

# Agricultural Policies in Non-OECD Countries

MONITORING AND EVALUATION



**AGRICULTURAL POLICIES IN NON-OECD COUNTRIES:  
MONITORING AND EVALUATION 2007**

**HIGHLIGHTS**

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## FOREWORD

These highlights contain extracts from the 2007 edition of the report, *Agricultural Policies in Non-OECD Countries: Monitoring and Evaluation 2007*. The full publication should become available end May 2007.

A key objective of the OECD is to facilitate policy dialogue among policy makers with a view to identifying good practices across a wide range of economic and social policy areas. The OECD places a high priority on its dialogue with non-member economies (NMEs), recognising that such dialogue contributes to the quality and relevance of our work and helps us collectively to address global economic challenges. Effective dialogue depends on the wide dissemination of consistent and comparable information, analysis and evaluation of current policy developments.

This monitoring exercise documents and evaluates the latest agricultural policy developments in those NMEs for which the OECD has undertaken country reviews of agricultural policies. Eight countries: Brazil, Bulgaria, China, India, Romania, Russia, South Africa and Ukraine are included in this update. Definitions of support indicators together with a review of support measurement issues and a comprehensive statistical annex, containing a wide range of contextual information for these countries, are also incorporated in this report.

This monitoring exercise mirrors that carried out each year for OECD countries and provides a common benchmark for international dialogue on agricultural policy reform. In particular, the estimates of the level of support to producers (PSE), and to the agricultural sector as a whole (GSSE) provide a much better understanding of the nature and functioning of agricultural policies by:

- Quantifying and categorising support policies.
- Comparing domestic to international commodity prices.
- Estimating taxpayer and consumer burdens.

The OECD approach to this policy monitoring process is unique. Local experts are engaged to provide background information while governments of countries under review and OECD member countries actively participate in the review of draft reports. This process helps ensure accuracy of the results, awareness and “buy-in” by national policy makers and provides an important element of capacity building.

The *Agricultural Policies in Non-OECD Countries: Monitoring and Evaluation 2007* was prepared by the OECD Trade and Agriculture Directorate. The main authors were Morvarid Bagherzadeh (co-ordinator), Jonathan Brooks, Wayne Jones, Andrzej Kwieciński, Wilfrid Legg, Olga Melyukhina, Catherine Moreddu, and Václav Vojtech. Florence Mauclet prepared the statistical annex and graphics, with assistance from Laetitia Reille. Anita Lari formatted the document and, along with Anne Bertel and Stefanie Milowski, provided administrative support for the Global Forum on Agriculture, where the draft country chapters were reviewed. A number of local experts contributed valuable background material for the preparation of the country chapters, including: Vicente Marques (Brazil), Nedka Ivanova (Bulgaria), Xiande Li and Guoqiang Cheng (China), Mahendra Dev and Raghav Gaiha (India), Camelia Gavrilescu (Romania), Eugenia Serova (Russia), Andre Jooste (South Africa) and Irina Kobouta (Ukraine).



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## EXECUTIVE SUMMARY

The agricultural sectors of many developing countries have changed dramatically in the past two decades, due to rapid policy reforms. This report describes and analyses government support to agriculture in eight non-OECD nations: Brazil, India and South Africa (three large developing economies); Bulgaria, Romania, Russia and Ukraine (four formerly planned economies); and China, which combines features of both groups.

### Major findings

**Agricultural policy reforms during the past decade have resulted in levels of government support to producers, as measured by the Producer Support Estimate (PSE), generally well below the OECD average.** For the 2003-05 period, estimates of government support to producers as a per cent of gross farm receipts (%PSE) were: Ukraine (3%), Brazil (5%), South Africa (8%), China (8%), Bulgaria (8%), Russia (17%) and Romania (27%); compared with the OECD average of 30%. Producer support estimates for India are not yet available but would appear to be slightly below the OECD average.

**Support to agriculture is dominated by market price support (MPS) and input subsidies, the least efficient and most distorting ways of providing agricultural assistance.** While OECD countries generally reduced MPS during 2003-05, the levels of MPS in the non-OECD countries under review have generally increased or remained unchanged.

**More targeted forms of support not linked to production are increasingly being sought to pursue specific goals, such as raising the incomes of poor farm households, promoting rural development and protecting the environment.** Such policies are to be preferred as economic growth alone is unlikely to solve, and can sometimes exacerbate, economic and social divisions.

**The ad hoc nature of many recent policy developments does not provide the predictable policy environment that is essential for growth and adjustment.** There are several examples in this report of ad hoc and unsustainable agricultural expenditures being used to support markets. While all the countries in this report have demonstrated that profound agricultural policy reform is both possible and beneficial, inconsistency in policy implementation has in some cases undermined the effectiveness of current policies and compromised further reforms.

**The countries in this report provide relatively little General Services Support (GSS),** which funds activities such as research and development, marketing and infrastructure improvements. While there is a strong case to be made for the benefits of increased GSS, budgetary resources have instead often been used in inefficient ways to support producer incomes. A somewhat worrying development is that the share of GSS in total support has been declining for several countries in this report, while producer support has risen.

**The long-term future for most semi-subsistence farming households lies outside agriculture,** so there is a need for measures that facilitate income diversification and the exploitation of non-farm activities, such as improved access to education in rural areas, better health care, pension and other social security services, enhanced land property rights and rural tax reforms.



## OVERVIEW

This *Overview* is intended to first provide a general appreciation of the relative importance of the agriculture sector in the eight non-OECD economies under review. These comprise three large developing countries (Brazil, India and South Africa), four formerly planned economies (Bulgaria, Romania, Russia and Ukraine) and China, which combines some features of both groups. Next, a discussion of the main driving forces for change sets the policy context. The political response to these forces in terms of policy reforms and new government initiatives is then evaluated, based on the OECD standard measures of support (PSEs/TSEs, see Annex 1 for more details). Finally, some general policy observations and recommendations are offered. It is these last two elements that are generally of most interest to decision-makers – an assessment of different approaches to addressing what are often similar problems and economic circumstances. The OECD experience with policy reforms in OECD countries, and a growing number of NMEs, suggests that the effectiveness, efficiency and spill over effects of different agricultural policy measures vary a great deal.

### **Agriculture in the economy**

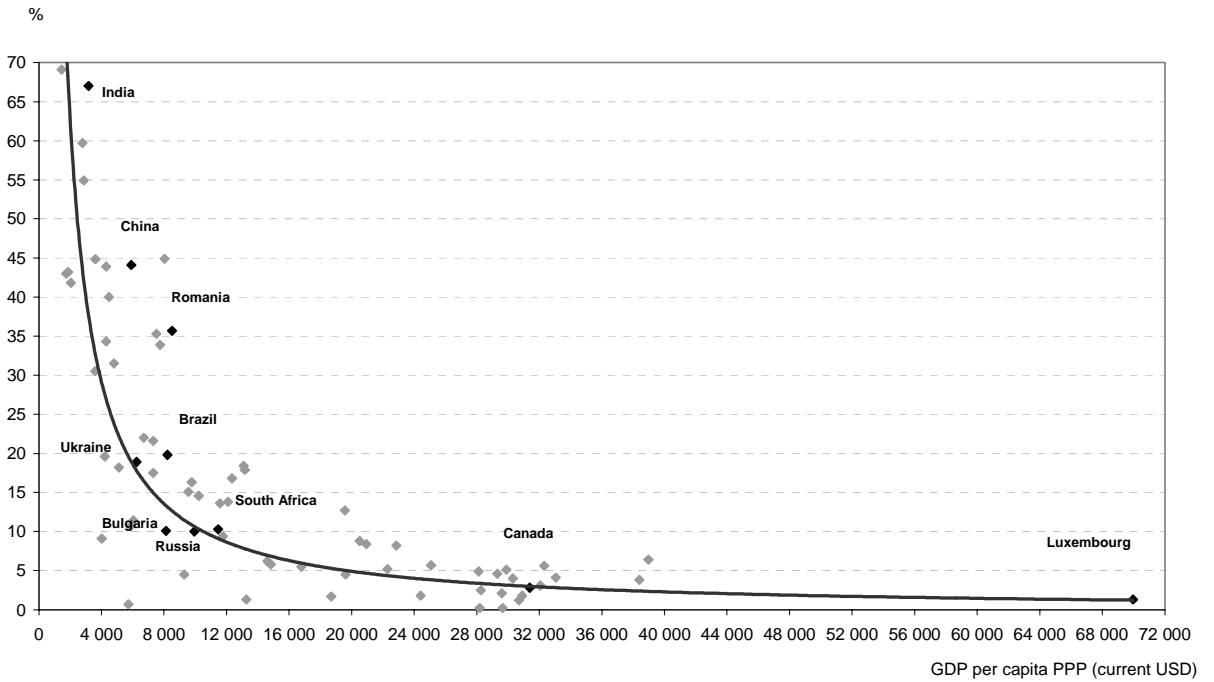
The relative importance of the agricultural sector in the overall economy is one of the critical factors in the ranking of agricultural policy reform on a government's political agenda. For the countries under review, the structure of the sector has changed enormously over the last couple of decades and continues to evolve at a rapid pace, compared with the majority of OECD countries. This makes the examination of the performance of the sector and the effectiveness of associated policies on a regular basis all the more important.

The eight countries under review account for 44% of world population and 30% of the agricultural output. They produce over 40 % of cereals and meat, and over one-half of all fruits and vegetables. Most production is consumed domestically, with the group accounting for less than 10% of world agro-food trade. The following graphical highlights provide a brief overview of the relative importance of the respective agricultural sectors (see Annex 2 for more details).

### ***Agriculture is still a major employer.***

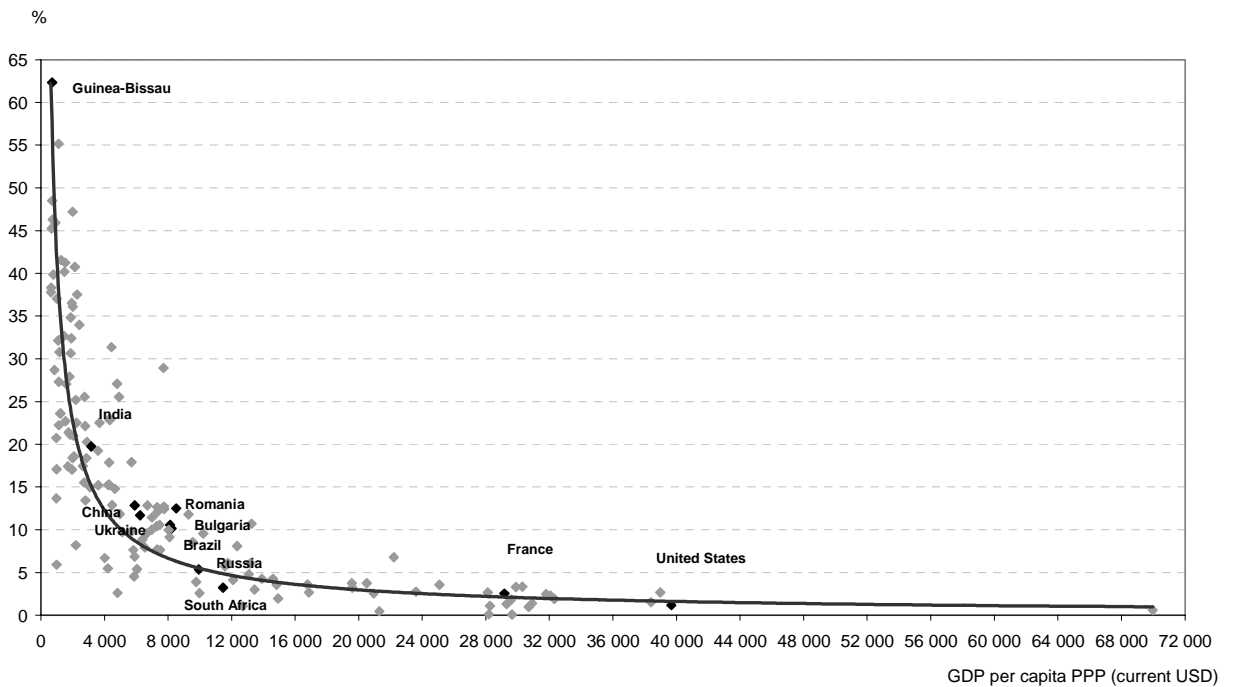
Comparing the share of agriculture in total employment and in GDP against GDP per capita across a large number of countries provides a rough index of development (Figures 1.1 and 1.2). Generally, the more developed a country (higher GDP per capita), the lower the relative importance of agriculture. Typically, for the countries under review, agriculture has a disproportionate share of employment indicating low levels of labour productivity and the buffer role of agriculture in labour markets. This reflects the dualistic nature of farming in all these countries, with a few large-scale operations and a large number of small, relatively unproductive producers.

**Figure 1.1. Agriculture's share of total employment against GDP per capita, 2003-05 average**



Source: World Bank, World Development Indicators, 2006.

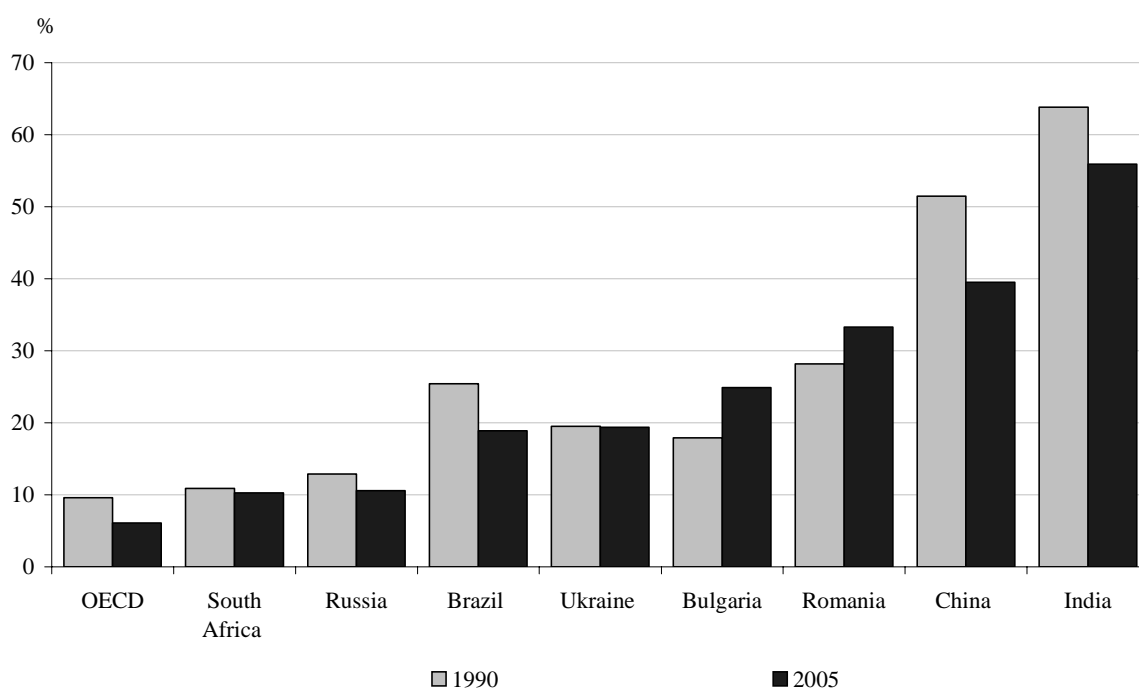
**Figure 1.2. Agriculture's share of GDP against GDP per capita, 2003-05 average**



Source: World Bank, World Development Indicators, 2006.

As a consequence, the countries under review contrast strongly with OECD members with a much higher share of agriculture in total employment (Figure 1.3). There has been, however, labour shedding from agriculture which has been particularly rapid in China and India, where strong economic growth and some labour market reforms have opened off-farm employment opportunities. Still, agriculture remains a much more important source of employment in all these countries. Contrary to the downward trend in most of these countries, increasing shares of agricultural employment in Bulgaria, Romania, and Ukraine reflect a slow economic readjustment process as well as specific government policies of land reform and small farm development.

**Figure 1.3. Share of agriculture in total employment**

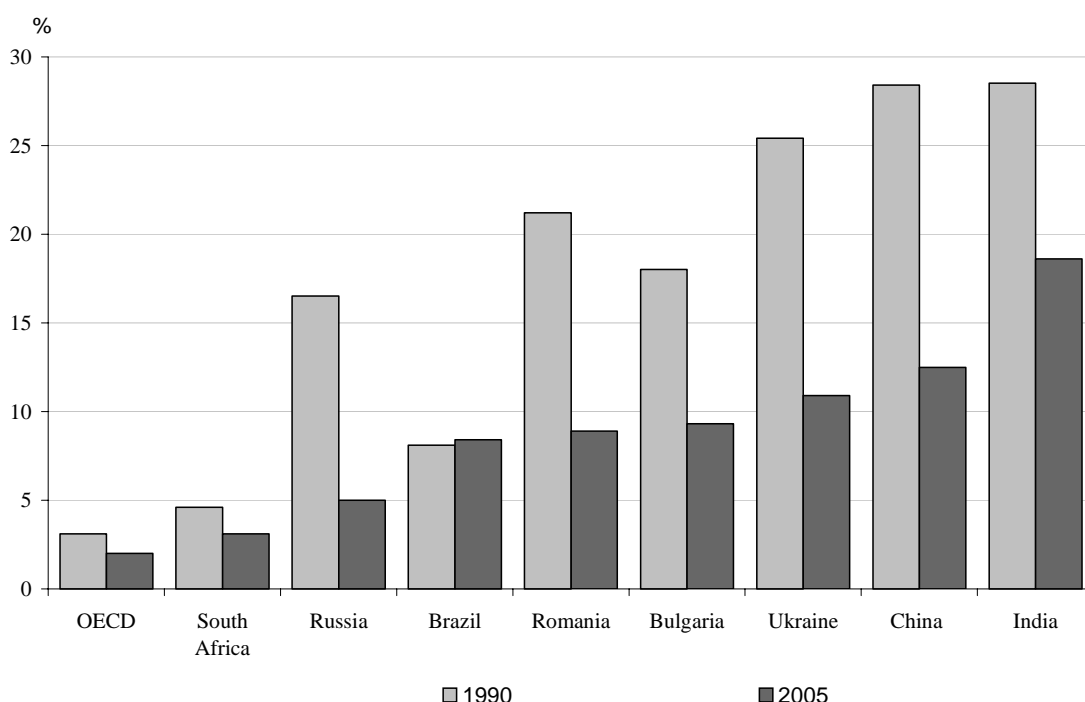


Source: OECD Secretariat, 2006; World Bank, World Development Indicators, 2006.

***The economic importance of agriculture is declining.***

Agriculture is a much more important component of Gross Domestic Output (GDP) in the majority of countries under review than it is for OECD countries (Figure 1.4). However, this share is rapidly declining as growth in the service and industry sectors outpaces that of agriculture. With the exception of Brazil and South Africa, the share of agriculture in GDP has virtually halved over the 1990-2005 period for the countries under review, suggesting that agriculture's traditional high priority in the policy agenda may diminish in coming years. Brazil is the only country in the group where agricultural growth has been strong enough for the sector to maintain its relative importance in the economy.

