant in the countries characterised by a predominance of large farms, i.e. Hungary (11.5%), Estonia (14.7%), the Czech Republic (19%), and Slovakia (19.5%), but also in Cyprus (39.9%). In the other countries, the value has been below 10% of total output, e.g. in Poland is 5.4%. Interest and rent paid by farms for borrowed capital and rent land in the NMS together corresponded to 2.6% of total agricultural output, considerably less than in the EU-15 (5.6%). It can be observed that in Hungary, Estonia, the Czech Republic, and Slovakia (i.e. the countries most featured by corporate farming), the level of rent paid by farms has been above the NMS average. This reflects a more intensive use of external factors by corporate farms, which are more market-oriented than small family farms, but also some circumstances of the 1990s' land reforms, when land returned to the previous owners from former collective farms was then rented back to the privatised collectives.

In 2005, the entrepreneurial income of farmers, i.e. the net income for labour, capital, and land directly provided by farm holders, together with the non-paid labour of holders' families in the case of family farms, has been equivalent to 23.1% of the total agricultural output value, almost equalling the EU-15 average level (23.4%). Yet country data present a varied picture: in a first group of countries, those with the highest relative expenditure for hired labour, the Czech Republic, Slovakia, and Cyprus, the entrepreneurial income resulted less than 10% of the total agricultural output; in a second group, formed by Lithuania, Hungary, Estonia, Poland, and Slovenia, the indicator ranges around the NMS average, between 20% and 30% of the total output; lastly, there are Latvia, with 35.4%, which has benefited from the highest level of net subventions on production among the NMS, and Malta with 44.5%.

1.12.4. Investment and productive capital accumulation

The relative amount of the gross fixed capital formation (roughly indicating the annual agricultural investment) has been very different between the NMS (9.9% of 2005 total output value) and the EU-15 (16.1%). We should remark that, while the EU-15 level of investment has

covered the fixed capital consumption (14.9%) by leaving 1.2% of total output value as net fixed capital formation, in the NMS the investment has not compensated capital consumption, with a net de-capitalisation of € 85.2 million (0.3% of the NMS total output value). De-capitalisation is resilient in the agricultural industry of many NMS, however the 2005 aggregate data have been influenced by Poland, where net fixed capital formation amounted to -3.8% of total agricultural output, and Slovakia, with -3.3%. By contrast, the Baltic States have shown a very strong net accumulation capacity in 2005: Latvia 29.8% of total output; Estonia 21.5%, Lithuania 9.7%.

1.12.5. Post-Accession trends

In the two first post-Accession years, the NMS trends of agricultural income have been mainly characterised by three elements (Table 1.22):

i. a very quick growth of the total gross output (real terms) in the year 2004, reducing a certain stagnation which distinguished the period 2000-2003;

ii. intermediate consumption has not changed significantly;

iii. a resulting outbreak of the total GVA increasing, in real terms, by more than one third between 2003 and 2004.

In the following year 2005, the situation has made no progress, but it stabilised, with a slight drop of the real gross output (-1.3%), compensated by a weak rise of real GVA (+1.6%). In the 2-year period, because of the reduced consumption of fixed capital, the net value added (basic prices) in real terms has grown even more: 49.8% in 2004 and 4.3% in 2005. In the EU-15, during the period 2000-2005, all three indicators (gross output, intermediate consumption, and GVA) slowly decreased at almost the same pace.

This trend has been generalised in almost all the NMS, with the exception of Cyprus and Malta. Comparing the real growth in the period 2000-2005, agricultural GVA in the Czech Republic has grown by nearly 60%, around 50% in Hungary, Lithuania, and Poland, 30% in Slovakia, 20% in Slovenia, and only 9% in Estonia.

1.13. Income of agricultural factors

In 2005, the NMS average agricultural gross output per ha of UAA has been of € 906, corresponding to 43% of the EU-15 average (2,108 €/ha). The average intermediate consumption per ha has been of € 573, or 49.8% of the EU-15 average, and the resulting average GVA of 355 €/ha, only 35.1% of the EU-15. These data indicate that the already broad gap existing between the NMS and the EU-15 in terms of gross productivity of land becomes considerably wider at the level of gross income. In the majority of NMS, the country average GVA is abundantly below the average of the whole aggregate. In the three Baltic States, it varies from 15.8% of the EU-15 average in Latvia to 21.1% in Lithuania, and 24.7% in Estonia; similar figures are found in the Czech Republic (24.7%) and Slovakia (22.9%). Poland and Hungary are between 38% and 40% of the EU-15 values. Only Slovenia, Malta, and Cyprus have values comparable to the EU-15 (Table 1.23). A direct comparison between gross margins and variable costs of main crops (wheat, maize, sugar beet, rape and potatoes) in some representative countries of the NMS (Czech Republic, Hungary and Poland) and the EU-15

(France, Germany, and the United Kingdom) shows how the reduced expenditure for variable inputs does not actually represent an advantage for the NMS (Tables 1.24 and 1.25).
In fact, the reduced cost is due for the most to a less intensive use of inputs, hence because of lower yields, it does not result in lower variable costs per unit of product.

The average value of main economic indicators per work unit (AWU) gives a representation of the actual level of farmer income (Table 1.24). The NMS average agricultural gross output per work unit (AWU), in 2005, has been of € 8,828: 18.2% of the EU-15 average (48,463 €/AWU). In Latvia and Poland, this indicator was abundantly below 15% of the EU-15; it has been between 20% and 30% of the EU-15 in Estonia, Lithuania, Hungary and Slovenia, 35% in Slovakia, and 45% in the Czech Republic. Only Cyprus and Malta set around 60% of the EU-15

After deduction of intermediate consumption from gross output, the remaining average GVA per work unit has been € 3,379 in the NMS, only 14% of the EU-15 average (22,670 €/AWU). In this case, the average value of all the eight Central and Eastern Europe NMS ranged between 8.8% (Latvia) and 26.7% (the Czech Republic) of the EU-15 average. NMS mean consumption of fixed capital amounted to 899 €/AWU, corresponding to 12.4% of the EU-15 average (7,230 €/AWU): only 2 countries (the Czech Republic and Slovenia) in average consumed more than 2,000 €/AWU. NMS farmers have received in average 852 €/AWU as subsidies on production, while their EU-15 colleagues 5.3 times more (4,481 €/AWU), and the variation among the same NMS has been in the order of 1 to 17.1: in other terms, 237 €/AWU in Lithuania compared to 4,071 €/AWU in the Czech Republic. Apart from the Czech Republic, in none of the remaining NMS, subsidies on production have reached 1,800 €/AWU. In Poland the average has been of 502 €/AWU. On the other side, average taxation on production has affected proportionally more the NMS than the EU-15 farmers, and the average net subventions per AWU, resulting after tax deduction, has been 5.6 times higher for the latter.

Average net accumulation of fixed capital per AWU in the EU-15 (year 2005) is estimable at € 576, while in the NMS there have been an average de-capitalisation of 24 €/AWU. The country data indicate two opposing trends: on the one side, the Baltic States, which displayed very high levels of net capital formation per AWU (from 1.7 to 5.2 times the EU-15 average), together with the Czech Republic, which reached 61.8% of the EU-15 level; on the other side, Malta (-165 €/AWU), Poland (-247 €/AWU), and Slovakia (-564 €/AWU), suffering a remarkable decrease of the capital stock value per work unit; Hungary (0 €/AWU) and Slovenia (46 €/AWU) are slightly above the NMS average.

Historical data of real variations in the value of main economic indicators per work unit show that, before the Accession, the income gap between the NMS and the EU-15 agriculture was wider and a significant improvement has taken place. However, initial disparities were so deep that the progress has not yet remarkably reduced NMS' backwardness. Moreover, whereas in the year 2004 the increase of the main economic indicators has been significant, the year 2005 has mainly seen a certain degree of stability.

If compared to the year 2000, in 2005 the average NMS gross income per AWU increased, in real terms, from 14.5%, to 18.2% of the EU-15 average (it was 18.3% in 2004); the average GVA per AWU (real terms) from 10.6%, to 14.9% of the EU-15 (14.5% in 2004); subsidies on production per AWU from 9.4%, to 18.9%; the gross investment per AWU from 7.6%, to 11.2%, and the net investment from -3.2%, to -0.3%. At the national level, all the CEE NMS have improved their positions if compared to the EU-15 average, and in particular Estonia, Lithuania, Hungary, and Slovakia (Table 1.25).

Though insufficient, this progress towards the EU-15 standards has been achieved thanks to a very important growth in the income indexes referred to the work units. Between 2000 and 2005, the average NMS gross output per AWU has increased in real terms by 29.1%, (14% in the 2000-2003 period and 37% in 2000-2004) and the real GVA per AWU by 63.2% (19.2% in 2000-2003,and 68.3% in 2000-2004). In the same period, the increase of both indicators in the EU-15 has been of about 8% (Table 1.26).

1.14. Agro-food foreign trade

1.14.1. The agro-food sector in total NMS foreign trade.

The foreign trade of agricultural products, live animals, processed food, beverages and tobacco accounts for 5.7% of the total NMS import and for 6.4% of the total export (year 2005). These data indicate that the relative integration of the agro-food sector into the international market is considerably inferior in the NMS if compared to the EU-15, where it covers 9.3% of total import and 9.1% of total export values (Table 1.27). Among NMS, the countries where the primary sector has the major role in external trade are Cyprus (where agriculture and food processing are responsible for 11.3% of total import and provide for 15.7% of total export), Latvia (10.6% of import and 11.2% of export), Lithuania (7.6% of import and 12.0% of export), Poland (5.8% of import and 9.4% of export), Estonia (8.0% of import and 6.6% of export), and Malta (11.6% of import and 3.5% of export).

1.14.2. The agro-food foreign trade balance and the total value of agro-food trade

The foreign trade balance of agro-food commodities shows to be negative for seven NMS (year 2005).Yet the three countries achieving a positive balance, namely Poland, Hungary, and Lithuania, are respectively the first, second and fifth largest agro-food producers among the NMS, and the total NMS agro-food balance with the rest of the world is only slightly negative: € 66.3 million, compared to the € 9,883.8 million of the EU-15.

The ratio between the agro-food trade balance and the total value of the agricultural output can represent a rough indicator of the relative importance of the external trade deficit or surplus with respect to domestic agricultural production. In the CEE NMS that have a negative agro-food balance, the ratio with the total agricultural output is noticeable by varying from –21.4% in the Czech Republic, to –48.1% in Estonia and –48.4% in Slovenia; it then reaches –62.3% in Cyprus and even –217.7% in the small Malta. As regards the countries with a trade surplus, Poland has +13.2%, Hungary +12.7%, and Lithuania +11.9%. For the aggregate of the 10 NMS, the ratio between the agro-food trade with the rest of the world and the value of the total agricultural output is –0.2%, considerably better than –3.5% obtained by the EU-15 aggregate.

The 2004 EU Accession has given a considerable stimulus to improvement of NMS international trade. The average annual growth rate of the NMS external trade total value (given by the sum of import and export values) in the first two years after the Accession, 2004-2005, has been equivalent to +19.2%, compared to +7.1% of the previous biennium 2002-2003. As a comparison, in the EU-15 the average annual variations have been of –0.3% in the period 2002-2003, and of +8.6% in the period 2004-2005. In the NMS agro-food sector, these dynamics have been more accentuated, with the total value of foreign trade from agricultural and food commodities increasing by 3.6% in the two years before the Accession and by 28.6% in the two

years after, compared to –2.1% and 4.7% of the EU-15. In general, in all the NMS, except Malta, the growth rate of the agro-food foreign trade total value has increased after the Accession. The annual average growth rate of the period 2004-2005 has been over 41% in Slovakia, between 33.1% and 35.3% in Lithuania, Latvia, and Poland, 29% in the Czech Republic, slightly more than 20% in Latvia and Estonia, and around 17% in Hungary and Cyprus.

1.14.3. Competitive capacity in the international agro-food markets

The normalised balance indicator ([12]) allows to evaluate the effects of external trade growth on the final import-export balance, and therefore whether the widening of foreign exchanges is caused by a progression or by a regression in the competitive capacity of the concerned countries. The NMS 2001-2005 historical data of the agro-food trade normalised balance (Table 1.28) show that in the passage from the pre- to the post-Accession period the trend is positive for the NMS if considered as an aggregate: with the indicator value increasing from –0.07 in 2001 to 0.0 in 2005. This implies that under the EU integrated markets, the NMS have had in general the opportunity to take major advantages from their competitive capacity and to achieve an even trade balance.

Among the different countries, Poland has shown the better trend and this largely influenced the positive results of the NMS aggregate. The normalised trade balance of the Polish agro-food sector progressed from –0.03 in 2001 to 0.17 in 2005; in monetary terms, the trade balance increased from –164.9 million € in 2001 to +1,992.6 million € in 2005. The other countries that have shown good trends are Lithuania (from –0.01 to 0.09), Latvia (from –0.41 to –0.23), Slovakia (from –0.33 to –0.21), and the Czech Republic. The observed variations can be considered not significant for Cyprus and Estonia, and negative for Malta, Hungary, and Slovenia. In particular, the position of Hungary (that is traditionally a strong agro-food exporter) seems to be considerably weakened, with the normalised balance regressing from +0.40 to +0.15, between 2001 and 2005, and the agro-food balance that has almost halved from € 1,467 million, to € 775 million in the same period. As regards Slovenia, with the displacement of preferential economic relations, from the Balkan to the EU area, the fragility of the country's agro-food sector is becoming much more evident.

1.14.4. Export-import and trade flows dynamics

Other elements for the analysis are brought by the evolution of import and export, and by changes in the distribution of trade flows by trading partner (Table 1.29). The general trend observable for the NMS aggregate is that, after the Accession, the increase of agro-food international trade has been extremely faster than in the two years before, and that export flows has grown noticeably more than import. The countries that have achieved the most significant difference between export and import growth have been Poland, Lithuania, Latvia, and the Czech Republic; in Estonia and in Slovakia, this positive tendency is less remarkable. In Slovenia and especially in Hungary, after the Accession, the import has grown more than export. In Cyprus, the two flows had almost the same variation; in Malta, the export flows has dropped.

([12]) The normalised balance is the ratio between the trade balance and the total trade value: if the indicator equals 1 all foreign trade of the country consists in export (absolute specialisation in the concerned commodities); if it equals -1, all foreign trade of the country consists in import (absolute de-specialisation in the concerned commodities).

With respect to the structure of the agro-food trade flows by trading partners, for the NMS aggregate, post-Accession changes have mainly implied a significant decrease in the share of trade exchanges with extra-EU countries: from 31.4% to 18.6% of total NMS import, and from 35.7% to 26.5% of total export, between the 2001-2003 period, and the 2004-2005 period, respectively. This has been accompanied with a parallel increase in the share of the trade with the EU-15 countries (from 49.2% to 57.9% of total NMS import, and from 42% to 49.3% of total export), and by a smaller expansion of commerce among the NMS. The structural variations indicate that after EU Accession, the important growth of NMS agro-food trade mainly consisted in an intensification of exchanges with the EU-15 and, to a lesser extent, within the same group of the NMS.

The majority of NMS have taken advantage of these changes, but the countries that have not modified significantly the structure of their export in accordance with the new developments have worsened their position: as in the case of Hungary, that has little changed its export structure, or Slovenia and Malta that have maintained the most of export outside the EU, or Cyprus that has even reduced the EU share in its export.

1.15. Producers integration into the agro-food sector

1.15.1. Highlights on producers' integration

In general, with respect to the situation in the EU-15, the level of integration of NMS producers into the agro-food chains (storage, industrial processing, distribution, etc.) appears considerably lower ([13]). Basic reasons for this delay should be found in the socialist background of most NMS agriculture, and in the modalities of the economic reforms of the 1990s, which, on the one side, gave continuity to a polarized farm structure ([14]) and, on the other side, did not directly involve individual farmers in the recovery of agricultural infrastructure and product processing.

Former collective big farms, arranged as private corporations or self-managed cooperatives, still prevail in Czech Republic, Estonia, Hungary, and in Slovakia. In Lithuania, family-run farms manage about two thirds of the farmland area, but privatised collective farms play a very important role in the agricultural marketable output. In Slovenia and Poland, family farming was predominant also during the former communist period; only in Latvia, it seems that individual farms have clearly emerged after the agricultural reforms (see: Giovarelli, Bledsoe, 2001, pp. 35-65).

Finance and building of market institutions have been the basics of NMS agro-food chains' recovery. The institutional building-up has been a typical commitment for international and local experts, bureaucrats and policy makers acting under EU support and supervision. The financial aid has been provided by a variety of stakeholders: foreign investors operating in the agro-food chain, national companies investing profits from other sectors, big national agro-food

([13]) No regular statistics on this specific matter are available, the main source of information are sector studies.

([14]) With a simplification it can be said that, under the socialist rule, in the CEE countries agriculture was partitioned in two sectors. The social sector, formed by large collective holdings integrated into the planned economy through strong links with up- and down-stream industries and traders, absorbed almost all resources devoted to agricultural development. The private sector was formed by small and very small individual holdings, which had legal constraints to development and were neglected by economic policies: marginalised, they mostly produced for subsistence of holders' families.

processors and agro-traders operating in the domestic or/and international markets, but small individual farmers did not have any primary role in this course of actions.
On this basis, it can be observed that, in general, corporate farms are still much more integrated with processors and traders than individual farms. Results from representative farm surveys show that, in late 1990s, percentage of corporate farms selling products on contract was 96% in the Czech Republic, 98% in Slovakia, and 94% in Hungary, compared respectively with 46% ([15]), 35%, and 17% of individual farms. In the Czech Republic, about two thirds of selling contracts in corporate farms included provisions of main inputs, versus less than one fifth in the case of individual farms (Swinnen, 2005).

In order to reduce transaction costs, food processors and big traders prefer to work with fewer and larger suppliers. Agro-food chain recovery in the CEEC started from restoration of pre-existing links between former collective farms and agro-processors, according to the traditional farming specialisations of biggest holdings: high farming with cereal and industrial crops, and intensive livestock production. Integration of individual farmers, often starting from scratch, is a much more difficult task.

The difficulties of integration do not necessarily imply the exclusion of individual farmers. Despite concerns for costs of integration, there is no evidence that supply chain modernisation inevitably brings to an *a priori* exclusion of individual farmers. On the contrary, literature shows many situations in which agro-food chain development has played favourably for small farmers in the CEEC (Swinnen, 2005).

Box 1.1. Potential competitive advantages for integration of NMS small farmers into the agro-food supply chains

Diseconomies of scale	In agriculture, cost reduction as a consequence of the increase in the farm output scale is not so generalised as in manufactures. In many sectors of agricultural production farmers face considerable problems to manage an increase of the size of the activities and the shift from economies to diseconomies of scale can be very rapid. The same CEE countries' experience under the socialist rule offers a good exemplification of the inefficiency generally widespread in oversized collective farms. Scale economies are particularly uneasy in the most labour-intensive sectors, such as fruit and vegetables and milk production, and when the highest quality standards are required. Moreover, the experience of most Western countries shows that when holdings have appropriate size and modern technologies and the supply-chain is well organised, also family farms can manage optimal scale of production in almost all sectors
Lack of alternatives	From the above point it comes that processors and traders, in some sectors, can find only small suppliers, and especially in those countries where the impact of collectivisation was weaker, like in Poland and Slovenia, or where de-collectivisation has been more radical like in Latvia.
Other competitive advantages of small farmers	There are also reasons that may induce processors and traders to prefer individual farmers, e.g.: excessive dependence on few big suppliers can represent a risk; small farmers are more adaptable to changing market conditions: prices, quality needs of customers, etc.

Source: DEIAGRA elaboration from Swinnen, 2005.

Trying to build up a general explanatory framework from the fragmented information available on this subject, it can be concluded on some topics.

i. Integration has developed together with the restructuring of the supply chains from the previous organizational model.

([15]) This figure lowers to 5% in the case of Czech non-registered individual farms.

ii. The integration process is driven by institutions lying outside the agricultural industry (processing industry and food distribution, owned by foreign and domestic companies).

iii. The leaders of the integration, led by their own economic interests, are often responsible for the modernization of the supply chain, by fulfilling the lacking functions that are critical for the development.