**Figure 1.4. Share of agriculture in GDP**

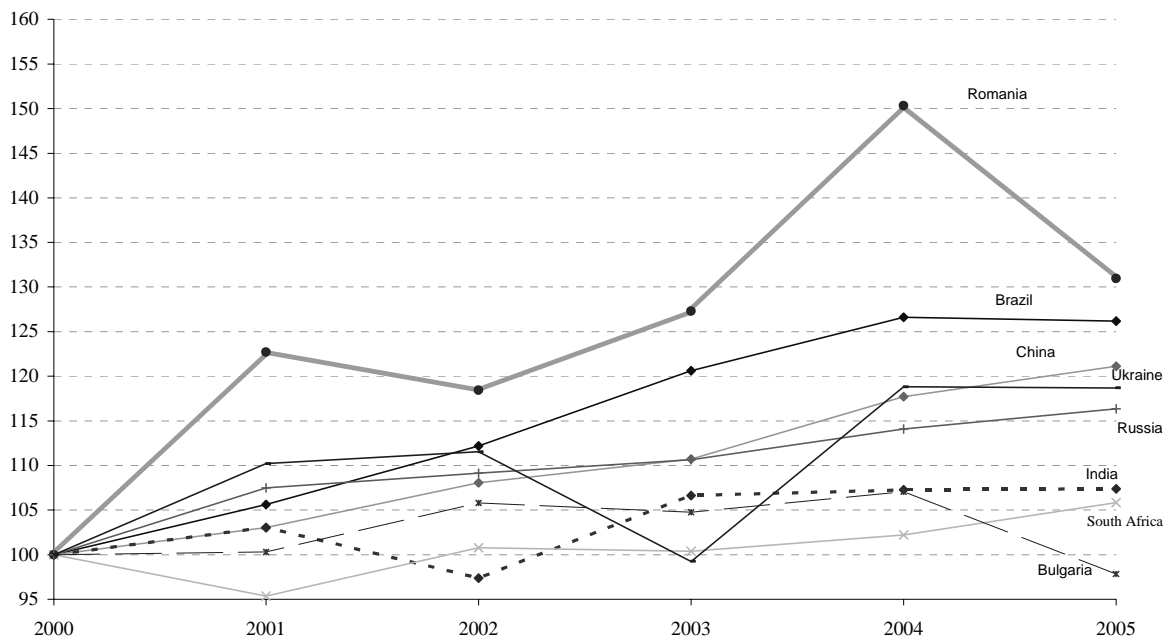


Source: OECD Secretariat, 2006; World Bank, World Development Indicators, 2006.

Gross agricultural output has increased steadily since 2000 but generally not kept pace with the rate of growth in the overall economies (Figures 1.5 and 1.6). The long-term upward trends are the result of more input-intensive production, improved technology, and increased livestock production. With the exception of Brazil, the land area used for agriculture has remained stable or declined. Large year-to-year variations tend to reflect extreme weather conditions which affect production. Crop yields, for example, have been highly variable over the last five years in Romania, Russia and Ukraine. This has led to some short-term policy responses intended to counterbalance volatile market conditions. In contrast, Brazil and China have managed steady annual gains in agricultural output since 2000.

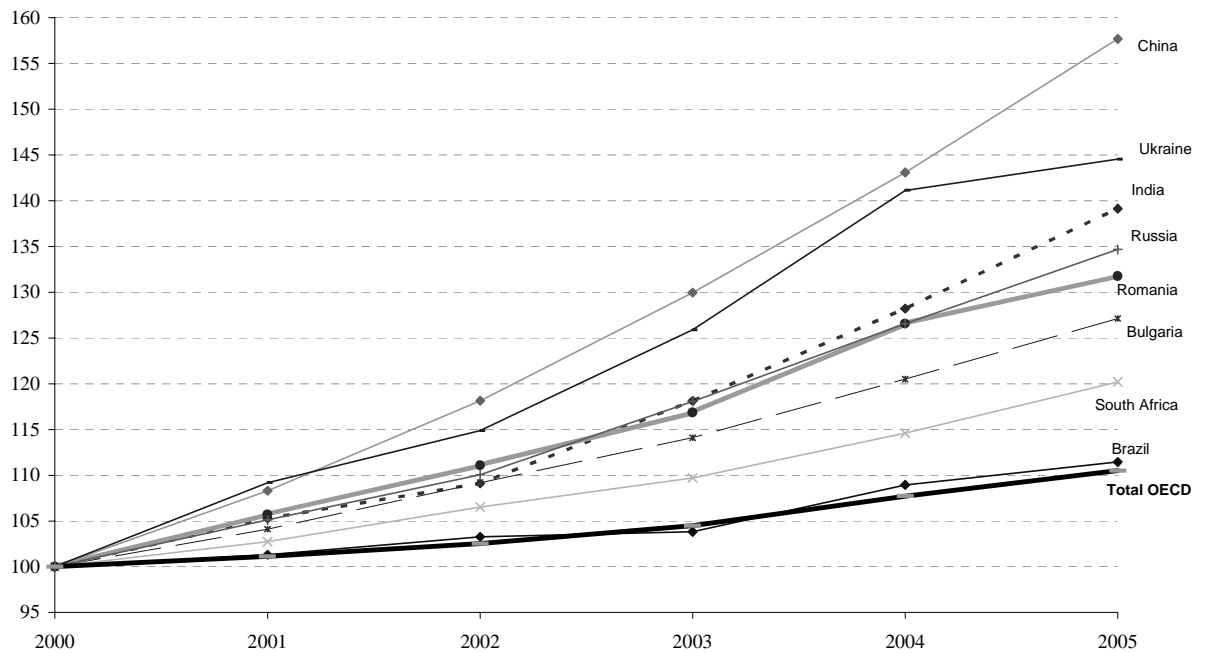
In terms of trade balances, Romania, Russia and, recently, China are net agriculture and food importers with a growing food trade deficit as rising incomes and currency appreciation reduce the cost of imports and consumer demand outpaces growth in domestic food production (Figure 1.7). For the first time since the late 1970s, China's agro-food balance changed from a net export to net import position in 2004 as the government purchased 7 million tonnes of wheat to replenish stocks and imports of soybeans and cotton increased sharply. Except for Bulgaria, exports are expanding for the other net exporting countries in this group with Brazil far and away the most significant and fastest growing exporter of agriculture and food products (13.5% growth in 2005).

**Figure 1.5. Gross Agricultural Output, index 2000=100**



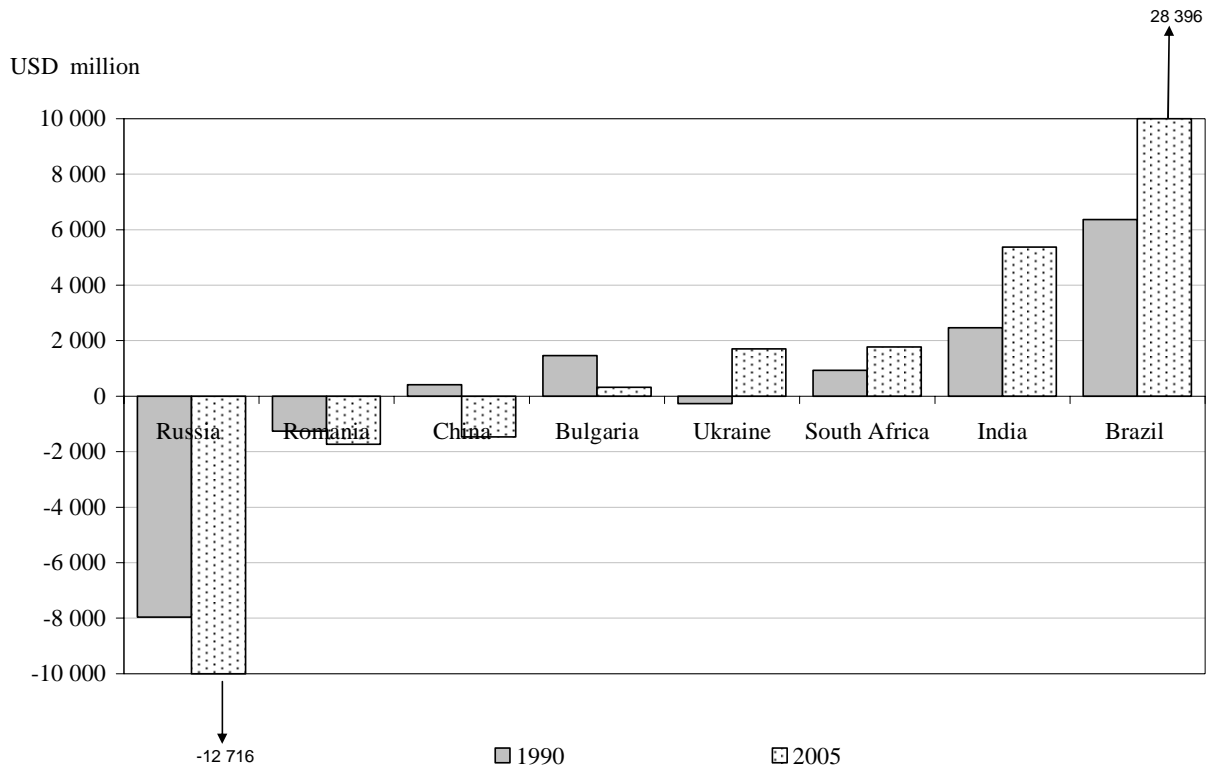
Source: OECD Secretariat, 2006; FAO, FAOSTAT database, 2006.

**Figure 1.6. Evolution of GDP, index 2000=100**



Source: OECD Secretariat, 2006; World Bank, World Development Indicators, 2006.

**Figure 1.7. Agricultural and food trade balance**

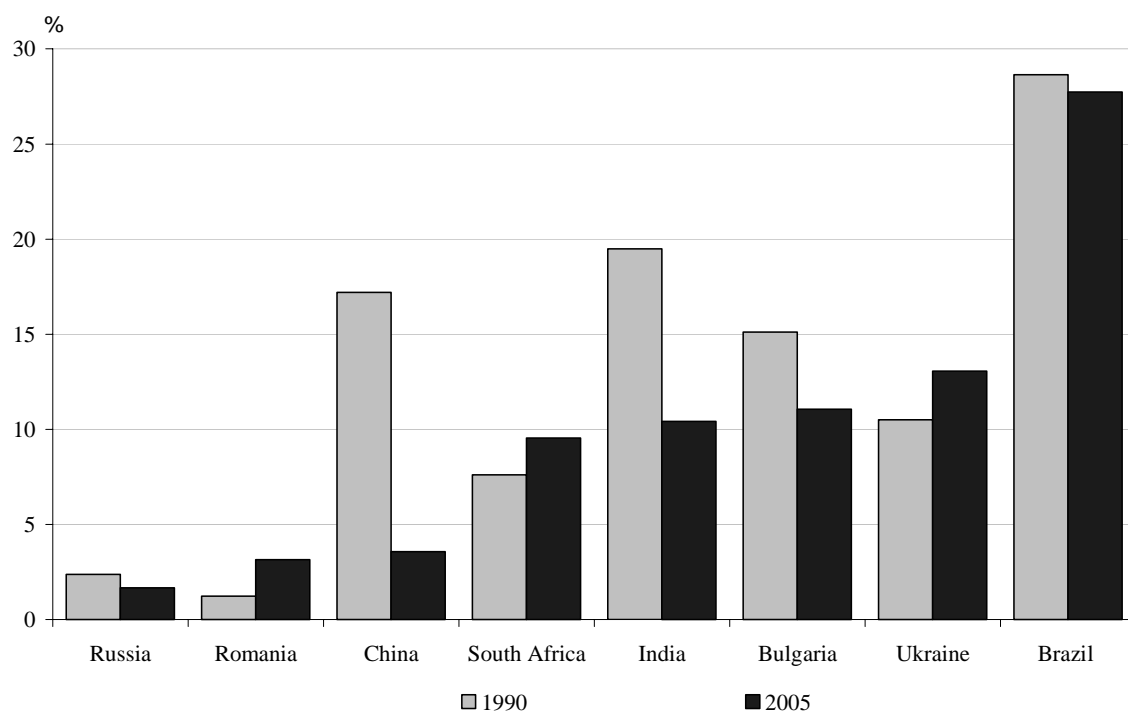


Source: OECD Secretariat, 2006; U.N., UN Comtrade database, 2006.

In five of the eight countries reviewed, the share of agriculture and food exports in total commodity exports declined (Figure 1.8). Conversely, this share increased in Romania, South Africa and Ukraine. Romania's agro-food exports grew 2.5 fold between 2000 and 2005. South Africa is one of the world's leading exporters of wine, fresh fruits and sugar and a major trader in the African region. Agro-food exports for Ukraine reached a record level of USD 1.7 billion in 2005. Agro-food exports remain particularly important for Brazil, where they accounted for over one-quarter of all exports in 2005.

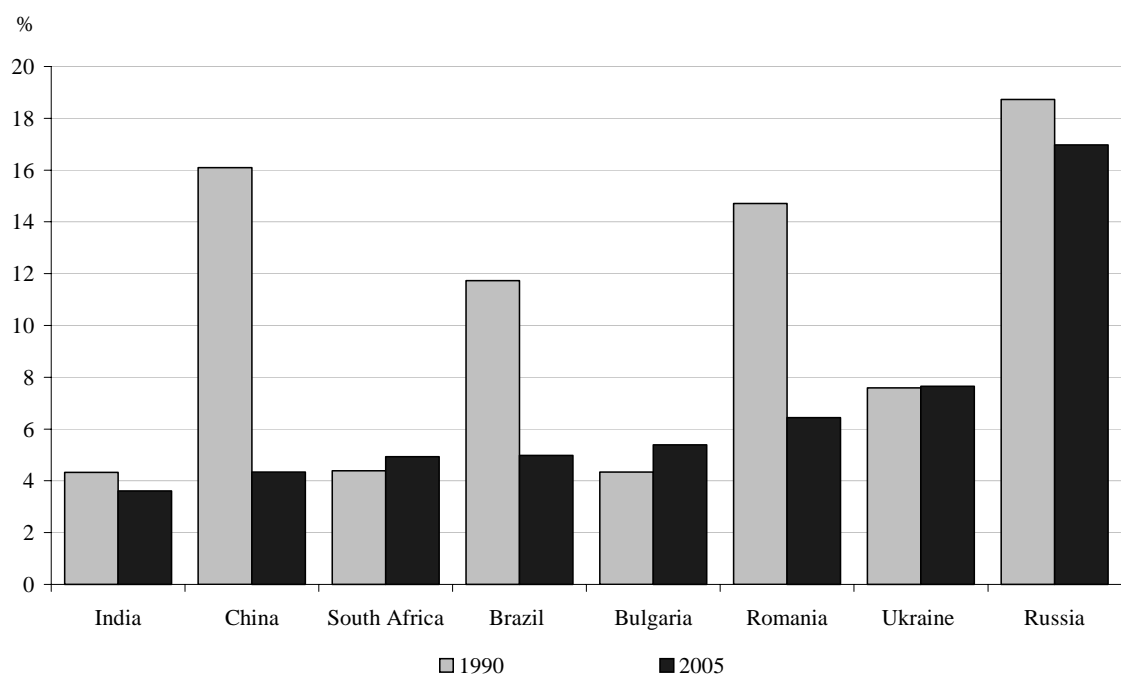
There was little change in the share of agriculture and food in commodity imports over the 1990-2005 period at about 5-7% for India, South Africa, Bulgaria and Ukraine (Figure 1.9). The large declines in the share of agriculture and food imports for China, Brazil, Romania and, to a lesser extent Russia, reflect the rapid growth in non-food imports associated with rising consumer incomes. For these countries, currency appreciation, higher wage rates and reduced unemployment fuelled the growth in consumer expenditures on non-food imports.

**Figure 1.8. Share of agriculture and food exports in total exports**



Source: OECD Secretariat, 2006; U.N., UN Comtrade database, 2006.

**Figure 1.9. Share of agriculture and food imports in total imports**



Source: OECD Secretariat, 2006; U.N., UN Comtrade database, 2006.

## Policy context

This section examines some of the driving forces for change in the agricultural policies of the countries under review. With agriculture occupying a prominent role in each of these economies, and closely linked to such concerns as rural development, poverty alleviation and resource sustainability, decision-makers often seek at least partial solutions to broader social and economic problems through agriculture. There are many similarities but also several important differences in the pressures faced, and objectives pursued by the governments of these eight countries.

A common catalyst for major reform in most of these countries was a deteriorating macroeconomic condition often stemming from public and foreign deficits, and associated increases in indebtedness and inflation. In China, there were structural concerns over general economic inefficiency. In some cases, major political changes provided the political will for reform such as the end of military rule in Brazil, a fundamental change in leadership in China, the end of apartheid in South Africa and the liberalisation of formerly planned economies.

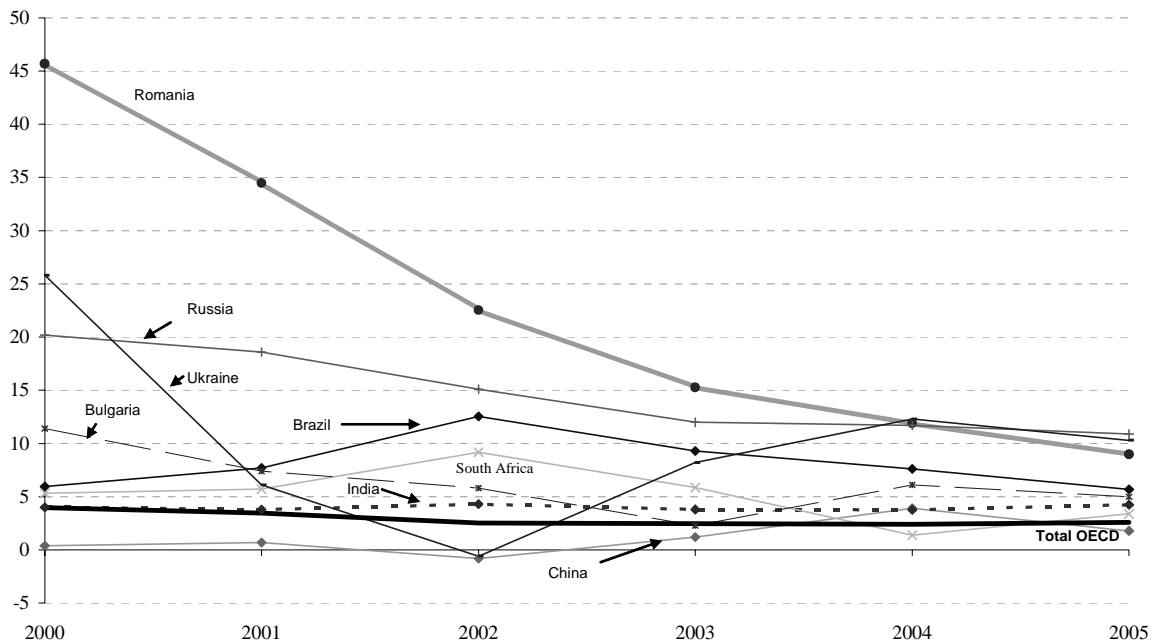
The direction of long-term economic reforms was similar with a move from closed economies focused on self sufficiency and import substitution to more open economies. Economic liberalisation was generally broad and swift in the countries under review although more gradual in China and India. Reforms encompassed measures aimed at deregulation of domestic markets and prices, trade liberalisation and privatisation. Tighter fiscal and monetary policies, often combined with a depreciation of the domestic currency, established the fundamentals for economic stability and growth. Substantial investments in infrastructure have in several cases allowed the private sector to capitalise on new economic opportunities, although until recently, rural areas were somewhat neglected.

The countries under review have benefited from sound macroeconomic policies throughout the 2000s, which have resulted in improved fundamentals, including lower levels of public debt, budget surpluses or modest deficits and, in most cases, positive current account balances. Much of the economic growth has come from services and industry rather than agriculture. Recent economic growth in these countries has often outpaced that for OECD countries as a whole, with China and Ukraine the strongest performers (Figure 1.6). Both China and Russia posted record high current account surpluses in 2005, driven largely by positive trade balances. However, recent conditions have been less favourable. High oil prices caused a downturn in economic growth for most countries in 2005-06, although as an energy exporter Russia also benefited to some extent from higher oil prices. Growth slowed in Brazil where investment and consumption were dampened by high real interest rates, while in Bulgaria and Romania deteriorating foreign trade balances led to sharp increases in current account deficits.