The model for integration described above is almost exclusive in the NMS, while in the EU-15 it represents only a part of farmer integration, which, on the opposite, is largely endogenous, in the sense that it is largely dominated by farmers cooperatives.
Box summarizes the main aspect under (iii) and reports synthetically about the situation of the integration in some countries among the NMS (in the first column, the main function related to the integration are listed; in the following columns, we indicate the reference sector and countries, together with the leader of the integration process.

Box 1.2. Farmers integration into the agro-food supply chains

Functions	*Sectors, integration leader (reference country)*			
	Grains (Slovakia)	*Sugar processors*	*Dairy processing industry (Poland, Slovakia)*	*Fruits &Vegetables retailers*
Infrastructures	**x**			
Farm support		**x**	**x**	
Quality standards			**x**	**x**
Credit and finance		**x**	**x**	
Material inputs			**x**	
Contracting		**x**	**x**	**x**

Source: DEIAGRA elaboration from various sources.

1.15.2. Farmers' ownership in the agro-food industry

The enhancement of bargaining power and lobbying capacity are the main reasons behind the development of farmers' associations. In the most advanced economies, farmers' associations and cooperatives not only have acted as negotiators with the other actors of the food-supply chain, but they have also developed important market infrastructures, processing activities, and services by giving, in this way, their own active contribution to vertical integration and development of the agro-business system.
The EU recognised the socio-economic functions of cooperatives or cooperative companies with the Treaty of Rome (1957). Despite its modest origins, its poor means and the competition from other large trade companies, farmers' cooperative companies have developed big agro-businesses and have achieved the control over transactions of more than half of all agricultural inputs delivered to EU farms and over the sale of more than half of all EU farms' outputs (Millns, 2002). The main characteristics of this movement and penetration of farmers' associations in the agro-food chains are summarized in Box.

In the CEEC NMS, main factors influencing the present-day situation of farmers' associations and their presence in the agro-food chain can be identified in the pre-Transition background (see also Call out n. 3), in the agricultural reforms and privatization of agro-industry, and in opportunities offered, within the EU integration process, to the development of farmers' groups shaped on the EU models.

The privatisation of the agro-industry has taken place in various forms in the different countries during the transition period: Box 1.3 summarizes the main features of this process.
Since the organisation, finance, and lobbying capacities of CEEC farmers were scarce, only in few countries their involvement as preferential shareholders in privatisation of agro-processors has been significant: in particular, this took place for industrial plants operating the first stages of food-processing. The main aims of farmers' involvement were to contrast formation of private monopolies in substitution of the previous state trusts in food markets, and stimulate supplying of agricultural commodities to processors.

In **Latvia**, farmer groups have taken over milk collection centres, a majority of stockholdings in the most important diary companies and in a number of other types of food-processors. However, after privatisation Latvian food industry suffers from fragmentation and reduced utilisation of processing capacity. In **Lithuania,** farmers had very favourable options for buying shares in most of the dairy, milling and meat plants. But presently firms' employees own, in the average, more shares than farmers, and in many companies farmers have sold their shares (NIAE, 2003). In **Slovenia,** beneficiaries of privatisation in cooperative farms were also admitted to share ownership of privatised processors with which they had commercial links. However, many renounced to membership and, along the 1990s, the share of private farmers in cooperatives fell from 60% to 30%, due to uncertain prospects of these businesses (Migone, 2002).

Box 1.3. Main characteristics of development and penetration of EU-15 farmers' associations (cooperative companies) in the agro-food chain.

Development of strong national associations	which have effectively multiple roles as farmers' lobbies, sources and channels of market information and promoters of national agricultural and food industry;
Increasing vertical integration	with producer groups (mainly cooperatives) incorporating processing and marketing functions; confirmation and, in some cases, increase in the importance of commercial producer groups in the distribution of agricultural produce; confirmation of the importance of commercial producer groups in the provision of supplies and services to their members
Increasing importance of commercial producer groups (mainly cooperatives) in terms of market power	in France producer groups represent 35 percent of the food industry market, and already in the mid.1970s, two of the four largest food firms and 40 percent of the largest 100 were commercial producer groups; in Italy commercial producer groups represent almost 25 percent of agro-food marketing;
Concentration of the commercial producer group structure	with an increasingly small number of groups (created by cooperatives' mergers) dominating the internal market by commodity sector;
Increasing export orientation by groups	which is linked with the emphasis on high quality production, which associations have taken onto themselves to promote vis-à-vis buyers;
Increasing examples of mixed forms of organization	in Austria, the RWA, a dominant farm supply group, is in fact a joint stock company, a trading and service company to the Raiffeisen Warehouse Cooperatives; in Finland there are companies owned by producer groups, such as Valio LTD in the dairy sector, which has a 69 percent share of the market and Atria Ltd, which has a 31 percent share of the meat market;
Trans-national commercial cooperation	in recent years DLG, the dominant supply group in Denmark, has collaborated with SLR, the Swedish association of supply groups with the resulting setting-up of subsidiaries purchasing fertilizers and pesticides from the world market;
Increasing importance of environmental issues	reflecting EU regulations.

Source: DEIAGRA schematization from Migone, 2002, pp. 21-23.

In general, the **privatisation** of CEEC agro-industry has not brought farmers, and their organisations, to take a significant position in the control of food-supply chains. Beyond finance and organisational problems of farmers, the different understanding of the concept of

'Cooperative' has made it quite difficult to transfer the EU model into the CEEC. As known, North-Western and Mediterranean Europe cooperative companies usually operate and provide services in the up-stream and down-stream sectors of the agro-food chains. Normally, farmers have an adequate control on the cooperatives' management, and these factors really reinforce farmers' economic independence.

In the CEEC, under the socialist rule, most of CEEC cooperatives were very large farms formed through expropriation or 'voluntary' assembling of *latifundia* and individual holdings; the cooperatives' associates (former peasants and holders hired by the cooperatives) had no real possibilities to control cooperatives' management. Cooperative companies often provided inputs and services to private farms, and received their deliveries, by integrating, in this way, a part of the private agricultural industry into the socialist agro-food systems. These links straightened the dependence of private producers, since they had no negotiation power.
In most cases, with privatisation, CEEC cooperative farms have been separated from their trade and processing infrastructures. While for the latter the prevailing trend has been the sale to investors, a conspicuous portion of the former cooperative farms have been left to employees, though with renewed institutional set up and reduced assets. Today, differently from the EU-15, in the CEE NMS, a large part of agricultural cooperation consists in cooperative farms.

In the first years of the transition, in almost all the CEEC, many farmers tried to face the breakdown of the socialist market infrastructure by joining self-managed groups aimed at buying inputs or marketing farm products at better conditions. In most cases, these new producer groups were not able to play a significant role in the recovery of CEEC market systems. The causes are manifold: the overall difficult economic context, with persisting lack of solvent demand in the domestic markets and in the traditional trade partners of the former Eastern Block; the incapability to meet quality and quantity requirements of new potential customers in the EU; the same groups' management, unskilled to operate into the new economic context, etc. (Migone, 2002).

Box 1.4. Privatisation of agro-industry in the CEEC New Member States

<table>
<tr><td rowspan="2">Small enterprises</td><td colspan="3">Direct sale to private new owners</td></tr>
<tr><td colspan="3">Sale by auction to highest bidders</td></tr>
<tr><td rowspan="5">Big enterprises</td><td rowspan="3">Transformation into joint stock companies</td><td>Transfer/sale of share/vouchers to preferential shareholders</td><td>- to farmers: especially in the first stages of food processing: milling, diary, slaughtering and meat processing (Latvia, Lithuania, Slovenia);
- to the employees of the same enterprises.</td></tr>
<tr><td>Sale through voucher schemes</td><td>Czech Republic, Slovakia Slovenia, Poland, Lithuania.</td></tr>
<tr><td>Sale of shares to private investors</td><td rowspan="2">- strong presence of foreign investors in high value added sectors: vegetal oils, sugar, confectionery, beverages, tobacco, and specific segments of diary industry;
- wide portions of whole food industry taken over by foreign capitals in Hungary, Estonia, Lithuania, and in certain high value added sectors in Poland;
- persisting mono/oligopolistic situations (from state agro-food trust to private agri-food trusts) in many markets and countries.</td></tr>
<tr><td colspan="2">Direct sale to private investors</td></tr>
</table>

Source: DEIAGRA elaboration from NIAE, 2003.

From the half of the 1990s, CEEC governments oriented agricultural policies towards market stabilisation by setting, as much as allowed by reduced state budgets, minimum guaranteed prices for domestic producers, the support to use of inputs and to investments in farms and in the agricultural infrastructures, and some subvention to export. These measures were not directly addressed to sustain producer groups. Nevertheless as they favoured the whole organisation of the agricultural industry, also producer groups took some advantage from that. In this period, with the improvement of the macroeconomic situation, the privatisation of the agricultural infrastructures advanced rapidly and the development of new market operators was encouraged also through specific support. In some countries, producer groups achieved a certain importance in several markets, though privatisation favoured profit companies for the most, and transition from state trusts to private mono/oligopolies did not make market penetration easier for potential newcomers.

The definition of the path to EU Accession, at the end of the 1990s, opened new perspectives, since the alignment of candidate CEEC with the EU *acquis* in general implied to improve existing legislation or to set up new laws to the favour of producer groups and to provide them with specific support. Although from a juridical point of view the situation made some progress, from a financial point of view, data are likely to indicate that support to agricultural development is straightening the structures of already existing organisations and is not creating new organisations.
Producer groups and associations do not gather only small farmers. Big farms issued from the NMS privatisation process, that are either cooperative farms and corporate farms or even big individual holdings, have formed their own groups and associations. In **Poland**, for instance, there is a federation of big farmers that includes 15 associations with 1,000 members in total (Rush, 2006): these holders own at the least several hundreds of hectares each. Sectors where producer groups are most present are grain storage, fruit and vegetables trade, milk processing and meat.

In the **Czech Republic**, an important association of agricultural cooperatives includes several big market organisations that control about 10% of cereal and beef markets, 25% of pork market, 30% of poultry, 42% of milk (Jirovsky, 2006), and have also an important presence in fruit and vegetables markets: available data on the average turnover per-farmer indicate that they chiefly associate very big producers.

In **Hungary,** there are around 650 producer organisations for inputs' purchase and sale of products, about two thirds are cooperatives. It is estimated that these organisations gather 10-12% of livestock production and 6-7% of crop production (21% of fruit and vegetables), and 85%-90% of their receipts depend on large scale producers, especially in the field crops and livestock sectors (Dorgai, 2005). The Association of Hungarian Producers' Sale and Services Cooperatives gathers 380 entities, mostly operating in grain storage (36%), fruit and vegetables (22%), pig meat (13%), poultry meat (6%), and wine (6%).

In **Slovenia,** large farms cover only 8% of the total rural lands. The Cooperative Union of Slovenia includes 5 market organisations, with relevant shares in the milk (80%), beef (71%), potatoes (56%), maize (44%), and wheat (36%) markets.

Among the Baltic states, **Latvia**, that after land de-collectivisation has now a prevalence of individual farms, shows a dynamic situation. After setting up in 2000 a new legislation aimed at establishing farmers' cooperative companies on the EU model, in 2005 the country accounted for 78 cooperatives: 29 operating in grain storage, 28 in milk production, 3 in dairy, 10 in fruit

and vegetables, 5 in the meat sector, 1 is for honey and 5 in mechanisation. Between 2000 and 2005, the number of associated farmers rose from 2,380 to 7,140 units, and the whole net turnover grew from 4 million to 59.5 million LVL (MARL, 2006).

On the whole, if compared with the situation in the EU-15, the conditions that political events and policy choices created in the CEEC NMS during the transition, were not favourable for a consistent improvement of the position of independent individual farmers in the food-supply chains. The collapse of the socialist economic infrastructure turned into more isolation for small agricultural producers, land de-collectivisation did not remove farm dualism, and privatisation of agro-industry, for the most, was not tailored for individual farmers, that lacked of adequate organisation to take part in it effectively.

Only in recent years, with market stabilisation, through their associations, farmers have slowly improved their position. The Accession process with the alignment to the EU *acquis* has played positively for this trend, and an interesting evolution has been observed in those countries and sectors where new legislations on producer groups and associations has met the needs of independent individual farmers. Where the farm dualistic structure has been maintained, organisations of big producers are gaining important positions in the market infrastructure. In these areas, the possibilities of small producers are limited to those sectors, like fruit and vegetables, where large farms have more difficulties to operate.

1.16. Changes in the wholesale and retail system

In the NMS, the retail system is characterised by a remarkable concentration process, which allows implementation of scale economies at various levels, like advertising, centralization of purchases, standardization of the supply, and specialisation of workers ([16]). The market share of large-scale retailers is increasing and the development of modern shopping centres is mainly due to the investment of foreign firms. Also food distribution has followed the concentration trend and has become highly internationalized. Sale networks of big food retailers are mainly supplied by local producers and by foreign firms which have set up their own branches in the NMS. Large-scale retailers also buy from importers, distributors, and local wholesalers, albeit to a lesser extent.
Although their market share has been eroded by the growth of large-scale retailers, traditional retailers are still quite important in the NMS, especially as far as food product sales are concerned. As a consequence, concentration in food retailing is still far from the levels reached in most EU-15 Member States. Traditional specialized operators still play a significant role in the fresh and processed meat sector.

1.17. Synthesis

In general, the NMS suffer from several structural constraints, which produce lower economic performances at the level of both farms and the whole industry when compared to the EU-15. Family farms (the largest majority of the holdings in all the NMS) have a small average size, which does not stimulate investment and technical innovation. The poor integration of these type of holdings into the agro-food industry supply chains represents a further hindrance to modernisation, which limits market access and the interest of farmers for capital investment. This implies the persistence of obsolete labour-intensive techniques, a reduced use of inputs and

([16]) For more detailed information, see the Annex.

equipment per hectare of land and per work unit, lower yields, and lower labour productivity. Despite the low levels of total expenditure for agricultural inputs, low crop and livestock yields often entail higher input costs per unit of product and a lower compensation for land and labour.
Various forms of subsistence or semi-subsistence farming are still practiced in the NMS, with a production mix unfavourable for market integration of small holdings. Constrained by the need of satisfying self-consumption, family holdings maintain a scarce specialisation and production mainly oriented toward basic commodities (e.g. grains and many livestock products characterised by an insufficient value added when practised on a small scale). All these elements are at the origin of remarkable low average farm income in the NMS. The EU integration process goes along with a reduction of the structural gap between the EU-15 and the NMS agriculture. In the EU-15, the use of inputs is progressively decreasing. The NMS also experienced a decline in input use, but a slight increase is taking place after the Accession. This trend is accompanied by the increase in the yields from most common crops: in particular, wheat and other cereals (except for Poland, Lithuania and Cyprus), and oilseeds (except for Lithuania).
The agricultural working population and labour input are diminishing and this trend involves all the EU countries, especially the NMS. The average size of the holdings is reducing, and this is particularly influenced by the situation of Poland, which accounts for nearly two thirds of all the NMS holdings. Opposite trends can however be observed among the different countries: in general, the number of medium and large farms is growing, but in several areas this is counterbalanced by the increase of very small farms. The Baltic States and the Czech Republic are experiencing an important enlargement of average holding size. Besides Malta and Cyprus, micro-farming is particularly resilient in Poland, Hungary, Slovakia, and Slovenia.

Land-use variations show that many NMS are facing an adaptation process. However, changes are not relevant with respect to the structural framework described above. During the years 2004 and 2005, the dynamics of agricultural output prices (real terms) have been positive for the Baltic States and Cyprus. Poland and the Czech Republic benefited from a price growth only in 2004. Slovenia, Slovakia, Hungary and Malta have suffered from a price decline in both years. In the same period, the EU-15 average output prices have continued to follow a downward long-term trend. Industrial crops and livestock have recorded the most favourable price variations in the NMS. The cereal prices drop has caused the major difficulties because of the wide area affected by these crops. Input prices are rather stable or increasing in the NMS, specially in Cyprus, Latvia, and Poland. As a consequence, the output/input ratio continued to deteriorate. On the contrary, in the EU-15 average input prices have recorded a decreasing trend in 2005.
In the first year after the Accession, except for Malta and Cyprus, the income of NMS farmers rose at an extraordinarily rapid pace, but the gap with the EU-15 was not significantly reduced. In the following year, the income has been quite stable, whereas in the EU-15 it has suffered from a severe contraction.

The NMS competitive position in the EU agro-food markets is significantly improving after the Accession. In the first two years, the total value of NMS international trade has grown at an annual average rate of 19.2%; the trade value of the agro-food industry increased even more rapidly, at an annual average rate of 28.6%. Nonetheless, the share of the agro-food trade in total NMS trade value is still small if compared to the EU-15, with good possibilities for a further growth. The increase of exchanges has modified the geographical structure of NMS agro-food trade flows, by bringing a very important intensification of commerce with the EU-15 and, to a lesser extent, among the NMS. At the same time, extra-EU trade has risen only on the export side. This evolution has been particularly favourable for the Czech Republic, Latvia, Lithuania, Slovakia, and Poland, where agro-food exports have grown significantly faster than import and the industry trade balance has therefore improved. Only three NMS are net exporters of agro-

food products. However two of them, Poland and Hungary, represent the biggest NMS agricultural producers. With the third net exporter, Lithuania, they concentrate almost three fourths of the total NMS agricultural output. Especially Poland and Lithuania are consolidating an important trade surplus, which has been only recently achieved. As a result of all these trends, the agro-food trade balance of the NMS (considered as a single aggregate) has improved in the last years: the value of the normalised balance indicator has risen from –0.07 in 2001 to 0.00 in 2005. On the contrary, Hungary has lost its ranking position as the biggest NMS agro-food exporter by halving trade surplus between 2001 and 2005. As a matter of fact, in this country, export growth has not counterbalanced the increased penetration of products from the rest of the EU.

NMS farmers' integration into the up- and down-stream sectors of the agro-food industry continues to be largely insufficient, especially if compared to the EU-15. The conditions created by the political events and the agricultural policy choices taken during the 1990s economic reforms were not favourable to the improvement of independent individual farmers' condition in the food-supply chains. The collapse of the former socialist economic infrastructure turned into more isolation for small agricultural producers, land de-collectivisation did not remove farm dualism, and the privatisation of agro-industry, for the most, was not tailored for individual farmers, who lacked adequate organisation in order to take part in the process effectively. The situation is different for large corporate and cooperative holdings derived from the privatisation of former collective farms. Because of their huge production capacity, these holdings are the privileged suppliers of big processors and commodity traders.

Only in recent years, thanks to the market stabilisation, individual farmers have slowly improved their position, but their organisational capacity remains insufficient. The Accession process including the alignment to the EU *acquis* has been positive for the consolidation of this trend, and an interesting evolution has been observed in those countries and sectors where new legislations on producer groups and associations have met the needs of independent individual farmers. Where the farm dualistic structure has been maintained, organisations of big producers are currently gaining important positions within the market infrastructure. In these areas, the possibilities of small producers are limited to those sectors, like fruit and vegetables production and sale, where large farms have more difficulties to operate.

2. Operation of the policy measures

2.1. EU Pre-Accession Support Initiatives

The Phare, ISPA, and SAPARD programmes are specific tools for the expansion of the EU Enlargement policies towards the CEEC – Central and Eastern European Countries ([17]). The Phare programme was created in 1989 to support Poland and Hungary, and it was then extended to other CEEC. Since 1993, when the EU Council encouraged the CEEC to apply for the EU membership, and since 1997, when the process of the 2004 EU Enlargement started, the Phare actions have focused on pre-Accession issues. In 1999, with the implementation of the Agenda 2000, the Phare objectives were specifically addressed to the institutional setting up, the convergence of CEEC legislation within the EU *acquis*, and the socio-economic cohesion, while the ISPA and SAPARD programmes were created for specific pre-Accession strategies concerning the environment and the transport infrastructures (ISPA), and the agriculture and rural development (SAPARD). Yet, as the SAPARD was limited to agricultural development measures, the institutional setting up and implementation of the EU *acquis* in the field of agriculture continued to be financed by the Phare programme ([18]).

2.1.1. Phare instruments and institutional building in NMS agriculture

Two of the main Phare instruments for the institutional building-up of the programme are the TAIEX (Technical Assistance and Information Exchange Instrument) and the Twinning programme. Since 1996, TAIEX provides for technical assistance in the approximation and implementation of the EU legislation in the Accession countries on a short-term basis ([19]). Started in 1998, the Twinning programme is aimed to establish long-term partnerships between public institutions of the EU member states and the candidate countries in order to implement in the latter the *acquis communautarie* ([20]). After the Accession, the NMS are still continuing to receive TAIEX and Twinning assistance.

Agriculture represents a relevant part in TAIEX and Twinning initiatives. Between 2003 and 2005, out of a total of 3,445 TAIEX events, 502 (15%) were concerned with agriculture and food safety (EU Commission – TAIEX Unit, 2003, 2004, and 2005), and 176 of the 1,110 Twinning projects financed between 1998 and 2005 in the NMS and candidate countries were in the agriculture and fisheries industry ([21]).

([17]) From 2007, Phare, ISPA and SAPARD, with the Turkey pre-Accession instruments and the Western Balkans' CARDS (Community Assistance for Reconstruction, Development and Stabilisation) will all converge into the new Instrument for Pre-Accession Assistance (IPA).

([18]) See also in the Annex 'Pre-accession policy background'.

([19]) TAIEX develops activities also in the EU candidate countries, the Western Balkans, and recently in Russia and in the other countries of Eastern Europe, Caucasus, Middle East and North Africa involved in the EU Neighbourhood Policy; interventions include short-term expertise, study visits, seminars, workshops, other information, translations and monitoring.

([20]) In a Twinning project, a public institution of an EU Member State supports one of its experts to work full time for up to two years in a corresponding institution of a candidate country in order to assist the implementation of some aspects of the *acquis communautaire*; the long-term expert can be sided by other short term experts. NMS, candidate and potential candidate countries are eligible for twinning projects.

([21]) Major CEEC beneficiaries of Twinning have been Poland (38 projects), Romania (27 projects), Lithuania (20 projects), Bulgaria (18 projects) and Hungary (14 projects) (EU Commission – DG Enlargement, 2006).

Considering the whole Phare support to the CEEC agricultural industry prior to the Accession ([22]), Twinning has been the preferred tool for assistance, while traditional technical assistance represented a secondary solution. In general, when a project provided for an already existing CEEC institution or technical service to learn to operate according to the EU *acquis*, the result was achieved; but when it was necessary to create a new institution or a new service, the effectiveness of the Phare programme assistance was weaker. This was not attributed to some malfunctioning of the Phare system, but rather to the CEEC's lack of organisational capacity and to the early political commitment with respect to the difficult administrative tasks required by the CAP (EU Commission – DG Enlargement, 2004, pp. 42-44).

Table 2.1. NMS achievement of commitments and requirements for EU membership as regards CAP institutions and services on the eve of the Accession*

Type of CAP Institution/Service	*CZ*	*EE*	*HU*	*LV*	*LT*	*PL*	*SK*	*SI*	*Average*
Paying agency	1	1	0	1	1	0	0	2	*0.75*
Integrated Administration Control System (IACS)	1	1	0	1	1	0	0	2	*0.75*
Trade mechanisms	1	1	1	1	1	1	1	2	*1.13*
Quality policy	2	2	2	2	2	2	2	2	*2.00*
Organic farming	2	2	2	2	2	2	2	2	*2.00*
FADN	2	2	2	2	2	2	2	2	*2.00*
State aid	2	2	2	2	2	2	2	2	*2.00*
- Horizontal measures (total average)	*1.57*	*1.57*	*1.29*	*1.57*	*1.57*	*1.29*	*1.29*	*2.00*	*1.52*
CMO arable crops	2	2	2	2	2	2	2	2	*2.00*
CMO fruit and vegetables	2	2	2	2	2	2	2	2	*2.00*
CMO wine	1	2	1	2	2	2	1	2	*1.63*
CMO olive oil	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2	*2.00*
CMO sugar	1	n.a.	1	1	2	2	1	1	*1.29*
CMO milk	2	1	2	1	1	1	2	1	*1.38*
CMO beef meat	1	2	2	1	1	1	1	2	*1.38*
CMO sheep and pig meat	2	2	2	2	2	2	2	2	*2.00*
CMO eggs and poultry	2	2	2	2	2	1	2	2	*1.88*
Rural development	2	2	0	2	2	1	2	2	*1.63*
- CMO and rural development (total average)	*1.67*	*1.88*	*1.56*	*1.67*	*1.78*	*1.56*	*1.67*	*1.80*	*1.70*
TSE and animal by-products	1	1	1	0	1	0	1	2	*0.88*
Animal disease control	1	2	2	1	2	2	2	2	*1.75*
Animal welfare	1	2	2	1	1	1	2	2	*1.50*
Zoo-technics	1	2	2	2	2	2	2	2	*1.88*
Animal nutrition	1	1	2	2	2	1	2	2	*1.63*
Phytosanitary	1	1	1	1	1	0.5	1	2	*1.06*
Vet control systems in the internal market	1	1	1	1	1	0.5	1	1	*0.94*
Trade in live animals and animal products	1	1	2	1	2	1	2	1	*1.38*
Public health in agro-food establishments	0	1	0	1	1	0	0	1	*0.50*
Common measures	1	1	1	1	1	1	1	1	*1.00*
- Sanitary and phytosanitary (total average)	*0.90*	*1.30*	*1.40*	*1.10*	*1.40*	*0.90*	*1.40*	*1.60*	*1.25*
Total average	**1.35**	**1.56**	**1.42**	**1.42**	**1.58**	**1.23**	**1.46**	**1.78**	**1.47**

** legend: 2 = requirements and commitments essentially met; 1 = partially met; 0.5 = partially met but not met for some basic issues; 0 = not met.*
Source: own elaboration from EU Commission, COM (2003) 675 final.

([22]) Total Phare 1999-2002 allocations for CEEC agricultural industry amounted to 345.9 million €, out of which 40% in Poland, 13% in Hungary, 10% in Romania, 9% in Bulgaria, 8% in the Czech Republic, 7% in Lithuania, 4% each in Estonia and in Slovakia, and 2% each in Latvia and Slovenia (EU Commission – DG Enlargement, 2004).

On the eve of the Accession, the best achievements of NMS institutions and technical services with respect to the necessary requirements for CAP implementation had been obtained in the Common Market Organisations (CMO) – with some problems in the sugar, milk, and beef sectors – and in the Rural Development Policy. In the field of sanitary and phytosanitary measures, results were in general partial, especially for public health in the food and agricultural establishments, while the horizontal measures sector was characterized by a contrast between positive outcomes obtained by all countries in quality policy, organic farming, FADN, and national aids, and the very limited implementation of the paying agencies, the Integrated Administration Control Systems (IACS), and of the trade mechanisms. Comparing the different countries, Slovenia showed to have essentially met the requisites in almost all sectors, whereas Poland and the Czech Republic seemed to be distinctly late with respect to the NMS average (EU Commission, COM (2003) 675 final; see the synthesis elaborated in Table 2.1.).

2.1.2. Pre-Accession Rural Development Policy: the SAPARD

Aimed to introduce an EU-styled rural development policy in the CEE Enlargement countries and to facilitate the achievement of the EU *acquis* in this sector, the Special Accession Programme for Agriculture and Rural Development (SAPARD was scheduled to start in 2000, but the first country effectively starting its implementation was Estonia as late as June 2001, and the last ones were Poland and Hungary in July and September 2002, respectively. Reasons for these delays were manifold, all however traceable to the weakness of CEEC administrative-institutional infrastructures, which mostly resulted in late accreditation of SAPARD Agencies and in the postponed adoption of respective national legislations ([23]).

At the end of 2003, SAPARD commitments covered less than 20% of planned EU expenditure (see Table 2.2) ([24]). However, the delay was recovered during the first two years after the Accession: at the end of 2005, SAPARD commitments reached 94.4% of the EU financial plans. Further finance was also pledged from the Temporary Rural Development Instrument (TRDI) ([25]), so that the total EU 2000-2005 contribution to SAPARD resulted 8.5% higher than the original financial plan (compare total values reported at Table 2.2. and Table 2.3).
At the end of 2005, a total amount of 34,451 projects had access to SAPARD financing in the 8 CEEC NMS, with an average EU contribution of about 42,000 € per project. More than 70% of

([23])Main factors that hindered the building-up and the functioning of the administrative-institutional structure necessary to the programme implementation have been identified by various SAPARD reports as follows: insufficient investment and technical support at the start of the programme; inefficient communication among involved institutions; high instability of personnel and lack of appropriate human capacities; lack of teamwork and fluctuation of management; scarce attention and effort dedicated to institutional building by the political leaderships; shortcomings in partnership consultations; strongly centralised organisational structures; complicated procedures and heavy bureaucracy; too much time taken for evaluation after projects' application; massive submission of applications by farmers on the deadline date; serious shortcomings as for monitoring. Often when a project required a package of references and certificates issued by various institutions, an unexpected delay in obtaining some document could cause the missing of the submission deadline, etc.

([24])According to co-financing rules, EU funds can cover up to 75% of public expenditure for SAPARD projects, the remainder (a minimum 25% of total public expenditure) has to be provided by beneficiary countries. For SAPARD investments generating revenues at least 50% of total expenditure should be provided by private resources. Technical assistance related to the programme implementation is fully financed by the EU. From the financial plans agreed in 2000 between the EU and the national governments, it results that 42% of total SAPARD expenditure in the eight NMS would have been financed from the EU budget, 14% from national budgets, and 44% from private resources (our calculations from SAPARD National Plans 2000-2006).

([25])TRDI is a specific EU financial tool created to implement the Rural Development policy in the NMS along the 2004-2006 period. NMS have been allowed to use their TRDI resources also for SAPARD projects when the apposite funds are exhausted.

projects were set in Poland, which were entitled of more than half of the total EU financial aid; Hungary received 12%; Lithuania, the Czech Republic, Latvia, and Slovakia between 5% and 10%; Estonia and Slovenia less than 5%.

Table 2.2. SAPARD: EU financial plan, expenditure, number of projects and EU average contribution per project in the NMS

Country	*EU financial plan 2000-2003*		*EU expenditure 2000-2005 (000 €)*	*expenditure / fin. plan*		*Projects 2000-2005*	
	000 €	*%*		*at 31 Dec. 2003*	*At 31 Dec. 2005*	*n.*	*EU average contribution* (€)*
Czech Rep.	92,788	7.0%	88,148	0.0%	95.0%	1,685	64,520
Estonia	51,043	3.8%	48,491	52.2%	95.0%	1,531	34,945
Latvia	91,884	6.9%	86,965	31.9%	94.6%	1,725	55,047
Lithuania	125,448	9.4%	119,176	28.3%	95.0%	870	151,923
Hungary	160,039	12.0%	144,257	5.9%	90.1%	2,682	65,334
Poland	709,410	53.2%	673,939	20.0%	95.0%	24,458	31,511
Slovenia	26,653	2.0%	25,318	27.1%	95.0%	563	51,594
Slovakia	76,916	5.8%	73,070	12.2%	95.0%	937	89,191
NMS-8	**1,334,180**	**100.0%**	**1,259,364**	**19.4%**	**94.4%**	**34,451**	**42,028**

** EU contribution to SAPARD projects in 2004 and 2005 also includes financial aid from the TRDI.*
Source: own elaboration from EU Commission – DG Agri, 2006-c.

Out of the 12 SAPARD measures available ([26]), only four have been implemented by all the eight CEEC new members: altogether these measures have gathered 95% of the total projects and 94% of the total EU contribution: the measure on 'Investment in agricultural holdings' has collected more than half of the projects and received almost one fourth of total EU funds; 'Processing and marketing of agricultural products', 7% of the projects and one third of the EU funds; 'Diversification of farm activities', 17% of the projects and nearly one tenth of the EU funds; 'Rural infrastructures', 17% of projects and 29% of the EU funds; both 'Renovation of villages and protection of rural heritage' and 'Land improvement and re-parcelling' had about 2% of EU funds; the remaining measures received less than 1% each (see Table 2.2.) ([27]).

Only the Czech Republic and Slovakia have implemented 10 measures, Latvia implemented 7 measures and the other NMS only 5 or 6 measures. In general, these countries tended to concentrate most of SAPARD resources into farm investments and in the processing and marketing of agricultural products; investment in rural infrastructure has been particularly important in Poland and Hungary, while the diversification of farm activities was relevant in Latvia and Estonia, land improvement and re-parcelling in the Czech Republic and Slovakia, renovation of villages and protection of rural heritage in the Czech Republic.
Because of the slowness in the opening phase, large part of SAPARD projects were implemented after the 2004 EU Enlargement. This aspect has reduced the programme's original function of becoming a pre-Accession instrument, and actually it started to act as an additional tool of the EU Rural Development policy in the NMS.

([26])A 13th measure on 'Water resources management' was introduced later and made available for Bulgaria and Romania.

([27])The distribution of total SAPARD resources among the different measures has been largely influenced by decisions taken in Poland, since more than half of the EU finance for the programme had been entitled to this country. E.g., excluding Poland, expenditure for 'Rural infrastructures' represent only 14% of the total EU SAPARD contribution in the other 7 countries, with Poland the share of this measure increase to 29% of total EU contribution.

Table 2.3. SAPARD: types of measures, EU contribution, number of projects, and average contribution per project by type of measure in the NMS-8 (2000-2005).

Types of measures (and implementing countries)*	*EU contribution as committed by NMS***		*Projects and average EU contribution*	
	(000 €)	*%*	*n.*	*€*
Investment in agricultural holdings (all NMS-8)	334,622	23.1%	18,490	18,097
Processing & marketing of agric. products (All NMS-8)	477,827	33.0%	2,466	193,766
Structures for quality, veterinary controls (CZ)	8,104	0.6%	227	35,700
Environm. friendly agricultural practices (CZ-SK)	1,560	0.1%	46	33,908
Diversification of activities (All NMS-8)	130,053	9.0%	5,927	21,943
Setting up producer groups (SK)	554	0.0%	6	92,250
Renovation of villages, protect. of heritage (CZ-EE-HU)	35,212	2.4%	539	65,329
Land improvement and re-parcelling (CZ-SK)	26,988	1.9%	419	64,409
Vocational training (CZ-LV-LT-PL-SK)	8,843	0.6%	157	56,323
Rural infrastructures (All NMS-8)	418,308	28.9%	5,766	72,547
Forestry measures (LV-SK)	3,109	0.2%	291	10,683
Technical assistance (CZ-LV-LT-HU-PL-SI-SK)	2,711	0.2%	117	23,173
Total	**1,447,891**	**100.0%**	**34,451**	**42,028**

** The Czech Republic and Slovakia have implemented 10 measures, Latvia 7 measures, Lithuania, Hungary, and Poland 6 measures, Slovenia and Estonia 5 measures.*
*** The amount of EU contribution is in some country higher than in the original financial plan since, after the Accession, NMS are allowed to commit TRDI funds for SAPARD projects in the case that the relevant funds were exhausted.*
Source: own elaboration from EU Commission – DG Agri, 2006-c.

One of the main interesting aspects of the SAPARD programme was the fact that, by functioning through a fully decentralised management of the EU aid, the former CEEC Accession countries could experience the running of CAP rural policy in a similar way as they were already EU members. As a consequence, the post-Accession passage from SAPARD to CAP Rural Development implementation was considerably made easier; taking into account the complexity and the sophisticated organisation of the CAP Second Pillar, this was a remarkable advantage.

With regard to the types of measures implemented by beneficiary countries, a large preference has been given to technical and infrastructural investments, but the limited financial endowment of the SAPARD programme - NMS average allocation from the EU budget has been about 92 €/year per work unit and 10 €/year per ha of agricultural surface area for the period 2000-2003 - could not allow for a decisive impact on the whole NMS agro-food system.

Very scarce resources have been committed for qualitative aspects of agricultural sustainable development: measures related to quality and sanitary controls, environmental-friendly agriculture, producer groups, vocational training, and technical assistance altogether collected only 1.5% of total 2000-2005 EU contribution and were implemented by few countries if compared to the other types of measures. This indicates the need to enhance the interest for these issues at a political and institutional level in order to improve the situation of NMS institutions with respect to several fundamental aspects of the *acquis communautaire* in the agricultural industry, as outlined in the previous chapter.

2.2. Implementation of the Rural Development Policy in the NMS

Table 2.4. sums up the organisation of the CAP RD policy in the NMS, by indicating the financial instruments, the EU budget allocations, the policy measures, the and relevant programming tools.

Table 2.4. Rural Development Policy in the NMS: financial instruments, EU budget allocations 2000-2006, policy measures, and programming tools

SAPARD	*TRDI*	*EAGGF-Guidance*
Total EU allocation (2000-2003 financial plan): **€ 1,334,180,000**	Total EU allocation (2004-2006 financial plan): **€ 5,760,000,000**	Total EU allocation (2004-2006 financial plan): **€ 2,152,641,000**
SAPARD measures: • Investment in agricultural holdings • Processing & marketing of agricultural products • Structures for quality, veterinary controls • Environmental friendly agricultural practices • Diversification of activities • Setting up producer groups • Renovation of villages, protection of rural heritage • Land improvement and re-parcelling • Vocational training • Water resource management • Rural infrastructures • Forestry measures • Technical assistance	**Accompanying measures:** • Early retirement • Less favoured areas • Agri-environ. and animal welfare • Afforestation of agricultural land **CAP Reform measures:** • Meeting EU quality standards: temporary support / support advisory services • Food quality: incentive scheme / promotion **Specific new measures for NMS:** • Semi-subsistence farming restructuring • Topping-up direct payments • Setting up of producer groups • Technical assistance	**Other RD measures in Objective 1 regions*:** • Investment in agricultural holdings • Young farmers • Training • Forestry • Processing and marketing • Adaptation and development of rural areas (Article 33 measures, plus the specific new measure for NMS on extension of advisory services) **Leader+:** programmes / measures, plus the specific new measure for NMS on institutional building at local level
Programming tool: **pre- Accession SAPARD Programmes (in 8 NMS: CZ, EE, LV, LT, HU, PL, SI, SK)**	Programming tool: **Rural Development Programmes (in all the 10 NMS)**	Programming tool (only for RD measures in Objective 1 regions): **Operation Programmes* (in 9 NMS: CZ, EE, LV, LT, HU, MT, PL, SI, SK)**

** In the case of Cyprus these measures are financed through the TRDI ([28])*
*** 4 CSF-Operational Programmes (in CZ, HU, PL, SK) and 5 Single Programming Documents (in EE, LV, LT, MT, SI) ([29])*
Source: own elaboration from EU Commission – DG Agri, 2003, 2004, 2006-c.

The main features of the CAP Rural Development (RD) Policy in the NMS are:

- the special fund, i.e. the Temporary Rural Development Instrument (TRDI), established by the Guarantee Section of the EAGGF to implement the RD policy in the NMS during the 2004-2006 period;

([28])These RD measures are eligible to financing from the EAGGF-Guidance only in Objective 1 regions, otherwise they are funded through the EAGGF-Guarantee (or the TRDI in the NMS). Except Cyprus, all NMS territory is included in Objective 1.

([29])The Community Support Frameworks implemented through Operational Programs (CFS-OP) represent the proper programming documents for Objective 1 initiatives; all the NMS that operates with CFS-OP have chosen to plan rural development by a specific Sector Operational Program (SOP), and the managing authority is always the Ministry of Agriculture. The Single Programming Documents (SPD) are used for Objective 1 programs which spend less than 1 billion € In this case the managing authority is the Ministry of Finance, while the Ministry of Agriculture receives implementing tasks.

- the specific new RD measures set-up for NMS, including the option for these countries to use RD funds to top-up direct payments;
- the inclusion of almost all NMS territory, except Cyprus, among the Objective 1 regions;
- the overlapping, between 2004 and 2006, with the implementation of most of the SAPARD projects, which in the NMS operatively accompany the specific CAP 2004-2006 RD measures and have also been admitted to use TRDI funds in case that the relevant SAPARD funds are exhausted.

The total 2000-2006 EU allocation of CAP RD policy in the NMS, including SAPARD, amounts to € 9.25 billion, out of which € 5.76 billion (or 61.7%) from TRDI 2004-2006 allocations, € 2.15 billion (23.3%) from the EAGGF-Guidance 20004-2006 allocations, and € 1.33 billion (14.4%) from the SAPARD. TRDI and EAGGF-Guidance allocations are from the 2004-2006 budget, the SAPARD from 2000-2003. The provision for NMS corresponds to 14.7% of total EU 2000-2006 finance for the EU-25 RD policy. If we consider only the post-Accession period 2004-2006, the NMS have received 31.5% of the total EU-25 RD policy budget for these three years (see Table 2.5.).