A common characteristic of the countries under review is the impressive progress made in bringing inflation under control since 2000 (Figure 1.10). Still, the generally strong economic performances over this period continue to exert inflationary pressures and exchange rate appreciation. Russia and Ukraine saw double digit inflation rates in 2004-05 with a more moderate 5-6% in Brazil and South Africa. In 2005, China adopted a new exchange rate regime to moderate appreciation of the Yuan. Despite the overall positive economic situation, unemployment rates remained very high in Bulgaria (18%) and South Africa (26%), with large regional disparities and hidden unemployment, particularly in agriculture, common to all these countries.



**Figure 1.10. Inflation, end year changes in consumer prices, per cent**



Source: OECD Secretariat, 2006; World Bank, World Development Indicators, 2006.

With improved budget situations, governments are tempted to address social and economic problems with increased spending on agricultural programmes. In Brazil, policy initiatives in 2005-06 were designed to mitigate a price-cost squeeze in agriculture and transfer cash to poor families. Alleviating poverty, combined with food security, is the main priority of India's current five year plan. China's government has been allocating more budgetary resources to rural areas, while increased budgetary support to agriculture is provided for in a new Ukraine law introduced in 2005. South Africa increased spending on programmes to reduce poverty and unemployment. Russia introduced a two-year National Project stepping up support to the agro-food sector, in particular to boost domestic livestock production. Land reforms are another common policy focus (Box 1.1).

In all countries under review, the governments are committed to increasing the welfare of large numbers of small farmers. The specific policy objectives vary, and include raising farm incomes, reducing poverty, developing commercially viable operations, integrating small farms into rapidly changing domestic supply chains, and expanding rural non-farm opportunities.

There are several driving forces for change that are particular to certain countries. The main developments in Bulgaria's and Romania's agricultural policy, for example, were related to preparation for accession to the EU in January 2007, and to emergency measures that address weather disasters and animal disease outbreaks. Russia and Ukraine are entering the final stages of WTO accession, requiring harmonisation of their legislative frameworks with WTO rules and standards. Accession in 2007 is anticipated but some agricultural issues related to domestic support, export subsidies and border protection remain unsettled. In the interest of expanding trade and with the absence of substantive progress in WTO negotiations, all the countries under review have continued to pursue a range of bilateral and regional trade agreements.

### Box 1.1. Land reforms

Land reforms in the countries under review have been undertaken within very different economic and social contexts and are guided by varying objectives. Constraints – historical, economic, political, social and institutional – vary from one country to the next. However, a common feature of land reforms in all countries is an initial attempt to transfer rights to all or part of the agricultural land from large scale private or collective units to smallholders. In the developing countries (Brazil, South Africa and India) such transfers were put forward as a means of improving social equity and alleviating poverty. In the formerly planned economies (China, Russia, Ukraine, Bulgaria and Romania), these transfers were part of a broader transition to a market economy.

While in all formerly planned economies expected efficiency gains from a better designation of land rights played an important role, each country differed in the manner by which it implemented land reforms. In China, reforms were based on equal distribution of land use rights to all rural families, in Bulgaria and Romania on the restitution of land ownership rights to former owners, and in Russia and Ukraine on equal distribution of land ownership rights to rural workers and retirees, with large scale farms preserved via the renting of land from new landowners. In some cases – India, China, Romania and to some extent Bulgaria – reforms resulted in a fragmentation of agricultural holdings, leading governments to consider measures encouraging consolidation of farms into more viable economic enterprises. Below is a brief synopsis of the record of land reforms in the countries under review with the special focus on Brazil and South Africa, where land reform initiatives have been undertaken most recently.

**Brazil** has one of the world's most unequal land distributions. Towards the mid-1990s the issue assumed increased prominence, as the pressure from landless peasants mounted. Brazil is currently implementing its second National Agrarian Reform Plan, the broad objective of which is to integrate the poorest households into the general process of economic development. The main actions include settlement of landless peasants on lands confiscated, purchased or reclaimed by the government; provision of low-interest loans to acquire land; and funding community and infrastructure-related investments. A related activity is the Programme for Strengthening of Family Farming (PRONAF), targeted to small land farmers and providing varied support for agricultural activities, such as a large number of preferential credit lines for investments and working capital, processing and marketing. This programme also incorporates education and extension components. Expenditures on land reform and the support of family farming have increased since 2003 when the newly elected government declared eradication of poverty its main political priority.

Land Reform in **South Africa** foresees the restitution of land to people dispossessed in the past by discriminatory legislation. The restitution is done either in the form of physical land allotments, financial compensation, or through alternative remedies. Over 600 000 land claims had been made by 2004, of which more than one-half concerned rural land. Another component of the Land Reform is land redistribution, aiming in particular to settle small and emerging black farmers on viable farming operations in the commercial farming areas. It is planned to redistribute around 25 million hectares by 2015. Different modalities are foreseen under the redistribution programme, including the acquisition of part of the equity in existing agricultural enterprises, and the purchase of farms using capital grants. There also exists a Comprehensive Agricultural Support Programme (CASP), providing investment grants to farmers settled through the land reform, as well as Micro-Agricultural Finance Schemes providing micro-credit for agriculture on communal lands. In addition to these activities, other programmes targeted to address social disparities are implemented. For example, Agricultural Black Economic Empowerment is a comprehensive programme for skills development of the black rural population and their integration into mainstream economic activity.

The current farm structure in **India**, dominated by small-scale farming, is inherited from post-independence land reform originally aimed at distributing land to the poor and limiting the size of land ownership. A stated objective of Indian land policy is the consolidation of farms into larger, more viable units. Yet, the fragmentation of agricultural holdings becomes more acute with each succeeding generation, due to customs and inheritance laws under which a holding is divided among family members. Local initiatives have met with some success in the northern states, notably Punjab, Haryana, and Western Uttar Pradesh.

In **China**, while past reforms shifted agricultural production from collectives to a family-based farming system, farmland is owned by village collectives and leased under contract to individual households. Farmers' land rights have been formally strengthened with the extension of land lease contracts up to 30 years, but in practice remain weak. In particular, as urbanisation and industrialisation advance, low compensation for lost access to land has become one of the main reasons for peasants' discontent. The government has tried to tighten control over the conversion of farmland to non-agricultural uses and several legislative initiatives have been undertaken to protect farmers' economic rights, but their implementation remains weak.

In **Russia** and **Ukraine**, the early process of decollectivisation based on the distribution of land ownership rights among rural workers and retirees has been completed. Eligible citizens received land share certificates and the vast majority of them obtained state acts confirming their land property rights. However, while in Ukraine the process of physical delimitation of specific land plots has almost been finished, in Russia such delimitation is envisaged only in cases where a land owner wants to create a separate family-run farm. Land market transactions are to a varying degree limited by existing legislation. Although the sale of agricultural land in Russia is permitted, the regulations and procedures are complicated, lack clarity and are constantly amended, while in Ukraine, agricultural land sales are subject to a moratorium, now extended until the end of 2006. There are also upper limitations on land ownership by individuals or legal entities both in Russia and Ukraine.

Land reforms in **Bulgaria** and **Romania** involved two different processes: decollectivisation, mainly through the restitution of land used by cooperatives to previous owners; and privatisation of state owned land through sales, leases and concessions. While in Bulgaria the two processes are completed, in Romania legislative gaps led to procedural delays and the finalising of land reform is one of the government's primary objectives. In particular, land market legislation has been changed to accelerate legal actions in court on land restitution. SAPARD, the pre-accession EU-funded programme, and EU structural policies within the EU Common Agricultural Policy are expected to help stronger farm units emerge in the two countries.

Not surprisingly with over one-third of the world's population, food security is a major policy challenge in China and India. Grain security has been a top priority in China in recent years with the emphasis on increasing production capacity. Specific targets of 103 million hectares and 500 million tonnes of grains (including soybeans) have been set for 2010. India's primary agricultural policy objectives are food self-sufficiency and poverty reduction (to improve access to food). The Green Revolution brought about large gains in production but, in recent years, food crops in particular have reached a plateau with deteriorating land quality and water shortages posing serious problems for future increases in output.

Finally, agro-environmental issues are a growing policy concern in Brazil, China and India. Policy makers in Brazil confront a difficult trade-off between the economic benefits from agricultural expansion and the environmental benefits from forest preservation. But the fate of the Amazon rainforest is just one environmental issue linked to agriculture, albeit the one that attracts the greatest international interest. The impact of agricultural water use on resource levels and pesticide use on water quality are other concerns raised by farming systems in Brazil.

China is searching for ways and means of better aligning resource use with societal interests and environmental sustainability. China's endowment of water resources is extremely low and badly distributed while input-intensive agronomic practices are taking their toll in land degradation. Agro-environmental issues with a special focus on water, as identified in the 2005 *OECD Review of Agricultural Policies in China*, were seen as an urgent priority of the Ministry of Agriculture; and will be a central issue in the on-going *OECD Environmental Review of China*.

Similarly, in India the sustainable management of water and land resources are two of the most important agro-environmental issues. India has only 4% of world water resources for 16% of the population, and the lack of water is a serious issue in many parts of the country. Moreover, the demand for water is rising rapidly for both non-agricultural and agricultural uses. Several serious conflicts have arisen between states over water use in agriculture and the development of irrigation through multi-purpose hydroelectric dams. Land degradation is a widespread problem from direct erosion due to flooding and surface run-off as well as from the excessive use of water, resulting in salinity and/or alkalinity.

## **Evaluation of support**

Support estimates (Box 1.2) are presented here for seven of the eight countries covered in this report (not available for India). These estimates form the basis for a comparative evaluation of policy developments in each country, the foundations of which are discussed in Box 1.3.

### ***Producer support is relatively low but has risen in several countries.***

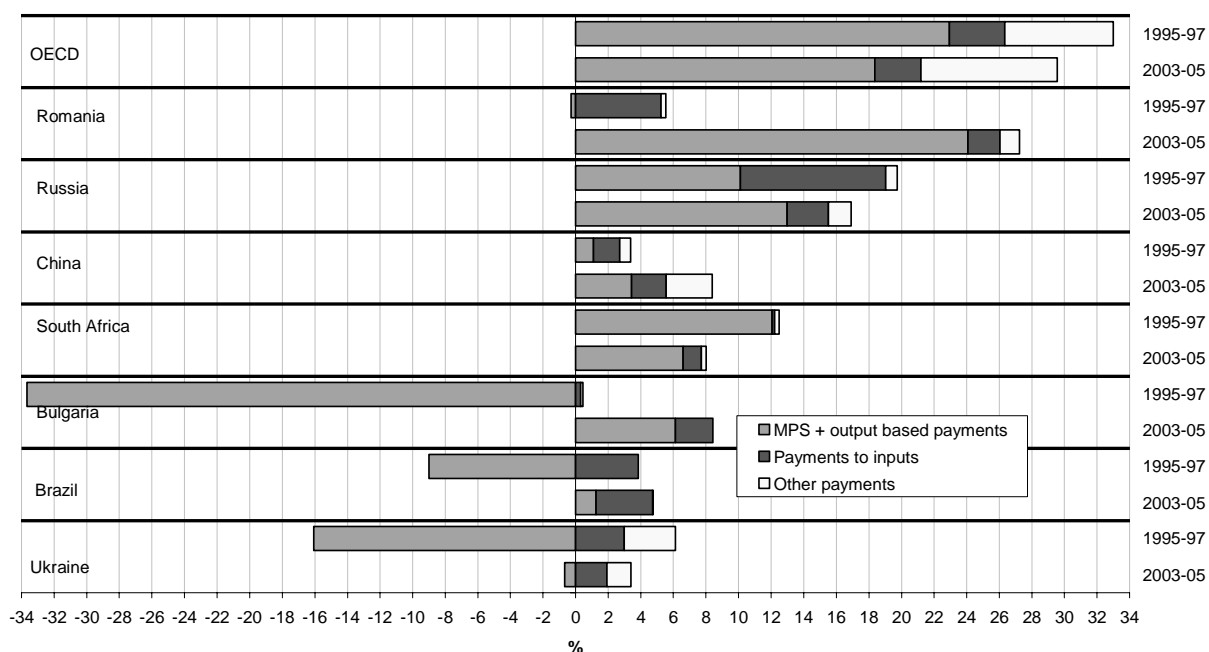
In all cases, producer support as a share of farm receipts (%PSE) is lower than the OECD average of 30% in 2003-05 (Figure 1.11) – only in Romania and Russia is the %PSE more than half the OECD average. Net agricultural exporters (Bulgaria, Brazil and Ukraine) have lower rates of support than net importers, but there is pressure for protection in all cases, as each country has import-competing producers who are not competitive at world market prices. In the majority of cases, support has increased from the mid-1990s, the exceptions being Russia and South Africa, where support was already high and has fallen modestly. In the cases of Brazil and Ukraine, there was a switch from a significant taxation of producers (implying a negative PSE) to support. The evolution of support thus contrasts with the slight decline in producer support across the OECD area as a whole. A stronger

macroeconomic environment explains this general trend, as higher food prices are more readily tolerated by consumers when their incomes are higher, and there is more scope for budgetary transfers when public finances are under reduced strain. A specific factor in the case of Bulgaria and Romania has been the need for policy convergence with the EU.

**Market price support dominates.**

As in most OECD countries, market price support (MPS) is the dominant way in which support is delivered to producers. This form of support is provided via domestic price interventions and border measures that create a wedge between domestic and world prices. MPS is a relatively inefficient way of delivering support to producers (Box 1.3), but is often attractive in countries with lower incomes, as it does not require the use of (and can be a source of) scarce budgetary funds. The use of MPS and output subsidies in OECD countries has been declining in both absolute terms and as a proportion of producer support (Figure 1.11). In the seven countries for which PSE results are presented, the pattern is almost the opposite. Brazil and Ukraine both had significantly negative MPS in the 1995-97 period; this discrimination against agriculture had been essentially removed by 2003-05 and in the case of Brazil replaced by modest support. In Bulgaria and Romania MPS was close to zero in 1995-97, but had increased sharply by 2003-05. In China, there was a rise in MPS which mirrored the increase in the PSE, while in South Africa there was a decline which reflected the drop in producer support. MPS rose in Russia at the same time that the PSE fell, indicating an increased reliance on this instrument as other subsidies (notably those linked to debt restructuring) have become less important.

**Figure 1.11. Composition of Producer Support Estimates (%PSE)**



Source: OECD, PSE/CSE Database, 2006.

### Box 1.2. Measuring agricultural support

**The Producer Support Estimate (PSE)** measures the annual monetary transfers to farmers from three broad categories of policy measures that:

- Maintain domestic prices for farm goods at levels higher (and occasionally lower) than those at the country's border (market price support).
- Provide payments to farmers based on, for example, the quantity of a commodity produced, the amount of inputs used, the number of animals kept, the area farmed, an historical reference period, or farmers' revenue or income (budgetary payments).
- Provide implicit budgetary support through lowering farm input costs, for example for investment credit, energy, and water (budgetary revenue foregone).

The measurement of support resulting from agricultural policies is based on how policies are actually implemented – and not on the intended objectives or impacts of those policies. A crucial point to emphasise is that the estimates of support not only comprises budget payments that appear in government accounts (which is often the popular understanding of support), but also budgetary revenues foregone, and the gap between domestic and world market prices for farm goods - market price support. The latter element represents in many countries the largest component of the PSE, but has been decreasing as a share of overall support in many countries in recent years.

**Consumer Support Estimate (CSE)** is the annual monetary transfers to *consumers* from policy measures that:

- Maintain domestic prices paid by first *consumers* (measured at the farm gate) at levels higher (an implicit tax on consumers) or lower (an implicit subsidy to consumers) than those on world markets at the country's border. It is the mirror image of market price support to farmers.
- Provide subsidies to keep prices of commodities consumed by certain groups in the economy lower than would otherwise be the case, such as cheap food for poor people, public institutions and some processors.
- In general the CSE is negative because the implicit tax on consumers from market price support more than offsets that from consumer food subsidies.

**General Services Support Estimate (GSSE)** is the annual monetary transfers to *agriculture* but not to individual producers that:

- Provide budgetary-financed expenditures for the provision of such services as research, development, training, inspection, marketing and promotion.

**Total Support Estimate (TSE)** is the overall monetary *cost* of the transfers in a country from policy measures calculated by:

- Adding the PSE, the taxpayer cost of consumption subsidies and the provision of general services, and subtracting import tariff receipts.

**Nominal Protection Coefficient (NPC)** is the ratio between producer and border prices.

**Nominal Assistance Coefficient (NAC)** is the ratio between farm receipts (including support) and those generated in the market without support.

The PSE indicators are expressed in both absolute monetary terms (in national currencies, in US dollars and in Euros) and in relative terms – in the case of the %PSE as a percentage of the value of gross farm receipts (including support payments) in each country for which the estimates are made. The %PSE shows the amount of support to farmers irrespective of the sectoral structure and inflation rate of a country, making this indicator the most widely acceptable and useful indicator for comparisons of support across countries and time.

The main purpose of the calculations is to show the estimates and composition of support each year, and to compare the trends across countries and through time, in order to monitor and evaluate the extent to which OECD countries are making progress in policy reform to which all OECD governments are committed. This monitoring and evaluation exercise is complemented by integrating the indicators of support in models to inform policy makers about the efforts made to meet their various objectives, and to analyse the effects of different policy instruments on production, trade, farm incomes and the environment.

### Box 1.3. Evaluating policies in non-OECD member countries

The OECD has undertaken a wide range of analysis which considers the effectiveness of alternative agricultural policy instruments in addressing their objectives. These objectives fall within two broad categories: raising the incomes of agricultural households, and correcting market failures of various kinds (for example by providing a cleaner environment than would occur otherwise). A general finding is that the policies which work best are those that address their objectives directly, and disrupt the functioning of markets as little as possible. Such policies are described as “market oriented”. Thus targeted payments not linked to production and consumption decisions can deliver support to farm households much more effectively than sectoral solutions such as price supports and credit subsidies, and they enable support to be linked to a clear rationale, be that facilitating adjustment or providing income safety nets for farmers who face major difficulties in adapting to competitive markets. Similarly, market failures are generally tackled more efficiently at source, for example by charging for social costs such as pollution, and by paying for social benefits that the market alone may under provide, such as a well maintained countryside.

The principles of market orientation have been affirmed on several occasions by OECD member countries. In 1987 OECD Ministers recognised the need for a reduction in agricultural support, and for a restructuring of support in favour of measures that were less market distorting. In 1998, they agreed on a set of principles for agricultural policy reform and a set of operational criteria for putting those principles into practice. In 2002 a *Positive Reform Agenda* for agricultural policies in OECD countries was agreed, conforming to the principles of market orientation, and linking those principles to a range of supporting analytical work. Most recently, in 2005, member governments acknowledged that the policies which help countries to achieve their domestic objectives are fully reconcilable with a commitment to facilitating agricultural trade.