Table 2.5. Rural Development Policy in the NMS, EU total budget allocations 2000-2006 by country and financial instrument

Countries	*SAPARD (000 €)*	**TRDI and EAGGF-Guar. (000 €)*	*EAGGF-Guidance (000 €)*	*Total EU allocations 2000-2006*		*Total EU allocations 2004-2006*	
				(000 €)	*(%)*	*(000 €)*	*(%)*
Czech Republic	92,788	542,800	166,650	802,237	8.7%	709,450	9.0%
Estonia	51,043	150,500	56,798	258,341	2.8%	207,298	2.6%
Cyprus	-	74,800	-	74,800	0.8%	74,800	0.9%
Latvia	91,884	328,100	91,848	511,832	5.5%	419,948	5.3%
Lithuania	125,448	489,500	122,899	737,847	8.0%	612,399	7.7%
Hungary	160,039	602,300	312,829	1,075,168	11.6%	915,129	11.6%
Malta	-	26,900	4,200	31,100	0.3%	31,100	0.4%
Poland	709,410	2,866,400	1,192,689	4,768,499	51.6%	4,059,089	51.3%
Slovenia	26,653	281,600	23,569	331,822	3.6%	305,169	3.9%
Slovakia	76,916	397,100	181,159	655,175	7.1%	578,259	7.3%
NMS	**1,334,180**	**5,760,000**	**2,152,641**	**9,246,821**	**100.0%**	**7,912,641**	**100.0%**
EU-15	-	33,035,100	20,533,705	53,568,805	85.3%	17,226,553	68.5%
EU-25	1,334,180	38,795,100	22,686,346	62,815,626	100.0%	25,139,194	100.0%
NMS/EU-25	100.0%	14.8%	9.5%	14.7%	-	31.5%	-

** Budget allocations indicated in this column are financed by the TRDI (2004-2006) in the case of the NMS, and by the EAGGF-Guarantee (2000-2006) in the case of the EU-15.*
Source: own elaboration from EU Commission – DG Agri, 2006-c.

The distribution among the NMS of the EU provision shows the same situation already seen for the SAPARD, with Poland receiving more than half of the total, Hungary (11.6%) in second top position, the Czech Republic, Slovakia, Lithuania, and Latvia receiving between 5% and 10%, and the other remaining countries less than 5% of the total.

In the period 2004-2006, total contribution from national financing to implementation of NMS RD and Objective 1-Agriculture programmes amounts to € 2,488.353 million, or 31.4% of the total TRDI and NMS Guidance budget, which brings the total public finance devoted to NMS 2004-2006 RD policy (national funds + EU funds) to the sum of € 10,412.04 million. Except Cyprus, whose national contribution is even higher than the EU assignments, the NMS national

contribution varies from 25.4% (in the case of Latvia) to 34.3% (in the case of Slovenia) of the sums provided by the EU ([30]). In the EU-15, the average contribution from national budgets to CAP RD finance for the 2000-2006 period is equal to 85.3% of the EU allocations in the Guidance and RD-Guarantee funds ([31]).

Despite almost the entire NMS territory is included in Objective 1, the ratio between NMS Guidance and TRDI funds is only 0.37, while in the EU-15 the ratio between the Guidance and the RD Guarantee funds (that correspond to TRDI in the EU-15) is 0.62. Among the NMS, the countries displaying the most significant differences in this ratio with respect to the NMS average are, on the one side, Slovenia (0.08), Malta (0.16), and Latvia (0.25), and, on the other side, Slovakia (0.46) and Hungary (0.52).

The total 2000-2006 EU allocation in the NMS averagely results in € 2,632 per work unit (AWU) and in € 277 per ha of Utilised Agricultural Area (UAA) for the whole 7-year period, corresponding respectively to 28.5% and 66.7% of the EU-15 averages for the same period. However, if we consider only the post-Accession 3-year period (2004-2006), values are by far more balanced: in the NMS, the average allocation per AWU has amounted to € 2,252, 75.8% of the EU-15 average, which is off-set by 237 € per ha of UAA, equivalent to 177.4% of the EU-15 average. Differences among NMS are also significant, with the exception of Malta: the allocation per work unit varies between 78% (Hungary) and 253% (Slovakia) of the NMS average, the allocation per ha between 66% (Hungary) and 263% (Slovenia) of the NMS average. In addition, there is often no compensation between the two indicators (see Table 2.6.).

Table 2.6. Rural Development Policy in the NMS, average EU total allocation per work unit (AWU) and per ha of Utilised Agricultural Area (UAA) in 2000-2006 and in 2004-2006 periods by country and comparison with the EU-15

Country	*2000-2006* Financial Plan*				*2004-2006* Financial Plan*			
	€/AWU	*index*	*€/ha*	*index*	*€/AWU*	*index*	*€/ha*	*index*
Czech Republic	5,113	1.94	221	0.80	4,522	2.01	195	0.82
Estonia	6,830	2.60	335	1.21	5,481	2.43	269	1.14
Cyprus	3,416	1.30	473	1.71	3,416	1.52	473	2.00
Latvia	3,758	1.43	312	1.13	3,083	1.37	256	1.08
Lithuania	4,877	1.85	283	1.02	4,048	1.80	235	0.99
Hungary	2,065	0.78	183	0.66	1,758	0.78	156	0.66
Malta	7,233	2.75	3,249	11.74	7,233	3.21	3,249	13.72
Poland	2,081	0.79	293	1.06	1,771	0.79	249	1.05
Slovenia	3,653	1.39	676	2.44	3,359	1.49	622	2.63
Slovakia	6,457	2.45	339	1.22	5,699	2.53	299	1.26
NMS	**2,632**	**1.00**	**277**	**1.00**	**2,252**	**1.00**	**237**	**1.00**
EU-15	9,241	3.51	415	1.50	2,972	1.32	134	0.56
EU-25	6,747	2.56	387	1.40	2,700	1.20	155	0.65
NMS/EU-15	28.5%		66.7%		75.8%		177.4%	

** RD 2000-2006 allocation in the NMS includes the 2000-2003 SAPARD, and the 2004-2006 TRDI and EAGGF-Guidance budgets. The NMS 2004-2006 allocation does not include the SAPARD. EU-15 allocation includes the Guidance and the RD budget of the EAGGF-Guarantee of the periods indicated in the columns.*
Source: own calculations from EU Commission – DG Agri, 2006-c (for data on EU budget allocation); EUROSTAT on-line database, updated at 26 Oct. 2006 (for AWU data, which refer to year 2005); EU Commission – DG Agri, 2006-a (for UAA data, which refer to year 2004).

([30]) Own calculations from: EU Commission – DG Agri, 2004-a.
([31]) Own calculations from: EU Commission – DG Agri, 2003-b.

Among the 29 types of measures available in the NMS RD package, only 6 result to be implemented in all ten countries, namely: Investment in agricultural holdings; Improving the processing and marketing of agricultural products; Technical assistance ([32]). Agri-environment; Compensatory payments for less favoured areas (LFA) and areas subject to environmental constraints (see Table 2.7.); Complements to direct payments. It should be noticed that only Technical assistance is provided to the group of NMS specific measures, and is not directly addressed to farmers, but rather it is finalised to assist implementation of RD programmes. The other four most used measures consist in contributions to investments in farms or food-processors, and in additional financial aid to farmers of less favoured areas or complying with environmental-friendly farming practices; these contributions are also available for EU-15 farmers. Among the specific NMS measures, the Support for compliance with EU standards has been implemented in 8 countries; Support for semi-subsistence farms undergoing restructuring in 7 countries; Support to set up producer groups and the Leader+ type measures in 6 countries; Setting up young farmers in 5 countries; and Support for setting farm advisory and extension services in 4 countries.

Table 2.7. Rural Development Policy in the NMS, RD measures by number of implementing countries, and countries by number of measures implemented

Measures	*Countries n.*	*Measures*	*Countries n.*	*Countries*	*Measures n.*
Investment in agr. holdings	10	Leader+ type measure	6	Poland	21
Processing and marketing	10	Young farmers	5	Hungary	21
Tech. assistance (TRDI & Guid.)	10	Land improvement	4	Latvia	20
Agri-environment	10	Farm advisory & extension serv.	4	Lithuania	19
Less favoured areas	10	Renovation of villages	4	Cyprus	17
Topping-up direct payments	10	Water resources	4	Estonia	15
Forestry	8	Tourism, craft activities	4	Czech Rep.	15
Compliance with EU standards	8	Re-parcelling	3	Slovakia	14
Vocational training	7	Agricultural infrastructure	3	Slovenia	11
Diversification of agr. activities	7	Natural disasters	2	Malta*	8
Early retirement	7	Agri-envir. and animal welfare	2		
Afforestation of agr. Land	7	Marketing of quality products	2		
Semi-subsistence farms	7	Basic services for rural econ.	1		
Producer groups	6	Financial engineering	0		

** Plus two special measures for Malta.*
Source: Own elaboration from EU Commission – DG Agri, 2004-a.

A first group of countries formed by Lithuania, Latvia, Hungary, and Poland implemented between 19 and 21 measures; Slovenia, Slovakia, the Czech Republic, and Estonia between 11 and 15 measures; Cyprus 16 measures and Malta 7 measures, plus two more special measures expressly created for this country. The countries' single choices have been influenced by the variability of the structural conditions in the relevant agricultural industries: e.g., countries like the Czech Republic, Slovakia and Slovenia which present a relatively homogeneous agricultural structure either in terms of types of farms and in term of agri-environmental conditions

([32]) Technical assistance to implementation of the RD policy in the NMS includes provisions in both the TRDI and the Guidance funds.

implemented relatively fewer measures than countries like Poland and Hungary where the situation is more diversified.

At the end of 2005, the commitments from the 2000-2006 EU budget provisions for NMS RD policy covered 94.4% of the SAPARD fund, 35.5% of the TRDI, and 41.2% of the NMS EAGGF-Guidance, which resulted in a comprehensive 41.2% of total EU provisions, compared to a 72.1% in the EU-15 (EU Commission – DG Agri, 2006-c). However, if we take into account the same commitments made by NMS up to the end of 2005 and the EU provisions up to this date, we can observe that the level of implementation is 55.8% for the TRDI, and 41.2% for the Guidance funds, which, together with the SAPARD programme, bring the RD policy implementation to 61.2% of total 2000-2005 EU budget allocations. This can be considered a satisfactory result, even if, compared with the 85.2% attained by the EU-15 countries, which started a full RD policy already in 2000 and had previous experience of the accompanying measures and other EU RD-type policy during the 1990s (see Table 2.8.).

Except the case of Cyprus, where commitments from the EU 2004-2005 RD budget ([33]) at the end of 2005 were 35.2% of the provisions, and Estonia with a value of 78.2% in this same ratio, there are no wide gaps among the other eight NMS at the level of RD policy implementation, which ranges between 58-59% (Hungary, Poland, Malta), 62-64% (Slovakia, Lithuania) and 66-71% (the Czech Republic, Slovenia, Latvia). It is worth noticing that, with Cyprus, the only other country that did not experience the SAPARD, i.e. Malta, has one of lowest level of implementation: 58.7%, almost the same as Hungary and Poland, which are compared with the two most important NMS RD policies in terms of both the country budget and the number of implemented measures.

Table 2.8. Level of Rural Development Policy implementation in the NMS as ratio between commitments and EU Financial Plans

	SAPARD	*TRDI (EAGGF-Guar.)**		*EAGGF-Guidance*		*Total RD policy*	
	**	***	****	***	****	***	****
Czech Republic	95.0%	67.2%	42.7%	35.1%	19.9%	66.3%	44.0%
Estonia	95.0%	67.2%	42.7%	84.1%	46.9%	78.2%	54.0%
Cyprus	-	35.2%	22.4%	-	-	35.2%	22.4%
Latvia	94.6%	59.3%	37.7%	75.4%	46.8%	70.9%	49.6%
Lithuania	95.0%	60.1%	38.2%	26.9%	16.1%	63.9%	44.2%
Hungary	90.1%	51.3%	32.6%	41.7%	23.7%	57.6%	38.6%
Malta	-	63.0%	40.0%	28.2%	16.0%	58.7%	36.8%
Poland	95.0%	52.0%	33.1%	37.9%	21.5%	58.5%	39.4%
Slovenia	95.0%	66.3%	42.2%	29.7%	16.9%	67.5%	44.6%
Slovakia	95.0%	57.3%	36.5%	47.9%	27.2%	61.8%	40.8%
NMS	**94.4%**	**55.8%**	**35.5%**	**41.2%**	**23.6%**	**61.2%**	**41.2%**
EU-15	-	97.2%	82.7%	65.6%	55.0%	85.2%	72.1%
EU-25	95.0%	67.2%	42.7%	35.1%	19.9%	66.3%	44.0%

** TRDI in the NMS, EAGGF-Guarantee in the EU-15.*
*** Commitments 2000-2005 / Financial Plan 2000-2003.*
**** In the NMS: Commitments 2004-2005/ Financial Plan 2004-2005; in the EU-15: Commitments 2000-2005 / Financial Plan 2000-2005 in the EU-15.*
***** In the NMS: Commitments 2004-2005 / Financial Plan 2004-2006; in the EU-15: Commitments 2000-2005 / Financial Plan 2000-2006 in the EU-15.*
Source: own calculations from EU Commission – DG Agri, 2006-c.

([33]) Since it did not participate into the SAPARD, Cyprus does not have EU RD provisions prior to 2004.

According to the annual reports on RD implementation published by single Governments and from information provided by ministerial functionaries, in general there is satisfaction for the design of the RD institutional framework in the various countries, while in the SAPARD starting phase, a number of overlaps among tasks assigned to different institutions had been observed. Monitoring Committees seems to have been properly set up ([34]) and to function adequately.

Main shortcomings have been found in the following aspects: there is the need for more concrete and realistic objectives for the staff to carry out their tasks effectively, and for more appropriate indicators to monitor and evaluate the implementation of the programmes. The coincidence of deadlines for a number of tenders has caused bottlenecks in the programmes' running and has revealed shortage of expert staff. The efficiency of partnership consultation shows a varied picture: e.g., in Hungary consultation with stakeholders is considered at a medium level, in Slovakia seems inadequate, and in Latvia is well functioning. As regards the human resources, the NMS administrative capacity has been significantly burdened by the overlapping between the SAPARD implementation, the planning of current RD programmes and the preparation for the next 2007-2013 financial period. Shortage of expert staff has determined the necessity of changes in the financial provision of the different measures during the implementation phase, and a certain degree of slowness in the project generation activity (e.g. in Hungary). Besides, Malta seems constrained by limited availability of IT support and IT skilled staff. Independent evaluators have been identified in each country, but their expertise needs to be still enhanced.

With respect to the operational systems and tools, it is evident that: the delegation of tasks has been carried out efficiently, guidelines and manuals are available – that was not always the case at the beginning of the SAPARD programme –, promotion and information are widespread, but project generation activity needs to be still improved, and this is a likely consequence of the weakness of farmers' organisations. In the application procedures, it is necessary to better identify the eligibility criteria to avoid changes after calls for projects have been already published, and lack of objectivity in project assessment has been remarked. The programmes' functioning suffers from high fluctuation of personnel that seems an ever-lasting problem in the NMS RD institutions. While programming documents is characterized by a satisfactory quality, evaluation and reporting skills need to be improved: only few countries seems to be able to prepare quality RD reports. The practice in dealing with financial irregularities has been established in all countries.

2.3. Direct payments

The technical background of the SAPS implementation and the related consequences of the current level of direct payments are analysed in depth in the Annex. In this paragraph, we mainly focus on the national strategies concerning the implementation of the SAPS at the national level. Table 2.9. shows some basic data on the implementation of DP in Poland and in the Czech Republic. In Poland, the number of applications corresponds to about three fourth of the agricultural holdings operating in the country, and the area entitled covers more than 80% of the UAA. Main problems encountered in the implementation were coincident with the administrative management of the wide number of application, that resulted in the necessity of providing application forms already partially filled-in and in the delay of payments.

([34]) Except for the gender imbalance that has been remarked in the composition of one Monitoring Committee.

The administrative staff of the offices involved in the management of the DP has increased from 94 units in 1994 to 5,621 units in 2004, and to 8,384 units in 2006. In the Czech Republic, the number of applications correspond to about half of the holdings operating in the country. Because of the main characteristics of the Czech holdings, with a relative predominance of large holdings, amounts averagely paid to beneficiaries are quite higher with respect to the other NMS.

Table 2.9. Data on implementation of direct payments in Poland and in the Czech Republic

Countries	*2004*	*2005*	*2006*
Poland			
SAP (€/ha)	44.46	55.46	69.57
CP arable crops (€/ha)	71.83	70.28	78.93
CP hops (€/ha)	219.78	214.49	242.43
applications, n.	1,396,481	1,486,189	1,470,951
% of authorised applications on total	96.60%	95.00%	
entitled area, ha	13,689,141.41	14,242,278.77	
spot controls, n.	78,021	97,917	
total budget 2004-2006 for CP (Mio €)	705.3		
- of which EU RD funds	76.60%		
Czech Republic			
SAP (€/ha)	56.41	70.87	88.89
CP arable crops (€/ha)	45.58	79.90	
CP hops (€/ha)	133.13	220.46	
CP tow (€/ha)	77.80	173.58	
CP potato starch	46.22	99.08	
CP cows (€/head)		26.20	
CP suckler cows (€/head)		130.20	
CP sheep and goats (€/head)		21.57	
applications, n.	18,757	20,251	21,186
total EU budget for SAP (Mio €)	198.40	249.40	302.43
total budget for CP	160.25	173.89	233.42

Source: reports from local experts.

Table 2.10. Data on direct payments in Hungary

Payments	**2004 before Accession**	**2004 after Accession**	***2005**	**2006**
SAP	-	€ 70.22 /ha	€ 86.21 €/ha	€ 102.29 /ha
CP Beef	-	HUF 34,700 /head	€ 145.26 /head	HUF 40,000 /head
CP Suckler Cows	HUF 40,000 /head	-	€ 130.21 /head	HUF 35,000 /head
CP Cattle Extensification	-	-	€ 48.76 /head	HUF 13,000 /head
CP Ewes meat	HUF 1,600 /head		€ 6.05 /head	HUF 1,500 /head
CP Ewes milk			€ 5.02 /head	HUF 1,200 /head
CP *Rural World*	-	-	€ 4.20 /head	HUF 1,180 /head
CP Dairy	HUF 2,000 /t	-	€ 19.43 /t	HUF 8,100 /t
CP Rice		HUF 59,000 /ha	-	HUF 66,000 /ha
CP Tobacco	HUF 8,000 /ha			
- Virginia type		HUF 740,000 /ha	€ 3 508.42 /ha	HUF 985,000 /ha
- Burley type		HUF 580,000 /ha	€ 2 774.86 /ha	HUF 779,000 /ha
CP Arable Crops		HUF 11,000 /ha	€ 80.92 /ha	HUF 12,765 /ha
CP Nuts		-	€ 120.75 /ha	HUF 31,000 /ha
CP Energy Crops		-		
Cereals & oilseeds			€ 27.00 /ha	HUF 7,600 /ha
Energy grass			€ 32.00 /ha	HUF 20,000 /ha
Short rotation coppice			€ 194.13 /ha	HUF 46,900 /ha

Source: reports from local experts.

The full implementation of complementary payments up to the levels allowed for the country seems to be constrained by an insufficient allocation of financial resources in the national budget.

In Hungary the total amount financed by the EU for 2004 SAPS implementation was € 306 million, the budget for complementary national direct payments was € 365 million.
In Latvia, funding from several sources is being used to finance the EU direct payments until 2013 (from the EU budget and from the national budgets of each country). Before 2006, for financing the direct payments the funding from the Rural Development Plan was used. In 2005, 10% of the maximum amount of the EU direct payments was made available from the budget of the Rural Development Plan.

In addition to the single area payment, farmers in 2005 could apply for another six types of complementary national direct financial aid where the national complementary direct payment for bovine animals and ewes included three types of economic support: for slaughtered or exported bovine animals, for suckler cows and potential suckler cows, for ewes. Thus there were 8 payments of different type in the national complementary payments.

In Latvia, the total area eligible for the financial aid was defined in 1,475,000 hectares. On this basis, given the amount of the national envelope from the EU budget, the single area payment rate was established in € 20.66 per ha for the year 2004, € 26.44 per ha for 2005, and 32.83 €/ha are foreseen for 2006 (Table 2.11.).

Table 2.11. Direct payments in Latvia, 2004-2006

Type of payment	*Amount of support (€/ha)*		
	2004	*2005*	*2006**
Single area payment	19.4	26.44	32.83
Complementary national direct payment			
- arable crops	59.3	68.08	69.54
- fodder areas	16.8	15.64	12.75
Support for less favourable areas of which			
- Category 1	33.00	33.00	33.00
- Category 2	46.00	46.00	46.00
- Category 3	64.00	64.00	64.00

(*) Forecasts.
Source: report from local expert.

Table 2.12. Amount of received area support payments and its share from total amount of payments in Latvia, 2004-2005

Payments	*2004*		*2005*	
	Received support payments, 000 €	*Share from total support payments %*	*Received support payments 000. €*	*Share from total support payments %*
Area payments:	69,501.3	90.3	136,100.5	72.0
- Single area payment	*22,666.6*	*29.5*	*34,630.6*	*18.3*
- Complementary national payments for arable crops and fodder area	*12,439.1*	*16.2*	*52,100.5*	*27.6*
- Support for less favourable areas	*34,395.6*	*44.7*	*49,369.4*	*26.1*
Other payments	7,436.9	9.7	5,2850.5	28.0
Total amount of support payments	**76,938.2**	**100.0**	**188,950.9**	**100.0**

Source: report from local expert.

On the basis of the areas declared in the applications of farmers in 2004 and the administrative inspections performed by the Rural Support Service and the on-the-spot checks, the single area payment was paid 22,666.6 € (29.5% from total area payment), but in 2005 – 34,630.6 € (18.3% from total area payment) (Table 2.12.). The area payment for arable crops was processed for 463,684 ha, or 31.3% of the total eligible land ([35]).

In 2004, EU contribution to Lithuania for SAPS implementation was € 82.07 million. The SAP amount was set at 35.87 €/ha. The area entitled of the financial support extended over ha 2.288 million, nearly 90% of total UAA. The budget for complementary national DP amounted to € 90,47 million. Table 2.13. gives a comprehensive picture of the implementation of direct payments in Lithuania.

In Estonia about € 39,750 million were allocated from national and EU budget for the purposes of the implementation of direct payments during 2004. There were 18,954 applications for the SAP, corresponding to half of the Estonian agricultural holdings, for a total of 818,400 ha of agricultural land, equivalent to one third of the country's UAA. 98.1% of applications were approved and 803,700 ha entitled. The SAP was set at € 26.5 per ha.

CP for arable crops were delivered to 7,849 applicants over an area of 3240300 ha, the payment amounted to € 40.40 per ha. The CP for cattle breeding granted a total of 4.9 million €, which was distributed to 6,254 breeders (about 40% of total cattle breeders) for 132,829 heads (almost half of total cattle). Payments varied from € 69.3 for cows and heifers, to € 49.5 for bulls, € 34.6 for young heifers, and € 9.9 for calves. 729 shepherds received the CP for sheep, and 18,945 ewes were entitled for a payment of € 14 per ewe. In addition it has been decided to continue to finance the aid for milk consumption at school, that in the previous year had received € 249 thousand.

([35]) According to DEIAGRA estimation, based on the basic SAP in 2004 and 2005 (19.4 and 26.44 € respectively) and the amount of support receives as for SA.S (respectively 22.7 and 34.6 million €), the adoption rate of the SAPS probably reached 79.2 and 88.8% of the eligible land in those years.

Table 2.13. Source: D. Giurca et Al., 2005.

Sectors and respective cultivated areas	*Agricultural Areas by sectors, thou Ha/livestock number, thou units*	*Funds from the financial package, mil €*				*Value of payments*				*Support level,% of the EU level*
		Total financial package up to 55% of EU level	*Financial package for SAPS (25% of EU level)*	*Financial package for CNDP (30% option)*		*SAPS €/ha*	*CNDP, €/ha, €/animal*		*Total payment, €/ha €/animal; €/t*	
				EU Rural Development Fund	*National budget*		*CNDP from EU rural Development Fund*	*CNDP from national budget*		
Livestock (Pastures, grassland and perennial crops)	769,627	51,63	27,61	0,00	24,02	35,87			35,87	
Suckler cows	24,0				3,48			144,81		53%
Bulls	100,0				14,77			147,71		54%
Adult animals for slaughtering	220,0				5,67			25,78		55%
Sheep	9,0				0,10			11,58		53%
Crops supported by NCDP (Cereals, rapeseed, vegetables, starch potatoes)	1151,700	106,74	41,31	45,72	19,71	35,87	39,69	17,12	92,68	54%
Starch potatoes	0,54	0,05	0,02	0,02	0,009	35,87	39,69	17,12	92,68	54%
Flax	7,40	1,26	0,27	0,29	0,70	35,87	39,69	94,54	170,10	100%
Crops without NCDP support Sugar beet, rind fruit, potatoes (except for starch potatoes), fruit and vegetables, soil breaking up, etc.	358,704	12,87	12,87	0,00	0,00	35,87	0,00	0,00	35,87	
Agricultural land area	2,287,971									
Amount to be paid, mil €		**172,54**	**82,07**	**46,03**	**44,44**					

Source: D. Giurca et Al., 2005.

2.4. Major beneficiaries of farm support after the Accession

Table 2.14. shows a comparison between the level of the %Producer Support Estimate (%PSE) ([36]) guaranteed to NMS farmers producing some major agricultural commodities before the Accession and the average %PSE assured to EU-25 farmers in year 2004 for the same commodities.

Figures indicate a clear progression of arable crops, represented in the table by wheat, oilseeds, and sugar-beet:

- NMS farmers producing wheat, that is illustrative of the cereal sector, had an average %PSE of –12% during the 1996-1998 period, 7% in 199-2001, with respect to 39% of all EU-25 producers in year 2004. After the Accession, the advantages offered by the increase of policy support to the cereal sector was partially reduced by a price fall ([37]) due to occasional high yields and to an important accumulation of intervention stocks ([38]).However, NMS cereal producers are significantly expanding their export in the EU-15 countries, and there are optimistic perspectives as regards the present-day market imbalances, that mainly rely on demand growth in the animal feed industry, in the expanding consumption of bio-fuel and in the enhancement of the NMS trade infrastructure (EU Commission-DG Agriculture, 2006, pp. 9-18).

- NMS oilseeds producers' %PSE average was –16% in 1996-1999 and 3% in 1999-2001, compared with 35% of the EU-25 in 2004. After the Accession, the growth of the EU oilseeds' area has stabilised but there are good prospects related to the increasing demand from the bio-fuel market and from the livestock sector.

- In the sugar-beet sector, we have estimated NMS %PSE at 31% in 1996-1998 and 33% in 1999-2001, versus EU-25 65% recorded in 2004. After the recent reform (February 2006) of the EU sugar Common Market Organisation (CMO), this situation has radically changed with a 36% reduction in the guaranteed price and significant cuts in the production quotas. In perspective, the stabilisation of sugar-beet production depends on conversion of sugar refineries into bio-ethanol plants as well as on growing competitive capacity of producers: NMS biggest farms have good potential on both sides.

As regards livestock production the situation appears less homogeneous:

- The beef sector has displayed the most favourable evolution in the %PSE, from 14% and 18% along the 1996-2001 periods for the NMS average, to the 2004's 68% of the EU-25.
  For sheep meat producers, in 2004 the EU-25 offered a much more favourable %PSE (52%) than the NMS pre-Accession 1999-2001 average (28%), but it was worse with respect to the 1996-1998 NMS average (67%).

([36])The %PSE (Producer Support Estimate) is an OECD indicator showing the share of farm receipts directly depending from agricultural policy measures, or PSE (i.e. the major price of farm products due to market protection plus the state subsidies directly paid to farmers), on the total farm receipts (i.e. the farm output plus the farm subsidies).

([37])For example in Poland, the biggest cereal producer in the NMS, while average yearly prices had slightly increased between 2003 and 2004, between 2004 and 2005, they fell by nearly one fourth (GUS, 2006, pp. 116-117).

([38]) EU cereal public stocks grew three times between 2003 and 2004.

- The milk, the pig and the poultry meat sectors show slight differences between the %PSE values of NMS in the pre-Accession periods and those of EU-25 in 2004. Only egg production has recorded a significant %PSE contraction with NMS scoring 36% and 44% during the late 1990s and early 2000s, in contrast with the EU-25 2% of 2004.

- In general, in the first two years after the Accession NMS livestock producers have benefited from the major advantages derived from the evolution of the market conditions, characterised by growing prices of livestock products, steady or slightly increasing consumption, and declining prices of raw materials for feed. In perspective, this situation is likely to continue in the medium term, especially tanks to opportunity offered by the EU domestic market.

Table 2.14. Level of %PSE of some major agricultural commodities in the New Member States before the Accession compared with the EU-25 in 2004.

Products	*%PSE pre-Accession values in the New Member States**		*%PSE in the EU-25 (Year 2004)*
	Average 1996-1998	*Average 1999-2001*	
Wheat	-12%	7%	39%
Oilseeds	-16%	3%	35%
Sugar-beet and refined sugar	31%	33%	65%
Milk	37%	37%	30%
Beef and veal	14%	18%	68%
Sheep meat	67%	23%	52%
Pig meat	17%	28%	24%
Poultry meat	39%	41%	46%
Eggs	36%	44%	2%

** Cyprus and Malta are not included.*
Source: own calculations from OECD database (2002, 2005).

Figure 2.1 displays the average amount of Total farm subsidies per Annual Work Unit (AWU) by type of farm specialisation in some NMS (i.e. the Czech Republic, Estonia, Hungary, and Lithuania), as evident from available FADN data (year 2004) examined (see in the Annex) together with the correlations between subsidies and other economic and structural variables of farms (farm agricultural area per AWU, total farm receipts per AWU, percentage share of subsidies in the total farm receipts).
It is possible to observe that:

- Farm specialised in field crops need the major endowments of agricultural land per AWU, while farm specialisations in horticulture, permanent crops and granivores ([39]) require the smallest areas; grazing livestock ([40]) breeding and the various form of mixed farming are in intermediate positions.

- When data are available, the farms specialised in granivores production always score the highest average values of total farm receipts, that confirm the high level of industrialisation attained by this sector; but the weight of subsidies in the farm receipts is always low (1.9% in the Czech Republic and 6.6% in Hungary).

([39]) This category includes pigs, poultry, rabbits and other small courtyard animals excluding ruminants.
([40]) Grazing livestock consist of cattle, horses and other domestic equines, sheep, goats and other small ruminants.

- If we exclude granivores, farms specialised in field crops always obtain the best results in terms of total receipts per AWU, but in this case the share of subsidies is important: from 13% in the Czech Republic to 31.4% in Estonia.

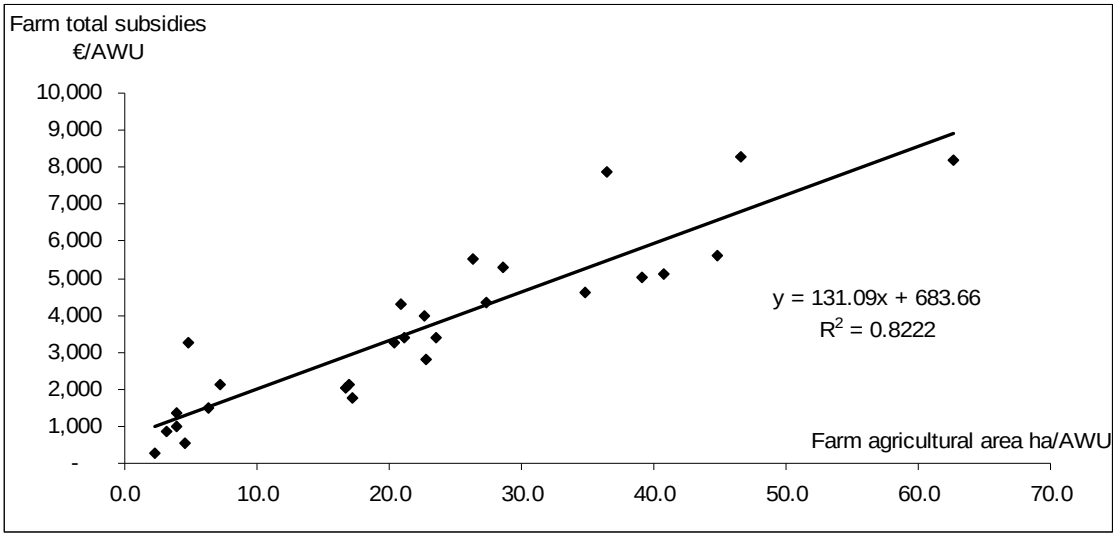
- Farms specialised in horticulture and permanent crops in a majority of cases record the smallest amount of farm total receipts per AWU and the income of these types of farms is not significantly supported by subsidies, which in the case of horticulture cover from 1.6% (in Estonia) up to 14.3% (in Lithuania) of total farm receipts. In the case of permanent crops, the subsidies' share is around 10% of total farm receipts.

- In general, grazing livestock and mixed farming are in intermediate positions for the total farm receipts per AWU, as well as for farm subventions received.

- If we exclude the farm types that have a small share of subsidies in the total receipts (i.e. horticulture, permanent crops and granivores), it is possible to notice that subsidies play a major role in supporting the farm income in those countries where farm receipts are the lowest. In Estonia and Lithuania, that are the two countries with the lowest total farm receipts per AWU, the contribution of subsidies in total receipts of farms specialised in field crops, grazing livestock, and in forms of mixed farming is always above 20%. This does not happen in the Czech Republic and in Hungary where almost all estimates range between 10% and 15%. Hence, distribution of subsidies seems to operate in the sense of somewhat reducing farm income inequalities among regions.

- Beyond the different weight that farm subsidies can assume in the total farm receipts, in the various countries and farm types, the most evident correlation is however between the total amount of farm subventions per AWU and the farm endowment of agricultural land per AWU, as it is clearly shown by the graph of Figure 2.1.

Figure 2.1. Farm subsidies per work unit in relation to the farm size in the NMS*



** The figure shows the linear correlation between the average farm subsidies per work unit (AWU) and the average farm endowments of agricultural land per AWU in the NMS (year 2004). The points' coordinates correspond to the data of the types of farms presented in the Annex.*
Source: own elaboration from FADN database

To conclude, most of the traditional CAP features are also emerging in the implementation in the NMS, in particular the tendency to privilege in the market support and in the distribution of subsidies farm productivity and those forms of high farming and cattle raising that prevails in the regions of North-Western and Central Europe. This implied a direct correlation between the CAP benefits and the farm size or the number of livestock to the advantage of the biggest farmers.

In the NMS, this tendency is even amplified by the non-application of modulation, by the SAPS system in the distribution of direct payments and by the persisting dualistic structure of the agricultural sector inherited from the socialist period.
Average income of NMS farmers has significantly increased in the first year after the Accession, but the big producers of field crops, especially cereals and industrial crops, as well as in the beef sector, seems to have been the major beneficiaries of CAP implementation, while the evolution of the market trends has favoured more the livestock production.

2.5. Main changes in NMS agricultural support after the Accession

The indicators of agricultural support estimated by the OECD allow to quantify changes in the policy endorsement to agriculture after the Accession of the NMS as a whole ([41]). Available data indicate what follows:

- **Important increase of NMS agricultural support:** with respect to the yearly average of the 1999-2001 period, the Total Support Estimate (TSE) – an indicator of the total cost of the agricultural policy, given by the state budgetary expenditure, plus the estimated major cost paid by consumers for market protection of agricultural products – in the whole of the NMS increased by +36.7% in the year 2004, and reached a level of +51.4% in the year 2005. In monetary terms, the NMS TSE grew from € 6,877 million as 1999-2001 yearly average, to € 9,401 million in 2004, and up to € 10,406 million in 2005 ([42]).
- **Significant change in the structure of NMS agricultural support:** while the Market Price Support (MPS) indicator slightly decreased (+7.0% in 2004 and -5.2% in 2005 with respect to the 1999-2001 average), the direct payments and other financing distributed to producers had more than doubled (+88.7% in 2004 and +163.6% in 2005), and the state expenditure for agricultural services (agricultural education, professional training, research, public administration, infrastructures, marketing, public stockholding, etc.) described by the General Service Support Estimate (GSSE) indicator grew in line with the total support (+38.7% in 2004, +56.2% in 2005). As a result, if during the late 1990s and early 2000s, in the NMS total agricultural support expenditure, the market price support accounted for about 60%, the payments to producers for less than 30%, and the general services' expenditure for slightly more than 11%, in 2005 the market price support fell to 36.6% of TSE, the payments to producers attained 51.3% and the general services 12.1%: the relation between market price support and budgetary disbursements has been nearly reversed. This change can be clearly observed also in the dynamics of resources absorbed by agricultural support: with the Accession, the transfer of resources from consumers have nearly halved in monetary terms and have been reduced from about two thirds to one fourth of the total NMS agricultural support, while the transfers from taxpayers, i.e. the state budget resources, have tripled (from € 2,579 million in 1999-2001 to 7,958 million in 2005) by increasing from about one third to three fourths of the TSE.

([41]) For detailed data and calculations related to this paragraph, see in the Annex.
([42]) All these values are expressed in constant € 2005.

- **NMS producers are taking advantage of the EU agricultural policy set-up**: in the NMS, the Producer Support Estimate (PSE), that indicates the total monetary value of farm support which has a direct effect on the farmers' receipts – i.e., the major price of farm products due to market protection and the payments and the other finance directly distributed to farmers – rose in line with the TSE and continued to cover around 86%-88% of the total support during the first two years after the Accession. The %PSE indicator, which in the total farm receipts corresponds to the percentage share imputable to support measures ([43]), grew from a yearly average of about 19% in late 1990s and early 2000s to 26.1% in 2004 and 28.2% in 2005.

  Similarly, the producer Nominal Assistance Coefficient (producer NAC) ([44]) increased from 1.24 in 1999-2001 to 1.35 in 2004 and to 1.39 in 2005, which means that NMS farm receipts have now become 39% higher than they would be without market support and payments to farmers, while they were only 24% higher before the Accession. Because of the already described dynamics in the structure of agricultural support, the growth of the producer support is almost only due to the increase of payments to farmers. The NMS are also experiencing a rapid decrease of agricultural workers ([45]) that amplifies the effect of the support growth at the level of the Agricultural Work Units (AWU).

  In 2004 and 2005, the NMS total AWU lowered respectively by 17.9% and 20.3% with respect to the 1999-2001 yearly average; as a consequence, the average TSE per AWU resulted respectively 66.5% and 89.9% higher than the 1999-2001 3-year average, even if the total TSE grew by far less (36.7% and 51.6% in the same order). The MPS per AWU was superior by 30.4% in 2004 and 19% in 2005 with respect to the 1999-2001 reference period; the payments per AWU by 139.8% in 2004 and 230.8% in 2005; the GSSE per AWU by 68.9% in 2004 and 95.9% in 2005. It is however necessary to remark that there are huge differences in the level of payments among the NMS, for example in Slovenia, that during the 1990s had developed a strong support system for its agriculture: the 1st Pillar's disbursements per hectare are seven times higher than in Latvia (Konečný, 2004, p. 65).

- **NMS consumers have not been disadvantaged by the CAP so far:** according to OECD data, in the NMS the percentage Consumer Support Estimate (%CSE) was in average -16.8% during the 1996-1998 period and –16.0% in 1999-2001, after the Accession it progressed to –11.9% in 2004 and slightly declined to –13.8% in 2005. This means that in the total expenditure for NMS domestic consumption, measured at farm gate prices, the share representing a net transfer from consumers to producers lowered from 16.8% and 16.0% in the late 1990s and early 2000s to 11.9% and 13.8% after the Accession ([46]).

([43])The %PSE is calculated as ratio between the PSE value and the total value of production at farm gate, plus the payments and the other finance directly distributed to farmers.