The principle of market orientation is reflected in the way in which agricultural support is measured and classified by the OECD. The breakdown of the PSE according to the criteria of policy implementation corresponds to different levels of distortiveness (divergence from market orientation). The most distorting producer support policies are input subsidies and price supports, which directly stimulate production; while other forms of support cause fewer distortions according to the extent to which they are “decoupled” from production decisions. Thus payments linked to current area or animal numbers are less distorting than price support, but more distorting than payments based on some fixed historically established entitlement. Support for the agricultural sector that is not provided to producers appears in the General Services Support Estimate (GSSE), and includes many expenditures that can be considered as public goods (such as spending on rural infrastructure). The PSE and the GSSE, together with transfers to consumers from taxpayers, sum to the Total Support Estimate (TSE). Market orientation is associated with a low PSE, a composition on the PSE that is oriented towards decoupled payments, and a GSSE that contains legitimate expenditures on public goods.

The PSE and related indicators were originally developed for OECD countries. The methodology and a range of economic analysis based on this system of measurement (including that linking the classification of support within the PSE to measures of distortiveness), has been accepted by OECD countries. However, there is no similar formal process of recognition by countries outside the OECD area, and some arguments have been advanced suggesting that analysis based on the PSE indicator, in particular the prescription in favour of less distorting instruments may be less relevant for poorer developing countries. What truth is there in this argument?

The first point to note is that the core economic analysis of how agricultural policies operate (in particular the identification of inefficiencies associated with distorting policies) remains valid for *all* countries, irrespective of their level of development. This has enabled OECD measurement and analysis to be applied successfully to a heterogeneous range of countries, including the countries covered in this monitoring report, formerly planned economies that have joined the OECD (the Czech Republic, Hungary, Poland and Slovakia), and three countries with developing country status at the WTO (Korea, Mexico and Turkey).

Second, the distinction between supporting agriculture through investments in public goods versus supporting farmers' incomes inefficiently through instruments such as price supports and input subsidies is very important. Indeed, this distinction is possibly even more important in developing countries, where often there is an under-provision of public goods that support the functioning of the market system.

Nevertheless, a range of arguments have been advanced that apply specifically to developing countries, and which are purported to qualify the policy prescription in favour of market orientation. These include the impracticality of providing fully decoupled support in poor countries, and the suggestion that market interventions may provide a legitimate way of stimulating agriculture to develop beyond a low level equilibrium of subsistence farming. Such issues are the subject of much debate in development circles; a debate that has had implications for WTO discussions, as developing countries have sought reduced obligations, longer implementation periods, special safeguards to protect producers, and a recognition that some policies are different in a development context (e.g. providing subsidised inputs for low income and resource poor farmers). None of these arguments repudiates the findings of OECD analysis, but they do suggest possible circumstances under which “second best” solutions are necessary.

Recognising that some of the economic arguments may differ, and that non-OECD countries have not signed up to the results of OECD analysis in the same way as OECD member countries, there are some cases where the PSEs and related measures need to be interpreted more cautiously, and where the associated policy evaluation needs to be more circumspect. These needs are reflected in the analysis contained in this monitoring report (See Section 3 in Annex 1).

For further reading see OECD publications:

- OECD (2001), *Market Effects of Crop Support Measures*, Paris.
- OECD (2002), *The Incidence and Efficiency of Farm Support*, Paris.
- OECD (2002), *Agricultural Policies in OECD Countries: A Positive Reform Agenda*, Paris.
- OECD (2003), *Farm Household Income: Issues and Policy Responses*, Paris.
- OECD (2005), *Agriculture and Development: The Case for Policy Coherence*, Paris.
- OECD (2006), *Agricultural Policy and Trade Reform: Potential Effects at Global, National and Household Levels*, Paris.

***Input subsidies are also prominent.***

Payments based on input use tend to account for a smaller share of producer support than MPS, but are the next most important category of support, and in fact dominate in Brazil and Ukraine. In the case of Brazil, subsidised credit to farmers also includes the deferral of debt repayments and additional credit to compensate producers for the effects of drought. In Ukraine, these payments have been more or less constant in recent years. For individual years, a negative MPS has in fact been the dominant component, but the switch from a negative to positive value in 2005 means that the average for 2003-05 has been low and input subsidies have been on balance more important. Input subsidies are typically even less efficient than market price support, as they encourage production (to an even greater extent) and a substantial share of support is captured by input suppliers. They are also often associated with negative environmental consequences, as they encourage the over-use of inputs. On the other hand, for agricultural sectors that are relatively under-developed, interventions in input markets can compensate for market failures (such as a sub-optimal provision of credit) and provide a way of supporting the transition to more efficient technologies and production methods. While this provides a possible rationale for some targeted support in the countries covered in this review, the overall scale and structure of support for inputs does not correspond to this justification.

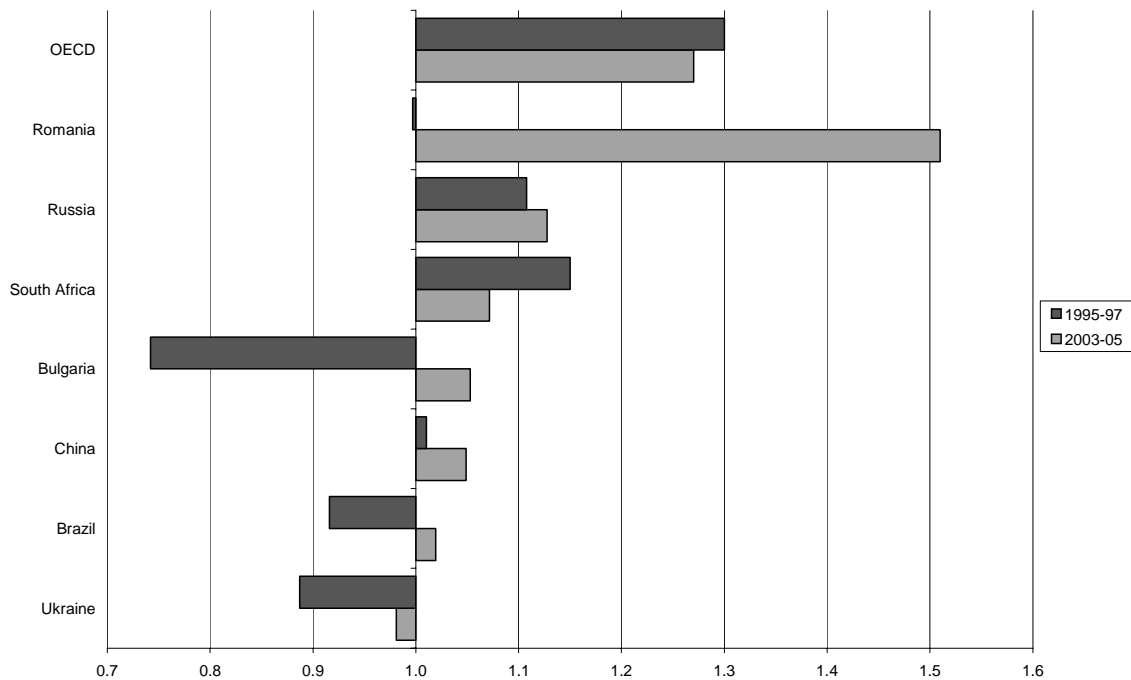
***More decoupled forms of support are emerging.***

Despite the dominance of market price support and output and input payments, other more decoupled forms of support are emerging. In China payments based on area, input constraints and farm income are now collectively more important than payments based on input use, in Romania payments based on area and numbers of animals have increased, while in South Africa there has been an increase in the use of payments based on overall income, compared with the 1990s.

***Average market protection is low, but sensitive commodities keep protection.***

The producer Nominal Protection Coefficient (NPC), which is the ratio of prices received by farmers to world prices, and is an indicator of the protection provided to producers, is below the OECD average in all countries under review except Romania (Figure 1.12). The NPC has risen in all cases except South Africa, where support declined. In countries where the NPC was already greater than one (China, Romania, Russia), this implies an increase in the misalignment of domestic prices *vis-à-vis* world market levels, but in other cases (Bulgaria, Brazil, Ukraine) it implies a closer correspondence between domestic and international prices. The tendency of all countries to now provide price support to farmers is reflected in negative CSEs for all countries (in Ukraine the CSE only became negative in 2005), but consumers are on average taxed much less than in OECD countries. In some countries, the relatively low NPCs mask significant variations among commodities. This is for instance the case in South Africa where the average NPC is below 1.1 but the NPC for sugar exceeds 1.5, in Ukraine where an overall NPC implies implicit taxation of producers but the poultry NPC is 1.8, and Brazil where with an average NPC just above one, the rice NPC is close to 1.3.

**Figure 1.12. Producer Nominal Protection Coefficients**



Source: OECD, PSE/CSE Database, 2006.

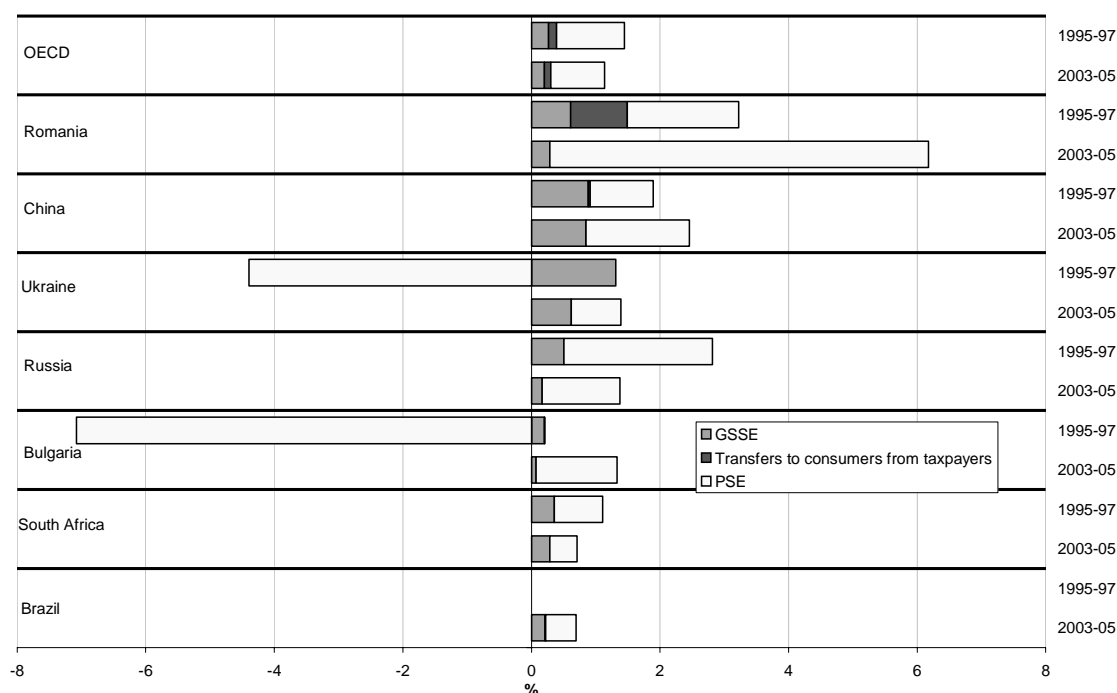
***The money spent on producer support could be more productively allocated to public investments.***

In addition to support to individual producers, countries provide services to the agricultural sector as a whole. This support is captured by the General Services Support Estimate (GSSE), which includes expenditures on research and development, extension, inspection, marketing and infrastructure. These are potentially important areas of public investment as they yield higher returns to farmers than price or input support. Yet expenditures on general services only account for a minority of support in all seven countries for which support is calculated. A somewhat worrying development is that the share of the GSSE in total support has been declining in several countries, as producer support has risen (Figure 1.13).

The total value of support to the agricultural sector is measured by the TSE, which includes the PSE, the GSSE and transfers from taxpayers to consumers. A given rate of support to the agricultural sector imposes a larger burden on countries with lower incomes and a higher share of agriculture in GDP. Thus, the burden of that support is extremely high in Romania, at 6% of GDP (Figure 1.13). In China, total support is low relative to the OECD average, but imposes a greater burden on the economy (more than 2% of GDP). In other countries, the ratio of the TSE to GDP is less than 2%, *i.e.* of a similar order to the average ratio in OECD countries, indicating that countries tend to provide support to their agricultural sectors to the extent that they can afford it.



**Figure 1.13. Composition of Total Support Estimate (% of GDP)**



Data for 1995-97 for Brazil are not available.  
 Source: OECD, PSE/CSE Database, 2006.

### Policy observations and recommendations

*Policy reform lessons:* All of the countries under review in this monitoring report have demonstrated that profound agricultural policy reform is both possible and beneficial, given sufficient economic pressures and political will. The breadth, extent and, in some cases, speed of reform has been remarkable. This is true for the developing countries and the formerly planned economies under review. These reforms have permitted the agricultural sector to both benefit from, and contribute to, broader economic growth.

A key policy lesson from past reforms in these eight countries is the importance of getting the fundamentals right. Macroeconomic stability has been the cornerstone of economic growth. Tight fiscal and monetary policies combined with an opening of the economy provided the necessary conditions for private sector development, but substantive improvements in human capital, regulatory systems and infrastructure have been required to capitalise on these reforms. Given the appropriate economic environment, private economic agents, including commercial farmers, have responded rapidly to market forces. Agricultural policy reforms over the medium-term have resulted in relatively low levels of government support and greater market orientation.

*Current policy developments:* Less positive is the somewhat *ad hoc* nature of recent policy developments which does not provide the sector with the predictable policy environment that is essential for sound business decisions. There are several examples in this report of *ad hoc* agricultural expenditures to build up stocks or regulate prices, only for governments to introduce countervailing measures the following year.

Even more disconcerting is the fact that support to agriculture in the countries under review is still dominated by market price support and input subsidies, the least efficient and most trade distorting ways of providing agricultural assistance. Moreover, the share of MPS and input subsidies in total support has been growing. Such measures generally misallocate resources and are not well targeted to specific desired outcomes. While there is a strong case for the increased public investment aimed at enhanced competitiveness of the agricultural sector, scarce budgetary resources have often been used in inefficient ways to support producer incomes.

*Changing policy priorities:* However, as the economic situation and sectoral performance have improved, there has been a noticeable shift in government priorities for agriculture. This shift comes from the realisation that economic growth alone does not solve, and can sometimes exacerbate, economic and social divisions. Current policies are correctly being focused on such objectives as:

- Closing the income gap between rural and urban populations.
- Integrating small-scale farmers into markets.
- Stimulating the reallocation of resources to create more efficient farm structures.
- Increasing the competitiveness of agri-food products on domestic and international markets.
- Improving the governance of institutions in designing and implementing agricultural policies.
- Sustainable management of water and land resources.

There have been policy developments in these directions. This report documents ongoing programmes to improve agricultural structures and equity through land and credit reforms, the development of infrastructure and information services and the improvement of regulatory systems. A common and sustained theme of land reforms has been the transfer of land rights to small holders combined with better targeting of credit programmes to these beneficiaries. There have also been attempts to better target farm income support to those most in need and to diversify the rural economy. Unfortunately, little analytical information is available on the effectiveness and efficiency of these new initiatives and internal monitoring is weak in most cases.

The role of agricultural growth in raising rural incomes and reducing poverty varies from one country to the next according to the endowments and structure of the economy. Indeed, the experiences of the countries for which OECD has recently undertaken agricultural policy reviews have varied considerably. In Brazil, agricultural growth has benefited some poor farmers, but others have come under increased competitive pressures, leading them to migrate to urban areas or making them increasingly dependent on social payments. In China, local non-agricultural opportunities, agricultural growth and remittances from migrants have been key contributors to rural poverty reduction, while in South Africa better education, health and social services in rural areas appear to have had a greater impact on poverty than agricultural growth. In India, there is no evidence yet that rural employment schemes and large infrastructure development schemes are successful in raising the income of poor rural households by diversifying sources of income.

Biofuel production, including fuel ethanol and biodiesel, has become a policy priority in Brazil and China aimed at furthering the objectives of energy security, environmental protection and rural development. China is planning to increase significantly its biofuel production with the intension of satisfying up to 15% of its transportation energy needs by 2020. In Brazil, several measures were introduced to promote the use and production of biodiesel, in particular the supply of biodiesel from small scale farmers.

*Policy recommendations:* In terms of policy design, advisors and decision-makers in the countries under review would do well to consider the operational criteria agreed by OECD Agriculture Ministers in 1998, which state that policy measures should be:

- **Transparent:** having easily identifiable policy objectives, costs, benefits and beneficiaries.
- **Targeted:** to specific outcomes and as far as possible decoupled.
- **Tailored:** providing transfers no greater than necessary to achieve clearly identified outcomes.
- **Flexible:** reflecting the diversity of agricultural situations, be able to respond to changing objectives and priorities, and applicable to the time period needed for the specific outcome to be achieved.
- **Equitable:** taking into account the effects of the distribution of support between sectors, farmers and regions.

In terms of policy direction, priorities need to maintain the focus on economy-wide measures such as improved access to education in rural areas, better health care, pension and other social security services, enhanced land property rights and rural tax reforms. In agriculture, the emphasis should be on continued improvements in competitiveness and targeted adjustment assistance. It is important to recognise that the long-term future for most semi-subsistence farm households lies outside agriculture, so there is a need for measures that facilitate income diversification and the exploitation of non-farm activities.

## **COUNTRY CHAPTERS**



## BRAZIL

### Evaluation of policy developments

- Following several years of prodigious growth, the agricultural sector was afflicted in 2005 by a price-cost squeeze that resulted from a combination of falling international prices for important export commodities, rising input costs (notably for fuel) and an appreciating exchange rate. Policy initiatives in 2005/06 were primarily designed to mitigate this development.
- The interest charges associated with official credit were held constant. With market rates rising, this resulted in an increase in the implied subsidy. In addition, the government announced, for the second year running, a package of emergency assistance that included fresh credit at reduced interest rates, further deferral of debt repayments and a range of drought assistance measures.
- Brazil's delivery of credit subsidies is heavily managed, while the repayment of debt has become an issue for negotiation with producers. This approach to the problem posed by high real interest rates thwarts the development of a properly functioning credit market.
- Guaranteed prices were mostly held constant. With falling international prices, this led to a rise in market price support. In 2005/06, the volume of crops benefiting from price support doubled, and price guarantees were extended to soybeans for the first time. By limiting the regional coverage of price guarantees, the government has in the past sought to limit the coverage of support to smaller farmers. Recent payments have breached this implicit objective and create a worrying precedent, given that a downturn in market conditions was widely anticipated.
- Despite these changes, the overall level of support provided to producers remains much lower than the average in OECD countries, and much of the recent increase reflects the counter-cyclical nature of existing policies.
- The government maintained its increased level of expenditures on infrastructure and other public investments. Such support offers higher returns to farmers than price support or credit subsidies, yet is only half the value of support to producers.
- Land reform has accelerated under the current government. This programme combines social and economic objectives. On the latter, there is some evidence that the productivity of new settlements has improved, but it is nevertheless questionable how many recipients of land can be transformed into economically viable family farmers.
- A new programme to promote the use of biodiesel includes the specification of a minimum blending ratio in diesel oil and provides incentives for processors to purchase from small scale family farmers.

## Summary of key policy developments

The basic mechanism for providing market price support to Brazilian farmers consists of regionally announced minimum guaranteed prices. The government made further changes to the operation of this system in the crop years 2004/05 and 2005/06 (which run from July to June) by making greater use of measures under which the private sector is induced to buy from farmers at minimum prices. Brazil's highly directed system of agricultural credit reflects the failure of the commercial system to provide sufficient liquidity to all but a minority of farmers. In 2005/06, credit was used as a means of cushioning the effects of weaker market conditions for many products, and the effects of drought in several regions. Land reform accelerated and is close to meeting the ambitious target set out in the second National Agrarian Reform Plan. However, there are still concerns about the amount and quality of land being allocated, and the degree to which this is accompanied by other necessary investments. Moreover, rising land prices have raised the cost of the programme beyond expectations.

### Description of support

- Support to producers (%PSE) averaged 5% in 2003-05. It increased from 4% in 2004 to 6% in 2005, with both payments based on input use and market price support rising. The rate of support is still much lower than the OECD average of 30%.
- Two-thirds of producer support is provided in the form of credit subsidies and one-third through market price support.
- Market price support increased by 65% to BRL 2.9 billion (USD 1.2 billion) in 2005, as guaranteed prices were maintained for supported commodities in the face of falling market prices, and the exchange rate appreciated.
- Payments based on input use rose by 58% to BRL 7.5 billion (USD 3.2 billion) in 2005, with interest rate subsidies for investment and working capital increasing, as well as the implicit subsidy associated with the deferral of payments on farm debt (the latter accounted for about one-third of payments in this category).
- Prices received by producers were on average 2% higher than those received on world markets in 2003-05 (*i.e.* the NPC was 1.02), with significantly higher protection for rice, maize, cotton and wheat.
- The effects of price supports on consumers were equivalent to a net tax of 2% in 2003-05 (*i.e.* a %CSE of -2%).
- Support provided to general services, notably infrastructure and agricultural schools, averaged 31% of total support in 2003-05, with higher allocations in 2004/05 than in previous years, and these rates being maintained in 2005/06.
- Total support to agriculture averaged 0.7% of GDP in 2003-05, which is less than the OECD average of 1.1%, even though agriculture accounts for a much higher share of national income than in most OECD countries.

Source: OECD, PSE/CSE database, 2006.

Figure 2.1. PSE level and composition over time

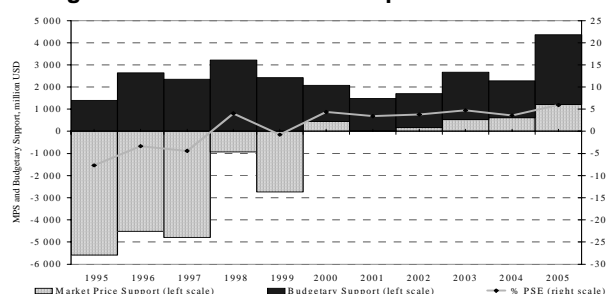
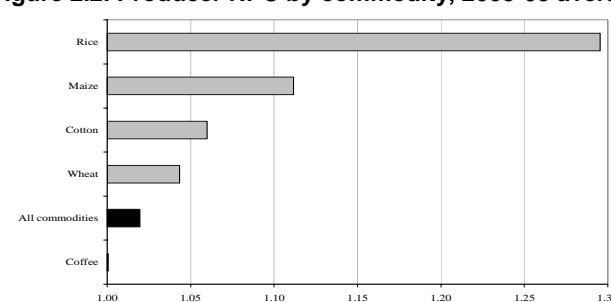
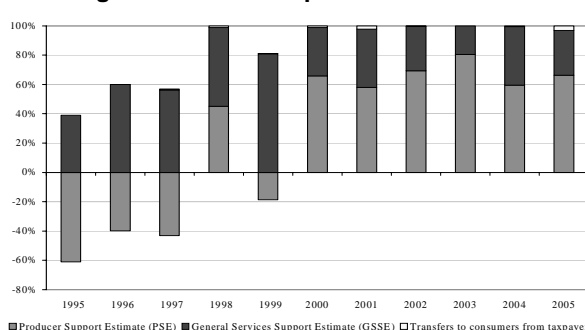


Figure 2.2. Producer NPC by commodity, 2003-05 average



NPC was equal to 1 for coffee, sugar, oilseeds (soybeans), milk, beef and veal, pigmeat and poultry.

Figure 2.3. TSE composition over time



**Table 2.1. Brazil: Estimates of support to agriculture**

(BRL million)

	1995-97	2003-05	2003	2004	2005
<b>Total value of production (at farm gate)</b>	<b>53 149</b>	<b>173 125</b>	<b>166 643</b>	<b>181 765</b>	<b>170 966</b>
<i>of which share of MPS commodities (%)</i>	<i>73</i>	<i>80</i>	<i>80</i>	<i>80</i>	<i>81</i>
<b>Total value of consumption (at farm gate)</b>	<b>50 319</b>	<b>130 820</b>	<b>125 999</b>	<b>138 514</b>	<b>127 946</b>
<b>Producer Support Estimate (PSE)</b>	<b>-2 795</b>	<b>8 495</b>	<b>8 207</b>	<b>6 672</b>	<b>10 607</b>
Market Price Support (MPS)	-4 945	2 110	1 604	1 785	2 941
<i>of which MPS commodities</i>	<i>-3 587</i>	<i>1 692</i>	<i>1 280</i>	<i>1 424</i>	<i>2 373</i>
Payments based on output	74	141	164	119	141
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	2 076	6 208	6 399	4 739	7 487
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	36	40	29	39
Miscellaneous payments	0	0	0	0	0
<b>Percentage PSE</b>	<b>-5</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>6</b>
<b>Producer NPC</b>	<b>0.92</b>	<b>1.02</b>	<b>1.01</b>	<b>1.01</b>	<b>1.04</b>
<b>Producer NAC</b>	<b>0.95</b>	<b>1.05</b>	<b>1.05</b>	<b>1.04</b>	<b>1.06</b>
<b>General Services Support Estimate (GSSE)</b>	<b>2 914</b>	<b>3 782</b>	<b>1 974</b>	<b>4 495</b>	<b>4 878</b>
Research and development	483	762	780	719	787
Agricultural schools	192	991	246	1 233	1 492
Inspection services	109	113	94	106	139
Infrastructure	1 697	1 678	824	2 122	2 088
Marketing and promotion	8	41	11	26	85
Public stockholding	425	146	18	191	227
Miscellaneous	0	52	0	97	59
<b>GSSE as a share of TSE (%)</b>	<b>n.c.</b>	<b>30.4</b>	<b>19.4</b>	<b>40.1</b>	<b>30.5</b>
<b>Consumer Support Estimate (CSE)</b>	<b>3 070</b>	<b>-2 314</b>	<b>-1 801</b>	<b>-1 633</b>	<b>-3 507</b>
Transfers to producers from consumers	3 144	-3 041	-1 680	-1 645	-5 799
Other transfers from consumers	-102	-279	-238	-35	-562
Transfers to consumers from taxpayers	15	180	0	47	493
Excess feed cost	13	826	117	0	2 361
<b>Percentage CSE</b>	<b>6</b>	<b>-2</b>	<b>-1</b>	<b>-1</b>	<b>-3</b>
<b>Consumer NPC</b>	<b>0.94</b>	<b>1.03</b>	<b>1.02</b>	<b>1.01</b>	<b>1.05</b>
<b>Consumer NAC</b>	<b>0.94</b>	<b>1.02</b>	<b>1.01</b>	<b>1.01</b>	<b>1.03</b>
<b>Total Support Estimate (TSE)</b>	<b>135</b>	<b>12 458</b>	<b>10 180</b>	<b>11 214</b>	<b>15 979</b>
Transfers from consumers	-3 042	3 320	1 918	1 680	6 361
Transfers from taxpayers	3 279	9 416	8 500	9 569	10 180
Budget revenues	-102	-279	-238	-35	-562
<b>Percentage TSE (expressed as share of GDP)</b>	<b>0.00</b>	<b>0.69</b>	<b>0.65</b>	<b>0.63</b>	<b>0.79</b>
<b>GDP deflator 1995-97 = 100</b>	<b>100</b>	<b>195</b>	<b>181</b>	<b>196</b>	<b>210</b>

p: provisional. For the definition of OECD indicators of support to agriculture, see Annex 1.1. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs. MPS commodities for Brazil are: wheat, maize, rice, oilseeds, sugar, cotton, coffee, milk, beef and veal, pigmeat and poultry.  
Source: OECD, PSE/CSE database, 2006.



## BULGARIA

### Evaluation of policy developments

- Over the review period, Bulgaria has introduced legislation establishing EU Common Market Organisations such as domestic market intervention, which was only used for wheat, and export subsidies. A number of budgetary measures, similar to those applied in the EU were also introduced. As a result, support to producers has increased, but it remained well below OECD and EU levels in 2003-05.
- The introduction of export subsidies and use of export restrictions reduced the market orientation of Bulgaria's agriculture and resulted in distortions on production and trade.
- Bulgaria introduced payments per hectare, which are spatially targeted to abandoned land and less-favoured areas, with differentiated rates by type of farmer (e.g. young farmers) in the second case. As is intended, these payments will encourage agricultural production in those areas, but not that of specific commodities.
- SAPARD measures can potentially contribute to improvements in the competitiveness of the agro-food sector through restructuring of farm and agro-food companies, better food quality and safety, infrastructure improvements and diversification of income sources in rural areas.
- Bulgaria will implement the EU Common Agricultural Policy in January 2007. It is expected to raise support to producers gradually and significantly. Opting for the most decoupled options, in particular regarding the main direct payments, will allow producers to base their decisions on market signals. Targeting optional measures to specific objectives should also improve the efficiency of agricultural policy.

## Summary of key policy developments

The main developments in Bulgaria's agricultural policy related to preparation for accession to the EU in January 2007, and to emergency measures as a response to recent weather-related disasters and animal disease outbreaks. Intervention mechanisms were introduced in 2002 and export subsidies in 2004. Less-Favoured Area (LFA) payments, a scheme applied in the EU, were introduced in 2005 on a pilot basis. The number of measures offered under the EU Special Accession Programme for Agriculture and Rural Development (SAPARD) increased. A paying agency was created to handle EU payments and discussion started on the implementation of the EU Single Area Payment Scheme (SAPS).

### Description of support

- Support to producers (%PSE) declined from 11% to 6% between 2004 and 2005. It was 8% on average in 2003-05, an increase from negative numbers recorded in 1995-97, but a level much lower than the OECD average of 30%.
- Market price support accounted for 65% of the PSE in 2003-05, followed by payments based on input use (27%) and payments based on output (8%).
- Prices received by farmers, which were lower than those on the world market in 1995-97, became 5% higher on average in 2003-05. However, prices of wheat, barley, sunflower remained lower than those on the world market in 2003-05, while producers received prices more than twice higher than those on the world market for poultry and sugar.
- The %CSE, switched from an implicit support to consumers in 1995-97 to an implicit tax of 8% in 2003-05.
- Support for general services provided to agriculture mainly related to infrastructure and accounted for 6% of the total support to agriculture (TSE) in 2003-05.
- Total support to agriculture as a share of GDP was 1.33% in 2003-05, compared to an OECD average of 1.14% in 2003-05.

Source: OECD, PSE/CSE database, 2006.

Figure 3.1. PSE level and composition over time

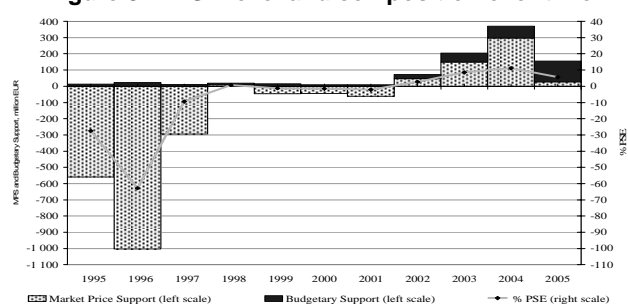


Figure 3.2. Producer NPC by commodity, 2003-05 average

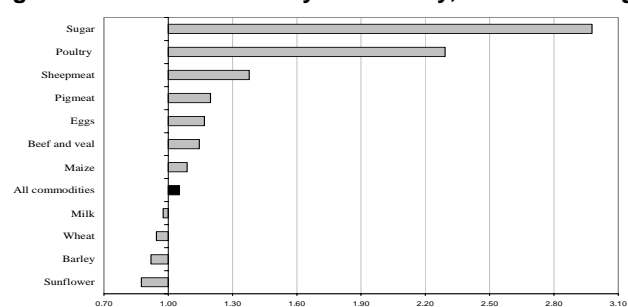
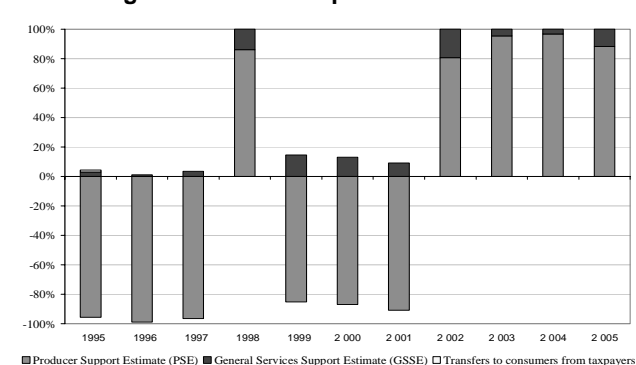


Figure 3.3. TSE composition over time



**Table 3.1. Bulgaria: Estimates of support to agriculture**

(BGN million)

	1995-97	2003-05	2003	2004	2005
<b>Total value of production (at farm gate)</b>	<b>2 074</b>	<b>5 362</b>	<b>4 560</b>	<b>6 359</b>	<b>5 166</b>
<i>of which share of MPS commodities (%)</i>	59	52	49	56	52
<b>Total value of consumption (at farm gate)</b>	<b>2 078</b>	<b>5 140</b>	<b>4 538</b>	<b>5 877</b>	<b>5 005</b>
<b>Producer Support Estimate (PSE)</b>	<b>-269</b>	<b>476</b>	<b>399</b>	<b>724</b>	<b>304</b>
Market Price Support (MPS)	-279	308	293	581	51
<i>of which MPS commodities</i>	-159	165	145	324	27
Payments based on output	6	37	33	36	43
Payments based on area planted/animal numbers	1	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	3	130	73	107	209
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
<b>Percentage PSE</b>	<b>-33</b>	<b>8</b>	<b>9</b>	<b>11</b>	<b>6</b>
<b>Producer NPC</b>	<b>0.74</b>	<b>1.05</b>	<b>1.07</b>	<b>1.12</b>	<b>0.97</b>
<b>Producer NAC</b>	<b>0.77</b>	<b>1.09</b>	<b>1.09</b>	<b>1.13</b>	<b>1.06</b>
<b>General Services Support Estimate (GSSE)</b>	<b>8</b>	<b>28</b>	<b>19</b>	<b>25</b>	<b>41</b>
Research and development	0	0	1	0	0
Agricultural schools	0	1	1	0	2
Inspection services	0	7	6	6	7
Infrastructure	8	21	11	19	32
Marketing and promotion	0	0	0	0	0
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
<b>GSSE as a share of TSE (%)</b>	<b>-2.9</b>	<b>5.6</b>	<b>4.6</b>	<b>3.4</b>	<b>11.8</b>
<b>Consumer Support Estimate (CSE)</b>	<b>286</b>	<b>-411</b>	<b>-384</b>	<b>-622</b>	<b>-226</b>
Transfers to producers from consumers	290	-298	-276	-647	31
Other transfers from consumers	14	-110	-119	-60	-152
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	-17	-3	11	85	-105
<b>Percentage CSE</b>	<b>32</b>	<b>-8</b>	<b>-8</b>	<b>-11</b>	<b>-5</b>
<b>Consumer NPC</b>	<b>0.76</b>	<b>1.09</b>	<b>1.10</b>	<b>1.14</b>	<b>1.02</b>
<b>Consumer NAC</b>	<b>0.78</b>	<b>1.09</b>	<b>1.09</b>	<b>1.12</b>	<b>1.05</b>
<b>Total Support Estimate (TSE)</b>	<b>-261</b>	<b>504</b>	<b>418</b>	<b>749</b>	<b>345</b>
Transfers from consumers	-303	408	395	707	121
Transfers from taxpayers	29	207	142	102	375
Budget revenues	14	-110	-119	-60	-152
<b>Percentage TSE (expressed as share of GDP)</b>	<b>-6.87</b>	<b>1.33</b>	<b>1.21</b>	<b>1.96</b>	<b>0.82</b>
<b>GDP deflator 1995-97 = 100</b>	<b>100</b>	<b>427</b>	<b>408</b>	<b>428</b>	<b>444</b>

p: provisional. For the definition of OECD indicators of support to agriculture, see Annex 1.1. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs. MPS commodities for Bulgaria are: wheat, maize, barley, sunflower, sugar, milk, beef and veal, sheepmeat, pigmeat, poultry and eggs.  
Source: OECD, PSE/CSE database, 2006.

## CHINA

### Evaluation of policy developments

- A rural-urban divide with large and growing income disparity further accentuated by differences in access to education, health care, pensions and other social benefits, has been a striking feature of China's impressive economic growth.
- Benefiting from continued strong economic growth and a relatively good fiscal position, China's government has been allocating more budgetary resources to rural areas, including to agriculture. The rural tax reform implemented between 2000 and 2006 is also intended to help increase farmers' disposable incomes.
- The level of support to agricultural producers (the PSE) remains low compared to the OECD average. It tended to increase, in particular at the beginning of the 2000s, but then stabilised between 2003 and 2005.
- While the level of support to agriculture is low, its structure is dominated by market price support and input subsidies, the least efficient and most trade distorting ways of providing agricultural assistance. Only a small part of this type of support is effectively received by producers.
- China has progressively reduced import tariffs on agro-food products, but for selected commodities state trading still plays an important role in driving a wedge between domestic and world prices. In particular, export-import decisions for grains are still made by the government and driven by the level of strategic stocks and expected production trends of various grains rather than by prospects of profits based on price differentials. This can lead to a situation, for example, where wheat is imported when domestic prices are lower and maize exported when domestic prices are higher than those on the world markets.
- China's increasing focus on development of rural infrastructure and on improving access to basic public services in rural areas such as education, the health care system and social security addresses the core of the rural-urban divide and in the mid-term should contribute to more balanced development of the Chinese economy. However, as grain security remains a key policy objective there is a risk that a disproportionate part of support will be diverted to grain producers instead of the rural population at large.
- The dominating top-down decision making process undermines local initiatives and leads to conflict situations. Chinese farmers should be able to organise themselves on the basis of autonomous large scale peasant organisations to communicate and protect their own interests, for example in terms of land tenure rights, provision of public goods and marketing of agricultural commodities.

## Summary of key policy developments

Rural development became China's priority in recent years. However, while the rural-urban divide is of major concern, grain security remains a key factor having a strong impact on policy measures applied. In 2004, the government introduced minimum prices for selected grains, initiated direct payments to grain producers, and applied subsidies for the purchase of higher quality grain and soybean seeds and selected machinery. These policy measures were also applied in 2005 and 2006. To support farmers' incomes, agricultural tax reform was gradually implemented and declared as completed at the beginning of 2006.

### Description of support

- Support to producers (%PSE) increased from 3% in 1995-97 to 8% in 2003-05. This compares with the OECD average of 30% in 2003-05.
- Market Price Support (MPS) accounted for 41% of the PSE in 2003-05 compared to 32% in 1995-97.
- Despite an almost three-fold real increase in budgetary support to producers, its relative importance has declined.
- Prices received by producers were on average 5% higher than those received in the world markets in 2003-05 (*i.e.* the NPC was 1.05) and for such commodities as cotton, sugar, and maize even more than 20% higher. In contrast, producer prices for wheat were almost 10% lower than on the world markets.
- The cost to consumers, as measured by the %CSE, increased slightly from 2% in 1995-97 to 4% in 2003-05.
- Support provided to general services for agriculture almost doubled in real terms between 1995-97 and 2003-05, but its share in the TSE fell from 47% to 35%.
- The total cost of agricultural support to the economy (%TSE) increased from 1.89% in 1995-97 to 2.45% in 2003-05 and was higher than the OECD average of 1.14% in 2003-05.

Source: OECD, PSE/CSE database, 2006.