([44])The producer Nominal Assistance Coefficient (producer NAC) expresses the ratio between the total farm receipts (the value of farm production at national prices plus payments to producers) and the value of farm production at world prices (i.e. without any price support nor payments to farmers). When the producer NAC equals to 1, the total farm receipts are supposed to be as they would be if entirely obtained from selling the farm production on a free market, without application of minimum guaranteed prices nor payment of subventions from the state. If the producer NAC is 1.50, it means that total farm receipts are 50% higher than they would result in the case that they were only obtained from a free market. See also in the Annex.

([45]) According to EUROSTAT data, between 2000 and 2005, the NMS Agricultural Work Units (AWU) decreased by 800 thousand units, from a total of 4 million to 3.2 million.

([46]) The % CSE is derived from the Consumer Support Estimate (CSE) that expresses in monetary terms the value of policy support to consumers. A positive CSE indicates a net transfer of resources towards consumers that would make consumers pay agricultural commodities less in the domestic market than in the world market. But consumers usually pay higher prices in the domestic market because of trade protection, therefore the CSE is in general negative and shows the monetary value transferred from consumers to producers. Accordingly, a

The NMS consumer Nominal Assistance Coefficient (consumer NAC) diminished from 1.20 in 1996-1998 and 1.19 in 1999-2001 to 1.13 in 2004 and 1.16 in 2005, which indicates that before the Accession NMS expenditure for consumption at farm gate prices was 20%-19% higher than it would be at world market prices, and this gap was reduced to 13%-16% after the accession. As already remarked, by analysing the structure of NMS agricultural support, the total contribution of consumers to sustain agriculture have almost halved by declining of 46.9% between 1999-2001 and 2005: under the CAP, NMS citizens are paying for agricultural support much more as taxpayers than as consumers.

- **Within the CAP framework, the NMS agricultural policy is more fit for WTO negotiations than before:** although during the 1990s, to join the WTO, in some cases the NMS accepted commitments of reducing agricultural support that were stricter than those presently requested by the CAP, the OECD indicators in general show a reduction of the more trade-distorting measures and a growing de-coupling of farm subsidies from production. In this sense not only can the decrease of the Market Price Support be interpreted, but also the lowering of the payments based on output (red-box type), and the increase of payments based on acreage or livestock number (blue-box type) and on historical entitlements (green-box type), with the latter being the only expected to grow further in the future.
- **The gap in the amount of farm subventions received by NMS and EU-15 farmers remains extremely wide:** despite the important increase of agricultural support, NMS farmers still receive far less subventions than their EU-15 colleagues. According to OECD and EUROSTAT data, in 2005 the average value of agricultural production per Annual Work Unit (AWU) in the NMS was about one fifth of the EU-15: € 8,411 per AWU in the NMS versus € 42,239 per AWU in the EU-15. Then, NMS farmers received in average only 17.4% of the direct payments and other finance per AWU distributed in the EU-15: € 1,661 per AWU in the NMS opposed to € 9,541 per AWU in the EU-15.

  As a result, after payments, the total farm receipts per AWU amounted to € 51,780 in the EU-15 and only 19.5% of that sum, i.e. 10,071 € per AWU in the NMS: after CAP payments, the gap between EU-15 and NMS farmers have widened from € 33,828 per AWU in the value of farm production to € 41,708 per AWU in the total farm receipts. The %PSE indicates that agricultural support's weight on 2005 total farm receipts was 32.8% in the EU-15 and 28.2% in the NMS; the producer NAC shows that the EU-15 2005 farm receipts were 49% higher than they would be without any farm support, versus a 39% in the NMS.

  Furthermore, it results that in 2005, the average agri-policy expenditure in general services was € 1,479 per AWU in the EU-15 and € 390 per AWU in the NMS, and the average budgetary transfers for consumption of agricultural commodities was € 625 per AWU in the EU-15 and merely € 2 per AWU in the NMS. If the CAP settin up issued by the 2002 Copenhagen Agreement and the 2003 Reform allowed the important EU Enlargement of May 2004, by making it possible from a political and technical (i.e. budgetary) point of view, it is however necessary to question how long such disparities in the distribution and in the effects of farm support could be maintained, taking into account the sharp contrast with CAP principles of safeguarding equality of conditions among EU producers and that about one third of the EU-25 agricultural workforce is affected. On the one side, EU-15 CAP modulation, on the other side, the phasing-in and the faster decline of agricultural

negative % CSE indicates the percentage share represented by the net transfers to producers in the total value of consumption at farm gate prices.

employment expected in the NMS could favour a convergence, but it could be interesting to investigate further on these aspects in the future ([47]).

2.6. Summary

After the early pre-Accession experiences under the Special Accession Programme for Agriculture and Rural Development (SAPARD) and other programmes devoted to institutional co-operation within the Phare framework (i.e. the Twinning and TAIEX programmes), NMS have significantly improved the CAP administrative effectiveness. The SAPARD started much later than the original schedule, and achieved a satisfactory implementation level only after the Accession (94% of the total financial plan in 2005). Thus, it became an additional tool of the EU RD policy, changing its original function of pre-Accession instrument. However, the SAPARD fully decentralised management has constituted a very useful experience for the NMS agricultural institutions to prepare for the complex CAP implementation.

Technical and infrastructural investments have been among the SAPARD measures most frequently implemented. The impact has been limited by the restricted financial endowment of the programme: the NMS average allocation from the EU budget has been of about 92 €/year per work unit and of 10 €/year per hectare of agricultural area, in the initially scheduled period 2000-2003. Very scarce resources have been committed to qualitative aspects of agricultural sustainable development: measures related to quality and sanitary controls, environmental-friendly agriculture, producer groups, vocational training, and technical assistance have altogether collected only 1.5% of the total 2000-2005 EU contribution, and they have been implemented by few countries. This indicates that there is a need to consider these issues at a political and institutional level in order to improve the situation of NMS with respect to several fundamental aspects of the *acquis communautaire*.

At present, it is too early to evaluate the RD policy impact on the NMS rural areas. Along the period 2004-2005, the level of implementation has been equivalent to 61% with respect to the 2004-2005 financial plan, and to 41% with respect to the 2004-2006 financial plan (a satisfactory result if compared to the EU-15 figures). The Baltic States have been the most advanced in the implementation process. Investments in farms and in the processing/marketing of farm products, technical assistance, agro-environment, topping-up of direct payments have been the most implemented measures. In general, the design of the RD institutional framework is considered satisfactory. The main shortcomings are the setting up of more concrete and realistic policy objectives in the RD plans, and more appropriate indicators to evaluate their implementation. The efficiency of the partnerships consultation is deemed to be at a medium level in Hungary, inadequate in Slovakia, and well functioning in Latvia. In some countries, the shortage of expert staff has caused a general malfunctioning: changes in the financial provision of the different measures during the implementation; slowness in the project generation activity (e.g. in Hungary); and limited availability of IT support (especially in Malta). Furthermore, the projecting activity is generally insufficient, and this is likely the consequence of the farmers'

([47])The method to calculate the amount of direct payments for the NMS was based on the same yield historical series referred to 1980s as the EU-15, but on average production volumes of the 1990s when, because of the production collapse subsequent to economic reform, NMS yields were significantly lower than in the EU-15. According to a study commissioned by the Friend of Earth–Europe, a consequence would be that even if the NMS direct payments reach the 'same EU-15 level', as it should be in 2013, NMS farmers will continue to receive less money per AWU or per hectare than the EU-15 farmers: e.g., with direct payments at 100% of the EU-15 level, the average payment per hectare of agricultural land in the NMS would be 40% lower than in the EU-15 (Konečný, 2004, p. 65). On this subject see also a specific analysis reported in the Annex.

weak organisations. The programming documents are characterized by satisfactory quality standards, but evaluation and reporting capacities need to be further enhanced.

The income effect seems to be a general outcome of direct payments (Single Area Payment Scheme - SAPS). This is especially true for small holdings, which suffer from poor remuneration of labour. Due to the prevailing income effect, inefficient farming systems continue to block human resources and land, which could be made available for more efficient uses. By contrast, large holdings receive a considerable amount of direct aids and can allocate extra funding to increase input use and enhance productivity. To conclude, the SAPS effect on production and productivity varies among the different farm typologies. Furthermore, it must be underlined that the current production and structural dynamics follow a long-term trend, which started during the transition period and was caused by a general economic growth, increased industrialisation, and market enlargement. Finally, the real impact of SAPS must take into account the rate of implementation, which is relevant, although payments have not covered all the eligible areas.

The phasing-in and the method used to set the amount of direct payments in the NMS have caused relevant disparities between the NMS and the EU-15, and also among the NMS. In 2005 and 2006, the average amount of the national envelope per hectare of agricultural area in the NMS has been less than one fourth than in the EU-15 (excluding the national complementary payments). *Ceteris paribus*, it will be about 70% at the end of the phasing-in (2013), when payments should be 'at the same level' in the two groups of countries. The national envelope per work unit in the NMS has started from around 10% of the EU-15 average, in 2005 and 2006, and is expected not to be higher than 30% in 2013. The envelope per work unit in the Czech Republic is 3 times higher than in the NMS average value, while in Latvia and Malta is less than 60%. The EU Commission mainly justified the phasing-in with the assumption that farm restructuring in the NMS would have been more difficult without a payment reduction in the early phase. Two years after the Accession, there is no apparent evidence that the phasing-in is directly favouring farm restructuring.

Most of the traditional CAP features are also emerging in the NMS. In particular, the tendency to privilege big producers of cereals, industrial crops, and cattle. This implies a direct correlation between the CAP benefits and the farm size (or the number of livestock). Biggest farms are thus advantaged. In the NMS, this effect is even emphasized by the absence of modulation mechanisms, and by the farm dualistic structure.

The OECD agricultural support indicators analysis shows that the value of the post-Accession estimated total support has increased by half if compared to the period 1999-2001 for the NMS aggregate. This situation stems from a slight drop in the market price support, a wide expansion of payments and finance directly distributed to producers, and a growing expenditure for general state services. As a consequence, the structure of the NMS total agricultural support has radically changed: the market price support accounts now for 37% of the total support value, while direct payments and financial aid to producers for 51%, and general services for 12% (they were respectively 60%, 29%, and 11% in the period 1999-2001). The NMS agricultural policy has become more consistent with the WTO negotiations priorities, thanks to the decline of the most trade-distorting measures (i.e. the market price support). NMS producers are taking considerable advantages of the new policy framework: the share of farm receipts attributable to the financial support measures has risen from 19% to 28.2%, and farm receipts are now 39% higher than they would be without the CAP financial support. This effect is by far more

important if we consider the value per work unit, because of the decline of the agricultural labour force.

In addition, it is important to observe that NMS consumers have not been disadvantaged by the CAP so far: the estimated value of total transfers from consumers to producers decreased from 16% of total consumer expenditure in 1999-2001 to 13.8% in 2005. The total contribution of consumers to sustain agriculture has almost halved in the post-accession period: under the CAP, NMS citizens are presently paying for agricultural support much more as taxpayers than as consumers. The gap in the amount of farm subventions between the EU-15 and the NMS remains extremely wide. Taking into consideration the values per work unit, NMS farmers receive in average only 17.4% of the EU-15 farmers. In 2005 the EU-15 total farm receipts have been 49% higher than they would have been without the CAP support, opposed to 39% in the NMS. The EU-15 average agro-policy expenditure in general services per work unit has been about 3.5 times higher than in the NMS.

3. Financial perspectives and CAP reform

3.1. Financial perspectives 2007-2013

The Financial Perspective establishes the maximum figures and the breakdown of foreseeable expenditure by the Community. The number of headings in the Financial Perspective 2007-2013 has been reduced from eight to five:

1. sustainable development, divided into two components:
   a) competitiveness for growth and employment,
   b) cohesion for growth and employment;

2. sustainable management and protection of natural resources;

3. citizenship, freedom, security and justice;

4. the European Union as a global partner: this heading covers all external action, including the pre-accession instruments, the incorporation of the European Development Fund (EDF) in the EU budget, and the current reserves earmarked for emergency aid and loan guarantees;

5. administration: this covers the expenditure of institutions other than the Commission, pensions and the European Schools. A new feature is that the Commission's administrative expenditure is included directly under the corresponding operational headings and not under this one.

The heading sustainable management and protection of natural resources – which is the one relevant for the study - is to receive a total of € 405 billion for the period 2007-2013, of which 72% for agriculture (€ 301 billion). Most of the expenditure for this heading stems from the reform of the common agricultural policy (CAP), rural development policy after 2006 and from the new common fisheries policy (January 2003) for which the Commission proposes a simplification of the financial arrangements and structures.

The heading 'sustainable management and protection of natural resources' includes the following sub-headings:

- environment and fisheries, administration and other actions,
- agriculture (market-related expenditure and direct aid) for the EU-27,
- agriculture – rural development.

Expenditure for market-related and direct aid measures (sub-heading 2.b) and for rural development measures (sub-heading 2.c) are displayed in Table 3.1.
The new Financial Perspective 2007-2013 emphasizes as the focus of the new policy the rural development, and puts new emphasis on protecting the environment and on achieving a more sustainable development pattern.

Table 3.1. Financial Perspective 2007 – 2013, general prospect of sub-headings 2b and 2c (million €)

Sub-headings	2007	2008	2009	2010	2011	2012	2013	Cumulated 2007-2013	Var. 2013/2007 (%)
2.b- Agriculture (market-related expenditures and direct aid) for EU 27 (1), of which (*):	43,500	43,673	43,354	43,034	42,714	42,506	42,292	301,073	-2.8
- Bulgaria, Romania	380	976	1,075	1,170	1,261	1,459	1,648	7,969	333.7
- UE 25 (2), of which:	43,120	42,697	42,279	41,864	41,453	41,047	40,644	293,104	-5.7
- EU15	40,308	39,686	38,798	37,905	37,036	36,287	35,473	265,493	-12.0
- NMS	2,812	3,011	3,481	3,959	4,417	4,760	5,171	27,611	83.9
2.c- Agriculture (rural development), of which (3) (**):	12,343	12,542	12,491	12,462	12,871	12,820	12,764	88,294	3.4
- Bulgaria, Romania	986	1,360	1,757	1,635	1,632	1,633	1,628	10,632	65.2
- EU 25, of which:	11,357	11,182	10,735	10,827	11,239	11,186	11,136	77,663	-1.9
- EU15 (after comp.)	7,399	7,364	7,069	7,138	7,504	7,419	7,310	51,203	-1.2
- NMS	3,958	3,818	3,666	3,689	3,735	3,768	3,826	26,459	-3.4

(*) EUR 2004; (**) current prices
Sources:
(1) COM(2004) 498 def of 14/07/2004
(2) Inter-institutional Agreement between the European Parliament, The Council and the Commission on budgetary discipline and sound financial management (2006/C139/01), Annex 1 (OJ 139/01 of 14/6/2006)
(3) Commission decision of 12/09/2006 (2006/636/EC), Annex (OJ L 261/32 of 22 September 2006) and http://ec.europa.eu/budget/documents/multiannual_framework_en.htm

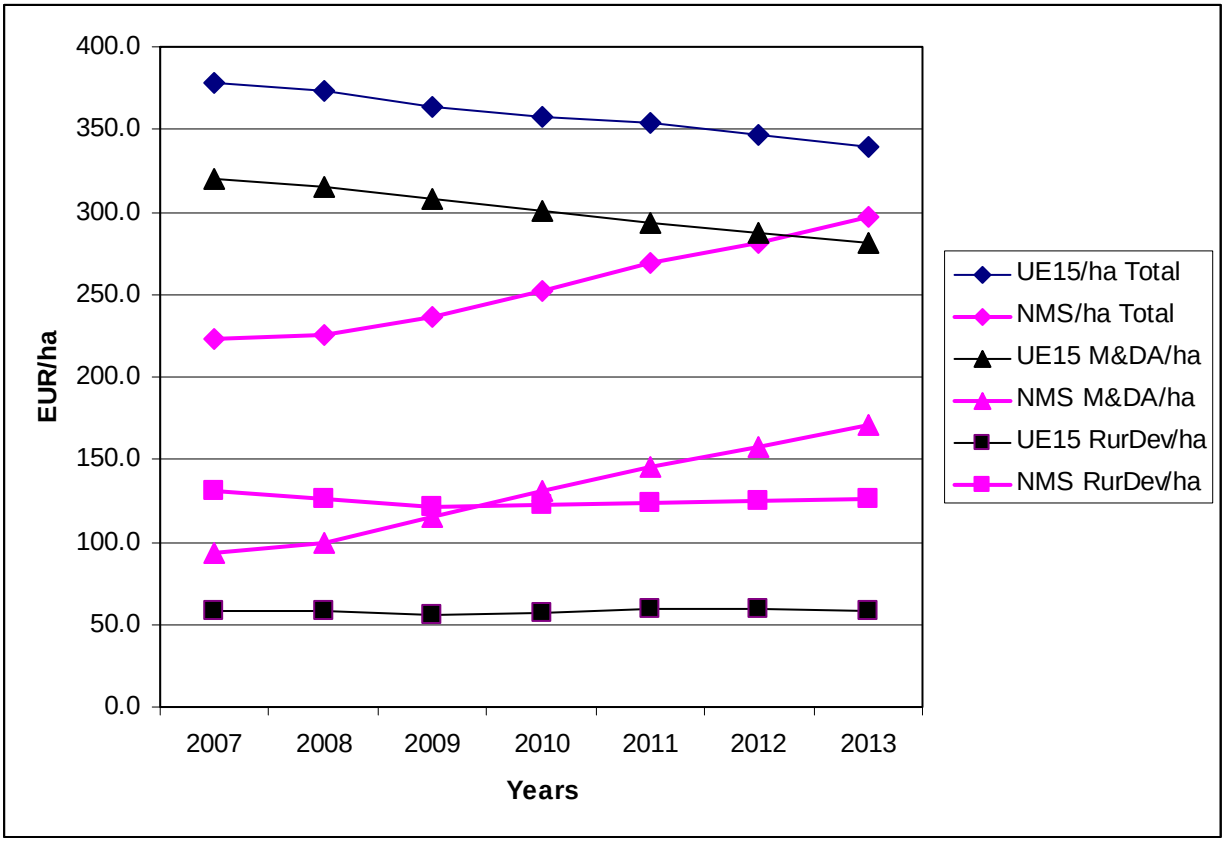
The effects of the new financial perspective 2007-2013 in agriculture will be a 7,0% decrease (from € 43,5 billion to € 42.3 billion after modulation) in the total volume of direct payments and market support measures, the enlargement of the EU from 25 to 27 Member States notwithstanding.

The restructuring of the CAP will be accompanied by an increase of 3.4% (from € 12,3 billion in 2007 to € 12,8 billion in 2013, after modulation) in rural development funds,.
The funds destined to the NMS for market-related expenditure and direct aid will increase from 2.8 billion in 2007 to 5.2 billion in 2013 (+ 83.9%), while they will slightly decrease for rural development (from 3.9 to 3.8 billion that is -3.4%). For the EU-15 Member States, funds will decrease of 12% for market-related expenditure and direct aid will decrease and 1.2% for rural development.

In the 2007-2013 period, the amount per hectare of the funds ‘market-related expenditure and direct aid’ and ‘rural development’ combined will increase in the NMS, whereas it will decrease in the EU-15 (see Figure 3.1):

- for the NMS, it will pass from 223,6 to 297.1 €/ha,
- for the EU-15 Member States, it will pass from 378.5 to 339.4 €/ha.

Figure 3.1. Financial perspective 2006-2013 (€/ha)



Notes: M&DA= market and direct aid; RurDev = rural development
Source: DEIAGRA elaboration on data from Table 3.1

The allocation of funds described above can help to tackle challenges faced by NMS agricultural industry, basically in two ways:

1. by reshaping the structure of agriculture through implementation of rural development measures;

2. by helping farmers to pass through the process at point 1 above, thanks to the additional income granted by the measures funded by the CAP Market Pillar (i.e. market intervention and trade policies, and direct payments).

The process at point 1 above can occur through:

a) achievement of scale economies (increase in farm size) and introduction of technological innovations: these will continue to be funded especially by measures concerning investment in agricultural holdings;

b) introduction of organisational innovations, with particular reference to horizontal and/or vertical coordination: these will permit:

- aggregation of small-scale farms into more economically efficient organisations with superior market power;
- appropriation of more substantial portions of value added in the supply chains, through the control of downstream activities by farmers;

c) achievement of higher product diversification towards non-surplus basic commodities and processed products, with start of new on-farm activities to be funded mainly by measures concerning diversification of agricultural activities;

d) improvement of products' quality and of the compliance of production structures, processes and products with the EU standards.