Figure 4.1. PSE level and composition over time

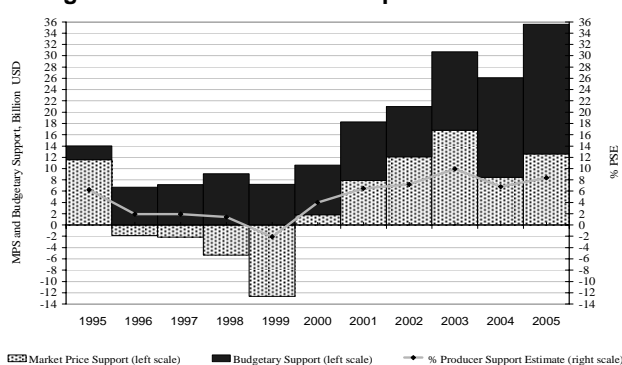
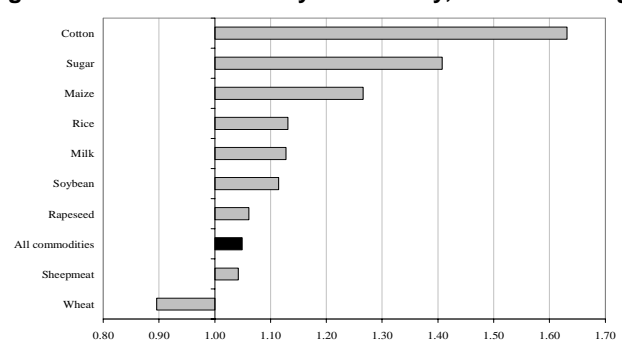
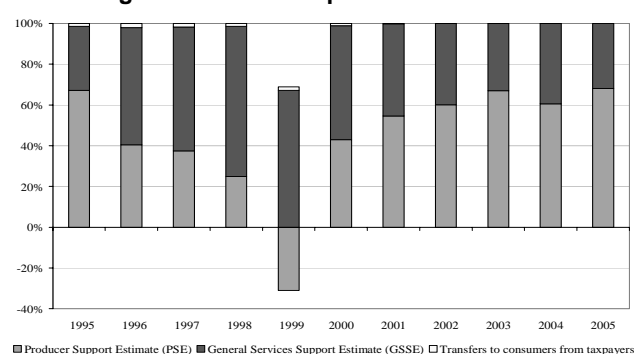


Figure 4.2. Producer NPC by commodity, 2003-05 average



NPC was equal to 1 for eggs, poultry, pigmeat, beef and veal, apples and peanuts.

Figure 4.3. TSE composition over time



**Table 4.1. China: Estimates of support to agriculture**

(CNY million)

	1995-97	2003-05	2003	2004	2005
<b>Total value of production (at farm gate)</b>	<b>1 996 250</b>	<b>2 921 510</b>	<b>2 440 890</b>	<b>3 031 220</b>	<b>3 292 420</b>
<i>of which share of MPS commodities (%)</i>	<i>75</i>	<i>60</i>	<i>61</i>	<i>60</i>	<i>58</i>
<b>Total value of consumption (at farm gate)</b>	<b>1 997 135</b>	<b>3 067 174</b>	<b>2 698 029</b>	<b>3 208 958</b>	<b>3 294 534</b>
<b>Producer Support Estimate (PSE)</b>	<b>66 521</b>	<b>253 998</b>	<b>254 158</b>	<b>216 058</b>	<b>291 777</b>
Market Price Support (MPS)	21 353	104 148	139 042	69 994	103 407
<i>of which MPS commodities</i>	<i>17 841</i>	<i>62 270</i>	<i>84 951</i>	<i>42 155</i>	<i>59 706</i>
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	0	8 267	0	11 600	13 200
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	31 830	64 130	44 976	57 550	89 863
Payments based on input constraints	3 471	51 414	46 862	51 994	55 386
Payments based on overall farming income	9 866	26 040	23 278	24 920	29 922
Miscellaneous payments	0	0	0	0	0
<b>Percentage PSE</b>	<b>3</b>	<b>8</b>	<b>10</b>	<b>7</b>	<b>8</b>
<b>Producer NPC</b>	<b>1.01</b>	<b>1.05</b>	<b>1.08</b>	<b>1.03</b>	<b>1.04</b>
<b>Producer NAC</b>	<b>1.04</b>	<b>1.09</b>	<b>1.11</b>	<b>1.07</b>	<b>1.09</b>
<b>General Services Support Estimate (GSSE)</b>	<b>60 013</b>	<b>134 156</b>	<b>124 829</b>	<b>140 616</b>	<b>137 021</b>
Research and development	3 813	4 112	3 626	4 032	4 679
Agricultural schools	3 170	12 771	11 417	13 003	13 893
Inspection services	2 214	4 611	3 802	4 743	5 288
Infrastructure	21 432	56 632	53 720	56 760	59 417
Marketing and promotion	0	0	0	0	0
Public stockholding	29 384	56 029	52 264	62 079	53 746
Miscellaneous	0	0	0	0	0
<b>GSSE as a share of TSE (%)</b>	<b>46.7</b>	<b>34.6</b>	<b>32.9</b>	<b>39.4</b>	<b>31.9</b>
<b>Consumer Support Estimate (CSE)</b>	<b>-29 397</b>	<b>-126 824</b>	<b>-191 029</b>	<b>-60 789</b>	<b>-128 654</b>
Transfers to producers from consumers	-13 533	-124 821	-172 565	-75 019	-126 881
Other transfers from consumers	-12 223	-17 188	-39 837	7 613	-19 339
Transfers to consumers from taxpayers	2 101	116	128	128	93
Excess feed cost	-5 743	15 069	21 245	6 489	17 473
<b>Percentage CSE</b>	<b>-2</b>	<b>-4</b>	<b>-7</b>	<b>-2</b>	<b>-4</b>
<b>Consumer NPC</b>	<b>1.02</b>	<b>1.05</b>	<b>1.09</b>	<b>1.02</b>	<b>1.05</b>
<b>Consumer NAC</b>	<b>1.02</b>	<b>1.05</b>	<b>1.08</b>	<b>1.02</b>	<b>1.04</b>
<b>Total Support Estimate (TSE)</b>	<b>128 635</b>	<b>388 270</b>	<b>379 115</b>	<b>356 802</b>	<b>428 892</b>
Transfers from consumers	25 755	142 009	212 402	67 405	146 220
Transfers from taxpayers	115 102	263 448	206 550	281 783	302 011
Budget revenues	-12 223	-17 188	-39 837	7 613	-19 339
<b>Percentage TSE (expressed as share of GDP)</b>	<b>1.90</b>	<b>2.46</b>	<b>2.79</b>	<b>2.23</b>	<b>2.34</b>
<b>GDP deflator 1995-97 = 100</b>	<b>100</b>	<b>115</b>	<b>108</b>	<b>116</b>	<b>120</b>

p: provisional. For the definition of OECD indicators of support to agriculture, see Annex 1.1. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs. MPS commodities for China are: wheat, maize, rice, rapeseed, soybean, peanuts, sugar, apple, cotton, milk, beef and veal, sheepmeat, pigmeat, poultry and eggs.

Source: OECD, PSE/CSE database, 2006.

## INDIA

*The Government of India did not participate in the OECD review of agricultural policies in India undertaken in 2005, and it was therefore not possible for the draft report to undergo the in-country or OECD review process. Consequently, estimates of agricultural support for India are not available.*

### Evaluation of policy developments

- Agricultural policies in India remain targeted to ensuring food self sufficiency and alleviating poverty of the second largest population in the world. Increasing rural income to support macroeconomic growth is a key government objective that will impact agriculture.
- Based on available budget and tariff information, the level of agricultural support for India would appear to be slightly below the OECD average but considerably higher than that for other emerging economies reviewed by the OECD. Moreover, most of the support is provided in the form of market price support and input subsidies which are the least efficient and the most trade distortive forms of support.
- Reform is taking place in different areas of the economy. Trade barriers are being progressively lowered, there is a floating exchange rate for the Indian Rupee and a value-added tax on commodities was introduced in 2005. Opening to foreign direct investment is proceeding.
- There have not been major changes to agricultural policies in India in the past two years. Recent developments include increased volumes of credit to a greater number of farmers and relief measures for indebted farmers facing crop failure. Investment in irrigation has been doubled over the period and budgets to encourage production diversification and improved commodity marketing have been increased. Income insurance schemes are being developed. Several research and development programmes have been launched in 2006 to enhance agricultural productivity.
- Measures taken to improve the functioning of commodity markets; to reduce excessive regulations; and to liberalise agricultural trade contribute to the improvement of the economic environment for private initiatives.
- The fight against poverty raises important issues of policy coherence. A significant challenge facing the government is to adopt alternative ways of reducing rural poverty from the current commodity price support and tariff measures which penalise the growing population of urban consumers with higher prices.
- Under-pricing of fertilisers, power and irrigation does not improve income distribution in rural areas and is environmentally harmful. One of the key emerging challenges is how to improve competitiveness on both the domestic and export markets. Redirecting resources from input subsidies to infrastructure, while reforming land ownership and formal leasing frameworks that constrain agricultural production, could efficiently address this challenge.

## ROMANIA

### Evaluation of policy developments

- The level of support increased dramatically over the review period, almost reaching the OECD average, and approaching the EU level in 2005. The increase in support is due to higher protection from world markets, which reduced significantly the market orientation of Romanian agriculture.
- In addition to border protection, output payments also distort production incentives and the market orientation of Romanian agriculture. Payment rates have been relatively stable for beef products since 2002 but they increased significantly for pigmeat and poultry meat in 2004 and 2005, partly in response to animal disease outbreaks. Romania went one step towards decoupling measures from production when it replaced output payments to livestock products with payments per head in 2006.
- Romania continues to use various input subsidies, which are the most distortive form of support.
- Romania's use of export subsidies was well below its WTO entitlements. This form of support should be avoided as it distorts production and trade.
- Current experience with SAPARD funds should be evaluated, in terms of adoption of measures and their impact on structural adjustment and rural development, in order to improve the operation and efficiency of the EU-equivalent programme, which will apply after accession.
- Romania will implement the EU Common Agricultural Policy in January 2007. Opting for the most decoupled options will allow producers to base their decisions on market signals. Targeting optional measures to specific objectives should also improve the efficiency of agricultural policy.



## Summary of key policy developments

The main developments in Romania's agricultural policy related to preparation for EU accession in January 2007, to emergency measures as a response to recent weather-related disasters and animal disease outbreaks, and to the introduction of payments per head to replace payments per litre of milk and per tonne of meat.

### Description of support

- Support to producers (%PSE) increased by 1 percentage point in 2005 to 29%. From 5% in 1995-97, it reached 27% in 2003-05, but is still lower than the OECD average of 30%.
- Market price support and payments based on output accounted for 88% of the PSE in 2003-05. Payments based on variable input use were the second largest category at over 6%, followed by payments based on area at over 4% of the PSE.
- Prices received by farmers, which were aligned with those on the world market in 1995-97, became 54% higher in 2003-05. However, prices of oilseeds and sheepmeat remained lower than those on the world market in 2003-05, while producers received prices more than twice those on the world market for eggs, poultry and sugar.
- The %CSE, switched from an implicit support to consumers of 2% in 1995-97 to an implicit tax of 30% in 2003-05.
- Support for general services provided to agriculture accounted for 4.6% of the total support to agriculture (TSE) in 2003-05.
- Total support to agriculture as a share of GDP was over 6% in 2003-05, which is much higher than OECD average of 1.14%.

Source: OECD, PSE/CSE database, 2006.

Figure 6.1. PSE level and composition over time

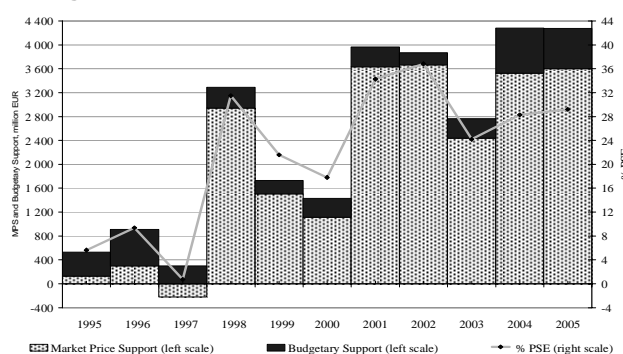


Figure 6.2. Producer NPC by commodity, 2003-05 average

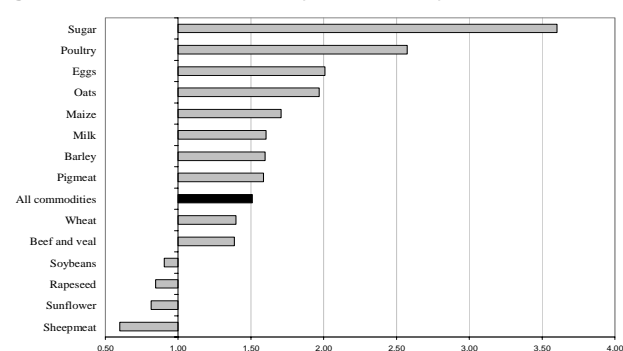
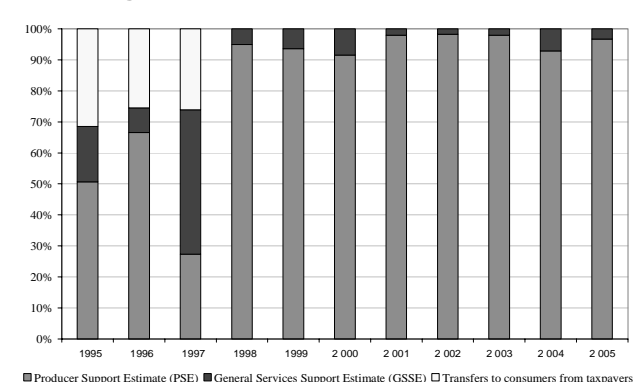


Figure 6.3. TSE composition over time



**Table 6.1. Romania: Estimates of support to agriculture**

(RON million)

	1995-97	2003-05	2003	2004	2005
<b>Total value of production (at farm gate)</b>	<b>4 642</b>	<b>50 173</b>	<b>41 637</b>	<b>58 314</b>	<b>50 567</b>
<i>of which share of MPS commodities (%)</i>	59	53	55	55	49
<b>Total value of consumption (at farm gate)</b>	<b>4 026</b>	<b>51 329</b>	<b>46 780</b>	<b>54 853</b>	<b>52 356</b>
<b>Producer Support Estimate (PSE)</b>	<b>186</b>	<b>14 406</b>	<b>10 365</b>	<b>17 371</b>	<b>15 481</b>
Market Price Support (MPS)	-10	12 160	9 151	14 294	13 035
<i>of which MPS commodities</i>	-8	6 425	5 041	7 911	6 323
Payments based on output	0	580	293	721	727
Payments based on area planted/animal numbers	4	624	256	1 042	574
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	186	1 041	665	1 314	1 145
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	7	0	0	0	0
<b>Percentage PSE</b>	<b>5</b>	<b>27</b>	<b>24</b>	<b>28</b>	<b>29</b>
<b>Producer NPC</b>	<b>1.00</b>	<b>1.51</b>	<b>1.55</b>	<b>1.55</b>	<b>1.43</b>
<b>Producer NAC</b>	<b>1.06</b>	<b>1.38</b>	<b>1.32</b>	<b>1.39</b>	<b>1.41</b>
<b>General Services Support Estimate (GSSE)</b>	<b>66</b>	<b>698</b>	<b>222</b>	<b>1 337</b>	<b>536</b>
Research and development	20	2	0	6	0
Agricultural schools	0	0	0	0	0
Inspection services	21	0	0	0	0
Infrastructure	24	620	217	1 181	461
Marketing and promotion	0	77	5	150	75
Public stockholding	0	0	0	0	0
Miscellaneous	1	0	0	0	0
<b>GSSE as a share of TSE (%)</b>	<b>19.0</b>	<b>4.6</b>	<b>2.1</b>	<b>7.1</b>	<b>3.3</b>
<b>Consumer Support Estimate (CSE)</b>	<b>95</b>	<b>-15 447</b>	<b>-15 101</b>	<b>-16 233</b>	<b>-15 006</b>
Transfers to producers from consumers	12	-15 496	-14 865	-17 274	-14 349
Other transfers from consumers	5	-2 292	-3 236	-2 151	-1 489
Transfers to consumers from taxpayers	94	0	0	0	0
Excess feed cost	-17	2 341	2 999	3 192	831
<b>Percentage CSE</b>	<b>2</b>	<b>-30</b>	<b>-32</b>	<b>-30</b>	<b>-29</b>
<b>Consumer NPC</b>	<b>1.00</b>	<b>1.54</b>	<b>1.63</b>	<b>1.55</b>	<b>1.43</b>
<b>Consumer NAC</b>	<b>0.98</b>	<b>1.43</b>	<b>1.48</b>	<b>1.42</b>	<b>1.40</b>
<b>Total Support Estimate (TSE)</b>	<b>347</b>	<b>15 104</b>	<b>10 587</b>	<b>18 709</b>	<b>16 017</b>
Transfers from consumers	-18	17 788	18 100	19 425	15 838
Transfers from taxpayers	359	-392	-4 278	1 435	1 668
Budget revenues	5	-2 292	-3 236	-2 151	-1 489
<b>Percentage TSE (expressed as share of GDP)</b>	<b>3.22</b>	<b>6.18</b>	<b>5.36</b>	<b>7.59</b>	<b>5.58</b>
<b>GDP deflator 1995-97 = 100</b>	<b>100</b>	<b>1 422</b>	<b>1 241</b>	<b>1 427</b>	<b>1 598</b>

p: provisional. For the definition of OECD indicators of support to agriculture, see Annex 1.1. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs. MPS commodities for Romania are: wheat, maize, barley, oats, rapeseed, soybeans, sunflower, sugar, milk, beef and veal, sheepmeat, pigmeat, poultry and eggs.

Source: OECD, PSE/CSE database, 2006.

## RUSSIA

### Evaluation of policy developments

- The agricultural sector benefited from the overall economic growth, which strengthened food demand and prices. With increased tax revenues at government's disposal, more direct assistance was also provided. However, these impacts were counterbalanced by a rise in fuel prices and by an appreciation of the ruble.
- After a substantial reduction following the 1998 financial crisis, support to agricultural producers rose in 2003-05, but was still below the pre-crisis level. Market price support, input and output payments remained the dominant policy instruments.
- There has been further decentralisation of agricultural support, with regional administrations assuming responsibility for implementation of support measures, previously attributed to the federal government. The latter now focuses on implementation of special national projects.
- The majority of producer support is provided to the livestock sector. A government's priority is to increase livestock output and halt the decline in animal numbers. These goals, at least in the medium term, will largely determine the set of agricultural measures and the overall level of producer support.
- There has been greater emphasis on improving the sector's efficiency, with more assistance provided for capital and technological improvements on farms. Allocations to general services to agriculture, such as research, education, inspection, infrastructure, and marketing and promotion, increased slightly in real terms, but their share in overall agricultural support remains small.
- Broader issues related to sustainable land use, rural development, the quality of agricultural labour and quality of life in rural areas have become more pronounced on the policy agenda, as evidenced by several federal targeted programmes to be implemented in 2006-10.
- Despite greater emphasis being given to the sector's long-term competitiveness, inefficient support, particularly that distorting input and output prices, continues to be the policy mainstream. With the ruble appreciating and negotiations on the WTO entry at an important phase, the government will likely be under domestic pressure not to reduce this distorting support.
- However, a substantive reallocation of resources towards measures that improve competitiveness in the agricultural sector would benefit consumers and, in the longer term, provide superior gains to producers.

## Summary of key policy developments

The basic agricultural policy measures remained unchanged in 2004-06. Interest rate concessions, input subsidies and output payments for livestock products constituted the core of domestic support. A fuel subsidy was introduced in 2006 to compensate producers for the strong rise in prices for this input. Substantial border protection for livestock markets based on tariff rate quotas was extended up to 2009. The protective sugar regime was maintained. The WTO accession negotiations have advanced, however the agreement on agricultural domestic support and export subsidies is yet to be reached. A National Priority Project for Development of the Agro-Industrial Complex in 2006-07 was launched, providing additional funding for areas such as investment credit for the livestock sector, credit and development of co-operatives for small producers, and improved housing for young agricultural specialists.

## Description of support

- The %PSE was at 17% in 2003-05, compared to 20% in 1995-97. Producer support has been gradually returning to levels before the 1998 financial crisis.
- Adjustment of producer prices to strong depreciation of the national currency, tightened border protection for key imported products and some increase in budgetary transfers, altogether contributed to this rise in support.
- Around 74% of the PSE was represented by market price support, due mostly to import protection for livestock products and sugar. The livestock sector also received implicit support through feed grain prices being below world levels.
- Budgetary assistance made up the remaining 26% of the PSE, with input subsidies accounting for almost 57% of total budgetary support, output payments for 11%, while another 10% was due to an implicit subsidy from debt rescheduling.
- Market price support, input and output payments collectively accounted for 92% of the aggregate PSE.
- As measured by the Nominal Protection Co-efficient (NPC), producer prices were on average 13% above world levels. The average NPC disguises considerable variations across commodities, with prices strongly supported for livestock products and taxed for crop products (except sugar).
- The %CSE rose to an implicit tax of 9% in 2003-05, compared to 5% in 1995-97.
- Support for general services to agriculture increased slightly in real terms but its share in total support remained small, at 12% in 2003-05.
- Total agricultural support relative to GDP (%TSE) was 1.4% in 2003-05, down from 2.8% in 1995-97.

Source: OECD, PSE/CSE database, 2006.

Figure 7.1. PSE level and composition over time

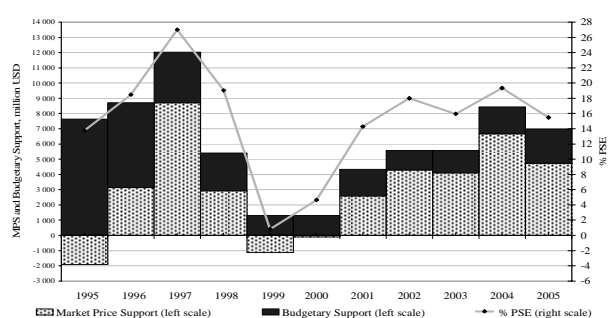


Figure 7.2. Producer NPC by commodity, 2003-05 average

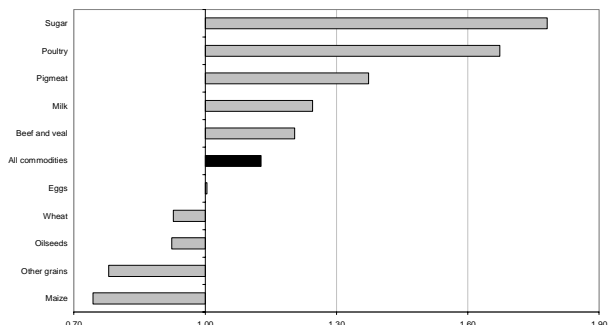
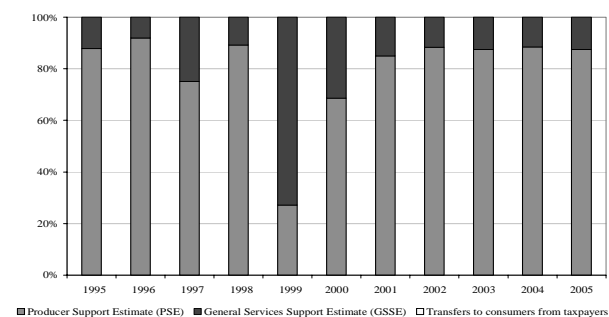


Figure 7.3. TSE composition over time



**Table 7.1. Russia: Estimates of support to agriculture**  
(RUB million)

	1995-97	2003-05	2003	2004	2005
<b>Total value of production (at farm gate)</b>	<b>201 986</b>	<b>1 147 699</b>	<b>1 028 882</b>	<b>1 203 708</b>	<b>1 210 507</b>
<i>of which share of MPS commodities (%)</i>	<i>63</i>	<i>63</i>	<i>60</i>	<i>64</i>	<i>65</i>
<b>Total value of consumption (at farm gate)</b>	<b>259 391</b>	<b>1 517 306</b>	<b>1 377 927</b>	<b>1 530 928</b>	<b>1 643 063</b>
<b>Producer Support Estimate (PSE)</b>	<b>46 742</b>	<b>203 634</b>	<b>171 228</b>	<b>242 622</b>	<b>197 051</b>
Market Price Support (MPS)	19 216	150 406	125 976	191 673	133 568
<i>of which MPS commodities</i>	<i>12 542</i>	<i>94 984</i>	<i>75 539</i>	<i>122 557</i>	<i>86 855</i>
Payments based on output	4 737	5 831	6 200	6 027	5 265
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	21 086	30 548	22 478	22 404	46 761
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	110	5 034	3 767	5 343	5 993
Miscellaneous payments	1 593	11 815	12 806	17 175	5 464
<b>Percentage PSE</b>	<b>20</b>	<b>17</b>	<b>16</b>	<b>19</b>	<b>15</b>
<b>Producer NPC</b>	<b>1.11</b>	<b>1.13</b>	<b>1.10</b>	<b>1.18</b>	<b>1.11</b>
<b>Producer NAC</b>	<b>1.25</b>	<b>1.20</b>	<b>1.19</b>	<b>1.24</b>	<b>1.18</b>
<b>General Services Support Estimate (GSSE)</b>	<b>10 186</b>	<b>28 085</b>	<b>24 426</b>	<b>31 716</b>	<b>28 112</b>
Research and development	329	2 371	1 832	2 487	2 792
Agricultural schools	934	8 225	6 473	8 125	10 076
Inspection services	824	11 006	10 383	13 530	9 105
Infrastructure	1 302	4 728	4 679	6 661	2 844
Marketing and promotion	124	248	92	70	581
Public stockholding	0	97	0	21	268
Miscellaneous	6 673	1 411	966	821	2 444
<b>GSSE as a share of TSE (%)</b>	<b>17.9</b>	<b>12.1</b>	<b>12.5</b>	<b>11.6</b>	<b>12.5</b>
<b>Consumer Support Estimate (CSE)</b>	<b>-15 805</b>	<b>-133 203</b>	<b>-99 904</b>	<b>-171 149</b>	<b>-128 556</b>
Transfers to producers from consumers	-16 619	-127 131	-88 453	-175 127	-117 813
Other transfers from consumers	2 649	9 578	11 899	14 770	2 066
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	-1 835	-15 650	-23 350	-10 792	-12 809
<b>Percentage CSE</b>	<b>-5</b>	<b>-9</b>	<b>-7</b>	<b>-11</b>	<b>-8</b>
<b>Consumer NPC</b>	<b>1.05</b>	<b>1.08</b>	<b>1.06</b>	<b>1.12</b>	<b>1.08</b>
<b>Consumer NAC</b>	<b>1.06</b>	<b>1.10</b>	<b>1.08</b>	<b>1.13</b>	<b>1.08</b>
<b>Total Support Estimate (TSE)</b>	<b>56 928</b>	<b>231 719</b>	<b>195 655</b>	<b>274 338</b>	<b>225 163</b>
Transfers from consumers	13 970	117 553	76 554	160 357	115 747
Transfers from taxpayers	40 310	104 588	107 202	99 211	107 350
Budget revenues	2 649	9 578	11 899	14 770	2 066
<b>Percentage TSE (expressed as share of GDP)</b>	<b>2.82</b>	<b>1.38</b>	<b>1.48</b>	<b>1.62</b>	<b>1.04</b>
<b>GDP deflator 1995-97 = 100</b>	<b>100</b>	<b>635</b>	<b>525</b>	<b>630</b>	<b>751</b>

p: provisional. For the definition of OECD indicators of support to agriculture, see Annex 1.1. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs. MPS commodities for Russia are: wheat, maize, other grains, oilseeds, sugar, milk, beef and veal, pigmeat, poultry and eggs.  
Source: OECD, PSE/CSE database, 2006.

## SOUTH AFRICA

### Evaluation of policy developments

- Changes in South African agriculture in the past decade have been shaped by substantial reforms implemented from the mid 1990s: deregulation of the marketing of agricultural products, abolishing certain tax concessions favouring the sector and reductions in budgetary expenditure on the sector. The main development in trade policies was the replacement of direct controls over imports by tariffs, which were set below the bound rates of the URAA, and elimination of state controls over exports and of export subsidies. In 2005 and 2006, most policy developments were linked with the introduction of programmes providing support to new farmers emerging from land reforms.
- The average level of producer support in South Africa, measured by the %PSE, indicates a relatively low degree of policy interventions and the overall trend shows some reduction of support from 1994 up to 2001. Support increased in 2002 but then stabilised. Around 80% of producer support in South Africa is delivered in the form of Market Price Support (MPS). Budgetary transfers increased in the current decade due to the introduction of the fuel tax rebate and increased spending on land reforms and related programmes.
- An important share of public financial resources is devoted to the implementation of land reforms, especially land redistribution. To support this programme, Land Redistribution and Agricultural Development (LRAD) grants are given to the disadvantaged black population to acquire land or for other forms of on-farm participation. It allows farmers who can provide personal contributions (financial or own labour) to access or acquire more land. From 2005, new programmes are implemented to support the development of market-oriented family farms emerging from the land reform process.
- The black population in rural areas is the target of land reform policies, but it is clear that adequate supporting infrastructure must also be in place if these new entrepreneurs are to survive. The new entrants into commercial agriculture are at a considerable disadvantage relative to the more experienced operators in facing the challenges of the liberalised market. The government has to address these issues by implementing well targeted support programmes and services (including research and development) tailored to the needs of the emerging farms.
- It is essential for the development of small-scale farms and for the less developed regions of South Africa, to have a financial system able to mobilise savings, allocate capital and monitor farmers, business firms and micro-enterprises. South Africa has recently developed programmes targeting those, who with the help of a loan are able to establish a viable business and escape poverty. In this respect, careful client targeting and development/application of transparent selection criteria are of utmost importance to secure longer term financial viability of such programmes.

## Summary of key policy developments

The main policy development in South Africa is the modification of land reform policies for redistributing agricultural land. From 2005, new programmes were implemented to support the development of market-oriented family farms emerging from the land reform process. The Comprehensive Agricultural Support Programme (CASP) is targeted to the beneficiaries of land reform willing to establish commercial farms. Support is provided mainly through investment grants allocated to viable projects. The Micro-Agricultural Finance Scheme of South Africa is a state-owned scheme to provide micro and retail financial services in rural areas. It was implemented in three provinces in 2005 and extended to other provinces during 2006. For a detailed review of agriculture policy reforms in South Africa, see OECD (2006).

### Description of support

- Support to producers as measured by the %PSE followed a downward trend in the period 1995-2001 when it reached its lowest level of 2%. After an increase in 2002 to 8%, the %PSE stabilised around that level during 2003-05, which is far below the OECD average of 30% for the same period.
- The overwhelming share of producer support in South Africa is delivered in the form of Market Price Support (MPS). Budgetary transfers, although showing a tendency to increase from 2001, are a minor part of transfers to producers.
- The producer Nominal Protection Coefficient (NPC) indicates that on average the prices received by domestic producers (including the payments based on output) were only 7% higher than world market prices.
- However, the NPC for individual commodities indicates a large share of variation in price support. Sugar attracts the highest price support, while price support is much lower for livestock products and negligible for crops.
- The cost to consumers (%CSE) halved from an implicit tax of 14% in 1995-97 to an implicit tax of 7% in 2003-05.
- Support for general services provided to agriculture represents a relatively stable share in the Total Support Estimate (TSE), increasing slightly from 33% in 1995-97 to 41% in 2003-05.
- The total cost to the economy of agricultural support as a share of GDP declined from 1.1% in 1995-97 to 0.7% in 2003-05, which implies that the costs of agricultural policy to the economy is relatively low.

Source: OECD, PSE/CSE database, 2006.

Figure 8.1. PSE level and composition over time

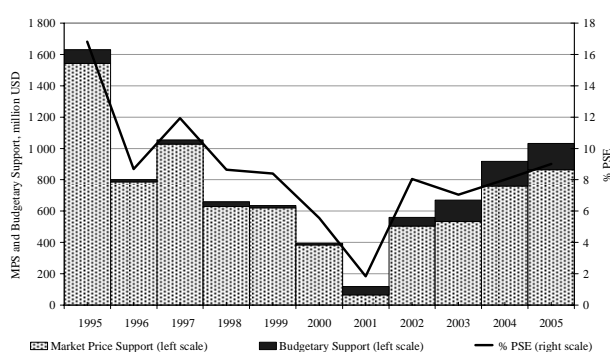
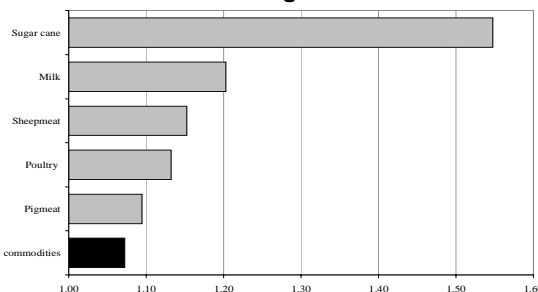
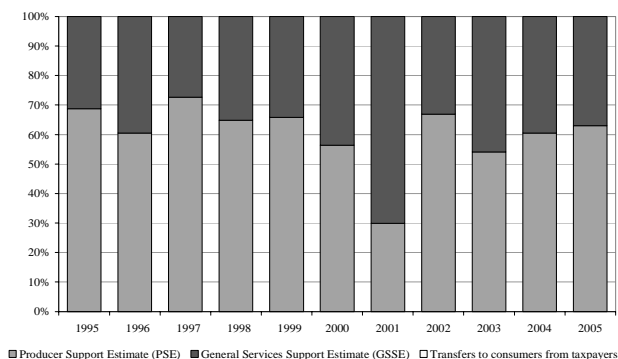


Figure 8.2. Producer NPC by commodity, 2003-05 average



NPC was equal to 1 for wheat, maize, sunflower, groundnuts, fruit, beef and veal and eggs.

Figure 8.3. TSE composition over time



**Table 8.1. South Africa: Estimates of support to agriculture**

(ZAR million)

	1995-97	2003-05	2003	2004	2005
<b>Total value of production (at farm gate)</b>	<b>37 180</b>	<b>71 872</b>	<b>70 820</b>	<b>72 979</b>	<b>71 816</b>
<i>of which share of MPS commodities (%)</i>	<i>73</i>	<i>73</i>	<i>72</i>	<i>71</i>	<i>72</i>
<b>Total value of consumption (at farm gate)</b>	<b>34 942</b>	<b>69 229</b>	<b>69 995</b>	<b>69 501</b>	<b>68 191</b>
<b>Producer Support Estimate (PSE)</b>	<b>4 546</b>	<b>5 846</b>	<b>5 062</b>	<b>5 916</b>	<b>6 560</b>
Market Price Support (MPS)	4 387	4 808	4 023	4 901	5 501
<i>of which MPS commodities</i>	<i>3 210</i>	<i>3 361</i>	<i>2 784</i>	<i>3 409</i>	<i>3 888</i>
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	10	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	59	812	704	844	889
Payments based on input constraints	3	1	4	0	0
Payments based on overall farming income	87	224	331	171	171
Miscellaneous payments	0	0	0	0	0
<b>Percentage PSE</b>	<b>12</b>	<b>8</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Producer NPC</b>	<b>1.15</b>	<b>1.07</b>	<b>1.06</b>	<b>1.07</b>	<b>1.08</b>
<b>Producer NAC</b>	<b>1.14</b>	<b>1.09</b>	<b>1.08</b>	<b>1.09</b>	<b>1.10</b>
<b>General Services Support Estimate (GSSE)</b>	<b>2 170</b>	<b>4 003</b>	<b>4 296</b>	<b>3 857</b>	<b>3 857</b>
Research and development	1 797	2 145	2 442	1 997	1 997
Agricultural schools	0	0	0	0	0
Inspection services	146	586	574	593	593
Infrastructure	141	925	1 112	832	832
Marketing and promotion	3	8	0	12	12
Public stockholding	0	0	0	0	0
Miscellaneous	82	338	168	423	423
<b>GSSE as a share of TSE (%)</b>	<b>32.7</b>	<b>40.8</b>	<b>45.9</b>	<b>39.5</b>	<b>37.0</b>
<b>Consumer Support Estimate (CSE)</b>	<b>-4 712</b>	<b>-4 550</b>	<b>-3 679</b>	<b>-4 469</b>	<b>-5 503</b>
Transfers to producers from consumers	-4 255	-4 028	-3 323	-4 013	-4 750
Other transfers from consumers	-598	-522	-356	-456	-753
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	141	0	0	0	0
<b>Percentage CSE</b>	<b>-14</b>	<b>-7</b>	<b>-5</b>	<b>-6</b>	<b>-8</b>
<b>Consumer NPC</b>	<b>1.17</b>	<b>1.07</b>	<b>1.06</b>	<b>1.07</b>	<b>1.09</b>
<b>Consumer NAC</b>	<b>1.16</b>	<b>1.07</b>	<b>1.06</b>	<b>1.07</b>	<b>1.09</b>
<b>Total Support Estimate (TSE)</b>	<b>6 715</b>	<b>9 849</b>	<b>9 358</b>	<b>9 772</b>	<b>10 417</b>
Transfers from consumers	4 853	4 550	3 679	4 469	5 503
Transfers from taxpayers	2 461	5 821	6 036	5 759	5 667
Budget revenues	-598	-522	-356	-456	-753
<b>Percentage TSE (expressed as share of GDP)</b>	<b>1.10</b>	<b>0.71</b>	<b>0.74</b>	<b>0.70</b>	<b>0.68</b>
<b>GDP deflator 1995-97 = 100</b>	<b>100</b>	<b>177</b>	<b>168</b>	<b>178</b>	<b>186</b>

p: provisional. For the definition of OECD indicators of support to agriculture, see Annex 1.1. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs. MPS commodities for South Africa are: wheat, maize, sunflower, groundnuts, sugar, grapes, oranges, apples, milk, beef and veal, pigmeat, sheepmeat, poultry meat and eggs.

Source: OECD, PSE/CSE database, 2006.



## UKRAINE

### Evaluation of policy developments

- Ukraine's agriculture has a potential to become an important contributor to global supplies of selected commodities, in particular grains and oilseeds. However, it needs a healthy macroeconomic background as well as consistent and predictable policies stimulating efficiency-driven agricultural output growth, allowing for efficiency-based land market transactions, creating more off-farm employment opportunities and improving rural public services.
- The level of support to agricultural producers (the PSE) remains low, but increased during the last three years as a result of growing transfers from consumers and taxpayers.
- Transfers from consumers are due to high level of tariffs on selected imported commodities and to tightening of border protection in particular on sugar and poultry.
- Growing transfers from taxpayers are facilitated by high rates of economic growth, but as budgetary support to agriculture remains dominated by input subsidies and output payments, the efficiency of these transfers is low with no significant impact on producer welfare.
- Some progress in reallocation of budgetary support to general services is commendable, but more needs to be done to enhance the long-term competitiveness of Ukrainian agriculture.
- The government needs to invest more in public infrastructure and to improve the functioning of public institutions providing services to the private sector. This can be done without imposing additional cost on taxpayers through reallocation of budgetary support from input subsidies and output payments to general services.
- Land reform is yet uncompleted. Lifting of the moratorium on agricultural land sales should be a priority for both the government and the parliament.
- Ukraine's WTO negotiations are advancing and membership by 2007 seems feasible. Consistency, transparency and predictability of trade regulations and the adherence to WTO rules and disciplines, would provide a more stable framework for domestic and foreign agents, thus reducing risk and encouraging investment.
- WTO membership could also play a key role in disciplining domestic agricultural policies, making them more predictable to the advantage of producers and consumers. In particular, as Ukraine will not be allowed to apply export subsidies, market price support policies driving prices for exportable commodities above world market levels will not be a feasible option in a longer term.