Funding will continue to come mainly from measures concerning processing and marketing of agricultural products and the setting up of producer groups (the latter have indeed received somewhat poor attention by NMS governments so far). However, while the rural development strategies implemented so far by the NMS seem to have privileged the paths at point a) and b) (second bullet point) above, a more balanced restructuring of the agricultural industry of the NMS, capable of tackling the weak points identified at § 1, can be achieved only by paying greater attention to:

- implementation of rural development strategies also centred on the paths at points b) (first bullet point), c) and d) above;
- fostering of infrastructure and services available in rural areas (implementation of measures concerning agricultural infrastructure, land improvement, water resources, renovation of villages, farm advisory and extension services, basic services for rural economy);
- renovation and an improvement of human resources (through measures concerning technical assistance, farm advisory and extension services, vocational training, early retirement, young farmers).

The process at point 2 above has different economic meaning according to the size and type of farm:

I. For the small-scale and semi-subsistence farms: the limited additional income granted by policy measures may delay that they cease to produce, but cannot be enough to restructure and achieve economic viability.

II. For large-scale farms, the economic meaning of such additional income will depend on the willingness to improve economic efficiency through innovation: in its absence, such income will indeed constitute nothing more than a rent, with no relevant effects on the modernisation.

Moreover, it is also important to point out that the process at point I. above can be viewed as positive or negative, depending on the standpoint assumed. Indeed, if it is true that from a social standpoint a more gradual exit from production of small-scale, semi-subsistence farms limits the associated social drawbacks, it is also true that from a purely economic standpoint, CAP funds are improperly used to artificially keep alive farms which do not have the potential to achieve greater efficiency. The overall result is delaying the reshaping and modernisation of the agricultural industry. Indeed, other EU structural funds exist to finance measures dealing with social issues. Analogous considerations, in this case even without the counterbalancing represented by positive social effects, can be made for the process at point II above.
In conclusion, it is not only the level of support granted to NMS agriculture which matters: the way in which it is allocated among the different measures and typologies of beneficiaries is

equally important to assure the viability of the agricultural industry in the NMS for the years to come.

3.2. Foreseeable effects of the CMO reforms in the NMS

3.2.1. Sugar

The main aspects of the reform of the common market organisation (CMO) in the sugar sector are displayed in Table 3.2.

Table 3.2. The CMO reform in the sugar sector

Relevant aspects	*Reg. 1260/2001 (01-07-2001 to 30-06-2006)*	*Reg. 318/2006 (01-07-2006 to 30-06-2014)*
Support to the EU sugar sector		
Prices	Sugar intervention price (631,90 €/T)	Sugar reference price (404,40 €/T from the 2009/2010 marketing year)
	Sugar beet minimum price (47,67 €/T)	Sugar beet minimum price (26,29 €/T from the 2009/2010 marketing year)
Quotas	A quota + B quota	A quota and B quota are merged into a single sugar quota
	Possibility to carry forward out-of-quota C sugar to the following campaign (maximum quantity = 20% of A quota)	Possibility to carry forward out-of-quota sugar to the following campaign
Financial joint liability of producers	Production charge levied on sugar varies in relation to the cost of subsidising sugar exports	Fixed production charge levied on sugar (12 €/T)
Other measures		Surplus amount levied on surplus sugar production (500 €/T)
		Possibility to apply a linear reduction of quotas
		Compensation to beet growers equal to 64% of lost revenues
		Creation of a fund for the restructuring of the sugar industry (aid equal to 730 €/T of sugar for firms exiting the sector), financed by the producers
Trade with third countries		
Imports	Fixed import duties	Fixed import duties
	Safeguard measure	Safeguard measure
	Agreements on preferential imports	Agreements on preferential imports
Exports	Export refunds	Export refunds

Source: DEIAGRA elaboration on data from Reg. 1260/2001 and Reg. 318/2006

The most relevant peculiarities of the sugar sector in the NMS with respect to the EU-15 are the lower average production capacity of sugar factories, the backwards processing technology, and the lower level of inputs' productivity (labour and land). As an example, main indicators of sugar processors' competitiveness in Poland compared to France and Germany are reported in Table 3.3.

Table 3.3. Main indicators of competitiveness of sugar processors in Poland, France and Germany (year 2005)

Member States	Production capacity		Labour productivity	Land productivity
	Average sugarbeet processing capacity per factory (T/day)	Average sugar production per factory (T)	Sugar production per working unit in the sugar industry (T)	Sugar production per hectare (T)
France	12.500	142.000	493,2	12,73
Germany	11.100	165.000	639,3	9,35
Poland	3.500	48.000	128,5	7,60

Source: DEIAGRA elaboration on data from CEFS and CIBE

The principal reform's effects on NMS sugar sector can be summarised as follows:

- substantial decrease in margins at both agricultural and industrial level;
- acceleration of supply chain restructuring, especially at industrial level (closure of redundant processing plants and employment cuts);
- need to invest in new processors and equipment (at industrial level) and in modern production technologies (at both agricultural and industrial level), in order to improve productivity and to restore the margins;
- selection and concentration of supply within the sugar sector, induced by the substantial investments required: only the most efficient and financially sound producers – at both agricultural and industrial level - will survive to the increased competitive pressure;
- the final outcome might hence be a decrease in the overall NMS production capacity.

Significant indicators of the reform impact's magnitude in the NMS, compared with the EU-15, can be derived from figures related to implementation of Reg. 320/2006, in particular about renounce to production quotas to benefit restructuring aids and about dismantling of sugar factories.

As it can be observed in Table 3.4., the NMS have renounced to a greater portion of their pre-reform sugar quota (13,5%) than the EU-15 (10%), even if the process started a year later. Moreover, out of seven NMS sugar producer countries in 2005, two (i.e. Slovenia and Latvia) are going to renounce to the whole production quota in year 2007, while in the EU-15 this happened only in Ireland (out of 14 countries which were sugar producers in 2005). Hence, the impacts of the reform have been – and probably will continue to be – more substantial in the NMS. Indeed, the stronger competitive pressure is faced by a production structure which is much weaker in terms of dimension and efficiency. Improvement of EU competitiveness in the international sugar market is going to be accompanied by social drawbacks, which can be especially relevant in the NMS areas, where most plants will close.

It is not easy to foresee certain long-term effects of the reform in the NMS: the processing stage of the supply chain is highly concentrated, and mostly controlled by a very limited number of decision centres, often representing the interests of the EU-15 sugar-beet growers. A relevant risk exists that an important part of investments required for NMS processors' recovering, might be instead destined to restructure EU-15 refineries – especially in the case of sugar firms controlled by EU-15 farmers – as well as to build or acquire production capacity in the most competitive extra-EU producing areas, like in Brazil, as a form of insurance against an irreversible decline of the EU sugar industry. This would imply a massive dismantling of NMS production, with the most adverse impact on the sugar industry's workers, while sugar-beet growers may cultivate alternative crops. In this scenario, the most meaningful possibility to save

a part of the jobs is represented by conversion of sugar processors into bio-ethanol plants or biomass burning power stations, within the framework of the EU bio-energy policy. Even in this case, considerable investment is necessary.

Table 3.4. Effects of Reg. 320/2006 on the sugar sector in the EU-15 and in the NMS

Member state	1) Quota into restructuring fund 2006 (T)	2) Quota into restructuring fund 2007 (provisional figures) (T)	3) = 1+2 (T)	4)Pre-restructuring quotas (Reg. 318/2006) (T)	5) = 3/4 (%)	6) Number of plants closed in 2006	7) Number of plants closed in 2007 (provisional figures) (T)	8) = 6+7
Belgium			0,0	819.812,0	0,0%	1		1
Denmark			0,0	420;746,0	0,0%		1	1
Germany			0,0	3.416.896,0	0,0%	1	2	3
Spain	93.118,5	16.678,8	109.797,3	996.961,0	11,0%	3	n.a.	at least 3
Portugal	35.218,0		35.218,3	69.718,0	50,5%	1		1
Ireland	199.260,0		199.797,3	199.260,0	100%	1		1
Italy	778.737,2	24.860,5	803.597,7	1.557.443,0	51,6%	12	1	13
Austria			0,0	387.326,0	0,0%	1		1
Finland		56.087,0	56.087,0	146.087,0	38,4%		1	1
Sweden	42.562,0		42.562,0	368.262,0	11,6%	1		1
Greece		158.750,0	158.750,0	317.502,0	50,0%		n.a.	n.a.
United Kingdom			0,0	1.138.627,0	0,0%		2	2
France			0,0	3.288.747,0	0,0%			0
The Netherlands			0,0	864.560,0	0,0%			0
EU-15	**1.148.895,7**	**263.376,3**	**1.405.272,0**	**13.991.947,0**	**10,0%**	**21**	**at least 7**	**at least 28**
Czech Republic		102.473,0	102.473,0	454.862,0	22,5%	1	3	4
Latvia		66.505,0	66.505,0	66.505,0	100%		2	2
Poland			0,0	1.671.926,0	0,0%	9		9
Slovakia		70.133,0	70.133,0	207.432,0	33,8%	1	1	2
Hungary		108.093,0	108.093,0	401.684,0	26,9%		1	1
Slovenia		52.973,0	52.973,0	52.973,0	100%		1	1
Lithuania				103.010,0	0,0%			0
NMS- 10	**0,0**	**400.177,0**	**400.177,0**	**2.958.392,0**	**13,5%**	**11**	**8**	**19**

(A) With Pontelagoscuro sugar factory of SFIR in operation in the 2007 campaign.
Source: DEIAGRA elaboration on data from stakeholders

3.2.2. Wine

Table 3.5.illustrates the four reform options prepared for the CMO wine and Table 3.6. their likely impact on the NMS wine sector. Possible changes concerning the market support measures (termination of distillation, private storage, aid to grape juice, aid to musts and export refunds) in the short term can affect the NMS market balance, especially if no tools for the regulation of production potential (grubbing-up scheme) are operating (this would be the case of the Options 3 and 4). Indeed, also the NMS cannot be considered immune from the problem of market surpluses.

The measures concerning quality policy - in particular wine making practices, GI protection, labelling and wine classification - are likely to have a significant impact, given the increasing consumption of quality wines.

Table 3.5. The CMO wine and current reform options

	Actual CMO	*Option 1. Status quo, with possibly some limited adaptations*	*Option 2. Profound reform of the CMO*	*Option 3. Reform along CAP reform lines*	*Option 4. Deregulation of the wine market*
Regulating production potential	Ban of new plantings	Prolongation	Extension for a few years	Extension for a few years	Abolition
	Permanent abandonment (grubbing-up)	Maintained	Important strengthening	Abolition	Abolition
	Restructuring of vineyards	Maintained, improved monitoring	Maintained, link with grubbing-up	Conversion of budget into Single Payment Scheme entitlements	Abolition (budget suppressed or transferred to Rural Development policy)
Market support measures	By-products distillation	Maintained	Abolition – budget replaced by national envelopes or shifted to 2nd pillar for wine regions		
	Dual purposes distillation	Maintained			
	Potable alcohol distillation	Maintained, possibly with reduction of price			
	Crisis distillation	Maintained, possibly with link with grubbing-up			
	Private storage	Maintained			
	Aid to grape juice	Maintained			
	Aid to musts (enrichment)	Maintained			
	Export refunds	Phasing out, according to WTO commitments	Abolition and replacement through promotion and information measures		
Regulatory measures	Wine-making practices (WMPs)	No substantial change	Competence to the commission, link to OIV WMPs, special WMPs for export	Competence to the commission, link to OIV WMPs, special WMPs for export	OIV rules as only regulatory framework
	Quality policy, GI protection	No substantial change	Simplification, alignment on WTO-TRIPS and PGI/PDO system, revision of wine classification	Simplification, alignment on WTO-TRIPS and on PGI/PDO system, revision of wine classification	Full integration in the PGI/PDO system
	Labelling	No substantial change	Competence to Comm. unique tools for all wines, more flexibility	Competence to Comm., unique tools for all wines, more flexibility	Full integration in directive of labelling of foodstuff

Notes: PGI: Protected Geographic Indication; PDO: Protected Denomination of Origin; WTO-TRIPS: Agreement on Trade Related Aspects of Intellectual Property Rights – World Trade Organisation.
Source: Annex, Summary of the impact Assessment, Communication from the Commission to the Council and the European Parliament, 'Towards a sustainable European wine sector, COM(2006)319

Table 3.6. Likely impacts of the CMO wine reform Options in the NMS

Market support measures and regulation of production potential		
Main peculiarities in the NMS	*Potential effects*	
	Short term	*Medium-long term*
Increasing trend of stocks: +31% from 2004/2005 to 2005/2006 Increasing distilled volumes: doubled from 2004/2005 to 2005/2006	Options 2 (partly), 3, 4 will affect the market balance in the short term, by: • increasing surpluses. • decreasing prices. • erosion of margins. • decrease in the overall value of wine production on the market.	Achievement of market balance. Option 1 and partially Option 2 favour: • Possibility of making long term quality investments. • Gradual restructuring of the wine sector. Options 3-4 imply: • Difficulties in financing quality investments with internal resources. • Accelerated restructuring of the wine sector.

Measures concerning wine making practices, quality policy, GI protection and labelling rules	
Main peculiarities in the NMS	*Potential effects*
Quality wine produced in a specific region accounts for 55% of the total wine production. *Poland* • wine popularity is growing (it will increase 10-15% per capita in the next few years). • consumers are aware of country of origin and look for this when purchasing wines. *Hungary* • is the only NMS with significant production and export capacity • consumers are ready to spend extra money on good quality wine. *Czech Republic* • annual wine consumption has increased from 13 litres per capita in 1989 to over 17 litres in 2003, replacing hard liquors and partially traditional beer; • a further increase in consumption of and consumer migration to higher quality wines is expected. *Slovakia* • consumer expenditures on wine have nearly doubled in Slovakia in the five past years and continued growth is expected.	Options 1-2-3-4 have an increasing impact on wine quality, in particular on the following aspects: - More transparent and consumer oriented rules → meeting consumer's expectations on quality. - Increase of wine quality through better market orientation.

Source: DEIAGRA elaborations from 'Summary of the impact Assessment', Communication from the Commission to the Council and the European Parliament, 'Towards a sustainable European wine sector', COM(2006)319, and USDA Reports.

Among the four Options, the EU Commission favour the Option 2, the so-called Profound Reform, with the declared objectives to ([48]):

- increase the competitiveness of the EU's wine producers; strengthen the reputation of EU quality wine; recover old markets and win new ones,

- create a wine regime that operates through clear, simple, effective rules that balance supply and demand,

- create a wine regime that preserves the best traditions of EU production, reinforces the social fabric of many rural areas, and respects the environment.

The Commission discarded Option 1 (Status Quo), because it deemed that purely cosmetic changes to the wine CMO in force would not be sustainable economically or politically. Option 3 (reform along CAP Reform lines) was not considered a good solution as the potential amount of decoupled payment would be very small and would probably not compensate sufficiently the

([48]) See Press Release IP/06/824, 22-06-2007.

loss of market support for many producers. Finally, Option 4 (complete deregulation of the market) was excluded because the harsh adjustments required would cause severe negative economic and social impacts on the regions concerned ([49]).

Indeed in the case of Options 3 and 4, the absence of mechanisms of production potential regulation and the termination of market support measures could imply serious market crises also in the NMS, with substantial price decreases, a progressive erosion of margins, and reduction of investments by internal resources. This mechanism would imply selection of firms on the basis of the availability of financial resources, which also depends on systemic factors, like vineyard quality, or the level and flexibility of production technologies. In other words, this would be not only a selection among firms, but also a selection among different production and marketing systems, possibly representing the whole wine sector of certain Member States (especially the smallest ones).

The potential long term effects of options 3 and 4 would influence the long term strategic choices of producers. Facing both supply and demand uncertainty and the risk of losing market share and exiting the market – unless external financial resources are made available – firms would probably anticipate this long term risk by reducing their investments in quality in the short term. This could result in worsened wine average quality, and hence in a long term demand drop.

There is already a certain agreement among the Member States on Option 2, or for a mix of measures from Options 2 and 3.Focusing on the most important wine-producing NMS, i.e. **Hungary**, the following short-term impacts are the most plausible for Option 2:

- A significant reduction of production potential by effect of the grubbing-up scheme will probably occur. This will affect mostly small production units, which can not increase competitiveness through restructuring. Dismantling of such units might occur rather rapidly: indeed the socio-cultural features, which slow the exit of small units from the sector in EU-15, especially the substantial presence of family small vineyards, often run as a complement to non-agricultural activities, are generally lacking in Hungary.

- It is unlikely that serious market crises will be sparked by termination of market support measures, at least in the reference markets for operators with production units of adequate scale and technology, which form the vital core of the sector in Hungary. Distillation, in particular, has never represented an important outlet for Hungarian wine production. Moreover, Hungarian producers can count on an increasing demand for their wines both at home and in neighbouring NMS, for which Hungary is a traditional supplier. In these NMS the more expensive products from the EU-15 and international wine exporters can indeed be appealing in the near future only to a small elite of high-income buyers.

In a medium-to-long-term perspective, Option 2 has the potential to improve both the competitiveness of the wine sector and the average quality level of wine supply in the NMS, with synergic effects. In presence of augmented consumers' willingness to pay for quality wines, an increase in the margins of producers with adequate production units and good quality levels is likely to occur. This will imply more financial resources for new investments in plantations and innovation to improve competitiveness.

([49]) See Press Release IP/06/824, 22-06-2007.

The above short and long-term outcomes entail the consequence of the exit of a number of producers and workers from the sector. The social issues deriving from it would be addressed, in the Commission intentions, through a partial transfer of saved financial resources to the funding of specific measures, such as an early retirement scheme.
Moreover, the granting of a transitional period for the implementation of the reform (eventually limited to the Member States where the magnitude of the social drawbacks may be substantial) cannot be excluded: this would make the restructuring of the sector more gradual, and would ease the solution of the social issues generated by the reform.

3.2.3. Fruits and vegetables

The main aspects of the recent EU Commission proposal ([50]) for the reform of the CMO fruit and vegetable (F&V) can be summed up as follows:

Producer Organisations (POs): simplification of rules and greater flexibility. Producers will be free to join different POs for each product. There will be additional support (60% Community co-financing instead of 50%) in areas where production marketed via POs is less than 20%, and in the NMS, to encourage the creation of POs. There will be extra support for PO mergers and associations. Extra support to POs operating in a trans-national scheme or on an inter-branch basis will continue. Member States and POs will develop Operational Programmes (OPs) based on a national strategy.

Crisis Management: to be organised through POs. Tools will include: green harvesting/non-harvesting; promotion and communication tools in times of crisis; training; harvest insurance; financing of the administrative costs of setting up mutual funds. Withdrawals will be carried out by POs with 50% co-financing by the Community budget. Withdrawals for free distribution to schools, children's holiday camps, hospitals, charitable organisations, old people's homes and penal institutions will be 100% paid by the Community up to a limit of 5% of the quantity of marketed production of each PO.

Inclusion of fruit and vegetables in the Single Payment Scheme (SPS): land covered by fruit and vegetables will be eligible for payment entitlements under the decoupled aid scheme which applies in other farm sectors. All existing support for processed F&V will be decoupled and the national budgetary ceilings for the SPS will be increased. Member States will be allowed to establish reference amounts and choose which farmers will be eligible for new entitlements based on a representative period. The total amount that will be transferred to the SPS is around € 800 million.

Environmental measures: The inclusion of F&V in the SPS means that Cross Compliance will be compulsory for those farmers receiving direct payments. In addition, each OP must spend at least 20% of expenditure on environmental measures. There will be a 60% Community co-financing rate for organic production in each OP.

Promotion: POs will be able to include promotion of F&V consumption in their OPs. Community co-financing will be increased to 60% if the promotion of F&V is targeted towards school-age children and adolescents. Market withdrawals can be distributed for free to charitable organisations, schools and children's holiday camps.

([50]) COM(2007) 17 final, 24-01-2007.

Trade with third countries: No changes concerning the current legal framework on external trade, except the proposal of abolishing export refunds.