## Summary of key policy developments

In 2005, the law On State Support to Ukrainian Agriculture came into effect. The law provides a broad framework for increased budgetary support to agriculture and introduces new market intervention mechanism such as minimum and maximum prices for selected crops. Significant implicit support continues to be provided through tax exemptions and privileges. Some input subsidies have been replaced by direct payments. *Ad valorem* tariffs decreased, but prohibitively high levels of specific tariffs on selected commodities remained unchanged. Free Economic Zones were abolished and tariff quota for raw sugar imports was not announced, thus increasing effective border protection against imports, in particular for poultry meat and sugar.

### Description of support

- Support to producers (%PSE) was 3% in 2003-05 and increased from implicit taxation at 10% in 1995-97. This compares with the OECD average support of 30% in 2003-05.
- The 2003-05 average disguises a considerable increase in the level of support in Ukraine from implicit taxation at 7% in 2003 to support of 12% in 2005.
- There are strong differences in trade and domestic policies across commodities as demonstrated by strong variations in Producer NPC by commodity ranging from 1.79 for poultry to 0.84 for oilseeds.
- Prices received by farmers were on average 2% lower than those received in the world markets in 2003-05. A negative market price support was compensated by positive transfers from taxpayers. Budgetary transfers to producers remain dominated by output and input-based payments, accounting for 68% of the total.
- Consumer support (%CSE) was very low at 1% in 2003-05, but there is a visible switch from an implicit support in 2003 to an implicit tax in 2005.
- Support provided to general services for agriculture accounted for 44% of the TSE in 2003-05.
- The total cost of agricultural support to the economy (%TSE) increased to 1.39% and was higher than the OECD average of 1.14% in 2003-05.

Source: OECD, PSE/CSE database, 2006.

Figure 9.1. PSE level and composition over time

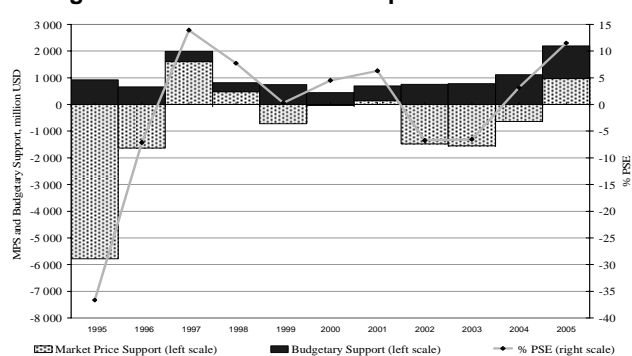


Figure 9.2. Producer NPC by commodity, 2003-05 average

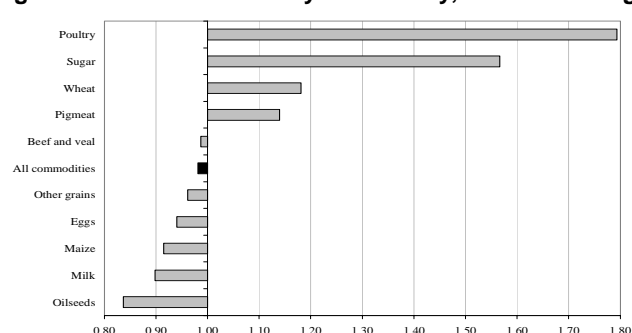
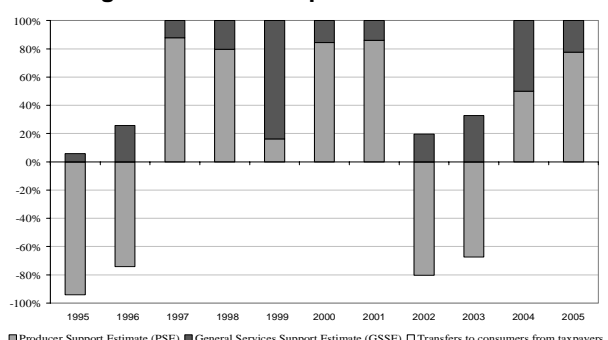


Figure 9.3. TSE composition over time



**Table 9.1. Ukraine: Estimates of support to agriculture**

(UAH million)

	1995-97	2003-05	2003	2004	2005
<b>Total value of production (at farm gate)</b>	<b>22 626</b>	<b>74 969</b>	<b>58 325</b>	<b>75 152</b>	<b>91 429</b>
<i>of which share of MPS commodities (%)</i>	62	63	60	65	63
<b>Total value of consumption (at farm gate)</b>	<b>22 064</b>	<b>71 561</b>	<b>60 522</b>	<b>67 686</b>	<b>86 474</b>
<b>Producer Support Estimate (PSE)</b>	<b>-1 746</b>	<b>3 253</b>	<b>-4 067</b>	<b>2 571</b>	<b>11 256</b>
Market Price Support (MPS)	-2 838	-2 225	-8 243	-3 380	4 949
<i>of which MPS commodities</i>	-1 553	-1 340	-4 917	-2 206	3 105
Payments based on output	16	1 425	549	1 549	2 176
Payments based on area planted/animal numbers	0	20	4	26	31
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	523	2 305	2 059	2 372	2 483
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	525	1 569	1 400	1 900	1 407
Miscellaneous payments	28	159	164	103	210
<b>Percentage PSE</b>	<b>-10</b>	<b>3</b>	<b>-7</b>	<b>3</b>	<b>12</b>
<b>Producer NPC</b>	<b>0.89</b>	<b>0.98</b>	<b>0.90</b>	<b>0.97</b>	<b>1.08</b>
<b>Producer NAC</b>	<b>0.94</b>	<b>1.03</b>	<b>0.94</b>	<b>1.03</b>	<b>1.13</b>
<b>General Services Support Estimate (GSSE)</b>	<b>521</b>	<b>2 603</b>	<b>1 979</b>	<b>2 571</b>	<b>3 259</b>
Research and development	52	126	80	106	191
Agricultural schools	78	647	485	604	851
Inspection services	40	573	427	568	723
Infrastructure	329	724	494	707	971
Marketing and promotion	5	6	4	7	7
Public stockholding	0	440	439	450	431
Miscellaneous	17	88	50	130	85
<b>GSSE as a share of TSE (%)</b>	<b>-42.6</b>	<b>44.4</b>	<b>-94.8</b>	<b>50.0</b>	<b>22.5</b>
<b>Consumer Support Estimate (CSE)</b>	<b>3 138</b>	<b>69</b>	<b>4 714</b>	<b>1 790</b>	<b>-6 298</b>
Transfers to producers from consumers	3 384	1 595	6 683	2 876	-4 775
Other transfers from consumers	100	-1 484	-2 462	-670	-1 319
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	-346	-42	493	-415	-204
<b>Percentage CSE</b>	<b>18</b>	<b>1</b>	<b>8</b>	<b>3</b>	<b>-7</b>
<b>Consumer NPC</b>	<b>0.88</b>	<b>0.99</b>	<b>0.93</b>	<b>0.97</b>	<b>1.08</b>
<b>Consumer NAC</b>	<b>0.89</b>	<b>0.99</b>	<b>0.93</b>	<b>0.97</b>	<b>1.08</b>
<b>Total Support Estimate (TSE)</b>	<b>-1 224</b>	<b>5 856</b>	<b>-2 088</b>	<b>5 142</b>	<b>14 514</b>
Transfers from consumers	-3 484	-111	-4 222	-2 206	6 094
Transfers from taxpayers	2 160	7 451	4 595	8 018	9 739
Budget revenues	100	-1 484	-2 462	-670	-1 319
<b>Percentage TSE (expressed as share of GDP)</b>	<b>-3.08</b>	<b>1.39</b>	<b>-0.78</b>	<b>1.49</b>	<b>3.47</b>
<b>GDP deflator 1995-97 = 100</b>	<b>100</b>	<b>328</b>	<b>280</b>	<b>322</b>	<b>381</b>

p: provisional. For the definition of OECD indicators of support to agriculture, see Annex 1.1. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs. MPS commodities for Ukraine are: wheat, maize, other grains, oilseeds, sugar, milk, beef and veal, pigmeat, poultry and eggs.

Source: OECD, PSE/CSE database, 2006.

## Contextual Indicators

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Brazil</b>																
Population, mid-year estimates, <i>million</i>	146.6	149.1	151.5	154.0	156.4	158.9	161.3	163.8	166.3	168.8	171.3	173.8	176.4	179.0	181.6	184.2
GDP growth, <i>annual per cent change</i>	-4.2	1.0	-0.5	4.9	5.9	4.2	2.7	3.3	0.1	0.8	4.4	1.3	1.9	0.5	4.9	2.3
Share of agriculture in total employment, <i>per cent</i>	25.5	25.9	26.4	26.1	25.4	26.1	23.3	22.8	21.9	23.0	20.7	18.9	18.8	18.9	n.a.	n.a.
Share of agriculture in GDP, <i>per cent</i>	8.1	7.8	7.7	7.6	9.9	9.0	8.3	8.0	8.2	8.3	8.0	8.4	8.8	9.9	10.1 p	8.4 p
Share of agriculture and food exports in total exports, <i>per cent</i>	28.6	26.0	26.3	26.1	29.8	29.7	30.9	31.7	30.3	29.5	23.8	28.5	28.9	29.7	29.9	27.7
Share of agriculture and food imports in total imports, <i>per cent</i>	11.7	13.7	11.4	13.4	14.2	13.2	13.4	11.2	11.1	9.2	7.9	6.6	7.5	8.0	5.8	5.0
<b>Bulgaria</b>																
Population, mid-year estimates, <i>million</i>	8.7	8.6	8.6	8.5	8.4	8.3	8.2	8.2	8.1	8.1	8.0	7.9	7.9	7.8	7.8	7.7
GDP growth, <i>annual per cent change</i>	-9.1	-8.4	-7.3	-1.5	1.8	2.6	-10.9	-6.9	3.5	2.4	5.8	4.1	4.9	4.5	5.6	5.5
Share of agriculture in total employment, <i>per cent</i>	17.9	19.1	20.7	21.7	22.8	23.8	24.2	23.3	24.7	25.9	26.2	25.8	25.8	25.4	24.9	n.a.
Share of agriculture in GDP, <i>per cent</i>	18.0	14.2	11.5	11.1	12.3	13.4	15.4	26.6	21.1	17.3	14.5	13.4	12.1	11.6	10.9	9.3
Share of agriculture and food exports in total exports, <i>per cent</i>	15.1	21.9	25.8	20.5	23.0	17.5	19.2	14.6	16.5	16.1	10.7	10.4	13.0	11.0	11.1	11.1
Share of agriculture and food imports in total imports, <i>per cent</i>	4.3	7.2	8.4	8.2	11.0	7.1	8.9	10.1	8.8	6.8	6.0	6.2	6.6	6.3	6.2	5.4
<b>China</b>																
Population, mid-year estimates, <i>million</i>	1 143.3	1 158.2	1 171.7	1 185.2	1 198.5	1 211.2	1 223.9	1 236.3	1 247.6	1 257.9	1 267.4	1 276.3	1 284.5	1 292.3	1 299.9	1 307.6
GDP growth, <i>annual per cent change</i>	3.8	9.2	14.2	14.0	13.1	10.9	10.0	9.3	7.8	7.6	8.4	8.3	9.1	10.0	10.1	10.2
Share of agriculture in total employment, <i>per cent</i>	51.5	52.2	51.5	49.8	48.5	47.5	46.8	46.8	46.2	46.1	45.5	44.4	43.4	42.0	40.7	39.5
Share of agriculture in GDP, <i>per cent</i>	28.4	26.2	23.6	21.5	21.6	20.8	20.4	18.3	18	17.6	16.4	15.8	15.3	14.6	15.2	12.5
Share of agriculture and food exports in total exports, <i>per cent</i>	17.2	15.8	13.3	12.5	11.8	9.7	9.4	8.2	7.5	6.9	6.3	6.0	5.5	4.8	3.9	3.6
Share of agriculture and food imports in total imports, <i>per cent</i>	16.1	13.7	6.6	3.8	6.2	9.2	7.8	7.0	6.0	5.0	5.1	4.9	4.3	4.6	5.0	4.3

### Contextual Indicators (continued)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>India</b>																
Population, mid-year estimates, <i>million</i>	849.4	866.5	883.7	901.0	918.3	935.6	952.8	970.0	987.2	1 004.2	1 021.1	1 037.8	1 054.4	1 070.8	1 087.1	1 103.4
GDP growth, <i>annual per cent change</i>	5.8	0.9	5.3	4.9	7.5	7.6	7.4	4.5	6.0	7.1	4.0	5.3	3.6	8.3	8.5	8.5
Share of agriculture in total employment, <i>per cent</i>	n.a.	n.a.	n.a.	63.8	n.a.	n.a.	n.a.	n.a.	n.a.	59.9	n.a.	n.a.	n.a.	n.a.	55.9	n.a.
Share of agriculture in GDP, <i>per cent</i>	28.5	29.0	28.4	28.4	27.8	25.9	26.9	25.4	25.4	24.0	22.3	22.3	20.2	20.7	19.6	18.6
Share of agriculture and food exports in total exports, <i>per cent</i>	19.5	18.8	17.7	18.8	16.7	20.0	21.3	19.8	18.9	16.0	14.3	14.3	13.4	12.6	10.7	10.4
Share of agriculture and food imports in total imports, <i>per cent</i>	4.3	3.8	5.3	4.4	7.7	5.7	5.6	6.2	9.0	8.0	5.6	7.2	6.6	6.4	4.7	3.6
<b>Romania</b>																
Population, mid-year estimates, <i>million</i>	23.2	23.2	22.8	22.8	22.7	22.7	22.6	22.5	22.5	22.5	22.4	22.4	21.8	21.7	21.7	21.6
GDP growth, <i>annual per cent change</i>	-5.6	-12.9	-8.8	1.5	3.9	7.1	3.9	-6.1	-4.8	-1.2	2.1	5.7	5.1	5.2	8.3	4.1
Share of agriculture in total employment, <i>per cent</i>	28.2	28.9	32.1	35.2	35.6	33.6	34.6	36.8	37.4	40.6	40.8	40.4	36.4	35.6	31.6	33.3
Share of agriculture in GDP, <i>per cent</i>	21.2	18.3	18.6	20.6	19.4	19.8	19.2	18.0	14.4	13.3	11.1	13.4	11.4	11.7	13.0	8.9
Share of agriculture and food exports in total exports, <i>per cent</i>	1.2	6.2	6.8	7.0	6.9	6.9	8.9	7.3	5.4	5.9	3.6	4.1	3.4	3.5	3.3	3.2
Share of agriculture and food imports in total imports, <i>per cent</i>	14.7	15.3	17.5	16.2	10.4	9.8	8.6	6.9	9.2	8.2	7.6	8.2	7.0	7.6	6.8	6.4
<b>Russia</b>																
Population, mid-year estimates, <i>million</i>	148.4	148.7	148.8	148.7	148.4	148.2	147.9	147.7	147.4	147.0	146.6	146.0	145.3	144.6	143.9	143.2
GDP growth, <i>annual per cent change</i>	-3.0	-5.0	-14.5	-8.7	-12.7	-4.1	-3.6	1.4	-5.3	6.3	10.0	5.1	4.7	7.3	7.2	6.4
Share of agriculture in total employment, <i>per cent</i>	12.9	13.1	14.0	14.3	15.0	14.7	14.0	13.3	13.7	13.3	13.0	12.3	11.8	11.0	11.2	10.6
Share of agriculture in GDP, <i>per cent</i>	16.5	14.2	7.3	8.1	6.3	7.6	7.3	7.2	6.5	7.4	6.4	6.6	6.3	6.2	5.6	5.0
Share of agriculture and food exports in total exports, <i>per cent</i>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.4	2.1	2.4	1.3	1.5	1.6	2.2	2.1	1.4	1.7
Share of agriculture and food imports in total imports, <i>per cent</i>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	18.7	19.5	24.1	26.7	22.0	21.8	22.0	20.4	17.5	17.0

### Contextual Indicators (continued)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>South Africa</b>																
Population, mid-year estimates, <i>million</i>	30.6	36.2	37.0	37.8	38.6	39.5	40.6	41.2	42.1	43.1	43.7	44.6	45.5	46.4	46.6	46.9
GDP growth, <i>annual per cent change</i>	-0.3	-1.0	-2.1	1.2	3.2	3.1	4.3	2.6	0.5	2.4	4.2	2.7	3.7	3.0	4.5	4.9
Share of agriculture in total employment, <i>per cent</i>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	10.9	14.5	9.7	12.2	10.3	n.a.	n.a.
Share of agriculture in GDP, <i>per cent</i>	4.6	4.5	3.8	4.2	4.6	3.9	4.2	4.0	3.8	3.5	3.3	3.5	4.2	3.6	3.1	n.a.
Share of agriculture and food exports in total exports, <i>per cent</i>	7.6	7.4	7.1	6.6	8.9	8.0	9.4	8.7	9.3	8.9	8.2	9.4	12.1	11.1	9.7	9.5
Share of agriculture and food imports in total imports, <i>per cent</i>	4.4	4.7	8.5	6.5	6.2	7.0	6.7	6.7	6.6	6.1	5.4	5.4	5.8	5.7	5.6	4.9
<b>Ukraine</b>																
Population, mid-year estimates, <i>million</i>	51.9	51.9	52.1	52.2	52.1	51.7	51.3	50.9	50.5	50.1	49.6	48.9	48.5	47.6	47.3	46.9
GDP growth, <i>annual per cent change</i>	-6.4	-8.7	-9.9	-14.2	-22.9	-12.2	-10.0	-3.0	-1.9	-0.2	5.9	9.2	5.2	9.6	12.1	2.4
Share of agriculture in total employment, <i>per cent</i>	19.5	19.1	20.1	20.4	20.6	22.2	21.4	21.8	21.5	22.8	23.5	24.9	25.2	20.4	19.7	19.4
Share of agriculture in GDP, <i>per cent</i>	25.4	22.2	20.8	21.5	15.3	14.6	13.1	13.7	13.7	13.5	16.2	16.3	14.6	12.1	11.9	10.9
Share of agriculture and food exports in total exports, <i>per cent</i>	n.a.	n.a.	n.a.	n.a.	10.5	20.7	22.2	13.6	11.7	13.0	10.3	12.1	14.0	12.4	11.1	13.1
Share of agriculture and food imports in total imports, <i>per cent</i>	n.a.	n.a.	n.a.	n.a.	3.4	7.6	8.4	5.4	7.5	7.8	6.8	7.4	6.8	9.6	6.8	7.7

n.a.: not available

For detailed notes please refer to the Statistical Annex in the *Agricultural Policies in Non-OECD Countries: Monitoring and Evaluation 2007*.  
Source: OECD, *Agricultural Policies in Non-OECD Countries: Monitoring and Evaluation 2007*.

## **Agricultural Policies in Non-OECD Countries** **MONITORING AND EVALUATION**

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