Simplification: The abolition of the processing aids will contribute significantly to simplification, as will the new rules on POs and the abolition of export refunds. Simplification will be further enhanced by harmonising the basic principles relating to marketing standards for all agricultural products, including F&V.

Also on the basis of the impact analysis of the reform Proposal made by the Commission ([51]), the following *impacts* concerning in particular the NMS can be highlighted.

Impacts on production capacity: no relevant effects in the NMS applying SAPS, as land on which F&V (and table potatoes) are grown is already eligible. In the NMS applying SPS (Malta and Slovenia) such land would become eligible for SPS. The decoupling of aid for F&V intended for processing will help production to be adjusted to market demand, also helping the conversion to other crops. It will also allow producers who are not members of POs to develop such production.

Impacts on competitiveness: Encouraging membership of POs by increasing the EU financing rate in the NMS – where organisation levels are generally low – should make POs more attractive and result in an increase of supply grouping, particularly for fresh products. This should make these products more competitive and strengthen producers' bargaining power versus large-scale retail and discount chains. Improved supply grouping in the NMS should hence help in maintaining production.
On the other hand, NMS POs would implement or comply with aspects of the reform like the elaboration of a national strategy for OPs, focused on better programming of expenditure, as well as the proposed minimum 20% expenditure on environmental measures in each OP. Given the unsatisfactory effectiveness in decision and programming activities often shown by public and private institutions in some NMS, these aspects of the reform might constitute a too daring challenge for them by slowing the improvement of the overall competitiveness of the F&V sector in these areas, and negatively counterbalancing the favourable effects of simplification.
In conclusion, the changes introduced with the proposed reform do not appear capable of sparking dramatic outcomes in the NMS, neither in positive nor in negative terms. Above all, they do not appear to be capable, by themselves, to fill the relevant gaps - structural, technological, organisational – which still characterise substantial portions of the F&V sector in the NMS.

3.3. Summary

As regards the financial perspectives for the 2007-2013 period, an increased level of support will be granted to the NMS farmers compared to 2004 levels. The effectiveness of Rural Development measures should also improve, provided that the efficiency of the institutional framework is going to progress accordingly.
These developments will help to tackle the challenges faced by the agricultural industry in the NMS:

1. by reshaping the structure of the agricultural industry through the implementation of the rural development measures;

([51]) SEC(2007) 74, 24-01-2007.

2. by helping farmers to pass through restructuring, thanks to the additional income granted by policy support.

The process at point 1 above can occur through:

a) achievement of scale economies and introduction of technological innovations,

b) organisational innovations (especially horizontal and vertical coordination),

c) product diversification towards non-surplus basic commodities and processed products, with start of new on-farm activities,

d) improvement of product quality and compliance with EU quality standards.

However, a more balanced restructuring of the NMS agricultural industry can be achieved only through:

- implementation of rural development strategies for aggregation of small-scale farms, also on the path of organisational innovation and product diversification,
- fostering infrastructure and services available in rural areas,
- renovation and improvement of human resources operating in agriculture.

A gradual exit of small-scale and semi-subsistence farms from the agricultural industry limits the possible social drawbacks, but in that case CAP funds are used to keep artificially alive farms lacking the potential for greater efficiency: the overall result is delaying agriculture reshaping and modernisation.
The allocation of available financial resources among different measures and typologies of beneficiaries is as important as their overall amount, to grant the viability of NMS agricultural industry in the next years.
Coming to the impact of the reformed CMOs on NMS farms, it has to be underlined that:

- In the sugar sector, the CMO reform will result in a strong restructuring process especially at industrial level, which will probably determine a more or less substantial decrease of sugar production in the NMS and significant social issues caused by loss of jobs;
- In the wine sector, the implementation of the most probable reform option would cause most small production units to cease operating, but the medium-to-long term perspectives for the sector in the major NMS producer, i.e. Hungary, are not negative;
- In the fruit and vegetables sector, the proposed reform does not seem to have the potential to cause dramatic outcomes in the NMS, and does not appear to be capable, alone, to fill the relevant gaps which still characterise substantial portions of this NMS production.

Beside minor exception, these reforms treat in the same way deeply different agricultural situations in the EU-15 and the NMS. This implies: (i) asymmetrical adverse impacts, which are stronger on the weakest realities, more widespread in the NMS; (ii) the unsuitability of the proposed reforms to fill the gaps (structural, technological, and organisational) which characterise the most of agricultural producers in the NMS.

4. Conclusions and policy recommendations

This chapter is about the main study conclusions and recommendations. We mainly focus on critical aspects and outcomes of CAP implementation and we propose recommendations to achieve a higher degree of policy effectiveness, while defining future targets and challenges.

1. NMS agro-food industry.

NMS agriculture suffers several structural constraints which result in lower economic performances at a farm and industry level. A low technical input usage, low investments, and labour intensive techniques limit labour and land productivity, especially in small-medium family farms, which represent the majority of NMS holdings. On the other hand, the poor development of farmers' associations limits the agro-food chain integration and the agricultural services outsourcing. The situation is different for large corporate holdings (once state holdings and co-operative companies) which can now take advantage of scale economies and a wider market and supply chain integration. The holding fragmentation and the strong structural polarisation still coexist under the free market economy. After the Accession, the structural, production and productivity gaps between NMS and EU15 are reducing, but are still relevant. Recent agriculture dynamics are mainly due to long-term trends, which are determined by economic transition and market enlargement. NMS international competitiveness is also changing after the Accession, with positive outcomes for those countries among NMS which are benefiting from intra-UE trade.

2. SAPS.

The CAP measures under analysis (SAPS, SAPARD and RD measures) generally play a positive role in this context, but at present they are not the major agricultural development drivers. According to our estimate based on OEDC indicators, the CAP implementation (market measures, directs aid, RD measures) has generally enhanced total farm support (in global terms and per unit of work and land). But, conversely, the support level for NMS is still far from EU15 level. The impact of SAPS on this context is dualistic and even contradictory ([52]). Given the SAPS implementation mechanism, direct payments mainly act as income support for small family farms and marginal holdings. Income effect limits the exit from the industry, locking in land and human resources. Large holdings (which also benefit from RD measures) receive from SAPS a greater amount of payments, which can actually be used as incentive for input usage and investments. The production and structural impact is thus effective in this case. Concerning competitive diversification, it must be underlined that SAPS has no effect. The real impact of the SAPS may also be evaluated in view of the adoption ratio (in terms of farm or land reached by the measures in relation with eligible surface). This ratio varies largely among NMS: around 80-90% of the UAA in Poland, Latvia and Lithuania; around 50% of holdings in Czech Republic and Estonia. Even if available data are not homogenous, the adoption of SAPS measures is not complete yet. Considering that the adoption ratio is growing rapidly, also SAPS effectiveness should increase in the short term.

Maintaining the current implementation pattern, SAPS could result in increasing the structural dualism and the potential incentive for marginal holdings to remain in activity. This will also maintain labour forces in agriculture, lowering potential productivity increase. The relevance of this impact will also depend on other measures (namely incentives for the creation of farmers' groups, early retirement, incentives for young farmers) and on the job opportunities out of the agricultural industry.

([52]) The economics of SAPS and RD measures are described in the Annex to this chapter.

3. Institutional framework

The effective contribution of rural development measures to agriculture modernisation can be hardly assessed at present, because of programmes timing and of specific implementation mechanism ([53]). Qualitative and quantitative data show that SAPARD reached a satisfactory implementation level (94%), but only after Accession. Current rural development measures, two years after Accession, have globally reached a relevant implementation rate. Institutional effectiveness is progressing according to a leopard-spotted model, in the sense that strong differences still exist among countries and among administrative functions. Anyway, considering the number of projects and the level of finance, it can be argued that, at present, the purely administrative problems do not seem to be a major obstacle to project financing. From this perspective, we can conclude that SAPARD (together with similar initiatives implemented before Accession) has at least contributed to the building of a minimal or sufficient administrative organisation in relation to the CAP implementation.

4. Policy-making

By contrast, it must be outlined that, beside purely administrative functions, relevant inefficiency still remains in the accomplishment of tasks more strictly related with policy making. They concern objectives and targets identification of policy measures at national/local level, the objectives of implementation, the setting of monitoring procedures. The ability to use funds and the administrative machine building-up are not in themselves a guarantee for policy effectiveness, as this also requires ability in using administrative hardware in view of clearly identified objectives. Examples of this inefficiency are clearly assessed in national reports ([54]), showing that some problems exist in the definition of the policy intervention logic and in its implementation.

The policy-making issue should be taken into account in the near future, in order to pass from the institutional building-up to active policy-making and policy managing. Failing to do this, policy measures effectiveness could be compromised, despite of financial effort.

5. SAPARD

SAPARD impact is likely to be low. Beside administrative constraints, the real effectiveness is suggested by the financial endowment level (low financial impact of measures and financial contribution at a state level) and by the very limited range of measures adopted at national level. Only 4 measures out of 12 have been adopted by all NMS involved; three of them concern technical equipment renewal (85% of the funds are allocated to holding and processing investment, and in rural infrastructures), that should contribute to enhance directly work productivity. On the opposite, much lower resources are allocated to other relevant structural targets (creation of producers' groups, activities diversification, land improvement and re-parcelling).

([53])It must be outlined that rural development measures include both SAPARD and TRDI. SAPARD finance allocation has almost run over (94% in 2005). The financial commitment for CAP rural development measures is far less advanced (around 40% in 2005-2006). No evaluation is possible up to day on this respect.

([54])Evaluation reports concerning the rural development measures implementation frequently tell about problems in the definition of real measures objectives, the selection criteria definition, modification of criteria during implementation, budget re-allocation among measures, low project generation, limited access of small farmers to finance, lack of monitoring procedures and criteria.

6. TRDI

Financial figures change after Accession together with the adoption of RD measures among NMS and financial engagement. From this perspective, the impact on modernisation should improve in general terms. Conversely, the change of priority among measures is low in relation to SAPARD spending pattern and the impact of some relevant measures (environment, quality, farmers groups) might still be poor, if this trend will continue in the future.

The spending patterns of SAPARD and rural development measures are mainly based on hard investments in the agro-food industry. This is justified by the need to recover obsolete and outdated technical equipment and to enhance productivity. In the medium term, more attention should be paid for the enhancement of relational networks among holdings (producers' groups, farmers' associations, vertical integration along the supply chain). Lack of integration will represent a real bottleneck in the near future for agriculture economic development and even policy measures effectiveness.

7. Brief assessment of financial perspectives

The financial figures over the period 2007-2013 show that the unit value of financing (in € per hectare) in the NMS will gradually converge toward the EU-15 level. Phasing in the mechanism operation should also offset national complementary funds, preserving the level of allocations for rural development measures. The effectiveness of such measures should thus improve if compared with the pre-accession period and current estimates.

With respect to the possible consequences of CAP health check (which are planned to conclude in 2008 or 2009) on funds allocation between market support measures and direct payments, on one hand, and rural development measures, on the other, the EU Commission insists that a fund transfer from the former to the latter should occur ([55]). In the case of NMS, this would probably have beneficial effects for the industry modernisation, as it would further shift the focus from artificially kept-alive (via income support) production units (which lack the potential for becoming economically viable) to the promotion of investments for structure upgrading, technology and agricultural production organisation. Other aspects (e.g. full de-coupling, termination of set aside regime) would have little or no relevance in NMS, differently from the EU-15.

Finally, as regards the possible evolution after 2013, a reduction in the amount of financial resources available for CAP funding, with the likely associated adverse impacts on the NMS agricultural industry, cannot be excluded. However, it must be underlined that in such a scenario an allocation of available resources in the sense described above, i.e. targeted at filling gaps still existing between NMS and EU-15, would become even more essential.

Financial allocation enhancement should couple with a deep revision of the structure of the different measures in progress. Given the poor effect of direct payment on productivity enhancement and on production orientation, the question should rise whether SAPS and related implementation mechanism really fit to NMS strategic aims. In this view, the possibility of a partial re-coupling should be considered. Secondly, the spending patterns of rural development measures should be re-addressed.

([55]) Speech/06/622 'The CAP in the European scenario', Cernobbio, Italy, 20 October 2006.

8. CMO reform

As far as the sugar sector is concerned, given its structural figures and technical efficiency in the main NMS producers, CMO reform will result in a strong restructuring process especially at an industrial level, which will probably determine a more or less substantial decrease of sugar production in the NMS and significant social issues caused by the loss of jobs. In the wine sector, the implementation of what appears to be at present the most probable reform option would cause most small production units to cease operating, but medium-to-long term perspectives for the major wine producing NMS, i.e. Hungary, do not appear to be negative. Finally, it is unlikely that the proposed reform for the fruit and vegetables sector will spark dramatic outcomes in the NMS, neither in positive nor in negative terms. Indeed, the changes it would introduce do not appear to be capable, alone, to fill the relevant gaps - structural, technological, organisational ones – which still characterise substantial portions of the fruit and vegetables sector in the NMS, in comparison with the EU-15. The above-said reforms all have in common – with minor exceptions – an undifferentiated treatment of deeply different agricultural realities, i.e. the ones to be found in the EU-15 versus the ones to be found in the NMS-10. This implies:

- asymmetrical adverse impacts, which are stronger on weakest realities, generally more diffused in the NMS than in the EU-15;
- unsuitability of proposed reforms to help filling the gaps – of structural, technological, organisational nature – which characterise a substantial part of the NMS agricultural industry.

The outcomes (real and potential) of CMO reform emphasize once more the structural gap between the NMS and the EU-15. To avoid greatest negative impacts, the reform application should be differentiated in the NMS in order to take into account the peculiarity of those countries (e.g. time delay, additional measures to accompany the impact). This should go together with a policy measures re-equilibration (see also box under point 7).

9. Strategy design

A further aspect of NMS agriculture should be outlined. NMS inherited a dualistic structure from past political regime, which opposed large state holdings and co-operatives to small-size family farms, the latter being strongly discriminated in resources redistribution. The advancement of the transition process has not taken away this character yet. The agricultural social industry privatisation has produced only a partial redistribution of land and resources to family holdings. In most cases, former collective farms have assumed the legal status of private companies, but maintained their previous structural characteristics (i.e. enormous land areas and economic size, and vertical integration with the agro-industry). Family farming has faced the transitional period with no means to compete, as they lack technical means and organisational schemes at the farm and supply chain levels. This situation has not substantially changed in the last years. Agricultural privatisation has actually created a new dualism, opposing family farming and the new corporate (formerly social) farming. On the opposite, family farming, vertical and horizontal integration are largely diffused in EU15. They constitute in fact an organisational scheme ('family farming + integration' model) rooted in the production system for social and economic reasons. In the last decades, this scheme has covered a strategic role in CAP implementation as well. This aspect should be carefully considered when CAP effectiveness in the NMS is questioned. The question is: has any specific organisational scheme been foreseen to back the CAP implementation in the NMS? Secondly, it seems that CAP is being implemented beside any statement or assumption about NMS strategic role in the EU

context. At this point, a further question emerges: how will NMS be able to compete in the enlarged market? What are the potential fields of competition/complementarity with respect to the rest of the EU Countries?

Failing to define a role for the NMS, in absence of any organisational reference scheme for the industry to reach strategic objectives, CAP measures will have a relevant degree of mis-targeting and ineffectiveness, despite increased funding and/or the building-up of an efficient administrative organisation. Some evidence of such situation is already appearing and should be taken into account.

10. Policy recommendations

To conclude, some recommendations stem from the general analysis and from above-outlined issues.

10.1. Identify a possible competitive/complementary position of the NMS in the EU. This task should be given high priority in the years to come, in order to prevent the problems described under paragraph 9 ([56]).

10.2. Identify a reference organisational scheme (kind of farms, kind of supply chain, relational issues, etc.) which is likely to serve the industry's strategic aims with the best level of economic and social sustainability. Adopting the 'family farming + integration' model as the organisational scheme for NMS seems to be the most feasible solution in order to reach the strategic objectives, a higher level of CAP implementation effectiveness, a largest agricultural resources employment, a satisfactory trade off between efficiency and social sustainability ([57]). The reference model could be different on the basis of the national strategy applied.

10.3. CAP differentiation. To comply with 10.1. and 10.2., it is necessary to take into account historical and emerging differences among NMS and, to consider national peculiarities as far as possible. NMS should no more be considered as a homogeneous group of countries in the years to come. National peculiarities should be possibly integrated in the design of a more flexible implementation of the existing measures, or to conceive new ones. An adaptation of current CAP measures must be considered.

10.4. Current CAP Measures Adaptation. Assuming that a relevant role in the strategic design is assigned to the organisational scheme described under 10.2. the policy measures should be more strongly targeted to the agricultural organisation. Starting from the current set of CAP measures (mainly direct aid and rural development), a number of adjustments could be adopted. Some of them do require additional funding, while others are merely regulatory. The underlying intervention logic is that direct and indirect measures should be aimed at reducing structural and infra-structural constraints which limit family farming

([56])The identification of the NMS competitive position stems from some basic questions: - What is the possibility for NMS to reach adequate level of efficiency in agricultural production in the EU context? In this view the most promising sectors/activities should be identified and adopted as pivots of the strategic design. - What kind of functions should be covered by the NMS in relation to the EU supply chain? E.g.: agricultural production, basic primary processing industry, advanced industrial products, niche products, energy crops production, etc. - What sectors and what markets should be targeted within and outside EU?.

([57])Given the strong dualistic structure existing in many countries (e.g. Poland), practical identification of strategic farm typologies could represent a hard challenge. An adequate selection of criteria should be applied to select farm efficiency and to favour horizontal integration. On the other hand, selection criteria could vary on a single basis. For instance: in countries or regions where soil constraints or environmental problems are relevant (e.g. Baltic Countries), productivity would not be the priority nor the leading criterion to identify farming typology to sustain.

economic sustainability. Considering the prevailing situations in the NMS, the basic constraints for farmers (especially for family farmers) are coincident with the access to land and capital, low accumulation rate, access to technology. If we accept this rationale, the question is: how could current CAP framework be managed in order to reduce barriers to access those production factors? Some solutions are possible:

a) Given the SAPS operation, it should be considered the possibility to put a limit to the maximum amount of direct payments based on the holding area (i.e. compulsory modulation). This would allow the re-allocation of financial resources in the favour of selected family holdings.

b) In order to reach the most relevant structural objectives, the SAPS implementation policy could be revised to introduce a mechanism that links SAPS to structural targets. This means that adequate selection criteria (based, for instance, on land tenure, efficiency gains, engagement in farmers associations, human resources, access of young farmers) should be introduced. Furthermore, a series of cross compliance mechanisms could be applied to access a higher degree of finance (e.g. based on participation into farmers associations) in view of the strategic aims.
Among the structural measures, priority should gradually pass from farm investments to specific infra-structural targets. In this field:

c) The creation of farmers' groups should receive the highest priority. Up to now, the relevance of this aspect has been largely underestimated in rural development spending patterns. Farmers' integration into associations is appearing as a preliminary condition to reach not only economic efficiency but also policy implementation effectiveness ([58]). In some cases, building up farmers' groups could require a preliminary cultural acceptance of this kind of organisation (co-operative, for instance).
Other regulatory means could be adopted concerning access to land and credit (e.g.: strengthen legislation to favour land aggregation such as property rights and land leasing).

d) In view of the issues under point 10.1., further measures should be introduced to orient the production toward strategic sectors. SAPS is neutral in this case. Some rural development measures provide means to this objective, but are still poorly adopted. The possibility of partially re-coupling some incentives, by linking them to the production volume in specific sectors, should be considered for example. The implementation of this principle could adopt a production-quota mechanism for selected farmers typologies (e.g. family farmers).

e) In addition, technical support should be strengthened in order to sustain and disseminate the policy-making know-how at different administrative levels (national, regional, local), and more specifically: strategy identification, problem assessment, targeting means, monitoring procedures.

([58])At an economic level, farmers' groups allow even small farmers to access technical innovation and other relevant services, overcoming scale constraints (e.g. use of machinery, access to information and technical assistance, marketing organization); to manage supply; to face industrial and distribution power; to organize political action. From the point of view of the policy measures implementation, the farmers' associations could be intermediate entities for the wide spreading of the CAP (e.g.: information dissemination, fine tuning of the measures, building of appropriate procedures for targeting, project generation enhancement, etc.. See box under point 4).

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